

**A Pluralistic Contextual Approach for the Interpretation of
Egyptian Archaeological Sites**

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1 April 2010

**Submitted to the School of History and Archaeology, Cardiff University in
partial fulfillment of the degree of Doctor of Philosophy**

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Summary of Thesis:

In the early part of the 20th Century Egyptologists were often on the cutting edge of archaeological practice, but in the latter part of the century, Egyptology had seemingly fallen behind other areas of the world in regard to methodology and archaeological theory. A historical survey covering not just the development of Egyptology, but also of archaeological theory is provided to support this contention. This dissertation then reviews this situation and seeks to remedy it by providing a theoretical methodology for interpreting Egyptian sites.

Instead of selecting either processualism or post-processualism or holistic explanations as a sole theoretical model, the question is asked and answered as to what kind of theoretical methodology should be developed for use in Egypt. The Pluralistic Contextual Approach is introduced, which builds on the interpretive works of scholars such as Lynn Meskell and Stuart Tyson Smith. It features the use and interplay of textual, artistic/representational, archaeological data sets which are then examined through an integrated, mutually supporting theoretical structure drawn from both processualism and post-processualism to provide interpretive insights into Egyptian culture.

Two Middle Kingdom (2055-1650 BC) sites, Kahun and Buhen, were chosen as case studies. These case studies were not intended to be full reinterpretations of the sites, but rather to demonstrate the interpretive value of the Pluralistic Contextual Approach. The case studies focus on interpretations of social class at these sites using this methodology, thus providing indications of class relations and hierarchies in Middle Kingdom Egypt.

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	i
LIST OF FIGURES AND TABLES	vii
LIST OF MAPS	viii
ACKNOWLEDGEMENTS	ix
INTRODUCTION: THE NATURE OF THE PROBLEM	1
Stating the Problem	1
Journal Review and Chart	2
<i>Journal comparisons</i>	<i>2</i>
<i>PPS theory articles</i>	<i>3</i>
<i>JRS theory articles</i>	<i>5</i>
<i>JEA theory articles</i>	<i>5</i>
<i>Conclusions based on the journal reviews</i>	<i>7</i>
Structure of the Dissertation	8
<i>Historical background</i>	<i>8</i>
<i>Interpretive theory and interpretive method</i>	<i>9</i>
<i>Case studies</i>	<i>11</i>
<i>Conclusion</i>	<i>11</i>
CHAPTER ONE: THE 20TH CENTURY TO THE PRESENT	12
Egyptology at the Turn of the 19th Century	12
<i>Amelia Edwards (1831-1892)</i>	<i>13</i>
<i>Sir William Flinders Petrie (1853-1942)</i>	<i>14</i>
The Beginnings of the 20th Century to 1935	14
<i>Systematic Archaeology in Egypt</i>	<i>14</i>
<i>Trends in Anglo-American and European Archeology</i>	<i>22</i>
Stagnation and Growth: 1936 to 1960	24
<i>Egyptology since 1930</i>	<i>24</i>

<i>The rise of theoretical archaeology in the United States and Europe</i>	27
1960 to the Present	30
<i>Scientific and interpretive archaeologies in Britain, Europe and the United States</i>	30
<i>The state of archaeology in Egypt during the last four decades</i>	32
The Present Position of Egyptology and Its Future Direction	34
<i>Scholarly interviews and interview methodology</i>	34
<i>The present position</i>	36
<i>The current state of field methodology and suggested improvements</i>	39
<i>Site interpretation and suggestions for improvement</i>	44
 CHAPTER TWO: A PLURALISTIC CONTEXTUAL APPROACH	 47
Processualism and Post-processualism?	47
<i>The processual/post-processual debate</i>	47
<i>Hodder's five criticisms</i>	50
<i>Other criticisms</i>	53
<i>Processual archaeology as a tool of middle class capitalism?</i>	56
<i>Criticisms of post-processualism</i>	57
<i>Should archaeology in Egypt be rigidly defined as one of these approaches?</i>	63
"Holism" in Archaeology	65
<i>Does holism have a specific meaning?</i>	65
<i>Criticism of holism</i>	68
<i>Holism is not useful for building an interpretive methodology in Egyptology</i>	70
What Kind of a Methodology Do We Need?	71
<i>Recognition that no approach will be able to account for every facet of a culture</i>	71
<i>The approach must be contextual</i>	71
<i>The necessity of inductivity</i>	73
<i>The necessity of using multiple data sets, theories and contexts</i>	74
<i>Agency and materiality a necessity in a Pluralistic Contextual Approach</i>	75
What Are the Needs for Such an Approach in Egyptology?	76
<i>Good methodology and improving data sets in Egypt</i>	76
<i>Lack of theoretical interpretation still a problem</i>	77

Why Has More Theory Not Been Used in Egypt?	77
 CHAPTER THREE: DEVELOPING A PLURALISTIC	
CONTEXTUAL APPROACH	81
The Pluralistic Contextual Approach	81
<i>Meskel's framework</i>	81
<i>Criticisms of Meskel's framework</i>	86
<i>Further development and wider application of the interpretive framework</i>	91
Textual Data	93
<i>The use of textual evidence</i>	93
<i>Types of literary evidence</i>	94
<i>Considerations for the archaeological use of textual data</i>	96
<i>The need to develop a corpus of texts backed by site specific texts</i>	99
Representational/Artistic Data	100
<i>Use of representational/artistic data</i>	100
<i>Limitations of representational/artistic data</i>	103
<i>Types of representational/artistic data</i>	106
Archaeological/Material Culture Data	106
<i>Use of archaeological data</i>	106
<i>Specialist reports must be integrated into interpretations and not ends in themselves</i>	109
<i>Context</i>	109
<i>Methodology</i>	110
<i>Experimentation</i>	113
<i>Inter-site comparisons of archaeological assemblages</i>	114
Theory	115
<i>Numerous theoretical avenues can be used for interpretations</i>	115
<i>Theoretical considerations</i>	117
Application of the Methodology	124
<i>Methodology not intended to be complete re-interpretation of sites</i>	124
<i>Case Study I: Kahun (el-Lahun)</i>	125
<i>Case Study II: The Fortress of Buhen</i>	127

CHAPTER FOUR: THE CASE STUDIES IN CONTEXT	128
Introduction	128
The Natural Environment of Egypt	128
<i>Geology</i>	<i>129</i>
<i>Flora</i>	<i>132</i>
<i>Fauna</i>	<i>135</i>
Background to the Sites	137
<i>Types of sites</i>	<i>137</i>
<i>Location and geography of the sites</i>	<i>140</i>
Kahun	141
<i>Historic overview of Kahun</i>	<i>141</i>
<i>Previous work at Kahun</i>	<i>145</i>
Buhen	146
<i>Historic overview of Buhen</i>	<i>146</i>
<i>Previous work at Buhen</i>	<i>151</i>
 CHAPTER FIVE: KAHUN CASE STUDY	 156
Introduction	156
Selected Study Areas of the Kahun Case Study	157
<i>Location of the study areas within the Kahun site</i>	<i>157</i>
<i>How and where do the selected study areas fit into the site picture at Kahun</i>	<i>160</i>
Data Used to Construct a Pluralistic Contextual Approach	160
<i>Texts</i>	<i>160</i>
<i>Representative/Artistic data</i>	<i>162</i>
<i>Archaeological data</i>	<i>162</i>
A Pluralistic Contextual Approach to the Interpretation of the Kahun Data	166
<i>The town and its design</i>	<i>167</i>
<i>Some class system models</i>	<i>169</i>
<i>Fluid classifications</i>	<i>171</i>
<i>Social class as a matter of context</i>	<i>173</i>
<i>Temple hierarchies</i>	<i>174</i>
<i>Textiles and social class</i>	<i>176</i>
<i>Merchants and scribes – the middle class</i>	<i>182</i>

<i>The selected study areas and social class</i>	186
Conclusions on the Kahun Case Study	189
CHAPTER SIX: BUHEN CASE STUDY	191
Introduction	191
Selected Study Area of the Buhen Case Study	193
<i>Location of the study area within the Buhen site</i>	193
<i>How and where the selected study area fits into the site picture at Buhen</i>	197
Data Used to Construct a Pluralistic Contextual Approach at Buhen	200
<i>Texts</i>	200
<i>Artistic data</i>	202
<i>Archaeological data</i>	202
A Pluralistic Contextual Approach to the Interpretation of the Buhen Data	205
<i>The town and its design</i>	205
<i>Class system models</i>	208
<i>Military social hierarchy</i>	209
<i>Craft social hierarchy</i>	217
<i>Domestic civilian social hierarchy</i>	225
<i>Ethnic hierarchies</i>	227
<i>The selected study area and social class</i>	232
Conclusions from the Buhen Case Study	239
CHAPTER SEVEN: SUMMARY AND CONCLUSION	242
Introduction	242
The 20th Century to the Present	243
A Pluralistic Contextual Approach	245
Developing a Pluralistic Contextual Approach	248
The Case Studies in Context	252
The Kahun Case Study	253
The Buhen Case Study	258
Effectiveness of the Methodology	261
Egyptology in the Future	263

BIBLIOGRAPY	265
INTERNET SOURCES	285
APPENDIX ONE: JOURNAL REVIEWS AND COMPARISONS	288
APPENDIX TWO: BASIC CORPUS OF MIDDLE KINGDOM TEXTS	348
APPENDIX THREE: KAHUN ARTEFACT AND BOTANICAL INVENTORIES	350
APPENDIX FOUR: ARTEFACT AND POTTERY INVENTORIES FROM BLOCK, BUHEN	355

LIST OF FIGURES AND TABLES

	Page
Figure I-1: Chart showing the frequencies of theory articles throughout the publication histories of the PPS, JRS and JEA.	4
Figure 1-1 Chart showing the increase in the excavation of Egyptian settlement sites	39
Figure 1-2: Chart showing the excavation of settlement sites for 1989-1990	39
Figure 4-1: Site map of Petrie's three seasons at Kahun	146
Figure 4-2: Old Kingdom Buhen	148
Figure 4-3: Plan of Middle Kingdom Buhen	154
Figure 5-1: Overall site plan showing study area locations highlighted in orange	158
Figure 5-2: Plan of the building identified as the 'House & Cellar' at Kahun	159
Figure 5-3: Plan of the block of houses (in black) where the Group 9 artefacts were recovered	159
Figure 5-4: Kahun House and 'Cellar' Artefacts	165
Figure 5-5: Kahun Group 9 Artefacts	165
Figure 5-6: Flax Harvesting, the Middle Kingdom, XIIth Dynasty (1985-1773 BC) tomb of Sonebi at Meir	178
Figure 5-7: Spinning and weaving workshop model from the Middle Kingdom, XIIth Dynasty (1985-1773 BC) tomb of Meketra at Deir el-Bahri	179
Figure 5-8: Boy spinning flax in a weaving shop from the Middle Kingdom, XII Dynasty (1985-1773 BC) tomb of Khety (BH17) at Beni Hasan	180
Figure 5-9: Weaving Scene from the Middle Kingdom, XII Dynasty (1985-1773 BC) tomb of Tehuti-hetep (17L20/1) at El Bersheh	180
Figure 5-10: Painted wooden model of a granary from the Middle Kingdom, XII Dynasty (1985-1773 BC) in the British Museum, EA2463	186
Figure 6-1: Buhen Study Area Location	194
Figure 6-2: Block C Plan	195
Figure 6-3: Forty Egyptian Spearmen, painted wood model from the Tomb of Prince Mesehti, XIth Dynasty (2055-1985 BC), Asyut, Egypt	214
Figure 6-4: Forty Nubian Archers, painted wood model from the Tomb of Prince Mesehti, XIth Dynasty (2055-1985 BC), Asyut, Egypt	215
Figure 6-5: Wall painting showing wrestlers, infantry and naval contingents from the Middle Kingdom Tomb of Amememhat, Beni Hasan	216

LIST OF MAPS

	Page
Map A: General map of Egypt with site locations	126
Map B: Mineral and lithic resources in Egypt	130
Map C: Metal resources of Egypt	131
Map D: Buhen	206
Map E: Sites in Nubia and the Sudan	211

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Kevin M. Brown

INTRODUCTION

The Nature of the Problem

Stating the Problem

When I started work on my master's degree in 1978, processual or 'New Archaeology' had been the standard in archaeology for approximately 20 years. Many of my colleagues in the programme had taken bachelors degrees in anthropology and were steeped in the ideas of processualism. Some of them indeed were interested in Near Eastern work; however others were primarily interested in New World archaeology. My colleagues who came from anthropological backgrounds were especially disdainful of Near Eastern Archaeology in general and Egyptology in particular.

Their criticisms concerning the methodology and perceived goals of archaeology in Egypt were quite harsh. In their minds, not only was archaeology in Egypt known for its antiquated field methods, but the whole purpose of doing archaeological excavation was for no other reason than to collect desirable museum pieces. Instead of collecting archaeological data and analysing the artefacts so that they could say something about ancient Egyptian culture, Egyptologists were, in the opinion of my colleagues, doing little more than looting sites.

I was surprised by the vehemence with which my anthropological colleagues denounced my particular field of interest and rather curious as to how much truth there was in their criticisms. While their claims that Egyptologists were simply looking for museum pieces was vastly exaggerated, I was dismayed to find that, in regard to fieldwork and interpretation, many of their criticisms were indeed justified at that time. I became curious as to what was and could be done in order to obtain better interpretations and insights into Egyptian culture from the data recovered from archaeological sites.

Nearly 30 years has passed since my initial post graduate experiences. Processualism has given way to post-processualism, which is itself now 25 years or so old. Archaeology in Egypt has changed as well. No longer can it be claimed that archaeological method in Egypt is behind the times. Survey projects, stratigraphic excavation methodology, computerised databases, GPS data, satellite imaging, and so on are now commonplace. Even the divide that

has historically existed between philologists, who concentrate on textual work and archaeologists working in the field has narrowed in recent years to the extent that archaeologists are now considered to also be 'Egyptologists'. While there has been much improvement in the field methodology, interpretive work on Egyptian sites is still lacking.

Why is this situation the case? This work will focus on the reasons why archaeology in Egypt has, until fairly recently, lagged behind other branches of archaeology regarding theoretical and methodological progress when dealing with the treatment and analysis of the material culture. If such a situation is indeed the case, what can be done to improve the practice of archaeology in Egypt? This thesis will argue that a Pluralistic Contextual Approach to the study of ancient Egyptian material culture is what is needed for the future.

Journal Review and Chart

Journal comparisons

Previously, it was asserted that archaeology as practised in Egypt has, until fairly recently, lagged behind other branches of archaeology regarding theory and the treatment of material culture. Furthermore, it was suggested that the over emphasis on philology and textual analysis in Egyptology was in large part responsible for this phenomenon. As indicated in the previous section, there generally does seem to be support for these contentions in the scholarly community, but the question remains as to whether there is any quantitative proof to verify that these contentions are true. In order to test these assertions, it is suggested that an examination and comparison of the types of articles published in several archaeological journals might provide such verification.

The criteria for the selection of the appropriate journals for this study were straightforward. Obviously, one of the journals would have to deal with the topic of archaeology in Egypt while the others, in order to provide comparisons, had come from different fields of archaeological study. It was determined that using journals with long publication histories would be necessary in order to track theoretical and methodological trends over a period of time. The three journals that seemed to me to best fit these criteria were *The Proceedings of the Prehistoric Society*, the *Journal of Roman Studies* and the *Journal of Egyptian Archaeology*.

As I conducted the journal reviews, I was able to divide the article types into nine categories (please see Appendix One), the most important of which for my purposes was archaeological theory articles. Those articles that I considered theoretical were those that focused on interpretive analysis rather than those that concentrated on descriptions of artefacts, sites or the mechanics of excavation. The criteria included, but were not limited to, articles on excavation theory, field survey theory, interpretive analysis of artefact, interpretive ceramic analysis interpretive, socio-economic theory, symbolism, interpretations of social change, ethno-archaeology or cross-cultural parallels, analytical methodologies.

PPS theory articles

In 1935, the first year of the PPS, only one theory article was published (see Figure I-1). From 1936 to 1945 there continued to be only one theory article published for each of those five-year periods. No theory articles were published during the five-year period from 1946 to 1950, however the development of the radiocarbon dating technique by Willard Libby may well have had an impact on the increase in theory articles that occurred during the following period from 1951 to 1955 since the focus could be shifted from dating to new questions. Five articles were published, which may in part have been a reflection of the recognition on the part of the archaeological community of the importance of radiocarbon dating to the field. Yet another possible reason for the increase of theory articles during this period may have been as a result of the growing importance of functionalism that occurred after World War II (Trigger, 1989: 288). Indeed, several of the articles written during this period dealt with subjects such as economics in primitive trade (Hutton, 1951) and prehistoric social groups and V. Gordon Childe's concept of "socio-archaeology" (Gjessing, 1955). In the period from 1956 to 1960 the publication of theory articles once again dropped to zero.

Starting with 1961, a major change began to take place which was almost certainly brought about by the "New Archaeology" that was championed by the processualist school of archaeological thought in the United States of America. From 1961 to 1965 three theory articles were published and this held steady for the next five-year period from 1966 to 1970. From 1971 to 1975 the number of articles on archaeological theory published in the PPS rose to nine. The kinds of articles being published during this time covered such various topics as matrix analysis of pottery (Clark, 1962), population ecology in southern Africa (Lee, 1963),

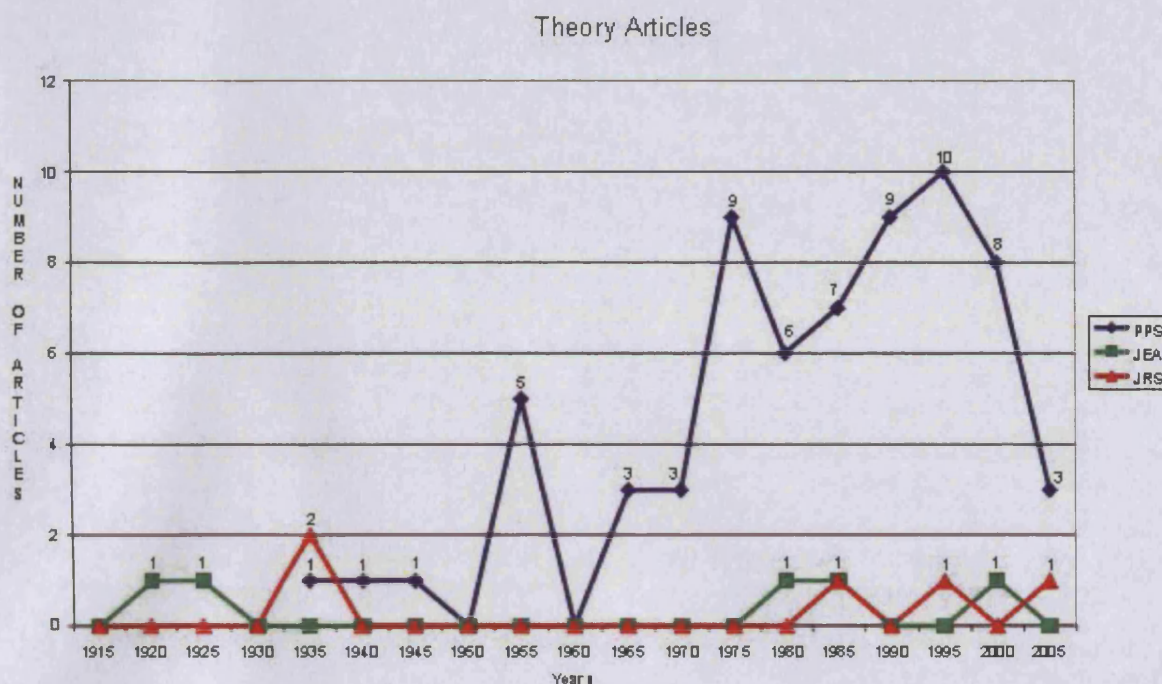


Figure I-1: Chart showing the frequencies of theory articles throughout the publication histories of the PPS, JRS and JEA.

experimental archaeology (Jewell; *et al*, 1966) and explanations in prehistory (Harris, 1971). There was a slight decrease from 1976 to 1980, with only six archaeological theory articles being published, but from 1981 to 1995 the number of articles on archaeological theory continued a sustained rise. It is suggested that the reason for the decline of theory articles between 1976 and 1980 may have resulted from the growing critique of processualism. By 1980 the post processualist trend was becoming established and the articles published in the PPS between 1981 and 1995 reflected this. They included such topics as the individual and community (Sharples, 1985), the archaeology of social complexity (Morwood, 1987), ethno-archaeology (Okpoko, 1987), material culture and social change (Hodder, 1988), ritual (Hines, 1989), social change and land use (Chapman; *et al*, 1993) and symbolism (Powell, 1994). There were still some processualist articles being published, for instance Foley's article on structural modelling where he mentioned Lewis Binford's Middle Range Theory (Foley, 1981) From 1981 to 1985 seven theory articles were published. This number rose to nine between 1986 and 1990 and this increased again by one from the 1991 to 1995. In the five-year period between 1996 and 2000 there was a slight decline in with only eight theory articles published. It appears the declining trend has continued to 2005.

JRS theory articles

The JRS was first printed in 1911. As Figure I-1 shows, few theory articles were published throughout the publication history of the JRS. Literally no theory articles were published until the period from 1931 to 1935 and then there were only two. The first was written by Collingwood in 1931 concerning the excavations along Hadrian's Wall that took place from 1921 to 1930. The article dealt specifically with excavation theory (Collingwood, 1931). The second article, which I included because of what I concluded to be an interpretive focus, was written by MacDonald and entitled, "The Dating-Value of Samian Ware", explained dating techniques using pottery and also mentioned the idea of scientific archaeology (MacDonald, 1935).

From 1936 to 1940 the number of theory articles published dropped to nil and this continued to be the situation for the next 40 years. Between 1981 and 2005 there were only been three other theory articles published. Rathbone wrote an article in 1981 on interpretive theory entitled, "The Development of Agriculture in the 'Ager Cosanus' During the Roman Republic: Problems of Evidence and Interpretation" (Rathbone, 1981). In 1992 the JRS published Bagnall's article, "Landholding in Late Roman Egypt: The Distribution of Wealth", which contained an in-depth statistical analysis on wealth, population and nome models in Roman Egypt. The last theory article that has been published in the JRS was Temin's 2001 article entitled, "A Market Economy in the Early Roman Empire" which was an application of interpretive economic theory.

JEA theory articles

From 1914, when the JEA was first published, until 2005 there have only been five theory articles published. The first of these, "What Is the Ka?" was written in 1920 by Thomas and used West African ethnographic parallels to refute the suggestions of French Egyptologist, Alexandre Moret, that the ancient Egyptian concept of the "Ka" was a type totemism. Thomas also examined terminology from modern West African languages seeking linguistic cross-cultural parallels for the Ka. He concluded that the West African words could have been derived from the Egyptian word "Ka", although he admitted that the linguistic influence could have been interpreted as two-way (Thomas, 1920).

The second of these was published two years later in Volume 8 by the well-known Egyptologist Thomas Eric Peet. In his article, "The Antiquity of Egyptian Civilisation: Being a Plea for Some Attempt to Formulate the Laws Which Should Form the Basis of Archaeological Argument", Peet lamented that, while he understood that archaeology was not an exact science, too many archaeologists reached conclusions he felt were only based on "nebulous possibilities" (Peet, 1922:5). He specifically suggested, especially in reference to Sir William Flinders Petrie, that archaeologists needed to stop falling into the fallacious line of thinking that, simply because artefacts in one part of the world may share similar attributes to artefacts in other parts of the world, they must necessarily date to the same time period regardless of provenance, other artefacts in association, flora or fauna (Peet, 1922:12). The ideas presented in this particular article expressed an important consideration of interpretive theory in Egyptology.

It wasn't until 1979 that the third theory article was written (see Figure I-1). This particular article, by Manfred Bietak concerned the present state of archaeology in Egypt at that time. Bietak observed that the practice of archaeology in Egypt suffered from the fact that most of the scholarly effort in universities was put into philological concerns rather than the teaching of archaeological methodology. This led to the situation of many excavations in Egypt continuing to be run by people who were well versed in philology, but not in archaeology. Bietak suggested the situation needed to change and more attention needed to be given to training archaeologists skilled in the excavation of Egyptian sites (Bietak, 1979).

By 1982, computer technology was making its presence felt within archaeology. In that year Barry J. Kemp, of the University of Cambridge, wrote a very important field theory article entitled, "Automatic Analysis of Pre-dynastic Cemeteries: a New Method for an Old Problem". Kemp acknowledged that most analytical methodologies in archaeology had been the product of prehistorians working in Europe and North America. He noted that one of the few analytical methods to have come out of Egyptology was Petrie's sequence dating method. As important as Petrie's sequence dating methodology was, there were problems with its use as it did not take into account over-lapping life spans of artefact usage, incomplete grave assemblages or robbed-out graves and the near impossibility of calculating all the possible permutations in the grave assemblages. Kemp explained that by using a computer program called HORSHU, it was possible, through multidimensional scaling, to more accurately analyse graves and their associated grave goods so as to place them into more accurate

seriation groupings. He demonstrated how the system could be used by analysing the artefactual assemblages of Pre-dynastic cemeteries located at El-'Amrah B⁴ and El-Mahâsna. Kemp's article provided a refinement to seriation theory.

The most recent of the theory articles was written by Bailey (1999). In his article entitled, "Sebakh, sherds and survey", he explained that "Sebakh" was debris excavated from historic mounds that contained the remains of mud brick houses, pottery, floral material and animal and human waste. This material has been continually used by the local farmers along the Nile as a source of fertiliser for their fields. The local farmers sometimes remove the pottery from the soil matrix, but just as often do not. Regardless, the spread of cultural material throughout the fields creates a completely false picture of the size of archaeological sites. Consequently, unlike Europe, the United Kingdom and North America where field survey is done in order to ascertain site parameters, it is nearly pointless to use such a technique in the Nile Valley. Bailey does explain that while field survey is unreliable field technique to use in the Nile Valley, its use on desert sites may be valid. While it is not specifically stated, Bailey's article does suggest that excavation theory used in other parts of the world may not be applicable for Egypt.

Conclusions based on the journal reviews

Several conclusions can be drawn from this review of theory articles in these three journals. Theory articles in the PPS increased somewhat in the 1950s, possibly due to the influence of functionalism, but the real increase for theory articles noticed from the early 1960s onwards coincides with the advent of processual archaeology. I suggest the sustained rise in theory articles through the 1980s to 1995 that can probably be attributed to post-processualism. Since the PPS is dedicated to prehistory, it is not surprising to see that it reflects the theoretical revolutions that have been a feature of prehistory in the post-World War II era.

There is also no real surprise that the JRS had very few theory articles published from 1980 to 2005. I think it is worth noting however, that while the JRS does report on archaeological work, it is not primarily an archaeological publication, so it is perhaps understandable that theory articles should not be found in abundance within its pages. More importantly to the theme of this work is that the JEA has contained few theory articles throughout its history, even during the heights of both the processualist and post-processualist movements in Great

Britain, the United States and elsewhere. Only the articles written by Bietak (1979), Kemp (1982) and Bailey (1999) really have ‘theoretical’ aspects to them.

The foregoing research provides verification of the perception that Egyptology continues to lag behind other fields of archaeology in regard to its adoption, use and development of archaeological interpretive theory. This thesis investigates the historical reasons to explain why interpretive theory has not been more employed in Egyptology and then seeks to present a framework for a theoretical approach to Egyptian archaeological sites.

Structure of the Dissertation

Historical background

The focus of Chapter One will present an overview of the development of Egyptology, specifically as it occurred in the 20th Century through to the present day. Thanks to the work of archaeologists such as Flinders Petrie and George Reisner, Egyptology was elevated to the forefront of archaeological practice during the first several decades of the 20th Century. Unfortunately, the importance of Egyptology’s impact on archaeological method would lapse in the early 1930s. At about the same time that Egyptology was losing much of its influence as a leader in archaeological thought, prehistory began its rise to prominence as the main source of theoretical innovations and methodological practice in archaeology.

The historical emphasis that has been placed on tomb and temple clearance during much of the 20th Century, has dictated that archaeology in Egypt has developed in a specific way, unlike that of other areas of the world. Many histories of Egyptology have been written detailing the events of archaeological investigations in Egypt from its earliest practitioners through to the end of the 20th Century. Few, if any studies, have attempted to provide a comparative, side by side overview of the key developments of Egyptology and theoretical archaeology as practised in Europe and North America. This is the main thrust of this chapter.

After the Second World War, those archaeologists working in the field of prehistory were influenced by functionalism, which established the groundwork for the processual archaeology (or New Archaeology as it was termed in the United States) of the 1960’s. By

the early 1980s, the flaws in processual archaeology were becoming apparent and this led to the development of the post-processualism. While there was great debate among pre-historians about the merits of the varying theoretical positions, they had little impact upon Egyptology. I intend to provide in this chapter a few reasons why this was so. Lastly, I will provide a survey of opinions about the present state of Egyptology and its future directions gained from personal interviews with professional Egyptologists from the United States, Great Britain and Austria.

Interpretive theory and interpretive method

Using the historical background as a base, a survey will be made of the main theoretical approaches to archaeology. It will consider how the theoretical positions may have influenced the methodology currently used to interpret and understand ancient Egyptian culture. These historical, theoretical and methodological trends will be assessed to suggest what considerations should be included in a Pluralistic Contextual Approach that would be useful to archaeologists working on sites throughout Egypt. While this thesis will generally focus on the work of British and American archaeologists working in Egypt, important contributions made by archaeologists of other nationalities will be mentioned where relevant. Indeed, their contributions cannot be ignored if we are to gain a wider appreciation of the historical development of interpretative studies of ancient Egyptian sites or to understand the adoption of new theoretical and methodological practices that are beginning to change archaeology in Egypt.

Chapter Two will be devoted to a discussion of archaeological theory, beginning with a brief discussion of the nature of the recent processual/post-processual debate. This is not intended to as an exhaustive explanation of processualism, since many scholars have done that in the past, but I intend to survey the various criticisms that have been levelled at processualism over the years. The post-processual movement will be handled in much the same way, with the purpose of asking the question as to whether Egyptology really needs to be drawn into this debate or be defined by either of these two theoretical positions in total.

It could be legitimately asked if the Pluralistic Contextual Approach I am advocating is really an attempt at producing 'holistic' interpretations of Egyptian culture. I assert that it is not. Criticisms of holism and its flaws will be covered in this chapter and the question considered

as to whether it should be used as a model for creating an interpretive method for use in Egypt. An assessment of just what kind of interpretive methodology is needed for Egypt will be the conclusion of this chapter on theory. This will include the suggestion that it is necessary to move beyond the labels of processualism, post-processualism, holism and so on. There will be specific consideration of what elements of theory are essential to a Pluralistic Contextual Approach as well as the need for such an approach and why there have not been more attempts to apply theory in Egypt.

Building on the discussion of theory presented in Chapter Two, Chapter Three focuses on constructing the actual framework and operation of the Pluralistic Contextual Approach. In her book, *Private Life in New Kingdom Egypt* (2002), Lynn Meskell presented a very basic interpretive framework for her work at the New Kingdom site of Deir el Medina near the current day town of Luxor in Upper Egypt. The examination of her framework in this chapter shows that it can be used as a starting point for developing an interpretive methodology for Egyptian sites other than just for Deir el-Medina. However, before that can happen, it needs further refinement and detail added before wider applications are possible. The chapter will consider in some depth four major components that must be included in any interpretive framework for Egypt.

The textual data discussed will include temporally specific literary sources as well as the need to include any extant site specific sources in site interpretations. The discussion of artistic data incorporates types of iconographic or artistic evidence, the use of that evidence and also its interpretive limitations. Additionally, the use of archaeological/material culture data will also be considered. The need to use multiple categories of archaeological data, the context of the data, methodology and inter-site comparisons of archaeological assemblages will all be part of the analysis presented in this chapter. The fourth interpretive component, archaeological theory, will be discussed along with an exposition of some considerations for its use. Among them are the need for examining the evidence supplied by the datasets from multiple, integrated theoretical viewpoints and the ability to flexibly choose appropriate theoretical avenues based on the type of site being investigated. A discussion on the application of the developed methodology will be provided at the end of the chapter.

Case studies

Chapter Four will present background material that I consider essential to understanding the contexts of the two sites I intend to use as case studies. This background information will include historic overviews of the case study sites, the site types, their locations and geography. Also, presented will be general information on geological resources, as well as a survey of the flora and fauna that were available for utilization by the ancient Egyptians during the Middle Kingdom. I consider this overview of the geologic resources, flora and fauna to be important information as I intend to present available site specific information within the case studies as to which of the possible resources were actually being used at the case study sites. Lastly, I will present summaries of previous archaeological work that has been done at the case study sites.

Chapters Five and Six will present two case studies utilising the Pluralistic Contextual Approach on two different types of Egyptian sites. Each of the two case studies will include sections on an examination of the textual, artistic and archaeological evidence associated with the site and analysis of the evidence from multiple, integrated theoretical viewpoints. Also provided will be an assessment of the effectiveness of this interpretive approach for each of the sites. I hasten to mention that the case studies are not intended to be full reinterpretations of the sites, rather limited reappraisals of specific site areas in order to show the application of the interpretive method as outlined in Chapter 4.

Conclusion

Following the case studies, Chapter Seven provides a brief summary of the salient points contained in each chapter. As part of this, I remark on what I gained from my research as well as how it has confirmed or altered my perceptions concerning the development of interpretive methodology that can be applied to the archaeology of Egypt. Lastly, I will conclude this section with suggestions as to what Egyptology needs to do to implement this methodology.

CHAPTER ONE

The 20th Century to the Present

Egyptology at the Turn of the 19th Century

In a sense, decipherment of hieroglyphics and demotic put the study of ancient Egypt into the same category as that of Greece and Rome. In those cases, there was so much written material available and accessible that much of the history and culture was known simply from the textual information. Archaeology was a useful adjunct to the written sources if only because it is difficult to study changes in the material culture from literary sources alone (see Trigger, 1989: 38-39, 40). In Egypt the situation was somewhat different in that vast amounts of textual information were yet to be discovered. Excavation was an essential part of recovering that information, but few scholars still gave any thought to the importance of archaeological context.

Earlier in the century, working on behalf of the British, Giovanni Belzoni (1778-1823) had done a great deal of recording, drawing and excavating of Egyptian sites. While he made magnificent discoveries, he possibly destroyed as much as he recovered because his methods were so unsophisticated. The work of Lepsius and the Prussians set a high standard for recording methodology, but they did little excavation work (Fagan, 2004: 178). John Gardner Wilkinson (1795-1875) travelled extensively through Egypt and collected numerous small artefacts, either from antiquities dealers or from personal excavation. Wilkinson is best known for his descriptions and drawing records of Egyptian sites, not for his excavation methodology (see Dawson, 1995: 443-444).

It was an American, George R. Gliddon (1809-1857) who became one of the first to call attention to the deplorable desecration and destruction of antiquities that was taking place at the time (see Fagan, 2004: 179-180). Partially as a result of his complaints, the Antiquities Service was established and a Frenchman, Francois A. F Mariette (1821-1881) placed in charge. Mariette undertook numerous huge excavations throughout Egypt, sometimes employing hundreds of workers. While his work was latter criticised by people such as Sir William M. Flinders Petrie, it was of a higher calibre that many of the excavations that were done at that time (Dawson, 1995: 276). Mariette did attempt to limit all other excavations or

refuse permission for them, although he maintained a close friendship with German archaeologist, Heinrich F. K. Brugsch (1827-1894). Even so, damage and destruction of Egyptian sites continued simply through the increased amount of tourist traffic (Fagan, 2004: 188-189). Upon his death, Mariette was succeeded in his position as head of the Antiquities Service by a student of his, Gaston C. C. Maspero, (1846-1916).

Elsewhere in the world, especially Europe, there was a great deal of intellectual interest in anthropology and culture history as it related to the rise of nationalism that was prevalent in the 19th Century. Timothy Champion (2003a: 179-181) suggests that Europeans in the 19th Century may have felt that ancient Egypt had little impact on the development of European cultures. Hence, Egyptology developed into a separate sphere of its own, little affected by intellectual developments elsewhere. Separate departments of Egyptology were established in universities in both Britain and Germany. Even the British Museum contributed to the separation by dividing the Department of Antiquities into separate departments of varied specialities (Champion, 2003a: 179-181). Archaeology in Egypt focused on the clearance of tombs and temples instead of settlement sites, which Jeffreys (2003: 5) correctly points out was “at variance with that of many other regional archaeologies”.

Amelia Edwards (1831-1892)

As a child, Edwards was fascinated by descriptions of Egypt she read in Wilkinson’s book, *Manners and Customs of the Ancient Egyptians*. She took up a career as a journalist/novelist and made her first sojourn to Egypt between 1873 and 1874. From that point on, her major interest became Egyptology. Through her journalistic efforts, she popularised the work of both Henri Naville (1844-1926) and Flinders Petrie. Possibly her most important accomplishment was the establishment of the Egypt Exploration Fund (Dawson, 1995: 137-138).

Because of her travels in Egypt, she became personally aware of the loss of information that continued to occur due to the antiquities trade. She resolved to create a society for the purpose of funding archaeological research to record and properly excavate Egyptian sites. The Egypt Exploration Fund was founded in 1882 in London by Edwards with the monetary assistance of a number of wealthy backers. It was, as Fagan notes, “among the first organisations to apply for excavation permits with serious research and potential publication

as the primary objective, not spectacular finds” (2004: 215). Before she died, she also endowed a chair of Egyptology at the University of London with the recommendation that the first holder of the position should be Flinders Petrie.

Sir William M. Flinders Petrie (1853-1942)

Strangely enough, as a young boy both Petrie and his father came into contact with the concept of ‘mystical’ Egypt through the writings of Charles Piazzi Smyth (1819-1900), the Astronomer Royal for Scotland. Smyth was the author of a book entitled *Our Inheritance in the Great Pyramid* in which he stated that all historical events, both past and future were recorded in the measurements of the Great Pyramid of Giza. Fortunately, Petrie took a more sober and realistic view of the pyramids.

Both he and his father planned to do an exacting measurement of the Great Pyramid and sharpened their skills by measuring, surveying and recording Stonehenge and other British Neolithic sites. Petrie finally left for Egypt in 1880 and started a career that would greatly change excavation procedures in Egypt. He excavated numerous sites, among them Lahun/Kahun, and developed a recording system that was far in advance of what had previously been known in Egypt (Bierbrier, 1995: 329-332). He understood context and realised that the pottery types he found in the pre dynastic graves at Naqada could be put into a series based on the evolution of design features. Petrie’s system of seriation became an important archaeological technique that would propel Egyptology to the forefront of archaeological methodology for perhaps the first time in the history of archaeology. By the end of the 19th Century, archaeology in Egypt would assume a new importance.

The Beginning of the 20th Century to 1935

Systematic Archaeology in Egypt

In 1899, as a result of his work at Naqada and Diospolis Parva, Petrie developed the technique of sequence dating. Both of these sites dated to the Pre-Dynastic timeframe and hence, had no written records associated with them. Since there was no method of absolute dating, the best that could be expected was to construct a system of relative dating based on the evolution of forms of the pottery types found in the graves. He divided the pottery from Diospolis

Parva into nine categories composed of seven hundred different types. By recording the pottery types found in each of the five hundred graves at the site, he was able to identify clusters of similar burial types. From this, he was able to hypothesise a series of sequence dates (Trigger, 1989: 200).

Petrie approached his excavations from a scientific and methodical way, taking copious notes on what he found. At Naqada and Diospolis Parva, he used a three step excavation system. Boys located the grave shafts by looking for soft sand. Once a probable shaft was located, they moved on to find others. Next, a team of excavators removed the soil matrix until they discovered artefacts or osteological remains, at which point they moved to the next grave site. Lastly, the skeletal remains and grave goods were exposed by an experienced, trusted excavator (Fagan, 2004: 231). Once the burial had been exposed, Petrie could then record the finds and information.

What is important about Petrie's work is that, unlike most excavators, who were looking for texts, he was interested in recovering the material culture in such a way that he could make a statement about the history and culture of ancient Egypt. Most archaeologists at the time were interested in texts, architecture and whole artefacts that could be displayed in museums. Partially due to his eclectic interests, Petrie quickly came to realise that all kinds and types of artefacts needed to be studied in order to provide the utmost information about a site (Spencer, 1982: 37).

In regard to field method, Petrie did employ large numbers of workers, but unlike other archaeologists, Petrie possessed a great deal of energy and practical technical ability. Rather than remaining at the base camp and having workmen report finds to him, Petrie actively supervised the excavations, as well as acting as his own photographer, accountant, site supervisor, surveyor, epigrapher and so on (Spencer, 1982: 39). This 'hands-on' approach and ability to function in multiple site roles allowed him to adapt easily to unforeseen circumstances as well as to mitigate problems on the spot.

Petrie had a well-defined sense of how work at archaeological sites should be done and outlined this in his objections to the Egypt Exploration Fund about their decision to place Edouard Naville in charge of the work at Deir el-Bahri. In Petrie's opinion, the plan of work at Deir el-Bahri required:

- (1) Accurate plans.
- (2) Good knowledge of Egyptian architecture ...
- (3) Recording every distinctive piece as found.
- (4) Close knowledge of local prices ...
- (5) Accurate artistic copying of all the sculptures ...
- (6) Accurate facsimile copying of any graffiti found ...
- (7) A backbone of workmen from a distance already trained to careful work ...
- (8) A testing of the ground close by, so as to settle where the stuff can be thrown without having to move it all again... (Davies, 1982: 52).

In settlement sites that had stratigraphy and architectural features that had been hardened by constant exposure to groundwater, he again had specific procedures.

“Petrie's procedure was to plan the structures as his workmen exposed them, and to measure frequent spot heights on both walls and locations of small finds. From this information a series of nine plans was prepared, showing features at more or less the same level, which were supposed to represent the condition of the site at succeeding periods. He also took frequent measurements of bricks sizes, and attempted to tabulate how the sizes varied over time” (Kemp, 1982b: 74).

While Petrie's methods were advanced compared to many other excavators in Egypt, they were still not without their problems. For example, he did not spend time drawing vertical sections. While he did recognise the general principle of superposition, he did not pay sufficient attention to the importance of intrusive features, which caused him to equate the construction of walls with artefacts from earlier periods, thus skewing his interpretations. Even so, Kemp suggests that there is still enough recorded data in his notebooks to make it possible to reassess much of his work (Kemp, 1982b: 74).

Petrie was important not only for his revolutionary methodology, but also because of the methodological training he provided younger archaeologists who worked under his direction. It is not my intention here to detail the careers of all of the archaeologists who received training from him, but there are a few scholars who I think are worth mentioning simply because of their archaeological skills. Several names that immediately come to mind are Guy Brunton (1878-1948) and Gerald A. Wainwright (1879-1964).

Brunton studied under Petrie in Britain and worked in the field for him at Lahun during the 1912 through 1914 seasons. He worked again with Petrie at Lahun during the 1919 through 1921 seasons as well. Brunton was possibly one of the finest excavators Petrie trained and he later went on to work with another of Petrie's trainees, Gertrude Caton-Thompson (1888-

1985) (Dawson, *et al.*, 1995: 68-69). Wainwright met Petrie in 1907 and worked for him through 1912. He too became a very good field practitioner and was a major contributor to six of Petrie's archaeological volumes. He became an inspector for the Egyptian Antiquities Service from 1921 through 1924, and retired in 1926 to a life of publishing technical studies on metallurgy, obsidian, ancient religion, anthropology and ethnicity (Dawson, *et al.*, 1995: 429).

Another of Petrie's students, James E. Quibell (1867-1935), was best known for the excavations he did at Hierakonpolis in cooperation with Frederick W. Green (1869-1949). Quibell evidently learned very good excavation technique from Petrie, but the same could not be said for his record keeping skills, at least in his earlier projects. Even the provenance of the famous Narmer Palette he recovered from Hierakonpolis is not precisely known simply because Quibell kept no field notes. All that is known about its provenance comes from the field notes by Green. Fortunately, the second and final season at Hierakonpolis was run by Green, who not only was an excellent field practitioner, but who also believed in taking detailed notes (Hoffman, 1979: 129, 130). Quibell improved as time went on and worked throughout the rest of his career to improve the standard of archaeological publications (Dawson, *et al.* 1995: 345-346).

Gertrude Caton-Thompson (1888-1985) was a student of Petrie's at the University of London from 1921 through 1926. She received her archaeological training from Petrie during his excavations at Abydos and Oxyrhynchus from 1921 to 1922. Thereafter, she became a specialist in prehistoric sites. She also excavated at Qau from 1923 through 1925 and discovered the Pre-Dynastic village at Hemmamiya (Dawson, *et al.* 1995: 87).

In her work at Hemmamiya, Caton-Thompson set a standard for archaeological practice that was the equal of any work done today. Far beyond the procedures of others, she augmented her excavations at the Hemmamiya site with comprehensive archaeological surveys of the Kharga Oasis and the Fayum. She divided the site into strips that she then subdivided into 5 x 10 foot squares. These, she excavated by 6 inch arbitrary levels recording such things as variations in soil cross-sections. In an unusual procedure for the time, she sieved the soil matrix excavated from hearths and rooms in an attempt to recover small artefacts and botanical remains such as seeds (Hoffman, 1979: 137-136). Caton-Thompson's work was an

early recognition of the need for meticulous field methodology and recording to be used on prehistoric sites in Egypt.

Another individual influenced by Petrie was Howard Carter. Carter had received archaeological field training from several different sources, but did work with Petrie at Amarna (Dawson, *et al.* 1995: 84) and learn his methodology. Of course, Carter is best known for the clearance of Tutankhamun's tomb in 1922. While tomb clearance work is certainly different from stratigraphic archaeology, Carter understood the need for the meticulous recording of the tomb and its contents. One suspects this was a trait partially learned from Petrie.

Another archaeologist renowned for his thorough field technique was Thomas E. Peet whose archaeological career did not begin in Egypt, but in Italy and Sicily investigating the Stone and Bronze Ages (Dawson, *et al.*, 1995: 322). The methodological standards used in Classical Archaeology at the time Peet learned his excavation skills were more exacting than those used in Egypt, so he arrived in Egypt very well prepared for his work (Kemp, 1982b: 78).

Peet worked at Amarna in 1921 and outlined his field methodology for the site as follows:

1. The systematic clearing of the town-site begun by the Germans, so as to gather details of the architecture and arrangement of the houses, to learn more of the daily life, and to secure objects for museums.
2. The throwing of fresh light on the numerous difficult problems raised by the so-called religious revolution of Akhenaton.
3. The investigation of the question of dating, and in particular to determine whether this site had been occupied before the reign of Akhenaton, and whether it was ever re-occupied, either partially or wholly, after the great abandonment (Aldred, 1982: 96-98).

Although his aims were still quite basic by today's standards, it is apparent that Peet had carefully thought out what it was he wanted to accomplish and what the goals of his work should be.

Petrie was not the only archaeologist making strides in meticulous recording methods. The American Egyptologist, George Andrew Reisner, was even more meticulous in his work and was 'the first person to make fully systematic excavations in Egypt, exploiting the technique

of recorded digging much further than Petrie and early archaeologists had done...' (Dawson, *et al*, 1995: 351-352).

Reisner's initial interest was Assyriology, but he changed to Egyptology and studied Egyptian language under the guidance of Kurt Sethe in Germany. When it came to learning how to do fieldwork, he sought the advice of Ludwig Borchardt and Quibell and hired F.W. Green to work with him as well. He devised a system of excavation and perfected his ideas at Naga ed Dêr. He went on to direct excavations at Deir el-Ballas, Giza, Nubia, Kerma, Gebel Barkal, Nuri, Kurru, Begarawiya, Semna and Samaria, in Palestine (Dawson, *et al*, 1995: 351). His most celebrated work was quite possibly the location and clearance in 1925 of the tomb of Hetepheres, mother of the IVth Dynasty pharaoh, Khufu.

Reisner published the essential tenets of his field methodology in Arthur C. Mace's volume, *the Early Dynastic Cemeteries of Naga ed Dêr* (1909):

1. It is necessary to have an organised staff of Europeans and of workmen trained in all branches of the work, and following careful methods of excavation and recording as a habit.
2. It is necessary to excavate whole sites and whole cemeteries. The excavation of individual tombs, while interesting and at times valuable, does not provide that sufficiency of continuous material which is necessary to justify conclusions on the development of a civilisation such as we have in Egypt. The discovery of beautiful objects is, of course, greatly to be desired; but the search for Museum specimens is an offence against historical and archaeological research which is utterly unworthy of any institution which pretends to be devoted to the advancement of knowledge.
3. Every cemetery and every building represents a series of the profits which art, so far as practicable, to be taken off layer by layer in the inverse chronological order and recorded layer by layer.
4. It is necessary to make a complete record of my drawings, notes and photographs, of every stage of the work ...
5. It is necessary to publish these records so far as practicable, tomb by tomb, and at the same time to give a careful systematised consideration of the material they contain. The hasty and incomplete publication, the year by year, of the season's work, with the temporary working hypothesis of the hour, satisfies the curiosity of those who have a less direct interest in the work, but tends to deprive the systematic archaeologist of a large mass of useful material. (Reisner in Mace 1909: VIII) (Hoffman, 1979: 251-252).

It is unfortunate that Reisner's archaeological techniques did not have more of an impact upon other excavators working in Egypt after him. Part of the reason for this may well be that Reisner produced reports that included detailed information that was far in excess of what other excavators were recording. Hence, by the time of his death, much of his work was still unpublished (Dawson, *et al.*, 1995: 352). Regrettably, this unfortunate state of affairs was not limited to Reisner's work alone, but it continues to plague most branches of archaeology to the present day.

Reisner was not the only American to work in Egypt at this time. Herbert Winlock (1884-1950) was an excavator whose excellence even Petrie recognised. His work at Deir el-Bahri was exemplary. It was he who found the Middle Kingdom models of Meketra, the papers of Heqanakht and the graves of the slain soldiers of Mentuhotep II. Winlock also had the distinction of serving as the emeritus director for the Metropolitan Museum of Art until the time of his death (Dawson, *et al.*, 1995: 448-449).

Besides the British, other European nationalities were also working in Egypt. The Germans had a strong tradition of archaeological work and were already well known for the excavation methodologies they had developed in Greece. Ludwig Borchardt (1863-1938) brought some of that skill to his 1912 excavations at Amarna (Reeves, 2000: 134-135). Frenchman, Henri Chevrier (1897-1974) excavated at Karnak and between 1925 and 1932 would discover twenty-five large statues from the Amarna Period of the XVIIIth Dynasty (Reeves, 2000: 172-173). Another Frenchman, Bernard Bruyère (1879-1971) worked at Deir el Medina in 1928 and discovered the library of Kenherkhepshef (Reeves, 2000: 174-175).

Another Englishman who came onto the scene toward the end of this period was Walter B. Emery (1903-1971). Emery directed his first excavations large-scale excavations in 1930 through 1931 at Ballana and Qustul. From his early experiences working on excavations in the late 1920s, Emery learned the excavation techniques common of that time where large numbers of workmen were employed clearing large areas of a site and these excavation techniques he employed throughout most of his career. His work at Ballana and Qustul was the start of a career that would last until his death in 1971.

During the first thirty years or so of the 20th Century, the archaeologists working in Egypt had developed meticulous recording and excavation techniques that, for their time, were real

procedural advancements to the overall discipline of archaeology no matter where it was practised. It was not, however, only in the area of improved field methodology that the archaeology of Egypt was important during this period.

In Britain and Europe, scholars from many different disciplines were trying to answer questions about how change and innovation occurred in cultures. Many scholars in the 19th Century speculated as to whether particular ancient cultures had learned or borrowed their technologies, and cultural features from other apparently similar ancient cultures or had they developed their technologies and cultural features separately? There were those scholars who doubted that great ideas and inventions had multiple places of origin, but were conceived in one place and passed outward from one area or culture to another by diffusion.

Egypt played a pivotal role in the concept of cultural diffusion between 1911 and the early 1930s because there were those scholars who postulated that Egypt was the birthplace of civilisation. Principal among those who espoused that view was Grafton Elliot Smith, Professor of Anatomy at Cairo. Smith was intrigued by the process of mummification, which led him to an overall fascination with ancient Egypt. In his opinion, skills such as tomb building and mummification were so complex that it was unlikely that they had been developed independently in more than one place. He and his associate, William Perry, expanded this initial hypothesis to include other Egyptian ideas and innovations and consequently postulated that Egypt was the original source for the majority of cultural characteristics found in other ancient societies (Champion, 2003a: 183).

Hyperdiffusionist explanations of culture change such as those advocated by Smith and Perry gained certain popularity with the general public, but few Egyptologists or pre-historians embraced them. Furthermore, by the 1930s, much more work had been done in Mesopotamia by the likes of Sir Leonard Woolley (1880-1960) and Thomas E. Lawrence (1888-1935), which showed that the cultures there had predated the rise of culture in the Nile Valley. As a result, the claim that Egypt was the origin for ancient cultural knowledge was disproved. Belief in the validity of diffusionist or hyperdiffusionist views waned substantially after 1930 (Champion, 2003a: 183).

Taken in context, the work of archaeologists in Egypt during the first 30 years of the 20th Century, especially the work of Petrie and Reisner, represented a real step forward not only in

matters of excavation methodology, but in the way material culture was considered. Unfortunately, growth in this direction did not continue much beyond 1935 and I will discuss several of the likely reasons for this occurrence later in this chapter. Regardless of the advances in archaeological methodology that were made during the early part of the 20th Century, the interest in textual analysis remained at the forefront of Egyptology and its importance was strengthened.

Trends in Anglo-American and European Archaeology

In the 19th Century, scholars had increasingly accepted that man had a longer history than had been previously thought. The 'Three Age System' developed by Thomsen and Worsaae gradually became the standard used in most European museums to delineate time periods and cultural developmental stages. European and British scholars were keen to understand the development and changes in the ancient cultures particular to their countries. Trigger states that culture history was "an approach that centred upon defining archaeological cultures and trying to account for their origins in terms of diffusion and migration ... (1989: 205).

In the first quarter of the 20th Century, archaeologists in Europe and Britain were engaged in setting up well-defined corpora of artefacts that traced the development of their respective cultures. Much of this work entailed the description and measurement of artefacts in order to classify and assign each item chronologically to a place within the general assemblage. In Europe and Britain, archaeology became closely aligned with history with the goal of constructing descriptive histories based on artefactual evidence (Fagan, 1987: 65). This also happened to coincide with prevalent nationalistic sentiments and archaeology was seen as an aid to understanding and defining national and ethnic identities. During the early part of his career, V. Gordon Childe was instrumental in the development the culture historical approach by having provided a clear, concise definition of an "archaeological culture" in his 1929 book, *The Danube in Prehistory* (Childe, 1929: v-vii. Also see Dark, 1995:6).

In the United States, culture history was not so much a matter of establishing an identity with ancient peoples, since archaeologists of Western European decent were not of the same ethnic or racial group as the earlier indigenous populations. In the American case, it was recognition by scholars that the archaeological record, especially that of prehistoric eras, was tremendously complex and required clarifications that could not be explained by diffusion or

migration (Trigger, 1989: 205-206). The American approach to culture history differed from that used in Europe and Britain in that it tried to postulate how ancient prehistoric cultures had lived based on research of recorded historic Indian cultures. This was called the 'Direct Historical Approach' (Fagan, 1987: 65-66).

Generally speaking, Egyptology was at a disadvantage during the culture history phase of archaeological development. Simply put, ancient Egyptian culture, while interesting because of its Biblical connections and exotic artefacts, shed little light on the historical development and growth of European societies. In North America, an 'Egyptian connection' was even more difficult to detect. Where Anglo-American and European archaeology did cross paths with Egyptology was over the topic of diffusion. I mentioned previously the hyperdiffusionist views of Smith and Perry that suggested Egypt was the birthplace of many European cultural traits. Even after the time when hyperdiffusionist views were rejected, diffusion, on a more local level, was still considered a valid possibility for explaining cultural change and the spread of the ideas and technology in both Europe and Britain. Diffusion was a popular reaction against the concept of cultural evolution in both the United States and Britain largely due to the works of American anthropologist, Franz Boas (1858-1942) and British ethnologist W. H. R. Rivers (1864-1922) (Trigger, 1989: 152).

Another area where Egyptology had some likely effect on Anglo-American and European archaeology was in the area of methodology. In Britain, Sir Mortimer Wheeler was certainly aware of the excavation methods advocated by Petrie and he expanded on those methods. Wheeler excavated using a 'box system' similar to Petrie's methodology, but with the difference that he left standing the baulks in between the units so that he could record the stratigraphic sections. While Petrie did not pay much attention to recording stratigraphy, Wheeler made it plain that stratigraphic excavation and the recording of it was of the utmost importance (Wheeler, 1954: 40-41).

Wheeler's student, Kathleen Kenyon (1906-1978) learned his exacting style of excavation and made the clarification that it was not just natural layers that constituted stratigraphy, but also pits, hearths, floors and so on (Lucas, 2001: 39). Together with Wheeler, she is credited with co-developing the 'Wheeler-Kenyon Method' of archaeological excavation. Coincidentally, prior to her work with Wheeler, Kenyon worked in Rhodesia with Caton-Thomson, one of

Petrie's finest apprentices (www.1). Kenyon eventually went on to gain recognition for her work at Jericho in the 1950s.

Two of the luminaries in American archaeology were Nels Nelson (1875-1964) and Alfred V. Kidder (1885-1963), both of whom worked in the American southwest. Nelson received his initial training from American anthropologist, Alfred L. Kroeber, who himself had been a student of Boaz (www.2). Nelson excavated by using arbitrary levels and then made detailed records of the natural stratigraphy. Certainly, this was a better method of excavation than ignoring stratigraphy altogether, but it has the disadvantage of perhaps disassociating the artefacts from their stratigraphic context.

Kidder, on the other hand, had been a student of Reisner's at Harvard in 1911 and had learned to excavate by natural stratigraphic levels. He realised that this method of excavation could solve problems relating to the chronological sequencing of artefacts. Kidder's work cannot be underestimated as it was he that developed the first culture-historical synthesis of the archaeology of any part of the United States in his 1924 book, *An Introduction to the Study of Southwestern Archaeology* (Trigger, 1989: 188). That Kidder decided to work in the American southwest instead of in Egypt is perhaps a greater loss to Egyptology than is commonly realised.

Petrie too, had an impact on archaeology in the American southwest. Kroeber and his colleague Leslie Spier (1893-1961) did a surface collection of potshards in the Zuni region during 1916 and 1917 as a prelude to excavating selected Zuni aboriginal sites. They employed a seriation technique similar to the one developed by Petrie in order to place their Zuni sites in the chronological order (Trigger, 1989: 188).

Stagnation and Growth: 1936 to 1960

Egyptology since 1930

I think it can be legitimately said that Egyptology probably reached the peak of its importance within the more general field of archaeology approximately between 1910 and 1930. However, by 1935 or so there appears to have been a distinct decline in the role Egyptology

had to play in the discipline. This is not to say that excavation methods reverted or devolved into crude techniques or that important discoveries were not made in Egypt.

As a case in point, one of the finest archaeologists to work in Egypt with regard to technique was John D. S. Pendelbury (1904-1941). His careful excavation methods along with his architectural plans of temples and buildings at el-Amarna done during his fieldwork there between 1930 and 1936 led to important insights about Akhenaton's ancient capital. Furthermore, because of the vast amount of work he had done in Crete, he was able to illuminate important connections between the Greek world and Egypt (Dawson, *et al.*, 1995: 324).

There were certainly important discoveries made in Egypt between the years 1935 and 1955. Nicholas Reeves (2000) has chronicled many of the noteworthy discoveries among which are Emery's work on the early dynastic tombs at Saqqara between 1935-1939, the discovery of the Tod Treasure in 1936, the discovery and clearance of the royal tombs at Tanis between the years 1939 and 1946, the discovery and recording of the Amarna reliefs from Hermopolis in 1939, the Tell el-Maskhuta treasure in 1947, the pyramid of Sekhemkhet in 1952 and Khufu's boats at the Great Pyramid in 1954 (See Reeves. 2000).

Outstanding as these discoveries and projects were, there is an important consideration to be noted here. Most of the archaeological work I just listed, with the possible exception of the Tod Treasure discovery in 1936, amounts to tomb and temple clearance (e.g. Hermopolis). I am not suggesting tomb clearance is not important, but certainly, removing artefacts and mummies from tombs, no matter how carefully done and recorded, was not thought to require further development of stratigraphic field excavation techniques to accomplish the clearance nor does it require much interpretive theory. I think it is important to understand that one of the reasons Egyptology did not continue to add to the development of general field excavation techniques until the last 20 years or so was because the type of archaeological work that was being carried out was not thought to require it.

What I have just suggested may be part of the answer as to why there was a general stagnation in Egyptology as regards excavation methodology, but I suggest there were several other factors that also led to the situation. Partially as a result of the loose regulations on excavation that existed up until the time of the discovery of Tutankhamun's tomb, new

restrictions put in place in 1926 stated that excavations could only be done by people employed directly by the National Museum or the Egyptian Antiquities Service. Since Petrie did not work under the aegis of either, he left Egypt in 1927 to work in Palestine. Consequently, not only were his services lost to Egypt, but Egyptology was not directly able to benefit from further developments in his methods.

Ten years later there was another change in Egyptian antiquity laws that dealt more specifically with the artefacts themselves. Up until that time, archaeologists undertook archaeological excavations with a dual purpose in mind. Certainly, they were interested in discovering information about ancient Egyptian culture, but just as important was the need to find museum quality artefacts to keep the interest and, more importantly, the financial support of the general public. Aldred (1982: 96) stated that “this dual system worked reasonably well until new regulations for the division of finds, introduced by the Antiquities Service in 1936, made excavation by foreign missions of so little worth that most of them ceased their operations”. While this law helped stem the massive outflow of Egyptian treasures to other parts of the world, it also had the effect of retarding the development of archaeological practice for a number of decades.

Lastly, the two main innovators of archaeological field techniques in Egypt, Reisner and Petrie, both died in 1942. While Petrie had left behind a legacy of students and proteges he had trained in his methodologies, Reisner did not (Dawson, *et al.*, 1995: 352). The importance of this point should not be underestimated. Reisner was possibly the finest field technician of his time, certainly in Egypt if not in other branches of archaeology. One wonders what the state of archaeology in Egypt would have been had Reisner trained a number of skilled disciples to carry on his work. Unfortunately, such was not the case and his one notable student, Kidder, never worked in Egypt.

On a more positive note though, from the 1930s onward Egyptians themselves were starting to get involved in inspectorate positions within the Egyptian Antiquities Service. For example, Labib Habachi (1906-1984), was appointed inspector of the EAS in 1930 (Dawson, *et al.*, 1995: 184-185). Muhammad Zakaria Goneim, the discoverer of the unfinished pyramid of Sekhemkhet, was appointed the EAS inspector of Aswan in 1939 (Reeves, 2000: 200). European archaeologists had always used massive numbers of Egyptian workmen in their

excavations, but this was the beginning of the different trend even if it was only at a bureaucratic level at that present time.

Egyptology continued to engage in using artefacts to build typological chronologies that were a hallmark of culture historical approaches. Looking at the type of articles that were written between the 1930s and the beginning of the 1960s in the *Journal of Egyptian Archaeology*, one notices that they are overtly descriptive in nature. This is not to say that there was no interest in understanding ancient Egyptian technology in a deeper way over the years. British chemist, Alfred Lucas, published two seminal works dealing with Egyptian material culture, *Antiques: Their Restoration and Preservation* (1924) and *Ancient Egyptian Materials and Industries* (1926). The latter of these two works was so important that it went through a number of editions and was revised (Lucas and Harris, 1962). This became the standard reference book for anyone working with Egyptian material culture, but was practically the only work devoted to this particular subject until the end of the 20th century.

“It is perhaps symptomatic of the path taken by Egyptology that a single book, whose principal author had died in 1945, was regarded as virtually all that was necessary for the study of ancient Egyptian materials until the end of the twentieth century. Generations of Egyptologists relied upon “Lucas” or “Lucas and Harris” to inform them of ancient technology. The rest, it was often believed, could be learned from textual or pictorial evidence” (Nicholson, unpublished: In press).

The situation in Egyptology was radically different to the way archaeology would develop in the United States and Europe during the same time-frame.

The rise of theoretical archaeology in the United States and Europe

By 1935 there were archaeologists who were becoming disenchanted with what culture history had to offer. They felt that there must be more that could be said about ancient society other than to simply describe their artefacts and construct a sequence of cultural events. They became interested in the reasons why society changed and what factors caused change. Premier among these scholars in Britain was V. Gordon Childe.

Childe came to believe that culture history had little more to offer archaeologists in their attempts to understand ancient peoples. He also understood that diffusion had its uses, but it still did not answer all the questions about change in cultures. It is well known that

politically, Childe was a Marxist and hence, attributed a primacy to economic explanations of life. He increasingly began to search for economic reasons to explain why prehistoric societies developed and changed the way they did. Along with this, Childe also championed a version of cultural evolution that rejected the idea of unilinear evolution in favour of multilinear perspectives. He elaborated these ideas in his 1936 book, *Man Makes Himself* (Childe, 1936, 1951; also see Trigger, 1989: 250-251, 256).

Childe was not alone in his desire to do more with the archaeological evidence. Grahame Clark (1907-1995) and Stuart Piggott (1910-1996) were both instrumental in advocating the shift from using archaeological material to produce histories to that of reconstructing ancient societies. Clark attempted to reconstruct ancient economies solely using material culture in conjunction with ecological considerations. He developed these ideas and eventually presented fully them in his book, *Prehistoric Europe: the Economic Basis*, published in 1952 (Clark, 1952; also see Dark, 1995: 6).

Possibly the most radically important event to affect all branches of archaeology was the discovery and development of radio-carbon dating by American physical chemist Willard Libby in 1949. Seriation and relative dating were rendered obsolete by this dating technique that promised absolute dates. No longer was it so necessary to continue to produce typological chronologies for dating. Radiocarbon dating also ended any remaining credence in hyperdiffusionist ideas since many monuments could now be shown to have predated the ones that were supposed to have been their inspiration (Champion, 2003b: 144).

Interestingly, Egyptology played a part in the radio-carbon revolution. It seems that Libby used the Egyptian historical chronology as the standard on which he based his dates. The problem that occurred is that when radio-carbon dating was tested in Egypt, it gave dates that were considerably younger than those that were used by Egyptologists. Libby eventually realised that there was a flaw in the calibrations as originally proposed. When C-14 dates were corrected and re-calibrated, it was found that the traditional Egyptological dates were correct. The result of this episode was that for the segment of Egyptologists that already mistrusted science, this was proof that science could provide few insights that weren't already known through traditional methods.

The invention of radio-carbon dating further convinced archaeologists in both Europe and the United States that there needed to be a new way of looking at archaeological data. Trigger is indeed correct in his contention that “culture-historical archaeology was a logical prelude to the systematic study of prehistoric cultures from functional and processional perspectives” (1989: 288). It did indeed provide that informational basis needed for using functional criteria to understand organization and change in societies.

In the United States particularly, the functionalist approach was set forth by ethnologist Julian Steward (1902-1972) and Walter W. Taylor (1913-1997). In his book, *A Study of Archaeology*, Taylor (1948) remonstrated against the traditional importance placed upon description and chronology in archaeology and suggested the focus needed to be about cultural change. This book, along with the work of Steward and Leslie White (1900-1975) inextricably linked anthropology and archaeology (Fagan, 1988: 71). Taylor based his functional approach on the idea that all human cultures had a function and that social institutions could be understood by looking for the culture’s function through its material culture. Interestingly enough, Taylor also conceived the idea of a ‘conjunctive approach’ to archaeology that required the archaeologist to combine “many different classes of evidence and examining the relationships between them, analysts stressed the role of speculation in considering aspects of culture represented in the archaeological record” (Dark, 1995: 7).

Steward, influenced by Boaz and social anthropology (Trigger, 1989: 288), chose to examine human culture from a materialist point of view and emphasise the role of the ecology in determining how human culture is developed. According to Steward it was imperative to understand the nature of cultural change and that both archaeology and ethnology could contribute to this goal. However, the only way archaeologists could do this was to cease writing stylistic descriptions of the data and use it instead to track “changes in the subsistence economies, population size, and settlement patterns” (Trigger, 1989: 279). Steward summarised the tenets of his “culture ecology’ approach as follows:

Similar adaptations may be found in different cultures in similar environments.

No culture has ever achieved an adaptation to its environment which has remained unchanged over any length of time.

Differences and changes during periods of cultural development in any area can either add to societal complexity, or result in completely new cultural patterns

(Steward, 1955) (Fagan, 1988: 69).

Eventually, though simple functionalism was still not enough to account for cultural change nor did the new direction in theory necessarily improve the way in which archaeological fieldwork was carried out. Something more was needed, but functionalism was precursor to what would be termed processual archaeology or, in the United States, the “New Archaeology”. In the meantime, Egyptology seemed blissfully unaware of the new theoretical and methodological directions.

1960 to the Present

Scientific and interpretive archaeologies in the Britain, Europe and the United States

In the early 1960s archaeologists such as Lewis Binford and David L. Clarke (1937-1976) called for a “New Archaeology” to go beyond culture historical and functional considerations. The seminal work that heralded this call was Binford’s 1962 article, *Archaeology as Anthropology*. By 1968, both Binford and Clarke had elaborated their processualist views in their respective books, *New Analytical Perspectives in Archaeology* and *Analytical Archaeology*. Processual archaeology has been written about and described by countless scholars, so I do not intend to intensively recount the history and development of processualism. I will cover the main criticisms of processualism more fully in the next chapter. However, I do think it would be worthwhile to briefly mention some of its salient points.

According to Colin Renfrew and Paul Bahn (2004: 41), the key concepts of processual archaeology were as follows. The nature of archaeology was to be explanatory as opposed to descriptive. In the way of explanation, processual archaeology would think in terms of culture process rather than the more traditional culture history. Reasoning would be deductive. Archaeologists would formulate hypotheses and test them instead of using an inductive approach of collecting data and forming a picture from it. The validation of conclusions would be based on testing and not on scholarly authority. The research focus would be on project design that answered specific research questions rather than to simply accumulate more data. A quantitative approach to the data would be substituted for simple qualitative methods. Also, a processual archaeology would take a more optimistic view of the

possibility of understanding social organisation from archaeological data than had been the case with traditional archaeology (Renfrew and Bahn, 2004: 41). Processual archaeology was to be grounded in positivism and cast as a science rather than an art.

The post-processualist or interpretive archaeology of the 1980s was a reaction to the perceived shortcomings of the processualist approach. As I have done in my preceding treatment of processualism, I will not spend time here giving a full description of the history of the post-processual movement, but will cover the criticisms of it more fully in the next chapter. It is, however worth looking here at some of the major trends as a point of reference.

Post processualism is not by any means a single approach to archaeology. Many interpretive archaeologists adopt a certain avenue, or sometimes several complementary avenues of thought in their approach to archaeological data. Marxist or neo-Marxist strategies engender ideals of social awareness that posit that archaeology should give insights as to how cultures and societies can be improved. Post-positivist approaches such as those advocated by Michael Shanks and Chris Tilley (1987a; 1987b), place less emphasis on scientific method in favour of a search for the individual. A phenomenological approach tries to recapture the essence of personal experiences of ancient peoples and the way they dealt not only with the material culture of the landscapes in which they lived. A Marxist inspired approach, praxis, concerns itself with human agency and its effect on “shaping social experience, social reality, and hence social structure”. The praxis approach has also been influenced by the work of Anthony Giddens and deconstruction oration theory as well as the work of Pierre Bourdieu (1930-2002) and his concept of the habitus. The hermeneutic approach specifically rejects the idea of creating generalisations or over-arching covering laws as in processual archaeology. It emphasises the uniqueness of each culture and need to study it within its own context in order to comprehend the wide range of diversity within that society. It also rejects the idea that there is only one way of interpreting society, but insists on pluralistic viewpoints. Therefore, within the hermeneutic approach there is room for approaching archaeological data using feminist, Marxist, phenomenological, social, environmental perspectives and so on (Renfrew and Bahn, 2004: 44-45).

These were the major trends that were influential in archaeology from 1960 until the present day. Processual archaeology did not completely die with the advent of interpretive archaeologies in the 1980s and there are still those scholars who identify themselves as part of the processual trend. Still, processualism has evolved to take into consideration the critiques

of post-processualists. Cognitive processualism is the attempt of processualists to account for the impact of individuals, ideology and symbolism within archaeological cultures.

The state of archaeology in Egypt during the last four decades

Even while a theoretical revolution was happening within European and North American archaeology, it had little impact upon archaeology as it has been practised in Egypt. I have mentioned previously the suspicion with which Egyptologists have viewed outside contributions and there has been a particular insularity in the field (see Champion, 2003a: 185). Within Egyptology itself, there has been a noticeable divide between philologists and archaeologists that I suggest has had a deleterious effect. Archaeology had been traditionally seen almost as a subsidiary aspect of 'Egyptology', that is to say philology (see Polz, 1998, 499). In the past, there has been a dearth of communication between the two areas of interest, often with the result that philologists and archaeologists have operated independently of one another when cooperation and shared insights would have been desirable. There has been change in this situation, but there is certainly room for more improvement.

When the planned building of the Aswan High Dam threatened numerous archaeological sites in Nubia, UNESCO initiated a massive, international salvage project between 1960 and 1980 to either relocate important archaeological sites or collect as much information about affected sites as was possible before their destruction. It would be reasonable to think that, considering the international nature of the project, some of the new processual or even some interpretive ideas would have been introduced into archaeological practice in Egypt. Unfortunately, this was not the case.

Perhaps this could be partly attributed to the insular nature of Egyptology, but from my experience of working in contract/salvage archaeology, I think a stronger factor is that salvage archaeology frequently does not lend itself to the development of archaeological techniques due to time and monetary constraints. I think a second consideration was that, in the case of Buhen, Emery was chosen to do the salvage work and was used to employing traditional methods he had learned in the 1930s. Emery had already made important contributions to Egyptology and truly felt his way of working was still appropriate for the work at hand. Processualism had little impact even at Qasr Ibrim, even though its director, William Y. Adams, was an American anthropologist. According to Peter French who worked with

Adams, he was a very good synthesizer of information, and although he certainly must have been aware of the processualist wave in the United States, he was not affected by it (pers. com. 2005). In the end, in spite of the international nature of the UNESCO, little advancement was made in excavation techniques as a result.

Although his book is aimed at the popular market, I think Reeves's (2000) choices of what he considered to be the important discoveries in Egypt are revealing. Among them he lists the work done by Emery between 1964 and 1971 at the Sacred Animal Necropolis at Saqqara; the Akhenaton Temple project done in 1965; the Unfinished Pyramid of Raneferef, 1974; the New Kingdom tombs at Saqqara, 1975; the tomb for the sons of Rameses II, 1987; the tomb of Akhenaton's prime minister, 1987-1997; the Minoan Frescoes at Avaris, 1987; the Luxor statue cache, 1989; the tombs of the pyramid builders at Giza, 1990; the underwater exploration of Alexandria ad Aegyptum, 1994; and the golden mummies found at Bahariya Oasis, 1999 (see Reeves, 2000). Many Egyptologists today may rightly point out that while Reeves's choices may be spectacular from the standpoint of monetary value or publicity, they may not represent the most archaeologically significant work in regard to information, method or interpretation. My point is that many of the choices made by Reeves were tomb clearances which do not really contribute to the advancement of stratigraphic excavation techniques. Settlement sites have perhaps historically received less archaeological and popular attention, but fortunately this situation has begun to change in the last 10 to 15 years (see Polz, 1998: 499-501).

I believe 1971 to have been an important year in the history of Egyptology. Emery passed away unexpectedly that year and his place was taken by his loyal friend and colleague Harry S. Smith. Emery had been probably the last 'old school' archaeologist still working in Egypt. While Smith had worked with Emery for a number of years, he recognized the need to update excavation techniques in Egypt. Smith's contribution to archaeology in Egypt cannot be underestimated. He embraced the new ideas that had been pioneered in other branches of archaeology and put them into practice in his work. Academically, he followed Emery as the Edwards Professor of Egyptology at University College London, a post he held from 1970 to 1986. He was instrumental in recommending the appointment of David Jeffreys, a very qualified field archaeologist, to the faculty of University College London as well as instituting a very popular Masters programme in Egyptology there (Nicholson, pers. comm. 2007, also

see Janssen, 1992: 86). Smith is one of the figures that helped initiate a change in Egyptology.

Egyptian prehistory has also been another area where newer techniques were welcomed. Prehistorians seem usually to have been open to innovative ways to understand culture and so it has been on the Egyptian scene. Walter A. Fairbridge (1921-1994) and Michael A. Hoffman (1944-1990) took careful note of the works of Robert Adams of the University of Chicago and Frank Hole, Kent Flannery, James Neely of the University of Michigan. In 1967, Fairbridge put together a multidisciplinary team of experts, including an Egyptologist, a cultural anthropologist, a physical anthropologist, artists and so on, to excavate at Hierakonpolis using the latest archaeological techniques (see Hoffman, 1979: 5-10).

Champion mentions that some of the work done in the area of prehistoric archaeology in Egypt actually had an impact in the larger arena of archaeological thought. He specifically cites Karl Butzer's 1976 article about early agriculture in the Nile Valley as an example. Still, Champion laments the small role that Egyptology has played in comparative studies and that the one shining example has been Trigger's 1993 study, *Early Civilisations: Ancient Egypt in Context* (2003a:184). A source that Champion could and probably should have added was the work done by Krzyzaniak and Kobusiewicz (1984) concerning the beginning and development of epipalaeolithic and neolithic agricultural and herding populations in Northeast Africa. Certainly, Champion is correct that Egypt probably has some of the richest data sets available to archaeologists, yet has not been used to its fullest potential. This situation has however begun to change. Wengrow (2006) investigates the place of early Egypt within the larger contexts of general social transformations that occurred in Northeast Africa applying current archaeological and social theory and recent fieldwork.

The Present Position of Egyptology and Its Future Directions

Scholarly interviews and interview methodology

In order to properly get a sense of the present position of Egyptology and its future directions, I felt that it would be worthwhile to interview Egyptologists who were currently working or had recently been working in the field regarding their opinions of the current state of field methodology, their use of archaeological theory and who had extensive experience in

archaeological fieldwork. I was specifically interested in interviewing not only those scholars whose primary training was archaeological, but also those excavators doing fieldwork who came from largely philological backgrounds. If possible, I was also interested in obtaining a historical perspective concerning the development of Egyptological fieldwork. I was fortunate to be able to interview veteran archaeologists such as Manfred Bietak, Janine Bourriau, Betsy M. Bryan, Peter French, Ellen Morris, Stephen Quirke, Don Redford and Steve Sidebotham. A more current prospective of archaeological fieldwork was provided to me by Joanne Rowland and Penny Wilson. The historical perspective I was seeking was graciously provided to me by Harry S. Smith. The resulting information from these interviews has been incorporated into the following discussions of this chapter.

Before I could conduct the interviews I needed, it was necessary from me to formulate a series of interview questions. These were based upon, but not limited to the following points of interest:

1. Was a respondent's training primarily philological or archaeological or perhaps a combination of both?
2. Was a respondent currently directing or participating in an excavation and what was the current status of the project?
3. What were the respondent's views on the current state of archaeological methodology and what, if any improvements they would suggest?
4. How did a respondent employ specialists such as ceramicists and osteologists on their projects and were their contributions included as separate reports, interspersed in the interpretation or both in the field report?
5. Did a respondent agree or disagree that Egyptology has lagged behind other branches of archaeology in regard to the use of interpretive theory and what reasons did they give for their positions?
6. Did the respondent approach their field projects from a particular theoretical position or positions? If so, what specific theory or theories did they employ and did it influence their research design or their excavation strategies?
7. Lastly, in general, what did a respondent believe was the value of archaeology?

Each of the interviews was conducted in one of three ways, either in person, by e-mail or by hand written letter. For the majority I was able to conduct personal interviews. Rather than seek to a formal question and answer session I chose to conduct the interviews using an

interview style similar to that used for conducting oral histories. In my opinion, this allowed each individual to speak freely about their experiences and to add any details they felt might be important. During each interview I referred back to the questions in order to keep the conversation both from becoming too tangential.

Because of time and distance concerns I conducted the interviews with both Joanne Rowlands and Penny Wilson by e-mail. The same set of interview questions was used for both of these scholars that were used for the in person interviews. While this method did not provided the amount of personal detail that the personal interviews allowed, the chances in the e-mail interviews were perhaps more succinct.

Harry S. Smith specifically requested that he be able to answer my queries by handwritten letter. In his case, I divided my questions into three areas of enquiry. The first area concentrated on the generic questions I had been asking the other respondents. The second area dealt with his personal experiences working in Egypt during the 1930 two the present and his association with Dr. Walter B. Emery. The third area concerned his experiences excavating and publishing the Middle Kingdom site of Buhen.

The present position

The problematic lack of current research works about the study of Egyptian material culture was eventually remedied in part by the publication of two significant contributions. The first of these was an article by Nordström and Bourriau entitled 'Ceramic technology: clays and fabrics' in *An Introduction to Ancient Egyptian Pottery* (Arnold and Bourriau, 1993: 147-190). This particular work was a study of ancient Egyptian pottery and introduced a system of pottery fabric classification called the 'Vienna System' which has generally become the standard for pottery classification in Egypt. The second of these two publications is *Ancient Egyptian Materials and Technology*, published in 2000 and edited by Paul T. Nicholson and Ian Shaw. In their introduction to this book, the editors pointed out that there was a growing concern about the study of ancient Egyptian material and technology:

"The study of ancient Egyptian material and technology is a vibrant one, with research being conducted by many scholars all over the world (a situation reflected in the diverse list of contributors here). This is quite unlike the situation in the 1920s and 1930s, when most Egyptologists were interested in linguistic and

architectural questions, and Lucas was one of a relatively small group of scholars concerned with the analysis of artefacts” (Nicholson and Shaw, 2000:1).

Nicholson and Shaw are correct in pointing out the historical paucity of research works on Egyptian material culture studies and seem quite hopeful that this trend is now changing.

Historically in Egyptology there had been an imbalance of philological work as compared to archaeological work and this was noted by Austrian Egyptologist, Manfred Bietak, in a 1979 article published in the *Journal of Egyptian Archaeology* entitled ‘The present state of Egyptian archaeology’. He noted that much of the training in Egyptology at universities was simply philological and that little was done in the way of archaeological training.

“In contrast to classical curricula, Egyptological teaching at most universities includes training solely from the philological point of view. This situation necessarily entails consequences of great importance for archaeology. Modern archaeology has become a thorny subject for the postgraduate student. Since universities do not produce archaeologists, archaeological activity is left in the hands of scholars having only a philological background. Some of these have made themselves acquainted with archaeological methods by their own efforts. Others have succeeded in gaining the cooperation of competent archaeologists from neighbouring disciplines, but even so they would have been better prepared if they had already acquired at the University at least the elements of an archaeological training, and we cannot overlook the fact that up to the present time certain excavations are still being conducted by the most antiquated methods” (Bietak, 1979:158-159).

The salient point that Bietak made in this particular quote was that the over emphasis on philological training produced a situation where many of the scholars excavating in Egypt at that time did not have much, if any, archaeological training. This may help to account for the reason why many projects centred on tomb and temple clearance rather than deep stratigraphic excavations. Even those scholars who may have attempted to learn archaeological methods would have been faced with the situation of acquiring many of their practical skills on-site through ‘on-the-job training’. Bietak also pointed out that there were some project directors who obtained the services of competent archaeologists from other disciplines. Though these archaeologists may have been totally competent in their own fields of study and with regard to their excavation skills, it is probable their effectiveness may well have been limited by their lack of knowledge of Egyptian sites and Egyptian material culture.

In my 2006 interview with Bietak I asked him if he believed there had been improvements in the field of Egyptology since he wrote his article in 1979. While he felt progress had been made, there was still more that could be accomplished. I support his contention that the term 'Egyptologist' should not be limited solely to philologists, but must include all those who study ancient Egyptian culture, such as archaeologists and other specialists. In his opinion philology still continues to exert an undue influence on the field, pointing out that most of the Egyptology programmes in European and British universities concentrate upon ancient Egyptian language and texts. He stated that "universities, whether in Europe, Britain or the United States, must provide more training in archaeological methods and theory to scholars intent on working in Egypt" (Bietak, pers. com. 2006).

Ian Shaw however disagrees with Bietak's assessment of the situation. While he admits there may be some European universities whose programmes are still philologically based, a number of universities in the United Kingdom, such as Liverpool, University College of London and Durham 'teach a considerable amount of archaeology in their "Egyptology" or "Egyptian archaeology" degree programmes. (Shaw, personal communication, 2009)' Shaw also suggests that Bietak's continuing view of a philological dominance in academic Egyptology may come partly from his personal observations of European programmes with which he is familiar, but Shaw questions if this accurately reflects the mainstream of European Egyptology programmes. Furthermore, since Egyptology programmes in the United Kingdom are including more archaeological training, he questions if Bietak is perhaps somewhat unaware of the extent of the changes that have been occurring in recent years (Shaw, personal communication, 2009).

The increase in archaeological training in universities as well 'professionally staffed academic departments and museums' has in part resulted in an increasing shift toward the excavation of settlement sites (O'Connor, 1990: 234). David O'Connor (1990: 240-242) has done a statistical analysis of Egyptological publications in order to ascertain shifts in the types of sites that were being excavated. He (O'Connor, 1990: 242) found that in 1924, cemetery archaeology represented nearly 75 percent of the non-monumental archaeology in Egyptological publication (see Figure 1-1). By 1981 and 1982 settlement archaeology had become the dominant focus of Egyptological publication while the of cemetery archaeology dropped to approximately 25 percent (O'Connor, 1990: 242).

Publication	Monumental Funerary (inc, funerary temples)	Archaeology Temples (non-funerary)	Non-monumental archaeology Cemetery	Settlement	Survey
1924	34.1	20.7	30.5	13.4	1.0
1981	36.2	13.0	8.7	23.2	15.9
1982	34.6	17.9	11.5	17.9	17.9
Averages	34.9	17.2	(1924) 30.5 (1981, 82) 10.1	13.4 20.5	1.0 16.9

Figure 1-1: Chart showing the increase in the excavation of settlement sites
(after O'Connor, 1990: 241)

Shaw (2001: 448) updated O'Connor's data to include the years 1989 and 1990 and the result was even more striking. By 1990 settlement archaeology accounted for 44.4 percent of the fieldwork reported in Egyptological publications while cemetery archaeology accounted for a mere 5.6 percent (see Figure 1-2).

Publication	Monumental Funerary (inc, funerary temples)	Archaeology Temples (non-funerary)	Non-monumental archaeology Cemetery	Settlement	Survey
1989-1990	27.8	16.7	5.6	44.4	5.6

Figure 1-2: Chart showing the excavation of settlement sites for 1989-1990
(after Shaw, 2001: 449)

I offer no suggestion here that textual data have become unimportant, but a tremendous amount linguistic and textual work has already been done. The goal of this dissertation is to now propose a methodology to coordinate and integrate this textual information with the increasing archaeological data, especially that which is obtained from settlement sites. The importance of texts to a contextually inclusive understanding of Egyptian material culture will certainly be noted and developed where appropriate.

The current state of field methodology and suggested improvements

The purpose of the interviews was to gain an idea of the current level of archaeological methodology used in Egypt, from practising Egyptologists. I wanted to get a perspective on how archaeology had been practised in the 1930s through the 1970s and was graciously granted an interview by letter by Professor Harry S. Smith. I asked him if there was anything

he recalled as being specifically memorable about how archaeology was done at the time he first started to work in Egypt? He stated that during his early work with Emery, he was impressed with the value that Emery accorded archaeological drawing and planning as well as his ability to work with and rely on the abilities of his Egyptian workmen, by whom he was revered. Since he knew Emery's work intimately, I asked him if there was any specific part of Emery's excavation methodology that he particularly found interesting or innovative. He replied that Emery was certainly ahead of his time as a graphic illustrator of ancient Egyptian architecture, especially in regard to mud-brick structures. Otherwise, Emery used excavation techniques that were standard for cemetery archaeologists in the period 1920-55 (pers. com. 2006).

What is amazing about Smith is that he seems to have readily accepted the need for innovation and progress within Egyptology and has a unique perspective on current work in Egypt. According to Smith, there has been much improvement, both in method and theory since his time working in the field. Even so, he believes that archaeology in Egypt still lags behind in the methods used in the rest of the Middle East, Europe and the United States (pers. com. 2006).

Archaeologist and ceramics expert, Janine D. Bourriau tends to agree. Archaeology in Egypt was not well done in the past and she believes that there has been some legitimacy to criticisms that archaeologists working in other areas of the world have levelled at Egyptology. She quickly added that while archaeological technique was poor in the past, such is not the case today. She specifically pointed out the work of Barry Kemp, David Jeffreys and Lisa Giddy as examples of how archaeological work is being done in a proper fashion (pers. com. 2005).

According to American Egyptologist, Betsy Bryan, the overall methodology has improved over the years and she agrees with my contention that archaeology as practised in Egypt has generally matched the standards of other parts of the world at least in regard to the larger, better funded projects. The problem she sees is that there are smaller projects or ones without proper funding that are problematic. She agreed with my statement that the situation with smaller, less well-funded projects in Egypt was similar in many ways to the problems encountered on some cultural resource management projects in the United States where archaeologists can only try to do the best job they can contingent upon the time and money

allotted for the project. She pointed to the example of the well-known tomb KV65 where such problems existed, but did state in fairness, that the decision to continue opening the tomb was somewhat dictated by the fact that the tomb could not easily have been protected from decomposition or looting once it had been discovered (pers. com. 2006).

Philologist Stephen Quirke (pers. com. 2007) remarked that the best of the fieldwork done in Egypt is indeed very good. He seconds the opinions of the forgoing scholars that there is unfortunately still too much substandard work being done. When asked what needed to be done to move the field forward he replied that risk assessment is going to become increasingly important, not just from the standpoint of choosing what projects are most in need of attention, but also from considering the risk to the site from archaeological work itself. Furthermore, archaeological survey is going to become increasingly important (Quirke, pers. com. 2007).

Bourriau (pers. com. 2005) would like to see better methodological training for field archaeologists. While she feels that strides have been made in recent years towards this end, more needs to be done. It is not only that archaeologists need to know better methodological practice, but they also need to have better knowledge of Egyptian material culture. Along with this, specialists need to spend more time in the field working directly with the excavators, not only to aid in supplying information, but to more closely understand the contexts in which artefacts are found (Bourriau, pers. com. 2005). French (pers. com. 2005) strongly seconded Bourriau's comments. Bryan (pers. com. 2006) believes that the Supreme Council of Antiquities has a very important role to play in this in that they should improve the supervision of projects to assure that they have the funding, crew, specialists and archaeological expertise necessary to handle the requisite work.

As I noted above, much work in Egypt has historically dealt with tomb clearance, which has little impact on the improvement of excavation methods. Smith (pers. com. 2006) asserts that increased emphasis needs to be placed on the excavation of urban, agricultural and industrial sites and that the results and information needs to be compared and integrated with that of Nubian/Sudanese sites as well as those sites in other parts of the Middle East. However, as O'Connor (1990: 241-242) and Shaw (2001: 448-449) have shown, the needed shift of focus to settlement sites has already largely happened. Older archaeological work needs "cool

reappraisal” and there should be intensive analysis of both textual and archaeological sources employed to this end (Smith, pers. com. 2006)

Not surprisingly, Bietak holds that the excavation of settlement sites is going to become even more important than it already is. It is this type of archaeology that will lead to better field techniques. Still, better interpretation of sites must go hand in hand with improved field methodology. One of the things he believes may be hindering interpretation is that there are not enough specialist experts available to deal with the volume of materials that are recovered from excavations in Egypt. More are required, and Bietak echoes the sentiments of Bourriau and French in his call for increased on-site participation of specialists. The importance of statisticians is often overlooked in his opinion and should be employed for interpretive purposes on Egyptian sites (pers. com. 2006).

The foregoing opinions have been expressed by scholars who have well-established reputations and have been doing fieldwork for many years. Two scholars who represent a more recent generation of Egyptologists are Joanne Rowland and Penny Wilson. Rowland is currently Research Fellow in Egyptology/Archaeological Science at the University of Oxford. Her university training has been primarily archaeological although Egyptian language was part of her bachelors and Masters work. In the field, she has recently been directing ‘The Minufiyeh Archaeological Survey’ which has already run for five seasons with a further two seasons planned.

Wilson is a lecturer in Egyptology at the University of Durham whose specific degree training was primarily linguistic and philological, although she estimates about 25 percent of her university training have been archaeological. She is experienced in archaeological fieldwork and is the current field director of excavations and survey projects which have run since 1997 and which will probably run through another two years.

Regarding the current state of archaeological methodology in Egypt, Rowland (pers. com. 2010) suggests that the quality of work within Egypt is still quite variable, but positively notes that projects are becoming more of a more multidisciplinary with increasing numbers of specialists working on excavations and surveys. Furthermore, the SCA has improved the situation by requiring curriculum vitae for all excavation project members and requiring publications to be done in a timely manner. The biggest improvement to Egyptology, in her opinion, would come from increasing better communication among archaeologists working in

the field and more use of the Egyptian Antiquities Information System by the different projects working in Egypt.

“It is important that we work with colleagues out of Egypt as well as within so we keep being exposed to new theories/methods in wider archaeology, and it is important that we see that students coming through undergraduate and graduate degrees are instructed in appropriate methods for use in Egypt” (Rowland, personal communication: 2010).

Rowland (pers. com. 2010) employs specialists including archaeobotanists, ceramicists, osteologists, geologists, geophysical surveyors, zooarchaeologists, conservators, lithic specialists, as well as draftsmen on her projects. Osteologists spend most of their time in the field as does the geophysical surveyor, geologist and lithic specialist. The ceramicists and conservatories spend most of their time in the lab. While she always includes specialist information in her reports to the SCA and in her fieldwork reports, she places them in their own sections in both her published and unpublished reports (Rowland, pers. com. 2010).

According to Wilson (pers. com. 2010) archaeological methodology in Egypt is inconsistent on a country-wide basis and requires more standardised recording, documentation, storage of finds, conservation and access to analysis applied to projects throughout Egypt. She cautions however, that the different types of environments within Egypt, coupled with the excavation methodologies, finds processing and research goals of the various projects make this difficult to achieve. In her opinion, the SCA could be very helpful in pursuit of this goal by requiring more standardisation (Wilson, pers. com. 2010).

Like Rowland, Wilson (pers. com. 2010) also employs specialists including geologists, resistivity survey experts, botanists, soil specialists, zooarchaeologists, osteologists, ceramicists, lithic specialists, and the archaeological illustrators. Whether the specialists she uses work in the lab or in the field depends on their specialty. The ceramicists and other analysts work in the lab while surveyors would work in the field. In her preliminary reports she normally provides separate specialist reports, but in her final reports she integrates specialist reports into the main discussion “to create a more holistic account” (Wilson, pers. com. 2010).

Site interpretation and suggestions for its improvement

In his forgoing comments, Bietak makes an important observation that improved interpretation of the archaeological evidence must accompany improved field methodology. When asked about whether archaeologists currently working in Egypt are paying enough attention to interpretation, Smith had this to say:

“I think that most archaeologists working in Egypt try to interpret their sites in terms of current knowledge of Egyptian history, culture, society, anthropology, technology, etc., though current preoccupations and fashions in archaeology often mean that these interpretations are highly specialist in character, and do not necessarily get integrated into a general picture. Egyptian archaeology comes under very heavy criticisms from those theoretical ‘world’ archaeologists (often from backgrounds in prehistory) who see it as inward-looking, oblivious of other cultures and more particularly of new archaeological ‘concepts’, deriving much of its interpretation from 19th-20th century theories embodying ‘imperialist’, ‘racialist’ and other cultural biases (as an example see the ‘Encounters With Ancient Egypt Series’ published by UCL Press). While there is some truth in these views, I still believe that Egyptian sites should (and could) be primarily interpreted in terms of our empirical knowledge of Egyptian culture, to provide a sound basis for comparative work” (pers. com. 2006).

In his answer, Smith does acknowledge that there has been criticism from other more theoretical branches of archaeology concerning the way in which archaeological interpretation is applied to Egypt, but he prefers interpretations to be grounded more on empirical evidence than in theory. Smith is not eschewing all theory, only that the conglomerate knowledge and evidence we possess should be the basis of our interpretations.

Bryan (pers. com. 2005) too, recognises a general reluctance on the part of Egyptologists to engage in theoretical considerations. As with most of the scholars I interviewed, she does not design her fieldwork strategies at the Precinct of Mut near Luxor based on a particular theoretical standpoint. She agrees that there has been criticism of Egyptology and its perceived over-dependence on texts and that some of the criticism has again, not been unwarranted. However, this criticism may actually have created an unintended reaction. Bryan (pers. com. 2005) suspects that the criticism of Egyptology by those branches of archaeology that “depend on and defend the use of theory have had a deleterious effect on the willingness of Egyptologists to adopt theory”. Scholars researching prehistoric cultures have depended heavily upon archaeological theory, concepts often borrowed from other social sciences, for their interpretations in the absence of written records. Although Egyptologists

have perhaps depended too much on textual sources in the past, shifting the interpretive focus to theoretical considerations may not be an entirely comfortable transition, but perhaps the explanation could be as simple as the reticence of Egyptologists to adopt interpretive theory from archaeological theoreticians that have been perceived to have offered much in the way of criticism and little in the way of constructive assistance.

This begs the question as to what needs to be done in regard to improving site interpretation. Ellen Morris (pers. com. 2006) makes the simple statement that the most important improvement to archaeological interpretation in Egypt she can recommend is to increasingly use the greatest number of data sets possible when making interpretations. Redford (pers. com. 2005) takes a more traditional view and sees the need for archaeologists to learn and practise better field methodology before theory can be advanced in Egypt.

Smith (pers. com. 2006) concurs. He believes that field techniques need to improve to the standards used elsewhere. Shifting away from the historical emphasis on 'cemetery archaeology' toward settlement sites would be a positive improvement in Smith's (pers. com. 2006) opinion, but as previously noted, this shift has already occurred for the most part (see O'Connor, 1990 and Shaw, 2001). Surveys of all types, including geophysical, subsoil and pedestrian, need to be encouraged, but these must be followed by the excavation of large settlement sites if they are truly going to supply their full informational value (Smith, pers. com. 2006). Smith does question whether this scenario is possible at the moment. He states that it is "doubtful whether political and environmental attitudes in Egypt will allow this, and also whether (in Britain, at least) adequate finance will be available" (pers. com. 2006).

In regard to the opinions of these scholars, it seems there is a real need to produce an integrated system of archaeological research that includes improvements of field methodology, increasing the number and types of archaeological data sets used for interpretation and the use of amalgamated theoretical concepts if Egyptology is to become a leader in the broader discipline of archaeology. This may become a critical need sooner than expected. As Quirke (pers. com. 2007) opined, "The increasing cost of fieldwork, the discretionary priorities of the Supreme Council of Antiquities and the concern for environmental issues associated with travel to and from Egypt, may necessitate interpretive work on the evidence we already possess becoming the wave of the future". I suggest that, while there is always room for improvement, much of the archaeological field methodology

used by many of the university-led teams excavating in Egypt is generally of good calibre. Therefore, it seems reasonable to concentrate on interpretive aspects. The system I envision will employ numerous archaeological data sets, including texts, in conjunction with the pluralistic use of archaeological theories in order to produce interpretations of Egyptian sites.

Rowland (pers. com. 2010) believes that Egyptology is still lagging behind other branches of archaeology, but that much change has taken place in the past 10 years. She notes that at both student and mainstream conferences she has attended that there is much more interpretive theory being offered in the presentations. While she believes interpretive theory is important in regard to how archaeologists approach data and their research designs she considers it wise not to over emphasise the importance of theory to the detriment of examining raw data.

Rowland (pers. com. 2010) does not explicitly used as any particular theoretical position in her survey work, but she has examined social development, spatial analysis and wealth distribution in burials using theoretical models. In her work at Minufiyeh she does consider the impact of landscape and site placement as well as population migrations, but not from any particular theoretical position.

Wilson (pers. com. 2010) disagrees completely with the contention that archaeology in Egypt has lagged behind other branches of archaeology. In fact, she posits that archaeology in Egypt is actually a bit more advanced than in some places such as Greece. Since the advent of post-processual archaeology she believes that theoretical interpretations are now perhaps more explicit than in the past and texts provide Egyptologists a certain advantage not available to prehistorians. She admits that, the abundance of textual information in Egypt has perhaps impeded the fullest exploration of theoretical interpretations of material culture, but in her opinion, Egyptology is good position to do so as long as 'strong boundary markers' exist to regulate over extrapolation. In regard to her own projects, she does not approach them from any particular theoretical position or positions other than that she wants to be as holistic in her interpretations as possible. In this sense it does influence her research designs and excavation strategies.

CHAPTER TWO

A Pluralistic Contextual Approach

Processualism or Post-processualism?

The processual/post-processual debate

The previous chapter provided an overview of Egyptology in the 20th century that was compared to the development of theoretical archaeology in Europe, Great Britain, and the United States. From this comparison, it is apparent that archaeology as practised in Egypt was largely unaffected by the theoretical considerations that were involving in other fields of archaeology, especially that of prehistory. This state of affairs was pointed out in 1979 by Dr Manfred Bietak and the question was revisited in 1997 by Dr Lisa Giddy who concluded that there had not been much theoretical progress in Egyptology since Bietak's original 1979 article. Mainstream Egyptological publications, such as the *Journal of Egyptian Archaeology*, tend to verify this view although a search of publications other than the readily apparent ones indicates that theory may not been as neglected as first glances would suggest. Shaw's (1992) article on 'Ideal homes in ancient Egypt: the archaeology of aspiration' published in the *Cambridge Archaeological Journal* is explicitly theoretical in nature. More recent examples of theoretical articles include Savage's (2001) 'Some recent trends in the archaeology of Predynastic Egypt', published in the *Journal of Archaeological Research*, and Wengrow's (2001) 'Rethinking "cattle cults" in early Egypt: toward a prehistoric perspective', published in the *Cambridge Archaeological Journal*. As I have previously stated though, Bietak does not suggest that no progress has been made, but that he believes there is still much that needs to be done before a theoretically integrated approach to archaeology in Egypt is realised (Bietak, 2006: personal communication).

Processual archaeology, or "New Archaeology", arrived on the theoretical scene in the early 1960s and was a driving force for nearly twenty years. New archaeology rejected the culture history paradigms and, frequently, normative approaches that had been traditionally used in archaeology in the preceding decades (Sabloff, 2005: 213; Bintliff, 1995: 24; Hodder, 1986: 1; Trigger, 1989: 297). Scholars such as Lewis Binford, dismissed the idea of historical content in favour of positivism, science, anthropology, systems theory and the search for

over-arching covering laws that could be used as universals for understanding ancient cultures (1962: 217, 224; Feinman and Price, 2001:480).

According to Trigger, the attempt to abandon traditional culture history approaches in archaeology by the proponents of the 'New Archaeology' created a polar situation within the field of archaeology that appeared "...to be a dramatic break with the past rather than a continuation and intensification of the functionalist and processual trends that had been developing in American and Western European archaeology since the 1930s" (1989: 295). Dr. John Bintliff (1995: 24) noted that this "polarisation" had been recognized as early as 1971 by Evzen Neustupný in his article "Whither Archaeology?" published in *Antiquity* (Neustupný, 1971).

By the early to middle 1980s, processualism had been established for 20 years and certain archaeologists, among them Ian Hodder, Daniel Miller, Michael Shanks, Chris Tilley and Mark Leone (Hodder, 2005: 207), recognized what they felt were short-comings within the 'New Archaeology', which led them to offer critiques of processualism and its failings. In many ways, just as processual archaeology had attempted to jettison the culture historical and normative approaches that preceded it, post-processual archaeology, especially that influenced by Marxist ideology, generally advocated the abandonment of the search for over-arching systems theory and positivist approaches used in processual archaeology (Trigger, 1989: 339) in favour of interpretation, symbolism, ideology, cognition, historical considerations and agency (Feinman and Price, 2001: 480; Hodder, 2005).

If one looks at the current situation from a merely superficial point of view, it is not difficult to perhaps conclude that processual archaeology is dead and has been superseded by post-processual archaeology. There are scholars who suggest that the situation of "theory replacement" has very much been the case historically. Alexander H. Joffe states:

"Indeed, archaeological theory as a whole is a proverbial case of chutes and ladders, with each succeeding generation apparently determined to slide back down to the bottom and start over again, this time with a presumably new and improved set of the epistemological rigging. Why is this still happening almost 2 centuries after archaeological pioneers like Worsaae and Thompson, sixty years after Collingwood and Childe and, fifty years after Taylor, thirty years after Clark, and fifteen years after Shanks and Tilley?" (2003: 84).

In fact, Bintliff charges that archaeological theorists have consistently engaged in “theory replacement” rather than in theory modification (1995: 29) and emphatically states that the very term, “post-processual” “... immediately serves to write off as redundant all those working in a New Archaeological framework who refuse to adopt the Hodder (Shanks-Tilley) agenda...” (1995: 26) (Also see Baines and Brophy, 2006: 70). This immediately begs the question: Is processual archaeology really dead? It is certainly not in the minds of scholars such as Binford, Renfrew, Sabloff, Bintliff, Kristiansen and others. All of these scholars continue in the processualist tradition, albeit in various modified forms. Thomas states that:

“This is not to imply that processual archaeology has become a thing of the past, and is no longer practised. Rather, the period since the early 1980s has seen the development of a variety of perspectives which are either critical of processual archaeology, or build on its foundations in ways which were not originally imagined” (Thomas, 2000:2).

It should be quite clear that both processual and post-processual archaeology have their devotees and that these two approaches are still in competition with one another.

At this time, post-processual archaeology itself is over twenty years old and just as with the approaches that preceded it, it too has garnered criticism and endured theoretical changes. An example of such criticism and revision would be the initial interest shown by post-processualists in structuralism and their subsequent disillusionment with structuralist approaches by the late 1980s (Whittle, pers. comm., 2004). It should be apparent that both processual and post-processual approaches have, by this time, been criticised by one group of scholars or another as being flawed or incomplete. In the next two sections, I intend to provide a survey of the common criticisms of both processualism and post-processualism. The point of providing such a survey is that, while processualists and certain post-processualists often advocate holistic approaches to the study of culture, a concept that I will cover in greater detail later in this chapter, it demonstrates that none of the theoretical approaches contained within either processualism or post-processualism can account for every single aspect of any culture. By providing a survey of the criticisms of these two approaches, and evaluating the validity of those criticisms, I believe it possible to select the most viable and useable points of both approaches and develop an interpretive methodology that moves beyond these two extremes.

Hodder's five criticisms

Hodder has provided succinct five point criticism of processualism in his 1992 book, *Theory and Practice in Archaeology*:

1. The dichotomy set up between cultural form and objective functional expedience is misleading, and material items are more than tools holding survival information.
2. The functionalist viewpoint is unable to explain cultural variety and uniqueness adequately.
3. Social systems become reified to such an extent that the individual contributes little.
4. The cross-cultural generalisations which have resulted from functionalist studies by archaeologists have been unable to identify valid statements about social and cultural behaviour because the relevant context is insufficiently explored.
5. Different levels or types of hypothesis have been identified, but in fact all hypotheses are and should be integrated within a coherent social and cultural theory (Hodder, 1992: 101).

According to Hodder, the processualist dichotomy between form and functional expedience created an overly narrow explanation of the importance of material culture. As a result, Hodder posits that "New Archaeology" has actually hindered explanation in archaeology because it creates a polar conflict that places considerations of history and symbolism at one end of the spectrum as opposed to process and function at the opposite end (1992: 48). Artefacts possess more than simple functional importance, but also are repositories of cultural symbolism and information.

Furthermore, Hodder suggests that processualists see artefacts functioning in a fashion that facilitates the smooth operation of a cultural system. Processualists consider artefact variants that do not facilitate this goal as epiphenomenal and thus, of little value to the cultural system (1986:7). Marcia Ann Dobres supports Hodder on this point and suggests that, in their quest to reject normative historical and descriptive approaches, early processualists were trying to understand the causes of common patterns they found in the material culture and attempt to explain such patterns through conceived models of functional adaptation. Processual archaeologists ascribed any variability in those patterns as resulting from the need to adapt living strategies to specific environmental or "material conditions" (1999: 12). By

considering as epiphenomenal and unimportant any artefact variability that does not appear to facilitate the operation of the proposed overarching systems, it effectively discounts the importance individual human choices and decisions in regard to producing culture.

Hodder's second criticism seems to follow directly on his first. I suggest that his particular criticism here is actually two-fold: first, that functionalism is mistakenly seen by processualists as an all encompassing explanation for cultural variety and second, that as a result of this view, processualism is quite inflexible. To Hodder, considerations of symbolism cannot be ignored when drawing inferences about the material culture (1986:3). The salient point here is that, if all artefacts possess symbolic attributes, such attributes cannot be disregarded as they provide an integral interpretive dimension of the material culture on which archaeology is based.

I suggest that part of the reason symbolism and ideology were not initially considered important to early processualists is possibly attributable to their belief in the efficacy of practising archaeology using scientific positivist approaches. In a sense, it is conceivable to scientifically test the functionality of artefacts, but how does one use scientific positivism to adequately test material culture for symbolism or ideology, especially with a prehistoric culture?

A second part of this criticism hinges on the narrow explanatory approach of processualism. While Hodder acknowledges the contribution of New Archaeology to the development of more scientific methodologies, he criticises the general inflexibility of processualism (1986: 4). Hodder's problem with the processualist view is that it reduces the explanation of every aspect of culture to environmental adaptation that can be almost mechanically ascertained by scientific methodology. It does not recognize that there is complex social interaction between humans and material culture, which in turn affects how human culture is constituted. Hodder is correct in his assertion that environmental adaptation simply does not explain these complex relationships. Sabloff, a well-known processualist, admits that Hodder is correct that while archaeological research became more rigorously scientific as a result of processualism, it had a marked tendency to ignore "detailed explanatory modes" (Sabloff, 2005: 216).

In regard to Hodder's third criticism, processualists view systems of all types not as metaphysical concepts, but almost tangible realities that control human destinies. Individuals

are controlled by the various systems behind their cultures, which Hodder suggests results in individuals being avoided in processual archaeology and argued out of social theory. In support of this contention, he cites an article written by Flannery (1967), who clearly stated he was not interested in what artefacts could tell us about the people who made and used them, but in the systems behind the artefacts and the individuals (Hodder, 1986: 6-7).

This idea that systems drive individuals who have little or no power to influence their cultures is a prime example of the determinist and holistic content of processualism. Deterministic holism, as shown by Karl Popper (1957) and James Bell (1994) whose views I will cover in more detail later in this chapter, does not admit any real possibility for the impact of human agency on culture.

Hodder also highlights another limitation of functionalist systems in that functionalism discounts to a great extent “individual creativity and intentionality” (1992: 98-99). He rejects this view as an inadequate way of explaining social systems and changes within them. He states clearly that he is not trying to identify particular individuals in ancient cultures, but emphatically states it is imperative to recognize that the decisions and choices of individuals do decisively impact those cultures (Hodder, 1992: 99). As a result, one of his prime objections to processualism is that it portrayed man as ‘passive’ and controlled by laws. This led to a situation where the technological level defined the culture. This was, according to Hodder, a specifically “western” way of looking at the culture (1993: 130-131).

In his fourth criticism, Hodder asserts that processualists believed material culture reflected human behaviour in that the production of material culture would be controlled by the needs of humans to adapt to their surrounding environment. However, based on fieldwork he did at Baringo, Kenya, he was able to show that not only was material culture frequently not a reflection of human behaviour, but that it was a transformation of that behaviour (1986: 2). Artefacts may partially explain the behaviours of ancient individuals, but artefacts also influence the reasons humans choose to engage in certain behaviours. There is an ongoing interrelationship between humans and the artefacts they create. This is not to suggest that because a certain type of artefact exists, that it drives people to engage in certain activities. Still, the existence of a particular artefact may impact upon how an individual chooses to accomplish a particular activity (Robb, 2004: 131-139).

Another part of Hodder's criticism here is that 'science and cross-cultural generalization' caused a growing gap between theory and practice. In other words, theory never seems to be applicable to the actual fieldwork (1993: 130-131). The construction of a contextual or cultural archaeology, in Hodder's opinion, was an attempt to close that gap and a reaction against "rigid logico-deductive" methods and "the discovery of predictable law-like relationships" (1992:117).

The last of Hodder's criticisms is, in a sense, an answer in itself. Hodder gives credit to processualists for recognizing the existence of "different levels and types of hypotheses". One could cite Binford's advocacy of using middle range theory as a tool to link low range archaeological data to high range general system laws as an example of his awareness of gradations of theory and hypotheses. Hodder simply advocates using "cultural and social theory" as a necessary adjunct to the testing of those hypotheses as an improvement.

According to Sabloff (2005: 214-215) the biggest problem confronting processual archaeologists was the question of how to explain the archaeological record and the behaviours of the people who created that record. Their answer to the problem was to employ middle range theory, which attempted to tie together high range theory and the archaeological record. Processualists also championed the use of ethnology (Sabloff, 2005: 214-215). I would point out that a conceivable danger of employing ethnological approaches is that it is possible to assume that the motivations of a modern group under ethnological study for doing any particular cultural action were the same as those for cultures in the ancient past. This may not be a valid assumption and, along with the generalizations implicit in ethnographic comparisons, may be part of the reason why some post-processualists have questioned the value of ethnographic study (Gosden, 2005: 99-100).

Other Criticisms

Hodder's five criticisms provide a good starting point from which to critique processualism, but there are certainly other related problems, many of them also pointed out by Hodder, that should be mentioned as well. The first among these is that processualism historically did not build upon past archaeological accomplishments, but largely rejected that which had gone before. As noted at the beginning of this chapter, Sabloff (2005: 213), Bintliff (1995: 24) and Trigger (1989: 297) all wrote about processualist attempts to cast their work as a major

departure from normative and history based archaeology. Hodder as well, criticises New Archaeology for rejecting much of what culture history had to offer and that archaeology needed to reincorporate many of those considerations before archaeology could advance (Hodder, 1986: 1). Certainly, typologies of material culture that were compiled over the years by culture historians can still have their uses as does history.

Linked to the rejection of culture history approaches was the processualist attempt to cast archaeology as part of other fields, such as anthropology or natural science. To Hodder, this had the effect of retarding the theoretical development of archaeology as a discipline in its own right (1986:1). Dobres (1999, 18) makes a similar criticism about processualism retarding the development of theory by saying: "... there are precious few methodological solutions to what are essentially epistemological issues of interpretation. Thus, I agree with the argument that analytic methods are not the solution to interpretation".

A second shortcoming of processualism is that it paid scant attention to the importance of history. New Archaeology reacted against traditional archaeology because it specifically engaged in culture history and normative approaches. Processualists, such as Binford (1992: 96-97), rejected such normative approaches because they were "historical and descriptive, not allowing explanation in terms of functional process". Because processualists view material culture and explain its variations from the standpoint of adaptation to environment, they see little reason to place culture within an historical context.

Hodder critically asserts that it is imperative to examine not only the historical contexts in which the artefacts were produced and used, but also the cultural meanings from current historical contexts (1986: 11). Cultural meaning has changed greatly over time and functionalism alone does not supply us with the kind of understanding of cultural meaning that is possible through an examination of the "immediate historical context" of those cultural meanings. Furthermore, looking at the context in which the artefacts are found and the history of that context is an approach that can give us a solid basis for interpretation (See Hodder, 1992: 98). Hodder correctly points out that human culture is "historically derived" and hence, unique. As a result, the historical sequences of those cultures must be taken into account (1992: 98).

The third general objection to processualism is that many of its practitioners, at least early on, believed that scientific positivism could be used to build essentially complete, accurate reconstructions of ancient cultures and their histories. Kohl cites one of the more extreme examples of this perspective from a 1972 article by Leone who said, "... the reconstruction of events in the past is nearly complete; it offers little in the way of challenge today" (Leone, 1972: 26). Statements such as the preceding tend to support Kohl's claim that scientific positivist approaches are most certainly flawed (1993: 18).

According to Joffe (2003: 79-80), processualists, especially in the United States have historically engaged in low-level functionalist interpretations of the material culture in order to postulate high-level, scientific, generalised covering laws to explain the causes and motivations for behaviours and changes to those behaviours within cultures. He suggests that the production of these generalised covering laws may well be based on extrapolations beyond that which the archaeological record suggests. For Joffe (2003: 79-80), such an approach implies that because something is scientific, it is automatically a more valuable way of understanding ancient societies. Yoffee and Sherratt admit processual archaeologists who have spent time specifically focusing on the production of overarching cover laws have only ever made trivial observations (1993: 4).

Trigger asserts that post-processualists reject the 'logico-deductive' positivism (1989: 319; also Hodder, 1992: 117) of the processualists that suggests that only those things that can be known through the senses and tested can constitute real knowledge. Subjective factors influence interpretation and no archaeologist is objective. This is ignored by the processualists who believe that any subjectivism can be edited out of the mix by employing positivist scientific methods and approaches and a "morally neutral code of science" (Trigger, 1989: 407). Hodder objects along similar lines saying that processualist attempts to make archaeology scientific have created an illusion of 'neutral' knowledge, when in fact all data and interpretations have social and political ramifications (1993: 130-131).

A fourth potential criticism of processualism is its commitment to holism. According to Sabloff, processualist archaeologists have advocated the need to regard culture holistically. That is to say that culture is made up of interrelated systems and it is necessary to study all of the systems in order to properly understand an archaeological culture. The reality is that the majority of processualists have narrowly focused on "the relationships between environment,

technology and economics and very little at all to ideology and religion and their interconnections with other aspects of culture" (Sabloff, 2005: 216).

New Archaeology, Hodder explained, tried to accomplish the goal of applying a scientific approach to access all parts of culture. It did shed new light on topics such as subsistence patterns being tied to the surrounding landscape. Even so, little time was spent researching social relationships and concern for symbolism and ideology was just about non-existent. According to Hodder (1992: 11), archaeologists working in the processual tradition believe that archaeological data could only be analysed from the standpoint of "Western science".

Processual archaeology as a tool of middle class capitalism?

One of the criticisms levelled at processualism by Trigger in his 1989 work on the history of archaeological theory was that processual archaeology was, perhaps unwittingly, a 'tool' of American middle class political goals and capitalism (1989: 313-315). Meskell may be a bit more charitable in her assessment of this claim when she states that processualists were:

"...interested in identifying social factors in the past, but were significantly less focused on the subject of nature of their interpretations and upon the social impacts of their research in contemporary settings" (Meskell, 2005: 36).

In the above statement, Meskell apparently supports the idea, following Trigger's line, that processual archaeologists were not aware that their observations were not objective and that their work was being used to promote middle class Western capitalism.

The question is: was processualism really as much a tool of middle class capitalism as has been charged by scholars such as Trigger and Meskell? From personal anecdotal evidence, on the local levels that I experienced, I would say not. Most of the archaeologists with whom I worked in the United States during the late 1970s and early 1980s in both academia and the professional realm considered themselves anthropologists who were non-judgemental about any culture other than their own, were very politically liberal and were exceedingly critical of both the middle class and capitalism. I might add that processualists such as Leone (1987: 283-302), and others influenced by him, specifically espoused Marxist approaches to archaeology. If, as Trigger and Meskell suggest, processual archaeology was used to support western, and more specifically United States political and economic agendas, it was

unquestionably not the intent of those scholars and field archaeologists who produced such works.

Criticisms of post-processualism

As stated in the beginning of this chapter, both processual and post-processual archaeology have engaged in 'theory replacement' and have had a tendency to dismiss as flawed the work of previous schools of thought in archaeology (Trigger, 1989: 295; Bintliff, 1995: 26; Feinman and Price, 2001: 480; Hodder, 2005; Baines and Brophy, 2006: 70). Bintliff makes the claim that post-processualism is no less guilty of this than processualism was and this has had the effect of restricting scholarship. Leading figures, such as Hodder, Shanks, Tilley and others have emerged to dominate academic discussion in the same way that Binford and the like did for processualism. This has resulted in what Bintliff terms "bibliographic exclusion" where students and new scholars, in order to gain credibility in the post-processual movement, must cite the popularly acclaimed sources and research currently popular topics (Bintliff, 1995: 26).

In Bintliff's point of view, all of the most important facets of post-processualism fall within the realm of post-modernism, which he sees as having resulted from modern Western political and economic changes that have taken place over the last 30 years or so (Bintliff, 1995: 26). He specifically notes that three of the most "appropriate research topics" in post-processualism are gender, ethnicity and power. Bintliff in no way suggests that these are not legitimate topics for research, but that they can be investigated to a deeper understanding than what post-processualists have done.

In regard to gender, Bintliff states that while post-processualists focus on human culture to explain human behaviour they reject biological criteria and functionalism. Such exclusions limit the "analytical apparatus" to understand the origins and continued existence of gender inequality. According to Bintliff, post-processualist research on gender has established the existence of historic inequalities, but has contributed little to the further understanding of why those inequalities exist (Bintliff, 1995: 30).

Bintliff is similarly critical regarding post-processual studies of ethnicity. Multivocality is a watchword among post-processual archaeologists, but does this "requirement" restrict

research to political correctness? Multivocality may be one legitimate approach to ethnicity, but Bintliff (1995: 30) would rather research topics such as “the comparison of “official” coherence and actual cultural variety, how “tight” and closed supposed ethnic communities over time and space, the relationships between biological variance and cultural variance, and the relationships between language, culture and biology”. For Bintliff (1995: 30), the problem is that, while he considers a wide range of approaches such as these to be essential for studying ethnicity, they are fairly much ignored by post-processualists in favour of multiculturalism.

Post-processual views about power and the nature of power also have restrictive qualities. Some post-processual social archaeologists suggest that archaeology can and should be an avenue for promoting social change. Bintliff's (1995: 31) position is that archaeology has very little chance of ever being able to achieve that and thus, possibly out of a sense of frustration at this realization, social archaeologists do little more than engage in “deconstructions of the past” that conflate “all human relationships to forms of domination” and “power games”.

Bintliff may be a bit sharp with his criticisms, but they reflect his views concerning the shortcomings of post-processualism in the mid 1990s. Certainly there have been some advances in post-processualist views. Smith's study of ethnicity in Upper Egypt (2003) is an excellent example. Even so, Bintliff's remarks provide a definite critical view of post-processualism.

Another criticism of post-processualism that seems to dovetail on those criticisms of Bintliff is the lack of historical continuity in theory. Yoffee and Sherratt (1993: 1) point out that post-processualism dismisses processualism as theoretically “misconceived” and flawed because it concentrates on behaviour, function, positivism and evolution rather than on cognition, structuration, individuals, symbolism and ideology. As a result, post-processualists suggest the only “theoretically sound” archaeology is post-processualism. As a matter of fact, Yoffee and Sherratt (1993: 6) assert that post-processualists deny the importance of adaptive functionalism in regard to culture or material culture and further deny there are any valid or successful empirical methodologies for interpreting the past. They go further to say post-processualists, in their zeal to refute “scientism”, have basically ignored the importance of

scientific analysis in archaeology and, in doing so, have created a skewed version of processualism against which they can differentiate their views (1993:5).

Kristiansen (2004a: 93-94) advances the criticism that post-processualists have generally rejected the use of comparative cultural history and ethnohistory, focusing instead on the “interpretive role of archaeologists”. In doing so, they have left themselves without the benefit of historical considerations that would mitigate the possibility of them producing faulty, Romantic interpretations of the past. Kristiansen (2004a: 93-94) believes such a situation is epistemological flawed.

Another one of the features of post-processual archaeology that has been criticized is that its practitioners have a penchant for looking to other academic fields, such as philosophy, sociology, literary studies and so on to supply useful theoretical positions from which to view and interpret material culture. Indeed, Joffe has stated that archaeology, post-processual archaeology in particular, really has no theory of its own (2003: 86). The implication here is that the practice of looking to other disciplines to supply useful theoretical concepts inhibits the development of truly archaeological theory. Yoffee and Sherratt suggest that post-processualist interest in “theory mining” from other disciplines instead of looking inward to archaeology has intensified the processualist/post-processualist split (1993, 5).

Critics also question the appropriateness and applicability of theories borrowed from other disciplines. Nicole Boivin points out those post-processualists in Britain have a long history of ignoring materiality in favour of “ideas and symbols”. She finds this state of affairs strange since material artefacts, not ideas or texts, comprise the main source of archaeological data. It is her position that, since considerations of the material world figure so little in academic fields such as anthropology, sociology, linguistics, philosophy and so on, theories derived from those fields really contribute little to our understanding of the “actual materiality of the world” (2004: 69).

A good example of the questionable use of ideas from outside archaeology is the concept of viewing culture and cultural materials employing textual models. Torsten Madsen agrees with Hodder (1986) that it is possible to read material culture as a text in currently observable live contexts, but states that this is extremely difficult to do from the archaeological record. For one thing, the archaeological record is nearly always incomplete and it is not possible to

study the actual, live culture. It is therefore impossible to recover and account for all of the possible relationships that placed those artefacts in those specific contexts. Consequently, textual readings of the archaeological record could easily lead to imagined interpretations (1995: 16).

A further criticism, as Boivin points out, is that the relationship of material culture to its signifiers is not as arbitrary as post-processualists favouring textual models suggest (See 2004: 63-64). Material objects derive their importance from their use by embodied agents and thus have symbolisms anchored on both that which is material and biological. Therefore, textual models that emphasize shifting meanings of symbols and signifiers of texts are not appropriate as models for the interpretation of material culture since they ignore the role of the body in determining symbolism (2004: 63-64).

Textual models also concentrate on “meaning in archaeological interpretation” and in doing so, perpetuate the empirical/intellectual dichotomy that post-processualists such as Hodder (1991) and Shanks and Tilley (1992) have sought to abolish. Rather than end the situation, post-processualism has simply emphasized the intellectual, symbolic side of the argument over processual positivistic empiricism. Processualists looked at artefacts from a functional standpoint with little regard to symbolism, but post-processualists may have gone too far the other way, to the point that artefacts almost become abstract symbols. Such an approach is just as limiting as the processual approach (Boivin, 2004: 63-64).

The use of textual models for interpreting the archaeological record is not the full extent of criticism directed at post-processualism. One of the most important concepts borrowed from sociology that has been applied to archaeology by post-processualists is Pierre Bourdieu’s concept of *habitus*. Joffe forwards the notion that *habitus* is essentially ahistorical and does not account for the “cultural, historical and physical constraints” that impacted upon ancient lives. Ancient people did not have the kind of limitless options, pace of life or ideas of individuality that exist in the modern world. Joffe asserts that *habitus* is a modern concept that does nothing more than “recasts the past in terms familiar, or advantageous, to us” (2003: 83).

Joffe (2003: 83) also contends that post-processualism places too much emphasis on the individual. Archaeological cultures are indeed made up of individuals who live within those

cultures. However, the search for the individual can be taken to the extreme. Focusing microscopically on individuals in an attempt to understand and account for all the variations of life possible within a culture in actuality negates the concept of a culture, either as a “heuristic concept” or a “bounded temporal entity”. So many individual eccentricities would emerge from such a study would be impossible to address questions of structure, process or change (Joffe, 2003: 83).

One of the most resounding criticisms of post-processualism is the charge of relativism. Trigger (1998: 21) states that post-processualists such as Shanks and Tilley (1987b) argue that because archaeologists are products of their respective cultures and subject to bias, there is “no empirical basis on which archaeologists can demonstrate that one interpretation is right and another wrong”. As a result, archaeologists have a tendency to produce culturally biased interpretations regardless of the archaeological evidence. According to this theoretical position, archaeological theories and interpretations can only be refuted by proving them to be illogical, but even logic can be said to be a cultural construct. Trigger's (1998: 21) problem with this is that this type of relativism reduces archaeological interpretation to nothing more than mythmaking.

In its more extreme forms, Trigger (1998:21) explains, this type of relativism even extends to the idea that claims of professional status by archaeologists are elitist and do not make their interpretations of ancient cultures any more valid than those of interested laypeople. Disparate individuals and groups can make use of archaeological evidence to create what past they desire and there is no valid basis for challenging their interpretation. Basically, any interpretation, no matter what its political or social agenda is as equally valid as those of the archaeological establishment (Trigger, 1998:21).

Trigger (1998:21) mentions that Shanks and Tilley have stated that archaeology should be used to initiate change against established social structures. However, if all archaeological interpretations are equally valid, archaeology can never be used for more than “counterpropaganda”. As Yoffee and Sherratt (1993:7) point out, if archaeological interpretations are totally relative, they are meaningless as a method of social critique.

This relativity found in some of the more extreme versions of post-processualism has a further effect. If all interpretations of the archaeological evidence are valid, it leaves the way open to

inventing pasts that the ancients may never have recognized or known. Even if one does not subscribe to the “all interpretations are equal” school of thought, Kohl warns that engaging in creating imagined conceptual oppositions to explain processes, as Hodder (1990) did with his *domus/agrios* distinction for the domestication of Europe, or ignoring archaeological evidence or the lack thereof by creating “a “peopled” reading of this record” is disingenuous. If “the ‘Indians’ are not particularly visible behind the artefacts” archaeologists should control their urges to write fiction (1993:15; also see Kemp, 1989: 3).

Over the years, post-processualist interest in interpretive theory at the expense of archaeological methodology has resulted in a polarization of theory and methodology. Kristiansen partly attributes this polarization to the tendency of post-processualists to incorporate theories and philosophies from other disciplines without modifying them for archaeology. The polarization occurs because discussions of theory happen at a general level while archaeological methodology is local. Because theory is separated from method, Kristiansen believes interpretation is frequently unrealistic and is easily manipulated (2004b: 115). More specifically he says:

... What I am missing in much recent post-processual works is clear and theoretical and methodological guidelines defining interpretive relevance and coverage within the historical context being studied (Kristiansen, 2004b: 115).

Adrian Chadwick attributes the polarization between theory and method to the fact that processualist’s interest in positivistic science, led them to seek improved means of testing hypotheses. This manifested itself in the fieldwork through newly devised sampling strategies and improved recording methods. To many post-processualists, the interpretations of ancient lives through social, political and cultural theories are more important than developing scientific field methodology. Consequently, according to Chadwick, it is little wonder that many practising field archaeologists see theory as irrelevant (2003: 97-98).

This is not to say that post-processual theorizing has had no impact upon fieldwork. Chadwick specifically cites mentions of “structured deposits” in the works of J.D. Hill (1995) and Joshua Pollard (1995). He further remarks that post-processualists have attempted to link theory to practice and cites the works of Gavin Lucas (2001a; 2001b), Ian Hodder (1997; 1998; 2000) and John Barrett and co-workers (Andrews and Barrett, 1998; Andrews *et al.* 2000) in support of his contention. However, these have been criticised for not providing any improvements to excavation or recording methodologies (Chadwick, 2003: 97-98).

Should archaeology in Egypt be rigidly defined as one of these approaches?

Kohl correctly observed in 1993 that both processualism and post-processualism were largely products of Anglo-American archaeology. Many other branches of world archaeology had not yet evolved through their own processualist and post-processualist stages (1993:13). Since that time, certainly the influence of these schools of archaeological thought has expanded to include archaeologists from all over Europe, but Egyptology has still not gone through processual and post-processual phases.

One might ask “Why should it?” Even though processualism and post-processualism can be credited for the useful contributions they have made to archaeology, I have shown in the two previous sections of this work that both processualism and post-processualism have also been criticized as being flawed in one way or another. Baines and Brophy (2006:69) point out that the current state of archaeology, in Western society at least, is still polarized between these two theoretical camps. Processualism has been criticized for its positivist attempts to create neutral observations of archaeological data in order to produce generalized covering laws to understand systems. Post-processualism, with its dependence on the human subject risks “assuming a disembodied human self, unchanging across time and space” and the use of agency and empathy often seems to assume that these concepts operate for ancient cultures as they do in modern Western culture (Baines and Brophy, 2006: 72). I question the necessity for archaeologists working in Egypt to repeat for themselves all the successes and failures that have already been made by processualists and post-processualists alike.

Does Egyptology really need the kind of polarization of theory and method as expressed in the processual/post-processual dichotomy? Richard Bradley (1993: 132) believes this polarization has two negative aspects to it. The first is that scholars frequently become so convinced of the correctness of their views that theoretical discussions become more about professional reputations than about archaeology. Second, this polarity drives scholars to be defensive about their theoretical positions to the point that they are crippled by “a critical self-consciousness so acute that it saps individual creativity”. Processualism requires us to be scientists while post-processualism requires us to look for “gender, class or race bias”. Bradley (1993: 132) posits that the peer pressure that accompanies this polarization has the effect of stifling both our talent and imagination.

I suggest the future of Egyptology would be significantly harmed by allowing this kind of polarization to occur. There may be some who would say that Egyptology already has experienced reputation driven disputes in the past, but I suggest this is all the more reason to avoid polarizing disputes adopted from other branches of archaeology. I agree with Renfrew that it is time to recognize the positive contributions of both processual and post-processual archaeology and also time to move on from the “polemic and polarized confrontations” (2004:24).

It seems that Hodder too has agreed that it is worth ending the processual/post-processual opposition and suggested as early as 1992 that he thought the debate had fairly much run its course (1992:169). I, and others, (See Baines and Brophy, 2006; Joffe, 2003; Veit, 2004; Renfrew, 2004) apparently disagree with Hodder that the polarization has ended, but he is correct that such an end would be desirable. Baines and Brophy advocate trying to create a “post-schismatic archaeology” that would “take advantage of the insights of post-processualism without losing sight of the processual emphasis on the material and the empirical” (2006:87). Joffe suggests we need to develop a “methodological and philosophical tool kit” that draws upon a wide range of theoretical offerings and that failure to do so would result in continually having to relearn that no single approach or theory can answer all questions (2003: 86; also see Joffe, 2003: 90-91). Madsen calls for archaeologists to focus on also developing better methodologies and better data models because theoretical development alone is of little use if one cannot apply the theories to the data (1995: 20-21).

I agree that using the best ideas from both processual and post-processual archaeology is what should be done, but should this entail trying to reunify these two schools of thought into one? It is doubtful that could be accomplished and it is not really necessary at any rate. Ulrich Veit is correct in saying that processual and post-processual archaeologies have quite distinct interests from one another that may be difficult to reconcile within a single system. Even so, the co-existence of both processualism and post-processualism is not necessarily a problem as long as they are not used to perpetuate “old cognitive, institutional or political structures” (2004: 102).

Kristiansen suggests that processualism and post-processualism can and should be used as complementary rather than as opposite approaches to one another (2004c: 179). Both processualism and post-processualism use “intentionality and directionality that is context-

dependent” as their theoretical basis, but the interpretational focus of the former is on economy while that of the latter is on culture (2004a: 92). Since each of these respective positions has its own set of interests and goals, the important thing is not to construct a unified archaeology, but to engage in using both processualism and post-processualism to examine “interpretive strategies and boundaries” (Kristiansen, 2004b: 120).

It is my position that Egyptology should not get mired in a theoretical war of processualism versus post-processualism. Egyptology requires a more inclusive methodological approach that seeks to utilise multiple theoretical positions and the greatest number of available data sets to provide archaeological interpretations of Egyptian sites that is neither solely processual nor post processual. I do not view this as some kind of a dialectical synthesis resulting from the conflict between processualism and post-processualism. If anything, it is an attempt to transcend that conflict by utilising the most useful concepts from each approach. Some might ask if the kind of pluralistic, inclusive, contextual methodology I am advocating could be described as a type of “holistic” approach to Egyptology. I suggest that it is not and that holistic approaches are not synonymous with contextual approaches.

“Holism” in Archaeology

Does holism have a specific meaning in archaeology?

In her contribution to Renfrew and Bahn’s book, *Archaeology: the Key Concepts* entitled “Holist/Contextual Archaeology”, Elizabeth DeMarrais (2005: 141) attributes the beginning of holistic archaeology to American archaeologists Joyce Marcus and Kent Flannery as an integral part of processualism in the 1970s. She describes holistic archaeology as follows:

“... involves a broad and inclusive approach to archaeological research” and “... holistic archaeology involves the comprehensive the investigation of all aspects of human societies, from ecological relationships and economy, to social organization and politics, to art and ideology” (Demarrais, 2005:141).

To Demarrais (2005:141), holism is especially useful to anthropological archaeologists studying complex societies such as Pre-Columbian groups in South America mainly because of the amount and breadth of archaeological information available from those cultures. Another advantage of using a holistic approach to archaeology is that it incorporates into itself a wide range of methods and theory including “ethnography, ethnohistory and contextual archaeology”

(DeMarrais, 2005:141). Because holism involves the inclusion and use of multiple methodologies and theoretical standpoints, holistic approaches make it possible to close the theoretical gap between anthropological and interpretive archaeologists (Demarrais, 2005:142-143). DeMarrais (2005:143) believes contextual archaeology is especially important as it provides “a clear methodology ... for the study of archaeological remains”. As the title for her article implies, clearly DeMarrais sees holistic archaeology and contextual archaeology as one and the same thing.

Are those terms really interchangeable, as DeMarrais seems to suggest, or does holism have a more specific definition in archaeology? I suggest the terms are not interchangeable. Scientific philosopher, Karl R. Popper (1957), wrote at length about the concept of holism in his critique of historicism. Historicism was essentially the belief that one could predict future events based on the study of historical trends and patterns (Popper, 1957: 2). Furthermore, it was divided into two opposing views that were based on the acceptance or not of the applicability of scientific methods, especially those of physics, to that predictability.

“According to their views on the applicability of the methods of physics, we may classify these schools as pro-naturalistic or anti-naturalistic; labelling them 'pro-naturalistic' or 'positive' if they favour the methods of physics to the social science, and 'anti-naturalistic' or 'negative' if they oppose the use of the method”(Popper, 1974:2).

Popper (1957: 17-18) equates holism with the anti-naturalistic (anti-physics) doctrines of historicism, which stresses the need to look at groups of people in a holistic manner. From the view of sociology, the significance of a social group does not rest on its conglomerate numbers or even on the dynamics of the social relationships. Beyond those considerations are the “traditions and social institutions” that must be studied before a proper understanding of those cultures and their futures is possible. If it is impossible to adequately explain existing social structures as combinations of its constituent members, one cannot do so for new social structures either (Popper, 1957: 17-18). In a sense, the way Popper explains the idea of holism indicates that the group has a dynamic that cannot be influenced by individual people. So, the idea of holistic study is done from a group perspective that does not concern itself with the individual agency.

Another necessary definition of holism has been provided by James A. Bell. In his book, *Reconstructing Prehistory: Scientific Method in Archaeology* (1994), Bell identifies three

possible scientific approaches to prehistoric archaeology, of which one is the holistic approach. He explains that in such an approach, human motivations and actions do not significantly affect the organization of human cultures, if at all (Bell, 1994: 265). According to Bell, because pre-historians lack documents and texts that could provide firmer insight into the minds of prehistoric individuals, holism has been a convenient model for allowing pre-historians to focus on systems rather than on individuals (Bell, 1994: 267).

Ultimately, holism requires that cultural structures and the changes to those structures must be understood from the standpoint of finding and recognizing systemic forces that dictate human actions. Bell is quick to explain that this archaeological definition of holism differs from that used by anthropologists. Used within an anthropological context, holism suggests that any given aspect of a culture can only be understood “within the context of the culture as a whole (Honigsmann 1977)” (Bell, 1994: 267-8).

Bell provides us the following succinct explanation of holism:

“The principal tenets of holism can be summarized quite briefly. Holism is the belief that sources transcending humans explain social structure and change, and even the thoughts, decisions, and actions of people are explained by those forces. Human agency has no significant influence on the holistic forces. Although this characterization of holism is extreme, holistic tendencies can dominate theory building to the point where individualistic and empathetic alternatives are excluded” (Bell, 1994: 271-272).

Bell also notes that much of Marxist theory has been holistic. Economic systems are credited in Marxist theory with controlling the evolution of social structures and are at the root of cultural change. As a result, human agency has little or no effect on those structures or changes to them. According to Marxists, even human thought is a result of the socio-economic system and it plays little or no part in creating that system. Likewise, and possibly to an even greater extent than in Marxist approaches, processualism is largely holistic because of its positivist nature. Ethereal concepts such as human agency can be largely disregarded because they are not readily testable scientifically (Bell, 1994: 276-277).

It should be fairly clear that holism has a distinct definition and I suggest it cannot, nor should it be, equated with contextual archaeology. As explained by Popper and Bell, holistic approaches seek to understand cultures by examining the entire range of systems that exist in

those cultures and all facets of the relationships between those systems. While DeMarrais credits the beginnings of contextual archaeology to Flannery and Marcus, one cannot say that they were the originators of holism. Both traditional Marxists and processualists have used holistic approaches, so it is difficult to necessarily equate it with only one branch of archaeology. Popper and Bell also make it clear that holistic approaches exclude the importance of human agency. I hold that considerations of the importance of agency and its impact upon cultures absolutely must be incorporated into the practice of contextual archaeology.

In my opinion, contextual archaeology should manifest itself in two ways. First, contextual approaches should require archaeologists to look at a site from within the context of its location, setting, relationship to other sites in the region, and so on. Second, artefacts must be studied and analysed, not by placing them in traditional taxonomic groupings such as pottery, rope and basketry samples, faunal or a biological remains and the like, but by studying them using taxonomic groupings that are related to locations within the site area, loci or levels, associated artefacts and other criteria based on provenance. This may be well and good, but could a holistic approach still be valuable when used in conjunction with contextual archaeology?

Criticisms of holism

I consider holism to be a flawed way of approaching archaeological interpretation. Again, I believe Popper and Bell provide reasonable criticisms of the weaknesses of holism. Popper's criticism of holism begins with the recognition that the word "whole" is used in a very ambiguous way within holistic literature. "Whole" is used to denote two separate concepts:

"(a) The totality of all the properties or aspects of a thing, and especially of all the relations holding between its constituent parts, ..."

"(b) certain special properties or aspects of the thing in question, namely those which make it appear an organized structure rather than a 'mere heap' (Popper, 1974: 76)."

Popper states that "wholes" in the second sense can indeed be studied scientifically from a Gestalt prospective, but it is a mistake to think that because this is so, "wholes" in the first sense can also be studied scientifically (Popper, 1974: 77).

This is especially true when attempting to use holistic approaches to understand social issues.

Popper states:

“But this holistic method necessarily remains a mere programme. Not one example of a scientific description of a whole, concrete social situation is ever cited. And it cannot be cited, since in every such case it would always be easy to point out aspects which have been neglected; aspects that may nevertheless be most important in some contexts or other” (Popper, 1974: 78-79).

Because holists can never account for all of the aspects that influence society, Popper asserts that they attempt to study the whole of society by an impossible method, one which is a logical impossibility (Popper, 1974: 79-80).

In the same way, Popper also maintains that historicist holism possesses the same kinds of flaws. History is subjective and historians choose to study those aspects of an event they believe to be important to understanding that event. While it is possible to study individual facets of history, it is impossible to write an historical account that covers “the whole of the social organism” or “all the social and historical events of an epoch” (Popper, 1974: 80-1). In the same vein as Popper, I suggest that a “holistic archaeology” would be similarly flawed for the same reasons.

Bell has also written a critical analysis of holism, but unlike Popper, suggests the possibility that there could be several advantages to using a holistic approach. From the stand point of advantages, Bell suggests that holism allows the possibility of bypassing the need for written records when trying to account for human emotions and decisions (1994: 277). A second advantage is that much of the artefactual record lends itself to using holistic approaches. Bell mentions that artefacts such as “tools and utensils”, because of their prevalence in artefactual assemblages, are often used by Marxists archaeologists in a holistic fashion in order to explain prehistoric production systems (1994: 277-278).

Bell cautions against the mistake of thinking, as a result of the aforementioned advantages, that the only viable approach to theoretically evaluate the artefactual record is by holistic means. In the first place, it does not take into account the importance of human agency. Second, holism cannot explain social change because such change is frequently arbitrary and irregular (1994: 278).

Bell uses the example of the impact of World War II and Hitler on world economic expansion. It is possible, through the use of Kondratieff cycles (Bell, 1994: 278-279) of fifty to sixty year periods, to see that the war did not substantially alter the progression of economic expansion. A possible, yet simplistic and false assumption would be that neither Hitler nor the war ultimately had much effect on history or peoples' lives. Bell's point here is that Hitler's actions, as an active agent, had a profound effect upon the world and holism does not account for such influences.

Holism also cannot account for the unpredictability of new ideas or the changes that often result from them. Bell (1994: 279-280) refers to Popper's contention that new ideas frequently come from discovering the weaknesses in the current views, but what those weaknesses are can often not be predicted. Consequently, this makes change and the production of new ideas unpredictable. This unpredictability is exacerbated by the "unintended consequences" that often accompany changes that result from human agency (Bell, 1994: 279-280).

Holism is not useful for building an interpretive methodology in Egyptology

It should be apparent from the works of Popper and Bell that holism has a very specific definition in archaeology and that it should not be confused with contextual archaeology. For a number of reasons, I reject holistic approaches. Regardless of the two advantages mentioned by Bell, I believe they are overshadowed by the disadvantages. In the first instance, since ancient Egypt is a culture rich in historical documents, this material absolutely must be incorporated into any interpretive methodology. There is little reason to use an approach that allows one to "bypass" the use of historical documents as a source for accessing Egyptian thoughts and decision making processes.

Second, as Popper and Bell stated, since holistic approaches cannot possibly explain or account for every facet of a culture, do not account for the impact of human agency and cannot account for the unpredictability of change, it is immaterial that the artefactual record lends itself to the application of holistic approaches. I find myself in substantial agreement with Trigger when he states:

"While Hegelian philosophy's holistic emphasis on viewing parts in relation to

larger wholes is a valuable challenge to examine issues from a contextual perspective, no clear-cut methodology has been created for implementing this approach. As a result, methodological holism has tended to encourage the dangerous belief that intuition alone can supply complete and final truths” (1998: 5).

Holistic approaches entail the idea that cultural systems must be researched and defined as whole entities in order to be understood, but in the end, what really needs to be done has little to do with studying entire cultural systems. My specific concern is to develop a methodological approach for the interpretation of Egyptian sites that is as inclusive of as many data sets and theoretical interpretive standpoints as possible in order to understand the areas of sites on which we are working.

What kind of a methodology do we need?

Recognition that no approach will be able to account for every facet of a culture

First, I suggest the kind of interpretive methodology that should be developed for use in Egypt should start with the recognition of the fact that no single theoretical approach will be able to account for every facet of a culture. Trigger (1998: 5-6) identifies three specific, separate epistemological approaches, positivism, idealism and realism that archaeologists have chosen to use over the years as methods for their individual interpretations and explanations of the cultures with which they were working. Joffe (2003: 81) has summarized Trigger’s explanations of these approaches and provides valuable support for my contention that any single approach, used by itself, is inadequate (2003: 81-82, 84-85). He suggests applying a “wide field of epistemologies and approaches” as well as “all the empirical and analytical tools at our disposal” to our archaeology (Joffe, 2003: 82). This is certainly sage advice since different epistemological viewpoints, used in conjunction with multiple data sets, will allow archaeologists to analyse and interpret those data sets more fully.

The approach must be contextual

Second, a contextual approach is imperative to the development of this interpretive methodology. The use of contextual methods in archaeology is certainly nothing new. DeMarrais (2005: 143) credits Flannery as being one of the early pioneers of contextual

archaeology in the 1970s. He developed his contextual methodology to address questions about ritual in Mesoamerica. If the prime importance of ritual is to transmit information, one needs to question what specific information was that ritual designed to transmit. He proposes that an examination of the contexts in which artefacts are found may provide the answer to that question. According to Flannery (1976: 333), specific artefact types found only in public buildings would suggest a public use of those artefacts. If those same artefacts were found in elite houses or burials, such a contextual setting might suggest those artefacts communicated elite status. A specific artefact type found in a number of common households could indicate use in personal ritual or identify the households of people who were members of certain ritual societies (Flannery, 1976: 333).

Once the context of the finds had been ascertained, the next step in Flannery's methodology was to ask questions such as: "What adaptive function could the transmission of information in that context and provided?" or "What ultimate sacred position dictated the ritual and was verified by it?" (1976: 334). Lastly, Flannery (1976: 336) organised his data into tables that describe each object, give the provenance (i.e. site and area of the find), the context (i.e. feature and/or level of the find) and the period and estimated date of the artefact. Using these tables, he was able to suggest interpretations for the use of artefact and locations in regard to ritual practices of certain groups of Mesoamerican people.

Flannery's conception of context dealt specifically with artefact associations and their provenance within a site. In the 1990s, Hodder (1995: 249) explained context from the standpoint that one cannot adequately understand human action unless one examines the "specific meanings constructed by human beings in local contexts". Harald Johnsen and Bjørnar Olsen (2000: 106-107) point out that, in Hodder's view, context has two specific definitions. In the first instance, context refers to when, in what circumstances and in what culture an artefact was produced. Secondly, context refers to what the cultural and historical biases of the archaeologist working with the artefact would have upon interpretation of that artefact.

Johnsen and Olsen (2000: 107) are however, critical of Hodder for placing undue emphasis on the original contexts of artefacts. This implies to them that Hodder believes an appropriate understanding of meaning is inextricably linked to a revealing of intention supplied by context. Along the same critical lines, Kristiansen suggested contextual archaeology suffered

from the fact that its practitioners privileged “interpretations of particular well-documented locales” and “interpretive concepts derived from philosophy, rather than those derived from culture history”. While Kristiansen (2004c: 179) credited contextual archaeology with widening the possible interpretive landscape for understanding social and ritual considerations of prehistoric peoples, he believed such weaknesses limited the interpretive potential of contextual archaeology.

Certainly Johnsen and Olsen are correct to criticise overemphasis of original context, but I argue that Hodder’s twin points of the importance of original contexts of cultural materials and recognition of the cultural and temporal biases of archaeologists are integral parts of a contextual methodology. In addition to these two component parts, I contend a third necessary element that must be given equal consideration within a contextual methodology is Flannery’s concept of the context of the artefact within in archaeological site and its relationship to other associated artefacts recovered from the same loci.

Indeed, Kristiansen (2004c: 179) is correct to criticise over-concentration on the interpretation of “well-documented locales”. A good contextual methodology must include information from a wide range of archaeological sites, not just the most prominent ones. Likewise, while “interpretive concepts derived from philosophy” (Kristiansen, 2004c: 179) should not be eschewed, interpretive concepts from culture history as well as from processual archaeology must be incorporated into a contextual methodology as well.

The necessity of inductivity

A third important aspect for the development of an effective interpretive methodology is the necessity of inductivity. Archaeological data should be collected and interpretations made by applying varying suitable theoretical approaches to the data sets, rather than applying data to support theoretical positions. In other words, I advocate a bottom-up approach to interpretation. Processual archaeology’s scientific cover laws can lead to top-down approaches to the use of data and the same observation can be made of the use of post-processual social theory (Morris, 2002a: 264). As I see it, the danger of using top-down approaches is that they can easily lead to the selective use of data to “prove” a particular preconceived interpretation or position.

Popper (1957: 134-135) offers a criticism of induction by mentioning that scholars seldom, if ever, produce theories by examining and analyzing data starting from a completely neutral, objective position. There are usually hypotheses or preconceived notions, recognized or not, that guide scholars in the use and selection of data as well as giving them clues about possible outcomes. However, Popper does not see this as a fatal flaw. He suggests how someone tests a theory is more important than how one goes about constructing the theory (1957: 134-135). Considering Popper's qualifying remark concerning his criticism of induction, I maintain that hypotheses or research questions do not invalidate inductive approaches. I do, however, reject forcing data to fit preconceived models.

The necessity of using multiple data sets, theories and contexts

The use of multiple data sets, theories and contexts is the fourth requirement for this interpretive methodology. As stated previously, no single theory, context or data set will account for all aspects of Egyptian culture, but certainly, the more of these we use in conjunction with one another, the richer the picture should be. Hodder (1992: 165) warns that, while the purpose of a contextual approach is to promote pluralism and multivocality, scholars must be discriminating in their use of context and use those that are likely to produce the greatest chance of successful interpretations. I suggest Hodder (1992: 167) is correct in saying that, while different contexts require different readings of archaeological data, such readings are not all equal with one another.

I maintain that theory should be seen in a similar light. It is imperative that archaeologists use the maximum number of data sets available to them. Viewing these data sets from differing theoretical positions such as ethnicity, phenomenology, feminism, landscape studies and so on, have the potential for providing a more nuanced understanding of Egyptian culture. Having said this, it is important to understand that it is possible that not every theoretical approach will always be of value for interpreting every site, but using multiple theoretical approaches is still desirable. Some theoretical approaches may work better than others and this must be decided by careful analysis of how they will interact with and support one another.

In a large sense, the use of multiple contexts, theories and datasets leads to a certain inter-contextual situation. Kristiansen's work shows that it is possible to track symbols through

various contexts and then provide interpretation and reconstruction of the various meanings and institutional structures through and understanding of those symbols. For historical cultures, textual evidence can also be added as a further interpretive support (Kristiansen, 2004c: 180). He sees the interpretive potential of textual evidence and material culture as complementary. If the textual evidence is of a religious nature, symbolism and iconography add a further interpretive component (Kristiansen, 2004c: 182).

Agency and materiality: a necessity in a Pluralistic Contextual Approach

Lastly, this interpretive methodology must include the use of agency and materiality. Agency and agency theory have been considered a very important part of archaeology for over 20 years, especially within the circles of post-processualism (Kristiansen, 2004a: 83). Alfred Gell (1998: 21-22) stated that agency has both social and relational aspects that impact not only humans, but inanimate objects as well. If true, a contextual study of those social and relational aspects as they were manifested in the past should make it possible to understand past agency between humans, animals and material culture (Kristiansen, 2004a: 84-85; Gardner, 2004: 6).

The potential of agency is that, while it may contradict our preconceived notions about the past, it can provide a deeper understanding of an ancient culture. This is especially the case if the culture in question, one such as ancient Egypt, has a wealth of cultural materials, texts and iconographic evidence available to the researcher (Kristiansen, 2004a: 85, Meskell, 2002). Kristiansen believes it possible to use agency, in conjunction with culture-historical and ethnographic studies, to access and comprehend the motivations, self interests, quests for power and the use or misuse of it by ancient people. Similarly, Dobres points out that, because artefacts are made by gendered agents, it is possible to understand gendered relational structures and divisions of labour between men and women (1996: 17).

I contend the “relational” qualities of agency, especially as explained by Gell (1998) and Robb (2004) inextricably connect it with materiality. If materiality is understood as a concept that illuminates not just the physicality of objects, but the relationships and interactions between humans and those objects, then it is difficult in my mind to disassociate agency and materiality. Such materiality is culturally specific and thus, material culture must be viewed within cultural and temporal contexts (see Meskell, 2004: 249).

What are the needs for such an approach in Egyptology?

Good methodology and improving data sets in Egypt

The preceding section of this work provides the basis for an interpretive framework to be used for archaeological work in Egypt, but this begs the question as to what is the need for such an interpretive approach to be used there? Jeffreys (pers. comm. 2006) has stated there have been vast improvements in the excavation methodology and field techniques used in Egypt as has Bryan (per. comm. 2006). Their contentions about the improved state of archaeological work in Egypt are further supported by Redford (per. comm. 2005).

The papers presented at the recent “Walls of the Ruler” conference, held 22 – 25 May 2006 at the University of Wales, Swansea, provided excellent illustrations of the high calibre of fieldwork being done by archaeologists running projects in Egypt. Sarah Parcak has been involved with researching the physical and environmental boundaries of ancient Egypt, including the ancient coastline and settlement locations, in the Eastern Delta by the use of satellite imagery (Parcak, 2006). Sidebotham has continued his extensive pedestrian and vehicular surveys of Egypt’s Eastern Desert to ascertain data on the sizes, locations, occupation dates and garrison sizes of nearly 80 Roman forts to calculate Roman troop strengths in Egypt during the Roman Period (Sidebotham, 2006).

Modern stratigraphic and recording fieldwork methods, of the type used by Gregory Mumford at el-Markha Plain, South Sinai (Mumford, 2006) and by Neal Spencer at Kom Firin in the Western Delta, have been augmented by the use of surveys, geo-morphological work at Tell el-Borg by James K. Hoffmeier to understand the paleo-environmental impact on the fort and roadway locations between Egypt and Canaan (Hoffmeier, 2006). Ian Shaw, in his work at the Middle Kingdom mining sites of Wadi Maghara and Wadi el-Hudi, combined meticulous approaches to excavation and recording with the use of texts and rock-cut iconography to understand life on Egypt’s fringes and to ascertain to what extent such mining camps may have doubled as military outposts.

All of the above projects and scholars have contributed valuable data sets to the corpus of knowledge about ancient Egypt. Many of the other papers at the “Walls of the Ruler” conference had other foci, such as historical information, textual or linguistic analysis and

interpretation, functional artefact studies and so on. Regardless, all of these papers provided tremendously valuable and useful information about multiple archaeological periods of Egypt.

Lack of theoretical interpretation still a problem.

Archaeological work and research that have been done by the scholars who attended the “Walls of the Ruler” conference shows that fieldwork in Egypt has been much improved. The one problem that still exists is that, as good as the fieldwork may be there still seems a lack of attention paid to theoretical interpretive work in Egypt. However, there are indications that some scholars are willing to engage in this type of endeavour.

Stuart Tyson Smith has researched the deeper social and cultural interactions of Egyptians and Nubians during the New Kingdom in the area south of the Fortress of Buhen in southern Egypt. To do this, he used agency and practice theory to examine the material culture of the area in conjunction with textual sources. His avowed purpose was to understand “local shifts in culture” rather than to produce “explanations based on large scale patterning” (Smith, 2006a). Anthony Spalinger (2006) has been working on a study of the iconic role of fortresses in the New Kingdom. In this, he is applying the concepts of mimesis and topos found in New Kingdom literature to the iconography of fortresses to understand the role they may have played in the minds of both the ancient Egyptians and foreigners alike. Lastly, Sidebotham’s work is specifically designed to produce data for understanding the functioning of military installations during the Roman Period.

Why has more theory not been used in Egyptology?

Since the decipherment of hieroglyphics in 1822 by Jean-Francois Champollion, the emphasis of the majority of scholars studying ancient Egypt focused on the decipherment of texts. Over the past 200 years the concentration on obtaining and translating texts led to the accessibility of a wealth of Egyptian literary material. With all of the Egyptian texts that have been available to scholars on subjects as diverse as mathematics, medicine, poems, stories, religion and business transactions, etc. it has perhaps been tempting to think that the texts could tell all that scholars needed to know about the ancient Egyptians.

Historically, digging was primarily done in most cases to collect and recover inscriptions and papyri. Artefacts were generally collected, especially if whole or complete. Stratigraphy was seldom, if ever, noted. Criticisms of the way archaeology has been done in Egypt have not been entirely unfounded (Peter French, pers. comm., 2005). The methodological situation improved a good deal after World War II, but excavation continued to be of secondary importance in comparison to textual studies. It is hardly surprising, given the historical position of archaeology in the study of ancient Egypt, that the importance of theory has been neglected in the past.

Even in this day and age there are factors associated with Egyptian sites that create problems for the application of analytical and interpretive theory. Janine Bourriau (pers. comm., 2005) and Peter French (pers. comm., 2005) have made the point that archaeology in Egypt is not the same as anywhere else. Much of the important and influential interpretive theory used in archaeology today has emanated from the field of prehistory. Part of the reason for this may stem from the simple fact that theory is a necessary tool of interpretation for prehistorians in the absence of written records.

Another difference from European, British and North American sites is the sheer volume of material that is recovered from Egyptian sites. For example, at the Kom Rab'ia project at Memphis, which ran from 1984 through 1991, 85,000 diagnostic sherds of pottery were recovered in the first season's work. Averages of 3000 to 5000 sherds were recovered on a daily basis (Bourriau 1991: 264). After the first two seasons of work, a three-step processing system, referred to as the 'Estimated Vessel Equivalent', was developed in order to deal with the vast amount of pottery recovered from the field. The steps were divided into sorting, sampling and recording. Sorting was done by examining production technology, fabric type, surface treatment and shape. Because of the vast quantities involved, the sorted sherds were weighed rather than counted. Sampling was statistically done using a random probability sample, which was intended to represent the character of the whole assemblage, and a 'purposive' sample that was intended to include any sherds deemed significant for the purposes of dating or describing the assemblage. The final step was the computerised coding and recording of the different samples from each context (Bourriau 1991: 265-268).

The recording for the Middle Kingdom and New Kingdom pottery was completed in the autumn of 2000. Written analysis of the New Kingdom pottery is continuing at the present

time and will be finished sometime during 2009. Approximately 50% of the Middle Kingdom pottery has been analysed at this point. It is important to realise that the work on both these data sets has been carried on in a part-time manner due to the demands of other projects and fieldwork in Egypt. On average, it has only been possible for the scholars engaged in this project to spend approximately eight hours each week to do the necessary work of finishing the recording and providing the written analysis. Once the Memphis pottery project has been completed, it is Bourriau's (pers. comm., 2005) opinion that projects such as these allow ceramicists to be able to work in the more nuanced way and enable them to see marked regional differences in Egyptian pottery corpuses.

The work on the Memphis Pottery Corpora highlights the problem of working with such vast assemblages. It requires inordinate amounts of time and effort in order to process all the data that is recovered from even a small Egyptian site. Obviously, it is extremely difficult to make anything but preliminary interpretive statements about a site until the analysis of the artefactual assemblage has been completed.

Alongside this practical obstacle, Dr. Ellen Morris (2002a: 264) of Columbia University suggests that interdisciplinary differences account for reasons why innovative interpretive theory has not been influential in the archaeology of Egypt. She states that Egyptian texts, iconography and archaeological data require specialist knowledge, the details of which hinder the expression and understanding of more generalized principles that are the goal of anthropologists. In the 1960s and 1970s, processual archaeologists were searching for 'universal laws and commonality in human behaviour'. Cultural details and differences of specific cultures were seen by processualist archaeologists as 'epiphenomenal'. Post processualism reintroduced the concept of the 'individual' and human agency back in archaeology and it is only recently that theoretical questions tied to the database have become a feature of Egyptian archaeology. (Morris 2002a: 264)

Future access to sites is another concern expressed by several of the archaeologists I interviewed. Janine Bourriau and Peter French (pers. comm., 2005), Steven E. Sidebotham (pers. comm., 2005) and Paul T. Nicholson (pers. comm., 2005) all commented that it is possible that the Supreme Council of Antiquities (hereafter referred to as the SCA) could eventually decide not to issue excavation permits to foreign missions or at least might curtail the number of permits issued as well as the areas that may be investigated. For example,

presently the SCA has declined to issue a permit for continued work at Sikait with the explanation that sites in the Egyptian delta must be given priority due to the threat of development (Sidebotham, pers. comm., 2005). Whether the possibility of the SCA not issuing or limiting permits to foreign missions is a realistic scenario and whether this would prioritise excavation over development of interpretive methodology is perhaps debatable. Regardless, a more analytical and interpretive theory needs to be developed, refined and applied to current and future archaeological fieldwork in Egypt.

Over the years, much of the innovative interpretive archaeological theory has come from the field of prehistory. On the surface, it might appear the simple solution to incorporating more interpretive theory into archaeological projects in Egypt would be to import and adopt the latest concepts from the field of prehistoric archaeology. Broadly speaking, it is possible that some of those theoretical concepts could be useful to the archaeologist working in Egypt, but with the understanding that such concepts may well have to be modified to be truly applicable for interpreting ancient Egyptian culture.

Such an interpretive framework would require it to be an inclusive approach that balances analysis and interpretation of material culture with the textual evidence and considers individuals as well as broader questions of culture. It is based on the idea of combining the use of multiple sources of information and relevant current theory. The approach should be flexible enough to allow its continued use for reinterpretations of the evidence that will inevitably be necessary as a result of future theoretical innovations.

CHAPTER THREE

Developing a Pluralistic Contextual Approach

The Pluralistic Contextual Approach

The points mentioned in the previous chapter beg the question as to whether anything resembling a Pluralistic Contextual Approach is currently being used in Egypt. The answer is that there is certainly a framework for such an approach that has been developed and is being used by Lynn M. Meskell, currently Professor of Cultural and Social Anthropology at Stanford University. I suggest the elementary framework produced by Meskell can provide the basis for a more comprehensive interpretive methodology as called for in the previous chapter.

Meskell's framework

An early description of important sources that were available to archaeologists attempting to interpret ancient Egyptian culture was provided by Meskell in her 1999 book, *Archaeologies of Social Life: Age, Sex, Class, et cetera in Ancient Egypt*. Her goal in the book was not to provide a 'unified narrative of life', which she believed was pointless. Textual, iconographic and archaeologically derived settlement and mortuary evidence all provided only fragmentary information about a complex civilization. Furthermore, the sources could frequently provide contradictory information about Egyptian society in the New Kingdom Period. She suggested that the search for individuals and their social relations at Deir el-Medina was possible if scholars ascribed 'intention, volition and agency' to the ancient Egyptians (Meskell 1999:7).

In the book's epilogue, Meskell explained it was necessary to utilize different sources of information to engage in 'different levels of analyses for the purpose of understanding ancient Egyptian culture, she then listed the informational source types she believed could be useful to interpretive analysis.

"As I have argued ... we should seek different levels of analysis and not expect them to cohere neatly, but rather to present a host of interpretive pictures of individuals and their experiences. Textual information, personal accounts, settlement archaeology and funerary data might all represent different experiences of and in the past. Disjuncture need not be negative or contradictory and

variability need not be smoothed over for the sake of a mistaken unity that may lend spurious weight to a convincing argument (Meskell 1999: 222)."

Relying too heavily on any one type of evidence has its drawbacks. Textual evidence may be misunderstood due to the problems of translating ancient Egyptian ideas into modern languages. Artefactual data may contradict textual claims. Though it is not possible for modern scholars to experience daily life in the New Kingdom Period, it is possible, due to the vast informational resources from Deir el-Medina, to use the available resources in an interconnected way to achieve a better understanding of ancient Egyptian society (Meskell 1999: 223).

The interpretive sources Meskell employed in *Archaeologies of Social Life: Age, Sex, Class, et cetera in Ancient Egypt* were formalized into an interpretive framework in her next book, *Private Life in New Kingdom Egypt*. During her research, she (Meskell 2002:4) discovered that much scholarly investigation had been done on the private lives of Greeks and Romans, but few attempts had been made to do the same thing for the Egyptians even though more interpretive evidence is actually available from the New Kingdom Period for reconstructing private life in ancient Egypt than from any other contemporary culture. Several books published during the mid-1980s through the 1990s attempted this, but they generally provided overviews that had a tendency to 'fall into the trap of dividing the primary material into discrete 'Western taxonomies' (Meskell 2002:4-5). Western scholars tended to explain ancient Egyptian culture by economic, legal, sexual, marital, fashion and aesthetic categories that are familiar to modern people rather than by analysing those topics from an ancient Egyptian cultural view (Meskell 2002:14). This has led to current day understandings of Egyptian private life skewed by 'Western constructs & cultural baggage' (Meskell 2002:1).

"One of the reasons scholars have tended to interpret Egyptian culture using Western taxonomies is rooted in the influence of the Cartesian dualism used in structuralist approaches in anthropology by people such as Levi Strauss. Such polar dichotomies contrasted the differences between nature vs. culture, male vs. female, raw vs. cooked, etc. Meskell disagrees that such Cartesian dualities are particularly useful in interpreting ancient Egyptian culture in the New Kingdom period."

"Meskell contends that Cartesian dualistic models such as mind:body, and reason: emotion are inadequate to describe the 'multiplicity encompassed by the whole' perspective of the New Kingdom Egyptians. 'I argue that we have to re-think our taxonomies for antiquity since things, persons, deities, and spirits were permeable

classifications that could have temporally specific meanings and existences,' Meskell says" (www.3).

Meskell (2002:14) claims that books published in the 1980s and 1990s have been rooted in styles not significantly different from those written over the last hundred years or so. Historically, they have routinely concentrated on recreating 'an overarching social history' of ancient Egypt, usually portraying daily lives in contemporary taxonomic frameworks. She cites the works of Wilkinson (1841), Osburn (1854), Budge (1891), Erman (1894), Scott (1944), Sameh (1964) and James (1984) as typical examples of those that describe the lives of elite people in society while neglecting the middle or lower classes. Few of these historical works considered the significance of mortuary records 'as a possible source for life experience and inequality' (Meskell, 2002:13-14). Even the later works by scholars such as B.G. Trigger, B.J. Kemp, D. O'Connor and A. Lloyd in *Ancient Egypt: a Social History* (1983), B.J. Kemp in *Ancient Egypt: Anatomy of a Civilization* (1989) and N. Grimal in *A History of Ancient Egypt* (1992) were written using broad views of society, economy, religion and politics. Usually, scholars who were interested in society utilized a 'nomothetic approach, focusing on classes or groups of individuals' (Meskell 2002:14).

Meskell (2002:7) rightly points out that archaeological interpretations of private life are limited by the types of sources that are available to the researchers. Sources are frequently incomplete and fragmentary. She has based her interpretive framework on four primary data sources, each of which she states has strengths and weaknesses. These four sources are: textual, iconographic, archaeological and 'what one might broadly call anthropological' (Meskell 2002:7).

Over the years, scholars have typically produced interpretive works about ancient Egyptian society that merge cultural and historical information from multiple time periods as if Egyptian society was unchanged from Pre-Dynastic times through to the New Kingdom (Meskell, 2002:7-8). Such a misleading concept is a fictitious creation of western scholars (Meskell, 2002:8). The Egyptians in the New Kingdom had cultural and economic contacts with the world around them that resulted not only in the availability of foreign goods, but the adoption of foreign styles and ideas both religious and secular. It is a mistake, in Meskell's (2002:7-8) view, to utilize data from multiple time periods simply because the evidence is fragmentary for a specific period. A valid interpretation of Egyptian culture for a specific

time period should be based on contemporary documents or those whose information can be shown to date to the time in question.

Historically, Egyptology focused on texts and philology, which resulted in situations where the interpretive value of archaeological data has been minimized in favour of textual data (Meskell 2002:8). Consequently, the development of improved systematic excavation strategies and interpretive theory has been largely ignored. Especially neglected has been the excavation of settlement sites that provide important data necessary to the interpretation of ancient Egyptian private life (Meskell 2002:8).

Little needs to be said about the importance of using textual evidence in understanding ancient Egyptian society, but there are two main points worthy of consideration. First, when modern scholars translate Egyptian texts, they use modern familiar words in the translation. This may not give the exact sense that the ancient Egyptians may have meant it to give. Second, only the educated Egyptians could read and write, meaning that sizeable segments of the Egyptian population do not really have an historical voice. Egyptian history has been historically written from 'an elite perspective' based on textual sources, the majority of which were produced by bureaucrats and propagandists, rather than archaeological sources (see Meskell, 2002:9-10).

In regard to artistic representations, tomb paintings have often been used by scholars to validate their interpretations and understandings of Egyptian life (Meskell 2002:10-11). As with textual evidence, paintings and reliefs give insights as to how ancient Egyptians saw themselves. However, Meskell (2002:10-11) offers three cautionary points. The first is that much of the tomb decoration may only be idealistic representations of what was hoped for in the afterlife and not be indicative of actual day to day life experience in New Kingdom Egypt. While this is a legitimate point, it is worth noting that Chris Eyre (1995; also see Eyre, 2002) had first made this observation a number of years before Meskell. A second possible consideration is that the artisans engaged in rendering the tomb paintings may have inaccurately drawn the details of the scenes they were painting, not having experienced those activities for themselves. It is likely that few of the trained artists who had spent time learning the considerable skills necessary to produce tomb paintings had much time to gain detailed experience in pottery manufacture, cattle herding and so on. A third point is that tomb paintings were expensive luxuries which only the elite or rich of society could afford.

As a result, this meant a very “limited range of socioeconomic strata is represented reinforcing the elite bias evident with the production of texts” (Meskell, 2002:10-11).

Both the textual and iconographic sources possess the innate disadvantages of historical or class biases and the possibility of excluding the experiences of the lower and middle classes. This necessitates an alternative interpretive source to provide mitigating information on those classes as well as for the roles of women, children, foreigners, etc. Archaeological data from both settlement and mortuary fulfils this role, which can then be compared against the textual sources. This presents a fuller picture of ancient Egyptian life than that portrayed by official texts that were oriented toward elite perspectives (Meskell 2002: 11).

Another important interpretive use of the archaeological evidence is to cross check information on historical, political, religious or social events that are described in textual sources. For instance, texts from the Amarna Period give the impression that Atonism was widely practised by all classes of people from Amarna. In fact, archaeological evidence shows that many of the lower and middle class people were oblivious to the new religion and evidently continued to worship the old gods (Meskell, 2002:11). Again though, Meskell’s contention here is not a particularly new revelation. Kemp (1995) previously pointed out the importance of using archaeological data to cross check textual information in an article entitled ‘How religious were the ancient Egyptians?’ published in the *Cambridge Archaeological Journal*.

The main drawback of archaeological data is the poor archaeological methodology and recording procedures used in much of the fieldwork done over the last century when judged by today’s standards (Meskell 2002: 11). As a result, attempts to offer valid interpretations of sites where this has been the case are difficult at best. Recent excavations using reliable, modern methodology, such as have been done at Gurob and Amarna, offer much better opportunities for interpretive work. Deir el-Medina is another site that has provided a substantial corpus of cultural material that has been excavated using modern archaeological techniques and thus, provides the potential to allow archaeologists to make worthwhile interpretations based on that dataset (Meskell 2002: 11).

Meskell (2002: 12) summarises in a single paragraph the fourth methodological source, which she says is ‘best described as anthropological and cross-cultural’. Her conception of a useful

'anthropological' interpretive source employs case studies and examples from various geographical regions throughout Egypt as well as diverse material data. By the use of such methodology, she believes it possible to observe differences in the archaeological and textual records throughout Egypt. Also, such anthropological methodology allows the possibility of understanding the ancient Egyptians more on their own terms than from modern contexts as has been the case in much of modern scholarship (Meskell 2002: 12).

"In this book, my intent is to try to uncover the rich strata of private life from the matrix of the Egyptian social history, sifting through the archaeological, historical, textual, and iconographic sources and piecing together the fragments from which one might write narratives" (Meskell, 2002:15-16).

Going back to what has historically been the case in Egyptology, Meskell (2002: 4) argues that while the evidence necessary to produce a thoroughly incisive social history had been available for quite some time, Egyptologists and archaeologists showed a distinct reticence to engage in the necessary interdisciplinary conversations needed to create such social histories. *Private Life in New Kingdom Egypt* was an attempt to contribute a new interpretive study of ancient Egypt, incorporating such considerations as the work of *Annales* historians, such as Vaynes (1978), Ariès (1962, 1974) and Duby (1987, 1988), third wave feminist scholars such as Gero and Conkey (1991), Hufton (1984), Nicholas (1985), Pantel (1992), Cameron and Kuhrt (1993), Fantham *et al.* (1994), Herlihy (1995), Leyser (1995) and Brooten (1996), post-processual archaeologist Ian Hodder (1999), phenomenologist M. Merleau-Ponty (1962: 146, 148) and anthropology, social theory and literary studies built upon a specific interpretive framework (Meskell, 2002: 4, 6, 16, 148, 208).

Criticisms of Meskell's framework

Two articles critical of Meskell's work were published by Ellen Morris. Both were book reviews, the first of which dealt with *Archaeologies of Social Life: Age, Sex, Class Etc in Ancient Egypt* (1999). Meskell claimed that the extensive data available from Deir el-Medina made it one of the few places where it was possible to combine theory and practice regarding site interpretation. Morris asserted that these claims were not exactly fulfilled in the book (Morris 2002a: 264).

Often times, the discussion of theoretical concerns, such as embodiment and human agency, suffered from weaknesses in application or in the examples chosen to demonstrate particular points. For instance, the vast majority of the evidence she used to address embodiment in the New Kingdom was textual. This did not particularly illustrate how archaeological data supported the theoretical concept of embodiment (Morris, 2002a: 264-5). Similarly, examples of adopted children rising in rank, court officials falling from favour and female slaves advancing in importance by bearing children to influential men were weak examples of agency (Morris, 2002a: 264-5). Either such situations may well have occurred against the person's will or the persons, in the case of adopted children, had little say in the circumstances of their positions (Morris, 2002a: 264-5).

Although Meskell drew some novel conclusions based on archaeological data, many seemed unexceptional and obvious, especially in light of her use of abstract theorists such as Bourdieu, Foucault and Butler (Morris 2002a: 265). Cases in point are her statements about the possibility of archaeological anomalies occurring as a result of individual quirks and preferences (Meskell 1999: 209) or that modern Western 'cultures do not have a monopoly on the love of children' (Meskell 1999: 214) or that sex is not the primary reason for social inequality (Meskell 1999: 216). Morris (2002a: 265) is certainly correct that there is nothing startling in any of those contentions.

Morris's (2002b) review of *Private Life in New Kingdom Egypt* specifically addresses the problems she sees associated with Meskell's application of her interpretive framework to the informational sources. The criticisms focus on, but are not limited to, the topics of women, the social status of the peasantry, socioeconomic interpretations of the architecture at Deir el-Medina and textual analysis.

Meskell (2002: 135) seems to present a generally pessimistic view of the social positions of women and their effective agency on the world around them, which ignores archaeological evidence to the contrary (Morris 2002b: 266). The fact that female fertility figures are present as part of the grave goods of both women and female children, suggests it was not only men who were interested in influencing fertility issues in both this world and the next (Morris 2002b: 266). Furthermore, she appears to contradict her own pessimistic view by having previously excoriated Egyptologists for continually considering female figurines and bed models as toys 'rather than attributing them to the sphere of sexuality and fertility, in this

world and the next', especially when these artefacts were found in association with adult females (Meskell, 2002: 84).

Even in regard to the use of domestic and ritual spaces Meskell seems to believe that women had little control over the decision making processes (Morris, 2002b: 266). She does suggest that women frequently had a secondary role to that of men; however, she clearly states that the front rooms in the Egyptian houses seem to be associated specifically with the activities of the elite females (see Meskell 2002: 74-76, 111, 114, 122). This does however beg the question as to what specific evidence there really is to support such a claim. Morris (2002b: 266) suggests that Meskell's arguments here are weak in light of what the evidence indicates given proper analysis.

Meskell (2002: 110) seems to regard textual evidence outlining the rights of women to receive one third of the common property in a divorce as idealistic expressions rather than reality and that women's economic activities and opportunities were limited by their husbands.

"In legal terms women may have been directly or indirectly cast as equals, but the delivery of justice was another matter and those silences do not go un-noted" (Meskell 2002: 110).

Morris (2002b: 266) correctly points out the logical fallacy of making conclusive statements not in evidence by using 'arguments of silence' to undermine the textual evidence. There are extant texts that show women did own and manage land (see Parkinson, 1991a: 108).

There are similar problems concerning the lives of agricultural labourers. According to Meskell (2002:13), such people were economically disadvantaged and 'died leaving little trace in the world'. She again seems to contradict herself by making conclusive statements with little evidence. Elsewhere in her book she states that the ordinary town dwellers frequently owned wide ranges of both household goods and personal items such as jewellery (Meskell 2002: 34). Furthermore, she acknowledges the difficulty of interpreting the lives of agricultural labourers since few agricultural village sites have been excavated. Consequently, her comments concerning the hardships experienced by agricultural labourers seem too much of an extrapolation (Morris 2002b: 266). Similarly, she is overly simplistic about the division of Egyptian society into servants/slaves and servant/slave owners (Morris 2002b: 266).

Another point of contention is Meskell's socio-economic interpretations of architecture at Deir el-Medina. The idea that the size differences, rather than house designs, were the determining factor in identifying the residences of rich and poor (see Meskell 2002:122) is either incorrect or her 'criteria for similarity were so basic as to be virtually meaningless' (Morris, 2002b: 266). As an example, Barry Kemp (1989: 269) has identified certain rooms in Egyptian houses at Tell el-Amarna as bedrooms because they contain architectural features he has identified as 'bed niches'. While archaeologists must be wary of using modern architectural concepts to interpret ancient sites Morris (2002b: 266) sees Meskell's criticisms of Kemp as unfair especially considering that the features in question are located in rooms that would likely offer the most privacy for sleeping. Lastly, since the 'bed niche' features are mostly found in houses that have been interpreted as belonging to the wealthy classes, it nullifies Meskell's claim that Kemp's identification must be incorrect because beds were probably only owned by the wealthy (Morris 2002b: 267).

Another critical point regarding the use of archaeological evidence involves Meskell's comments on the ritual usage of ancestor busts. Such busts were associated with ritual activities that she suspects took place in either the female dominated first rooms or of the male dominated the second rooms of typical three room Egyptian houses at Deir el-Medina (see Meskell 2002: 114, 120-121). Because some of these busts were found north of the Temple of Hathor in areas that were not associated with housing, she suspects the busts may have been carried in procession around the temple during certain rituals (Meskell 2002: 111). While this is a creative suggestion, this questionable supposition does not necessarily follow the evidence. Morris (2002: 267) reasons it is unlikely that these objects of veneration were carried about, dropped and simply left where they were.

Broad sweeping statements, such as 'Archeologically, women as a group could be almost described as invisible' (Meskell 2002: 76), that are not easily and firmly linked to the evidence seem to invite the most criticism. This particular assertion contradicts her earlier statements concerning female-dominated activity areas within houses at Deir el-Medina and the archaeological data available from those house sites that support her interpretations (see Meskell 2002:111 – 114, 122 – 124). This does appear contradictory and was likely not her intent.

Criticisms are not limited to Meskell's use and interpretation of archaeological data, but extend to her use of textual evidence as well. In the Middle Kingdom literary piece, *A Man's Dispute with His Soul*, she claims one of the passages firmly supports the idea that certain smells were associated with death (Meskell, 2002: 157). Again, this seems to be too much of an extrapolation. It is probable that this passage is nothing more than a euphemistic expression of the man looking forward to the pleasure of death (Morris 2002b: 267).

The example above highlights another difficulty with Meskell's application of her own framework. In the initial description of her interpretive framework she states that one of the problems of other archaeological interpretations in the past has been the use of sources from other periods of time. Even so, there are instances where she does precisely that when using textual evidence from Roman Egypt in discussing married children residing with their parents (Meskell 2002:97). Another example is her use of the Middle Kingdom Period composition, *Instructions of Ptahotep*, to illustrate Egyptian attitudes toward the inequality of women during the New Kingdom (Meskell, 2002:95). Middle Kingdom texts were indeed known and copied in the New Kingdom and it is possible that these earlier compositions may have had some small influence on Egyptian perceptions of their society in the New Kingdom. Even so, those texts, being from an earlier time period, may just as well have not legitimately described the social and cultural experiences at that time. Certainly, the use of textual evidence from Roman Egypt (see Meskell, 2002: 192) is not justified by the standards she sets out in her interpretive framework.

In her reviews, Morris identifies the two approaches generally taken by scholars when working with archaeological data. One method is to start with a theoretical position and try to apply relevant evidence to support that position. Such is the case with *Archaeologies of Social Life: Age, Sex, Class, et cetera in Ancient Egypt*, where a 'third wave feminist approach' is used (Meskell, 1999: 2) in the hope that archaeology might have social impact in the modern world (Meskell, 1999: 225). It is a legitimate question to ask if such agendas are not the driving forces from which interpretive frameworks and methodologies are propounded. I suggest, however, that the danger of starting with a theoretical agenda could lead to the situation of establishing preconceived conclusions and then selectively finding facts to fit the conclusions regardless of interpretive frameworks.

The other possible approach is to examine and present the evidence and then to apply appropriate theories to generate interpretations. It is this second approach that is used in *Private Life in New Kingdom Egypt* (Morris 2002a: 264). It is in this particular work that Meskell definitively outlined her interpretive framework and she seems less driven by agendas. Certainly, she is still concerned with things such as feminism, but the framework she develops in this book is more inductively contextual and yet it still allows for specific focuses on women, the roles of children and other such topics.

Further development and wider application of the interpretive framework

Regardless of the criticisms, many of which have validity, I would argue that the intent of Meskell's interpretive framework is basically sound. One can argue about her application of the framework or appropriateness of some of her examples, but what she is really attempting is a far more inclusive and contextual usage of the data than has previously been historically employed in Egypt. Rather than continuing with the textual versus the archaeology dichotomy that has been so historically prevalent, her interpretive framework provides a valuable starting point for scholars to take a new look at ancient Egyptian culture.

Having said this, the framework suffers from the fact it has not been developed to its fullest potential and, as a result, can only be considered a starting point. I argue that there are two improvements that could be made. As already noted, there are four information sources used in the framework to make interpretations about ancient Egyptian culture. These are: textual, iconographic, archaeological and something identified as 'broadly anthropological' (Meskell, 2002:7). I intend to use the first three of these broad datasets as the basis of my interpretive methodology, although for my purposes, I will rename the "iconographic" category as "representative/artistic" since that is a more accurate reflection of the types of data I intend to use.

It is the 'broadly anthropological' category that is somewhat troublesome because it is ambiguous. As previously mentioned, Meskell (2002: 12) suggests the use of 'case studies drawn from a wide temporal and geographical range, utilised so as to accentuate possibilities for difference in the ancient record'. Although she generally utilizes a number of theoretical traditions in *Private Life in New Kingdom Egypt*, including the works of *Annales* historians, third wave feminism, post-processual archaeology, anthropology, social theory, and literary

studies (Meskell, 2002: 208), she never really explains in the initial discussion of her interpretive framework just what these case studies are, how they are used or how the information is assessed.

Rather than term the fourth methodological category 'broadly anthropological' I suggest it should be identified as 'theoretical'. It should be viewed not so much as another data set, but as a set of available and interactive interpretive theories to be applied to the three aforementioned data sets. This would include not only the anthropological and cross-cultural intra-site analysis, but could be expanded to include theoretical topics such as materiality, agency, phenomenology, symbolism, taskscape, and so on. The advantage of this change would allow the textual, iconographic and archaeological sources to be considered, not from a single theoretical position, but from a number of interactive theoretical viewpoints to provide the widest possibilities for interpretation and a more inclusive approach.

Secondly, the interpretive framework found in *Private Life in New Kingdom Egypt* is only a basic outline that could benefit from added detail in order to be truly useful. How the details are supplied will depend on the time period being examined, the types of sites considered, the focus of the enquiry and so on. If this system is going to be useful, it must be adapted for the different applications. For instance, a corpus of documents should be established for each time period. The same goes for searching out iconographic evidence related to the time period. The stratigraphic records and artefact assemblages from a site should be compared with sites containing contemporary components. Not only would this perhaps fill in gaps of information from a particular site, but it may well give indications of regional differences. Lastly, it is possible that not every theoretical approach will be found useful for interpreting every site. Likewise, the research focus of the investigators may perhaps reveal some theoretical approaches more useful than others. In essence, the use of an interpretive framework such as has been described will require different and varying data sets based on timeframe, site type, etc.

The framework presented in *Private Life in New Kingdom Egypt* was used to interpret the New Kingdom workers village at Deir el-Medina near Thebes. This site was chosen specifically because of the vast amount of textual, iconographic and archaeological evidence that was available from there. Although it is possible to question some interpretations

presented in the book, this was an attempt to look at the site of Deir el-Medina in a different way. This begs the question as to whether the framework could be applied to other time periods and areas as well. For instance, could it be applied to the Middle Kingdom? That is what I intend to do in this work.

Another consideration is that the framework was used to interpret only one site located in Upper Egypt. Rather than attempt to apply my expanded and detailed interpretive framework to a single area it is proposed here to apply it to several sites at different geographic locations throughout Egypt to see how it could work. It is possible that use of this inclusive contextual methodology could highlight regional nuances between sites.

Lastly, Deir el-Medina is a settlement site that was used to house workers employed building tombs in the Valley of the Kings. Is it possible to apply the interpretive framework to sites other than settlement sites? Would it be possible to apply it to religious, military or economic sites? What differences could be noticed between varying site types? This will be investigated through a series of case studies.

Textual Data

The use of textual evidence

While textual data are a necessary source of evidence for the interpretation of Egyptian archaeological sites, I think it fair to say that the field of Egyptology has historically depended too much on textual evidence for its understanding of ancient Egyptian culture (see the comments of Bietak and Giddy in Chapter Two). Other datasets need to be given much greater attention than has historically been the case. This does not suggest, however, that the textual evidence should be ignored.

Much of the interpretive archaeological theory extant today has been developed by pre-historians and I suspect it is partly due to the fact that they do not have the luxury of textual evidence to aid the interpretations of the cultures with which they deal. Egyptologists are in a much more fortunate position in that we possess plentiful textual sources from different eras in Egyptian history. It is not enough that occasional references to texts and inscriptions should be used in the interpretation of Egyptian sites, but iconographic and archaeological

evidence should be continuously reviewed and checked in light of any relevant textual evidence that might possibly exist. Relevant textual data used in conjunction with iconographic and archaeological data should provide a solid basis of evidence to which interpretive theory can be applied.

Types of literary evidence

Historically, Egyptologists have divided textual sources in varying ways. Texts have been identified by content or subject (Erman, 1966; Simpson, 1972; Lichtheim, 1973), the historical period in which they were written (Erman, 1966; Lichtheim, 1973), period of linguistic development (i.e. Middle Egyptian, Late Egyptian and so on) (Simpson, 1972), or even by the places or surfaces on which they were written (i.e. “monumental” inscriptions in tombs, stelae and so on) (Lichtheim, 1973). Identifying texts by content or subject, historical period or period of linguistic development seemed to be logical ways of accomplishing the task. However, the “monumental” category may be a bit misleading.

Richard B. Parkinson points out that “illustrative captions in temples” and funerary inscriptions have been classed as “monumental” texts, but this classification cannot really be considered a true textual genre. According to Parkinson (1991a: 24):

“Funerary inscriptions have been termed 'monumental', as if this were a particular genre of texts. Other 'monumental' texts include the illustrative captions in temples, but there is every reason to suppose that similar texts existed in secular buildings, indeed on any surface used for representation, regardless of its 'monumentality'. Papyri, furniture, amulets, wine jars and seals demonstrate the common use of writing for or labelling of objects and expressing ownership. Many 'monumental' texts are enlarged examples of this type: rock inscriptions label the level of a high Nile level or named a canal and commemorated its digging. Other examples show the same derivation from non-monumental models: decrees and temple rituals made monumental for durability and display. In most cases 'monumental' is a category which is defined by the writing surface used for the text and not by the genre of the text itself, although only the certain genres and styles were deemed suitable for a monument.”

Parkinson provides what I believe to be a useful categorization of texts based on the literary content of the particular passages and works in question. He divides the texts into six categories: 1.) informational texts, 2.) technical texts, 3.) religious and magical texts, 4.)

funerary texts, 5.) commemorative texts, and 6.) literary and didactic texts (Parkinson, 1991a: 21).

Informational texts are generally those that were intended to communicate or record information. Informational texts may have been the most common, day-to-day type of writing in Middle Kingdom Egypt, but only a small corpus of these texts survive (Parkinson, 1991a: 21-22). Technical texts are informational to a great extent, but are not treatises about the practice of the different forms of “practical knowledge” such as mathematics and medicine. They are instead itemized catalogues of problems and their answers that Egyptian scholars could use as examples (Parkinson, 1991a: 22).

Religious and magical texts include temple administrative texts as well as those that recorded rituals and their performance, hymns, incantations and the like. Parkinson (1991a: 23) states that magical texts often had similar format to technical texts except that they recorded spells rather than technical knowledge. Conceivably, one could group funerary texts into the previous category, but Parkinson (1991a: 23) separates them, not only because they represent the largest corpus of extant ancient Egyptian textual materials, but because of their “cultural importance” and the fact that they are most often found specifically in tomb settings. Such texts encompass rituals, spells, prayers and hymns meant to assist the deceased in the underworld.

The group of texts that comes closest to the “monumental” classification would be those that Parkinson (1991a: 24) identifies as commemorative texts. Funerary autobiographies, royal decrees, accounts of historical events, king lists and even some types of graffiti were written on stelae, public buildings or other monuments as specific acts of commemoration. The important delineating factor is not based on the medium on which the texts were written, but in the act of commemoration. The texts were inscribed not only for propagandistic purposes, but “monumental commemoration for its own sake” (Parkinson, 1991a: 24).

Parkinson’s last category encompasses literary and didactic texts. Textual examples that fit the definition of “high literature” include not only those that the ancient Egyptians recognized as exceptional examples of Middle Egyptian language useful for teaching, but also those stories, such as *The Story of Sinuhe* or *The Shipwrecked Sailor*, and wisdom literature that were considered timeless masterpieces. In Parkinson’s (1991a: 25-26) opinion, didactic



wisdom literature can be subdivided into teaching literature, such as the *Maxims of Ptahotep* or the *Teachings of Merikare*, or laments and discourses such as the *Lament of Ipuwer* and the *Tale of the Eloquent Peasant* respectively.

Parkinson provides a useful framework for identifying genres of Egyptian literature that I believe can be employed in interpretive methodology. In regard to developing interpretive methodology, I think it is imperative to distinguish between Middle Kingdom texts that provide general support for the interpretation of specific Egyptian archaeological sites and those texts whose provenance are site-specific. Parkinson's categorical system classifies literary genres within the general field of Middle Kingdom literature, but it can be applied to site-specific texts as well. Therefore, I will distinguish between site-specific and generalised Middle Kingdom literature and use Parkinson's system for both.

Considerations for the archaeological use of textual data

There are some important considerations to observe when using textual materials to support archaeological interpretations. On a superficial level, I think it is necessary to recognise that there are subjects that the chroniclers of any historic period simply did not think or wish to cover. Furthermore, the often fragmentary nature of textual evidence due to destruction or loss of texts also contributes to gaps in our knowledge.

In a deeper sense, Meskell (2002: 8-9) states that Egyptian writings can give us a fairly dependable indication of how they understood personhood, women's roles and mortality. Even so, she rightly calls attention to several problems associated with using textual materials in archaeological interpretation.

First, I believe she has correctly warned against the fallacy of using textual material from multiple historical periods in order to construct interpretations. Major cultural and ideological changes occurred throughout the course of Egyptian history that makes questionable the notion of an "unbroken thread of pharaonic culture" (Meskell 2002: 8). Second, much of the ancient Egyptian population was illiterate and probably had little voice in the historical record. Texts were written for the benefit of the educated elite (Meskell, 2002:9-10).

French (pers. com. 2005) remarked on the importance of recognizing the symbolic nature and content of “monumental” and religious inscriptions. Such inscriptions may contain propagandistic or formal literary elements, perhaps readily understood by an ancient Egyptian audience, but which may give distorted historical and archaeological impressions if taken at face value. On the other hand, the symbolic content of personal communications and business correspondence is very much less according to French (pers. com. 2005). Consequently, it is desirable when dealing with textual data, to make the distinction between personal communications and writings and those formal texts found on monuments and in tombs.

In the same vein, Parkinson (1991a: 28) cautions against the temptation to assign historical accuracy to texts that are overtly literary in nature. He (1991a: 28) cites the essentially ahistorical *Teachings of Merikare* as a textual example that cannot really be used for historical information on the Xth Dynasty. Furthermore, one must recognize the distinction the Middle Kingdom Egyptians made between literary and practical texts and not engage in “reductionist analysis” of Egyptian literature (Parkinson, 1991a: 28).

Didactic texts, such as the *Teachings of Merikare* or the *Maxims of Ptahotep*, and fictional narrative literature, such as *The Story of Sinuhe* and *The Shipwrecked Sailor*, express a dichotomy between personal achievement and service to the Society as a whole. These two positions were not necessarily inflexible polar opposites, but could be used in juxtaposition with one another in what Antonio Loprieno (1996:538) believes reflects topos and mimesis. Loyalistic texts, wisdom literature and laments indicate recognition of the Egyptian worldview. Narrative stories portrayed heroes who could act as models for personal achievement and were perhaps more indicative of realist personal views (Loprieno, 1996:538). I suggest it may be possible, by looking at these types of texts in a literary way, to gain some understanding of the Egyptian cultural habitus and how individual Egyptians may have coped with their cultural surroundings.

The *Story of Sinuhe* itself has a basic framework similar to that of some funerary literature (Baines, 1982: 33), but within that, contains a number of literary forms that create multiple viewpoints for the reader (Baines, 1982: 34, 35). According to Baines (1982: 44), modern literary analytical techniques of those multiple viewpoints can reveal, at least in the case of the *Story of Sinuhe*, Egyptian cultural emphases that differ quite markedly from modern western thought. If he is correct, I suggest whatever different cultural emphases can be

discovered from such analyses could conceivably be used to understand something of the ancient Egyptian psyche.

The Shipwrecked Sailor also has distinctive literary features. It may originally have been an oral composition that was recorded for the benefit of a literate audience (Baines, 1982: 57). There is a story within a story that acts as a platform for including the twin facets of mythology and the challenges of mortal existence. Mythological or personal mastery of this experience could be seen as the basic unifying factor in this composition (Baines, 1982: 72). I submit that, in a more general archaeological sense, this composition suggests an inextricable link between the divine world and everyday life in the Egyptian mind.

Narrative bibliographies found in funerary and commemorative texts were likely not written by the central characters themselves, but by scribes hired for the purpose. Conceivably, the biographical content of these texts presented idealized portraits of the persons rather than accurate historical accounts of their lives. Additionally, the appearance of these narrative bibliographies in tomb settings suggests that they were not meant to simply record the past lives of the central characters, but to symbolically cause those lives to continue into the future. Therefore, as Baines (1999: 23) states, such texts have the sense of being “time-neutral” rather than historical.

Understanding the nuances of literary “genre and decorum” used in narrative bibliographies vitally affects our understanding of how individuals operated within Egyptian society and how they were seen by that society (Baines, 1999: 24). As Baines (1999: 24) asserts, “The person is a moral entity that balances self-interest with social participation in widely varying ways”. Generally, narrative bibliographies laud individual achievements, but within the framework of Egyptian societal values which bear some benefit to the culture as a whole. Even so, the worth of those values was best expressed by the practice of them by individuals (Baines, 1999: 24).

Narrative bibliographies, whether written on the tomb walls, stelae or other prominent locations, were probably limited to the elite segment of society (Baines, 1999: 25). Especially within a mortuary context, narrative bibliographies proclaimed the central character’s status to the rest of the community. Ultimately, narrative bibliographies functioned to provide for the display of written language in tombs, the status of the central character and the recitation and

enactment of the texts for the past, present and future benefit of the deceased (Baines, 1999: 25).

The need to develop a corpus of texts backed by site specific texts

With the forgoing considerations for using textual support in archaeological interpretation in mind, I believe it is absolutely necessary to develop a general literary corpus for each of the major periods in Egyptian history in order to supply era specific textual materials for interpretive support. G. Posener published a catalogue of Egyptian literature (1951) and a supplement (1952) that includes literature from multiple periods that is divided into sections (Parkinson, 1991b). There have also been several other compilations of Egyptian literature done by Erman (1966), Simpson (1972), Lichtheim (1973), Parkinson (1991) and so on. While these are useful resources for materials, what I suggest is the creation of a collection and listing of at least the titles of texts specific to each of the historic periods, if not the texts themselves, for convenient use as essential aids in archaeological interpretation.

Historically, many of the excavators working in Egypt came to the field primarily with philological backgrounds and, thus, would likely have been fairly familiar with much of the literature available for each specific period of Egyptian history. This may still be the case today for those excavators whose training has been primarily philology (Nicholson, pers. comm., 2007). My specific concern is that, a corpus of period specific literature should be compiled for those archaeologists who did not specialise in Egyptian philology and literature. I have compiled such a list of general literary sources from the Middle Kingdom since my case studies will deal with sites dating to that period.

The second essential consideration is to use site-specific texts if they can be found to exist. Site-related texts can provide specific local information about sites, while general literary sources can perhaps supply a wider view of ancient Egyptian culture at the time of site occupation. I therefore believe it necessary to utilize as many relevant general and site-specific texts as possible to support archaeological interpretations. Obviously, if a particular site has not yielded any documents, it will not be possible to include them in any archaeological analysis, but it may be that inter-site comparisons could supply literary and textual information about the site in question concerning trade, political/cultural/historic

events and so on. In any case, as mentioned above, Parkinson's category system can be used for dealing with any site specific texts.

Representational/Artistic Data

Use of representational or artistic data

An advantage of using textual sources for interpreting Egyptian archaeological sites is that they allow us to read ancient Egyptian descriptions of their own cultural world. Similarly, I believe representational/artistic data allows us to see how the ancient Egyptians may have graphically perceived the world around them. Use of this data is not without its problems, as many of the paintings, reliefs and statues may depict idealized settings. Even so, once we recognise this condition, this data can still provide valuable insights into ancient Egyptian culture.

So what can representational/artistic data tell us about ancient Egyptian culture? I think the first consideration is the nature of the representational/artistic data. Cyril Aldred (1969: 8-9) points out that Egypt was divided into two distinct geographic sections. Upper Egypt, in the south, was a region where agricultural land was limited to that irrigated area in close proximity to the Nile while the remaining terrain consisted of arid desert. Lower Egypt and the Nile Delta featured wide tracts of arable land and a generally temperate climate. Such geographic differences tended to influence the lower Egyptians to be more individualistic, both politically and economically, while the upper Egyptians were more homogenous, economically interdependent, and politically cohesive (Aldred, 1969: 8-9).

Considering these cultural and geographic differences, Aldred (1969: 9-10) suggests that it is not "over-rash" to suppose "on circumstantial grounds alone, a differing artistic vision". Certainly there is a dualism to be found in the Egyptian art that some scholars suggest is explained simply by the coexistence of folk art and court art traditions. Aldred (1969: 9-10) believes a more valid viewpoint is as that this dichotomy was the result of the different cultural patterns existing in northern and southern Egypt.

More to the point, during the Middle Kingdom, the centre of power shifted from Memphis to be southern city of Thebes. Consequently, Aldred (1969: 13) suggests that, although it is

possible to detect Memphite stylistic influences in Middle Kingdom art, it is predominantly influenced by the Theban style of Upper Egypt. Furthermore, Middle Kingdom art was influenced by the chaos and political anarchy of the First Intermediate Period. The self-assured confidence of the Old Kingdom was replaced by a seemingly pessimistic attitude that was reflected in the “sad faces with their heavy-lidded eyes that we see in the portrait statues” (Aldred, 1969: 15-16).

Considering the actual artistic representations themselves, no matter the medium, it is necessary to remember that most of what currently survives was decoration associated with temples and cult structures. O'Connor (1999: 216) mentions that it is generally well known that the texts, reliefs, paintings and statuary were used in systematic “programmatic arrangement” within these buildings. While variations were possible, the content and formal organisation of texts and the artwork generally adhered to an “established sequence from one part of the building to another”. He further suggests that temples, tomb chapels and other cult structures followed this basic plan of organisation for the texts and artwork as part of a ritual sequence designed to service and activate cult statues so that they could receive offerings and impart benefits to supplicants (O'Connor, 1999: 216).

Gay Robins (1986: 17-18) asserts that such defined arrangements of texts, carved reliefs, paintings and statuary may well have not always been the case in earlier times. Apparently, artists began to divide drawings into vertically placed, horizontal registers in the Early Dynastic Period. Various registers did not define spatial or temporal relationships between one another, nor did they indicate the order in which they should be read. The scene's central figure, whether pharaoh or tomb owner, provided unity for the accompanying registers (Robins, 1986: 17-18).

Robins (1986: 7) further states that ancient Egyptians did not compose “art for art's sake”, but that it ritually functioned to facilitate religious or daily secular activities for the particular tomb owner or the pharaoh represented. For the central figure, the commonplace activities depicted in the tomb actually symbolized “an eternal, abstract world”. On the other hand, tomb art that did not involve the tomb owner or in domestic art, tended to reflect actual daily activities.

I suggest symbolism is tremendously important in understanding how representational/artistic

data should be considered for interpretive use. I submit that Smith is correct in saying:

Indeed, much of the symbolism found on the great monuments of Egypt did not require an ability to read hieroglyphs to receive their basic message. In this way, the legitimising ideology of the ethnic foreigner topos was transmitted through verbal, visual, ceremonial, and artifactual (including architectural) channels (Smith, 1997; Smith, 2004: 180).

Smith (2004: 171-187) points out is that Loprieno's topos and memesis can also be applied to our understanding of tomb art, monumental reliefs, statuary and the like.

The symbolism in Egyptian art provided both natives and foreigner alike with readily understood information. According to Robins (1986, 11), such art had to convey "objective truth, independent of time and space" if it was to be "immediately comprehensible and unambiguous" to its audience. Because Egyptian artists strove to produce art that was "conceptual rather than purely perceptual", they did not concern themselves with proportional distortions, although they were evidently aware of such techniques as foreshortening (Robins, 1986, 11).

Combined use of texts and art by the Egyptians within religious contexts created powerful forces that could impact not only the physical world, but the afterlife as well. Carved reliefs, paintings and especially statuary did not simply represent the depicted person, but actually contained the person's personality and identity. Artistic representations and texts could function as supporters or witnesses or preserve a person's youth and beauty in the afterlife (Meskell, 2002: 10). Furthermore, Meskell (2004: 81) believes that statues of ancestors could function as a "mnemonic tool" that would allow a petitioner access to spiritual power of that ancestor. If so, then the Egyptians evidently accorded agency to statuary in the same way that they did to a mummified body. Statues, and perhaps to a lesser extent, paintings and carved reliefs were active agents that "filled gaps in the social fabric of daily life" (Meskell, 2004: 95).

Statues were quite important during the Old Kingdom, not only for the reasons mentioned by Meskell, but also as places of physical habitation for the ba and the ka of the deceased within the tomb or ka chapel. According to Aldred (1969: 6), this concept underwent a subtle change in the Middle Kingdom due to the rising popularity of the Osiran cult which shifted the emphasis away from continued spiritual life in the tomb or ka chapel toward a spiritual life

in the Osiran afterlife. As a result, emphasis shifted away from statues and concentrated more on the mummified body.

Middle Kingdom statuary used outside of tomb or religious contexts had other meanings and uses. According to Aldred (1969: 16-17), the supreme power of pharaoh was underscored by huge statues of him compared with smaller statues of nobles. Additionally, while the poses and expressions of these representations of pharaoh were traditional, the statues did not so much reflect the idea of divinity as it did the pharaoh's strength, will and determination to maintain his right to rule.

Limitations of representational and artistic data

Although important, there are problems associated with the use of representational/artistic data. Meskell (2002: 10-11) warns that the most obvious pitfall is that paintings, carved reliefs, statuary and so on, especially when used in mortuary or religious contexts, represent idealized situations the ancient Egyptians hoped could be obtained in the afterlife (see Fazzini, 1973: 5). Considering this, artistic evidence should not be taken as literal representations of everyday life in ancient Egypt.

As was mentioned above, although the Egyptian artist was capable of producing artwork using what we would recognise as modern perspective, his goal was to create drawings based on natural reality rather than on artistic perspective. Natural reality did not require that a portrait be an "accurate likeness" of a person. The deceased frequently chose to be depicted in tomb art as being in prosperous middle age, consequently giving the possibly false impression of the deceased's actual economic status (Fazzini, 1973:6). Furthermore, since things such as old age, physical deformities or defects and the like were seldom portrayed prior to the Amarna Period, I suggest this potentially creates skewed impressions regarding the existence of physical disabilities and infirmities among the elite of ancient Egyptian population.

Another potential problem is that tomb art tended to focus on the males, with little regard for the roles of women, children or workers (Meskell, 2002: 10-11). Women and children are often represented as smaller figures in somewhat submissive or supportive poses. Workers

are frequently small sized and their subservient position in relationship to the deceased is manifest.

In his research on early civilizations throughout the world, Trigger (1993: 81, 82) states that many of the world's early civilizations developed "elite art that was more formal and sophisticated than that produced by peasants in the same society". Artists were employed to meet the needs of elite and wealthy customers and that in turn created "a unified style as a concrete expression of its power and class unity" (Trigger, 1993: 81, 82). Certainly, the cost of tomb art made it unobtainable to any but the wealthiest segments of ancient Egyptian society. As a result, tomb paintings, carved reliefs and statuary tended to reflect elite lifestyles (Meskell, 2002: 11).

New Kingdom texts document the material rewards and praise that pharaohs extended to skilful artisans (Trigger, 1993: 83). Accomplished artistic specialists were supplied not only with the necessary goods and commodities of life, but also with domestic support staff to free them from daily household and economic tasks. This allowed them to concentrate on their craft. The most skilled craftsmen were also supplied with the best and most expensive materials with which to work, which resulted in a "complex division of labour". Apparently, this division of labour created the situation of teams of craftsmen who worked under the direction of skilled overseers in order to produce the required statuary, carved reliefs or paintings (Robins, 1986: 7-9).

Partially due to the chaos of the First Intermediate Period, there emerged during the Middle Kingdom a growing middle class that, while not as affluent as their elite counterparts, created a new market for art. Since the middle class could not afford finer workmanship, they had to make do with second-rate copies. This in turn led to a class of less skilled artisans. Aldred (1969: 17-18) warns that the existence of these second-rate copies can give the false impression of the general quality of Middle Kingdom art unless one takes into account that most of this art was produced for a clientele that had not existed prior to this time.

The art produced for the nobility and that produced for the middle class provides an important distinction. Generally, art produced for the Egyptian elite was formally constituted using a limited number of well-balanced poses where "violent movement" is avoided and the central figure conveys the notion of controlled strength (Robins, 1986: 27). Some of these principles

could apply to the representation of less important figures, but because they were lesser figures, the artist had more leeway in how they were depicted. While physical deformities, hunger and old age were almost never depicted in elite representations, they were much more likely to be seen in representations of the middle or lower classes. Moreover, representations of the middle or lower classes show much more action and ranges of poses than those depicting the elite (Robins, 1986: 38; Fazzini, 1973: 6-7). I submit that an excellent example of this assertion is the Middle Kingdom tomb paintings at Beni Hasan.

Meskel (2002: 11) raises an interesting point concerning the accurate depiction of technical activities such as pottery making or bread and beer making. She suggests the portrayal of technical activities may be “clouded” since the artists may not have known the technical details and procedures involved in the crafts they were depicting. Subsequently, these drawing cannot be taken as “literal recordings of processes that can then be reconstructed step-by-step” even though they are “valuable for studying technology and craft” (Meskel, 2002: 11). While it may be unwise to view depictions of technical activities as literal records of process, I question whether Egyptian artists were necessarily ignorant of craft activities they commonly saw being practised as they went about their daily lives.

I do not suggest a tomb painting artist would know all the technical knowledge necessary to producing a pot for instance, but I suspect he would probably have known most of the major steps involved. Furthermore, it may not have been possible to graphically depict all of the technical steps necessary to produce a pot, nor was it probably necessary to do so. Nicholson points out:

... scenes of anybody making glass for example, presumably because it was so specialized, are relatively rare. Either one was not allowed to portray it or one just did not know how it was done. One could show objects that were made of glass but; there are no scenes of glassmaking. And similarly, there is only one scene from any time of anyone, perhaps, making faience. That is either, because it is difficult to get across in a scene what is going on or the artists did not understand it and therefore, it was not part of the set repertoire. There must be some reason why that is not regularly applied. The things that are not shown in art I think are as important as the ones that are. It is certainly telling us something about what the artists knew and what the customers desired. (2006: pers. comm.).

Types of representational/artistic evidence

I have previously mentioned several types of representational/artistic evidence. Tomb paintings immediately spring to mind as do carved reliefs depicting people, social class, agricultural and industrial activities and so on. Carved reliefs, found in tombs, temples and chapels, have overt religious significance. Secular reliefs often record historical events or proclamations, but often have political and propaganda implications as well.

Statuary is another type of representational/evidence I have already mentioned. Religious statuary possesses not only a certain type of magical agency, but can imply social status as well. Secular statuary is often executed on a grand scale, but even when it is not, statuary may connote power and status.

Another type of Middle Kingdom representational/artistic evidence is wooden models, such as those found in the XIIth Dynasty tomb of Meketra. They depict daily activities of ancient Egyptian life in three dimensional forms. Similar, although perhaps not as elegant, are “spirit houses” made of clay. Again, as attractive and detailed as these models sometimes are, I hasten to add that they may well depict idealised scenes just as do paintings and carved reliefs. This must be taken into account when deriving interpretations from them, but even so, I suggest they are also important pieces of representational/artistic evidence.

Archaeological/Material Culture Data

Use of Archaeological data

For what I suspect is a large percentage of the modern day, general population, excavations and artefacts are synonymous with archaeology. Artefactual evidence is the most obviously used dataset for attempting to understand ancient cultures, but it is only one category of archaeological data. Artefact studies take into account factors far beyond morphology or the materials out of which the artefacts are made. Cultural interpretation helps provide the contexts for understanding the materiality between the artefacts and the people who used them, thus providing a picture of life in the ancient past (Hole and Heizer, 1973: 308).

Robb (2004a: 134) correctly asserts that the importance of artefactual evidence is not limited to the “particular kinds of spaces” in which they are found, but also the fact that they belong to “recurrent assemblages that have their own internal structure”. The internal relationships within assemblages help give contextual meanings to individual artefacts. Such contextual meanings often change if artefacts are regrouped into new assemblages.

Although artefacts may be important to cultural interpretation, archaeological data consist of more than artefactual evidence. Faunal analysis, palynology and botanical analysis, chemical analysis, osteology, architectural evidence, spatial analysis, stratigraphy, geology, experimental archaeology data, ethnographic evidence and so on are all part of the data sets necessary to provide interpretation (see Samuel, 1993: 156-164). These must be brought together to into a cohesive corpus of materials to be used in reconstructing and understanding the sequence of events that occurred at a given site, as well as gaining possible insights into the associated economic, cultural, domestic and environmental systems (Barker, 1977: 213).

Morris (2006: pers. comm.) has suggested that one of the best ways to improve the practice of archaeology in Egypt is to employ as many data sets in our interpretation as possible. I certainly agree that the more data sets we employ, the greater the possibility we have of making valid assumptions about a site. Previously, I mentioned a number of data types from which we can choose for our work, but it really is not a case of choosing. We should use all of the data sets we have available to us.

In interpreting the site at Deir el-Medina, Meskell (2002: 11) relied heavily on both settlement and mortuary archaeological data and used it “dialectically” with the textual evidence. Her reasoning was that texts often represented elite perspectives or simply did not record the everyday instances of common people. Archaeological data provided information on women, children, foreigners, slaves and so on, while shedding light on domestic activities not covered in the texts.

Furthermore, archaeological data can provide alternative evidence, potentially contradicting textual claims. For example, official records from the reign of Akhenaton suggested that the Cult of Aton was widely practised amongst the inhabitants of Amarna (Meskell, 2002: 11). Archaeological evidence does not seem to support that contention. Information obtained from private homes and chapels indicates that many people simply continued to worship the

traditional gods and goddesses. The Cult of Aton may have been the officially sanctioned and public cult, but the archaeological evidence indicates differences between the official word and private practice.

Recently developed areas of archaeological research are also providing new data sets. For instance, the extraction and analysis of DNA done in the past fifteen years or so has made possible sex identification, species identification, domestication change, human genetic disease, kinship studies, archaeological correlations and population markers (Hedges and Sykes, 1993: 101-102). A recent example of the value of DNA work has been the potential identification of a mummy as the female pharaoh Hatshepsut through the use of mitochondrial DNA (www.4).

Potentially, multiple archaeological data sets may do more than simply provide physical evidence about Egyptian culture. Historically, in the field of Egyptology, texts have often been privileged over archaeological evidence. Smith (2003; 167) is correct in saying that the text/material culture dichotomy is not a “zero sum game”. Archaeology helps fill the gaps in the textual record, but the use of material culture has a more important interpretive role to play. As Smith (2003; 167-168) states, the value of archaeological evidence does not decline proportionally in relationship to the increasing amount of literary evidence available. Kemp (2006: 193) points out that, where textual evidence may be incomplete or altogether lacking, archaeological evidence may be able to illuminate ideals commonly held by the ancient Egyptians. Such evidence may potentially shed light on the existence of ideologies about social order.

As with the other interpretive data sources archaeological data also have short-comings and limitations. As Philip Barker has remarked:

“In every excavation we must expect aspects which are beyond interpretation from the material evidence alone. A reed pipe will tell us its range of notes but not the tunes played on it” (Barker. 1977: 200).

Meskel (2002: 11-12) noted several limitations of archaeological data while developing her interpretive framework. First, Archaeological data are open to subjective interpretations. Second, excavations done at the opening of this century will provide more reliable data than excavations done in the opening decades of the Twentieth Century. Lastly, tomb sites,

chapels and temples have been the historical focus of archaeologists in the past, but little archaeological work has been done on settlement sites until recently.

Specialist reports must be integrated into interpretations and not be ends in themselves

One common facet I have noticed in many archaeological reports is that specialist commentaries, such as those on ceramics, botanical analysis, osteological analysis and so forth, frequently seem to be presented as almost separate unconnected features of those reports. Often they are complete entities unto themselves. Bryan (2006: pers. comm.) agrees this situation is worthy of serious reconsideration, although this situation is not universal and Smith's (2003) work on ethnicity in Upper Egypt is a good case in point.

Certain types of archaeological data, such as botanical or chemical analysis, require "specialist knowledge" and study since they refer to certain areas of behaviour. Ceramics, for instance, produce a *chaîne opératoire* regarding collection of raw materials, production, trade and usage. Even though specialists may be initially provided with contextual information, they make individual decisions as to the variables they will use to study the materials and the materials are studied separately. Consequently, as Hodder (1995: 252) points out, the "artefacts are wrenched out of their find contexts and are subjected to universal criteria of measurement" and overall interpretation suffers theoretically. His solution is that specialists need to be brought more into the overall interpretive process (Hodder, 1995: 252).

Context

Contextual use of archaeological data requires two different considerations. First is the context in which artefacts, ecofacts, osteological information and other types of archaeological data are found and recorded. Material culture associations are the basis of how we as archaeologists arrive at interpretations (Hodder, 1986: 123; also see Hills, 2005: 140). Therefore, I suggest that the basic taxonomic groupings should be based on provenance and associations rather than by generalized categories such as stone artefacts, pottery, botanical samples and so on. We already do this on some levels, such as with burials or discoveries such as the Tyrolean Ice Man, where the archaeological evidence is seen as having an "organic unity" (Robb, 2004: 134). What I am advocating is that we do this on a much wider scale. Specialists, such as ceramicists, osteologists or archaeobotanists, may still produce

reports on the identification and evaluation of the specialized data for which they are responsible, but that information must be applied to and evaluated within contextual taxonomic groups as a matter of course.

Second, archaeological data, especially material culture, are the results of human activity and such activity involves intentionality. Simply considering why or how an artefact was made, why a wall was built in a particular way or describing cultural deposits is not sufficient. Archaeological data must be studied in such a way that we can attempt to understand what ancient people were trying to achieve by their actions. Human creativity leads to contextualized action (Hodder, 1995: 249). Therefore, using context, it is possible to see distinct regularities of action resulting from comparing different data (Hodder, 1995: 251-252). Hodder states that good contextual analysis relies on the process of going “back and forth between theory and data and trying different theories to see which accounts for the data best” (1986: 149-150).

Methodology

Regarding methodology, I think there is much merit to the work of Smith at Askut and Tombos. In *Wretched Kush* (Smith, 2003), he outlined the types of archaeological data he used in order to gain a sense of how ethnicity impacted the cultural setting on the borders of Nubia and Egypt in the Middle and New Kingdoms. Smith worked to understand that impact by examining lifestyles at the military settlement of Askut. He set up a methodical system starting with an introduction and then chose explicit categories of data that he believed would most reveal ethnic differences and identities. He considered architecture; material culture; tools; adornment; cosmetic equipment; seals, seal amulets and sealings; food; chapels; ancestor veneration; figurines and fertility to be the most viable information sources for understanding ethnicity in a military settlement site. He found adornment and foodways provided especially intriguing insights into ethnicity (Smith, 2003: 97-135).

At the cemetery site of Tombos, Smith (2003: 136-166) again used a similar interpretive system for archaeological data, but with a few changes and alterations. He again started by providing an introduction, but the task of identifying ethnicity at a cemetery site required him to choose different categories of analysis from those used for settlement sites. The categories

used for analysing Tombos included architecture; grave goods; objects designed for the tomb; objects of daily life and ritual practice.

Using the interpretive analysis of archaeological data gleaned from the case studies, Smith completed his ethnicity study by synthesizing the information into two chapters, one that examined the role of propaganda and ideology within the Egyptian controlled borders (2003: 167-187) and the other that dealt with the more pragmatic effects of ethnicity, agency and empire (2003: 188-206). I propose that an interpretive system for analysing archaeological data, similar to that constructed by Smith for his specifically focused ethnicity study, could well have a wider, more general application value for other types of Egyptian sites.

The excavations at Askut took place in the early 1960s (Smith, 2003: xx) while the excavation work at Tombos was done by Smith in 2000 and 2002 (2003: xix). The use of modern excavation techniques and recording resulted in a fairly complete and reliable recording of archaeological evidence from these sites. However, what can be done about sites where the recording procedure has not been as thorough, for instance on those sites excavated at the beginning of the 20th century?

Shaw (1999) has devised a procedure that may allow some lost data to be recovered. He points out that while recent excavations, using the most modern recording procedures, are preferable to excavations done around the early part of the 20th century, modern excavations done on a small scale restrict the overall feel for the site as a whole. Furthermore, the smaller scale excavations often do not produce the wide range of material types as the large scale clearances did. As a result, it is worthwhile to examine the evidence from older excavations where large areas were exposed through excavation. The problem is the lack of adequate recording that was done on excavations during the 1920s and 1930s (Shaw, 1999: 273).

Much of the work done at the Workmen's Village at Amarna in 1921 and 1922 by Peet and Woolley entailed large scale clearance of soil and sand with little screening. Consequently, much archaeological material was missed and ended up in the spoil heaps. Most of the finds recorded by Peet and Woolley were furniture, jewellery, architectural fittings and tools for textile production, but they missed smaller fragments of faience and glass jewellery and lumps of raw material such as frit or copper alloy. Kemp re-excavated the Workmen's Village in 1980 and 1984 and the archaeological data he recovered showed substantial

differences in regard to the types and percentages of artefactual material present from that recorded by Peet and Woolley (Shaw, 1999: 275).

One of Kemp's first tasks in his re-excavation at the Workmen's Village was to remove the old spoil heaps left by Peet and Woolley to different locations. The spoil was screened and tremendous amounts of additional data were recovered. Shaw (1999: 275) questioned whether it was possible to use these additional data to reconcile the percentage differences between Peet and Woolley's findings and those of Kemp.

Shaw reasoned that, due to the lack of screening by Peet and Woolley, only about twenty percent of what was actually at the site was recovered and recorded. He further reasoned the other eighty percent still remained in the spoils heaps.

"The percentages were obtained by calculating 20 per cent of the 1921-2 material and 80% of the material from the spoil heaps, then adding these two percentages together to create the percentages in the hypothetical frequency distribution" (Shaw, 1999: 275-277).

The hypothetical ranges achieved through this method were much closer to the percentages recorded by Kemp. Shaw (1999: 275-277) suggests this method more closely approximates to the data results that could be expected if the sites excavated in 1921 and 1922 had been dug using modern field methodology and recording procedures. Shaw also checked the validity of his method by applying to the spoil heaps left by Pendlebury's excavations that took place between 1926 and 1937 (1999, 278-281).

Shaw's method cannot put the archaeological data back into stratigraphic context, even if spoil heaps are excavated stratigraphically. Even so, it does give us an important and essential tool to re-evaluate the results of older work that was not as well recorded.

"One of the vital lessons of this analysis of the excavation techniques and spoil heaps of Woolley and Pendlebury is the importance of continuing to analyse and reinterpret the 'old' evidence, rather than treating it as if it were a fossilised or defunct set of data, in already thoroughly absorbed into the accepted picture of a site" (Shaw, 1999: 281-282).

Experimentation

Experimental archaeology has been practised since the 19th century and thus is certainly not a new idea (Hurcombe, 2005: 110). It is a technique which I believe can provide valuable information on what was possible for ancient people to achieve using the materials and technology available to them at the time. Such experimental work can be as simple as knapping stone tools and trying to use them or as intensive as building ancient structures such as a small pyramid as did Mark Lehner (www.5).

At its best, experimental archaeology is done using the scientific method of stating a hypothesis, designing an experiment to test the hypothesis and recording the results. The results can be used to alter the hypothesis and so on. The experiment should be written about in such a way that procedures are clear and could be duplicated by others. The value of experimental archaeology is that it has the potential to produce comparative or cognitive data, allow comparison of archaeological techniques or reveal how natural processes affect site formation (Hurcombe, 2005: 114). Ultimately, experimental archaeology is a “tool which demonstrates incorrect assumptions and inaccuracies, and refines theories and methodologies” (Hurcombe, 2005: 112).

Nicholson (2007a) rightly laments that, in the case of Egypt, experimental archaeology has not been widely practised nor has it had the “impact on the study of materials” that it should or could have done. Little experimental archaeology has been done in Egypt since the work of Reginald Englebach (1923) in the 1920s. Kemp somewhat changed that trend in the 1980s with his work at Amarna.

At Amarna, Kemp’s team engaged in pottery “throwing” experiments using a hand-turned wheel and discovered that the wheel had sufficient force when spun to allow the potter to properly form the pot. He was then able to cross-reference this information with tomb painting of potters using hand-turned wheels thus verifying the relative efficiency of using this type of wheel to make pottery (Nicholson, 2007a).

Experiments were also conducted to discover why chalice-form bread moulds were made the way they were. Glass making was also investigated (Nicholson, 2007a). Archaeologists discovered that glass could have been made at Amarna using a furnace type known from

excavated evidence using the available local materials. However, Nicholson (2007a) is quick to point out that simply because experimental archaeology indicates something could be done a certain way doesn't mean that is the way the ancient Egyptians actually did it. Experimental archaeology only can show what is possible.

As a result, ethnographic evidence can be very helpful. Although things have changed in Egypt, especially over the last fifty years or so, it is still somewhat possible to utilize ethnographic parallels. For instance, from my own personal experience working at Abu Sha'r, I was able to draw upon the knowledge of my Egyptian workmen about how they played a game that used a board similar to several gaming boards we had discovered on the site. Nicholson (2007b) strongly suggests that ethnographic work is best done by those who will be working with the archaeological materials in the laboratory or those who have "direct contact with those that are doing so".

The future for experimental archaeology in Egypt is vast. It has great potential for giving us the ability to understand the possibilities of how archaeological materials were used. Nicholson states:

"Egyptology is in an almost unique position to provide studies of materials and technology. The standard of preservation of artefacts and materials is exceptionally high, the descendants of some of those crafts are still practised in modern Egypt, and materials are available for experimental replication studies whose products can be examined in the laboratory alongside the ancient originals" (Nicholson, 2007a).

Inter-site comparisons of archaeological assemblages

Meskel (2002: 12) described her last methodological source of information as "anthropological and cross-cultural". By this she meant that she was going to examine archaeological and cultural data using a "wide temporal and geographic range" from not only Egyptian sources, but from other ancient cultures as well. Her reasoning for this approach was that she wished to avoid the pitfall of interpreting ancient Egyptian culture in terms of modern Western contexts (Meskel, 2002: 12).

I agree it is impossible to suggest that the ancient Egyptians approached life in the same way we do in modern Western civilisation. To do so is to ignore critical factors such as time,

technology, environment, spiritual and cultural differences. However, if it is incorrect to use modern Western cultural perspectives to interpret ancient Egyptian culture, is it any better to interpret ancient Egyptian culture using other cultural perspectives simply because they are non-Western or because they are more ancient than modern Western civilisation? I suggest it is not.

Instead of this “anthropological and cross-cultural” approach to site interpretation, I advocate a more localised approach by examining archaeological data specifically from other Egyptian sites. Furthermore, because Egyptian culture changed greatly over history, I think it is imperative to use only archaeological data from sites that are contemporaries of the site being investigated. Inter-site comparisons, especially from recently excavated sites, are valuable because they have the potential to provide information that may be lacking at a particular site.

Theory

In the previous sections of this chapter, I discussed the different data sets, textual, representational/[artistic and archaeological. While each provides important pieces of information, I think it is apparent that each also possesses limitations as to the information they can provide. All of them are essential for providing interpretation of Egyptian sites. Once data sets have been compiled, it is imperative to determine how to use the information they provide. This is where theory should be applied.

Numerous theoretical avenues can be used for interpretation

Physical anthropologist, John S. Levisky (2007, pers. comm.), once said that “if you get two anthropologists together in a room, you will seldom ever get them to agree with one another”. By personal experience, I have found that the same is frequently true of archaeologists. Any individual archaeologist likely has a favourite theoretical standpoint or two they like to use to interpret the different forms of data with which they work. As a case in point, Meskell (1999) typically employs social theory and third-wave feminism and frequently, Marxism (see Meskell, 2004b). Nicholson (2007, pers comm.) suggests it is likely that archaeologists who champion particular theoretical perspectives will maintain that those theories should always be applied to site interpretation. Certainly, interpretations based on particular theoretical standpoints are valuable in that they allow us to look at an ancient civilization from particular

points of view, but I contend that they can only be parts of the interpretive picture. I do not wish to intimate that archaeologists will never be able to construct a comprehensive picture of ancient Egyptian culture, but I do suggest that the more theoretical views that we can apply to the different data sets, the better chance there is of obtaining at least a more varied and richer picture of the workings of ancient Egyptian culture.

Smith, (2003: 6) has done a creditable job in utilizing different theoretical approaches in attempting to understand ethnicity and its impact in the region of Egypt's southern border during the Middle and New Kingdoms. He started by questioning the nature of ethnicity. Scholars traditionally defined ethnic groups from an essentialist viewpoint that saw ethnic groups as static, bounded and immutable. Furthermore, ethnicity is "grounded on Bourdieu's concept of the *habitus*" and thus, it can be used to detect and understand the mutability of ethnic identity (Smith, 2003: 6). Smith (2003: 6) also employs Loprieno's (1988) *topos* and *mimesis* to explain the differences between the propagandistic Egyptian mindset, that of Egyptians as civilized and foreigners as barbarians, stated in official inscriptions and the more pragmatic symbiotic relationships that suggest themselves through the archaeological data.

Further, Smith (2003: 7) supports using a contextual approach that focuses on the archaeology of households in helping to discover and determine ethnic identity. Within this model, he (2003: 189) considers the roles played by agency and gender in determining ethnicity by looking at foodways at Askut and death practices at Tombos. Lastly, he (2003: 60-73) rejects the usefulness of Marxist-style substantivist approaches that suggest the Egyptian economy was based on redistribution of wealth. Instead, he favours a formalist model that indicates individual trade and a demand for personal profit were quite common in ancient Egypt regardless of ethnicity (Smith, 2003: 60-73).

Devising interpretive methodology for archaeological sites is difficult if for no other reason than that it is almost impossible to account for the anomalies from site to site, even on sites that may be similar in regard to usage, time period and so on. One of the main benefits of using multiple theoretical viewpoints to interpret the information provided by the various datasets is the potential flexibility provided by such an approach. Although, I think that flexibility is linked to context. I suspect that certain theoretical approaches may be more useful for interpreting some types of sites than they are for others, but that will depend on the contexts and conditions of those sites. Archaeologists should apply multiple theoretical

approaches in an integrated, mutually supporting fashion, based on what they find provides the best possibilities for supplying interpretive information.

Theoretical considerations

There are numerous useful theoretical approaches for interpreting Egyptian archaeological sites, but I doubt there is much value in attempting to list here every single theoretical possibility. Furthermore, most of these concepts have been written about and explained at length by other scholars over the years. My purpose here is not to provide startling new revelations about particular theoretical concepts, but to suggest that these concepts should be more widely applied in Egyptology. What I suspect will be more interesting, and perhaps of more value, is to review a few examples some of the theoretical possibilities, whether they come from processualism or post-processualism, and see how some of them can be used, either in combination with one another or as counterpoints, to provide interpretive insights.

Agency theory, one of the most influential theoretical concepts in archaeology, started in the early 1980s and was based upon the works of scholars such as Bourdieu, Giddens, Foucault, Sahlins and Ortner (Robb, 2005:4). Agency is based on action. Action not only has discernable effects, but also the ability to “reproduce fields of action”. Furthermore, agency operates on a number of contextual levels so that a single person can act as an agent on many different levels and in many different occupational circumstances (Robb, 2004b: 106).

Agency deals mainly with intentional human action, but material culture can also exert a type of “agency”. Gell (1998) pointed out that only people can commit intentional actions and thus exert primary agency. However, they accord importance and recognition to the tools and things they use, thus creating a secondary agency that allows them to accomplish their intentional actions (Robb, 2004a: 133). Material culture thus has the potential to influence how people accomplish the intentional actions they perform. This is not to say that inanimate objects cause human beings to do things, but they do provide the ways for people to do things. As Robb states, “In other words, humans attempt an agency of why; material things provide the agency of how” (2004a; 133).

Another consideration of agency is whether or not there is such a thing as collective agency. Robb (2004b: 106-107) calls attention to the idea that agency does not necessarily focus on

the individual. Many of our actions are carried out as parts of larger plans that are dictated or required by groups of people such as the businesses for which we work. Robb makes a relevant point by mentioning the impact that groups can have on individual decisions and actions, however, Smith (2006b: pers. comm.) offers an interesting counterpoint by reminding us that groups are still composed of individuals who engage in individual decision making and individual actions.

Robb (2005: 6) credits agency theory with aiding research into areas such as the body and embodiment, feminist archaeology, material culture studies, power and long-term history. All these could provide useful interpretive information on ancient Egyptian culture. Consequently, agency theory could provide Egyptologists with an important tool for exploring those areas of research.

Closely allied with agency theory, and I think indispensable to it, is the concept of materiality. In essence, materiality represents the relationships that exist between human beings and the things they use. This takes the shape of understanding that we can attribute to human beings and objects their respective agencies and thereby investigate the relationships between the effects of particular actions and motives for those actions (Rowlands, 2004: 198).

One problem with understanding materiality is that it is culturally specific. Operative relationships that were established between the ancient Egyptians and their material culture would not be the same as those that existed in ancient China, let alone those of modern societies. Meskell correctly states:

“... it is surely necessary to study specific cultural moments to understand contextual notions of the material as well as its propensity to forge, shape, interpolate, and possibly even challenge and undermined social relations and experiences” (2004a: 249).

Along with agency, the use of contextual materiality could be quite useful in illuminating the way in which ancient Egyptians reacted with their physical world.

Materiality seems to me to provide an almost natural segue to the consideration of the use of phenomenology. Simply put, a phenomenological approach asks the question of how people experience their world and how they think about it. People experience their world empirically and it is the sensory data that provide the basis for thoughts and emotions. For example, what

kind of smells did an ancient Egyptian encounter in his daily life? How did an Egyptian peasant, soldier or scribe react with his living space and how may that have influenced how he saw his life? How did his occupation, his use of particular tools, the perceived power of religious statuary (see Meskell, 2004b: 118) or the surrounding landscape (see Tilley, 2005: 204-206 and Ingold, 1993) shape his worldview?

Tilley (2005: 202) is correct in saying that phenomenology cannot be reduced to formal theory or set methodologies “since specific material forms can be endlessly described in a multitude of ways in a plethora of different social and material contexts”. Consequently, phenomenology has a certain speculative quality to it. I believe this has its good and bad points and hence, we must be cautious if we are to employ phenomenological approaches. On the one hand, trying to understand the way in which an ancient Egyptian may have experienced his world may allow us to take into account possibilities we might not otherwise consider.

On the other hand, I am reminded of Kemp's (1989: 3) assertion that no matter how much expertise and knowledge he had gained over his long career, his conception of what life was actually like in ancient Egypt remains purely speculative and could be quite wrong.

“The survival in the modern mind of the same avenues of thought that were open to the ancients supplies part of the mental apparatus by which we can make sense of the past. We can rethink ancient logic. But it creates an interesting pitfall, in that it is hard to know when to stop. ... If we suppose, for a moment, that we could make direct contact with the ancient builders and asked them if this is correct, we might obtain a yes or no answer. But we might also find them answering: we had not thought of that before, but it's true nonetheless, a revelation, in fact” (1989: 4-5).

In other words, if we are not careful in our use of phenomenology it is possible that we could be creating an Egyptian society that the ancient Egyptians themselves did not conceive.

So far, I have written about individual theoretical concepts that I think seem to have natural links to one another, but two other ideas I believe could be used in combination with one another are the *chaîne opératoire* and taskscape. *Chaîne opératoire* is certainly not a new concept, but is one that I believe has a great deal of practical use. It specifically concerns studying the sequence of actions and processes that are necessary in order to produce “usable

cultural products” from raw materials (Schlanger, 2005: 25). Studying production steps may potentially shed light upon the daily activities of the ancient Egyptians.

When studying sequences of production in terms of agency and materiality, the concept of *chaîne opératoire* seems a bit weak from a phenomenological standpoint. In other words, it does not necessarily tell us much about the impact this had on ancient Egyptian social experience. I suggest that applying Ingold's notion of the taskscape could be quite useful in addressing this shortcoming. While Ingold (1993: 158) criticises past anthropological study for separating technical and social domains, he quickly points out that series of tasks, such as we might find in the *chaîne opératoire*, are not performed in a social vacuum, but by groups of people working together. Ingold (1993: 158) specifically states that “one of the outstanding features of human technical practices lies in their imbeddedness in the current of sociality”. Considering Ingold's remarks, I suggest taskscape and the *chaîne opératoire*, used in conjunction with one another, can be a very useful in discovering the links between productive activities and sociality in ancient Egypt.

Another useful pairing of theoretical concepts is that of site catchment analysis/site territorial analysis and landscape studies. Site catchment analysis (Vita-Finzi and Higgs, 1970) focuses on the raw materials present within an archaeological site and tries to ascertain the nearest locations for those materials from the surrounding territories. Site territorial analysis operates from the opposite end by locating sources of raw materials and trying to determine if it was possible to access those sources from a particular archaeological site (Bailey, 2005: 231).

Both of these techniques can potentially provide information on the mobility and transportation, economic use of the landscape and even settlement structure. In the Egyptian setting, Jörg Linstädter (www.6) found in his work at Gilf Kebir that “floodplains, geziras, permanent swamps and the adjacent desert are closely connected to certain economic activities such as agriculture, horticulture, keeping livestock, and hunting”. He suggests that the landscape even had an effect on tomb art.

Just as with the *chaîne opératoire*, one of the problems with site catchment analysis/site territorial analysis is that it lacks the experiential phenomenological elements. Landscapes provide more than natural resources, but also emotional experiences. Climbing hills, crossing streams and rivers, navigating forest terrain and so on is experienced bodily (Ingold, 1993:

166). Ingold (1993: 172) suggests that every landscape feature possesses experiential meaning and we need to look for that meaning in order to gain perspectives on dwelling. Again, by combining phenomenological landscape studies with site catchment analysis/site territorial analysis I believe it is possible to gain a fuller understanding of cultural settings.

One of the facets of archaeology in Egypt has been the emphasis that has been traditionally placed on the elite segments of society as opposed to the lives of common people. This situation has arisen partially due to the types of sites, such as temples and tombs of the nobility or royalty, that were excavated in the past as opposed to settlement sites (Quirke, 2007: pers. comm.). In a similar vein, in the past there has been an historical neglect of the roles women played in ancient Egyptian society.

On a more general level it has often been the case in archaeology that studies about women have centred on their maternal or sexual roles or depictions of the male/female dichotomy (Nelson, 2005: 127). Indeed, the situation has improved over the years as evidenced by the work of Meskell (2002) at Deir el-Medina and Smith (2003) at Askut and Tombos. As enlightening as their work is, broader scopes of investigation are possible.

‘Gender archaeology’ has the advantage of not simply focusing on women's roles, but places them within the integrated social contexts that encompass the interactions of both men and women in society. Men and women can thus be seen as equally important social agents. In my view a further value of using a ‘gender archaeology’ approach is that, once we acknowledge the important roles played by both men and women, it opens the door to considering the cultural roles of other societal groups, such as children, slaves and foreigners in Egypt.

There is a strong link between materialism and Marxism that has been attractive to some archaeologists as a way to understand social constructions in ancient societies. Marxism moved studies of materialism away from simple functionalism toward examinations of the relationships and the resulting social effects that are created between people and objects as a result of production (Friedman and Rowlands, 2005: 163-165). Meskell (2004b) makes specific use of Marxist theory in her writings about Egyptian material culture at Deir el-Medina.

According to Meskell (2004b: 17-18), Marx wrote about fetishisation of objects and the alienation and reification of people under capitalism. For that reason, she sees worth in pursuing Marxist approaches for understanding how society evolved and developed. She (2004b: 20) suggests Marxism is “directly relevant” to archaeology in Egypt since Marx was interested in how labour transformed raw materials into items that transcended those materials.

Meskell (2004b: 18) uses Marx’s (1867/1992: 45) assertion that utility defines a thing’s use value or its functional value, while exchange value is determined by the differential between types of goods and the ratio at which they are exchange. The value of a thing is not really its functional value, but its exchange value (Meskell, 2004b: 21). As Marx (1867/1992: 47) further states, as an item accrues social importance, its value can no longer be accessed simply by functional value (Meskell, 2004b: 18).

In Marxism, material things are “embodied or sensual constructions” composed of matter and labour and hence, have utility and perceived value (Meskell, 2004b: 18-19). Because humans make things, there is a social relationship between the maker and the thing. Meskell (2004b: 20) refers to Marx’s (1867/1992: 79) claim that the value of an object makes it a “social hieroglyph”. Also, human value decreases as materialism increases. It is these kinds of social considerations that she has found particularly relevant for explaining how material culture impacted social life in ancient Egypt (see Meskell 2004b).

Since the collapse of Communism in the Soviet Union and the Eastern bloc nations, Marxism has lost a great deal of credibility on the world economic and political stage. Interestingly, although much of the world has turned away from Marxism, it still seems to have influence among researchers in the social sciences.

As early as 1989, before the final collapse of Communism in Eastern Europe, Trigger acknowledged the waning interest in Marxism, except among academics (Trigger, 1989: 347; also see Kolakowski, 1978: 524-525). Several years later, Barrett echoed Trigger’s acknowledgement in his review of Randall H. McGuire’s book, *A Marxist Archaeology* (1992). Although McGuire asserts Marxism’s relevancy, Barrett (1993: 1022) rightly questions whether McGuire’s rejection of most Marxist principles still qualifies his perspective as Marxism at all.

More recently, Friedman and Rowlands stated that the Marxist anthropology prevalent in the 1960s and 1970s started to affect archaeology just at the time it was being criticized both internally and externally. They attributed this to “the decline of the Eastern bloc and of modernist and developmentalist thinking in the west” (Friedman and Rowlands, 2005:166). I think it important that, even within archaeology there has been criticism of Marxism. A notable example is Hodder’s four criticisms of Marxism in, *Reading the Past* (1991: 67-71). I do not suggest Marxism is not a viable way of viewing ancient Egyptian culture. Certainly Meskell sees some worth in it, but I propose that capitalism is an equally valid way to view ancient Egyptian culture.

One of the best known proponents of modern capitalism is Adam Smith who published his explanations of capitalism in his 1776 work, *The Wealth of Nations*. A possible criticism of Smith is that he does not really deal with the idea of power and what constitutes it. While he does not specifically mention it, I suggest it is because the issue of power is implicit within capitalism. Israeli economists, Jonathon Nitzan and Shimshon Bichler (www.7) have theorized that in modern capitalism, capital is power. It is a political institution not affected by politics, but rather is the dominant form of politics. This is very different from the neoclassical and Marxist views that capital is affected by power.

What they propose is a “power theory of value” in place of utilitarian (neoclassical) or labour (Marxist) theories of value. To Nitzan and Bichler, it is *disaggregation*, *redistribution* and *differential* accumulation that is important and their theory concentrates on the power processes that underlie overall social development; it offers a new logic of capital accumulation and capitalist development (www.7). What importance does this have in terms of studying culture? Markus R. Bouillon explains:

“The first key to understanding this process of social change is capital, which is nothing but social power, measurable quantitatively in monetary value, but encompassing important social and political dimensions. The second key element in this approach to understanding social change is the accumulation of capital: Capitalists, according to Nitzan and Bichler, do not seek to maximize profits, but really measure their success or failure against the average ... Differential accumulation, as the authors term it, is the underlying feature leading to a commodification of power: Power is increasingly shaped by the dominant business groups; those that persistently manage to beat the average. Hence, power is both a means of- and the end to accumulation and becomes the driving force of social change” (www.8).

Nitzan and Bichler believe that this power of capital is a feature of modern capitalism, but I suggest that there has always been an element of power to capital and it may be a useful way of examining ancient Egyptian culture.

Smith (2003: 65) mentions that there are those, such as Edward Bleiberg (1996) and Jac Janssen (1979, 1982), who argue that Egyptian society was essentially redistributionist and that “since the words buying, selling and profit do not exist in the Egyptian language, no market-driven private economy or profit motive existed”. Smith (2003: 65) correctly shows the fallacy of this line of logic by pointing out that the since the Egyptians also had no word for religion, they must not have had one.

Similarly, Smith quotes Kemp’s (1989: 240) assertion that simply because ancient Egyptians did not use modern capitalistic terms does not mean that they did not engage in the capitalistic practices of trying to get the best prices for the goods they sold or accruing wealth. There are specific examples of this situation, for instance that of Heqanakht advising one of his stewards to delay the sale of cattle since the prices for cattle were rising (Smith, 2003: 65). In light of this, I strongly believe that there is a great deal of interpretive value and validity in examining ancient Egyptian culture from a capitalist viewpoint.

Application of the Methodology

Methodology not intended to provide complete re-interpretation of sites

At the start of this chapter, I proposed that Meskell had produced a basic framework for interpreting Egyptian sites that could be further developed. What I have done in this chapter is to explain in some detail the three basic data sets, textual, artistic, and the archaeological, that I believe necessary to properly interpreted Egyptian sites. Once the data from all of the sources has been collected, it is then possible to apply different theoretical approaches to the data in order to come up with a wide range of views about different aspects of ancient Egyptian culture. I intend to apply this interpretive strategy in two separate case studies that I shall discuss shortly.

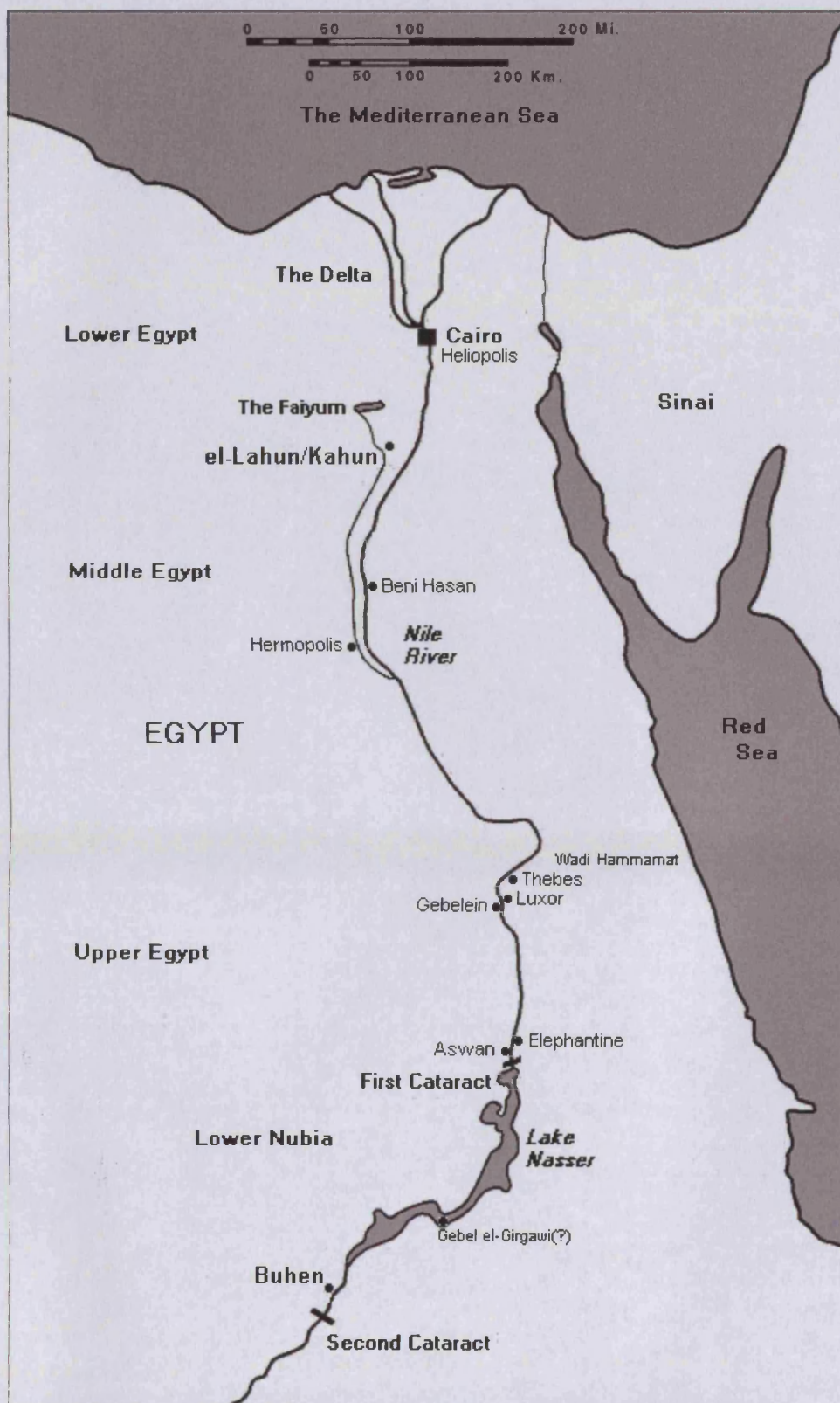
There are, however, two important points I need to make clear before I continue. The first point is that I do not intend to undertake complete re-interpretations of the two sites I shall examine. I think Meskell was perhaps overly ambitious in attempting to apply her

interpretive framework to the entire site of Deir el-Medina. I agree with Morris (2002a: 265) that this has resulted in rather generalised interpretations. I suggest that the interpretive methodology should be used in a more localised fashion and tied more closely to the data. Therefore, I intend to look at smaller sections of my chosen sites. By applying the interpretive method to smaller areas, it should be possible to build up a fuller view of the cultural complexities of a site. Second, it is my intention to demonstrate how the interpretive framework will operate and not provide a full examination of every possible theoretical avenue that could be explored or applied to the data.

Meskeel developed her interpretive framework and applied it to the New Kingdom settlement site at Deir el-Medina. This site provided her with good textual and artistic sources and a wealth of material culture. The question I ask is if it is possible to rigorously develop Meskeel's basic interpretive framework, alter it where needed and attempt to apply it to different types of sites in different parts of Egypt from other time periods. I have chosen Kahun (el Lahun) and Buhen (See Map A) as the subjects for my case studies.

Case Study I: Kahun (el-Lahun)

Kahun (el-Lahun) lies southwest of Cairo near the entrance to the Faiyum Oasis. It was built during the Middle Kingdom and at its height; it was used to quarter the workforce employed in building Senwosret II's pyramid (Gates, 2003: 100-101). It was excavated by William Flinders Petrie in 1889-1890 and again in 1914 (Bierbrier, 1995: 330). There are approximately 20 large houses in the North/North-East section of the town that appeared to be upper-class dwellings. Approximately 220 smaller houses are situated in the South and East. Petrie's excavations revealed numerous quantities of furniture, implements and ornaments, but they also supply useful information about Egyptian town planning. Numerous documents are associated with this site (Gates, 2003: 100-101) and there is a fair a corpus of site-specific papyri dealing with such varied topics as medical and veterinary texts, administrative and business records (Gardiner, 1961: 143-144). Since Kahun is a settlement site, it should serve as a useful link and reference back to Meskeel's work at Deir el-Medina.



Map A: General Map of Egypt with Site Locations after
http://oi.uchicago.edu/OI/INFO/MAP/SITE/Egypt_Site_150dpi.html
 Egypt_Site_150dpi.gif [accessed 24 August 2005]

Case Study II: The Fortress of Buhen

The fortress of Buhen is located in the south of Egypt near the Second Cataract just above the Wadi Halfa at Semna. It was built during the Middle Kingdom by Senwosret I and renovated during the reign of Senwosret III (www.9). Its purpose was to control not just river traffic on the Nile, but the overland trade routes as well. There are other forts in the area, Mirgissa, Shalfak, Uronarti, Askut, Dabenarti, Semna and Kumma (Fairservice, 1962: 105) that have the potential to provide excellent inter-site comparisons. It was excavated by Walter B. Emery 1961-1963 (Emery, *et al.* 1979: 43) and its ruins were flooded after the building of the Aswan High Dam. There is a reasonable list of the material culture assemblage recorded in Emery's excavation report as well as a companion volume of site specific inscriptions. Buhen is, in a sense, a type of settlement site, but it is a military settlement site. As a result, there may be similarities with Kahun, but I suspect there may well be a number of different dynamics given the site's military character. Furthermore, since Buhen is now under water, it is no longer possible to work there. Hence, this provides the opportunity to see if this interpretive methodology can provide any new insights into a lost piece of history.

CHAPTER FOUR

The Cases Studies in Context

Introduction

At the end of the preceding chapter, I stated that I had selected Kahun and Buhen as the most viable sites for my case studies. Kahun was a Middle Kingdom Period civilian settlement site that was constructed to accommodate the workforce necessary to build the pyramid of Senwosret II (1877-1870 BC) and to maintain his mortuary cult after his death (Gates, 2003: 100-101). Since Meskell's work focused on a New Kingdom civilian settlement site, Kahun provides the possibility of applying my more in-depth Pluralistic Contextual Approach on a civilian settlement site from the Middle Kingdom. The Middle Kingdom military settlement site of Buhen provides the possibility of noticeable contrasts between discerned social dynamics at a frontier military post with those civilian social settings detected from the evidence at Kahun.

It seems reasonable, before examining the actual case studies themselves, to present background material that I believe is essential to placing the respective sites into the context of Egyptian cultural development during the Middle Kingdom. Information on the natural environment has the potential to furnish insights into what geological, floral and faunal resources the Egyptians at Kahun and Buhen may have had available to them. This information can later be contrasted with the actual archaeological record in the case studies.

The site backgrounds of both Kahun and Buhen will include discussions of site types as well as their locations and geographic settings. Historic overviews of both sites will establish the context of these sites within Egyptian history. Finally, I will provide summaries of previous work at Kahun and Buhen to establish an awareness of prior archaeological knowledge acquired from these sites.

The Natural Environment of Egypt

Information on the natural environment is essential information to understanding the area in which a site is located. Geological information, as well as that on the flora and fauna, can

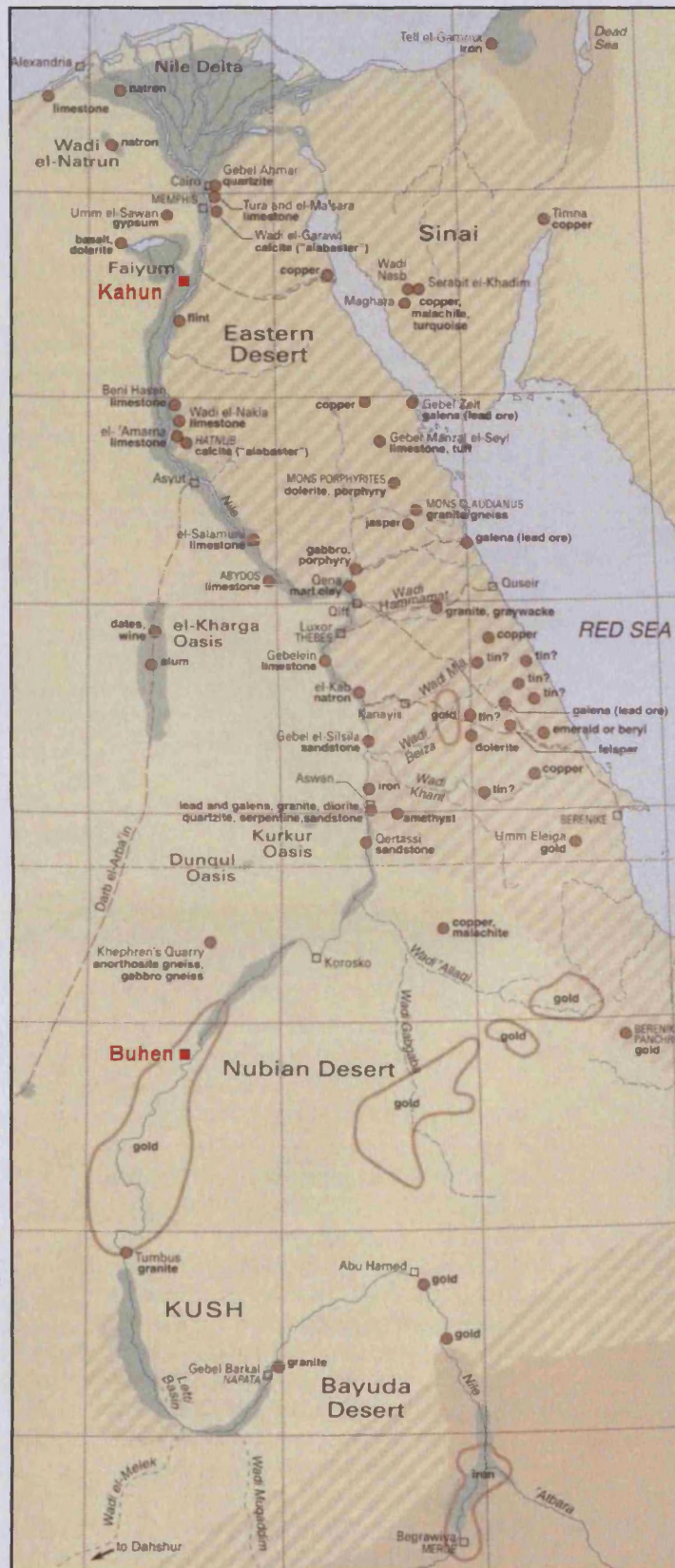
provide insight into the differences between what resources may have been generally available for use and what resources were actually used at a particular site according to the archaeological record. From this, it is possible to gain an idea of the area of site catchment. Furthermore, knowledge of the sources from which different materials originated, may also provide an indication of possible trade patterns.

Geology

As far as the general geological stratigraphy of Egypt is concerned, the majority of the surface rock between Lower and Middle Egypt is limestone. Directly under the limestone, is an earlier sandstone layer that in Nubia and Upper Egypt forms the surface layer as far as Edfu and Luxor. Outcrops of igneous and metamorphic rock form the oldest strata. Through this existing rock structure, starting at Lake Victoria, the Nile River has cut a valley from ancient times through the sandstone regions of Nubia and Upper Egypt and on through the wider limestone areas between Luxor and the Faiyum Region. From there, the Nile narrows until it reaches the Delta. In the Delta, the Nile divides into a number of branches, ultimately flowing into the Mediterranean Sea (www.10).

Because limestone and sandstone were plentiful and relatively easy to quarry, the ancient Egyptians used the local resources for building from the earliest times. Hence, buildings and monuments from Cairo to Abydos, which would include Kahun and sites in the Faiyum, tended to be made of limestone, while those constructions south of Dendera, such as Buhen, were generally of sandstone (www.10). The Egyptians also quarried quartzite from outcrops located north of Cairo, basalt from the Faiyum and, in the south, granite and granodiorite from the area around the First Cataract. In the deserts that flanked the Nile as far down as Nubia, the Egyptians quarried calcite/travertine at Hatnub, near Amarna, and sedimentary rock in the Wadi Hammamat. The deserts also held deposits of amethyst, carnelian and jasper (www.10).

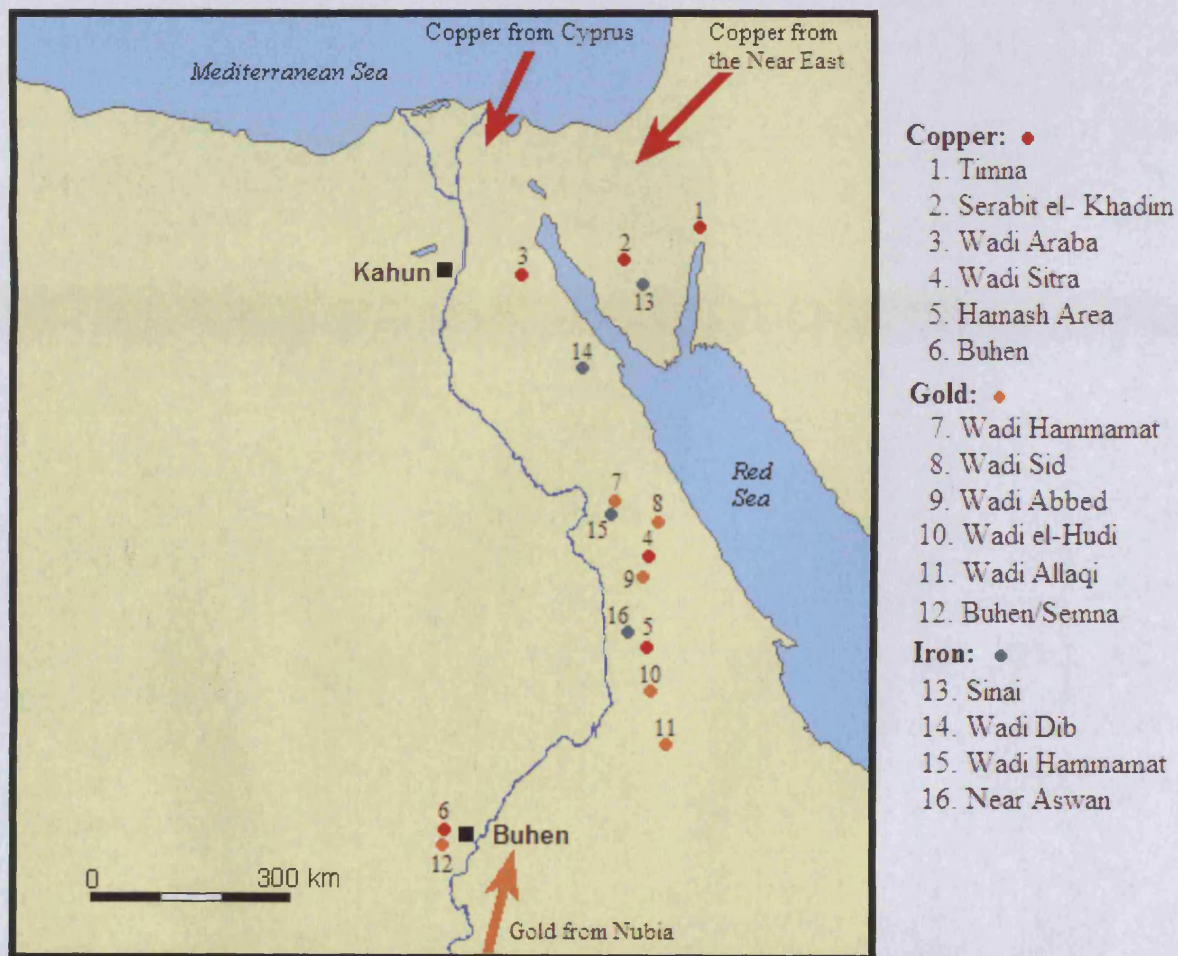
Egypt has stone and mineral resources of all three major groups, igneous, sedimentary and metamorphic. Igneous rock types include hornblende diorite, andesite porphyry, obsidian, tuff, along with the aforementioned granite, granodiorite, basalt. Sedimentary rocks include not only the quartzite, limestone, sandstone and travertine/calcite mentioned above, but also siltstone and greywacke, recrystallized and dolomite limestone, alabaster, anhydrite, green



Map B: Mineral and lithic resources in Egypt (www.13)

conglomerate, red and white limestone breccia. Metamorphic rock resources include marble, serpentine, steatite, meta-andesite porphyry and amphibolite, mica schist, diorite gneiss (www.11). (See map B)

Precious metals are also present in Egypt and the ancients mined local deposits or imported what they needed from sources beyond their borders. Sources of copper were found at Timna, Serabit el-Khadim, Wadi Araba, Wadi Sitra, Hamash Area and Buhen. Gold deposits were located at the Wadi Hammamat, Wadi Sid, Wadi Abbed, Wadi el-Hudi, Wadi Allaqi and Buhen/Semna. Iron ore was mined in the Sinai, at Wadi Dib, the Wadi Hammamat and near Aswan. The Egyptians also imported copper from Cyprus and the Near East and gold from Nubia (www.12; also see Said, 1990) (See map C).



Map C: Metal resources of Egypt (after www.14)

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Flora

In general, there are really three basic climate zones that affect the flora of Egypt. In the north, there is a narrow costal strip that is essentially a Mediterranean climate. There is the Nile Valley itself, which is defined by the limits of cultivation. Finally, there are the desert areas that extend westward and eastward on either side of the Nile Valley. According to Renata Germer (2001: 535), these different zones had developed into their present forms by no later than 5000 BC and recent palaeobotanical studies confirm that present day flora is much the same as it was in ancient times. Kahun is located on the edges of the Nile Valley cultivation, but certainly can be included within this second climate zone. Buhen is a bit more difficult to place accurately since the limits of cultivation were quite narrow around the Second Cataract. The people of Buhen certainly had access to areas of cultivation along the banks of the Nile, but the general landscape adjacent to the fort was desert.

Along the banks of the Nile grew a variety of reeds, sedge and papyrus plants that were utilised by the ancient inhabitants of Egypt. Papyrus was possibly the most important Nile plant during ancient times in that, not only was it used to produce a type of paper, but its stalks could be woven into basket or even small boats (Täckholm, 1977: 268). Furthermore, the lower stalks of papyrus were edible, and thus a source of food (Germer, 2001: 535).

Reeds such as *Juncus rigidus* and *Juncus acutus* were employed in the production of various forms of basketry and also for writing utensils (Germer, 2001: 536). Pondweed must also have been quite common as it is frequently represented in tomb paintings (Germer, 2001: 535).

A variety of flowers grew along the banks of the Nile. These included the both the white and blue lotuses, the flowers of which could be used for perfume (Germer, 2001: 535). Evidently, the plants also had slight narcotic properties that lent to their efficacy as medicines (Germer,

2001: 535). Other common flowers were the chrysanthemum, the willow herb, the sesbania shrub and Narcissus. It is possible that aromatic lichens, such as *Pseudevernia furfuracea*, rhizomes of the *Cyperus articulatus* and certain types of grasses, such as *Cymbopogon schoenanthus*, may also have been processed to produce perfumed oils during the Middle Kingdom (Germer, 2001: 540). The availability of the water chestnut, *Trapa natans*, in ancient Egypt as a food source is questionable as there is little evidence of it in the larger archaeological record (Germer, 2001: 535).

In ancient times, the Egyptians had to import much of the wood they needed for building from sources outside of Egypt, even though wood was more abundant in ancient Egypt, especially in the wadis, than it is today (Germer, 2001: 538-539). This trade was certainly occurring between Egypt and Syrian areas during the Middle Kingdom (Callender, 1998: 149, also see Täckholm, 1977: 270). While wood was not plentiful, trees nevertheless did exist in Egypt. In fact, tree species in the Nile Valley were certainly varied. The most common trees were the acacia, *Acacia nilotica*, the Egyptian willow, *Salix subserrata*, and the sycamore, *Ficus sycomorus*. The acacia provided especially good timber (Täckholm, 1977: 268) while the willow produces a type of salicin that was used by ancient Egyptian physicians as an anti-inflammatory and analgesic (Germer, 2001: 537). Another form of acacia, commonly found in the Upper Nile region was the *Acacia albida* which was especially used for boatbuilding (Täckholm, 1977: 268). Nubia was the main source of ebony, *Dalbergia melanoxylo*m, which was primarily used for the production of furniture (Germer, 2001: 540). The sycamore produced an edible fig that was quite commonly found as part of tomb offerings (Täckholm, 1977: 269). The tamarisk was also quite common and used as a source of producing charcoal from the wood and tanning chemicals and medicines from the bark and galls (Germer, 2001: 535-536). The carob tree was known in Egypt, but probably only found along the Mediterranean coast. Its wood could be used for bows and its pod were a source of food (Germer, 2001: 537). The persea tree, *Mimusops Schimper*i, was also present in Egypt as well as Christ thorn, *Zizyphus spina-Christi* (Germer, 1998: 87). Frankincense and myrrh were obtained from the resins of the Boswellia and Commiphora trees, but neither was native to Egypt (Germer, 2001: 541).

Three species of palm trees were common in Egypt: the date palm, *Phoenix dactylifera*, the dom palm, *Hyphaene thebiaca*, and the argun palm, *Medemia argun* (Täckholm, 1977: 270). According to Germer, only the dom palm and is native to Egypt. The argun palm was of

Nubian origin and would not have been uncommon during the Middle Kingdom in the area around Buhen (Täckholm, 1977: 268). There is evidently no firm evidence of the date palm in Egypt before the Middle Kingdom (2001: 537-538) and the argun palm originated in Nubia (Täckholm, 1977: 270).

Lastly, many seeds of the *Ricinus communis* have been found in tombs and archaeological deposits dating from throughout the Pre-Dynastic and Dynastic Periods. It was a tree that was native to Egypt and its seeds could be processed to produce oil for lamps and cosmetics. It also had medicinal properties that were described in the Ebers Medical Papyrus (Germer, 2001: 538).

The desert areas to the west and east of the Nile cultivation, rather than being simply barren wastes, had their own varieties of flora especially in the wadis or dried water courses that fed into the Nile Valley. Acacias, for example, were capable of growing relatively far inland along these wadis. Two other trees that were hardy desert dwellers were the *Balanites aegyptiaca* and *Moringa peregrina*. Both produced seeds from which valuable oils could be extracted. Wooden articles could be manufactured from the wood of each and Balanite pulp was edible (Germer, 2001: 538-539).

Grain was an important commodity in Egypt, so much so that in the Roman Period, Egypt was sometimes referred to as the bread basket of the Roman Empire. Barley and emmer wheat were generally the most important grain crops during the Dynastic Period. Both were used for bread, but also for beer as well. Millet may also have been grown, but the evidence is limited (Germer, 2001: 539). Some crops could be classified as weeds, such as clover and certain grasses (Germer, 2001: 539).

Beans or legumes were cultivated not only in the fields adjacent to the Nile, but also in private gardens as well. Lentils, chick peas and fenugreek were all part of the Egyptian diet from Pre-Dynastic times and fava or broad beans were cultivated by the time of the Old Kingdom as well as the blackeye pea, *Vigna unguiculata*, which was brought into Egypt from sub-Saharan Africa. During the Middle Kingdom chick peas and pigeon peas were being grown and evidence of green peas has been linked to the New Kingdom (Germer, 2001: 539).

The Egyptians grew a number of different kinds of vegetables and root crops. Gourds, melons, cucumbers and squash were all grown and featured prominently in tomb scenes. Tomb paintings dating to the Old Kingdom also depict onions. Leeks and garlic may possibly have been grown as well. The rush nut, *Cyperus esculentus*, was used for oil and could be eaten if cooked. Lettuce was an important crop from the Old Kingdom onward (Germer, 2001: 539-540).

Spices were important to the Egyptians certainly for cooking, but also for cosmetics and medicines. Egyptian caraway and dill were common and coriander was imported from Palestine. Some spices, such as juniper berries *Juniperus oxycedrus* and black pepper *Piper nigrum* were imported from the Upper Nile areas (Germer, 2001: 540). Physicians could make medicines from willow, acacia, tamarisk and sycamore trees. The medicinal properties of opium poppies were known and certain plants, such as the *Cassia fistula*. *Cassia senna*, *Citrullus* and *Ricinus* were known to Egyptian physicians as effective laxatives (Täckholm, 1977: 274). Fig and pomegranate trees, grapevines, date and dom palms, ebony trees, juniper berries, barley, emmer wheat and rush nuts all had medicinal properties as well or were used for incense, myrrh or to produce resins (Germer, 2001: 540).

Fauna

After the last ice age, the climate of the Egyptian region began to change during the Middle Palaeolithic (c. 250,000 – 70,000 BP) to an arid one that resulted in Saharan populations migrating into the Nile Valley for sustenance (Hendrickx and Vermeersch, 2000: 20). This situation continued until the end Late Palaeolithic (24,000 – 10,000 BP) when environmental conditions and narrowing Nile floodplains forced most of the population to abandon the Nile Valley between c. 11,000 and 8000 BP (Hendrickx and Vermeersch, 2000: 27). By approximately 7000 BC human groups were able to re-inhabit the Nile Valley (Hendrickx and Vermeersch, 2000: 31), although there was evidently little change in the hunting and gathering lifestyle between 7000 and 5400 BC (Hendrickx and Vermeersch, 2000:33). The intentional domestication of animals and more sedentary lifestyle that became distinguishing features of life in the Nile Valley apparently commenced sometime after 5400 BC (Hendrickx and Vermeersch, 2000: 33-37).

Archaeologists have found evidence from Neolithic sites that confirm the existence in Egypt of cattle, Barbary sheep, goats, pigs, elephants, giraffes, hartebeest, oryx, addax, hippopotamus, ibex, gazelle, lion, leopard, and other wildcats (Brewer, 2001: 508-509). Domestication and herding evidently quickly became the standard method of subsistence, although hunting and fishing were still practised during the Neolithic (see Hendrickx and Vermeersch, 2000: 31, 34). Even so, some sites such as el-Omari, a site near Cairo located approximately five kilometres north of Helwan, indicate there was very little desert hunting if any at all during the Neolithic (Hendrickx and Vermeersch, 2000: 36). Even so, small herds of oryx, addax, hartebeest, gazelle could be found in certain areas of the desert from the Neolithic through the Dynastic Period (Brewer, 2001: 508-509).

At the start of the Dynastic Period, fishing continued to be an important food resource. From tomb scenes, scholars have been able to identify some 23 species of fish that were present in ancient Egypt. Among these, were tilapia, mullets, Nile catfish, shall catfish, elephant fish, Nile perch and moon fish. According to osteological evidence gathered from various Egyptian sites, Nile catfish and shall catfish were the most frequently eaten fish (Brewer, 2001: 509).

Fowl was also a popular mainstay of the ancient Egyptian diet. Wild species were plentiful and there are numerous examples of tomb paintings from throughout the Dynastic Period showing scenes of fowl hunting. Brewer suggests that because wildfowl were so plentiful, that “widespread domestication of bird species may not have been as efficient or as satisfying as hunting and trapping them”. He further noted that wildfowl abounded in the Faiyum Region, thus making it especially favoured by hunters (Brewer 2001: 509). It is worth remembering that Kahun is located at the entrance to the Faiyum Region and it may be reasonable to suspect that remains of fowl would be a notable part of the archaeological assemblage at Kahun. This is not to suggest that there was no domestication of fowl in Egypt. Certainly, there are tomb paintings, especially from later periods, that show greylag and white-fronted geese were domestically raised (Brewer, 2001: 509).

Domestic animals in Egypt included draft animals such as aurochs and oxen. Donkeys were the primary beasts of burden and camels were not really used until the Roman Period. Horses, of course, were not introduced into Egypt until approximately 1700 BC during the Second Intermediate Period. Cattle could be long horned, short horned or hornless varieties

as well as the zebu or Brahma type. Two types of sheep existed. One species was hairy, thin-tailed and had lateral horns. The other type was woolly and had a short tail and re-curved horns. Scimitar horned goats were known in the Old Kingdom, but had become scarce by the New Kingdom. The other type of goat had corkscrew horns and was used primarily for meat and milk, but was not particularly good for 'wool'. According to archaeological evidence, both mutton and goat meat was evidently a diet staple for commoners (Brewer, 2001: 511). Pigs were also a common source of meat for the poorer classes. Again, archaeological evidence supports this contention although there is scant pictorial evidence of pigs from tomb scenes (Brewer, 2001: 511). I suspect this circumstance is not too surprising since the pig was an animal that was sacred to the Set, the god of evil and chaos.

The Egyptians kept pets and especially favoured the cat. They were native to Egypt and were certainly domesticated by the Middle Kingdom. Dogs were popular as well and evidently, the greyhound and saluki species were selectively bred. Richer classes may have kept more exotic pets such as rare birds, monkeys, antelopes, gazelles, ibex and even hyenas. Royalty especially favoured keeping large cats such as lions (Brewer, 2001: 511-12).

Background to the Sites

Types of sites

The town of Kahun was a '*de novo*' settlement, built by Senwosret II during the XII Dynasty (1985-1773 BC) of the Middle Kingdom. Unlike the earlier settlement sites of the Old Kingdom, Kahun represented an ordered, planned community of workers, administrators and aristocracy. The ground plan was nearly square, approximately 350 metres by 400 metres in length and breadth. The town had a street grid of right angled streets that featured drains designed to carry away waste water. Houses were of various sizes that ranged from small houses of only four rooms to mansions that contained as many as seventy rooms (Arnold, 1980: 910-911, also see Gates, 2003: 100). The site was evidently built in two phases, a main enclosure encompassing the mansions and other smaller houses for workers, and an added western section primarily for workers houses (Frey, 2001: 150; also see Petrie, *et al.*, 1891: 5). The entire town was surrounded by a wall that is conjectured to have been three metres thick at its base and extending to an approximate height of six metres. It is most probable that the wall was intended to simply enclose the town and perhaps deter wild desert animals from

gaining access rather than form a militarily defensible stronghold. Walls that were merely three metres thick would not have provided much defensive strength and there were no towers or fortified gates present (Uphill, 1988:27).

The construction of a pyramid required that a town be built to house the workers that would be needed for its construction. After the pyramid was completed, the town would also serve to house the priests and administrative staff that would be necessary to operate the temple dedicated to Senwosret II's mortuary cult. The town and temple were built directly east of the pyramid complex (Petrie, *et al.*, 1890:21).

Petrie theorised that the town was used during the lifetime of Senwosret II as an administrative centre, not only for the construction of his pyramid, but also for the governance of Egypt. It was his idea that the area he labelled as the 'acropolis' and its associated mansion was actually a royal residence complex. In actuality, the mansion is similar in design to the other mansions or large houses there at Kahun and it is suggested that, if a royal residence did exist at Kahun, it may have been located outside the town proper (Frey, 2001: 150).

At Buhen, the earlier settlement developed naturally in response to the needs of the copper smelting activities. The first military-type constructions were possibly built during the co-rule of Amenemhat I and Senwosret I and may have been for the purpose of protecting workers construction the main fortifications (Uphill, 1988: 35). The fortress built under Senwosret I was an explicitly planned city. The 5 metres thick outer fortification walls were of mud brick and some 8 to 9 metres in height (Gates, 2003: 101) and incorporated 32 rounded bastions (Uphill, 1988: 35). Eighteen bastions were intermittently positioned at 22 metre intervals along the western defensive wall, two of which flanked the main gateway (Uphill, 1999: 329).

The inner citadel, oriented on a grid, measured 150 metres by 138 metres and was constructed of mixed material including mud brick, stone and wood (Gates, 2003: 101-102). Overall, the outer fortifications and the citadel covered some 6.07 hectares. It is estimated that the fortress could, at minimum, have supported 1500 to 2000 military and civilian personnel (Uphill, 1988: 35-36). In the early Middle Kingdom phase of the inner citadel, pottery and hearths underlying the XIIth Dynasty level shows domestic activity that indicates a possible initial urban usage of the site (Uphill, 1999: 330). At the height of the XIIth Dynasty, there were

administrative buildings with garrisoned reception rooms, military and civilian housing, storage areas and a possible temple. On the river side of the fortress, two gates allowed access to the river. The north gate structure had a protected stone channel that could supply water to the garrison and population during sieges (Gates, 2003; 102).

Kemp (2006: 231) states that the Nubian fortresses can be divided into two categories. The first type, of which Buhen is one, is the 'plains type', constructed on the flat banks of the Nile north of the Second Cataract. These were large, multi-purpose forts. The second was the type built during the reign of Senwosret III in more rough terrain around the Second Cataract. These were smaller, irregularly shaped and usually not planned to a grid. Kemp lists Shalfak, Kumma and Semna as common examples of the second type (Kemp, 2006: 236).

In the days before the unification of Upper and Lower Egypt, local settlement leaders led improvised militias against whatever local enemies there were (Seidlmayer, 2000: 120). During the Old Kingdom period, Egypt took on a more centralised government, but the pharaohs still depended on the provincial governors or nomarchs to organise military forces within their jurisdictions. By the time of the VIth Dynasty, even foreign mercenaries, especially Nubians, were being recruited for the Egyptian military forces (Seidlmayer, 2000: 120). As long as there was a strong centralised authority in Egypt, the system worked reasonably well, but by the end of the VIth Dynasty when the central administration broke down it led to the dynastic uncertainties of the First Intermediate Period. With personal military forces at their command, the nomarchs were able to exercise a fair amount of political autonomy and it allowed various factions to claim the political powers of pharaohs (Seidlmayer, 2000: 120-121).

Eventually, Egypt once again became united under the reign of Mentuhotep II in the XIth Dynasty. It evidently became apparent to the pharaohs of the Middle Kingdom that autonomous, militarily powerful nomarchs had greatly contributed to the downfall of the Memphite government of the Old Kingdom and the political instability of the First Intermediate Period. Different Middle Kingdom pharaohs sought a variety of ways to curb the powers of the nomarchs (Callender, 2000: 162).

While Mentuhotep II retained the position of nomarch within the structure of his administration, Callender (2000: 162) states that there is evidence to suggest that those

nomarchs who had not supported his agenda of uniting Egypt under Theban control probably lost their positions. Amenemhat I went further in curbing nomarchical power by making cities the “basic unit” of local government in place of the nomarchs (Callender, 2000: 163). The office of nomarch lapsed during the reign of Senwosret III, but probably not through any direct act of abolishment on his part since the position of nomarch was being phased out as early as the reign of Amenemhat II (Callender, 2000: 163-164).

The important thing about the demise of the nomarchs is that military command had to be shifted to more professional military commanders appointed by the central government under the command of a “chief general” (Callender, 2000: 164). New military titles, such as ‘chief of the leaders of the town militia’, ‘soldier of the town militia’, ‘crew of the ruler’(a naval title), ‘leader of dog patrols’, and ‘scribe of the army’, suggest a growing military hierarchy (Fields, 2007: 5). Since Buhen was a major fortress that provided logistical and administrative support for the operations of the nearby satellite fortresses, I suggest it seems almost certain that this hierarchy was in force there.

Location and geography of the sites

South of Cairo the Nile Valley narrows until it reaches the Faiyum Region. From there, the arable land spreads out to the west toward Lake Moeris. A large part of the reason for the extent of well-watered land in this section of the Nile Valley is the existence of the Bahr Yussuf Canal, which was initially built during the reign of Senwosret II (1880-1874 BC). The canal runs generally southeast from Lake Moeris, past the vicinity of Kahun where it turns south, and then it takes a parallel course to the Nile, finally joining the Nile in the vicinity of Tell el-Amarna. This area has historically provided some of the best farmland south of the Nile Delta (See Hendrickx and Vermeersch, 2000: 33; Callender, 2000: 152-153; Parsons, 2007: 83).

The most significant geographic feature near the ancient town of Kahun is of course the Faiyum Region. It is a depression that covers nearly 12,000 square kilometres and its northern boundary is located some 60 kilometres southwest of Cairo. Prior to the Palaeolithic Period, Lake Moeris was initially a salt-water lake. After the Palaeolithic, the lake desalinised and became a source of fresh-water. Not surprisingly, Epipalaeolithic and Neolithic cultures settled in the area to take advantage of this source of potable water. The

Faiyum Region was the site of extensive use and development during the Middle Kingdom and continued in importance through the Ptolemaic and Roman eras (Petrie, *et al.*, 1891: 30; also see Parsons, 2007: 86, 166).

The town itself is located at 29°14'N and 30°59'E on the western side of the Nile on the border between the desert and the area of cultivation. Kahun is northeast of the bend in the Bahr Yussuf Canal where it turns west into the Faiyum Region (Frey, 2001:150). The town is approximately 80 kilometres southwest of Cairo.

The ancient fortress of Buhen was located on the eastern bank of the Nile, across the river and approximately 5 kilometres south of the nearby modern town of Wadi Halfa (Habachi, 1975: 880). This area had great strategic importance in ancient times in that it controlled the northern area of the Second Cataract region. Considering its position, the Buhen site essentially marked the frontier between Lower and Upper Nubia. The Second Cataract was a rocky, impassable stretch of the Nile some 40 kilometres in length which, in ancient times, was called the 'Belly of the Stones' (Usick, 1999: 331). Unlike Kahun, which was situated on the verge of a broad area of cultivation, there were only very narrow strips of cultivatable land on either side of the Nubian stretches of the Nile. This was typical of many southern Egyptian towns such as Aswan and Elephantine (Habachi, 1975: 880). Westward from the site was the vast expanse of the western desert. Specifically, Buhen lies approximately 950 kilometres south of Cairo at longitudinal and latitudinal co-ordinates 21°55' N 31°17'E (www.15). The ruins of Buhen are no longer accessible as they are now underwater due to the flooding of the region caused by the completion of the Aswan High Dam in 1970 (Gates, 2003: 101).

Kahun

Historic overview of Kahun

After the fall of the Old Kingdom (2686-2160 BC) and the political difficulties associated with the First Intermediate Period (2160-2055 BC), Egypt was again united under a single ruler during the reign of Mentuhotep II (2055-2004 BC) thus starting the XIth Dynasty and the Middle Kingdom (2055-1650 BC). During the Old Kingdom, the seat of power had been centred on the city of Memphis, but with Mentuhotep II's military victory over the rival city

of Herakleopolis the centre of power shifted to Thebes. The capital of Egypt remained at Thebes until the end of the XIth Dynasty (Callender, 2000: 146-147).

Amenemhat I (1985-1956 BC), founder of the XIIth Dynasty (1985-1773 BC), moved the Egyptian capital to a newly built city, Itjtawy, in the Faiyum region, possibly in the region of the Lisht necropolis, (To date, the location of Itjtawy has still not been discovered.) The reasons for such a move may well have been Amenemhat I's desire to emphasise the rise of a new ruling family as well as because the Faiyum region was a more centrally located area from which to administer a united Egypt and to deal with Asiatic invasions (Callender, 2000: 147).

It is perhaps not too surprising that Senwosret II (1877-1870 BC) constructed the pyramid of Lahun and the associated town of Kahun, a name given to it by Petrie (1923: 20), close to the centre of administrative power. More importantly, from the earliest time the area in which Kahun is located was an extraordinarily fertile region that attracted humans to take advantage of the natural resources in the area. Evidence of this was supplied by Petrie who found several large Lower Palaeolithic flints of the Chellean type just north of where the pyramid of Lahun now stands. At another area, one third of a mile south-east of the Lahun pyramid, he found a number of worked Mousterian flints, which are usually associated with the Middle Palaeolithic period (Petrie, *et al.*, 1923: 20).

During the Neolithic, there was a robust usage of the Faiyum region. The area was inhabited by the Faiyum B culture, which carbon-14 dates have placed between 6150 ± 130 and 5190 ± 120 BC (Hoffman, 1979: 188). The Faiyum B culture was superseded by the Faiyum A culture which lasted from between 5450 BC and disappeared around 4400 BC (Hendrickx and Vermeersch, 2000: 33). While these cultures were not specifically represented at the site of Kahun, they were in relatively close proximity to the area and it is not inconceivable that isolated finds could be recovered in the future.

By the start of the historic period, the area around Kahun was being used as the site of an Early Dynastic necropolis (Petrie, *et al.*, 1923: 21). Approximately three quarters of a mile south-west of the current location of the pyramid of el Lahun near Bashkatib, Petrie (1923: 21) found graves he was able to date to the first three dynasties. He states that it was not an extensive cemetery, only 104 graves, but that it was important because the style of graves

ranged from simple holes in the sand to early shaft tombs. The graves were not contemporary with one another, but they afforded Petrie the opportunity to examine the development and changes in of burial practices during the Thinite (3000-2686 BC) and early Old Kingdom periods (Petrie, *et al.*, 1923: 21).

Other late Pre-Dynastic/Thinite Period graves were found along the 'edge of the cultivation, both east and west of the end of the dyke' that cut across the Bahr Yusef at the entrance to the Faiyum (Petrie, *et al.*, 1923: 25). Just west of the dyke, Petrie found another cluster of graves dating to the Ist through the IIIrd Dynasties. He was able to determine that these particular tombs had been re-used a number of times in later periods through to the Middle Kingdom (Petrie, *et al.*, 1923: 25).

The builder of Kahun, Senwosret II (1877-1870 BC) was the son and co-regent of Amenemhat II (1911-1877 BC). Upon his father's death, he became the fourth pharaoh of the XIIth Dynasty. His was a relatively peaceful reign. As a matter of fact, there appear to be no records of any military campaigns undertaken during his rule. On the other hand, foreign trade greatly expanded under Senwosret II and was quite profitable for Egypt (Callender, 2000: 152). Partial support for this assertion comes from paintings found in the tomb of Khnumhotep at Beni Hasan that depicted a Bedouin trading party, quite possibly from Western Asia, bringing in a shipment of galena to be used for cosmetics. Still, his greatest achievement was the initiation of a large-scale irrigation project in the Faiyum region. This brought vast tracts of land under cultivation in an area that was already agriculturally productive in earlier time periods (Callender, 2000: 152-153).

Senwosret II may well have ruled only a short time, possibly only six to seven years depending on what dates one accepts for his reign. For instance, the incomplete and undecorated statue shrine at Qasr el-Sagha located in the Northeast corner of the Faiyum suggests that Senwosret II died before it could be completed (Callender, 2000: 153). In any case, upon his death he was succeeded by his son, Senwosret III.

At the start of Senwosret II's reign, the general vicinity around the eventual site of the town of Kahun had already been put to a great deal of use in previous times for interment of the dead. It was this area that Senwosret II decided upon for the site of his pyramid, approximately one half mile from the edge of the cultivation. A suitable outcropping of rock was located and

prepared in order to serve as the lower core of the pyramid (Petrie, *et al.*, 1923: 3). I suggest that logistical support for this building project would have been greatly facilitated by the construction of a town to house workers and administrative staff.

As with most pyramid complexes, at least one temple was built that was dedicated to the funerary cult of the deceased pharaoh. Certainly after his death, the funerary cult of Senwosret II was in operation at Kahun, but this situation was not to last. According to Petrie's investigations, it appears that the tombs in the neighbourhood of Kahun were looted by the local inhabitants during the last part of the XIIth Dynasty or the beginning of the XIIIth Dynasty (Petrie, *et al.*, 1890: 32). I think it is possible to interpret this perhaps as a sign of beginning decline of Kahun if not the Middle Kingdom itself. Petrie reports that there is no indication of the town having been occupied after the XIIIth Dynasty (Petrie, *et al.*, 1890: 32).

By the time of the New Kingdom, the abandoned town of Kahun again attracted some attention. Petrie discovered several intrusive burials, dating most likely to the XVIIIth Dynasty as well as a bronze pendant of the goddess Bast and several scarabs dating to the late XVIIIth or early XVIIIth Dynasty (Petrie, *et al.*, 1890: 31-32). The results of his second season of excavation suggested there had been a 'sparse occupation' at Kahun during the reign of Amenhotep III. Some few rooms in the western quarter of the town appeared to have been occupied and there were several burials in the eastern part of the town. Petrie reported finding little pottery from the XVIIIth Dynasty (Petrie, *et al.*, 1891: 15).

One of Petrie's more significant discoveries at Kahun was that one of the cellars in a house in Rank N (see Figure 4-2) was reused as a ready-made tomb during the XIXth Dynasty. Petrie suggested that this tomb, identified as the 'Tomb of Maket', probably belonged to one family and must have been used successively over a period of perhaps fifty to one hundred years. Based on artefactual evidence, he proposed that the earliest date for the cellar's use as a tomb was sometime during the reign of Rameses II and the end date was possibly sometime in the XXth Dynasty (Petrie, *et al.*, 1891: 21-24). After the end of the New Kingdom, the area around Kahun continued to be used from the Third Intermediate Period (1069-664 BC) through to the Roman Period (30 BC-AD 395) as a cemetery.

Previous work at Kahun

Since the town of Kahun is in close proximity to the pyramid of Senwosret II, its location had been known to scholars in the 19th Century. It is possible that travellers of earlier eras had passed the site on their way to the Faiyum, but there seemed to be little scholarly interest in examining or excavating the site until the 1890s. It is perhaps because the emphasis in the 19th Century was on temple and mortuary sites that scholars were not particularly interested in the town. By 1889, the antiquities market in Egypt was flourishing and dealers from Cairo and other places were looking for new sources from which to obtain artefacts to sell (David, 1998: ix). A German antiquities dealer by the name of Kruger had his eyes on the site of Kahun (David, 1998: ix). Petrie had actually known of the Kahun site since 1887 (David, 1998: ix) and had intended to work there as soon as he was free from his commitments at Hawara and Gurob. The urgent situation that had suddenly arisen with Kruger required Petrie to send a skeleton crew to lay claim the site to keep Kruger from ransacking it for antiquities (David, 1998: x).

Once the Antiquities Service had officially recognised Petrie's claim to the site, he was able to plan for a proper excavation there. He started by doing a general walking survey of the Kahun district between 24 February and 2 March 1889, after which he did the first of three major periods of excavation. His first season lasted from 8 April to 23 May 1889 (see Figure 4-2). His second season's work was done between 3 October 1889 and 3 January 1890. He worked again at Kahun in 1914, 1920 and 1921 (Gallorini, 1998: 42, 49, 52).

Due to the scope of Petrie's work at Kahun, little attention was paid to the site until 1991, when an expedition from the Royal Ontario Museum, under the direction of Nicholas Millet, began work there. They began survey work in 1991 and finished it in the following year. Also during that season, the team started limited excavations at several specifically selected locations to assess the site preservation since the Petrie excavations. This work continued through the 1993 season (www.16).

During the 1994 season, the ROM team focused their attentions on the 'Acropolis' area of the site as well as 'Mansion 1'. These excavations allowed them to more fully document the floor plans of both structures. The ROM endeavours at Kahun did not resume until 1996 when the team re-excavated a small temple that Petrie had originally identified as the

‘Guardhouse’. In the final season, 1997, the team did further clearance work in ‘Mansion 1’ and site recording designed to conclude ROM work at the site (www.17).

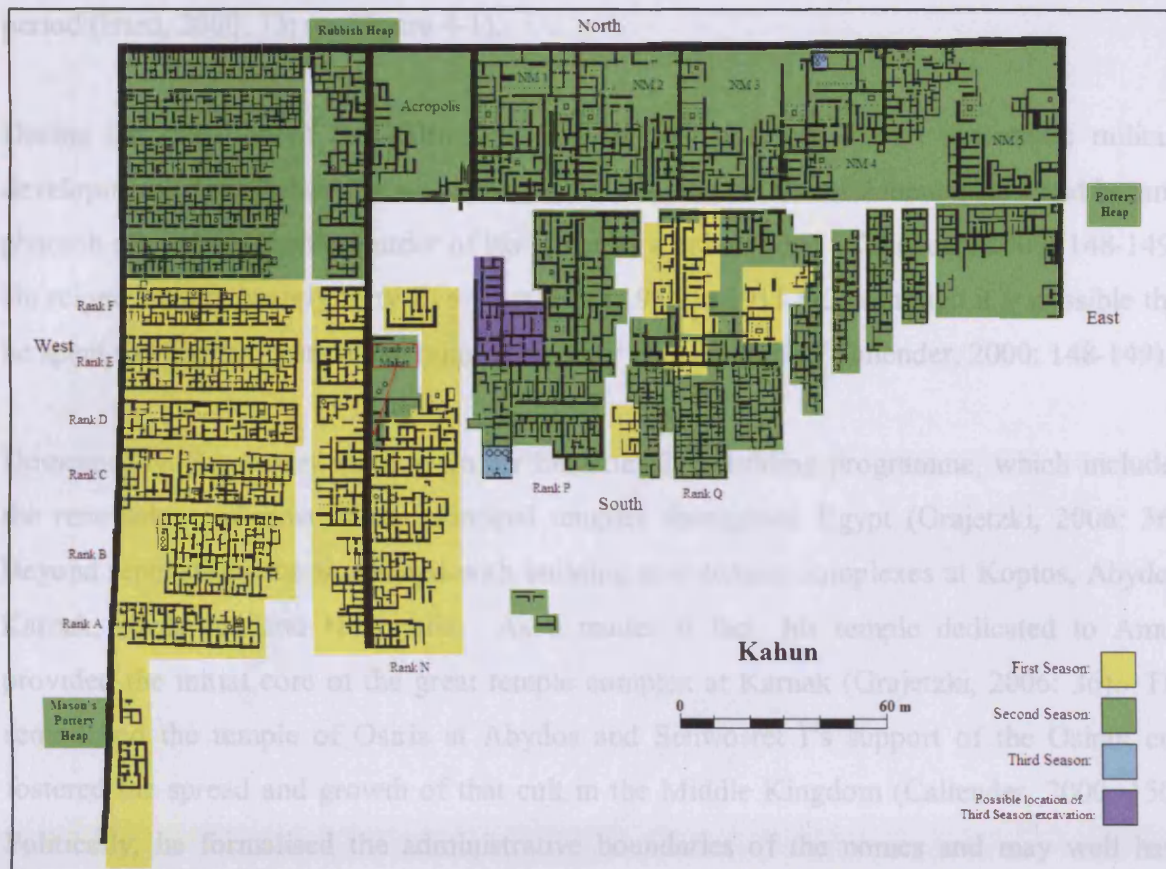


Figure 4-1: Site map of Petrie's three seasons at Kahun
(after Petrie, *et al.*, 1891: Plate XIV)

Buhen

Historic overview of Buhen

From the time of the unification of Upper and Lower Egypt the Egyptians were interested in the resources that could be obtained from Nubia. There is evidence of Egyptian expansion into Nubia in the form of a rock carving dating to the Predynastic Period found in the vicinity of Wadi Halfa that appears to show military manufacturing. Furthermore, north of the site of Buhen there is archaeological evidence that suggests an Egyptian presence in the area as early as the IInd Dynasty (Bard, 2000: 73). It is easier to ascertain Egyptian involvement in Nubia in the Old Kingdom. During the IVth and Vth Dynasty there was a settlement at Buhen, protected by a ‘crudely built stone wall’, as seen in Figure 4-1, which was dedicated to copper

smelting (Shaw, 1991, 18). There are also royal seals found at Buhen that date to these dynasties as well that provide further proof of Egyptian occupation during the Old Kingdom period (Bard, 2000: 73; see Figure 4-1).

During the first part of the XIIth Dynasty, the first pharaoh to start systematic military development of the Buhen site was Senwosret I. He was the son of Amenemhat I and became pharaoh after the probable murder of his father in a palace coup (Callender, 2000: 148-149). He reigned approximately forty-five years, from 1956 to 1911 BC, although it is possible that he spent the first ten years of his reign as co-ruler with his father (Callender, 2000: 148-149).

Domestically, Senwosret was known for his extensive building programme, which included the renovations of most of the principal temples throughout Egypt (Grajetzki, 2006: 36). Beyond renovations, he is credited with building new temple complexes at Koptos, Abydos, Karnak, Medamud and Heliopolis. As a matter of fact, his temple dedicated to Amun provided the initial core of the great temple complex at Karnak (Grajetzki, 2006: 36). He remodelled the temple of Osiris at Abydos and Senwosret I's support of the Osiran cult fostered the spread and growth of that cult in the Middle Kingdom (Callender, 2000: 150). Politically, he formalised the administrative boundaries of the nomes and may well have reorganised them altogether. A list of the nomes, along with their geographical dimensions, main towns and patron deities can be found in the 'White Chapel' at Karnak (Grajetzki, 2006: 42).

In matters of foreign policy, Senwosret I continued the policies of his father, Amenemhat I by sending several trading expeditions into Nubia and established Buhen as Egypt's southern border. While the primary object of the Nubian trading missions was to obtain gold, the Egyptians also procured amethyst, turquoise, copper and gneiss (Callender, 2000: 149). Militarily, most all of Nubia was soon placed under Egyptian control with his most successful campaign being in Year 18 of his reign against the Kushites of Upper Nubia (Grajetzki, 2006: 42). Fortresses were built, including Buhen, to provide logistical support for the king's Nubian campaigns as well as to facilitate continuing control over the area (Grajetzki, 2006: 42-43).

After an important reign that saw the solidification and expansion of Middle Kingdom Egyptian power, Senwosret I died in 1911 BC. He was succeeded by his son, Amenemhat II.

Like his father before him, Senwosret I's pyramid is located at Lisht (Edwards, 1972: 218, 220).

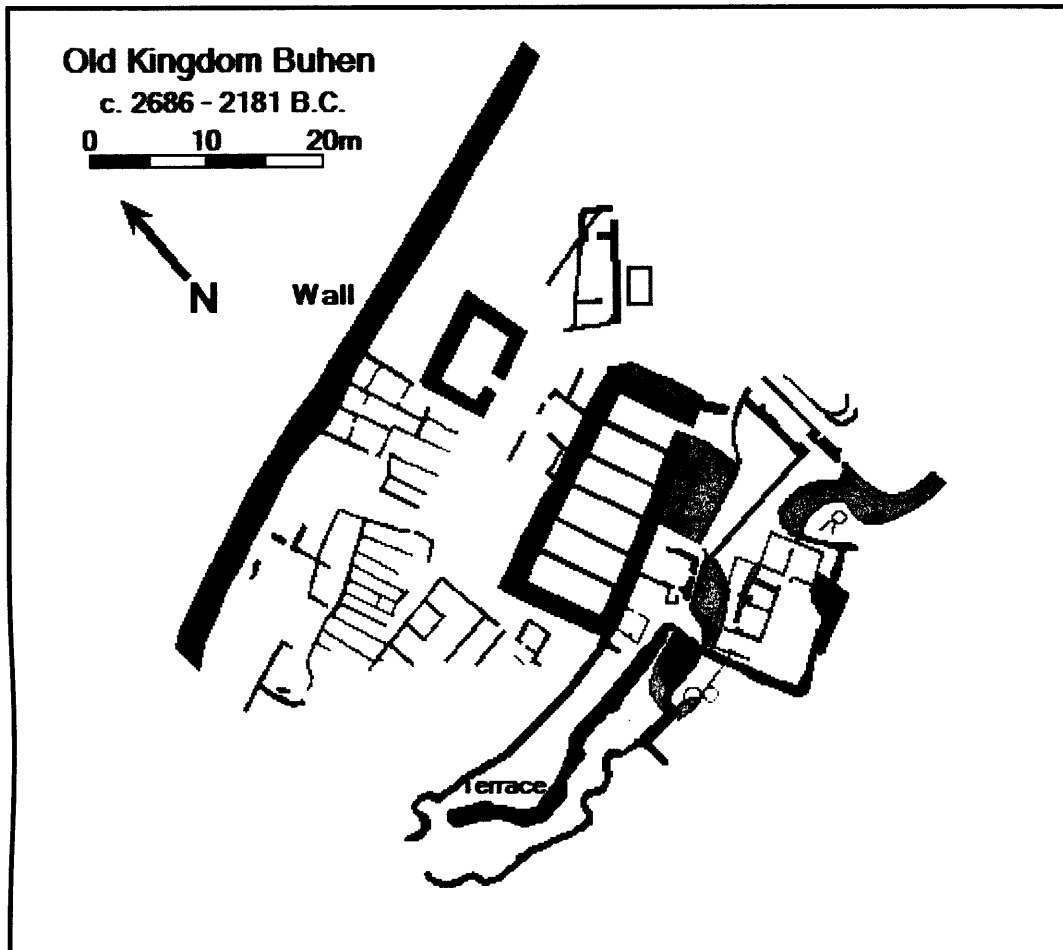


Figure 4-2: Old Kingdom Buhen (www.18).

Possibly the high point of Egyptian power in the XIIth Dynasty was during the reign of Senwosret III. He exercised a great deal of influence over the development and use of the fortress region in the vicinity of the Second Cataract including the site of Buhen. According to the *Turin Canon*, Senwosret III reigned for over 30 years from approximately 1870 to 1831 BC. There has been some question of whether he was part of a co-regency with his father, Senwosret II, but there seems to be no specific support for this view (Callender, 2000: 154).

Senwosret III is probably best known for his Nubian campaigns, although he is known to have also campaigned in Palestine (Grajetzki, 2006: 54). He undertook four major military campaigns in regnal years 6, 8, 10 and 16 respectively, which helped limit Nubian power in the south and effectively established the area in the vicinity of the Second Cataract as the

fixed frontier boundary between Egypt and Nubia. As a matter of fact, Senwosret III erected stelae at the fortresses of Semna and Uronarti during regnal years 8 and 16 that proclaimed the borders and consequences of transgressing those borders (Callender, 2000: 154-155; also see Grajetzki, 2006: 52-53). To facilitate logistics, Senwosret III added a chain of fortresses south of Buhen to augment the initial fortresses that had been built earlier in the XIIth Dynasty. These included Semna, Kumna and Uronarti, with Semna then providing the southern-most boundary of Egyptian territory (Grajetzki, 2006: 53).

In regard to domestic policy, Senwosret III took steps to centralise the Egyptian government, which had the effect of readjusting both social and political spheres during the Middle Kingdom. There has been some suggestion that these reforms included weakening the powers and privileges of the nomarchs, but there is little evidence to support this (Callender, 2000: 155). New administrative titles were created while older titles were dropped, thus giving credence to the idea that there was major reorganisation of the bureaucracy during his reign. Also, his building activities continued the XIIth Dynasty trend of developing the areas around Dahshur, Lisht and the Faiyum (Grajetzki, 2006: 57).

According to Grajetzki, convention held that Senwosret III died after a reign of nineteen years, but it is now suggested that his reign was quite possibly much longer than was previously thought and included a co-regency with his son and successor, Amenemhat III. This co-regency may well have lasted some twenty years (2006:55). Whatever the case, Senwosret III built a sixty metre high, mud-brick core, limestone cased pyramid at Dahshur just as his grandfather, Amenemhat III had done (Callender, 2000: 156).

During the Old Kingdom, the region of Kush or Nubia in which the site of Buhen is located was likely controlled by the Egyptians only to the extent of assuring their access to the resources in the vicinity. An example is the aforementioned Old Kingdom copper smelting operations at Buhen. This situation changed during the Middle Kingdom to more direct control. The extent of the sophisticated fortifications built at Buhen during this period suggests more than simply the protection of local resources (Grajetzki, 2006: 42-43).

From the beginning of the Middle Kingdom, Egypt was concerned with securing her southern borders. A series of fortresses were constructed in order to accomplish this. The earliest of these, possibly influenced by the fortified town sites of the First Intermediate Period, were

built in the XIth Dynasty by Mentuhotep I and later at the beginning of the XIIth Dynasty by Amenemhat I (Foster, 2001: 553). As previously mentioned, a second round of fortress building occurred during the reign of Senwosret I which included the intricate fortress complex at Buhen (Habachi, 1975: 881). The Egyptian expansion into Kush required the fortresses to be positioned at the weakest points of the trade routes from the south into Egypt so that the forts function not only as headquarters for military garrisons for the region, but also to control trade (Shaw, 1991, 18).

The Middle Kingdom construction had a ditch with glacis and counterscarp that protected the main defensive walls (Kemp, 2006: 233). The main defences were the fortress walls that incorporated crenellated parapets and interspersed bastions (Kemp, 2006: 233). Loopholes that overlooked the moat and main approaches to the fortress were provided for archers. Entrance to the fortress interior was accomplished through a main gate that utilised a wooden drawbridge so it could be withdrawn during times of trouble (Emery, *et al.*, 1979: 103).

While smaller fortresses, such as Mirgissa and Semna had perhaps more specialised purposes, Buhen was large enough to incorporate a number of functions including surveillance of the local population, border control, a staging area for military campaigns into southern Kush and administrative headquarters for the recovery of natural resources (Foster, 2001: 554). The Buhen fortress was further supported in its various roles by a third phase of fortress building during the reign of Senwosret III (Foster, 2001: 553).

After the XIIth Dynasty, Buhen continued to be garrisoned by Egyptian troops as evidenced by their remains interred in local cemeteries. The pottery buried with the soldiers came from pottery workshops in Memphis, which suggests that the forts were being supplied and controlled by the governmental apparatus in Egypt. Continued burials in the local cemeteries of soldiers with overtly Egyptian grave goods indicate that Egyptian occupation of Buhen continued into the Second Intermediate Period (Bourriau, 2000: 195).

Even so, as the Middle Kingdom central authority started to weaken near the end of the XIIIth Dynasty, logistical support from Egypt evidently became increasingly sporadic for the fortress garrison and settlers. As a result, the population of Buhen eventually shifted their support from Egypt to the Kushites (Nubians). The Stele of Sepedhor stated that as commander of

Buhen, he did his job “to the satisfaction of the Ruler of Kush” (Smith, 2003: 80; also see Bourriau, 2000: 195). This situation lasted until the end of the Second Intermediate Period.

A destruction/burnt layer discovered during excavation suggests the fortress was sacked and burned. Initially, Emery interpreted this destruction layer as having been caused by Nubian forces who were attempting to control the second cataract region by capitalising on Egyptian weaknesses (Emery, *et al.*, 1979: 92). Later archaeological work at the sites of Mirgissa and Askut showed continued Egyptian occupations that made a Nubian military conquest unlikely. The more likely scenario is that the destruction layer was actually caused by Egyptian troops under the command of resurgent Theban rulers who desired settled southern borders before they attempted to expel the Hyksos from Egypt. The Buhen area was firmly under Theban control by the third regnal year of Kamose (Bourriau, 2000: 195-196).

After their successful wars of liberation against the Hyksos, the Egyptian military forces reoccupied Buhen. They rebuilt and improved the fort’s defences and built two new temples (Usick, 1999: 331). Generally, the New Kingdom temples at Buhen were of fairly typical construction for the period, being made of stone on an axial plan (Foster, 2001: 554). More specifically, the earlier of the two temples at Buhen was built by Hatshepsut and dedicated to Horus of Buhen. Thutmose III was responsible for constructing the second temple (Bryan, 2000: 229).

Previous work at Buhen

As with the site at Kahun, the ruins of Buhen were known to earlier travellers. William John Bankes (1786-1855) made several trips up the Nile and it was during his second trip in 1818-1819 that he visited Buhen in a mixed company of travellers, artists and the British consul-general, Henry Salt (1780-1827). Bankes and his party were the first to attempt any kind of complete excavation and recording at Buhen (Usick, 1999: 331).

One of the servants working for the Bankes expedition, Giovanni Finati (1787-1829+), wrote an account of his own life and travels that included information on the party’s excavations at Buhen. According to Finati, Bankes arrived at the Buhen on 20 February 1819. After several days at the site, Bankes decided to continue south while leaving part of his contingent, under the direction of Antonio da Costa, to stay behind at Buhen to carry on excavations there.

Bankes and his party returned ten days later to find that da Costa and his workers had excavated a number of “chambers and small monuments”(Finati, 1830b:340; also see Usick, 1999: 331). By the time the expedition left, they had discovered the New Kingdom Period north and south temples, the Middle Kingdom fortifications and what was probably the gateway to the riverside quay (Usick, 1999: 331).

Another member of the Bankes expedition was Alessandro Ricci (?-1832), a medical doctor from Siena, Italy, who was also an excellent draftsman (Mayes, 2006:193). Between 1828 and 1829 Ricci again visited Buhen as a guide of sorts for an expedition organised by Champollion and Italian scholar, Ippolito B. Rossellini (1800-1843). The expedition engaged in no excavation, but confined itself to producing an “archaeological and architectural description” of the Buhen ruins. They specifically focused on collecting information on the extant hieroglyphic inscriptions (Usick, 1999: 331).

Little else was done at Buhen until the beginning of the 20th Century. The first systematic ‘modern’ excavation and recording of Buhen and its two temples was done by the Eckley B. Coxe Junior Expedition, which took place in 1909 and 1910 under the direction of archaeologists David Randal-Maciver (1873-1945) and Leonard Woolley (1880-1960) (Habachi, 1975: 880; also see Usick, 1999: 331). It would not be until the 1960s that any further major excavation work would be done at Buhen.

In the 1950s, it became apparent that the Aswan Low Dam, built at the beginning of the 20th Century, was insufficient for modern needs. A new dam was planned and construction was started in 1960. The impact caused by the resulting flooding behind the new dam on the archaeological resources was of great concern to archaeologists, both in Egypt and the rest of the world. As a result, archaeological work at Buhen was included as part of a comprehensive salvage operation in southern Egypt and the Sudan.

Walter B. Emery (1902-1971) was assigned to the work at Buhen and he carried out four seasons of excavation there from 1957 to 1965 (Habachi, 1975: 882; see Figure 5-3). Previously, it was thought that Buhen was solely a Middle Kingdom/New Kingdom site, but as a result of Emery’s work it became apparent that there had been a significant Old Kingdom component at Buhen dating to as early as the IVth Dynasty (Habachi, 1975: 881).

One of the staff members who worked for Emery was Harry S. Smith who kindly granted me a written interview of his experiences at Buhen. According to Smith, he began working at Buhen during the 1959/1960 season as an excavation assistant and hieroglyphic/hieratic epigrapher (Smith, H.S., pers. comm. 2006). He spent one full season working at Buhen and then was chosen by the Egypt Exploration Society, at Emery's recommendation, to lead an archaeological survey of Nubia for two seasons, 1960/1961 and 1961/1962. Even so, he was still able to spend several weeks at Buhen during both those seasons (Smith, H.S., pers. comm. 2006).

Smith stated that Emery's method of working was to direct all operations himself. He did not put field supervisors in charge of specific areas or trenches as is the common practice today. Instead, he divided each excavation day into three periods and assigned one field assistant to observe the work being done during each period. The field assistant's task was not to make any decisions, but to report anything of interest to Emery himself (Smith, H.S., pers. comm. 2006).

Emery did not really employ specialists at Buhen, at least not during the early seasons, although he did make sure that one of his assistants had proficient epigraphic training. He did all the architect work himself and was an excellent surveyor. While he had no special training in it, he did most of his own photography, but sometimes borrowed a photographer from the antiquities service. It was not until the late 1960s during his work at Saqqara that he began taking a ceramicist with him on his projects (Smith, H.S., pers. comm. 2006).

When asked about what kind of excavation strategies Emery used at Buhen, Smith stated that: "Excavation strategies as now understood was not a concept in Emery's mind" (pers. comm. 2006). Emery's method was to select an area to excavate that he felt would be the most promising in the way of providing architectural features or artefacts. As the work proceeded, he would extend his excavations in whatever direction the architecture or finds indicated. If an area proved to be unproductive, he would shift the workers to another area. Ultimately, the work at Buhen was after all, a salvage project on a large scale and Emery was guided by the limitations of the time, money and manpower he had at his disposal with the goal of obtaining as much information and exposing as large an area as possible within those constraints (Smith, H.S., pers. comm. 2006).

While Emery may not have had an excavation strategy as such, this did not mean he did not have overall objectives for his work. He was specifically interested in recording the architecture of the fortifications as well as the domestic, military, temple and other building types along with any associated archaeological features that existed. As important as this information has been to scholars, Smith noted, an unfortunate shortcoming of the work at Buhen was that: “Very little account indeed was taken of stratigraphy or cultural phases” (Smith, H.S., pers. comm. 2006).

This shortcoming has had long term consequences in that, since Buhen is now under the waters of Lake Nasser, there is no possibility of returning to the site to retrieve whatever information may have been left. Smith was somewhat pessimistic about the possibility of future reinterpretations stating: “In general (and specifically in the cases of pottery and stratigraphy) I do not think, alas, that the archaeological record from Buhen is complete enough to allow of reinterpretation” (pers. comm. 2006). Even so, he did mention in passing that several scholars have suggested some new ideas about the role of the fortress and its usage in the time since he published the Buhen I and II volumes (Smith, H.S., pers. comm. 2006).

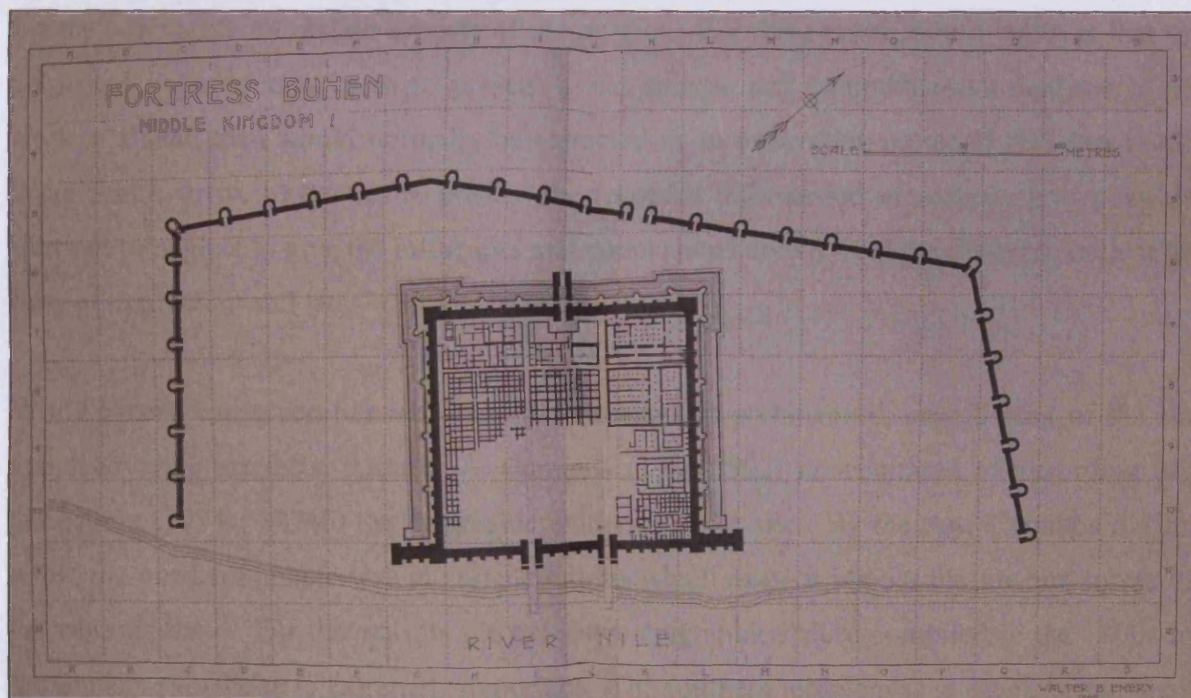


Figure 4-3: Plan of Middle Kingdom Buhen, (Emery, *et al.*, 1979, Plate 2)

Emery died unexpectedly in 1971 before the Buhen report could be written and published. While he had indicated certain of his intentions regarding how the Buhen information was to be presented, only he actually knew how he had intended to publish the archaeological details. It was left to Smith to prepare the information for publication in accordance with as much as he knew about Emery's wishes (Smith, 1979).

Emery had intended to publish the archaeological finds by class and this Smith did in two chapters that contained the catalogued artefacts, pottery and relevant plates of those items. To this he added two chapters of archaeological commentary and illustrations to fill out Emery's architectural descriptions (Smith: 1979). Lastly, he provided a summary of conclusions in Chapter 6 of the first Buhen volume he intended for people to read in conjunction with Chapters 7 and 16 of the second Buhen volume. While Smith thought this organisation was "perhaps clumsy", he felt it was the best way to present the material while leaving "Emery's own work intact" (Smith, 1979).

Because of Emery's death, Smith states that the Buhen volumes, of necessity, had to rely heavily on Emery's journals, field notes and other records collected on site. Some limited information could be supplied from the recollections of key staff members who were aware of Emery's thoughts on certain aspects of the project. For this reason, Smith believes that the published volumes may seem to present a less precise and comprehensive analysis of the work at Buhen than would normally be expected in an excavation report of this magnitude. What Smith strove to do was to present the recorded information as accurately as possible, "but not to neglect to give the influences and conclusions drawn from the material, both at the time of excavation and later" (Smith, 1979).

While Emery concerned himself with documenting the architecture, overall plan of the site and recovering artefacts, Ricardo A. Caminos (1916-1992) concentrated on recording and publishing (1974a; 1974b) the epigraphic evidence at the site. By the time Caminos did his work, the northern temple was in complete ruins which made it impossible for him to record inscriptions there. For this reason, the extensive epigraphic record compiled in the 1800s by the Bankes expedition is extremely important. The southern temple was in much better shape and Caminos was able to make a detailed record of the inscriptions during the 1960/1961 season (Usick, 1999: 335-336; Habachi, 1975: 882).

CHAPTER FIVE

Kahun Case Study

Introduction

When Meskell (2002) wrote her interpretive work on the New Kingdom site of Deir el Medina, she had to hand a settlement site that she assessed as having been reasonably well excavated for its time (2002: 11), but which was inadequately done by modern standards (see Bourriau, *et al.*, 2000: 121 and Wendrich, 2000: 259). The site had extensive textual, artistic and artefactual data sources associated with it which is its main value. In essence, I think it would be difficult to find a site that had more interpretive potential than Deir el Medina, but which has also gone unrealised. I believe a much expanded and more developed interpretive system, such as I have delineated in this dissertation, could be useful in providing more intensive interpretations of Middle Kingdom sites that did not have such a wealth of data.

Since Deir el-Medina was a settlement site, it made sense to choose at least one Middle Kingdom settlement site as one of my case studies. Kahun seemed an appropriate choice. As mentioned (Chapter 4) this site has the advantages of not only a large corpus of artefactual material, but also architectural evidence, neighbouring mortuary sites and site specific papyri and texts. The evidence from Kahun has provided information on life in the Middle Kingdom (Kemp, 1989; Quirke, 1998; Szpakowska, 2008). Even so, the evidence has its limitations. Because of the excavation methodology used by Petrie, much of the artefactual information has no provenance. Thus, we have little of the contextual information that would assist us in identifying activity areas that would illuminate our understanding of life in this town.

One may rightly question the reason for studying Kahun at all if its interpretive potential is limited due to the lack of contextual information. I think there are two reasons for such study. First, even while recognising the limitations, I think it is important to discover whether the Pluralistic Contextual Approach is capable of providing additional insights into the site. Second, I believe that the Pluralistic Contextual Approach could be used as a diagnostic tool to ascertain what type of additional specific information would need to be collected in any future archaeological investigations at the site in order to make more complete interpretations.

Selected Study Areas of the Kahun Case Study

Locations of study areas within the Kahun site

One of the problems associated with the Kahun site is that Petrie's method of excavation relied on his workers removing massive quantities of soil without particular regard for noting stratigraphy or the provenance of artefacts (Petrie, *et al.*, 1890: 12). As a result, while there is a large corpus of cultural material available to study, little of it can be linked to specific areas of the site let alone to particular buildings.

There are, however, a very few instances where Petrie did indicate in his notebooks the general locations of specific individual finds or groups of finds. Therefore, I am limited to using these few occurrences for my study areas. One such artefact group was located in a "building on the eastern side of the street which runs south from the east of the acropolis" (see Petrie, *et al.*, 1923: 39). Petrie describes the 'House and Cellar' building in the following way:

"In the middle of the south side is a paving of brickwork upon which is a small enclosure of a single line of bricks on edge, 54 ins. X 31 inside. Projecting from the middle of the front is a kind of brickwork box. This was under a portico, facing north, the roof carried by three columns of which the bases remain in place. On the west of it at a rather lower level was part of a plastered floor with curved edge. Just beyond this was a shallow pit, which had probably been lined with stone as a tank. The front of the middle column stood a small square tank, and a mortar sunk in the floor. The photographs were taken after the floor of this part had been dug away to see if anything were buried. At the middle of the east side was a small underground chamber, 60 X 40 ins., and lying on the top of this was a stone altar of offering, uninscribed, of a simple type. Along the north part of the court are three granaries, two with an additional enclosure of a curved wall, one of these having eight pits sunk in the floor" (Petrie, *et al.*, 1923: 39).

Gallorini (1998: 52) has stated that it is impossible to precisely locate this building, but I believe, based on its architectural configuration, that it may well be the building located at the south-western corner of Rank P (See Figures. 5-1 and 5-2).

The other area's identification is more tenuous. Petrie noted a collection of artefacts that he identified as 'Group No.9'. According to his description, this group of artefacts was found

“... in a house on the south side of the second street from the top, in the workmen's western quarter” (Petrie, *et al.*, 1891: 12-13, Pl. XIII; also see Figures. 5-1 and 5-3). Unfortunately,



Figure 5-1: Overall site plan showing study area locations highlighted in orange.
(after Petrie, *et al.*, 1891: Plate XIV).

Petrie does not specifically identify from which of the houses the Group No. 9 artefacts came. While the precise provenance of the artefact would be immeasurably helpful, I suggest it may be possible draw some conclusions about context based on the architectural plans of the houses in this particular block. Petrie stated the all of the artefacts in Group No. 9 were found in the same room while two of the artefacts were found in an adjoining room (Petrie, *et al.*, 1891:13). The houses I have labelled 1, 2, 3 and 7 in Figure 5-3 have generally similar floor plans and I suspect they may be the best candidates for the Group No. 9 artefacts provenance based on Petrie's comments, which give me the impression it was a smaller house he was describing. Although House 4 is of a slightly different plan, I think it is also a possible provenance for the Group No. 9 artefacts. I only question the likelihood of Houses 5 and 6 being the site of the group's provenance simply because, while they do have entrances into the second street from the north, they are large houses that also connect through to the third street from the north.

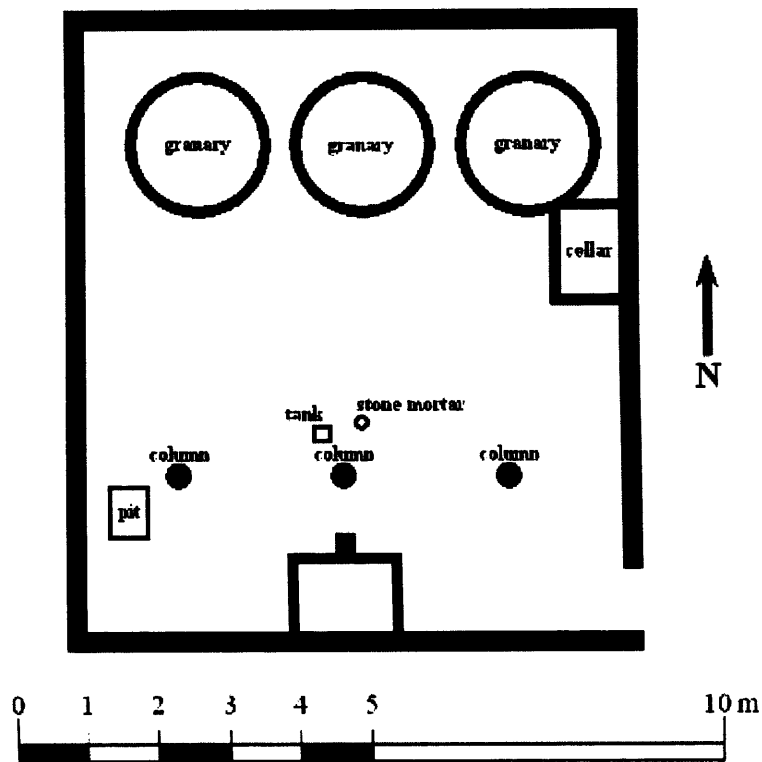


Figure 5-2: Plan of the building identified as the 'House & Cellar' at Kahun (after Petrie, *et al.*, 1923: Plate XXXVIa).

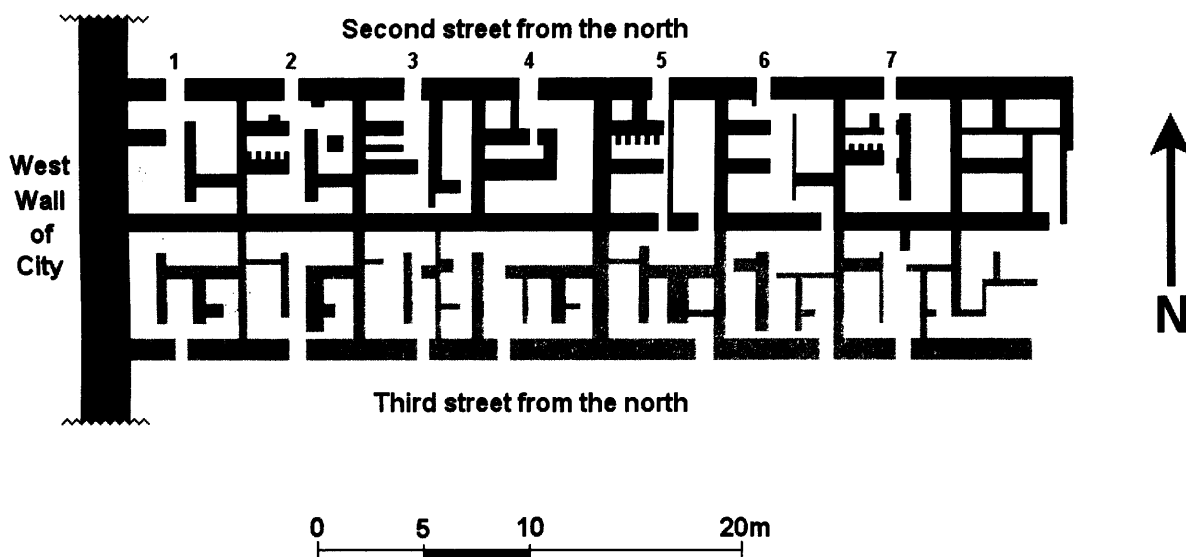


Figure 5-3: Plan of the block of houses (in black) where the Group 9 artefacts were recovered (after Petrie, *et al.*, 1891: Plate XIV).

How and where do the selected study areas fit into the site picture at Kahun?

Considering the location of the 'house and cellar', in the southern section of the town behind the southern mansions, I think it reasonable to interpret its use as either a subsidiary building or work area used by workers to support the operations of the mansions or perhaps an independent living/work space for one of the worker families. From its arrangement, I suspect this construction may well have been employed in the former instance. The three granaries are excessive for private household storage. The features of a built-in stone mortar and a 'tank' just in front of a covered portico would seem to support the interpretation of a specialised work area rather than a domestic space. Lastly, the architectural configuration of the 'house' and cellar compared to houses in the western workmen's quarter in that there is obviously a different allocation of space.

The area in which the Group No. 9 artefacts were found is easier to interpret. The constructions easily lend themselves to the interpretation of having been used as domestic quarters for the Kahun workmen and their families. Houses 1 through 4 and House 7 appear to be small family dwellings. Houses 5 and 6 may have been purposely designed for slightly wealthier families. Another possibility is that Houses 5 and 6 may have been built in the same general design as the other houses in the rank and that, as the families in those houses expanded, adjacent houses on the south side of the main dividing wall were purchased and doorways installed to provide larger, extended family dwellings. Whatever the case may be, it is unfortunate that the provenance of the Group No. 9 artefacts cannot be pinpointed to a specific house.

Data Used to Construct a Pluralistic Contextual Approach at Kahun

Texts

In Chapter 4 I advocated the compilation of a corpus of Middle Kingdom texts that could be used as a general set of sources pertinent to interpreting sites of this time period. As previously mentioned, many of the Middle Kingdom literary sources are quite familiar to Egyptologists who specialise in texts, but not all Egyptologists have such a specialty. For those Egyptologists who concentrate on archaeological fieldwork this available textual evidence may not be that familiar to them. I believe it is essential that a corpus of literary

source material is readily available for each time period for those scholars that may not have expertise in Egyptian textual studies. To that end, I have compiled a basic corpus of Middle Kingdom sources (See Appendix 2) that I have examined in an attempt to find passages relevant to explaining life at Kahun.

While I have look at all of the texts mentioned in Appendix 2, among the most enlightening with regard to Kahun are:

The Satire on the Trades (Lichtheim, 1973: 184-192)
Teachings of Merikara (Parkinson, 2004: 52-54)
Teachings of Ptahotep (Parkinson, 2004: 65-70)
The Loyalist Teaching (Parkinson, 2004: 70-72)
Teaching of Duaf's Son, Khety (Parkinson, 2004: 72-76)
Brooklyn Papyrus (Parkinson, 2004: 99-101)
Letters of Heqanakht (Parkinson, 2004: 101-107)
The Coffin Texts (Faulkner, 1973, 1977, 1978)

The Satire on the Trades (Lichtheim, 1973: 184-192) provides not only a listing of different occupations and their vicissitudes, but may also provide an insight into how the author saw the status of scribes and how they should purport themselves. *The Teachings of Merikara* (Parkinson, 2004: 52-54) are wisdom texts that even call into question the infallibility of the pharaoh. *The Teachings of Ptahotep* (Parkinson, 2004: 65-70) expound upon the characteristics of a perfect official. Social solidarity is the main theme of *The Loyalist Teachings* (Parkinson, 2004: 70-72). *The Teaching of Duaf's Son, Khety* (Parkinson, 2004: 72-76) provides a bureaucrat's view of society. Since enforced labour obligations were frequently required of the common class during the Middle Kingdom (Callender, 2000:161) it is not too surprising that some commoners attempted to avoid the requirement. A portion of *The Brooklyn Papyrus* (Parkinson, 2004: 99-101) includes a register of forced labour fugitives. Lastly, the *Letters of Heqanakht* (Parkinson, 2004: 101-107) offer unique insights into private entrepreneurship of during the Middle Kingdom.

While the aforementioned texts provide useful information on certain aspects of culture in the Middle Kingdom, it is a necessary part of the Pluralistic Contextual methodology to supplement more general texts with site-specific texts. The following texts have specific relevance to Kahun:

A House Census From el-Lahun (Parkinson, 2004: 111-112)
Temple Archives from Lahun (Parkinson, 2004: 88-89)
The Kahun Contracts (Petrie, *et al.* 1890: 45-46)
The Kahun Medical Papyrus (Collier and Quirke, 2004)
Inscriptions from Lahun (Petrie, *et al.*, 1923: 42)
The Transfer Deed of Wah (Parkinson, 2004: 108)
Keba's Will (Petrie, *et al.*, 1890: 46)
Ana's Letter (Petrie, *et al.*, 1890: 46)

Artistic data

This particular category of data is not limited to tomb paintings, although they are an obvious source of data. Tomb paintings, such as those at Beni Hasan, provide an excellent source of information about common activities during the Middle Kingdom. As Nicholson (*pers. comm.* 2007b) has stated, these images will not provide total reconstructions of the activities presented, but can give accurate glimpses into those processes. The other main source of artistic evidence comes from Middle Kingdom tomb models depicting daily activities. Perhaps the best known examples of this data type are the tomb models of Meketre. These are, however, not the only tomb models in existence. There is evidence of tomb models at Kahun, in fact, several fragments of such models were found in the corpus of artefacts from the 'House and Cellar' location. Numerous other fragments of tomb models are included in the general corpus of unprovenanced artefacts from Kahun as well. As with the tomb paintings, none of the models shows complete processes, but they do provide snapshots of daily life.

Archaeological data

In regard to the botanical evidence recovered from Kahun by Petrie during the first two seasons, Germer (1998: 84) asserts that it by and large fits within the parameters of the general inventory of plant life that was available to the ancient Egyptians. What was surprising was some of the items that were not present in the sample.

The evidence of tree types at Kahun confirmed the use of most of the known trees either from leaves, seeds, fruits or wooden objects that were made from them. Petrie was able to recover numerous fruits and stones from both the dom and argun palms, but found no evidence from date palms. Interestingly enough, neither the dom palm nor the argun palm are part of the flora of the Faiyum (Germer, 1998: 86-87). This perhaps suggests that there was a flourishing

trade between the town of Kahun and other parts of the Nile Valley in order to obtain the fruits.

Fruits and leaves from persea trees were collected as well as one pod and six seeds from carob trees. Many of the wooden objects that were found at Kahun were made out of acacia wood (Newberry, 1890:50). Sycamore trees also supplied wood for manufactured objects. Newberry reports that, "Nearly all the wooden boxes which Mr. Petrie found under the floors of the workmen's dwellings at Kahun were made of wood of this tree" (1890:50). However, Germer points out that analysis of Egyptian wooden artefacts indicates that much of the wood used in Egypt was imported from Palestine (1998: 87). It is difficult to say if this was the case with the Kahun artefacts, but the prospect could again suggest far reaching trade contacts if true.

While Petrie did find ample confirmation for the presence or use of balanite trees (*Balanites aegyptica*), several hundred fruits and stones, there were no indications at Kahun of either the castor oil plant (*Ricinus communis*) or the *Moringa peregrine*. Nebak or Christ Thorn fruits were also found in abundance (Germer, 1998: 87), but one of the trees from which Petrie did not find any verification of its presence was the Egyptian willow.

Of the two main grains that were common to Egypt, only barley was recovered at Kahun. Petrie retrieved no samples of emmer wheat at all in his excavations, which is somewhat surprising since both barley and emmer wheat were mentioned in the Lahun Papyri (Germer, 1998: 85). Again, modern flotation methods may have retrieved samples that were missed. On the other hand, I question if it is at all conceivable that Kahun could have been designated as a specific production centre for barley and if emmer wheat products were perhaps imported for local consumption. Millet was known in Egypt, but there is no indication of millet in the botanical samples collected by Petrie, but Newberry (1890: 49-50) notes that four oat grains were recovered. As far as legumes are concerned, fava or broad beans were found as well as green peas.

Newberry mentions that there was evidence of radishes and cucumbers at Kahun (1890: 49-50). More recent information suggests that these vegetables may only have been part of the Egyptian diet in the Roman Period (see Germer, 1998: 87 and Murray, 2000: 628, 635, 636, 648). While Newberry does not mention either grapes or watermelons in his report on the

plants of Kahun (1890: 49-50), Germer reports that Petrie did find evidence of both (1998: 88). Of other vegetables or root crops that were common in Egypt, there is no evidence in the collected botanical sample of gourds, squash, onions, leeks, garlic, rush nuts or lettuce.

Petrie found numerous pieces of papyrus, so it was present at the site even if it was not grown there. Reeds were used as there were examples of basketry recovered from Kahun (See www.19). There were no samples of sedge. Flax was grown at Kahun as corroborated by the samples of seeds from both small species flax and cultivated flax (*Linum humile*) and hanks of prepared flax strips (www.20). This particular evidence buttresses the concept of an active textile industry at Kahun.

While flowers were abundant in Egypt, Petrie recovered little evidence of them from the town. The floral evidence collected is limited to only four seeds of the common poppy, *Papaver rhoeas* and two flower-heads of the daisy or sunflower (*Compositae*) family. This is not to say that flowers were not more abundant at Kahun, only that little evidence was retrieved. Modern flotation techniques may well have returned larger and more varied samples, but such techniques were not practised at the time Petrie was excavating.

Newberry also reported that Petrie was able to collect seeds from spiny medik and Egyptian dock. A number of Egyptian clover seeds were also found, but Germer states that these are most properly dated to the Roman Period (1998: 87). Petrie also recovered juniper berries and as well as black cumin at Kahun (Germer, 1998: 88). Germer reports that safflower fruit was indeed found at Kahun in Petrie's second season. Furthermore, the safflower fruit contains an oil useful for cooking and the petals were used to produce red and yellow dyes for dying linen (1998: 88-89). There was no evidence in the Kahun sample of Egyptian caraway, dill, coriander, black pepper, *Cassia fistula*, *Cassia senna* or *Citrullus*.

The artefact data for this case study is divided into three main groups. These are the artefacts from the 'House and Cellar', the 'Group No. 9' artefacts from the western worker's quarter and the general corpus of artefacts recovered from Kahun, but which have no specific provenance. Figures 5-4 and 5-5 list the artefacts for the two Kahun site locations.

Figure 5-4: Kahun House and 'Cellar' Artefacts

Very small pot – 1	Toggle – 1
Hyksos sherd – 1	Complete papyrus case – 1
Stone circular lid (?) – 1	Alab weight - 1
Large dish (broken) – 1	Hammer stone for burnishing metal – 1
ring stands – 2	Top of boomerang – 1
other pots – 2	Several pieces of netting
Bottom of basket - 1	Pieces of rope - ?
Piece of fine wicker – 1	Fish-hook - 1
Head-pad for water carrier – 1	Fishing float - 1
Various pieces of wood from furniture, etc.	Wooden angle for hooking - 1
Large trumpet stand, 27 (inches?) height – 1	Wooden hand-shaped castanets – 2 pieces
Half of smaller 'do' (trumpet stand??) – 1	Fragment of man holding duck cut on block of wood - 1
Cross piece of ankh – 1	Foot from wooden statue - 1
Sandals – 2	Cord wound around flint – 1
Ivory button-belt – 1	Several flints
Needle – 1	Piece of palm stick - 1
Several beads	Piece of palm branch - 1
Oblong piece of ivory – 1	Piece of alab shell - 1

(Gallorini, C. 1998: 52-53)

Figure 5-5: Kahun Group 9 Artefacts

Spoon, wood – 1	Piercer, small, copper - 1
Vases, alabaster – 3	Chisel, small, set in wood handle – 1
Vase, green paste – 1	Chisel, small, set in nut handle – 1
Vase, Alabaster – 1	*Knife, large, copper – 1
*Mirror, yellow metal, brown hard wood handle – 1	Flakes, flint – 7
Torque, copper – 1	Knife, flint, cord wrapped - 1
Box, small, wooden – 1	Knife, flint, broken fragment – 1
Piercer, without handle – 1	Whetstone – 1
Piercer, tapering – 1	Wood fragment, unidentified -1
Piercer, without handle – 1	

Found together in a room adjacent to the other artefacts in this group.

(Gallorini, C. 1998: 52-53)

The artefacts from the 'House and Cellar' include household items such as ceramics and other things that could be associated with cooking and various bits of furniture. There were also items of apparel such as sandals and an ivory button belt. A copper sewing needle was found along with a toggle. A number of activities were represented within this assembly. Fishing and hunting equipment was represented including a fish hook, a fishing float, a net and a boomerang. Other artefacts included a papyrus case, several pieces of basketry, rope, tools, an 'alab' weight and even wooden castanets in the shape of hands. The Egyptians continued to use stone implements in the Middle Kingdom and several flint artefacts were found with this assemblage as well. Objects that had religious or funerary significance were recovered with this cache. Items included a cross piece of an ankh and parts of funerary models or statues.

In the Group No. 9 assemblage there was little that was associated with cooking activities, it being limited to a wooden spoon. As far as home furnishings were concerned, there was no furniture, but there were five vases of varying types and sizes. There were also no articles of clothing or apparel found in this group, but personal items included a mirror of yellow metal with a brown wooden handle, a copper torque and a small wooden box. The largest category of artefacts recovered with this group was tools of various types. Tools included punches or what Petrie described as 'piercers', chisels, a copper knife and a whetstone. Lithic tools were also found and included several flint flakes and two flint knives.

The third category of artefactual data is the unprovenanced artefacts that were found throughout the site of Kahun. The registry of these artefacts is quite extensive and little would be served by recounting its contents here. Suffice it to say that the Kahun assemblage contained items from just about every conceivable facet of Egyptian life during the Middle Kingdom. Evidence contained within this dataset can be used to support that of the assemblages of artefacts.

A Pluralistic Contextual Approach to the Interpretation of the Kahun Data

In trying to apply the Pluralistic Contextual Approach to the site of Kahun, there are a number of possible subjects that could be used as avenues of interpretive research. My purpose in this case study is not to do a complete reappraisal of Kahun. That is a topic best reserved for a project calculated to last for many years. Instead, I think it is best to limit my focus to examining a particular aspect of the ancient life of Kahun in order to demonstrate my Pluralistic Contextual Approach.

In the course of my research, I have found much to admire in Smith's work, *Wretched Kush* (2003), which focuses on determining ethnicity, its impact and manifestations in the border region between Egypt and Nubia. I have found his work to be a useful guide. However, unlike Smith, I believe the best focus for my particular study is to investigate social class and how it may have operated at Kahun specifically during the Middle Kingdom.

As explained in Chapter Four I found the interpretive framework Meskell employed in her work, *Private Life in New Kingdom Egypt*, a useful starting point for my Pluralistic Contextual Approach, but I concur with Morris (2002a and 2002b) that she often extrapolated

interpretations of activities at Deir el Medina beyond what the data supported. My approach differs from Meskell's in that I have endeavoured to create a more comprehensive interpretive system that is more closely dependent on the employed data sets in order to develop site interpretations.

My format for this interpretive analysis will begin with a basic discussion of the town, its design and what possible impact it could have had on social class. This will be followed by an examination of some extant class system models of Middle Kingdom Egypt and whether they adequately reflect the social situation at Kahun. I think there is a good case to be made that social class may well be more fluid than the models indicate and that much of our understanding of social class needs to be based on the social contexts. By way of explanation, I will discuss three different social hierarchies, the temple, the textile industry and merchants and scribes as a perceived middle class. Finally, having examined the social dynamics of these hierarchies, I will consider how my specific study areas can be interpreted in regard to their places within the social class situation at Kahun.

The town and its design

It is reasonable to start by considering how the town itself may have had an effect on the perceptions of social class. Kemp writes:

Kahun was laid out by someone who saw only two social levels: top bureaucrats and other. In reality the latter was a diverse category with varied needs and expectations, exemplified by the changing size of the Hori-Sneferu household. The simple twofold division represented a social myth held by the elite. It made no serious attempt to cope with the social and economic differentials within the numerous bodies of people with an 'official' capacity of one lesser kind of another. After the Middle Kingdom the state gave up the idea of planning for communities other than small groups of workmen (1989:221).

Kemp makes several salient points in this paragraph. The plan of Kahun does give the impression of a class division simply composed of wealthy bureaucrats and commoners. If Kemp is correct that the Egyptians during the XIIth Dynasty had a desired ideal of class comprised of the elite and the commoners, it seems reasonable to consider how they may have dealt with reconciling the 'ideal' with actuality. I suspect most Egyptians understood the actual class system was far more complex than the 'ideal' and had many gradations and social nuances. This somewhat parallels Smith's points concerning the Egyptian 'official' and

‘pragmatic’ views of ‘wretched Kush’ (see Smith, 2003). In other words, I believe there is a certain ‘topos and mimesis’ in operation here in regard to how the ancient Egyptians understood social class. Along the same lines, Szpakowska (2008: 8-12) is correct in pointing out that the Egyptians had their own way of dividing and identifying the classes and that these were mutable depending upon the situation.

On another level, Kemp’s observation that Kahun’s ground plan acknowledged a social division of only 2 classes is interesting from a phenomenological viewpoint. Kemp is not intentionally trying to be ‘phenomenological’, but his observations could be viewed from this perspective. I maintain that the constructed environment in which the people of Kahun lived visibly and spatially could well have reinforced the concept of elite and common classes. The housing constructions suggest that the workers lived in more cramped conditions than did the elite.

One of the architectural features that could have had such a reinforcing effect was the major wall separating the main town from the western workers quarters. If the town was built in two successive phases (Petrie, *et al.*, 1891: 5; Frey, 2001: 150), it is likely that this wall was originally an outer wall. After the construction of the western workmen’s quarter, the wall demonstrably separated the workers quartered there from the more affluent main section of the town. The smaller buildings in the southern and eastern parts of the town also appear to have housed workers. It is possible to speculate whether there may have been class friction, as Marx (1848a/1977a: 259) might have suggested, between workers who lived in the western workmen’s quarters and those who lived in proximity to the northern and southern mansions based on a perceived social advantage derived from housing location.

There were two distinct areas within the town, the main east and a, possibly later, west area. They were separated by a 3 metre thick wall, with no remaining sign of a gateway. As the whole town was enclosed by similar walls with sloping slabs of mud brick or stone at the base, perhaps to deflect the constant sandstorms, it is likely this western area was a later addition, perhaps for administrative rather than domestic purposes; the majority of the papyri was found there (www.17).

Kahun was a planned community on a large scale. There were some attempts at planning towns connected with pyramid construction during the Old Kingdom, but it reached its peak during the Middle Kingdom. Perhaps, the perceived Egyptian desire for order and stability was as a reaction to the political and social turmoil of the First Intermediate Period. Whatever

the case may be, planning a town the size of Kahun would have been facilitated by the existence of an organised bureaucracy. Such a bureaucracy would necessitate leadership/worker paradigms that would create hierarchies of social class within the bureaucracy. One of the points confirmed by the Royal Ontario Museum excavations is that Kahun was a “complete functioning unit, accommodating doctors, lawyers, scribes and priests as well as those trained for manual labour” (www.17).

Some class system models

Attempts to classify different social strata in Egypt date at least as far back as the ancient Greeks. In his *Histories*, Herodotus recognised seven classes of people: priests, warriors, cowherds, swineherds, tradesmen, interpreters and pilots (Kemp, 2006: 370). A simple and somewhat traditional social class system model, suggested by historian Michael Cheilik (1969: 23), started at the top with the pharaoh. Immediately below the pharaoh, were the two viziers and other top nobility who, with the help of scribes, managed the agricultural, commercial and industrial systems and who frequently had religious functions as well. There was also a merchant class, that while free, was under the direction of the state and dependent on scribes for its smooth functioning. Next in line were the provincial nobility who ran local governmental operations, followed by the peasants (Cheilik, 1969: 23).

John A. Wilson offered an alternate view, likening Egyptian class structures to pyramids:

In the organisation of government, the pharaoh stood above his national ministers, who were above the governors of the several provinces, who were above the mayors of the villages. Socially, the pharaoh was over all the nobles, who were above the serfs, although here we had some question about the existence of a separate class of artisans, small merchants, and factors. In terms of religious organisation of the state, the pharaoh was the only point of contact with the gods, surmounting the priests, who were above people. These several pyramidal descriptions are, of course, really one, because higher officials, nobles, large landholders, and priests were the same; they constituted that group directly under the pharaoh to whom he delegated the carrying out of those functions which belong to him by definition (Wilson, 1951: 73).

Barbara Mertz (Mertz, 1973: 119-120) has suggested a basic social class system similar to that of Wilson. The pharaoh was at the top of government followed by a class of administrators, courtiers and high-ranking priests and soldiers. Directly below that was a

lesser class of scribes that served in various middle rank capacities such as in the military, at court or in the temples. The lower class was comprised of those who did manual labour.

It is reasonable to suggest that based on the foregoing opinions, a generic ‘traditional’ social class system model could perhaps be structured as follows:

Generic ‘Traditional’ Social Class System Model:

Pharaoh

Viziers, Nobles, Priests and Generals (Elite Class)

Local Administrators, Scribes and Merchants (Middle Class)

Commoners: (Lower Class)

Artisans & Craftsmen

Soldiers (?)

Builders & Labourers

Peasants – including:

Farmers

Herdsmen

Fishermen

Beggars

The order of listing the occupations in the foregoing models does not imply any particular ranking or status within the Commoner’s class, although it is possible, that craftsmen, for instance, could have seen themselves above the ‘peasant farmer’.

This is one way of looking at class system, but I question if such a model is a particularly adequate way of looking at Egyptian social class, especially in regard to the town of Kahun in during the Middle Kingdom. Szpakowska (2008) has suggested an alternative model that is reminiscent of Kemp’s comments that superficially, “Kahun was laid out by some who saw only two social levels: top bureaucrats and others” (2006: 221). Szpakowska suggests that, after the pharaoh, there was an elite class that was composed of ministers and lower bureaucrats and a lower class of commoners (2008: 10-11).

Szpakowska (2008) Social Class System Model:

Pharaoh

Ministers: (Elite Class)

Vizier & High Steward

State Bureaucrats

Lower Bureaucrats (Elite Class)

Commoners: (Lower Class)

Peasants & Farmers

Herdsmen & Fishermen
Builders & Labourers
Craftsmen & Entertainers
Marsh Dwellers/Beggars

(*'Merchants' - Middle Class?*)

What is interesting about Szpakowska's model is that she does not specifically list scribes within any specific class, although she makes it clear that most of the professions of the elite class required literate people, who were essentially scribes or who had scribal training (2008: 102). Along the same lines, she mentions the existence of merchants and several other groups that appear to have been independent of the state bureaucracy and hypothesises that they could perhaps have formed a sort of middle class (2008:11-12).

The point Szpakowska makes about groups of people who may have operated independently of the bureaucracy is of interest. The well-known *Letters of Heqanakht* lend credence to the independence of some groups, at least in the case with some merchants. I think this perhaps begs the question as to whether it is possible to accurately assess where and how the merchants and other groups or professions may actually have fit into Egyptian society. There did appear to have been a certain social mobility possible in the Middle Kingdom, especially if one was educated (Szpakowska, 2008:12). Even the *Instructions Addressed to King Merikara* admonishes the king: "Do not prefer the well-born to the commoner, Choose a man on account of his skills, then all things are done ..." (Lichtheim, 1975:101). Consequently, I reason that some classifications of people were quite fluid.

Fluid classifications

If certain classifications were fluid, what groups of people could be included in this designation? I suggest possibly the two most obvious professions are scribes and merchants. As mentioned above, education seems to have been a key to social mobility. Scribes could be anything from highest advisor to Pharaoh to almost peasant level. According to the *Satire on the Trades*, a scribe's level of achievement was in his own hands (Lichtheim, 1973:191), but how scribes employed in varying capacities viewed their social class standings in relationship to one another is difficult to say.

Merchants who worked for the state bureaucracy would have had a more fixed place within such a bureaucracy, but the prosperity and status of those merchants who were independent would have rested on their abilities as traders. The sense we get from the *Letters of Heqanakht* is that of a shrewd business man concerned with getting the best deals in his personal trading deals (See Kemp, 2006:323 and Smith, 2003:65). Still, the question of how independent merchants may have conceived of their social status in relationship to merchants who worked for the state bureaucracy and *vice versa* is also difficult to answer.

Another group whose members spanned the social system of Middle Kingdom Egypt was the military. The status of soldiers is questionable since there was only the beginning of a small professional army during the Middle Kingdom (Fairservice, 1962: 103). Consequently, many troops were raised by 'corvee' or levy (see Callender, 2000: 161; Kemp, 1989: 220-221). With such a system, rank and file soldiers would have come from varying professions within the lower class. Army scribes would likely have been involved with administration and logistics. Higher officers and formation commanders would have been drawn from among the nobility. In light of this, soldiers cannot really be assigned to any particular social class.

Foreigners represent another interesting case of social class fluidity. If one looks at the official propagandistic literature, such as inscription on the boundary stela of Senwosret III, it appears that Egyptians considered most foreigners inferior to themselves. Nubians were, for instance, cowardly and wretched (Parkinson, 1991: 45). In truth, foreigners were capable of obtaining high rank on the basis of their skills, education, patronage they obtained from the nobility and abilities to adapt to Egyptian culture (Szpakowska, 2008:10). At Kahun, archaeological evidence strongly suggests the presence of foreigners from pottery, weights of measure, and so on (See Petrie, 1890:40-44). Petrie asserted that foreigners were probably brought in as building labourers (1890:44).

Finally, women are usually not regarded as being of a particular class. They mostly seem to have performed domestic roles. For instance, a Middle Kingdom temple census at Kahun indicates that many of the serfs were adult women or children (Kemp, 2006:220). However, in certain occupations, the textile trade for example, women were not only employed, but evidently had supervisory roles (see Szpakowska, 2008:85).

Social class as a matter of context

Smith's (2003) work on ethnicity in the area of the Nubian/Egyptian border showed that ethnicity was not immutable, but could vary depending on the context. In the same way, I assert that social class is mutable and so must be examined contextually. There were factors that had impact on social class determination. The circumstances of one's birth would have conveyed advantages or disadvantages just as they would in our present time. Access to education would enhance social mobility. Nicholson (pers. comm. 2008) correctly points out however, that what is not clear is how students were chosen or to what extent education was available to ordinary persons. A person's profession could affect social status, but even within the basic social class distinctions, it appears that certain professions were more respected than others. For example, in the medical profession, there is a group of titles, *swnw* – 'physician', *xrp srqt* – 'exorciser of (the goddess) Serqet' and *wab sxmt* – pure-priest of (the goddess) Sekhmet', that may indicate a type of hierarchy (www.21). Within the temples there was a social hierarchy of priests, temple administration and worshippers. Even in the afterlife social divisions carried through much as they had in life. Democratisation of the afterlife due to the popularity of the Cult of Osiris did have the effect of levelling out the social divisions somewhat. There was a distinction between the living and those venerated dead who had 'become true of voice', which is to say that they had earned justification in the eyes of the gods. Still, locations of graves, styles of tombs, inscriptions and tomb contents would have indicated perceived social class distinctions (Petrie, *et al.*, 1923: 26 also see Szpakowska, 2008:186-187).

I suggest that another factor affecting temporary or shifting social hierarchies was the Middle Kingdom enforced labour or 'corvée' system. Both men and women were drafted to work at physical labour. The workers drafted into such service were organised by the town officials and an office of organising labour (Callender, 2000: 161). The type of physical labour required would depend upon what work needed to be done. This may well have differed from the normal professions of those drafted to do the work, though one suspects that there was an attempt to fit people with appropriate skills to the necessary tasks.

It was possible to hire substitutes to perform state service (Callender, 2000: 161), but the financial ability to do so would likely have been limited to the wealthier segments of the population. Consequently, the people left to perform state service were more apt to be the

lower class of limited means. There were those who attempted to evade the corvée as records from the fortress of Askut in Lower Nubia prove (Callender, 2000: 161). In these cases, service would have been harsher as those caught attempting to evade the corvée were considered criminals as indicated in sections of the Brooklyn Papyrus (See Parkinson, 1991a: 99-101; also Szpakowska, 2008: 111).

For men, state service could also include a prescribed period of military service and this would effectively result in men from varying lower and middle class professions being mixed together into a military hierarchy that I suspect almost assuredly had the potential to erase most perceived civilian social class distinctions. Again, literacy would have created opportunities for drafts to be used in more desirable logistical or administrative capacities rather than in the fighting ranks (See Szpakowska, 2008: 180). Command of the military forces would have been left to the elite.

Temple hierarchies

The operations of the temples at Kahun, were based on groups of priests, administrators and workers called 'phyles'. While the pharaoh was technically the chief priest for all cults in Egypt, it was necessary for him to delegate the performance of daily rituals and responsibilities in the various temples throughout Egypt to local chief priests. The chief priest or *Hem netjer*, was directly responsible for all aspects of the operation of a temple. It was he who would have access to the innermost sanctuaries of the gods (Szpakowska, 2008:138-139). Interestingly, the position and title of *Hem netjer* was not limited to males (Szpakowska, 2008:138-139). Women held this title as well, as in the cult of Hathor (Szpakowska, 2008:140), and there was no distinction in the title between men and women. This is interesting in that, as a general rule, women in the Middle Kingdom were in subsidiary roles to those of men. (Szpakowska, 2008:108-109; also see Grajetzki, 2006: 139). It is important to remember that during the Middle Kingdom, there was no professional priesthood and that the roles played in the temple were part-time at best (Szpakowska, 2008: 138). As a result those women that were part of the priesthood, especially those who had earned the title of *Hem netjer* would almost certainly have had a social status and privileges (Szpakowska, 2008: 110) during their service in the temples not generally accorded a woman in normal circumstances.

A more general form of priest was the 'pure priest' or *wab*. Women could also hold this position, but unlike the *Hem netjer*, the designation was gender specific, *wabet* (Szpakowska, 2008:140). Several other roles of priests were known, but since they had specific employments, it is difficult to rank them in relation to one another. Among those that Szpakowska lists are the *Khery kheh* or 'lector priest' who was responsible for reciting the temple rituals (2008:140), the *Sem* or funerary priest who preside over the funerary rites (2008:75), the *Hem ka* or ka priest whose duties entailed performing the rituals for the maintenance of the dead in the afterlife (2008:140) and the *Rekh khut* or 'knower of ritual things' (2008:156).

The priests and priestess had the specific duties to serve the gods which gave them special significance, but the operations of the temples required staff other than priests. Temple accounts had to be kept which required administrators, overseers and scribes to be part of each phyle. The temple archives from Kahun show that scribes of a phyle that was ending its month of service would note the state of a temple's inventory prior to handing over its duties to the incoming phyle.

Report of the fourth phyle of the temple priesthood who are withdrawing for the month.

This is their statement: 'All your affairs are safe and sound. We have examined all the goods of the temple and everything of the temple is safe and sound for the first phyle of the temple priesthood who are entering for the month' (Parkinson, 2004: 89)

Likewise, the scribes of an incoming phyle would look over the inventory and acknowledge receipt of the temple of the recorded temple property.

Report of the first phyle of the temple priesthood who are entering for the month.

This is their statement: 'All your affairs are safe and sound. We have received all the goods of the temple safe and sound from the fourth phyle of the temple priesthood who were withdrawing for the month. The temple is flourishing with all goodness' (Parkinson, 2004: 89).

Along with these records, the scribes would detail the personnel, duties and wages of other temple attendants and servants. These would include guards, doorkeepers, dancers, singers and cooks (Szpakowska, 2008:140). All the members of a phyle would serve for a month and the areas of access for each person would depend on their level of knowledge, training and status in the temple hierarchy (Szpakowska, 2008:140).

It appears that the 'phyle' or 'work gang' concept was an important way of organising people in order to accomplish common tasks in Middle Kingdom Egypt. Kemp (2006: 220-221) goes so far as to suggest that the temple phyle may have been the basis of social organisation at Kahun. Kemp's assertion is perhaps debateable, but I think it is reasonable to suggest that the phyle concept may have been more widely employed than in just temples. People may have been permanently assigned to a particular temple phyle, but since temple service was only for a month at a time, it would suggest that the phyles themselves were part-time organisations. Szpakowska (2008: 141) comments, for instance, that a temple singer may also have needed another occupation such as weaving to earn a living. If the phyle concept was employed in other instances, it could well mean that a person could have belonged to several different phyle types at the same time. Furthermore, it is conceivable that a person's social position may have differed from group to group dependent upon that person's role within each group.

Textiles and social class

Much has been written about textiles, but it appears much of this has often centred on the specific production techniques of the textiles themselves. Weaving was only one step in the overall process of textile production. Other steps included growing the flax, harvesting it, transporting it to the place of production, carding and combing the flax, spinning it into thread, weaving the linen, washing and finally, perhaps, dying the cloth. In a sense, this produces a type of *chaîne opératoire* that I suggest can be useful for examining the social dynamics that seem likely to have resulted from such an industry.

There are two main taskscapes to consider. The first is the field and the second is probably urban. At Kahun, the fields would have stretched from the west bank of the Nile to as far westward as the Nile floods would inundate the land and deposit silt. Irrigation ditches made it possible to extend the area of cultivation beyond the normal inundation parameters. Agricultural work was usually labour intensive and arduous. Ploughing was done with the assistance of oxen while sowing flax seeds and hoeing was done by hand. Farming was an overtly male occupation that the *Satire on the Trades* (Lichtheim, 1973: 187-188) indicates was physically demanding, but did not require great technical skill.

Within the agricultural taskscape, I think it is possible to see localised class distinctions. At the top, there would have been overseers of the fields to supervise the work and transportation

of the flax to the weaving locations. Inside the boundaries of the agricultural work force, the overseer would have been acknowledged as one having authority and thus treated with some deference by the workers under his control. As compared with other overseers however, an agricultural overseer would not have had the social status of an official such as the Chief Overseer of the Army (see Allan, 2000: 32).

It is likely that the overseers were literate, which would have been an advantage in establishing their suitability for such positions, but it may not have always been the case as scribes were present to record administrative and logistical matters. Scribes would have been directly under the overseer, but superior in social status to the common field workers due to their literacy. They would also have been identified socially within their profession by their title. In this case it would have been 'scribe of the fields' (see Szpakowska, 2008: 108).

On the surface, it is tempting to think that the common field workers were on the same social level, but I suspect there were gradations even within this group. The ability to plough straight furrows was a skill acquired only after time. It would not be unreasonable to think that ploughmen may well have considered themselves more skilled than those who simply scattered seed. It seems possible that even with harvesters there may have been a perceived division of experienced workers over those who were inexperienced. A scene from the tomb of Sonebi shows two harvesters at work where one reproves the other for the way he is harvesting the flax (Figure 5-6).

In this particular case, it is difficult to say whether the first worker was simply being humorous or if he actually had any official status above the second, but he apparently felt confident that he had enough seniority to allow him to offer such criticism to a fellow worker.

When the flax had been harvested, it was transported to the places where the weavers worked. It is at this point that the taskscape changes from one of an agricultural setting to that of a 'town' setting. The agricultural taskscape was one where workers would have encountered mud or dust in varying degrees. It was not a 'clean' work environment and the *Satire on the Trades* says that the attire of the 'farmer' was rags (Parkinson, 1991a: 74). The 'town' taskscape would generally have been a 'cleaner' environment and, since spinning and weaving required specially developed skills, it is not inconceivable that workers specifically involved in those occupations may well have maintained a sense of social superiority over the agricultural workers.

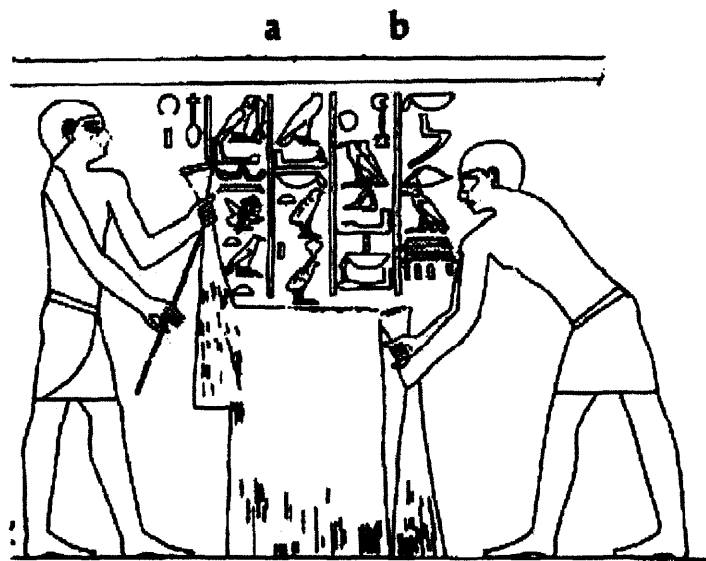


Figure 5-6: Flax Harvesting, the Middle Kingdom, XIIth Dynasty (1985-1773 BC) tomb of Seneb at Meir (Parkinson, 1991a: 82).

- a. Look, you're (just) pulling, without picking. And the day is good (for work)!
- b. Look to your own arm and then give a glance at us! (Parkinson, 1991:82)

It is difficult to specifically determine whether weaving was generally an indoor activity or whether there may have been a particular section of Kahun occupied mostly by weaving workshops. *The Satire on the Trades* suggests that weaving was done indoors (Lichtheim, 1973: 188). There is a model from the tomb of Meketre that shows weavers working in a building (Figure 5-7), but that does not preclude it from having been practised out of doors as well. If there was a 'weaving district' within the town, we do not have any real trace of it in the known parts of the town.

It is conceivable that 'industrial' activities could have taken place in the southeast section of the town, if indeed the southeast section ever existed, but it is almost impossible to say since it is missing. According to Shaw (2004), it is very possible that different trades were practised in the street just outside the houses. One of the obvious problems here is the fact that when Petrie cleared the streets, little if any contextual recording was done. Hence, any evidence of trades having been practised in the streets would have been destroyed.

Another possibility is that some 'industrial' work areas could have been situated outside the town itself, especially for those trades that may have been rather noxious or that required special conditions such as a ready source of water. In the case of cloth production, washing



Figure 5-7: Spinning and weaving workshop model from the Middle Kingdom, XIIth Dynasty (1985-1773 BC) tomb of Meketra at Deir el-Bahri (www.22).

was a process that would have made the freshly woven cloth more manageable and softer. Washing was an activity that could have been practised at a site near the Nile, although taking the newly woven linen down to the Nile would have been less logistically convenient than if the job was done in the town itself. Again, there is little evidence available from the Petrie excavations to provide confirmation in either case.

When the flax arrived from the fields, it had to be washed and carded (Petrie, *et al.*, 1890:27) before it could be spun into thread. These are not particularly difficult tasks and it is sensible to think they may have been assigned to unskilled or apprentice workers. Spinning was a task that required a certain amount of skill and dexterity and quite a number of wooden spindles were recovered from Kahun (Petrie, *et al.*, 1890:27).

The thread produced could be of varying thicknesses and quality. The finest was used for cloth while coarser was used for heavier purposes (Petrie, *et al.*, 1890: 28). Furthermore, thread could be twisted, sometimes using as many as six strands, in order to produce string for netting. Netting needles of both wood and bronze would have been used to produce the mesh (Petrie, *et al.*, 1890:28). Szpakowska notes that spinning was usually a female occupation,

but there is evidence from the tomb of Khety at Beni Hasan that shows a young boy spinning. (Figure 5-8) Such a skill would have been useful for making rope (2008: 85). Obviously, rope making would have required courser threads and more strands of it, but the basic skill of spinning was essentially the same as for producing thread for cloth.



Figure 5-8: Boy spinning flax in a weaving shop from the Middle Kingdom, XII Dynasty (1985-1773 BC) tomb of Khety (BH17) at Beni Hasan (Newberry, 1893: Plate XXIX).

Weaving itself seems to have been an occupation generally done by women, although, there is evidence from the north wall of the tomb of Baket III at Beni Hasan (Shedid, 1994:27) showing men working the looms. Weaving is well represented at Kahun as heddle-jacks,

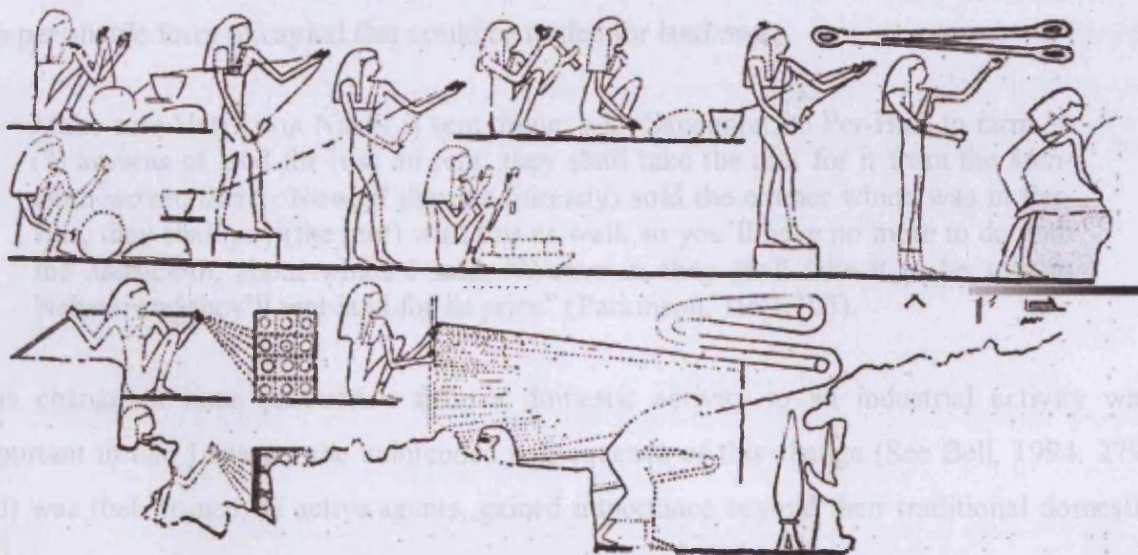


Figure 5-9: Weaving Scene from the Middle Kingdom, XII Dynasty (1985-1773 BC) tomb of Tehuti-hetep (17L20/1) at El Bersheh (Newberry and Fraser, 1894: Plate 26).

loom weights, heddle-rods, a straight bar and a weaving sword were all found at the site (see www.23; also Petrie, *et al.*, 1890: Plates IX and XVII) (Figure 5-9).

Cloth of all types could be produced. Coarse linen was probably cheaper and could be used for sackcloth and bedding for poorer people while finer linen was produced for the more affluent patrons (Szpakowska, 2008:84). Ultimately, textiles became manifestly important not only for local clothing, but for funerary use, trade and as a non-perishable capital commodity.

It was generally the case in Middle Kingdom Egypt that women took subordinate social positions to men (see Allan, 2000:33). The weaving industry however, provides an interesting counterpoint to this particular social norm and allows us to look at the social interaction from a gendered approach. In my opinion a gender approach allows a fuller treatment of situations than does a feminist approach that tends to focus only on the female contributions. The textile industry provides us with a situation where both men and women were employed in the production. As a result, this gives us an opportunity to see how a gendered approach might be helpful in attempting to perhaps understand something of the social interactions within the textile industry.

I attribute the dominant nature of women's roles in regard to the production of linen to the fact it was initially a 'domestic' occupation. As time went on, linen manufacturing became more of an industry. Heqanakht made a point of ordering linen to be produced as it was a non-perishable form of capital that could be traded for land rent.

Make sure Heti's son Nakht is sent down, with Sanebniut, to Per-Haa, to farm 30 (?) arouras of land for [us] on rent; they shall take the rent for it from the *Men*-cloth woven there. Now, if they've (already) sold the emmer which was in Per-Haa, they shall pay (the rent) with this as well; so you'll have no more to do with the *Men*-cloth, about which I said, "Weave it; they shall take it to be sold in Nebsyt, and they'll rent land for its price" (Parkinson, 1991:103).

This change in linen production from a domestic activity to an industrial activity was important in that I suspect the unintended consequence of this change (See Bell, 1994: 279-280) was that women, as active agents, gained importance beyond their traditional domestic roles.

Women were specifically skilled spinners and weavers and it is apparent from evidence already offered that young boys may have been apprenticed to work under the direction of women. Men who worked the looms evidently did the task on an equal basis with women.

The final step of washing the newly woven linen required a certain amount of strength, but not a great deal of skill. It was a task usually reserved to men and may have had less prestige associated with it than those skilled tasks of spinning and weaving.

There is evidence that indicates women could even hold supervisory positions in the weaving shops. The *Letter from the Female Overseer, Iri* specifically expresses complaints to her superior about a work stoppage by the women under her supervision.

“It is a communication to the Lord (may he live, prosper and be healthy) about those servant women who are here unable to weave clothes [...] It is just that the clothes were still on the loom, when this humble servant himself [Note!] had arrived – because this humble servant had gone into the temple on day 20 for monthly (?) purification. The Lord (may he live, prosper and be healthy) didn’t bring it with him (= didn’t manage it?).”

“It was a mistake to entrust the young girl Heremheb with the arrival of [Qe]mau. The Lord (may he live, prosper and be healthy) should spend a day here – see, all the cloths due from me are at the temple, as yarn laid out and with no means of weaving it (www.24).

It appears that Iri had acknowledged authority over those under her that likely also gave her a recognised ascendant social standing. It is interesting however, as Szpakowska (2008:85) points out, that the women workers possessed the self-confidence to initiate a work stoppage. Even so, I believe the agentic interactions implicit within the textile industry in Middle Kingdom Egypt created unique social dynamics between men and women that allowed women the possibility of achieving levels of equality or even social prominence that was generally not found in most other aspects of Egyptian society.

Merchants and scribes - the middle class

The traditional model of class indicates that merchants and scribes were a type of middle class. While Szpakowska’s more recent social class model sets forth only elite and common classes, she does question whether merchants could be categorised as a type of middle class. I submit that there are indeed grounds for recognising them as such.

It seems reasonable to see scribes as a middle class of sorts. Parkinson points out that while literacy was a commonly held skill of the elite class, most of the actual writing was done by a “bureaucratic sub-elite of clerks” (1991:18). Most scribes were not on the level of the

nobility, but literacy raised them above the common class. Furthermore, if we consider the words of the *Satire on the Trades* it is clear that the position of scribe was superior to any other profession practised by the common class:

See, there's no profession without a boss,
Except for the scribe; he is the boss.
Hence if you know writing,
It will do better for you
Than those professions I've set before you,
Each more wretched than the other. ...

Lo, I have set you on god's path,
A scribe's Renenet [good luck, destiny] is on his shoulder
On the day he is born (Lichtheim, 1973: 189, 191).

The ability to read and write opened avenues of opportunity that were not available to those who were illiterate. A scribe's ability to advance himself in Egyptian society was dependent on his own effort. Within the scribal profession itself, a scribe in the lower levels would likely have spent most of his time writing letters for those who could not write or copying legal documents and records. Examples of common documents from Kahun were *Ana's Letter* (Petrie, *et al.*, 1890: 46), the *Will of Keba* (Petrie, *et al.*, 1890: 46) and the *Transfer Deed of Wah* (Parkinson, 2004: 108).

Scribes possessing superior skills could be put into positions that upper level positions and perhaps even given authority to make basic decisions or direct workers. Documents from Kahun record titles such as 'Scribe of fishermen', 'the Scribe in Charge of the Seal of Accounts', 'Scribe of the Temple' and so on. The highest ranking scribes would have worked for the vizier as chief secretary or for the district councillor (Szpakowska, 2008: 108). These particular scribes would have been well respected for their wisdom and abilities, thus setting them apart socially from scribes who engaged in more mundane tasks.

Another category of people who could well be considered to be part of a middle class were merchants. There were merchants who were specifically employed as a part of the governing bureaucracy as indicated by the *Tale of the Shipwrecked Sailor* (Lichtheim, 1975: 211-215). In this case, merchants would have worked under the auspices of the pharaoh and would not necessarily have been more than bureaucratic overseers of royal trading expeditions.

Proceeds from successful expeditions would have gone directly to the government and the supervision merchants would have benefited only indirectly in the way of wages.

Scholars such as Jac Janssen (1982) and Edward Bleiberg (1996) argue that the Egyptian economy in the Middle Kingdom was based on the principle of redistribution and not on free markets. Janssen and Bleiberg posit that the frequent purpose of trade was for “reciprocal gift exchange” amongst rulers rather than for profit (also see Smith, 2003: 62-63). Kemp (2006: 220) also mentions that much of the Kahun population must have been bound to “redistributionist sub-centres”. From a Marxist perspective, it is possible to suggest that the redistributionist facet of the Egyptian economy in the Middle Kingdom may not only have been an attempt to reinstitute a stable, ordered society after the turmoil of the First Intermediate Period, but was also a deliberate attempt to change the psyche of Egyptians and create a harmonious society where everyone worked for the good of all (Marx and Engels, 1848/1977a: 223). In such a society, class would eventually cease to exist because there would be no real conflict between self-interests of individuals and those of society (Singer, 1980: 85).

On the other hand, it must be remembered that the collection of grain and its distribution as rations are more accurately seen as a common way of collecting taxes and paying wages to workers in a society that did not have coinage than it was a concerted attempt to engage in true ‘collectivisation’ and ‘redistribution’. In my view there is really no contradiction between the seemingly redistributionist aspect of the Egyptian Middle Kingdom economy and the evidence of merchants pursuing personal profit for the sale of goods and the acquisition of non-perishable capital as found in the letters of Heqanakht (see Kemp, 2006: 232 and Smith, 2003:65).

There are, however, problems inherent in a barter system as economist, Adam Smith pointed out:

“The man who wanted to buy salt, for example, and had nothing but cattle to give in exchange for it, must have been obliged to buy salt to the value of a whole ox, or a whole sheep at time. He could seldom buy less than this, because what he was to give for it could seldom be divided without loss; and if he had a mind to buy more, he must, for the same reasons, have been obliged to buy double or triple the quantity, the value, to wit, of two or three oxen, or of two or three sheep” (Smith, 1776/1999a: 127).

The transfer of commodities in a barter system, done to obtain the best deal, should not be incomprehensible and Smith (1776/1999b:15, 16) observed that consumable goods are at times more desirable than metals.

Heqanakht was concerned to determine what particular commodities would be of value to those who own the land that he wants to farm. As previously mentioned, Heqanakht initially suggested textiles should be used as the medium of payment for land rent. As a second option, he suggested that if the emmer wheat from that area had already been sold, his son should use the proceeds from that to assist with the rent payment.

In his third letter Heqanakht makes it clear he will take oil for payment at a rate of one jar of oil for two sacks of Lower Egyptian barley or three sacks of emmer wheat, but his preference is for payments to be made in Lower Egyptian barley.

Concerning anyone who will give me oil in payment - he shall give me 1 hbn.t-jar for 2 (sacks) of Lower Egyptian barley or for 3 (sacks) of emmer. But behold, I prefer my property to be given to me in Lower Egyptian barley. And one should not permit Nakht (nxt) to be neglected or anything because of which he comes to you. Behold, it is he who looks after my property. (Address:) Overseer of Lower Egypt Heru-nefer (hrw-nfr) (www.25).

Kemp (2006: 323) is quite correct in stating that Heqanakht “displays the mentality of one who survives by shrewd personal dealings” rather than depending on the largess of the governmental bureaucracy. Furthermore, he notes Heqanakht was concerned with the best economic advantage out of his trading as evidenced by his order to his agents to wait to sell a bull until after the price had risen (Kemp, 2006: 323).

The case of Heqanakht strongly suggests the Egyptians of the Middle Kingdom were aware of several seminal economic concepts. Firstly, merchants apparently understood the importance of converting their perishable goods into non-perishable goods for preservation of their personal wealth. Secondly, merchants engaged in business transactions with the intent of personal profit. Independent merchants were seemingly capable of amassing personal wealth that would have allowed the more successful of them to live almost as minor aristocracy. It is questionable whether the nobility would have accepted these merchants as social equals regardless of their wealth, but certainly their wealth and influence would have set them in a middle class well above the commoners.

The selected study areas and social class

Previously in this chapter, I expressed some doubt that the study area identified as the 'house and cellar' (see Figures. 5-1 and 5-2) was in fact a residence. Partially, this is due to the integral architectural features of the structure. It seems unusual that a private house would have contained three large granaries of the size that are in this particular structure. This, plus other architectural features appear to suggest a more work-oriented use of the building.

A tomb model (see Figure. 5-10) from the Egyptian collection of the British Museum further suggests a granary was the likely primary usage of this building. The model features three granaries with sliding doors, a central work area and a portico that provided an upper story work area that was reached by a flight of stairs. The style of granaries in the Kahun building is of a different style than those illustrated by the model and we have no verification that the portico was used as an upper work area. An even more elaborate model from the tomb of

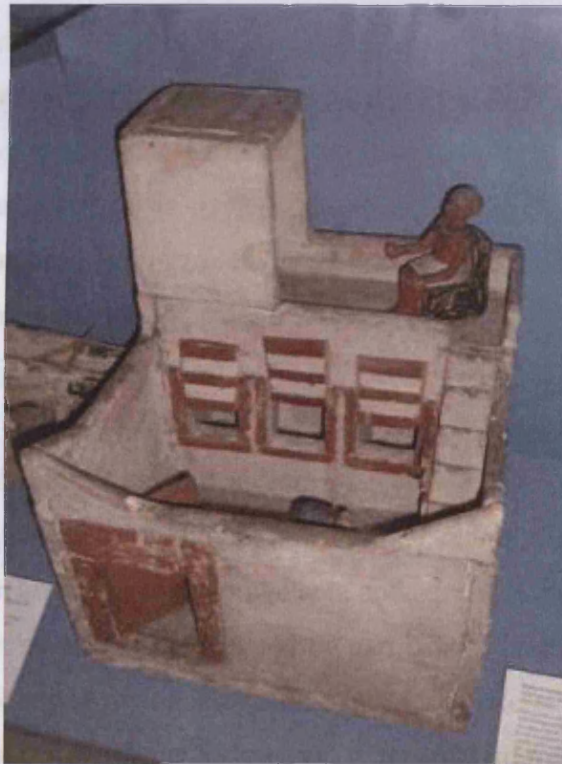


Figure 5-10: Painted wooden model of a granary from the Middle Kingdom, XII Dynasty (1850-1773 BC) in the British Museum, EA2463 (author's photograph).

Meketra exists with similar features (Kemp, 2006: 215). While the 'house and cellar' at Kahun is not identical to either the British Museum or Meketra models, there are features of this building that are broadly similar.

The model includes an overseer or perhaps a scribe seated on the portico that gives the impression of supervision of the activities below. In the open court area, a female figure appears to be grinding flour. Unlike the examples of women supervisors in the textile industry, this model seems to express a more traditional set of social roles. If the Kahun 'house and cellar' actually was a granary, it would likely have had a workforce similar in organisation to other occupations where common workers were supervised by an overseer and perhaps assisted by scribe. Workers would have been commoners while the administrative staff would likely have been middle class at best.

The artefacts recovered from the 'house and cellar' location also indicate that there may have been a secondary occupational usage of the building. I have previously suggested the purpose of the building was to support the operations of the southern mansion immediately to its north. Beyond its function as a granary, it may well have been a type of storage area for equipment and items used for other tasks. There were various pots and bits of ceramic, a ring stand, a basket and piece of wicker and a head pad for water carrying that would not be out of place in a granary for making flour or dough for bread. The stone weight recovered could be used for measuring amounts of grain. Interestingly enough, a papyrus case was also part of the recovered artefactual assemblage, which suggests a scribal presence at this site (see Appendix Three).

Fragments of wooden furniture, as well as bits of wooden statues and tomb models were found, which could indicate the building was a kind of repair shop of sorts. Perhaps the building could have been an equipment storage area and assembly point for hunting or fishing parties from the adjacent mansion as evidenced by part of a throwing stick, netting, a fishing float and a fish hook, pieces of rope and several flints. Is it interesting to speculate whether the presence of a sewing needle along with items of personal adornment as well as clothing, such as a pair of sandals and an ivory button belt, could mean that servants used the area to carry out repairs not only furniture and the like, but to clothing and jewellery as well. If tasks, such as those hinted at by the presence these varied artefacts, were carried out in or around this particular building, I would suggest it tends to support the interpretation that the

building was used mostly by common workers in support of the social elite that inhabited the adjacent mansion.

The specific building in the western worker's quarter where the Group 9 artefacts were recovered is not identifiable from Petrie's notes, but all of them are somewhat similar in their basic construction (see Figures. 5-1 and 5-3). The interpretation offered by the Royal Ontario Museum of the western worker's quarters was that its purpose may have been administrative rather than residential since most of the papyri were found in this section of the town (www.17). I suspect however, that the buildings in this particular group were probably residential, but that does not preclude the possibility that some residents could sometimes have practised their respective occupations from their homes. Document production is one possible example of a trade that could have been practised at home.

Of the Group 9 artefacts, there are a few items that suggest domestic occupation. The spoon, alabaster vases and one made of green paste, the mirror, copper torque and small wooden box that was probably used to store personal items appear to validate this assertion. These particular items are not generally the type that had obvious work connotations, but that seem to express a more personal use of space.

The other artefacts in the group, such as a number of 'piercers' and several copper chisels of various sizes, a large copper knife, a whetstone, flint knives and flint flakes are overtly work oriented. These artefacts represent a substantial tradesman's tool kit, perhaps that of a stone or woodworker. It is possible that whoever used these tools could have practised his craft in or directly outside his home, but it is impossible to say since the data was not recorded that would have confirmed such a situation.

Based on the artefact types found at this part of the site, my interpretation of this particular block of buildings is that it was likely a private residence of a common worker and his immediate family. I think it is important to note that the majority of the artefacts, including the various tools, were found in one room of the house, but that the mirror and the copper knife were found together in an adjacent room (Petrie, *et al.*, 1891: 13). A possible explanation for this could be that both of these objects were prized possessions and were hence kept in a more private space within the house, separate from the more commonplace items.

Conclusions on the Kahun Case Study

The foregoing discussion concerning social class at Kahun is only intended to be an introductory demonstration of how the Pluralistic Contextual Approach could be applied to a Middle Kingdom Period settlement site and not a full reinterpretation. There are many other aspects of life at Kahun that could have been the focus of this case study, but an investigation of social class seemed to me one of the best ways to demonstrate the use of the Pluralistic Contextual Approach.

Having said that, I think there are several points that can be made as a result of my study. Overall, I believe the Kahun site does provide a reasonable opportunity to examine Egyptian social class during the Middle Kingdom. Furthermore, any consideration of class systems at Kahun necessitates recognition that ancient Egyptian conceptions of class distinctions were often quite different from modern conceptions as revealed by the class models. Egyptian culture was somewhat meritocratic where education could provide some social mobility, but there were also implicit cultural divides between elites and commoners. Even so, there were fluid categories of people that spanned the ranges of Egyptian social class system models. Among these were professional categories such as scribes, merchants, those associated with temples and so on. The example of women's roles in the temples and the textile industry show that gendered categories could also provide fluid class status. As a result social class and hierarchy in Middle Kingdom Egypt was often a mutable situation based on context.

As mentioned at the beginning of this case study Kahun is a settlement site similar to the one that Meskell used for her research. It provides a link with what she did at Deir el Medina, but which I felt had the potential to show how my expanded interpretive method is useful for sites other than those of the New Kingdom. Kahun itself has been seen by numerous scholars as having been reasonably well excavated for the time and its artefactual assemblage has proved over the years to be of seminal importance to the study of the Middle Kingdom.

Even so, as important as the information from Kahun may be, my research shows with frustrating clarity the vast gaps in the archaeological record that exist due to the excavation methodology and recording techniques employed by Petrie in 1889-1891. Because Petrie paid his workmen on the basis of one piaster for every cubic metre of dirt they removed

(1890:12), much vital contextual information was lost in the haste to earn money and cannot now be recovered.

Generally speaking, textual and artistic information was reasonably plentiful and those data sets helped fill in interpretational gaps in the archaeological record, but in my opinion the lack of stratigraphic and contextual information regarding the artefacts is the biggest hindrance to better interpretation of Kahun. Because this information was lacking in all but two very small areas of the site, it was difficult to directly apply some of the theoretical considerations of my interpretive methodology to those actual excavations.

CHAPTER SIX

Buhen Case Study

Introduction

One of the reasons for choosing the Kahun site for study was that it provided an appropriate Middle Kingdom settlement site with reasonably good databases on which to apply the Pluralistic Contextual Approach (see Chapter 4). While a single case study may demonstrate the basic application and interpretive potential of this methodology, a second case study that considers a different type of site has the advantage of demonstrating its versatility. Buhen, like Kahun, is another type of settlement site that has acceptable databases that can be employed to provide interpretive analysis of that site using the Pluralistic Contextual Approach. There are, however, two major differences that distinguish Buhen from a site like Kahun. The first is that Buhen is on the southern Egyptian frontier with Nubia (see Map E) rather than a city in the centre of Egypt. Second, Kahun was a civilian settlement site that was at once an administrative centre for the Faiyum area, a trade centre and a city dedicated to the maintenance of the mortuary cult of Senwosret I and his pyramid. Buhen was mainly populated by the military whose main occupation was to defend the frontier as well as to regulate trade into Egypt.

The Kahun site was excavated by Petrie in the 1890s while Emery excavated at Buhen from 1957 to 1965 (Habachi, 1975: 881). Even though the work at Buhen was done in much more recent times, the archaeological methodology used by Emery was not vastly different in some respects from that used by Petrie. According to Smith (pers. com. 2006), Emery was fascinated by architecture and did excellent drawings of that, but he paid little attention to recording stratigraphy (also see Smith, *et al.*, 1976: 43). Still, the artefact list in the Buhen report does note artefacts as having been found in lower, middle and upper levels of debris. Furthermore, Smith states:

“Emery formed the conclusion early in his excavations of the town that, apart from certain closed deposits, vertical stratification of the debris and the ‘level’ at which objects were found therein were meaningless. . . . he always cleared a wide area in ‘layers’ approximately half a metre deep until solidly founded walls were reached, and then dug room by room. . . . Objects and pottery finds were not normally exactly levelled; where a ‘level’ is mentioned it usually refers (except in

close deposits) to the 'layers' in which the site was cleared. During the clearance of the surface layers objects were located simply by reference to the large 30 m grid squares; only when walls appeared were they assigned to individual houses and rooms" (1976: 43).

This lack of well-documented stratigraphy presents much the same problem as did the Kahun site. At Buhen however, there is a better record of artefactual provenance. Artefacts and pottery can be linked to specific house structures of the site. As a result, I believe it is possible, with the available information that was recorded by Emery and Smith, to make some legitimate archaeological interpretations about the Buhen site.

As with the Kahun case study, one can ask the reasons for choosing Buhen as the subject of this case study considering the problems that exist as a result of the recording used at Buhen. I have already alluded to the fact that Buhen was a military site and a study of such a site should allow us the possibility to see what social differences can be ascertained between an overtly military site and one that was primarily civilian in character. A second factor is the prospect of providing whatever added interpretive insights for Buhen might be possible since no further work can be done there. In the Kahun case study, I mentioned that the application of the Pluralistic Contextual Approach could be used as a diagnostic tool to ascertain the kinds of evidence that needed to be collected in any future excavations at a site to provide fuller interpretations. At Buhen, because the site was destroyed as a result of the Aswan High Dam, any diagnostic considerations concerning future work are obviously irrelevant.

Because of the differences between the two sites, there are several research questions that should be considered in this case study. Do the housing plans and architectural features seem to promote social and class divisions and do the various blocks indicate different usage that would suggest class differences? Are the two class system models that were discussed in the Kahun case study applicable to Buhen and which one most adequately reflects the social and class circumstances at Buhen? In regard to the social/class hierarchy, would a soldier's professional level or military specialty or a person's occupational training or skills factors have influenced his social and class standings? Did the population dynamic at Buhen change over time and was social and class status of women and other dependents affected by the military nature of the Buhen settlement? Did ethnic considerations affect the social and class situation at Buhen and what appears to be the perceived social positions of foreign ethnic groups? Do the textual, artistic/representational and artefactual data allow us to determine

how Block C fit into the social fabric of Buhen and are there any phenomenological insights about class to be gained from the location of Block C within Buhen's inner citadel?

Selected Study Areas of the Buhen Case Study

Location of study area within the Buhen site

After having studied the site report of Buhen and the attendant plans, I have chosen the area Emery identified as 'Block C' as the study location for this case study. Unlike the situation at Kahun, where there were only two identifiable locations where groups of related artefacts could be linked to structures, Smith was able to provide the provenances of related artefact groups to specific structures within Block C from the artefact registry and Emery's notebooks (See Smith, *et al.*, 1975: 43). Also, from an initial study of the site plans, it appears the structures located in Block C may well have been residential rather than industrial, military or administrative. As a result, a possible residential area seems a sensible choice for study as it is likely to provide more indications of social and class differences within the Buhen population.

The citadel is surrounded by an outer defensive wall that measures approximately 705 metres in length. The front wall of the inner citadel faces northwest while the side walls face northeast and southwest respectively. The rear wall of the citadel faces southeast and is roughly parallel to the Nile River bank. This effectively means that the corners of the citadel are oriented north, south, east and west. Block C is located in the west corner of the citadel along the front defensive wall (See Figure 6-1).

Block C is composed of eight buildings that Emery and Smith identified as Houses A through H (Emery, *et al.*, 1979, 59-64). House A contained 7 rooms, the first of which was a lobby that provided access to a second, smaller that in turn led to the main hall of the house. Emery and Smith suggest that Room 3 was likely the family's main living quarters while Rooms 5 through 7 were probably the private sleeping and washing quarters (Emery, *et al.*, 1979: 59) (See Figure 6-2).

House B is directly northwest of House A and is of a similar area, although there are only 4 rooms, but these are generally larger than those rooms found in House A (See Figure 6-2).

The house was entered from the southeast side of Room 3. The interior of the house was accessed from a doorway in the west corner of Room 3. Proceeding northeast down the corridor Room 2 is on the right, while to the left is the large opening into Room 4. At the end of the corridor is Room 1. In the north corner of this room is a bin that he (Emery, *et al.*, 1979: 59) suggests was possibly used for storing grain. Because of this, Emery, *et al.*, (1979: 59) posits that this may have been the family's main living quarters. Room 4 is a large space and I suspect Emery, *et al.*, (1979: 59) may be correct in their assumption that it was used as the main space for entertaining visitors. The other interesting feature of Room 4 is that there is a doorway near the south corner of the room that provides access into House C. This is evidently a Middle Kingdom feature and Emery, *et al.*, (1979: 59) speculate that House B and C may have been inhabited by related families or perhaps a large extended family.

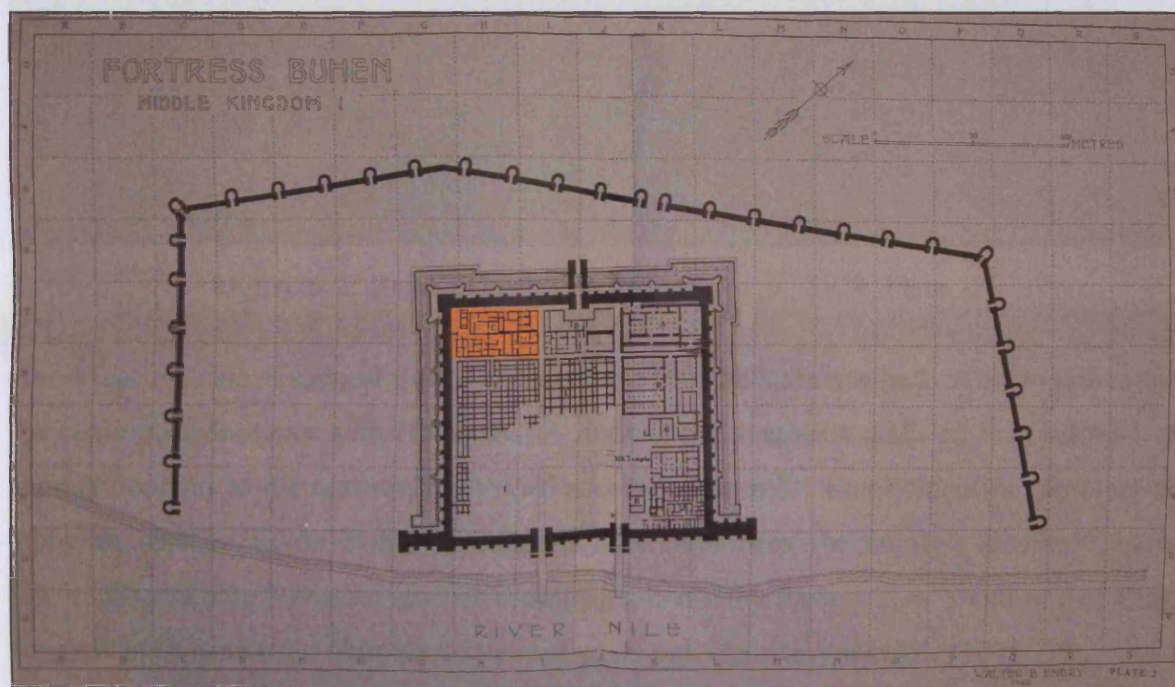


Figure 6-1: Buhen Study Area Location, (after Emery, *et al.*, 1979).

Moving further northwest, there are six rooms in House C, but these are smaller than the rooms found in either House A or B (See Figure 6-2). With the exception of the communal doorway that provided access to House B, the only outside entrance to House C was a doorway in the west corner of Room 6. Entering the house from the small courtyard, one entered Room 6, which I suggest could perhaps have been a type of receiving room. Northeast from Room 6 is a smaller one, Room 5. This room opens in two directions into the 'L'-shaped Room 4. Emery reports that there was a bench in the "southern end of the

narrower arm" (1979: 59) of this room, which I take to actually mean along the southeast wall.

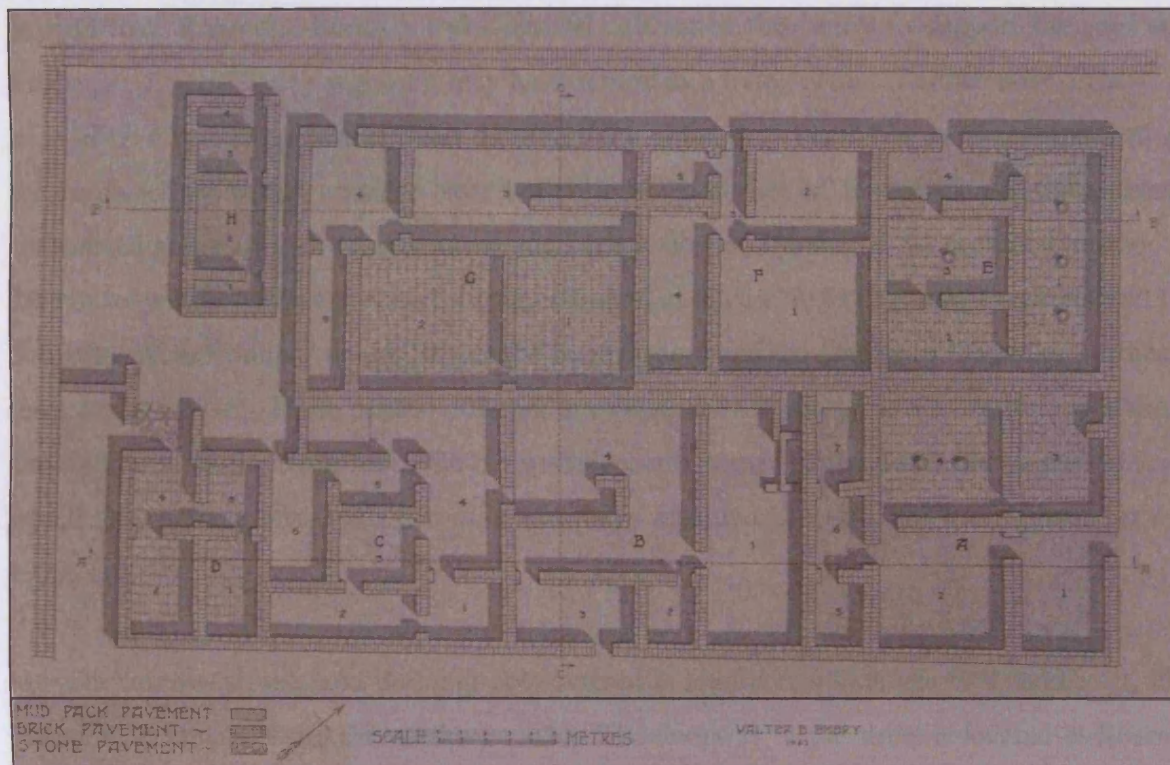


Figure 6-2: Block C Plan, (after Emery, *et al.*, 1979, Plate 22).

If this was the case, I suggest this room may have been an audience hall. Also in this room is the communal doorway with House B. A door in the southeast wall led into Room 1 and another doorway to the northwest provided access to Room 3. Emery identifies Room 1 as a lobby attached to Room 2 that he suggests may have been the family's sleeping quarters (1979: 59). Room 3 was an interior room, surrounded by Rooms 2, 4, 5 and 6, that Emery suggests must have been illuminated by roof vents or a clerestory window (1979: 59).

House D was a small house northwest of House C with a simple square floor plan of four rooms (See Figure 6-2). One entered this house from the same courtyard as House C. On the outside of the entrance was a flagstone pavement and the actual doorway was through the northwest wall of Room 4. Each of the four rooms was roughly the same size. The artefactual assemblage associated with this building, while small, suggests the building may have had both storage and domestic purposes (see Appendix 4).

Directly northwest of House A was House E. In regard to square footage, House E was not as large as House A, but almost the same dimensions as House C (See Figure 6-2). The house

was entered along the northwest wall through a doorway in Room 4 which was evidently an entrance lobby (Emery, *et al.*, 1979: 61). Directly southeast of Room 4 was Room 3 and beyond that, Room 2. Room 3 had a central column in the centre to support the roof and Emery, *et al.*, (1979: 61) suggest it may have served as a living room. Furthermore, Emery, *et al.*, (1979: 62) record that a bin was constructed in what they identified as the 'northwest' of the room. This would actually have been the north corner of the room and it contained carbonized grains of both emmer wheat and barley. Room 2, being at the secluded interior of the house, was possibly a private bedroom (Emery, *et al.*, 1979: 61). Room 1 was entered by doorways from Rooms 2 and 4. It was the largest room and encompassed the entire northeast third of the house. Three central columns provided roof support and this room was almost certainly used as the main hall. On the outside north corner of the house was a stairway, of which only 4 steps remained, that may well have afforded access to the roof (Emery, *et al.*, 1979: 62).

Moving southwest, the next building encountered is House F, which has five rooms. It, like House E, is entered from the northwest side. The doorway to the street is located in Room 3 which appears to be a narrow lobby or simply a hallway (See Figure 6-2). Entering this room from the street, there was a doorway immediately to the left that opened into Room 5. This was a relatively small room and I suggest it may have been used as an administrative office or small reception room. At the southeast end of Room 3, one encountered three doorways that provided access into Rooms 2, 1 and 4 respectively. I conjecture that Room 2, being along the street side of the house may more likely have been an audience hall for entertaining. Room 1 is the largest room in the house and generally, Emery, *et al.*, (1979: 59-64) has suggested that larger rooms were used as living areas for the families. Room 4 is the longest room and since it is in the interior section of the house, I suspect it may have been used as the family's sleeping quarters.

Southwest of House F is House G, whose floor plan contained five rooms of varying sizes (See Figure 6-2). It was entered from the outside by a doorway in the northwest wall of Room 4. As well as being an entrance anteroom, Emery, *et al.*, (1979: 63) note that he discovered a circular oven that he suspected was a pottery kiln built in the 'southwest' (actually the south) corner of this room "on an accumulation of 10 cm of debris immediately above the Middle Kingdom pavement, but 40 cm below the New Kingdom floor level". He surmises that this feature was part of a Second Intermediate Period reuse of the house (1979:

63). At the southeast end of Room 4 is a doorway leading into Room 5. This room is approximately 6 metres long, but only about 1.5 metres wide. I suggest this argues against it having been sleeping quarters and identifies it more likely to be a storeroom.

Northeast from Room 4 is Room 3. It is difficult to ascertain the purpose of this room since the northeast end of the room was divided down the centre by a mud brick wall approximately 50 cm. thick. I suppose it is possible that it was a sleeping area with the divided areas being used for personal storage. Room 2 is accessed by a doorway from Room 4 and is a large, square room with brick paving. Because of its placement within the house, this may have been the main living area. Directly northeast of Room 2 is Room 1. It is approximately the same size as Room 2 and since it is in the most secluded area of the house, is likely to have been the family's sleeping quarters.

While all of the houses that have been previously mentioned are attached to one another, House H, directly southwest of House G, is completely free-standing (See Figure 6-2). It is certainly the smallest dwelling in Block C, containing four small rooms. This structure is rectangular and has a simple floor-plan consisting of a series of rooms, one after another, from the front of the house to the rear. The outside entrance is located in the short, northwest wall at the north corner of the building. From the entrance, one enters Room 4. This was probably a storage area as the room is approximately 80 cm wide by 3 metres long. Moving further into the interior, one entered Room 3, which was only slightly larger than Room 4. I am not necessarily convinced that this building, because of its size, was actually used for domestic habitation. If it was, I suspect that Room 2, being the largest room in the house at 3.6 by 3 metres, would possibly have doubled as both a living and sleeping area. At the very back of the house was Room 1. Again, because of its size, I surmise this room was probably nothing more than a storage area.

How and where does the selected study area fit into the site picture at Buhen?

Block C is specifically located in western corner of the inner citadel (see Figure 6-1). As mentioned in the foregoing section, the structures within this block suggest it was a residential area rather than used for administrative or military purposes. The square footages, floor plans and architectural features of some of the buildings suggest that this was housing for upper

class administrators and their families of the Buhen community. Such an interpretation is not certain, as Emery and Smith remarked:

In most cases the Middle Kingdom occupation is not represented by an accumulation of debris. It would appear that most buildings were kept clean and clear in military fashion; even where, as in Block C, there may have been accumulations partly representative of the Middle Kingdom occupation, these have often been removed by later clearance. Few structural modifications can be assigned to a date within the Middle Kingdom; these mainly consisted of the application of a new coat of plaster and whitewash to a wall, the laying of a new packed-mud pavement, or more rarely the addition of bins or blocking of doors, e.g. in Blocks C and J (Emery, *et al.*, 1979: 92).

When we look at the arrangement and proposed usages of the other areas within the inner citadel as endorsed by Emery and Smith (1979: 51-71). This is a reasonable interpretation.

In the northwest third of the inner citadel, moving from the northern to the western corner, were Blocks A, B and C (see Figure 6-1). Emery identified Block A as the location of the 'Commandant's Palace' (1979: 47, 49). Documentary fragments bolstered his claim that administrative duties had been conducted there in the Middle Kingdom as well (Emery, *et al.*, 1979: 51-52). Directly southwest of the 'Commandant's Palace', was Block B, which Emery divided into Sectors A through E (Emery, *et al.*, 1979: 54-58). This particular block doesn't seem to have any intact Middle Kingdom contexts, but Emery surmised the court areas in Sectors A and B may have been parade grounds or muster points (Emery, *et al.*, 1979: 54). Sector C area was probably an administrative building (Emery, *et al.*, 1979: 55). Sector D may have been used as a secure area and not for assembling troops (Emery, *et al.*, 1979: 56). Sector E provide a blocking feature for the main gate that would have channelled attacking troops into narrow streets overlooked by the main fortification walls of the inner citadel in order to reach the centre of the fortress (Emery, *et al.*, 1979: 57). Moving further southwest one encountered Block C, which appears to have been residential.

The central third of the inner citadel, going from northeast to southwest, was comprised of Blocks D, E and F respectively. Emery, *et al.* (1979: 65) initially suggested Block D may have functioned as a barracks, although Smith thought that unlikely (also see Kemp, 2006: 233). Rather, it has a plan similar to administrative buildings at Medinet Habu. Interpreting this block as an administrative centre would seem to make sense in that it would be convenient to the commandant's residence. Also, because of its position between the

commandant's palace and the temple it was in a good spot for the treasury and other administrative offices (Emery, *et al.*, 1979: 65). Emery suggested that Blocks E and F were used either as stores or workshops, but this is not certain (Emery, *et al.*, 1979: 67). In Block F a number of basal fragments of water vases were recovered, which seems to indicate that these areas held the water supply for this part of the town (Emery, *et al.*, 1979: 68). In Block E there is evidence of copper working that Emery associates with the Middle Kingdom (p. 68). There is also evidence of copper working and a probable kiln in Block I (Emery, *et al.*, 1979: 69).

Blocks G through I were in the southeast third of the inner citadel. Block G was located directly southeast of Block D and was adjacent to the Middle Kingdom temple, which could be entered from it (Emery, *et al.*, 1979: 70). Emery said little about this block as it seems there was a great deal of mixed stratigraphy, but I suspect that due to its close proximity to the temple, it very well may have been used as a support building for the temple. Southeast of Block G was the temple which was composed of several colonnaded forecourts, an inner court, and what appears to be a sanctuary area (see Figure 6-1). Block H was yet further to the southeast, in the southern corner of the inner citadel, and was possessed of many small haphazard dwellings in the Middle Kingdom, adapted in the Second Intermediate Period (Emery, *et al.*, 1979: 71) that appears to have been the living quarters for poorer classes throughout. Block I, like Blocks E and F, quite possibly contained either stores or workshops, but again, this is not certain (Emery, *et al.*, 1979: 67). Block I also contained numerous basal fragments of water jars that suggest this area also provided space for water storage area for the southeast third of the citadel (Emery, *et al.*, 1979: 68). Block I was evidently largely destroyed when Emery excavated it and it is conceivable that this block could have been used for lower class housing.

If Emery and Smith are correct in their assumptions about the activities and purposes of the various blocks within the inner citadel, it appears that Block C was located in the more affluent section of the town. Blocks D, E and F seem to house administrative, storage and work quarters. The southeast third of the town seems to have been used for lower class housing. If this appraisal of the domestic, administrative and military activity areas within the inner citadel is correct, I believe it hints at a succinctly defined social and class structure at Buhen.

Data Used to Construct a Pluralistic Contextual Approach at Buhen

Texts

As with the Kahun case study, textual evidence is one of the data sets that will be employed to supply helpful interpretive information on the site at Buhen. In the previous case study I compiled a 'basic corpus' of Middle Kingdom literature (see Appendix 2) to use as a beginning resource for finding texts that elucidate cultural, political and domestic conditions during the Middle Kingdom in ancient Egypt. As I did for the Kahun case study, I will use relevant textual sections from this Middle Kingdom literary corpus to supply general interpretive information about life at Buhen. Some of the most relevant texts relating to Buhen are:

The Satire of the Trades (Simpson, 1973: 329; Lichtheim, 1975: 184)
Teachings of Ptahotep (Parkinson, 2004: 65-70)
The Loyalist Teaching (Parkinson, 2004: 70-72)
Brooklyn Papyrus (Parkinson, 2004: 99-101)
The Admonitions of Ipuwer (Erman, 1966: 107-108; Simpson, 1973: 228; Lichtheim, 1975: 161)
The Complaint of Kekheperre-Sonbu (Erman, 1966: 108; Simpson, 1973: 230; Lichtheim, 1975: 145)
The Prophecies of Neferti (Erman, 1966: 110; Simpson, 1973: 234; Lichtheim, 1975: 139)
Hymns to King Sesostri III (Erman, 1966: 134; Simpson, 1973: 279; Lichtheim, 1975: 198)
The Coffin Texts (Faulkner, 1973, 1977, 1978)

The description of soldiering given in *The Satire on the Trades*, while it may be biased against soldiering as a profession, possibly was done to offset any perceived glamour and excitement attached to it by an idealistic youth, paints a graphic picture about the vicissitudes of a soldier's life. The population of Buhen was not only the rank and file soldiers, but the administrators as well. *The Teachings of Ptahotep* (Parkinson, 2004: 65-70) give advice and insights into the behaviours expected of an official. Like *The Teachings of Ptahotep*, *The Loyalist Teachings* gives advice to governing officials as to how they should conduct themselves so that they inspire loyalty among those that they govern.

Although officials, military commanders and governors may have striven to rule wisely, not all Egyptians were anxious to interrupt their lives to give service to the state and *The Brooklyn*

Papyrus (Parkinson, 1991: 99-101) records court cases against fugitives from the annual work levy that was a feature of Middle Kingdom life. It was to mines in the Buhen area that these fugitives could be sent as a result. Even military recruits were susceptible to discontent as noted in *The Admonitions of Ipuwer*. The sage discusses how ‘youthful recruits’ had rebelled and thus had become enemies of Egypt. Ipuwer’s contention is further buttressed by *The Complaint of Kekheperre-Sonbu* where the writer makes the point that the real danger for Egypt is not from foreigners, but lawlessness from within. In any event, the writer of *The Prophecies of Neferti*, working during the early reign of Amenemhat I, believed any outside danger to Egypt emanated from Asiatic sources and not from Nubia. *The Hymns to Senwosret III* boast of his military victories, the establishment of secure boundaries and the capable governance of Upper and Lower Egypt.

While the foregoing texts help supply more generalised information on the Middle Kingdom, the second body of texts to be used is the one that has local significance to the Buhen area.

Boundary Stela of Sesostri III (*Lichtheim, 1975: 118*)

Semna Despatches (*Parkinson, 1991: 93-95*)

Graffiti from campaigns to Nubia (*Parkinson, 1991: 95-96*)

A Cursing Ritual (*Parkinson, 1991: 125-126*)

Buhen specific inscriptions from *The Fortress of Buhen; the inscriptions, Volume II*.

The Boundary Stela of Senwosret III provides some similar content to several of the *Hymns to Senwosret III*, but the *Boundary Stela* text speaks more directly addresses conditions on the frontier as well as how the pharaoh will protect his subjects and defeat invaders. In regard to the frontier it is important to remember that Buhen was the major administrative centre for all the satellite fortresses in the region. *The Semna Despatches*, while specifically recording the activities of the Semna garrison, provide information on border policing and military operations similar to those that would have been carried out by the Buhen garrison. Buhen also provided the staging area for punitive campaigns into the Nubian south. Graffiti from those campaigns allow us glimpses into some of the deeds, inflated though they may be, of various soldiers involved in those campaigns. *The Cursing Ritual* is interesting in that it is an execration text that adds a magical element to the efforts to defend the frontier from enemies. Lastly, the Buhen specific inscriptions, like some of the military campaign graffiti, allow us a more personal view of the people who lived at Buhen.

Artistic data

Tomb paintings from the Middle Kingdom period will again provide a source of general interpretive information on life at that time. The Beni Hasan tomb paintings are especially appropriate for this case study as they depict scenes of hunting, self-defence training and siege warfare as well as more generalised military scenes and arms production. As I stated previously in the Kahun case study, it must be remembered that the tomb paintings do not record every processual detail of the depicted activities, but they do provide us with vignettes of some of the facets of how those activities done. Wooden models will also again be used to supplement the interpretive information provided by the tomb paintings. Two especially applicable models that illustrate different types of foot soldiers come from the Tomb of Mesehti at Asyut. Also, there are a number of boat models that can provide useful information on military transportation and naval capabilities. Interestingly, Smith's (Emery, *et al.*, 1979: 145-149) artefact inventory shows that while there were carved or moulded clay figures of animals, boats or human beings found at Buhen, there seemed to be no traces of wooden models such as those found at Kahun. Even so, I suggest the wooden models from other areas can still give us useful information about Middle Kingdom life at Buhen, especially if they depict military subjects.

Archaeological data

As antiquated as the excavation work at Kahun may seem today in light of current archaeological practice, one thing that is striking is that Petrie had the foresight to collect botanical samples for future study. Unfortunately, no such similar data set exists for Buhen. I suspect it is possible that this omission may partly be the result of the somewhat rushed rescue/salvage situation under the Buhen site was excavated.

The absence of such a data set is lamentable, but this is not to say that no botanical evidence was noted. Several houses in Block C did provide evidence of grain storage. Emery, *et al.*, (1979: 59) noted the presence of two grain bins in House B, but there was no indication as to what their contents may have been. More promising was the discovery of a "cooking-area or hearth at the level of the Middle Kingdom pavement" in the south corner of room 4 of House E. Emery, *et al.*, (1979: 62) reported this was a sealed, undisturbed locus resulting from the collapse of a vaulted ceiling. Among the items found in association with this locus were an

“oval grindstone of metamorphic rock” and a “large, rough, brown-ware pottery bowl, broken but approximating in ware and shape to Nubian Type 19; there was emmer wheat adhering to it, and charred emmer grains were found below it” (Emery, *et al.*, 1979: 62). Because this was a sealed locus, it strongly suggests that not only was grain being processed for flour in this room, but emmer wheat and its derivatives were indeed part of the local diet at Buhen.

Other botanical evidence was also found in House E. In the north corner of Room 3 a circular bin had been constructed. This was discovered to have been built directly upon and in association with the Middle Kingdom pavement and some 40 cm. below the later New Kingdom pavement of the house. This strongly suggests the bin was part of the Middle Kingdom usage of House E. Carbonized grains of both emmer wheat and barley were found in the bin. This not only verifies the existence of emmer wheat, but also the presence of barley as a food item. This is interesting in that both grains were food staples in the Middle Kingdom and both were present at Buhen while only barley seems to have been present at Kahun (Germer, 1998: 85).

In the Buhen excavation report, Smith, *et al.*, (1976: 97) mentioned that the site contained large quantities of tubular pottery sherds (Type 186) of the type associated with beer and bread making and that they were present throughout the site. Many of these sherd types were recovered from the buildings of Block C (see Block C Pottery Inventory, Appendix 4). This evidence would seem to suggest that grain supplied not only foodstuffs, but liquid refreshment as well.

It is possible that much of the grain supply may have been shipped to Buhen or was grown in other areas, perhaps across the river from the fortress where there seems to be more arable land than on the western bank. Emery surmises there may possibly have been enough arable land along the river banks around Halfa to supply vegetables to the garrison, but reasons that the region around Buhen was not sufficient to provide all the grain that was necessary for food and beer (Emery, *et al.*, 1979: 101).

Other evidence of diet at Buhen is singularly lacking according to Emery, *et al.*, (1979: 97). It is possible that beef may have been readily available to the soldiers as huge numbers of cattle were either confiscated during the military campaigns into Nubia or, during more peaceful periods, extracted from the Nubians as tribute. Not all of them may have been

driven north into Egypt; some may have been consumed locally. Hunting may have provided an option for supplying meat, as indicated by tomb paintings from Beni Hasan (see Newberry and Fraser, 1893: Plate XIII; also Shedid, 1994: 35), but it is frequently not easy to distinguish hunting equipment from equipment meant for war. The evidence for fishing is more substantial as indicated by the presence of copper, bone and shell fish-hooks as well as net-sinkers in the artefactual assemblage (Emery, *et al.*, 1979: 97).

The second cataract region of the Nile, where Buhen is located, does not have the wide area of cultivation that an area such as the Faiyum region does. Trees and other flora are not as plentiful, but this is not to say that there are none around Buhen. Gerrmer (2001: 538-539) confirms that acacias, *Balanites aegyptiaca* and *Moringa peregrina* all grow well in the desert. Nubia was of course the main source of ebony for furniture (Germer, 2001:450) and the argun palm (Täckholm, 1977: 268), which was of Nubian origin, was perhaps a possible wood source during the Middle Kingdom around Buhen. Emery, *et al.*, (1979: 95) records that woodworking tools recovered at Buhen show that woodworking was done at the site as well as the fact that wooden columns were part of the architecture of several blocks including Block C. Emery does not however, indicate what species of wood were used for columns or artefacts.

Papyrus sealings from House B indicate the use of papyrus documents (Smith, *et al.*, 1976: 26). Also, Emery, *et al.*, (1979:101) records that numerous Middle Kingdom period accounting documents were found in the commander's palace (Block A). Whether papyrus plants were by chance obtained locally and made into paper or whether it was imported to Buhen is difficult to determine. Emery, *et al.*, (1979: 95) notes that there are few traces of anything resembling a spinning or weaving industry at Buhen during the Middle Kingdom and I suggest that flax production may have been constrained for lack of arable land. Germer (2001: 540) noted that spices such as juniper berries and black pepper were imported into Egypt during the Middle Kingdom and it is conceivable they could have been obtainable at Buhen, but Emery records no proof of this.

In regard to artefactual data, one of the disadvantages of Petrie's work at Kahun is that there was a huge corpus of artefacts, but only two small locations were recorded well enough to provide a semblance of archaeological integrity. This being the case, I felt compelled to divide the artefactual data set into three portions. For the 'House and Cellar' location and the

‘Group 9 Artefacts’ location I was able to present the artefact inventories as tables (see Figure 5-4 and 5-5) and use the corpus of artefacts for which there was no provenance as a general indication of activities at Kahun. While Emery’s recording methodology at Buhen may still be somewhat lacking by today’s standards, it provides fuller information on artefactual provenance than is available for Kahun. As a result, I will be able to use the location specific artefact and pottery information from each of the houses in Block C for my interpretations and not have to depend on a wider, non-specific corpus of artefacts for this purpose. I believe it is impractical to present artefact inventory tables in the text for each house within Block C as I did for the two locations in the Kahun case study. Instead, I have compiled the artefact and pottery inventories for each of the houses in Block C in Appendix 4.

A Pluralistic Contextual Approach to the Interpretation of the Buhen Data

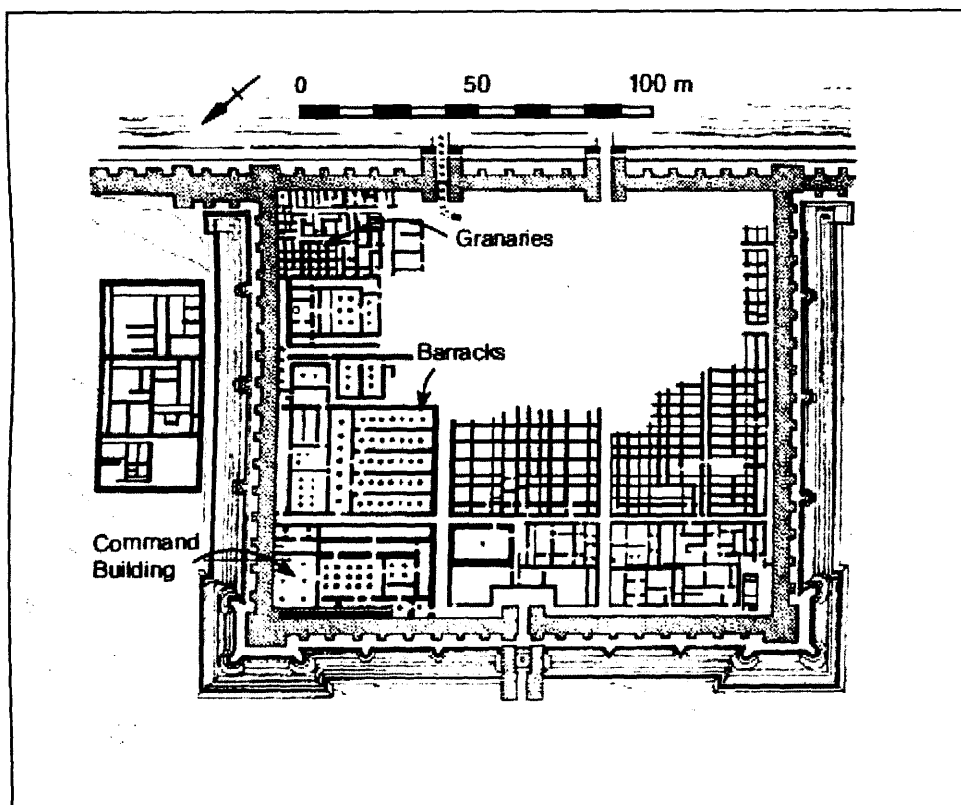
The town and its design

In the previous case study, I quoted Kemp’s (1989:221) assertion that Kahun was laid out by architects who saw two defined social levels: the elite and the commoners. I stated that while I think Kemp’s interpretation may have merit, it was necessary, in light of the comments of both Smith (2003) and Szpakowska (2008: 8-12), to suggest that the Egyptians probably recognised finer gradations of social class within these two larger parameters. Furthermore, I believe Kemp made the perhaps unintentionally phenomenological case that the constructed environment of Kahun buttressed the impression of two significantly distinct social classes. Buhen was a first and foremost a military installation and as such, I suggest defensive potential and military order and efficiency were the primary goals for its design. My assertion does not suggest that the ground plan of Buhen does not lend itself to recognition of élites and commoners. Indeed, the divide between leaders and other ranks may have been even more sharply defined in the military setting than in the civilian one.

When we consider the plan of the interior fortress at Buhen, it appears that use of space was of primary importance. At Kahun, Uphill (1988: 27) states that there was an approximate total living area of close to 9.71 hectares while the entire area encompassed by the outer defensive wall at Buhen, excluding the area of the inner fortress, was approximately 6.07 hectares (2001: 35). Kemp (2006: 233) lists the inner fortress’s dimensions as being 150 x

138 metres with a 5 metre thick mud brick wall. Hence, I calculate that the interior living area would probably have been less than 2.02 hectares.

Both Uphill (1988:27-33, 35-36) and Kemp (2006: 211-221, 231-235) support the notion that Kahun and Buhen were two distinct examples of planned communities that were a part of the Middle Kingdom ethos. Certainly, there is a demonstrable difference in the two sites as regards size. Buhen would have accommodated fewer people than Kahun, but in light of the opinions of both Uphill and Kemp, I suggest there is also a strong phenomenological aspect, intentional or not, to the Buhen architectural layout that made obvious the social divisions between leaders and the common soldiery.



Map D: Buhen – Lehner, M. 2004, after Emery, *et al.*, 1979: 70.

As mentioned above, the citadel area of Buhen could be roughly divided into three sections. The northwest section, Blocks A, B and C, contained the commander's palace (Emery, *et al.*, 1979: 47-48); parade grounds, muster points, administrative buildings (Emery, *et al.*, 1979: 54-58); and administrative residences (Emery, *et al.*, 1979: 47-48) respectively. The central military section, Blocks D, E and F, Emery suggested were barracks for the other ranks in Block D, (1979: 65); stores and workshops in both Blocks E and F, (1979: 67) with possible

water storage areas as well in Block F (1979: 67). In the southeast third, Block G may have been an administrative area associated with the temple (Emery, *et al.*, 1979: 70) while Block H contained housing for commoners or perhaps later, military dependents, (1979: 71). Block I may well have been used for storage or workshops areas although it could have provided space for lower class housing as well (Emery, *et al.*, 1979: 67).

Mark Lehner (2004: 14) agrees substantially with this appraisal of spatial use at Buhen. He notes that this pattern of “command building, granary, and possible barracks with elongated rooms— occur in a smaller fort along the Second cataract” (Lehner, 2004: 15).

In his work at the fortress site of Askut, Smith (2003: 117) too noted three activity areas, those being the elite residence of the commander, the barracks area of the common soldiers, and work/storage areas. What I essentially see in the arrangement at Buhen is that the northwest third of the citadel had overt connections with the elite class, while the central and southeast sections were used for occupational and domestic activities of the commoners.

In the Kahun case study, I suggested that the order of a planned community at Kahun could perhaps have been part of a general desire in the Middle Kingdom for social stability and class order. While Lichtheim (1973: 134-135) asserts that the Middle Kingdom propensity for writing pessimistic literary works, such as the ‘*Admonitions of Ipuwer*’ and the ‘*Prophecies of Nerferti*’ could not be historically based on any perceived or real “national distress” in the First Intermediate Period, I conjecture the popularity of this theme may actually indicate a real concern about the possibility of political and social class turmoil in the minds of Middle Kingdom Egyptians.

At Buhen, I suspect the development of the site from the perspective of landscape analysis was probably more a result of considerations of military order and efficient use of space on the part of the planners than those of social stability. Even so, an efficiently run military post keeping order on the frontiers of Egypt may well have provided a certain sense of social stability all its own, not only for the various social classes at Buhen, but also to the population in the heartland of Egypt as well. *The Boundary Stela of Senwosret III* (Parkinson, 1991: 43-96; also see Lichtheim, 1973: 118-120) clearly proclaims the power of the pharaoh to protect Egypt and its borders and a fortress such as Buhen would have provided strong proof that the claims were true.

Class system models

In regard to the subject of class at Buhen, the generic 'traditional' class system model I mentioned in the previous chapter was based on three distinct levels of social strata. These could be identified as the elite, middle and lower classes with the pharaoh at the top ruling over all. Within this particular model, generals and higher level administrators would be designated as social elites. Local administrators and scribes would be considered middle class positions while common soldiers would be considered part of the lower class.

Szpakowska's (2008) proposed model differs from the 'traditional' one in that she sees class differential as being essentially decided by literacy (see Szpakowska, 2008: 10-11). Generals, administrators, lower bureaucrats and scribes of all types would all have been elite class. The mass of rank and file soldiers, who were likely recruited from illiterate commoners, would have been lower class. Any Craftsmen, builders, workers or civilian dependents of the soldiers would also have fit into the lower class.

Szpakowska (2008: 12) states that there was little chance for social mobility among the illiterate population in Egyptian society, but such mobility was possible for those who were literate. Considering that, although what I term as the Szpakowska model has only two social classes, she has recognised the possible existence of an independent middle class of merchants and scribes outside of the formal division of the dualistic model (2008:11-12). Even if such a group did not exist, I argue that there was enough internal gradation in the elite class that the lower echelons of that class could be seen as sort of a middle class.

If the assessment of spatial use at Buhen mentioned in the previous section is correct, I believe it fits the Szpakowska social model reasonably well. The elite class of military commanders, administrators and scribes would have been relatively small compared with the larger group of, lower class soldiery and their necessary military support personnel. Correspondingly, it appears that one third of the citadel area was reserved for the use of the elite class while the remaining two thirds was used by the lower classes. If there in fact was an independent merchant middle class, it may well have initially been a transient community that was not in permanent residence at Buhen until later times if even then (Emery, *et al.*, 1979: 98).

Military social hierarchy

As mentioned in the Kahun case study, the title of ‘soldier’ in itself is difficult to assign to a specific class, especially at the beginning of the Middle Kingdom. Since there was really no standing army in the early Middle Kingdom, many ‘soldiers’, but not all, were raised by levy in times of emergency from the civilian population (refer again to Callender, 2000: 161 and Kemp, 1989: 220-221). Other ranks were certainly lower class, but generals and higher officers, still technically ‘soldiers’, came from the elite sections of society. Grajetzki (2006: 154) reasons that even official titles such as “soldier of the town regiment” actually designated someone of higher command status and not simply a common soldier since this was one of the titles inscribed on the funerary stela of the grandfather of two kings and of a treasurer of the Thirteenth Dynasty. The social positions of military scribes could be widely varied in that, although they were literate, some of course were minor functionaries while others held top posts as assistants and adjutants for the top military leadership (see Szpakowska, 2008: 108).

Thus, the title of ‘soldier’ is not only fluid, but contextually dependent upon the person so being termed. Emery’s (1979: 98) interpretation of the occupation of the inner citadel during the early Middle Kingdom was that the garrison troops at Buhen were regularly supplied from Egypt and rotated on a regular basis. While it would seem sensible from a military standpoint to garrison a ‘newly conquered’ province with well-trained professionals rather than with inexperienced conscripts, I suggest it is not outside the realm of possibility that these troops may have been temporary levies. If this was at all the case, these levies would likely have had ‘civilian’ professions and hence the designation of a particular individual as a ‘soldier’ would have been temporary at best. Smith states as much in his 1776 work, *The Wealth of Nations* where he writes:

“The practice of military exercises is the sole or principal occupation of the soldiers of a standing army, and the maintenance or pay which the state affords them is the principal and ordinary fund of their subsistence. ... In a militia, the character of the labourer, artificer, or tradesmen, predominates over that of the soldier; in a standing army, that of the soldier predominates over every other character: in this distinction seems to consist the essential difference between the two different species of military force” (Smith, 1776b/1999b: 286-287).

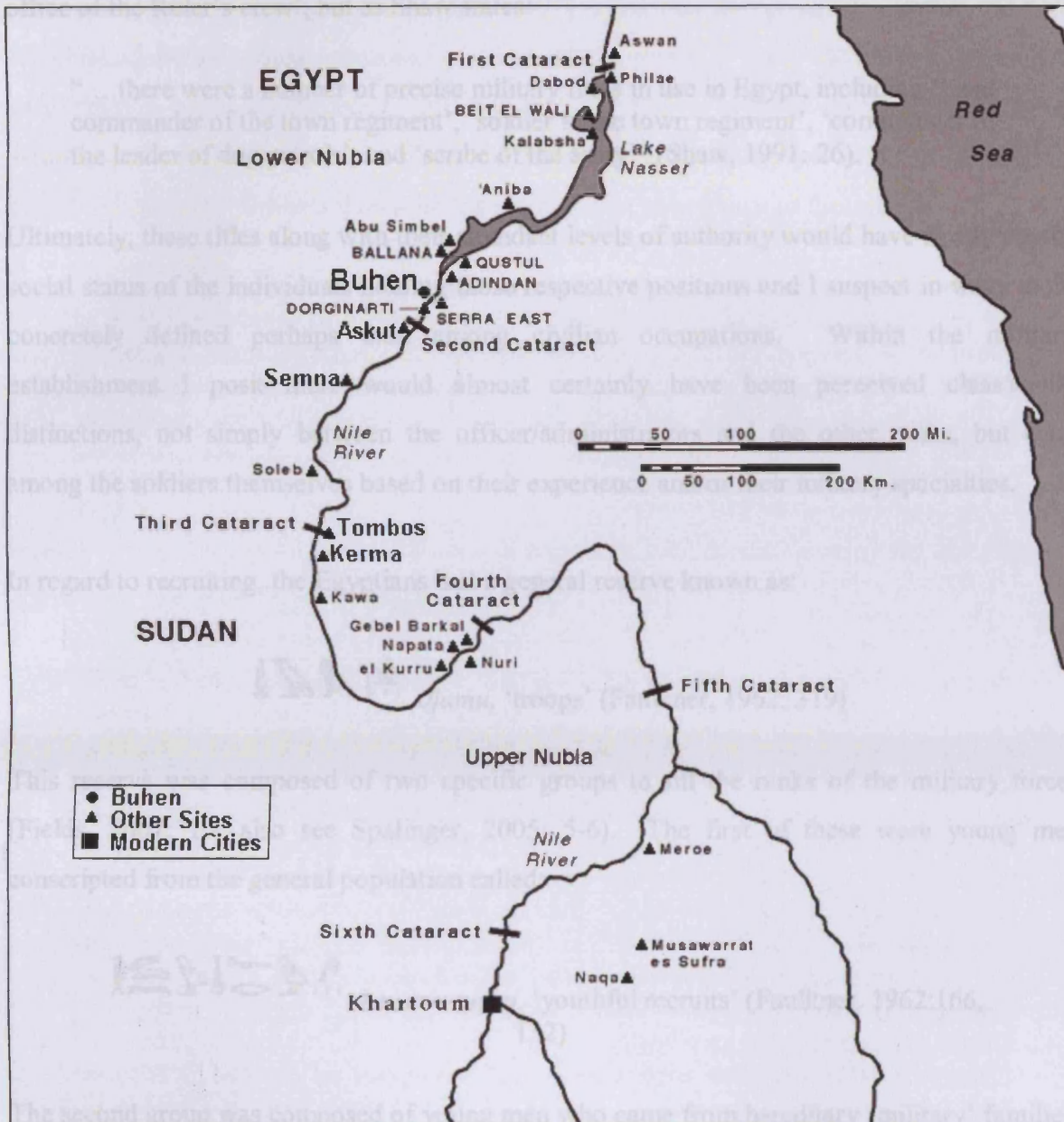
Having made this distinction, Smith (1776b/1999b: 289) was quick to point out that in times of protracted military conflicts, the longer militia troops or conscripts serve under military discipline and the more combat experience they gain, the less distinction there is between amateur and professional soldiers. In this case, men who had proved themselves in battle would more likely to be accepted as real ‘soldiers’ by those who were full-time professionals.

Regardless, of whether troops were militia, levies, or professionals, a chain of command would have been necessary to direct military operations at the fortress as well as the logistics involved with supplying the garrison. Kemp (2006: 231) points out that the massive public works projects and quarrying expeditions that were undertaken during the Old Kingdom supplied the Egyptians with the logistical experience necessary to expand their empire in the Middle Kingdom. Conquest is one part of the expansionist formula, but there is little point in conquest unless permanent control is established in the conquered territory. In Kemp’s (2006: 231) opinion, this required settled permanent garrisons of troops along with attendant scribal administrative support.

Shaw (1991: 25) points out that the initial impetus toward a professional military organisation began during the reign of Amenemhat I (1991-1962 BC), when the small contingent of royal troops were supported by regional troops raised by the nomarchs. The social and political reformation of the mid XIIth Dynasty, whether intentional or not, had the effect of reducing the powers of the nomarchs (see Callandar, 2000: 155). The reduction of regional military forces raised and commanded by nomarchs required the establishment of professional military forces along the southern frontier under centralised royal command (Shaw, 1991: 25; see Map E). The professional army had a sophisticated command structure as indicated by an example in the Semna Despatches.

“Another letter is brought to him from the liegeman, Ameny who is at Kheseḫ – Medjaiu, being (a message) sent by fortress to fortress: This is a communication to the lord, l.p.h [life, prosperity, health], that the soldier from Neken, Senu’s son Heru’s son Reniqer, and the soldier from Tjebu, Rensi’s son Senwosret’s son Senwosret, came to report to this humble servant on year 3, month 4 of Peret, day 2, at the time of breakfast, on a mission from the officer of the town regiment, Khusobek’s son Montuhotep’s son, Khusobek [...], who is deputy to the office of the Ruler’s crew in the garrison of Meha, saying: ‘The patrol that went out to patrol the desert edge [right up to (?)] the fortress of Kheseḫ – Medjaiu on year 3, month 3 of Peret, last day, has returned to report to me, saying, “We found the track of 32 men and 3 donkeys, which they trod [.....]” [...] the patrol [...] my

places' – so [he said] order (?) of the garrison [.....] on the desert edge." (Parkinson, 1991: 94).



Map E: Sites in Nubia and the Sudan (www.26).

What is striking about this passage is that it clearly demonstrates the hierarchy of common soldiers who report news of their patrol to their immediate superior officer, who in turn reported it to his superior officer. The mission had been ordered by an officer of the town regiment who was deputy to the office of the 'Ruler's Crew'. Like Shaw (1991: 26), I believe it is readily apparent that the soldiers were well aware of their social and military status within this command structure.

Titles indicated the status and position of individuals within the system. The forgoing passage mentions the positions of ‘soldier’, officer of the town regiment’ and deputy to the office of the Ruler’s crew’, but as Shaw states:

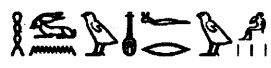
“... there were a number of precise military titles in use in Egypt, including ‘head commander of the town regiment’, ‘soldier in the town regiment’, ‘commander of the leader of dog patrols’, and ‘scribe of the army’” (Shaw, 1991: 26).

Ultimately, these titles along with their attendant levels of authority would have firmly set the social status of the individuals holding those respective positions and I suspect in ways more concretely defined perhaps than among civilian occupations. Within the military establishment I posit there would almost certainly have been perceived class/social distinctions, not simply between the officer/administrators and the other ranks, but even among the soldiers themselves based on their experience and/or their military specialties.


In regard to recruiting, the Egyptians had a general reserve known as:

 *djamu*, ‘troops’ (Faulkner, 1962: 319)

This reserve was composed of two specific groups to fill the ranks of the military forces (Fields, 2007: 10; also see Spalinger, 2005: 5-6). The first of these were young men conscripted from the general population called:

 *hewenu-nefru*, ‘youthful recruits’ (Faulkner, 1962:166, 132)

The second group was composed of young men who came from hereditary ‘military’ families and whose fathers had been soldiers. They were called:

 *ahautyu*, ‘warriors’(Faulkner, 1962:46, 47)

By the time of the Middle Kingdom, recruits who came from this group “viewed soldiering as a full-time career and thus volunteered” (Fields, 2007: 10).

It seems reasonable to assume that recruitment among the *ahautyu* was relatively easy since there would likely have been pressure on a young man from his relatives to follow the 'family profession', but E.J. Manchip White (1970: 125) states that the ancient Egyptians were not warlike and disliked conscription enough to avoid it if possible. Only the thought of personal gain made it seem worthwhile. This was possibly true in a sense, but I agree with the sentiments Smith recorded in the *Wealth of Nations* that there has historically been a certain perceived 'glamour' to the military profession to attract young men to the colours.

"Without regarding the danger, however, young volunteers never enlist so readily as at the beginning of a new war; and though they have scarce any chance of preferment, they figure to themselves, in their youthful fantasies, a thousand occasions of acquiring honour and distinction which never occur. These romantic hopes make the whole price of their blood. Their pay is less than that of common labourers, and in actual service their fatigues are much greater" (Smith, 1776a/1999a: 211).

Indeed, Smith's last point echoes the line of reasoning used by the writer of the *Hardships of a Soldier's Life* in the Papyrus Anastasi 9, 4-10, 1.

What is it that you say they relate, that the soldier's life is more pleasant than the scribes (profession)? Come; let me tell you the condition of the soldier; that much castigated one. He is brought while a child to be confined in the camp. A [searing] beating is given his body, an open wound inflicted on his eyebrows. His head is split open with a wound. He is laid down and he is beaten like papyrus. He is struck with torments. Come; let me relate to you his journey to Khor and his marching upon the hills. His rations and his water are upon his shoulder like the load of an ass, while his neck has been made a backbone like that of an ass. The vertebrae of his back are broken, while he drinks of foul water. He stops work (only) to keep watch. He reaches the battle, and he is like a plucked fowl. He proceeds to return to Egypt, and he is like a stick which the worm has devoured. He is sick, prostration overtakes him. He is brought back upon an ass, his clothes taken away by theft, his henchmen fled. Scribe Inena, turn back from saying that the soldier's is more pleasant than the scribes (profession) (Simpson, 1972: 346-347).

While Simpson (1972: 347) dates this particular papyrus to the reign of Seti II (1200-1194 BC) during the New Kingdom, he states the actual text of the papyrus is "probably a lot earlier" and not composed by the writer of the papyrus. What is striking about this text is the negative portrayal of military life that is obviously calculated to discourage any ideas of glamour. Certainly, the author indicates that a scribe's position is superior to that of a soldier.

It is conceivable that those recruits from professional military families may well have had a sense of superiority over those not 'born to the profession'. Be that as it may, I suspect untrained recruits of any type would likely have been seen as inferiors by seasoned veterans until they had been trained and had served for a time on active duty. Even within the ranks of active duty troops there were probably social divisions.



Figure 6-3: Forty Egyptian Spearmen, painted wood model from the Tomb of Prince Mesehti, XIth Dynasty (2055-1985 BC), Asyut, Egypt (www.27).

The shock infantry of the Middle Kingdom Egyptian army was equipped with spears, battle axes, maces, daggers and wooden shields covered with cowhide (Steindorff and Seele, 1957: 89; also see Emery, *et al.*, 1979: 96). Spears could be used for thrusting or for throwing. Battle axes and maces provided close combat capability. Daggers would be used for extremely close situations or dealing finishing blows to enemy combatants (see Figures 6-3 and 6-5). If, as Hurcombe (2007: 109) suggests, materiality is built upon the relationships between humans and the materials they use, successful usage of these weapons required

speed, agility and strength. The wooden shield would have been heavy and its design, while providing fair protection, was still a bit cumbersome. Shock combat was an exhausting affair that required strength and endurance, but not particularly great intellect.

Bows and arrows were the main equipment of archers, but they frequently carried axes, slings and daggers for personal protection (Steindorff and Seele, 1957: 89) (see Figs. 6-4 and 6-5). The bow is a ranged weapon that can be deadly at a distance, especially when used *en mass* and with plunging fire. Effective use of the bow required skilled practice, not just in accuracy, but in judging distances to a target. Bowmen relied on skill and dexterity rather than on brute force. Although they frequently carried battle axes and daggers, they would have been at a serious disadvantage in a melee.



Figure 6-4: Forty Nubian Archers, painted wood model from the Tomb of Prince Mesehti, XIth Dynasty (2055-1985 BC), Asyut, Egypt (www.28).

The basics of hand to hand combat with spears, battle axes and shields would have been relatively easy to learn. Once learned, it would have only remained for the soldiers to gain the strength and endurance for their use. Archers, on the other hand, took a great deal of time

to train and they required continual practice to maintain their skills. Because of their skills, I conjecture that archers may well have had reason for feeling a type of social pre-eminence over the common infantryman.

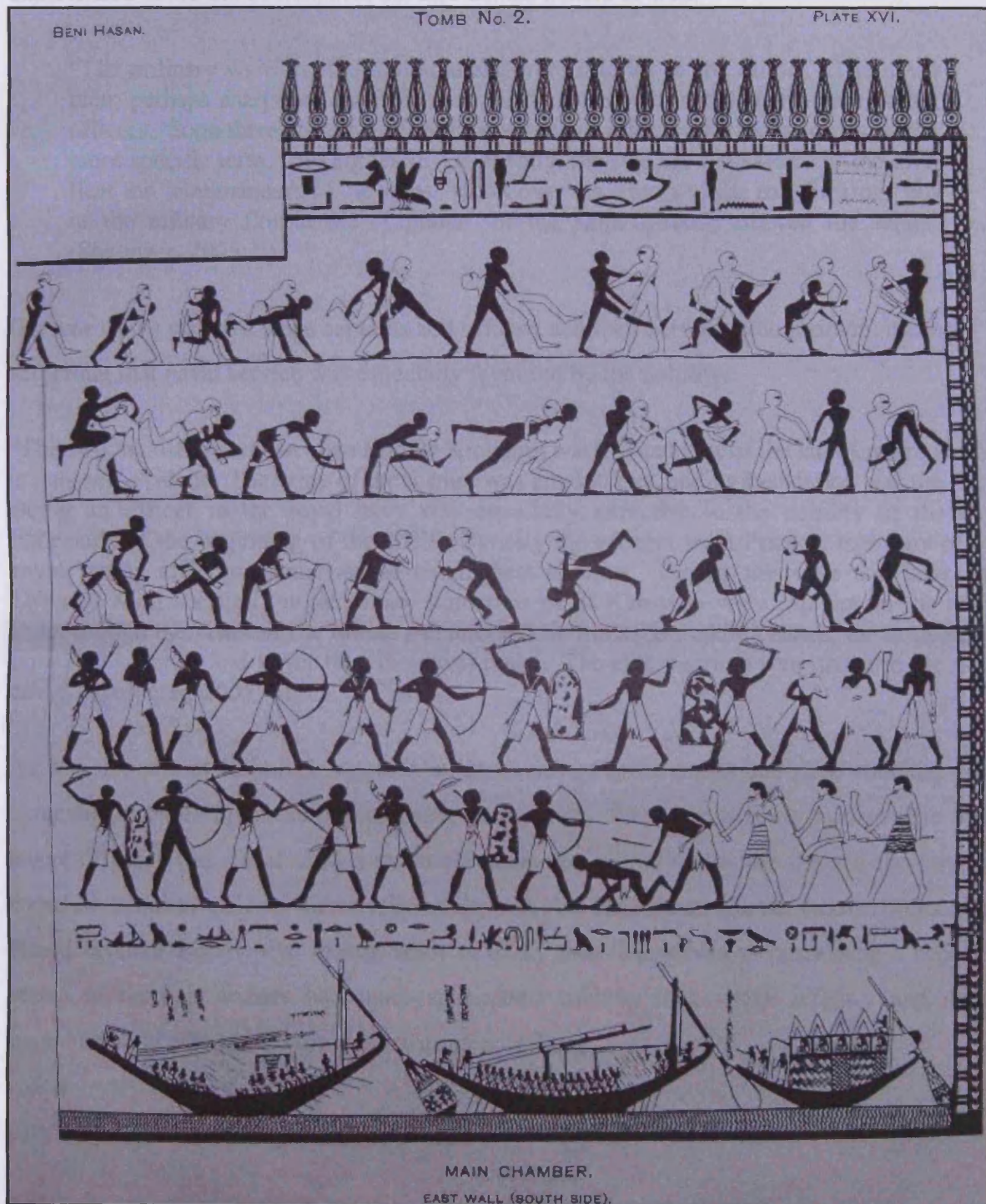


Figure 6-5: Wall painting showing wrestlers, infantry and naval contingents from the Middle Kingdom Tomb of Amememhat, Beni Hasan. Newberry and Fraser, 1893, Plate XVI.

Interestingly, if there was indeed a social division between archers and the hand to hand fighters, it was eclipsed by an even more noticeable division that existed between the army and the naval forces. Spalinger points out those men in the naval service were not only experienced in the use of weapons, but also skilled sailors as well.

“The ordinary warriors, the foot soldiers, were inferior to the sailors. The naval men, perhaps sharpened by their more difficult service in the fleet, were young officers. Soon thereafter, the Middle Kingdom word for “naval team” replaced the more specific term, ‘rowing team.’ Evidently, the two are the same. In the civil fleet the “commanders of the ships” stood over the ‘tutors of the naval teams,’ but in the military flotilla the ‘captains’ of the ships directly obeyed the King” (Spalinger, 2005: 5).

Because of the status of ships captains and officers and their access to the pharaoh, it is not surprising that naval service was especially favoured by the nobility.

“The striking difference between Middle Kingdom warfare and that of the later Empire Period is thus self-evident. The army of the former was amphibious, and its foundation was the fleet. Being an officer in the royal navy was especially attractive to the nobility of the day. Especially at the beginning of the XIIIth Dynasty the officers were Princes, members of the royal family and representatives of the highest nobility. During this time and later into Dynasty XVII we find the hereditary nomarchs of El Kab who were captains in the navy. Even though members of the military elite could be from the middle classes, the army ranks remained separate and lower than the naval ranks. The elite warriors were those in the royal navy” (Spalinger, 2005: 6).

As was the case at Kahun, I suggest the intricacies of social status and class standing were contextually based upon the groups being considered. What seems likely is that there were layers of perceived social class and status within the military structure beyond the obvious social divisions of officers versus other ranks and elite class or aristocrats versus commoners. Based on their experience, veteran soldiers likely saw themselves as possessing a superior status to recruits, archers had more specialised training than shock infantry and naval personnel held elite status compared to army personnel.

Craft social hierarchy

Many of the trades practised at Buhen were not simply to provide diverse products for local consumption, but geared to the military establishment and its mission. There seems to be little evidence, for instance, of any kind of weaving industry at Buhen. In the early Middle Kingdom it is possible that levied soldiers, when not engaged in battle, carried with them the

esteem or stigmas of their respective civilian professions since in many ways they were still more civilians than professional soldiers (see Wilson, 1951: 187 also Callendar, 2000: 161).

In the later Middle Kingdom into the Second Intermediate Period it is possible that civilian craftsmen may have been employed to work at Buhen while soldiers concentrated on the business of soldiering. In this case, it is conceivable that a perceived social class difference based on skilled versus unskilled occupations may have existed. The presence of specialised civilian craftsmen would have had the negative effect of inflating the population at Buhen at the expense of a larger garrison of trained soldiers although it is possible that the fortress commander could have pressed the craftsmen into temporary service in cases of emergency.

The reverse is also conceivable in that if some soldiers, before they were recruited or conscripted, had civilian trades useful to army operations, they could perhaps have fulfilled dual roles of soldiers and craftsmen. Hence I suspect 'city' trades, such as copper or stoneworking, woodworking, leatherworking, fletching and so on may have had fairly equitable status since all of these were likely seen as essential to the military mission at Buhen. All of these were skilled crafts and therefore the skilled/unskilled dichotomy would not have been as noticeable as it may have been at a civilian site such as Kahun (see Fairservice, 1962: 103, 110).

Considering the taskscape of the military complex at Buhen I suggest such a concept may well have had a significant influence on the organisation of labour there. If true, there is one other organisational model I believe is possible for industrial occupations at Buhen. Conceivably there could have been a core element of skilled civilian master craftsmen for each required occupation who then instructed and managed soldier apprentices. Uphill notes:

It has been calculated that to defend these walls with three men per bastion and six more on each 72 foot (22 metre) interval between them 276 men would be required, or, on a two and four men ratio, 184. This does not allow for the river side. Taking wives and children into consideration, and there would have been other non-military (p. 35) inhabitants, a population from 1500 to 2000 seems to be a minimum estimate: based on acreage estimates, even allowing for the inner fort, the higher figure seems likely" (Uphill, 2001: 35-36).

Although Uphill suggests the population at Buhen may have been close to two thousand people, there was limited area within the confines of the fortress and it would have made

sense from a military standpoint to maximise the numbers of soldiers and minimise the number of non-combatant civilians. This particular paradigm has the advantage of accomplishing just that situation. In this case, the civilian instructors could likely have had a respected social status as skilled artisans while the soldier apprentices were common workers at best.

One of the differences between Kahun and Buhen is that, at Kahun there were what could perhaps be identified as 'rural' trades, such as fishing and farming, and 'city' trades such as woodworking and weaving. Such was not particularly the case at Buhen. Fishing was certainly done at Buhen, as attested by net weights, but I question whether there was a specific fishing profession or whether this was something done as needed by the military establishment to supplement the food supply of the garrison and its dependents.

Grain, both emmer wheat and barley, were recovered at Buhen (Emery, *et al.*, 1979: 59, 62), but it is most likely that this was shipped to Buhen from Egypt. Kemp suggests that the area across the Nile may have supported some farming (Kemp, 2006: 232), but a cursory examination of the local landscape indicates there is little arable land in the vicinity of the fortress to form a site catchment area for grain production. What little 'farming' may have been done was possibly limited to 'gardens' of vegetable crops to supplement the grain shipments from Egypt.

The copper industry, however, seems to have been an exception to the rural/urban occupation model. Mining was not a 'city' activity, but evidently required specific specialisation of personnel. There is a Middle Kingdom account of a mining expedition and the personnel involved in such an enterprise. While it is actually an account of a mission to mine copper bearing malachite in the Sinai during the reign of Amenemhat III (1831-1777BC), it is I think likely that such activities required similar work crews no matter where they were sent. According to the text the workers involved included:

... The Keeper of the Chamber, Ibu

The Keeper of the Chamber, Khnumnakht

The Keeper of the Chamber, Ukem

The Keeper of the Chamber of the treasury, Renefsoneb

The domestic servant and quarryman, Khentyhotep

The scorpion magician, Inpunakht

Expedition Overseer of Stonecutters, Khet
 The quarryman of malachite, Kemen
 The quarryman of malachite, Sobeku
 The quarryman of malachite, Hori
 The quarryman, Ik
 The quarryman, Seshen
 The quarryman, Khenibeb
 The quarryman, Ipu
 The Cup-bearer, Netjeriref
 The priest, Gebu
 The quarryman, Ii
 The stonecutter, Sebekemesh

The true Royal Acquaintance, whom he loves, his favourite,
 The Friend of the Great House, the god's Seal-bearer,
 Horurru, true of voice
 [begotten of (?)] Sobekka
 The stonecarver, Sa[...]neb
 Conceived of Nutmes
 The stonecutter, Khentikhetihotep
 The domestic servant of the treasury, Ip
 The Cup-bearer, Ini
 The Cup-bearer, Sebekemesh
 (Parkinson, 1991a: 98-99)

From this example, it seems clear that, while there may have been within the personnel structure a perceived social hierarchy, the people involved with this particular expedition were chosen because they had specific skills. Consequently, even though the actual mining was hard, physical labour, it is conceivable that it may not have been viewed as 'unskilled labour' in the sense that perhaps farming, herding or fishing may have been.

The quest for copper was one of the main reasons the Egyptians chose to colonize the Buhen area as early as the Old Kingdom (Habachi, 1975: 881). Copper was obtained primarily from malachite which had low iron content and a reasonably high gold content (Ogden, 2000: 151).

"The copper produced at the Old Kingdom smelting site at Buhen has an average iron content around 0.5 per cent and the over-life-size Sixth Dynasty statue of Pepi I is, according to what is probably the most reliable analysis to date (Desch, 1928), almost pure copper with 0.7 per cent iron, enough to indicate a true fluxing process, and 1.1 percent nickel" (Ogden, 2000: 152).

Ore obtained from the region around Buhen extended the site catchment area, but mining was only part of the process to obtain copper. The transportation logistics and the evidently

sophisticated smelting processes inherited from the Old Kingdom reveal an easily recognisable *chaîne opératoire*. Miners obtained the raw ore which was then needed to be shipped to the smelters. Donkey caravans supplied water and food to the mining camp and carried ore on the return trip (Lawrence, 1965: 72).

Once the raw ore arrived at Buhen it was smelted and moulded into copper items. A complete crucible for smelting copper was recovered from Block C, House G. There is no guarantee it was used for smelting, but it had intensive deposits of wood ash and carbon associated with it which was consistent with evidence of smelting furnaces (Emery, *et al.*, 1979: 94). Another crucible fragment was found in Block J, room 10 in association with a heavily burnt brick structure in a sealed locus under the original Middle Kingdom pavement. Emery reasons that if this structure was used for smelting, “it must have been used by the Middle Kingdom builders of the fortress, since the Middle Kingdom pottery was found in Association with it” (1979: 94-95). Two other recovered crucible fragments (catalogue numbers 937 and 1021) were evidently wheel-made and of pink/brown ware of Nile mud fabric with some vegetable temper. They were heavily burnt with pinched spouts that still had traces of copper slag on them (Emery, *et al.*, 1979: 95).

Other indications of the smelting and moulding process included what appeared to be a bellows nozzle (catalogue number 760), used to conduct air to the fire, two pottery ladles (catalogue numbers 1091 and 1190), and number of moulds for casting metal (Emery, *et al.*, 1979: 95). The majority of these moulds were made from pottery although one was of stone. Eight of these moulds were for making battleaxes which Emery, *et al.*, (1979: 95) rightly states indicates “the essentially military character of the Buhen copper industry”. While the axes produced from these moulds appear to be of a type that date to the New Kingdom, Emery, *et al.*, (1979: 95) warns that “it would be dangerous on the basis of the rather unsatisfactory evidence to conclude that copper working was not carried on at Buhen in the Middle Kingdom”.

I think there are two important points to understand about this information. The first is that copper smelting required not only specialists to smelt and mould the metal into useful items, but other crafts well. Potters and all their associated tasks were needed to produce crucibles, bellows nozzles and ladles for smelting and moulding. Brick-making and its associated tasks were required for producing bricks to build smelting furnaces. Each one of these skilled

occupations would have had social hierarchies with overseers who managed workers. Thus, there would have been internal perceived social distinctions within each.

The second important point is that, mining required knowledge and certain skills, but it was physical labour none the less. Caravan work probably did not call for any arcane skills on the part of average workers, although overseers may well have needed well developed logistical skills. Copper-workers were skilled craftsmen. It is difficult to know for certain how each of the groups in the *chaîne opératoire* may have regarded the others socially, but I submit the occupational identities certainly existed that would have perhaps facilitated perceived social class distinctions (also see Smith, 1776a/1999a: 202-203, 207).

Another occupation practised at Buhen that lends itself the *chaîne opératoire* is stone-working and lithic technology. The sequence of associated activities is much the same as for the copper industry. There were numerous stone quarries in the Buhen region, but all are now under Lake Nasser with the exception of the one at Qertassi near Aswan (Aston, *et al.*, 2000: 54). Quarrymen were needed to mine the stone. Caravans were needed to re-supply the quarrymen and move the stone from the quarries to Buhen. Knappers and stoneworkers turned the raw stone into usable items such as tools, weapons and statuary.

Emery recovered evidence of the stone-working industry at Buhen in the shape of heads of bow-drills of basalt or granite (Emery, *et al.*, 1979: 94). Hand-hammers, pounders, and mauls were some of the heavy-duty tools discovered. The majority of these were made from granite, quartz, dolerite, or basalt. Emery, *et al.*, (1979: 94) records that rounded or spherical shaped tools were especially associated with work on statuary and stone vessels. Other oblong objects (catalogue numbers 520, 1018, 1127, 1128, 1310, 1349 and 1381) appear to have been used as whetstones. Celts or hand-axes are of basalt, granite, and igneous rock, while unusual, were known and used in the Middle Kingdom (Emery, *et al.*, 1979: 94).

I believe Emery makes several interesting suggestions about this tool and implement assemblage. Firstly, whetstones are significant in that “the presence of these implies the use of metal knives, chisels, adzes, or other blade tools associated with stone-working, but also with other crafts” (Emery, *et al.*, 1979: 94). Secondly, the “range of tools suggests that there were common stone building elements (jambs, lintels, columns, thresholds, etc.), less certainly upon statues and stone vessels” (Emery, *et al.*, 1979: 94). Lastly, the celts and hand-

axes could have been woodworking tools, but could also have been used for stone splitting and quarrying (Emery, *et al.*, 1979: 94). I hasten to add that many of these tools would have been useful in producing items of military value such as projectile points, stone mace heads, daggers, and so on.

Quarrying stone required similar techniques to that of mining although the skill of recognising and sorting ore from rock would not have been necessary. Running caravans for quarrying operations would have needed the same logistical skills as for copper mining. Workers engaged in these operations would likely have had social statuses analogous to those workers employed in the copper industry. How knappers and other stoneworkers would have been perceived in relation to those refiners in the copper industry is difficult to tell, but it is conceivable that they, as skilled specialists, may have seen themselves as having an enhanced social status compared to quarrymen and caravan workers.

Bricks were the primary materials used to build the Buhen fortress as Emery, *et al.*, (1979: 95) has attested. However, he is quick to note that there are no brick moulds or tools associated with either brick making or plastering that could be positively identified so there is really no verifiable artefactual evidence of brick making at Buhen. Stone plumb bobs were recovered, but these seem to be the only construction tools found in any quantity (Emery, *et al.*, 1979: 95). I think it is reasonable to suggest that perhaps bricklayers and engineers were sent from Egypt to construct the fortress and would have taken the bulk of their tools with them upon completion of the task. Items such as plumb bobs would have been useful to local 'repairmen' in making any necessary repairs to the structures or fortifications, but considering the lack of tools and brick-moulds, it is likely that there was not much need for an ongoing, high-volume brick making industry once the initial construction was finished.

Woodworking is attested by the recovery of tools. According to Emery, *et al.*, (1979: 95) drills and hand-axes recovered at Buhen that were primarily used for stone working could also double as woodworking tools. Copper, bronze, and even flint blades were effective tools for woodworking as well. Architectural features provide most prominent evidence for the use of wood at Buhen. The presence of wooden columns, roofing beams, door jambs and lintels in Blocks B, C, D, and G were all noted by Emery, *et al.*, (1979: 95). Large timbers were used in the inner and outer fortifications as well as for drawbridges and large door in the main gate complexes (Emery, *et al.*, 1979: 95). I suspect that, due to the nature of the surrounding

landscape at Buhen, much of this timber was probably shipped to the site from other locations.

While Emery documented the architectural use of wood, what is missing seems to be a woodworking industry dedicated to personal and tomb objects such as was the case at Kahun. Examination of the Buhen artefact inventory (Emery, *et al.*, 1979: 156-157) indicates few wooden items and these tend to be shield sticks and a few personal items. Even these few items could have been imported from elsewhere. At Kahun, many wooden artefacts recovered were from models made for tombs, but only the “charred foot of a wooden vessel” (catalogue number 759) and the “oval blade of a steering oar from a model boat” (catalogue number 968) give an indication that such models were present at Buhen (Emery, *et al.*, 1979: 157). Emery, *et al.*, (1979: 95) does state that, had it not been for ants, more wooden artefacts may have survived. Even so, I believe it is difficult to make a case for a thriving woodworking industry other than what was needed for military purposes.

Leatherworking is another craft for which there is little evidence. Emery, *et al.*, (1979: 95) states that Nubian and C-group people commonly wore articles of leather clothing, but leather was not favoured by Egyptian troops. Leather was used for shields and repairs to or replacement of the hides was probably necessary from time to time, but the only real evidence there is of leatherwork at Buhen was in the form of piercers and points made from bone and bronze awls. As with brick-making and wood-working there does not seem to be much evidence to indicate a dedicated leatherworking industry.

As mentioned at the beginning of this section, there was little evidence of a weaving industry at Buhen. Indeed there are no surviving textiles from the fortress of Buhen (Emery, *et al.*, 1979: 95). No complete spindles were recovered from Buhen and Emery, *et al.*, (1979: 95) suggests that wooden sticks may have been used for the purpose. Furthermore, he (1979: 95) asserts that Nubia was not particularly conducive to flax production and that importing finished thread to Buhen would have been more efficient. Not only was there a scarcity of spinning implements, but there were also no identifiable parts of looms, heddle-jacks or any other weaving equipment with the possible exception of some questionable, grooved stone weights that may be loom weights, but which could just as well be net weights. Unlike Kahun, which had a reasonably vibrant and productive weaving industry, no comparable professional group seems to have existed at Buhen.

Domestic civilian social hierarchies

Previously in this chapter I discussed how and where the selected study area fits into the site picture at Buhen. In that section I noted that the town plan of the inner citadel favours the interpretation of an affluent section encompassing Blocks A, B and C while the other areas appear to have been used for domestic dwellings, barracks and storage areas. There was certainly a commander of the fortress of Buhen and administrators. Soldiers, civilians and their families would represent the lower classes. Consequently, it seems probable that the basic range of Middle Kingdom social classes was represented at Buhen, but with certain variations.

Emery, *et al.*, (1979: 98) states that while evidence for the XIIth Dynasty period is limited, the evidence that does exist suggests that it was primarily a military occupation at Buhen during this period. The Middle Kingdom artefacts recovered at the site are primarily weapons, personal objects, seals and other administrative items and ceramic vessels for both cooking and storage (Emery, *et al.*, 1979: 98). From this evidence, Emery, *et al.*, (1979: 98) reasoned that the population at the site during this time period was mainly a male military garrison with little or no presence of wives and children or any civilian population except for members of the administrative bureaucracy.

By the late XIIth Dynasty into the beginnings of the Second Intermediate Period (c. 1650 BC) the artefactual evidence indicates “increasing evidence for the presence of women and children, for family life, and for a local community supporting itself” (Emery, *et al.*, 1979: 98). I believe it reasonable to suggest that, as time went on, the establishment of permanent garrisons encompassing both troops and logistical administrative support also required extensive settled domestic support as well. Evidence from the XIIIth Dynasty and the Second Intermediate Period indicates that there was “increasing evidence for the presence of women and children, for family life, and for a local community supporting itself” (Emery, *et al.*, 1979: 98). Larger quantities of weapons, tools, personal and toilet objects and toys were recovered as well as personal dedicatory stelae. Cemeteries were established west of the fortress for the use of the increasing Buhen community (Emery, *et al.*, 1979: 98-99).

There are what appear to be domestic dwellings in both Blocks H and I that perhaps could have been used for family housing. It is possible that transient peoples or some commoners

were not housed in the inner citadel at all, but may have had some type of housing outside the inner citadel, but within the outer defensive walls. If this was the case, the housing may have been temporary at best, for as Kemp (2006: 235.) notes, “No traces of housing were found during its excavation, and so the entire western side of the outer enclosure might have remained open space.”

Certainly, soldiers lived with their families at Kahun as the literary evidence shows (see Parkinson, 1991a: 111-112; Kemp, 2006: 221), although Kahun was in Egypt proper and a soldier’s duty there was more as a local town guard or body guard for the vizier or pharaoh when in residence. However, as Buhen became more established in the later Middle Kingdom and became more of an administrative centre of the web of fortress in the area of the Second Cataract, it seems reasonable that the garrison became more settled with the comforts of family life as well.

In the preceding section, I noted that there was not at Buhen a complex cross-section of skilled and unskilled civilian professions such were found at Kahun. Consequently, in the absence of skilled professions such weaving where women often were in positions of authority, I suggest that women were largely subordinate to men as was generally the case in the Middle Kingdom standard (see Allan, 2000: 33; also Grajetzki, 2006: 139). It thus seems likely that social standings among women would have been associated with the status of their husbands within the military hierarchy.

Considering a military standpoint Lawrence (1965: 72) proposes that in times of emergency male civilians and even the women could be used to augment the professional soldiers of the garrison in some capacity. He further suggests that a commander would likely have distinguished between the importance and value of trained soldiers over the combat capabilities of tradesmen and other civilians pressed into emergency defensive service (Lawrence, 1965: 76). I think it is reasonable to suggest that, at least among the military administration, social importance and status may have had a tie to an individual’s military value.

Ethnic hierarchies

A small community of Asiatic foreigners lived at Kahun during the Middle Kingdom (see Szpakowska, 2008: 13) and while their presence was noticeable in the unique burials there, the culture at Kahun was overwhelmingly Egyptian in nature. At Buhen, however, the interaction of Egyptians with foreign peoples of a different racial group was deliberate and unavoidable to the extent that Nubians did have an impact on social life at Buhen. This interaction operated on two distinct levels: the official, political stance toward subjugated foreigners, and the day to day social and cultural interactions of individuals.

The official inscriptions portray the Nubians as wretched, weak and unwilling to engage in battle with a determined foe. The well-known *Boundary Stela of Senwosret III* clearly defines the Egyptian viewpoint:

... I have made my boundary, out-southing my forefathers.
I have exceeded what was handed down to me.
I am a king, whose speaking is acting;
what happens by my hand is what my heart plans;
one who is aggressive to capture, swift to success;
who sleeps not with a matter (still) in his heart;
who takes thought for dependants, and stands by mercy;
who is unmerciful to the enemy that attacks him;
Who attacks when attacked,
and is quiet when it is quiet;
who respond to a matter as it happens.

For he who is quiet after attack,
he is making the enemy's heart strong.
Aggression is bravery;
retreat is vile.
He who is driven from his boundary is a true back-turner,
since the Nubian only has to hear to fall at a word:
answering him makes him retreat.
One is aggressive to him and he shows his back;
retreat and he becomes aggressive.
Not people to be respected -
they are wretches, broken-hearted!
My Person has seen it - it is not an untruth;
for I have plundered their women, and carried off their underlings,
gone to their wells, driven off their bulls,
torn up their corn, and put fire to it. ...
(Parkinson, 1991a: 43-46).

Clearly the Nubians were not officially respected and the way to deal with them was to adopt an aggressive posture towards them. Not only were the Nubians and other enemies to be defeated by force of arms, but by magical means as well. Execration texts inscribed on figures purportedly found at Helwan (Parkinson, 1991a: 125) curse a specifically troublesome Nubian chieftain, the Medjai, as well as Nubians in general.

The ruler of Makia, (called) Wai,
born of his mother, of whom it is said a (mare) calf.
All people, all patricians, all the folk,
all males, all eunuchs(?), all females,
all officials.
and every rebel who plans to rebel
in this entire land:
all the Medjai of Webat-sepet;
all the Nubians of Wawat and Kush,
Shaat and Beques,
[their] heroes, [their] runners, all the Egyptians
who were with them,
all the Nubians who were with them ...
(Parkinson, 1991a: 125-126).

The foregoing texts are examples of the official state pronouncements against the Nubians on the southern Egyptian border (Parkinson, 1991a: 118). Not too surprisingly, this official state view was evidently embraced, at least in part, by individual soldiers involved in military campaigns against Nubians.

Graffiti inscriptions from Gebel el-Girgawi from about the same time frame as the above cursing ritual (see Parkinson, 1991a: 118, 125) demonstrate the status of Nubians in the eyes of the Egyptian soldiers during the Nubian campaigns of Senwosret I. A rough inscription by Ibes, son of Id, son of Ibes laments:

“... With the army I travelled downstream. There was no fighting; I shall not bring a Nubian back [as captive] from the land of the Nubians” (Parkinson, 1991a: 95).

A second inscription by Intefiqer boasts:

“This enclosure was being built, then I slaughtered Nubians and all the rest of Wawat. Then I went upstream in victory, slaughtering the Nubian in his (own) land, and came back downstream stripping crops, and cutting down the rest of their trees so that I could put fire to their homes, as is done against a rebel against

the king. I have not heard of another trooper doing the like” (Parkinson, 1991a: 95-96).

Not only does Intefiqer claim to have devastated the Nubians, but his treatment of them indicates he considers them like rebels who have challenged the king’s ‘legitimate’ authority in Nubia.

The Hymn to Senwosret III assures its Egyptian audience that the pharaoh will allow his people to sleep soundly in their beds, shelter them from enemies and protect the boundaries of the kingdom.

How great is the lord of the city:
low, he is a chamber,
letting a man sleep till dawn! ...

How great is the lord of the city:
Lo, he is a shelter,
rescuing the fearful from his enemies! ...

How great is the lord of the city:
Lo, he is a Sekhmet
against his enemies who have trodden on his boundaries!
(Parkinson, 1991a: 46-47).

The *Boundary Stela of Senwosret III*, the *Hymn to Senwosret III*, as well as the less official inscriptions give a certain ideological picture of the Nubians and of the pharaoh’s power against them. Marx clearly believed that ideology promotes a false consciousness (see Marx and Engels, 1848/1977a: 230) that is used by the ruling classes to suppress the lower classes or social inferiors. In his work, *The German Ideology*, he states:

“The phantoms performed in the human brain also, necessarily, some were mates of their material life-process, which is incorrectly verifiable and bound to material premises. Morality, religion, metaphysics and all the rest of ideology and their corresponding forms of consciousness no longer seem to be independent. They have no history or development” (Marx and Engels, 1845/1977b: 164).

For Nubians, the official descriptions or even the graffiti, made it clear that not only would uprisings or warlike incursions into Egyptian territories be met with brutal force, but that the prospect of Nubian success in such operations was impossible. Although Nubians may have read the boundary texts, Smith (2003: 171-172) points out that they were not the target audience. The “imperial ideologies” contained in such texts were aimed at the Egyptian

population. For the Egyptian audience, such official texts exalted the irresistible power of the Egyptian king. Nubians are wretched and pharaoh's rightful domination of both them and his Egyptian subjects is part of the official Egyptian worldview.

On the surface, it seems that Marx has a point, but I question if the situation is as simple as Marx implies. Does mere ideology cause people to submit to and accept authority? Singer suggests not:

“Yet desires for status and power exist in many human beings, in a range of different societies. They tend to surface despite repeated efforts to suppress them. No society, no matter how egalitarian its rhetoric, has succeeded in abolishing the distinction between ruler and the ruled. Nor has any society succeeded in making this distinction merely a matter of who leads and who follows: to be a ruler gives one special status and, usually, special privileges” (Singer, 1980: 95).

I would go so far as to add that, regardless of ideology, it is difficult to get people to follow someone they do not perceive as having some capacity for capable leadership from the start. I submit that leaders who are perceived as competent actually garner special status and privileges as by-products of the trust given to them by the public. Over time these may become almost a self-perpetuated aspect of the continued perception of competent kingship.

Smith (2003: 169) rejects the notion that the Egyptians were a “population of ‘dupes’ in the classic Marxist view” who “cheerfully absorbed the subordinating message”. On a more personal level, Smith has made the case that Egyptians and Nubians not only lived and worked together, but that there was considerable cultural exchange along the southern frontier.

“Egyptian and Egyptianized frontier communities did more than simply implement central policy. Individual agency weighs more heavily than the dictates of administrators and ideologues in the day-to-day interactions that characterise frontier life. In spite of the politically charged ideology of separation and ‘otherness,’ Egyptians and Nubians interacted and apparently intermarried at Askut and Tombos. ... In a similar way, the men and women who forged frontier communities like Askut influenced the trajectory of Egyptian-Nubian relations by adapting to changing geopolitical developments and forging ties that crossed the seemingly absolute boundaries established by colonial administrators (Smith 2003: 205-206).

While Smith (2003) focused on the New Kingdom (1550-1069 BC) era in his work at Askut (see Map E), evidence from the Middle Kingdom (2055-1650 BC) showed there were similar influences at work during that time period as well.

The Egyptians were in contact with a Nubian population called the Medjai as early as the Old Kingdom (2686-2160 BC). These people may originally have been herders who practised some subsistence level farming, but the Egyptians quickly came to admire their military skills. The Medjai knew the desert well and they evidently had a reputation among the other local peoples. Their co-operative nature allowed the Egyptians to employ them with some success as military auxiliaries and police (Fairservice, 1962: 92). By the time of the Middle Kingdom, contingents of Medjai auxiliaries were included in the garrisons of the forts in the Buhen region (Fairservice, 1962: 104).

At Askut, Smith (2003: 117) was able to identify three distinct areas of social division, those being the elite residences, the barracks and the southeast sector which was used for storage and food preparation. Nubian influences in the form of cooking pots were lacking in both the elite residences and the southeast sector, but were abundant in the barracks area. During the early occupation of the fort, Nubian influence was negligible. By the mid to late XIIIth Dynasty (c. 1775-1650 BC) pottery indicated rapid expansion of Nubian influence and this continued to grow through to the end of the Middle Kingdom (Smith, 2003: 118). Nubian “service vessels” were, however, found in significant numbers associated with the commandant’s house. From this Smith (2003: 117) reasoned that “social position seems to exert considerable influence over the nature and distribution of Nubian influence at Askut”.

Emery, *et al.*, (1979: 185-188) recorded twenty types of Nubian pottery at Buhen. There were forty-two beaker-ware vessels of Kerma origin. There were also thirty-three large, hand-made, bellied jars of Kerman design. The aforementioned pottery types contrasted with those that had associations with the Lower Nubian, C-group peoples. Four hundred and twenty bowls were recovered of red polished or red polished, black topped ware. The other twenty pieces were divided between other types of bowls or cups and red polished, black topped jars with bulbous rounded bases (Emery, *et al.*, 1979: 187-188). Emery believed that this pottery assemblage could be dated to the Second Intermediate Period (1650-1550 BC) although, in light of Smith’s work at Askut, I question whether this pottery could have arrived at Buhen earlier in the Middle Kingdom since contacts with the local Nubian population had certainly

been established since the times of Amenemhat I (1850-1550 BC) and Senwosret I (1550-1250 BC) (see Parkinson, 1991a: 95,125).

The preponderance of stratified Nubian pottery was found in Block J (Emery, *et al.*, 1979: 185-188) although one sherd of Type 7 (open bowl, hemispherical base, concave-convex profile; red polished, black topped Kerma or C-group ware - Emery, *et al.*, 1979: 186) was recovered from House G, Block C. The pottery inventory associated with Block C also lists sherds of incised Kerma-ware and C-group-ware as having been recovered from each house area, but evidently these sherds were surface finds whose dates and original provenances were unknown (Emery, *et al.*, 1979: 64). If Emery and Smith (1979) are correct in their assessment of the activity areas of the inner citadel, the bulk of this pottery came from an area that was used for lower class housing. This suggests that the Nubian population may have been identified with the lower social strata at Buhen.

The selected study area and social class

At Buhen we have the advantage of being reasonably confident that the study area was in fact a residential area unlike that of Kahun where for one of the study areas, the 'house and cellar' specifically, the actual usage is uncertain. Block C was composed of eight structures. These houses were more elaborate than those in the workmen's quarter at Kahun, but were certainly not on the scale of the mansions there. Based on their floor plans, I would classify Houses A - C and E - G as upper class residences.

House A contained items associated with food preparation such as pink-ware pottery hob fragments, a red sandstone bowl or perhaps mortar and what may be a pottery pot lid. Personal items included jewellery, such as blue faience beads, and cosmetic items such as an alabaster kohl pot and an alabaster toilet vessel (see Appendix 4). There were clay figurine fragments which could have been from toys or votive figures, but the buff-ware pottery Anubis suggests the possibility of some personal household religious observance. There was also the head of a black basalt statue recovered from this house. Whether this was its original provenience or what its purpose was is difficult to determine. The only tool associated with House A was the head of a drill made from basalt. The associated pottery included narrow jars of buff or red-brown ware, frequently with red or cream slip; bellied jars of buff or red-

brown ware, several with cream slip; various bowls and dishes, frequently of red or brown ware; some Qena ware with pink slip and numerous examples of pot stands of red-brown, brown or buff ware, some of which were slipped (see Appendix 4).

While House B was of a similar size to House A, very little artefactual evidence except for pottery was found there. Even so, the excavation team recovered fragments of papyrus sealings that appear to be either XIIIth Dynasty (1773-1650 BC) or perhaps the Second Intermediate Period (Smith, *et al.*, 1976:26). Smith, *et al.*, (1976:26) speculated that this perhaps provided evidence of commercial activity. The pottery found in House B included a narrow jar of red-brown ware with red mat slip; a two handled jar with pointed base of red or red-brown ware with cream slip; several bellied jars, various dishes and bowls mostly of red-brown ware and slipped red, cream or mat pink and pot stands of brown ware. There was also one example each of grey ware and buff ware pot stands (see Appendix 4).

House C, like House A, had several food preparation artefacts such as fragments pink-ware pottery hobs showing traces of burning and a fragment of a grey granite, footed dish. There were items of personal adornment recovered in this house in the form of a number of blue faience beads and an ivory pin fragment. Again like House A, the only work related item found was part of a flint flake point. There was the head of an animal figurine of baked clay which could have been part of a toy or perhaps part of a less expensive clay model after the fashion of the Maketra wooden models (Emery, *et al.*, 1979: 147 also see Tooley, 1995: 12). One of the more interesting pieces in House C is the right hand fragment of a limestone funerary stela which lists the standard offerings and gifts of bread, beer, oxen, fowl and so on that Horus of Buhen would give to the deceased. Smith, *et al.*, (1976: 12) suggests this is a XIIth Dynasty (1885-1773 BC) piece, although he does not dismiss the possibility of an XVIIIth Dynasty (1550-1295 BC). There was also another small irregular sandstone stela with a crude drawing that Smith, *et al.*, (1976: 12) attributes to the Second Intermediate Period (1650-1550 BC). The pottery recovered from House C includes several narrow jars of red-brown or brown ware and three of grey or buff ware; several bellied jars or red or brown ware; one bellied jug with a single handle of brown ware, slipped dark red; numerous bowls and dishes of red, brown, or red-brown ware, many with polished red slip and pot stands of red-brown, brown, buff ware (see Appendix 4).

Directly northwest of House A was House E. This particular property contained similar food preparation artefacts such as pink-ware pottery hob fragments that show traces of burning; a mud jar stopper with flange; an inverted rim alabaster bowl fragment of possible large dimensions and a fragment from a possible unbaked pottery vessel. Two items that suggest interior decoration were the base of a bright blue faience cylinder vase showing black exterior design and a basal fragment of a limestone cylinder jar that suffered burn damage. The personal artefacts recovered in House E are again similar the ones recovered from the houses already described. There were beads of blue faience as well as mud beads; a single limestone bead; a small faience plaque inscribed with the relief of hare; a pyramidal sandstone object; fragments of or whole pink-ware female figurines; a clay figurine of a woman and a copper pin. Tools from House E included a pink-ware pottery scraper, a pottery axe-head that may have been more for show than for actual work and stone tools such as a hard red sandstone grindstone, a pear-shaped limestone pounder and a squat cylindrical basalt hand-hammer.

House E also contained the fragments of three stelae. These contained even more information than those found in House C. The first was probably of XIIIth Dynasty (1773-1650 BC) origin and along with the typical offering formula, it mentioned the deceased man's name, *the scribe in charge of the seal of the treasury, Siamun* and his brother who dedicated the stela, *the scribe of the treasury Irigemtef* (Smith, *et al.*, 1976: 9). The second stela, probably from the XIIth Dynasty (1985-1773 BC) was similar in textual content except for the deceased man's name and title, *the chief of the flotilla Neferu* and that of his mother, *the Lady of the house Mereret* (Smith, *et al.*, 1976: 10). The third, likely from the XIIth Dynasty (1985-1773 BC), was less complete, but mentioned *The liege man Irer* and *The liegeman Iniotef whom the Lady of the House Teti bore* (Smith, *et al.*, 1976: 10).

The amount of pottery found in this house was reasonably large and included a jar with a pointed base of red ware with cream or red slip; several narrow jars with pointed bases or red-brown or buff ware; forty seven, two handled jars of red or red-brown ware with cream slip; eleven other two handled jars with small flat bases and concave necks of buff ware with cream slip; a number of large bellied jars of red-brown ware; several other bellied jars mostly of red-brown or brown ware, some of which were slipped; five hundred and thirty-two jars with flat bases of course brown ware; numerous bowls of red, red-brown, brown or buff ware, many of which had mat pink or dark red polished slips; several decorated bowl with either painted or applied decoration; one hundred and twenty-nine tubular vessels that are open at

both ends, made of course brown ware and a number of pot stands of red-brown or brown ware (see Appendix 4).

House F was adjacent to House E and like the other houses in Block C contained food preparation artefacts which included a pink-ware pottery disc that could have been used as a pot lid; fragments of pink-ware pottery hobs with evident burning; a fragment of a large, coarse red sandstone platter; a schist bowl with a missing loop handle and a burnt model mud bowl. No domestic furniture had been recovered in the other houses, but a curved piece of wood was found in this house that is very likely part of a head rest. Personal items are similar to those found in the other houses. A fragment of basalt kohl pot with a missing rim; blue faience beads; a single blue glass bead that is probably from a later period; a small burnt clay object, black in colour that is a possible game piece are all items that fit within this classification. In the way of tools, a burnt pottery axe head similar to the one found in House E was recovered from this house as well as a flint flake point worked on one side and a flint scraper that was also worked on one side. As with Houses C and E, House F also contained a fragment of an offering stela, but it was of uncertain date and only the words . . . *revered before* . . . were extant (Smith, *et al.*, 1976: 11). The pottery finds were similar to the other houses including several two handled jars; three bellied jars of various types; a number of jars with flat bases, all of course brown ware; two, two handled jars with flat bases, concave necks made of buff ware with polished cream slip; a selections of dishes and bowls, some of which were slipped with painted decorations. What was a bit unusual was that few pot stands were recovered from House F. The few that were found were made of red-brown ware (see Appendix 4).

The last of the larger houses in Block C was House G. Kitchen type items included the usual fragments of pink-ware pottery hobs, but also a fragment of a fine pink granite, oval shaped, round based, stone with a flat upper surface that was evidently used as grindstone and some fragments of a blue faience bowl. Items of personal use were blue faience beads; glass beads of blue, red or black glass which were probably from a much later period; a bone bead; a single alabaster bead; a fragment of black and white porphyritic rock, oval in shape with a shallow central depression that appeared to have been used as a palette; a sandstone mortar fragment with traces of red ochre inside that was probably used for pounding pigment and a fragment of an alabaster toilet vessel.

The only real military item, half a limestone mace-head, found in association with Block C was found in this house. Once again, a pottery axe head was present. A fragment of a crudely worked model tortoise or turtle made of yellow sandstone; a clay figurine, probably a cow; a clay figurine or fragments of a woman; a crude baked-clay model, apparently someone seated in carrying chair or portable shrine that I suggest may be an attempt to locally produce models along the lines of the Meketra models. There was also a pink-ware pottery soul-house along with a hard, red Nubian sandstone stela fragment attributable to the early XIIth Dynasty (1985-1773 BC) (Smith, *et al.*, 1976: 10) and an egg shape lump of mud with nine trial seal impressions, dating to the mid to late Second Intermediate Period (1650-1550 BC) (Smith, *et al.*, 1976: 27).

The small collection of stone tools recovered consisted of a limestone plumb-bob; a broken quartz hand-hammer of rough spherical shape and a fine pink-granite hammer stone that was roughly spherical. There were also several unidentified stone items as well as an unidentified piece of wood with pointed ends and holes pierced in each. The corpus of pottery found in House G consisted of several jars with pointed bases either of red ware with cream slip or red-brown ware with mat red slip; seventeen two handled jars with pointed bases of red or red-brown ware and cream slip; five two handled jars with round bases made of buff ware and cream slipped; several large bellied jars of buff or red-brown ware, usually with cream slip; two hundred jars with flat bases, some with convex sides of coarse brown ware; a number of dishes and bowls, mostly of red-brown or buff ware and polished red slip although there were some with mat pink slip; a smaller number of flat footed, red-brown ware bowls with polished slips of red or cream and black or red painted decoration and small number of pot stands, most of unrecorded ware. One unusual item was a single Nubian bowl of red polished, black topped Kerma ware (see Appendix 4).

Houses D and H were unlike the other houses in Block C. Both were smaller and the floor plans were simpler. I believe the floor plan suggests that House D was probably a residence, but likely for servants. In House H, only room 2 was of a size that could have been used. The other three rooms might have been useful for storage. I reason that the floor plan of House H suggests that while it perhaps could have been used as a dwelling, a more likely use would have been as an administrative office or work/storage place.

Little artefactual evidence was recovered from House D. Surprisingly, no food preparation items were present. Only the head of a pottery duck and a sandstone fragment of a possible female figurine were found. The pottery corpus consisted of a narrow tubular vessel of grey or buff ware; a narrow jar of red-brown ware slipped mat red; several bellied jars of red-brown ware; several bowls and dishes of red-brown ware slipped and polished red and pot stands of red-brown ware or course brown ware (see Appendix 4).

House H did contain several food preparation artefacts in the form of a clay disk with a centre hole that could have been a pot lid; fragments of a pottery hob that showed traces of burning and a fragment of a shallow black granite bowl. There was one blue faience bead recovered as well as a red painted pottery axe head with signs of burning. Unlike House D, there was a fair amount of pottery associated with House H. The pottery included a number of bellied jars of various types and over a hundred bellied jars with flat bases and of course brown ware. There were fifteen, two handled jars, ten of which had pointed bases and were red or red-brown ware and cream slip. Three others were the bellied type with rounded bases, made of buff ware with cream slip while the remaining two had flat bases and concave necks and were of buff ware with polished cream slip. There were a number of small bowls mostly of red or red-brown ware with red slip. Once again there were the tubular vessels with open ends which may have been pot stands as well as the conventional pot stands as found in the other houses. One anomaly was that nineteen sherds of a Tell el Yahudia ware juglet were recovered from this house.

There were two other artefacts recovered from Block C that were not found within the parameters of the houses. A female figurine made of unbaked mud was recovered from the passage between Houses G and H. A pottery scraper made of buff ware was found in the courtyard south of House H.

Having examined the artefactual and ceramic data, I believe a strong case can be made that Block C was essentially residential space for the administrative elite of Buhen. Most of the residences contained artefacts pertaining to cooking and there were personal items, not the least of which was bits of jewellery in the form of blue faience beads. There were also toiletry items such as kohl pots and grinding stones for pigment. There were some tools present, but these were minimal. Clay and some mud figurines of both humans and animals were recovered, but we cannot be certain whether these were toys or actually local attempts at

producing models on the order of the wooden models that were common in Egypt during the Middle Kingdom. Tooley (1995: 19) writes that clay or pottery models, soul houses and the like were usually owned by the “labouring and lower classes” and this was indeed probably the case in Egypt, but I question whether this would necessarily have been the case in a remote area such as the southern frontier.

More directly, the discovery of offering stelae in Block C, if the provenience is correct, would seem to confirm the upper class status. Titles such as ‘*The scribe in charge of the seal of the treasury*’, ‘*the scribe of the treasury*’, ‘*the chief of the flotilla*’, ‘*the liegeman*’ and ‘*the Lady of the House*’ are not those that are given to lower class individuals. These were people who had important duties such as management of the fleet and financial matters at Buhen. Even the female title was one of social respect.

In general, the ceramic corpus was a reasonable mix of storage vessels and service dishes. The storage vessels were frequently of coarse brown ware, but the service dishes and bowls were largely of red or red-brown ware that were slipped and frequently polished. What is more telling about the socio-economic level of Block C was the presence of finer bowls of red-brown, brown or buff ware that were slipped and had applied or painted decorations. I submit that this is consistent with the interpretation of this area having been occupied by the more upper class elements at Buhen.

From a more phenomenological perspective, I would point out that in addition to the physical evidence, the location of Block C may well have been one of the most desirable areas within the inner citadel. Block C was at the front wall of the fort, along with the commandant’s palace. This would have been the safest place in the fort since it was protected landside by the outer works and main interior fortress wall and attackers from the river would have to fight through the barracks and civilian domestic areas in order to reach it. Furthermore, unlike Kahun, there was no dividing wall that segregated the working men’s quarters from the affluent ‘mansion area’. It is conceivable that the absence of such a visible sign of separation could have fostered a less noticeable perception of social division at Buhen, but I suggest that the security factor, the close proximity of Block C to the socially elite commander’s palace and the pervasive military command structure would have had an impact upon class perceptions among the inhabitants of Buhen.

Conclusions from the Buhen Case Study

There are interesting comparisons between Kahun and Buhen. Kahun was a larger settlement with a large corpus of artefacts, but inadequately recorded by today's standards. Buhen was smaller with a good corpus of artefacts, but while the recording was better, it was still lacking in stratigraphic notation. Kahun was a thriving civilian settlement with a variety of civilian occupations. Because of this, Kahun was reasonably self-sufficient. Almost everything at Buhen was oriented to supporting the military mission of garrison. Hence, there does not seem to be the variety of occupations nor the industrial complexity at Buhen that there was at Kahun. It appears that Buhen was dependent on Egypt for much of its grain and even material culture.

Socially, the same basic models would apply at Buhen as at Kahun, but with several differences. One can readily see the typical social differentiations of an elite class, a mid-level bureaucracy and a commoner or lower class. I suggest the social matrix would not have been intricate at Buhen simply because of the more focused purpose of the fortress. Lastly, I suspect that because of that purpose, soldiers may well have had a higher social status at Buhen than they would have had at a civilian settlement such as Kahun.

In regard to the case study and the application of the Pluralistic Contextual Approach one major hindrance was the lack of stratigraphic recording. Much more could obviously have been done in the way of interpretation had this part of the archaeological record been preserved. No botanical samples were evidently collected at Buhen which made it almost impossible to ascertain much about the specific site catchment area in the Buhen region. Fuller artefact descriptions (i.e. species of wood for wooden artefacts) would have been helpful.

I have previously stated that I believe that the Pluralistic Contextual Approach can be a useful tool in determining shortcomings in the archaeological record and what types of information need to be recovered or obtained in future work. In this case, I believe the shortcomings have been made clear, but since no further work can be done at Buhen, this evaluative component can provide no solution for the future. In spite of these shortfalls in the archaeological record, I believe this interpretive methodology has still provided some insights into the social situation at Buhen.

Area, floor plans and architectural features suggest the buildings in Block C were for upper class housing while other blocks appear to have been used as administrative offices, storage areas, workshops or lower class domestic quarters. If usage assessments for the various blocks within the inner citadel are correct, they suggest that not only did defined social and class structures exist, but that the town design fostered the social divisions between leaders and their soldiers.

Buhen's inner citadel could be divided into three sections. The northwest section, Blocks A, B and C, contained upper class administrative offices and housing. The central section, Blocks D, E and F, was likely used for storage and workshop space. The southeast section, Block G likely provided administrative offices for the temple while Blocks H and I, provided work space, storage areas and housing for commoners and military dependents. This spatial arrangement parallels the findings of Lehner (2004) and Smith (2003) at other forts in the Second Cataract region.

Of the two class system models presented, "traditional" and "Szpakowska, (2008)", the spatial arrangement at Buhen favours the Szpakowska model of elite and lower classes with the possible inclusion of an initially transient middle class.

Within the military hierarchy, the status of a soldier was contextually dependent upon the individual. Considerations that may have impacted a soldier's status include: professionals/temporary conscripts, veterans/recruits, infantry/skilled archers, army/naval forces and most obviously, officers/other ranks.

Artefactual data shows that many crafts were represented at Buhen, but it appears these crafts were practised for repair or maintenance purposes or for specific military supply. If soldiers, particularly conscripts, had skilled vocational training prior to their enlistments, their civilian professions may have affected their social standings. However, since militarily useful trades were necessary for operations at Buhen, skilled workers may have experienced less social exclusivity than in civilian settings.

Archaeological evidence suggests that during the early Middle Kingdom, the Buhen population was mostly military with few indications of women or children. The population

dynamic during the XIIIth Dynasty and Second Intermediate Period changed to include both women and children.

The restricted cross-section of civilian professions at Buhen and the absence of female dominated crafts such as weaving suggest that women may have had less influence in Buhen society and their social status may have been linked with that of their husbands. Considering that Buhen was first and foremost a military installation, the idea that an individual's social status and importance may have been linked to his military value does not seem an unreasonable suggestion.

Ethnic hierarchies and the inevitable social interactions that took place between Egyptians and Nubians were affected by both the official political position toward foreigners and individual perspectives. While official political writings may have influenced Egyptian social attitudes, Smith (2003: 169) explained that Egyptians did not unquestioningly accept official ideologies as classic Marxist views might suggest. Analysis of the pottery corpus from the inner citadel indicated that the bulk of Nubian pottery was recovered from areas that were used for lower class housing, thereby suggesting that Nubians were part of the lower social classes.

In regard to the selected study area and social class, the houses in Block C were more sophisticated than the worker's houses at Kahun, but not as extensive or large as the mansions there. Artefactual data support the interpretation of Block C having been housing for the administrative elite of Buhen. Titles written on offering stelae found in Block C appear to give further confirmation of its upper class significance. The mix of storage and serving vessels from Block C and the presence of a number of fine slipped bowls, some of which had painted decoration suggest a higher standard of living. Phenomenologically, while Block C was not walled off from lower class areas of the inner citadel, as was the elite area of Kahun, the desirability and security of Block C's location within the inner citadel likely influenced perceptions of class among Buhen's population.

CHAPTER SEVEN

Summary and Conclusion

Introduction

It seemed to me that the place to begin this dissertation was to first state the problem within Egyptology as I saw it. I drew upon my own personal experiences of having worked alongside archaeologists who came from anthropological backgrounds and with different periods of interest. Their criticisms concerning Egyptological field methods, over dependence on textual sources and the seeming disregard of Egyptologists for theory, while sometimes over-exaggerated, did have some veracity. Much has changed over the years, but I believed that more could be done to inject theory and better interpretive methodology to Egyptology.

I was curious to see if there was any verifiable evidence for making claims that Egyptology was lagging behind other branches of archaeology in regard to theory and interpretive method. It seemed that a reasonable course of action would be to compare several sets of journals from different fields to see if there were any discernable trends that would confirm or negate such claims. I chose *The Proceedings of the Prehistoric Society* (PPS), *The Journal of Roman Studies* (JRS) and *The Journal of Egyptian Archaeology* (JEA) as the best choices for comparison.

The reasonably long publication histories for each of these journals allowed me to gage the changes and interests in interpretive theory over a prolonged period. The basic results of the comparison were that there was a general increase in theory articles in the PPS from approximately 1950 onward while almost no articles that I would judge to be on interpretive theory have appeared in either the JRS or the JEA over their respective publication histories up until 2005. I believe this provided strong support for the claims that in regard to Egyptology, theoretical interpretive methodology has historically lagged behind other branches of archaeology.

As a result of the journal research, my task was then to examine just what conditions had occurred in the historical development of Egyptology to cause this situation. My next concern was then to see if I could construct an effective interpretive methodology for use on

archaeological sites in Egypt. Lastly, I determined to include two case studies in this dissertation to test the efficacy of my method.

The 20th Century to the Present

I started Chapter One by writing a basic synopsis of the development of Egyptology throughout the latter part of the 19th Century noting that, although there were some German archaeological expeditions to Egypt, British and French officials essentially controlled the administration of Egypt under the auspices of the Khedive. As a result, separate departments of Egyptology were established in British, French and German universities. During the latter decades of the century, British journalist and traveller, Amelia Edwards, popularised the works of both Henri Naville and William Flinders Petrie, and founded the Egypt Exploration Fund. Perhaps even more importantly, she endowed a chair of Egyptology at the University of London with the provision that the position should go to Petrie. In this capacity, Petrie embarked upon a career that would change not only Egyptology, but archaeological excavation methodology as a whole.

The 20th Century not only marked a new era in Egyptology, but there were also sweeping changes in the general field of archaeology in regard to method and theory. Petrie's ideas about archaeological method, the importance of recording and seriation dating created the first real systematic excavations in Egypt. His methods even impacted other branches of archaeology. One of the real differences in Petrie's work was that he did not concentrate his excavation efforts on locating and recovering texts, but was interested instead in how material culture could be used to understand Egyptian culture and history. While Petrie's work may seem antiquated today, it was far advanced for its time and it influenced a number of young archaeologists, such as Brunton, Wainwright, Quibell and Caton-Thompson who would carry on his work well into the middle of the century.

Of course, Petrie and the British were not the only ones contributing to the development of systematic archaeology in Egypt. Reisner, an American, was even more exacting than Petrie in regard to field technique and recording. His work was exemplary and it was unfortunate that he had few, if any, students that followed him into the field of Egyptology (Dawson, *et al.*, 1995: 352). Other Americans who were on the cutting edge of Egyptology at the time were Davis and Winlock. Not to be outdone by the British and Americans, the German,

Borchardt, and Frenchmen, Chevrier and Bruyère had also been developing systematic techniques.

My research indicated that this innovative period in Egyptology did not last much beyond 1935 and a lull then set into the field. This can be partly explained by the fact that new interpretive concepts were being introduced into archaeology. Culture history in Europe sought to understand and define national and ethnic identities. In North America, it was used to understand native cultures and patterns of diffusion or migration. Egyptology had little relevance to these new researches.

From approximately 1935 to 1960, archaeology underwent startling changes in theory. Childe introduced Marxist concepts into archaeological interpretation. Culture history was eventually superseded by functionalism in the 1950s, which was itself superseded by processual archaeology or 'New Archaeology' of the 1960s. In processual archaeology, the purpose and goal was to explain cultural change rather than to be descriptive.

Within Egyptology, little of this theoretical revolution seemed to have any impact. Even during the UNESCO salvage excavations in southern Egypt and northern Nubia, done throughout the 1960s as a result of the Aswan High Dam project, the methods used by Emery at the Middle Kingdom fortress site of Buhen were not very different from those used by Petrie decades before. Certainly there were important discoveries made between 1935 and 1960, but tomb clearance and the almost over-dependence on textual sources seemed to make irrelevant the need to develop field methodology or to introduce interpretive theory.

From approximately 1971 onward, there was a change in Egyptology. People such as Fairservice, Hoffman and Butzer started looking at Egyptian prehistory in a way that was similar to prehistoric studies in other areas of the world. Egyptologists were developing better field techniques and employing new technologies. Bietak published a seminal article in the *Journal of Egyptian Archaeology* entitled 'The present state of Egyptian archaeology' in which he pointed out the lack of archaeological training given Egyptology students as opposed to philological training.

Regarding the current state of Egyptology, I determined from my research, interviews with Egyptologists currently working in the field and attendance at conferences, that the field

methodologies and techniques used on the best run and best equipped excavations are of comparable quality to other branches of archaeology. Not every excavation is well run and scholars such as Bourriau, Bryan, Quirke and Bietak would like to see further standardisation and more improvements in field techniques. As a solution to the shortcomings that scholars perceive to still exist in archaeology as it is done in Egypt I proposed that an interpretive methodology be constructed that would bring together the elements of textual data, numerous archaeological datasets and pluralistic use of theory into a coherent system of cultural analysis for Egyptian sites.

A Pluralistic Contextual Approach

From 1960 onward the two defining movements in archaeological theory have been processualism and post-processualism. Processualism rejected the culture history and normative models that had been commonly used in archaeology in favour of positivism, science, anthropology and systems theory (Sabloff, 2005: 213; Bintliff, 1995: 24; Hodder, 1986: 1; Trigger, 1989: 297; Binford, 1962: 217, 224; Feinman and Price, 2001:480). Processualism seemed to hold great promise for answering interpretive questions about cultures, but by 1980 some scholars, such as Hodder, Shanks, Tilley and Miller began to offer criticisms of on the perceived short-comings of processualism.

Post-processualism started as merely a critique of processualism, but eventually developed into a full-fledged movement of its own. Post processual archaeologists, many of whom were influenced by Marxist concepts, rejected processualism's quest for all-encompassing systems theory and positivism in favour of interpretation, symbolism, ideology, cognition, historical considerations and agency (Trigger, 1989: 339; Feinman and Price, 2001: 480; Hodder, 2005).

Hodder especially emerged as an important critic of processualism by offering his five critiques of it in his book *Theory and Practice in Archaeology* (1992). In this, he was not alone as Dobres (1999), Joffe (2003), and Trigger (1989) all offered their own criticisms. However, more than 20 years after its inception scholars such as Bintliff (1995), Yoffee and Sherratt (1993) and Kristiansen (2004a) have offered critiques on the deficiencies of post processualism. Over the years both standpoints have had their various defenders or detractors. Since reasonable criticisms have been levelled against both processualism and

post processualism, I asked the question: “Does Egyptology really need the kind of polarization of theory and method as expressed in the processual/post-processual dichotomy?” I believe it does not. I advocate that the wisest course is to use the best of what each has to offer.

Veit (2004: 102) states that it might be difficult to create totally unified processual/post-processual archaeology since each of these has different goals, but Kristiansen (2004b: 120) correctly points out that constructing such a system is not important. We must use “both processualism and post-processualism to examine “interpretive strategies and boundaries” (Kristiansen, 2004b: 120). He further states that processual and post-processual archaeologies can and should be used as complementary rather than as opposite approaches to one another (Kristiansen, 2004c: 179). Baines and Brophy (2006:87) support the creation of a “post-schismatic archaeology” that would use the insights of post-processual archaeology together with the material and the empirical emphases of processual archaeology. Joffe (2003: 86) goes so far as to suggest the creation of a “methodological and philosophical tool kit” that uses a wide range of theoretical positions since no single approach can provide all the answers (also see Joffe, 2003: 90-91). Providing the “toolkit” using a wide range of theoretical positions is precisely what the Pluralistic Contextual Approach is designed to do.

On the surface, it might appear in advocating a pluralistic, inclusive contextual methodology that I was promoting a “holistic” approach to archaeological interpretation in Egypt. Holistic concepts certainly were applied to archaeology and an early attempt to do so was made by Marcus and Flannery in the 1970s (DeMarrais, 2005: 141). However, Popper (1974) and Bell (1994) exposed critical flaws in holism, citing the impossibility of covering and accounting for all aspects of a society or culture and its neglect for the impact of human agency in societal change. Hence, I have taken the position that holism is not useful for building an interpretive methodology in Egyptology.

I considered what important points were essential for a useful and viable system of cultural analysis. Unlike holism, I felt that it was important to recognise that no interpretive approach, no matter how detailed, will be able to account for every facet of a culture. Having said that, it is necessary to use as many different data sets as possible including all available textual information, artistic representations and artefactual data as well as multiple interwoven theoretical positions. Such an approach should be contextual and inductive so that

conclusions are drawn from the analysis of all available data and contexts rather than starting with a conclusion and then using data to support or disprove the position. Lastly, I believe that the concepts of agency and materiality are essential elements in any interpretive methodology. Put together, these factors create the basis for what I have termed the Pluralistic Contextual Approach.

Is there a need for such an interpretive approach in Egyptology? I believe there clearly is. As I have previously mentioned, I believe field methodology has improved greatly over the years to the point that the best excavations are on a par with other branches of archaeology. Egyptologists are using sophisticated technologies and data sets are more complete and better recorded than in the past. Where I believe a problem still exists is the general lack of interpretive theory used within Egyptology.

If true, why is this still the case? After the decipherment of hieroglyphics, scholars concentrated on obtaining and translating texts. There was such a wealth of literary material on nearly all aspects of Egyptian life that excavation of material culture seemed almost unnecessary. Although there was a shift in scholarly thinking after World War II, textual studies still occupied the attentions of scholars more than excavation.

Much current interpretive theory has emanated from the field of prehistory perhaps because, in the absence of written records, material culture becomes all important and theory seems a necessary and useful tool for interpretation. In Egypt, with excavation and material culture having historically been secondary considerations compared to textual studies, scholars perhaps saw little need to develop interpretive theory.

Because of the special conditions associated with working in Egypt, theory must be adapted to those conditions. For example, the sheer volume of material recovered from many Egyptian sites is so staggering that much of the time is spent simply curating and describing the material. Morris (2002a: 264) points out that the specialist knowledge needed to work with Egyptian texts, iconography and archaeological data tends to take precedence over more generalized anthropological principles. There is some concern that excavation costs (Quirke, pers. com., 2007) and the attitudes or priorities of the Supreme Council of Antiquities in Egypt could limit future excavations (Sidebotham, pers. com. 2005), thus perhaps fostering an impetus to excavate while it is still possible and interpret later. Considering these points, I

believe it is imperative to begin now to develop a flexible, interpretive system that will inevitably be necessary for the future of Egyptology.

Developing a Pluralist Contextual Approach

I devoted my fourth chapter to the actual development of the Pluralistic Contextual Approach. Having read Meskell's *Private Life in New Kingdom Egypt* (2002), I was intrigued by the brief framework she provided in her first chapter for her interpretations of Deir el-Medina. In it, she laid out four primary data sources she intended to use that included textual, "iconographic", archaeological sources plus inter-site comparisons (Meskell 2002:7). Her integrated use of these sources produced a valuable and provocative picture of life at Deir el Medina, but it was not without criticism.

In her review of *Private Life in New Kingdom Egypt*, Morris concentrated her criticisms on Meskell's treatment of women's issues, the social status of the peasantry, socioeconomic interpretations of the architecture at Deir el-Medina and textual analysis. According to Morris (2002a: 265), there were some interesting conclusions based on archaeological data, but many were unremarkable, or clearly evident without a need for comment. In some cases she felt that interpretations had been extrapolated beyond the available evidence (Morris, 2002b: 266, 267). Morris's criticisms highlighted questions about Meskell's application of her own framework. Of particular note was her use of text from earlier or later time periods to interpret situations in the New Kingdom when she had previously suggested it was a mistake to do so (Meskell, 2002: 7-8).

While Meskell's application of her interpretive framework could perhaps be criticised, I reasoned that the framework itself could provide the basis for something worthwhile. The main problem I saw in it was that the framework as she presented it in *Private Life in New Kingdom Egypt* was too brief and not well enough developed. I thought the textual, "iconographic" and archaeological datasets were essential for a good interpretive methodology, but the "anthropological" category seemed quite vague. Instead, it seemed reasonable to keep the three basic datasets, provide expanded explanations on how they should be used and substitute integrated theoretical concepts as the fourth component of the methodology. Furthermore, I wanted the Pluralistic Contextual Approach to be an

interpretive method that could be applied not just to one time period, but successfully adaptable to multiple periods and types of Egyptian sites.

I think it is clear that textual data has historically been a primary resource for information on ancient Egypt and perhaps to the point that it has obscured the importance of other data sources. I do not suggest that other sources of information should now be given precedence and textual evidence ignored. To do so would be foolish, but other data sources need to be considered as equally important. There are numerous types of texts including informational, religious, funerary, commemorative and literary or didactic (Parkinson, 1991a: 21) and we need to any of these that are relevant for our interpretations.

Texts do allow us to read what the ancient Egyptians had to say about their own culture, but we do need to realise several important points in regard to their use and their limitations. For various reasons textual sources can be fragmentary or the texts simply did not survive into modern times. Although generally a literate society, many segments of the Egyptian population were still illiterate. Texts were generally aimed at an elite, literate audience with little historical record of the common classes. We must also be wary of ascribing historical accuracy to every text or the fallacy of using texts from disparate time periods to explain Egyptian culture during a specific period as if Egyptian culture never changed over time.

Textual sources have their limitation, but used in conjunction with other data sources, their use is essential to the Pluralistic Contextual Approach. While Egyptologists specialising in language may be aware of the bulk of textual resources available to them, I have advocated the compilation of period specific corpuses of literary materials for each period of Egyptian history as a research tool for those Egyptologists whose training is primarily archaeological. The general literary corpus for a specific time period can then be used as a base that can then be supplemented with site specific texts for interpretive purposes.

Rather than refer to the second data type as “iconographic”, I have renamed it artistic/representational data. Artistic/representational resources include tomb paintings, wooden or clay tomb models, carved reliefs or sculptures and like textual data. These have the potential to provide a sense of how the ancient Egyptians saw themselves and their daily activities.

There are of course limitations to this type of data as well. All the various art forms may well have been idealised depictions of people and events so it is unwise to take everything at face value. Also, there is once again the situation that most of these paintings, carvings, models and statuary were expensive items and therefore still represent elite perspectives. Another point is that the portrayals of technical activities can show aspects or vignettes of those activities, but they cannot be construed as presenting step by step processes.

In spite of the limitations, artistic/representative resources provide an important adjunct to textual information. For the Middle Kingdom period I used a number of different reliefs, paintings and so on, but found the tomb paintings of Beni Hasan were particularly helpful. Also useful were the wood models of Meketra and those from the Tomb of Mesehti at Asyut.

Archaeological data encompass numerous types. The most obvious type is of course artefactual data, but faunal analysis, palynology and botanical analysis, chemical analysis, osteology, architectural evidence, spatial analysis, stratigraphy, geology, experimental archaeology and ethnographic evidence all must be used in a coordinated way to provide interpretations. In common with other data sources, archaeological data have limitations if used by themselves. Datasets may be incomplete or missing entirely from historic excavations such as those done in the early 20th Century and archaeological evidence is also open to subjective interpretations (Meskell, 2002: 11-12). However, informational sources such as those just mentioned, when used in conjunction with textual and artistic/representational data, have the potential to enrich interpretations or fill interpretive gaps where the textual or artistic/representational data are silent.

One of the things I have personally noted in the archaeological reports I have read is the tendency to include detailed specialist reports on ceramics, faunal remains or the like, but these often seem to not be linked with the overall interpretations. I believe that specialist reports must not be seen as ends in themselves, but that the use of specialist reports should be obvious in each interpretation. The information from specialist reports and artefact corpora must be contextually used and by that I mean not only stratigraphically, spatially or organically within assemblages, but also with the context of human activity and intentionality of action.

From the standpoint of methodology, I used Meskell's framework as a basis and then expanded upon it. Smith, in his work *Wretched Kush* (2003), presented a tightly woven methodology incorporating various explicit categories of data to which he then applied theoretical consideration for interpreting the impact of ethnicity on his case study sites of Askut and Tombos. Smith's interpretations were very well tied to his accrued physical evidence and I gained a great deal of insight from his work. However, not all sites have been as well excavated using modern methods as were Askut and Tombos. Shaw (1999) produced a system for recovery of discarded material found in spoil heaps at sites dug in the early part of the 20th Century. While such a system cannot reconstruct stratigraphy, it can allow us to gain better understandings of the actual contents and artefact ratios than were recorded at these sites.

I believe there is great value in experimental archaeology and the information it can provide should be regularly incorporated into interpretive literature. For example, Nicholson (2007b) has done glass making experiments at Amarna which yielded information on process and the likelihood of making glass using the local materials. As interesting as experimentation may be, Nicholson (2007b) warns that it can show only what was possible, not proof of what was done in actuality.

Inter-site comparisons were what Meskell (2002: 12) was essentially referring to when she described the fourth data set of her interpretive framework. The artefact assemblages, stratigraphic and contextual information, architecture information and so on should not in my estimation be seen as a separate data category, but part the greater corpus of archaeological information. Therefore, I have considered inter-site comparison as part of the archaeological data category.

My fourth interpretive consideration for the Pluralistic Contextual Approach was the application of theory to the different datasets. Application of theory is certainly not a new concept. Meskell (1999) has done interpretive work using third wave feminism and McGuire (1992) has championed Marxist interpretations. An individual theoretical standpoint can provide a specific interpretive view of a culture, but that view is only one narrow aspect of that culture. It seems reasonable to suggest that a better idea is to examine and choose a wide range of theoretical options. I must stress that the purpose of selecting multiple theoretical positions is not to separately examine the corpus of data using each one, but to use the theories in an integrated fashion to interpret the compiled data.

I doubt any single theory or even a specific set of theories is universally applicable to every site. Therefore, different sites and different research interests may require different combinations of theories to be used to develop a more varied and richer picture of Egyptian sites. It was not my intention to attempt complete re-interpretations of Kahun and Buhen, but to briefly demonstrate how the Pluralistic Contextual Approach could be applied in each case. In my case studies I limited my interest to what I might learn about social class in the Middle Kingdom. The theoretical positions I thought would reasonably give me the best interpretive chances included agency, materiality, phenomenology, *chaîne opératoire*, taskscape, site catchment analysis, landscape studies, gender archaeology, Marxism and capitalism. In writing the case studies, I integrated these positions with one another as much as possible to make my interpretations about social class at Kahun and Buhen.

The Case Studies in Context

Having chosen Kahun and Buhen as the subjects of my case studies, I decided that I should provide more general background information in a separate chapter so that the case study chapters could concentrate on analysis and interpretation of site specific information. I supplied information on the natural environment of Egypt that included geological, faunal and floral information in order to give the reader some idea of the available resources the residents of Kahun and Buhen may have used.

I felt it was imperative to explain the nature of the two sites I had chosen. As I have previously stated, I chose Kahun for the first case study because it provided a reasonably good Middle Kingdom civilian settlement site parallel to Meskell's use of Deir el Medina. It was a planned town built '*de novo*' initially to house workers employed in constructing Senwosret II's pyramid complex and later to house those involved with the temple dedicated to Senwosret II's, mortuary cult. Furthermore, I was looking to examine a site in Middle Egypt. Kahun, located between the Nile River and the eastern edge of the Faiyum Region, seemed a logical choice.

In order to place Kahun within a proper historical context, I provided a historic overview of the town. This was followed by a summary of previous work at the site. Kahun had been visited numerous times in the 19th Century, but the first systematic work at the site was done

by Petrie in the 1890s. Little other attention was paid to the site until 1991 when the Royal Ontario Museum undertook a survey project there for several seasons.

The second site, Buhen was also a settlement site of sorts, but primarily it was a military fortress. One of my primary reasons for selecting it was that I believed it had the potential to provide social contrasts between an essentially civilian site and one which was overtly military in nature. The Middle Kingdom Buhen fortress was primarily built during the reign of Senwosret I to provide a major garrison and logistical supply centre for satellite forts used to guard and protect Egypt's southern borders with Nubia. One of the other attractive reasons for selecting Buhen was its frontier location which I felt would contrast nicely with Kahun's location in the heart of Egypt. I was also curious to see how the Pluralistic Contextual Approach would work on a site that can never be accessed or excavated again.

As with Kahun, I provided an overview of Buhen's history to help place the site in a proper historical context. This too was followed by a summary of previous work at Buhen. The earliest work at Buhen was done in the early 1800s by a mixed team of travellers and scholars under the leadership of William John Bankes. The site lay basically unmolested until 1909 when an expedition under the direction of Randal-Maciver and Woolley spent several excavation seasons there. The last excavation work at Buhen was done by Emery from 1957 to 1965 as part of the UNESCO salvage efforts associated with construction of the Aswan High Dam.

The Kahun Case Study

Meskel's work, *Private Life in New Kingdom Egypt* (2002), focused on the interpretive potential of Deir el-Medina. In it, she briefly outlined interpretive criteria she intended to use in her examination of Egyptian private life. I assert that, while her work provided an intriguing starting point for an interpretive methodology, an expanded and more fully developed system could potentially provide interpretive insights into Middle Kingdom sites that did not possess the plethora of data that Deir el-Medina had.

That Kahun was a civilian settlement site made it an appropriate choice for study since it provided a Middle Kingdom parallel to Deir el-Medina. Kahun also possessed an abundance of artefactual material as well as architectural evidence, neighbouring mortuary sites and site

specific papyri and texts. Although Kahun had rich deposits of material culture, the lack of recorded provenance for most objects creates an interpretive problem that made it a suitable choice for testing the Pluralistic Contextual Approach.

The lack of information about the provenance of most of the artefacts recovered from Kahun was problematic, but Petrie provided the general locations of some groups of finds. I was limited to using those instances for my study, but I believe those instances were appropriate since my purpose in the case study was not to do a complete re-evaluation of Kahun.

One of the areas where artefacts were linked with a specific building was the 'house and cellar' (see Figures 5-1, 5-2) located in the main section of Kahun. The second site was less securely identified. A group of artefacts which Petrie named "Group No. 9" came from "a house on the south side of the second street from the top, in the workmen's western quarter" (Petrie, *et al.*, 1891: 12-13, Pl. XIII; also see Figures 5-1, 5-3), but he unfortunately did not identify the exact house.

In regard to how these two study areas fit into the overall scheme at Kahun, the 'house and cellar' was located in the south section of the town, behind the southern mansions. I suspected was it possibly used as some sort of support facility to assist the daily operations of the mansions. While the Group No. 9 artefacts were not able to be securely linked to a particular building in the workmen's western quarters, the constructions in this part of Kahun were likely domestic quarters for Kahun's workforce and their dependents.

Egyptian language specialists are very familiar with literary and textual sources from various time periods in Egyptian history, but this may not be the case for a new generation of Egyptologists who have specialised in archaeological studies. As an aid to interpretation, I compiled a basic compendium of Middle Kingdom textual sources that could provide general information about social and historical conditions of the period. These included such works as *The Satire on the Trades*, *The Teachings of Merikara*, *The Teachings of Ptahotep*, *The Loyalist Teachings*, *The Teaching of Duaf's Son*, *Khety*, portions of *The Brooklyn Papyrus*, and the *Letters of Hekanakht*.

It was necessary as well to supplement the general texts with more site specific textual materials. The sources I felt had particular relevance to Kahun included: *A House Census*

From el-Lahun, Temple Archives from Lahun, The Kahun Contracts, The Kahun Medical Papyrus, Inscriptions from Lahun, The Transfer Deed of Wah, Keba's Will, and Ana's Letter.

Representational/Artistic data was an essential part of interpretive material for the Pluralistic Contextual Approach. The Beni Hasan tombs provided excellent information on Middle Kingdom life. Another extremely important information source was the Middle Kingdom wooden models such as the ones found in the tomb of Meketra. These were supplemented model fragments found at Kahun.

Archaeological data from Kahun included not only artefacts but reasonably good botanical samples as well. While this evidence basically fit the parameters of the general inventory of botanical materials that were available to the Middle Kingdom Egyptians, it also included some surprises. For instance, recovered evidence showed that both the dom and argun palms were exploited as food sources at Kahun, but they are not native to the Faiyum region (Germer, 1998: 86-87). This suggests trade connections between Kahun and other parts of Egypt. Also, while barley and emmer wheat were both common food staples in Middle Kingdom Egypt, only barley was recovered by Petrie at Kahun.

In regard to artefactual evidence, there was an extensive artefact corpus at Kahun, that lacked recorded provenance. There were however, the two small areas where artefact provenance was somewhat secure. Therefore, artefact data were divided into three groups for this case study: the 'house and cellar area', the 'group 9' artefact area and the general, unprovenienced artefact corpus.

The Pluralistic Contextual Approach also requires that the forms of informational data be examined from a range of corresponding or interconnected theoretical perspectives. In the Kahun case study, I evaluated the varying theoretical ideas from both processualism and post-processualism and selected those that could be well integrated with one another to provide the best interpretative avenues. The people of Kahun, by their intentional daily actions created the social dynamics of the town. In consideration of this, using the concept of agency seemed an essential component for interpretation. I believe materiality is inextricably linked to agency since it concerns the relationship of active agents and the materials they use (Rowlands, 2004: 198). These relationships can and should be looked at phenomenologically.

Since both males and females were active agents within the Kahun community, gender archaeology was essential to understanding agentic actions and relationships at Kahun. The sequences of actions and processes taken by active agents to produce usable goods create *chaînes opératoires* that can then be meshed with the phenomenological aspects of taskscapes. Site catchment analysis provides information to support our understanding of *chaînes opératoires* and taskscapes at Kahun, but landscape study must be used to provide the phenomenological element that is missing in site catchment analysis alone (see Ingold, 1993: 166, 172).

Because Egyptian men and women produced, used and had relationships with material items, Meskell (2004b) sees Marxism as a valid way to interpret those various materiality relationships. Marxism is one way of explaining how material culture influenced social life at Kahun. It is not, however, the only way of doing so. Capitalism provides yet another perspective for examining the motivations for agents to produce goods, understanding labour divisions within the *chaîne opératoire* of production and the social relationships that resulted (see Smith, 1776a/1999a; 1776b/1999b; Kemp, 1989: 240; Smith, 2003: 65).

Each of these theoretical perspectives just mentioned were specifically selected after careful consideration of how they would work in conjunction with one another and be mutually supportive. The combined interplay of the theoretical considerations was then integrated into the interpretive narrative.

The design of Kahun, with its separated workmen's quarter, does insinuate the existence of a dual class system of elite and commoners. Certainly, the separating wall could have reinforced the concept of separation of the classes. Evidently, the town was built in two distinct phases and the separating wall was probably the original outer wall. When considered in Marxist terms, it is possible to speculate whether any class friction may have resulted from perceived social advantages arising from where a person lived.

Although planned communities were known from the time of the Old Kingdom, planning of large scale communities such as Kahun reached its peak during the Middle Kingdom. It is conceivable that the desire for urban order in the Middle Kingdom may have been a reaction to the unsettled nature of the First Intermediate Period. A town as large as Kahun would have benefited from an organised bureaucracy that would naturally have resulted in hierarchies of social class implicit within that bureaucratic structure.

It seemed a reasonable course of action to look at how other scholars have understood the Egyptian social system in the Middle Kingdom. A generic 'traditional' model could be constructed showing the pharaoh at the top, followed by an elite class comprised of viziers, nobles, priests and generals. Next in the order of precedence came the middle class which included local administrators, scribes and merchants. Lastly, there was the common class composed of artisans, craftsmen, farmers and so on.

In her work, *Daily Life in Ancient Egypt* (2008), Szpakowska set forth a revised social class model that essentially recognised two main classes, elite and lower. The pharaoh, ministers and lower bureaucrats form the elite class while the usual range of peasants, farmers, herdsman, craftsmen and so on encompassed the lower class. She did not, however, discount the possible existence of a middle class.

Szpakowska did not list scribes as parts of either the elite or lower classes. Scribes were essential to the Egyptian bureaucracy and thus useful to the elite class in both official and private matters. Their usefulness gave access to the halls of power and facilitated a kind of social mobility. Independent merchants, such as Heqanakht, had much the same social mobility based upon their ability to amass wealth. If a middle class existed, it seems likely that scribes and independent merchants would have been likely members of it. The fluidity of social class in the Middle Kingdom is not an unreasonable assumption since the *Instructions Addressed to King Merikara* suggests a kind of egalitarian philosophy where merit was to be preferred over gentle birth.

There are several notable points about the Kahun case study. First, we recognise that Egyptian ideas about class were quite different from modern notions. Second, Egyptian culture had a meritocratic nature where education provided some basis for social mobility. Even so, there were of course noticeable cultural divides between the higher and lower classes.

While it is tempting to think that people practising particular occupations fitted into a structured social system, certainly various titles of overseers suggest a hierarchy. However, there also existed fluidity within certain categories of people that would have spanned the socio-economic structure. The most obvious examples are scribes, merchants, soldiers and those associated with temples. Women too, could have roles beyond obvious stereotypes.

Middle Kingdom Egypt was generally male dominated, but women could have high ranking positions such as chief priests in the temples and even supervisory roles in industries such as textile production. Ultimately, we must remember that social class and status in Middle Kingdom Egypt was often a mutable and contextually dependent.

In regard to the nature of the so-called 'house and cellar site', I questioned the presence of three large granaries in a place used as a residence. It seemed more reasonable to suggest that this particular site was actually a work area instead. Indeed, a tomb model from the British Museum (Figure 5-10) and one of the Meketra models (Kemp, 2006: 215) strongly support the interpretation for its use as a granary. Artefacts found in association with this particular location suggest it was also a storage area for tools and equipment used for tasks other than grain storage and baking. Fragments of furniture possibly indicate the building's use as a repair shop and storage area. Sewing needles, items of personal adornment and clothing suggest it may also have been a repair area for clothing and jewellery. Fish hooks, nets and flints suggest this location could have been used as a storage site and meeting point for hunting or fishing expeditions.

In the 'Group 9' artefacts area, the sizes and floor plans of the buildings are considerably more modest than the constructions in the more elite sections of Kahun. Domestic personal items recovered from the area indicate that it was indeed residential. However, the recovery of a significantly well stocked tradesman's tool kit further suggests that the area was for housing the working class. Most of the artefacts were found in one room, but several items, including a mirror and a copper knife, in an adjacent room suggest that even the poorer families may have owned a few more expensive items that were kept separate from more common items.

The Buhen Case Study

For the Buhen case study, I chose Block C as the study area. Unlike Kahun, artefact proveniences could be established for specific structures. The location of Block C, in the west corner of the inner citadel, suggested it was a residential area. I determined a residential area might give the best possibility for examining social and class distinctions.

The Pluralistic Contextual Approach requires three main data sources to be examined in conjunction with archaeological theory. The textual evidence used in the Buhen case study included the basic corpus of Middle Kingdom literature as well as site specific literary sources. Descriptions of soldiering and its vicissitudes were supplied by *The Satire on the Trades*. Middle Kingdom didactic literature, such as *The Brooklyn Papyrus* and *The Admonitions of Ipuwer*, highlighted societal discontent concerning national and military service. *The Hymns to Senwosret III* and *The Boundary Stela of Senwosret III* illuminated attitudes toward foreign enemies while military reports such as The Semna Despatches supply information about military operations in the Nubian regions.

Since Buhen was a military site, the tomb paintings at Beni Hasan provided especially relevant sources of artistic/representational data on hunting, military training, siege warfare and arms production. Supplemental information was provided by tomb models, such as the wooden soldiers from the Tomb of Mesehti at Asyut, while various boat models supplied clues about transportation and naval potential.

The corpus of artefacts recovered from Buhen was extensive and their contexts better recorded than at Kahun which made it possible to propose interpretations of social situations at Buhen with more confidence. Although Buhen was excavated most recently in the late 1950s and early 1960s, there were, however, some unfortunate gaps in the archaeological record. The absence of any substantive botanical data is a prime example. There is little verification overall of the Egyptian diet at Buhen, although artefactual evidence does suggest that fishing as well as some hunting supplemented grain supplies for the bulk of the population.

As with the Kahun case study, it was a necessary part of the Pluralistic Contextual Approach to interpret the various forms of informational data from a range of corresponding and interconnected theoretical perspectives. Although Buhen was a military settlement site, I determined it was desirable to use the same integrated theoretical considerations I used for interpreting the Kahun data (please see my discussion of theoretical considerations above).

The plan of Buhen's inner citadel hints at the existence of three observable sections. The northwest section was utilised mainly by the upper class. The centre section contained storage and work areas while the southeast section was probably housing, storage and work

space for the lower classes. This use of space is similar to other military settlements in the area of the Second Cataract.

The architecture and size of the buildings in Block C strongly suggest it was an area of residential housing for the upper class of Buhen. Other areas of the inner citadel seem to have been used as storage facilities, workshops, administrative centres and lower class housing. If the activity areas of the inner citadel have been correctly identified, it seems reasonable to suggest that there were delineated social and class structures that were affected by the town design.

In the Kahun case study, I set forth two distinct class system models: one traditional and another by Szpakowska. I believe that of these two models, the Szpakowska model, with its inclusion of upper, lower and probable middle classes, best fit the social and class situation at Buhen.

A soldier's class status appears to have been contextually dependent upon many individual factors. Whether he was a temporary conscript or a professional, a veteran or a recruit, an infantryman or a skilled archer, land or naval forces or an officer would have had a great impact upon how his fellow soldiers regarded him.

Another consideration affecting class and social status of a soldier was prior occupational training. Because soldiers were recruited or levied from civilian life, it is probable that many of them possessed various craft skills. The status accorded soldier/practitioner of a particular craft may well have influenced his social status depending upon the usefulness of that craft within the military setting, although it is possible that the social implications of occupational status may have been less pronounced than in the civilian arena.

While evidence suggests (Emery, *et al.*, 1979: 98) that the population at Buhen in the early Middle Kingdom was primarily a male military garrison, the demographics changed over a period of time to include women and child dependents of military personnel as well as other civilians. The absence of female dominated crafts such as weaving suggests a diminished professional status for women at Buhen that may likely have resulted in a woman's social position being connected with her husband's status.

In regard to the impact of ethnicity on class and social status, two influential attitudes were at work: official political views and daily individual perspectives. Officially, Egyptian political writings cast the Nubians as conquered foreigners and social inferiors. Mitigating this was the unavoidable and in-depth daily interaction between Nubians and Egyptians at Buhen that allowed them to develop individual personal views toward one another that were probably not in line with official pronouncements. In light of this, Smith (2003: 169) is undoubtedly correct in stating that, contrary to classical Marxist views, the Egyptians at Buhen likely did not always take official propaganda about Nubians at face value. Even so, the presence of Nubian pottery and artefacts from lower class areas of the inner citadel suggests the bulk of the Nubian population at Buhen was lower class.

Overall, the social and class character of Block C is that of an upper class residential and administrative area. Varied evidence supports this interpretation. Architecturally, the houses in Block C in both plan and area, while not as elaborate as the mansions at Kahun, suggest upper class inhabitation. Personal titles written on inscribed portions of funerary stelae excavated from Block C, if their provenience is correct, add further corroboration. The presence of fine slipped and painted bowls and numerous storage vessels suggest affluence. While socially elite areas of the inner citadel at Buhen were not physically separated from less wealthy areas as they were at Kahun, the secure and desirable location of Block C likely promoted phenomenological impressions of social and class advantage.

Effectiveness of the Methodology

The sites of Kahun and Buhen provided two contrasting sites from the Middle Kingdom on which the Pluralistic Contextual Approach could be tested. Kahun was a civilian, administrative site at the entrance of the Faiyum region of Egypt that was linked to the pyramid complex of Senwosret II while Buhen represented an essentially military site near the Egyptian-Nubian border. Both sites presented some difficulties with the application of the interpretive method due to the ways in which they were excavated and recorded, however I believe it is possible to establish on which site the methodology was most effective.

As I have previously stated, I was not able to use most of the areas in Kahun for study simply because while Petrie's excavations recovered large numbers of artefact, few had been provided with any provenance and no stratigraphy was recorded. In only two locations, the

'house and cellar' and most likely the buildings in the Northern half of Rank I could artefacts be tied to specific buildings. Even so, the 'Group No. 9' artefacts could not actually be tied to a specific set of rooms in Rank I, but only to that general block of buildings. This left me with little choice as to which locations to use as study areas, but having done so both the study areas were easy to locate in the overall site plan and it was possible to suggest some social class associations to those areas within the greater Kahun complex.

In regard to the data sets required for the Pluralistic Contextual Approach, textual data included the the general corpus of Middle Kingdom period material to provide background information for the Kahun site. Fortunately there also exists a fairly good corpus of site-specific literary materials from Kahun from which to work and this was one of the most positive interpretive aspects for this site. These documents encompass census records, temple archives, business contracts, medical papyri, monumental inscriptions, legal documents such as wills and deeds and also personal letters. Representational/artistic data included tomb paintings from Beni Hassan which were useful in a more general fashion for the Kahun site. On a more site-specific level there was a fair amount of evidence from wooden tomb models, similar to those of Meketra, present at Kahun. It is with the archaeological data where most of the problems occur because of the recording problems I have mentioned above. Furthermore, the artefact data base was quite small making it difficult to draw firm conclusions. On a positive note, one of the things I found quite useful was the inclusion of botanical data there had been collected by Newberry. This did provide a useful data base of information on which to base possible interpretations about the use of plant resources at Kahun.

As at Kahun, the Buhen site had well-defined building areas that could be easily identified, but at Buhen it was much easier to pick a contiguous study area that had a reasonable chance for the application of this methodology. Of all the areas I could have chosen, I decided that Block C presented a reasonably good opportunity to infer social class interactions with other areas within the greater Buhen complex. Textual data once again included the general corpus of Middle Kingdom period material. More site-specific texts included official decrees found on boundary stela, military dispatches, military graffiti, magical and inscriptions from the fortress of Buhen. Although there were sufficient site-specific texts available at Buhen, they were not quite as numerous as at Kahun so in this particular aspect Kahun had an advantage of sorts. In the way of representative/artistic data, tomb paintings from Beni Hassan were

once again used in this case study to provide general vignettes of Middle Kingdom life. Perhaps since Buhen was a frontier military post it is not to be totally unexpected that there is little evidence of expensive wooden tomb models at Buhen as there were at Kahun. There were however carved or moulded clay figures of animals, boats and human beings that could perhaps have provided inexpensive substitute items.

Buhen's archaeological data base is without a doubt superior to that of Kahun. Because Buhen was excavated in the 1960s, better recording techniques were used and artefactual assemblages were linked not just to buildings, but to specific rooms within those buildings. This made it far easier to assess activity areas, socio-economic factors and possible class associations and to tie those assessments to the data. There was also an effort by Emery to record some of the archaeological anomalies such as burned areas and sealed loci. This is not to suggest that the Buhen excavations represented the best archaeological field methods available at that time. The excavation suffered from a lack of proper stratigraphic recording, but at least the artefacts were linked to lower, middle or upper levels of the debris. I thought it particularly unfortunate that there was no systematic collection of the botanical samples as there had been at Kahun, but there were references to charred grains of emmer wheat and barley that were noted in the report.

Considering the above evaluation of the pros and cons of each site, I assert that the Buhen case study was the certainly the more effective demonstration of the Pluralistic Contextual Approach. I do think that interesting and valuable conclusions about social class at Kahun were produced using the Pluralistic Contextual Approach, but the loss of important data due to early excavation techniques hindered the application of interlocking theoretical ideas to the available textual, representative/artistic and archaeological evidence. Buhen had the advantage of a larger artefact data base, known provenances for artefacts and at least a rudimentary stratigraphy that made it much easier to apply the interpretive method to the data.

Egyptology in the Future

The study of ancient Egypt has changed drastically since the dawn of modern times in the European Renaissance. From the beginning of the 20th Century change has accelerated at an even faster rate with the advent of new technologies and influences from other branches of

archaeology. One can pose the question as to what the future of Egyptology will be and how it should be developed.

Historically, Egyptology has lagged behind other branches of archaeology in regard to field methodology and interpretive theory. In regard to field methodology I believe much of the best field work being done in Egypt rivals the technical standards used in other parts of the world. Naturally Egyptological fieldwork can and should strive to continue improving by incorporating the newest technologies and standards, but I believe our discipline has made great strides in updating our field methodologies to current standards.

Where I believe we still lag behind other areas of the archaeological world is in the use and application of interpretive theory in our work. I believe it is essential that Egyptology improve in this area. The purpose of this dissertation has been to address how we might accomplish the task of making interpretive theory a regular, essential part of how we analyse and interpret the data we collect from our excavations. In her book, *Private Life in New Kingdom Egypt* (2002), Meskell constructed her version of a basic interpretive framework. Smith (2003) showed how interpretive theory and the data could be linked to produce closely reasoned interpretations about ethnicity. The work presented in this dissertation builds on their work and I believe presents a further step toward developing better and more insightful interpretations of a magnificent civilisation.

The Pluralistic Contextual Approach was designed to be as comprehensive as possible by advocating the use of every available textual, artistic/representational and archaeological dataset. The methodology is flexible in that the choice of integrated theoretical approaches can be altered based on what type of site is being excavated or research interests of the excavation directors. The Pluralistic Contextual Approach can provide a diagnostic tool to help research staffs determine the types of data needed for making more complete interpretations during future excavation projects. I believe popular use of the Pluralistic Contextual Approach would provide our field with the kind of theoretical interpretive methodology it needs to achieve parity with other branches of modern archaeology.

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APPENDIX ONE

Journal Reviews and Comparisons

Journal Review

Journal comparisons

In the Introduction of this dissertation I related that during my postgraduate experiences in the late 1970s that my colleagues considered that Egyptology, when compared with other branches of archaeology, had lagged behind them in regard to the application and development of archaeological theory. Historically, the over emphasis on philology and textual analysis in Egyptology has tended to shift attention away from archaeology as an essential informational source on the culture of ancient Egypt (Bietak, 1979; Giddy, 1999). While scholars generally support these contentions, the question remains as to whether these contentions are verifiable through quantitative proof. Examining and comparing various types of articles published in several archaeological journals could provide such verification.

Choosing suitable journals for comparison was uncomplicated. First, I concluded that it would be easier to track methodological and theoretical trends in article types if all of the journals I selected had long publication histories. Second, one of the journals needed to focus specifically on Egyptian archaeology. Finally, I wanted the other journals to centre on different areas of archaeological interest. The journals that seemed to best meet these requirements were *The Proceedings of the Prehistoric Society*, *The Journal of Roman Studies* and the *Journal of Egyptian Archaeology*.

The *Proceedings of the Prehistoric Society* is the official publication of the Prehistoric Society and was first published in 1935. The origins of the Prehistoric Society dated back to 1908 when it was known as the Prehistoric Society of the East Anglia. The original publication of that society was called the *Proceedings of the Prehistoric Society of East Anglia* and was first published in 1910 (www.29). The reason for the name change in not only the society, but of the society's publication was that the society's goals and interests were wider than just the prehistory of East Anglia.

“At no time since its foundation had its [the Prehistoric Society] interests and influence been merely local, and its recent change of name is symptomatic of the breadth of its appeal and the importance of its work. ... it behoves us to arrange, so far as possible, that the papers read at our meetings and published in our *Proceedings* shall range over of the whole of the chronological long and geographically wide field of study in prehistory” (Boswell, 1936: 150).

The name changes acknowledged the wide-ranging goals of the society. Articles on the topic of prehistory, not from just Great Britain, but from continental sources as well continue to be published in the *Proceedings of the Prehistoric Society* to this day.

The selection of the *Proceedings of the Prehistoric Society* seemed a natural choice for several reasons. First, even though it had the shortest publication span of the three journals that were chosen for comparison, it still had a long enough run to allow the tracking of theoretical and methodological trends. Second, since the first half of the 20th century much of the theoretical innovation in archaeology, especially in Great Britain and the United States, has come from the field of prehistory. In 1978 historical archaeologist, Iain C. Walker, when talking about the situation of historical archaeology United States wrote:

“The situation [in the United States] is similar to that in the field of prehistory in Britain during the 1920s and 1930s, when modern techniques and interpretation were being systematically evolved for the first time by people who'll grew up with the subject; the people of that. - Clark, Fox, Hawkes, Piggott, Wheeler, are now (or were - Fox died in 1967) the doyens of British prehistory and archaeology” (Walker, 1978:209).

The point to note in this particular quote is that the time between the 1920s and 1930s in Great Britain was a time when modern techniques and interpretations were being postulated by people from the field of prehistory.

To this day, much of the new, innovative archaeological theory still continues to come from scholars working in prehistoric archaeology. In 2005 Catherine Hills, professor of post-Roman Archaeology at The University of Cambridge wrote:

“It is within prehistory that archaeologists play a key role, developing ways of interpreting the material record without reference to written texts. Historical archaeology, by contrast, co-exists with documentary history, to which it often seems subordinate. Even an outline of historical events, let alone the complex detailed body of written sources available for more recent centuries, can appear to

make archaeological theory unnecessary, and reduce material evidence to a source of illustrations, rather than providing, as it should, an independent basis for interpretation” (Hills, 2005:139).

Hills makes two important points here. The first point is that archaeologists working in prehistory don't have the luxury of written texts in order to aid their interpretation of the material record. Thus, archaeologists specialising in prehistory must devise new ways of interpretation. Her second point, that written texts ‘can appear to make archaeological theory unnecessary’ incidentally seems to provide a reasonable explanation, in a general way, for the earlier contention of why philology has overshadowed archaeology within the field of Egyptology.

Since many of the theoretical innovations have come from the field of prehistoric archaeology, a Journal dealing with that subject seemed to be a logical choice for comparison. The *Proceedings of the Prehistoric Society* deals exclusively with the subject of prehistory it was determined that it should provide a record of theoretical articles over a period of time.

The oldest of the journals chosen, which started publication in 1911, was the *Journal of Roman Studies*. This was the official publication of the Society for the Promotion of Roman Studies, otherwise known as the Roman Society. The society was founded in 1910 and its general mission was to provide a forum for Roman studies including Roman history, archaeology, literature and art until about A.D. 700 (www.30).

Professor F. Haverfield wrote a more specific explanation of the new society’s purpose in his inaugural address to the newly founded society, which was published in the *Journal of Roman Studies* in 1911. He noted the role of the Society of Antiquaries of London in dealing with antiquities, but felt that universities needed to play a much larger role than they had done previously. At the time of his writing, he stated that many antiquarians seemed to have little interest in archaeology and that the greater part of antiquities collections, even at the British Museum were not on display or accessible to the public. He did observe, at the time he was currently writing his address, that things were beginning to change in British universities in regard to their willingness to support excavations and to acknowledge the importance of the Romans contributions in Britain. He did mention however, specific knowledge about Roman Britain was worthless unless you could place it in the larger context of the Roman Empire in

general. Finally, he stressed the need for universities do get involved in the ‘whole of Roman archaeology and history’ not only because of the massed amounts of information that was available to scholars at the time, but also because of the technical advances that have been made as well. His opinion was that the goals the society would have been well achieved if it facilitated good communications between scholars in the universities and the independent scholars in the field (Haverfield, 1911: xix-xx).

The *Journal of Roman Studies*, being the official publication of the Roman Society, was to be the main vehicle for trying to achieve the good communications between the scholars Haverfield mentioned and for the dissemination of information on Roman studies in general. It has continued to fulfil its purpose of providing a publication format for information and excavations from all geographic areas that had been part of the Roman world, although in 1970, a new Journal, *Britannia*, was launched to deal specifically with the subject of Roman Britain (www.31). Including *Britannia* in the comparison of journals was considered, but its short publication span and its narrow specialization on Roman Britain counted against its inclusion.

The *Journal of Egyptian Archaeology* is the premier publication of the Egypt Exploration Society. First published in 1914, it has had almost as long a publication history as the *Journal of Roman Studies* and so it was a logical choice for the comparison. The Egypt Exploration Society, originally called the Egypt Exploration Fund was founded in 1882 by Amelia Edwards and Reginald S. Poole. Its purpose was to ‘explore, survey, and excavate at ancient sites in Egypt and the Sudan, and to publish the results of this work’ (www.32).

The Egypt Exploration Fund's original publication was called the *Archaeological Report*, but this publication was superseded in 1914 by the *Journal of Egyptian Archaeology*, which was initially issued as a quarterly publication (Walker, 1914b.1:74). In his editorial statement, published in volume one of the *Journal of Egyptian Archaeology*, F. G. Walker stated:

“The *Journal* will give all information obtainable regarding excavations that are being conducted in Egypt, and will contain articles, some, specialised and technical, intended mainly for experts, others, simple in character, such as will be intelligible to all who care for Egypt and its marvellous interests. The history, language, papyrology and antiquities of the succeeding epochs in the story of the Nile Valley will be treated in turn, and current progress in the various branches of Egyptology and Egyptian archaeology will be discussed” (Walker, 1914a.1:1).

At the end of World War I the Egypt Exploration Fund changed its name to the Egypt Exploration Society and the *Journal of Egyptian Archaeology* switched from being a quarterly publication to an annual publication (www.33) as it remains to this day. Over the years, several other changes occurred that affected the *Journal of Egyptian Archaeology* beyond the frequency of its publication. Eventually, Greek and Roman subjects, especially Graeco-Roman papyri, were published in a separate journal called the *Graeco-Roman Memoirs*. A fairly recent development has been that the reports of current fieldwork are no longer included in the *Journal of Egyptian Archaeology*, but are published in a new colour magazine entitled *Egyptian Archaeology* (www.34). The *Graeco-Roman Memoirs*, because of the specialised nature, did not have a wide enough focus to be considered for the comparison. *Egyptian Archaeology*, while it is an excellent source for information on current fieldwork in Egypt, does not have a long enough publication history for it to be useful for comparison. Even though these other publications now handle Graeco-Roman subjects and fieldwork, the *Journal of Egyptian Archaeology* still contains a wide range of articles that can be used to track theoretical and methodological trends.

Having explained the background of the journals and why they were chosen, it now remains to explain what each of these journals was expected to show. If the hypothesis mentioned earlier in this dissertation is correct, that Egyptology has, until recently, lagged behind other branches of archaeology, then there should be a marked contrast in the types of articles published in each of the respective journals. Earlier in this chapter, the case was made to suggest that much of the innovative theory in methodology that has been developed in archaeology has come from the prehistoric field. The *Proceedings of the Prehistoric Society* was expected to show the shift from simple descriptive and categorisation type articles about material culture that were indicative of the culture history phase of archaeology in the 1930s to the more theoretical, methodological and interpretive types of articles that are common today. Also, since the *Proceedings of the Prehistoric Society* dealt with prehistory it was expected that they would be few, if any articles dealing with texts.

The *Journal of Roman Studies* covers an historical period of archaeology and it was felt that it would be a good bridge between the *Proceedings of the Prehistoric Society* and the *Journal of Egyptian Archaeology*. In personal communications with both Paul T. Nicholson, professor of Egyptian archaeology at Cardiff University and Andrew N. Gardner, lecturer in Roman studies at University College, London it was suggested that the *Journal of Roman Studies*

would also show an increase in theoretical, methodological and interpretive articles on material culture. However, it was also suggested that articles of those types would appear about 10 years later on in the *Journal of Roman Studies* than from when articles of those types started appearing in the *Proceedings of the Prehistoric Society* (Nicholson, 2005. personal communication) (Gardner, 2005. personal communication) Another thing that seemed quite probable was that the *Journal of Roman Studies* would contain a fair number of articles dealing with texts, inscriptions and linguistics.

Concerning the *Journal of Egyptian Archaeology*, if what was suggested earlier is true, namely that philological studies have, until fairly recently, overshadowed archaeological concerns, then two expectations were possible. The first expectation was that many of the articles found in the *Journal of Egyptian Archaeology* would deal with texts, inscriptions and linguistics. The second expectation was that, until the last several years of publication, there would be few articles dealing with theory or new methodology and that many of the articles dealing with material culture would be simply descriptive or categorical in nature.

Research Methodology

Once the journals had been selected, it only remained to set up a research methodology in order to handle the comparison. Initially, it seemed that the easiest way to deal with identifying the types of articles in each of the journals would be to use the subject and authors indexes that had been printed for the respective journals over the years. On the surface, this seemed a reasonable course of action, but it was soon rejected for several reasons.

The first and most notable reason for not using the indexes was the fact that none of the indexes for any of three journals is currently up-to-date. The last year covered by an index for the *Proceedings of the Prehistoric Society* (hereafter referred to as the PPS) was 1994. The last index published for the *Journal of Roman Studies* (hereafter referred to as the JRS) is a little more recent, having been published in 1996, while an index has not been published for the *Journal of Egyptian Archaeology* (hereafter referred to as the JEA) since 1984.

A second reason for not using the indexes for the three journals is that there are gaps in the records. For some reason, the indexes for volumes 51 through 55 of the PPS have evidently not been published. While the last index published in 1997 stated on its front cover that it

included indexes for volumes 50 to 60, it contained an index only for volumes 56 through 60 (Trump, 1997). The JEA has a 14 year gap in its indexes, but the reason for the gap may be a little more explainable. Prior to 1941, each volume of the JEA had an index as an integral part of its contents. After that time, the editorial staff dispensed with including an index in each volume in order to save paper which was needed for the war effort as a result of Britain's involvement in World War II. A note published in volume 30, 1944 stated that the editorial staff had decided that indexes would only be published every five or 10 years (Gardiner, 1944: facing p. 1). Later though, another editor's note published in volume 32, 1946 informed the readership that the editorial staff had decided to wait until 1951 to restart the publication of indexes (Faulkner, 1946: facing p. 1). It is possible they decided this as a result of the fact that much of the war rationing did not end in Britain until the 1950s.

“Clothes were de-rationed in March 1949; bread in July 1948 (this was only rationed on the 21 July 1946); jam in December 1948; petrol in May 1950; tea in October 1952; sweets in February 1953; eggs in March 1953; cream in April 1953; sugar in September 1953; butter, cheese, margarine and cooking fats in May 1954; and finally meat in June 1954” (www.35).

Even so, it was actually not until volume 45, published in 1959, that an index was finally published for the JEA, but only volumes 41 through 45 were covered (See Table 1).

The formatting of the indexes for each of the respective journals was different in both the amount of information each index contained and the structure with which it was presented. The indexes for the PPS were divided into three areas: subject, sites and authors. Within the subject section, topics were divided alphabetically and all that pertained to that topic were listed thereafter. The article titles were not given, but only the article numbers along with the requisite volume and page numbers. The sites section was divided into two sub-sections, the first of which simply listed all the sites located in British counties and then those which were located in foreign countries and made no reference to article titles. The second listed each site alphabetically, regardless of location, and supplied title, volume and page numbers. In the authors section names were in alphabetical order and then title of each article written by the author, plus its relevant volume and page numbers, was listed under the author's name. The problem with the indexes for the PPS was that, even though subject sections were present, they did not indicate how articles were written. As a case in point, an article on flint tools may have been listed under the topic heading ‘artefacts’, but there was no indication from the

listing or even perhaps from title as to whether the article was simply descriptive or interpretive and that was the kind of information that was necessary to determine.

<p>The PPS Indexes.</p> <p>Vols. 1 to 30 separately published, 1974.</p> <p>Vols. 31 to 40 separately published, 1978.</p> <p>Vols. 41 to 50 published in volume 55, 1989.</p> <p>Vols. 51 to 55, index missing.</p> <p>Vols. 56 to 60 separately published, 1997.</p> <p>The JRS Indexes.</p> <p>Vols. 1 to 20 published in volume 20, 1930.</p> <p>Vols. 21 to 40 separately published, 1955.</p> <p>Vols. 41 to 60 separately published, 1975</p> <p>Vols. 61 to 85 general index for each volume.</p> <p>Vol. 86 index of reviewers only for each volume.</p> <p>The JEA Indexes.</p> <p>Vols. 1 to 27 annual indexes in each volume.</p> <p>Vols. 28 to 40, indexes missing.</p> <p>Vols. 41 to 45 published in volume 45, 1959.</p> <p>Vols. 46 to 50 published in volume 50, 1964.</p> <p>Vols. 51 to 55 published in volume 55, 1969.</p> <p>Vols. 56 to 65 published in volume 65, 1979.</p> <p>Vols. 66 to 70 published in volume 70, 1984</p>
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Table 1: Journal Indices

The index for volumes 1 through 20 of the JRS included indexes of contributors, works reviewed, names and subjects, a Greek index, literary authorities, inscriptions, papyri and coins. Again, there was nothing in the indexes to indicate how the articles dealt with the different subjects. With the publication of volume 61 in 1971 the editors of the JRS started including general indexes within each volume that usually consisted of a single page. This was even less useful for article analysis than had been the more extensive indexes that had been published in volume 20. By the time volume 86 was published in 1996 only an index of reviewers could be found in each volume of the JRS. Again, this was a very little use.

The format for volumes 1 to 27 of the JEA was that a general index was included within each volume that was specific to that volume. The index included place names, authors, etc. and there was also a separate index of words, both ancient Egyptian and Greek that were used in the articles found in that volume. From volume 51 onward, when the indexes were no longer

included within each volume, but were compiled on five or 10-year intervals, the general index was broken down into three separate indexes: A, B, and C. Index A listed authors and the articles they had written, but again gave no indication of how the authors handled their topics. Index B listed books that had been reviewed and gave the authors in alphabetical order with the titles of their books. Lastly, Index C was an index of words that had been discussed or translated and this was divided into subsections A (Egyptian), B (Coptic), and C (Greek).

Since none of the indexes for any of the three selected series of journals was of any real use for evaluating the changing theoretical content of the articles, it meant that the only recourse was to go through each of the journals one at a time to evaluate them. It was decided to construct a system of categories into which each type of article could be placed. Once all the articles had been categorised, it was hoped that trends in theoretical change could be noticed. It was decided that the initial group of categories should include articles that dealt with archaeological theory, artefact description/categorisation articles, artefact analysis/interpretation articles, excavation report articles and linguistic or textual articles. It was expected that these would be the most easily identifiable types of articles to be found in each of the journals and thus, would provide a basic framework for building the categorical system.

The first set of journals that was examined was the PPS. This was done for two reasons. Since it was first published in 1935, it had the shortest run of any of the three selected journals. The other more important reason was that the PPS, as a journal that dealt with prehistory, was expected to contain an increasing number of theoretical and interpretive articles as it progressed to the present day. The mid-1930s were really a turning point for archaeologists working in prehistoric studies because many scholars, such as V. Gordon Childe (Trigger, 1989: 244), began trying to move beyond a simple descriptive approach to material culture and attempt to understand what artefacts could tell them about prehistoric culture.

“The development of functional and then processual approaches to archaeological data represented a replacement of the increasingly sterile preoccupation of culture-historical archaeology with ethnicity by a vital new interest in how prehistoric cultures operated and changed. ... Yet, while initially building on traditional culture-historical chronologies, functional and processual approaches soon raised archaeological questions that required refinements in chronology and the

understanding of spatial variation (especially intra-site variation) in the archaeological record” (Trigger, 1989: 288).

As a result of the increased importance of theory and interpretation in prehistoric archaeology, it seemed logical to use the PPS as the standard for constructing the categorical system for assessing the types of articles found in the different journals.

For the purposes of this study it was determined that only the major articles in the PPS would need to be examined and typed. It is possible that some of the Prehistoric Society communications that were printed in the PPS could have contain some brief notes on theory or on the interpretation of material culture, but was decided that examining only the major articles would provide a better and more complete picture of theoretical, interpretive or methodological changes over a period of time. Likewise, minutes of meetings of the Prehistoric Society and book reviews published in the PPS were discounted for similar reasons.

Categories

As each of the articles in each volume of the PPS were examined, it became apparent that the initial five categories and the article topics that were listed under those categories were not comprehensive enough to take into account all the kinds of articles that were encountered during the article assessment process. This being the case, only one of two things could be done. As the situation dictated, either a new article topic was able to be added to the list within an existing category or an entirely new category had to be added to the system. By the time all the articles in the PPS had been the examined, the system had solidified to nine major categories (See Table 2)

Some of the categories listed in Table 2 are fairly straightforward as to what kind of articles would be included under those categories. A good case in point would be category 1, which dealt with archaeological theory articles. Somewhat obviously, any articles dealing with general archaeological theory, excavation theory, interpretive theory, etc. would be assigned to this category. Category 4 article types included anything dealing with the environment, ecology, landscape studies and geological investigations. Site reports were the main entries in

Journal Article Review Categories

1. Archaeological Theory Articles
(Archaeological Theory, Excavation theory, Interpretive Theory, Field Survey Theory, etc.)
2. Artefact Description/Categories Articles
(Simple description or categorisation.)
3. Artefact Analysis/Interpretation Articles
(Goes beyond simple description -function, statistics, interpretation.)
4. Environmental or Geological Articles
(Deals with site environment, landscape studies or site geology.)
5. Excavation Reports
(Interim Reports, Excavation Reports, Field Survey)
6. Field or Laboratory Methodology Articles
(New Equipment, New Excavation Techniques, New Lab Techniques, Lab Analysis)
7. Historical or Historiographical Articles
(History, History of Archaeology, Work of Famous Archaeologists, etc.)
8. Linguistic or Textual Articles
(Linguistics, Philology, Texts, Communicative Art, Textual Analysis, etc.)
9. Site Analysis Articles
(Settlement Patterns, Culture Patterns, Site Comparisons, Artefact Comparisons, etc.)

Table 2: Journal Article Review Categories

Category 5 although also included were interim reports and field survey reports. Category 6, which dealt with field or laboratory methodology, included articles that not only reported on the use of new equipment or new field techniques, but also on new laboratory techniques or laboratory analysis of artefacts. By and large, it was fairly easy to identify most of the articles that belonged to these particular categories no matter which.

Perhaps a more difficult thing to understand is why there are two categories dealing with artefact articles. The intention of Category 2, Artefact Description/Categories Articles, was to identify those articles that engaged in the simple descriptions of artefacts or simply assigned them to generalised typological categories based on colour, shape, material or cultural affiliation. A good example of this type of article is one that was published in the volume 3 of the PPS, dated 1937, entitled “Acheulian Flake Tools” and written by H. Kelly. While the article addresses the differences in the techniques flint core preparation that distinguished Acheulian flakes from those of the Lavelloisian period, gives a good description of the artefact types within the corpus of material and arranges them in to categorical groups, it

really does not go beyond this into any kind of real interpretation of how the artefacts may have defined the culture (Kelly, 1937).

In contrast to this, the purpose of category 3 was to identify articles that went far beyond simple descriptions or categorisation and attempted to explain the function of an artefact type or provide statistical analysis of an artefactual assemblage or to provide cultural interpretations based on the material culture. An article written by A. Saville in Volume 65 of the PPS, 1999, entitled “A Cache Of Flint Axeheads And Other Flint Artefacts From Auchenhoan, Near Campbelltown, Kintyre, Scotland” is a useful example of the kind of interpretive article that Category 3 was meant to encompass. A full description of the artefacts was given in this article, but it also incorporated analyses of production techniques, origins of materials and shapes. The article’s interpretive content included hypotheses as to the reasons why the cache may have been deposited (utilitarian recovery) and suggested possible links between Ireland and southwest Scotland in the Neolithic (Saville, 1999).

Historical articles or those that dealt with the history of archaeology or the work of famous archaeologists were assigned to Category 7. It is not surprising that the PPS, being a journal devoted to prehistory, should contained the fewest number of Category 7 articles. An article entitled “The Tribes of Southern Britain” published in Volume 20, 1954, is a good representation of one of the few historical articles published in the PPS. It dealt with the transition from prehistory to history and included information on the Belgic and pre-Belgic tribes in southwest and southeast Britain (Radford, 1954). More common were articles that talked about models of prehistory, such as “From Worsaae to Childe: the Models of Prehistory” (Daniel, 1971) or the history of prehistoric archaeology with articles such as “Craniology and the Adoption of the Three Age System in Britain” (Morse, 1999).

While it was fairly easy to identify Category 7 articles in the PPS, identifying these types of articles in the JRS was more of a problem. Certainly, there were some articles whose historical themes were quite evident, such as the one published in 1943 in Volume 33 entitled “The Decline of Roman Power in Western Europe: Some Modern Explanations”. This article described various possible causes for the decline of the Western Roman Empire including overuse of the land, climate change, slaves and the premise that barbarian invasions destroyed the cohesiveness of the administration within the provinces (Baynes, 1943). On the other hand, some articles used so many textual quotes it was difficult to differentiate whether the

main thrust was historical or analysis of text. If it was determined that the historical content of an article outweighed the importance of the textual analysis, the article was given a Category 7 designation. Two articles that illustrate this problem quite well are “The ‘agreement’ between Philip V and Antiochus III for the partition of the Egyptian Empire” written in 1939 and published in volume 29 and “The Servian Reforms” which was written in 1945 and published in volume 35. The author of the former article used a great many Latin quotes from Polybius’ histories and the article had to be looked at quite carefully to determine its focus. It was determined that the emphasis in this particular article is on historical content not examination of texts or translation (Magie, 1939). Along the same lines, the author of the latter article mentioned the works of Cicero, Livy and Dionysus. He used a number of Latin quotes from Livy and Greek quotes from Dionysus, but it was determined that the emphasis is still on the history and not epigraphic or grammatical analysis (Last, 1945).

It seems logical to assume that there could have been in the same kind of historical/textual confusion in identifying Category 7 articles in the JEA, but such was not the case. Category 7 articles in the JEA were easier to identify as such and included those dealing with Egyptian history, the history of archaeology in Egypt, the work of famous archaeologists, etc. A good example of a historical article that used a number of textual references was one that was written by R. O. Faulkner in 1944 and published in Volume 30 of the JEA entitled “The Rebellion in the Hare Nome”. Faulkner used a number of translated inscriptions to illustrate his points in this particular article, but these inscriptions came from a number of different textual sources. The author did not concentrate on translating one text and engaging in its analysis, but on chronicling the historical events (Faulkner, 1944). It was therefore easy to assign this article a Category 7 designation.

Category 8 covered articles of a linguistic or textual nature. Included in this were articles on linguistics, philology, texts, epigraphy, communicative art, textual analysis or any other types of articles that dealt with language, grammar or writing. Not surprisingly, the PPS contained the fewest number of Category 8 articles of the three journals that were examined. There were no articles in the PPS that dealt with philology or textual analysis. All of the Category 8 articles concerned communicative art such as the 1973 article entitled “Passage Grave Art in the Boyne Valley, Ireland” published in Volume 39 of the PPS. This particular article identified rock art locations in Newgrange, Knowth and Dowth, Ireland. It went on to discuss the techniques of production, the types of symbols used and an analysis of the style of

the different symbol types (O'Kelly, 1973). Another example of this type of article was published in Volume 63, 1997 entitled "Meaning in the Later Prehistoric Rock-Engravings of Mont Bégo, Alpes Maritimes, France". The article covered not only a range of symbols that were detected such as daggers, halberds, ploughs and cattle, but also suggested the interesting interpretation that the geometric forms found in association with the above-mentioned symbols may have represented maps of prehistoric farmsteads (Barfield & Chippendale, 1997). While neither of these two articles deals with the subjects of language or texts, it is suggested they do deal with a possible form of prehistoric communication.

When it came to linguistic/textual articles, it was again with the articles in the JRS that there was a difficulty. As previously mentioned in the section above, some articles used so many textual quotes it was difficult to differentiate whether the main thrust was historical or analysis of text. It was again the case that some articles, such as the one written in 1924 by W. M. Calder, published in volume 14 of the JRS and entitled "Studies in Early Christian Epigraphy: II" were easy to identify as having a linguistic or textual focus (Calder, 1924). The article written in 1952 by R. Browning entitled "The Riot of A.D. 387 in Antioch" and published in volume 42 of the JRS was a different story. The author used a number of quotes from the writings of Libanius and St. John of Chrysostom and, while it borders on the historical, the article really probes the meanings of many of the phrases. It was indeed a judgement call as to how to identify this particular article, but it was finally decided that the article's textual analysis content outweighed that of its historical content (Browning, 1952). Hence, it was given a Category 8 designation.

One the reasons that a linguistic/textual category was included as part of the first five initial categories was because of the premise that the JEA would contain a number of such articles. Indeed, such proved to be the case as there are 830 Category 8 articles in the JEA. The types of articles represented in the JEA run the gamut from translation type articles, such as I. E. S. Edwards on "The Bankes Papyri: I and II" written in 1982 and published in Volume 68 the JEA to typical grammatical studies such as F. Junge's 1986 article entitled "Das Sogennante Narrative/Kontinuative *jw=f hr (tm) sdm*" published in Volume 72 of the JEA. The Edwards article was a translation of the Bankes Papyri and provided full hieroglyphic texts (Edwards, 1982). Junge's article was a reconsideration of the "non-initial main cause" found in Middle Egyptian that had been discussed some years earlier by Jaroslav Černý (Junge, 1986).

While it may seem somewhat odd, articles such as “The Paintings of the Chapel of Atet at Medum” published in Volume 23 of the JEA in 1937 dealing with graphic representations their analysis were also included within Category 8. Specifically, this article investigated the wall paintings in this chapel and then provided a commentary on the symbolism used in the paintings (Smith, 1937). It was decided that, while wall paintings were not specifically textual in nature, they were communicative art in a way similar to rock art. Therefore, articles of this type were given a Category 8 designation in the same way as rock art articles were in the PPS.

The general heading of Category 9 was site analysis, but included under this were such topics as settlement patterning, cultural patterning, site comparisons, artefact comparisons between sites and other associated topics. The PPS contained the greatest number of Category 9 articles with 227 designations. A typical example of an article dealing with settlement patterning was published in Volume 48 of the PPS, dated 1982 and entitled “Settlement Patterns and Landscape Change: The Late Neolithic and the Bronze Age of the Marias Poitevin area of Western France”. The study reported on in this article found that late Neolithic and Bronze Age sites had a tendency to be concentrated near the borders of wetlands. This made it possible to exploit both the limestone plateau in the area as well as the marshlands (Scarre, 1982). A number of culture patterning articles were also to be found in the PPS. “Cultural Grouping with in the British Pre-Roman Iron Age” written in 1964 and published in volume 30 of the PPS is a typical example of culture patterning article. According to the article, in the early stages of the La Tène culture’s settlement in Britain they inhabited the area of East Yorkshire. Later La Tène settlements shifted south and westward to the areas of Kent, Herefordshire and Essex. The article also identified another or more primitive cultural group called the Woodbury culture. It was suggested that the Woodbury culture may have been a Bronze Age group that survived into the Iron Age (Hodson, 1964). Another common type of article within Category 9 concerned comparing different sites with one another. A good example of this type of article was published in Volume 53 of the PPS in 1987. This article was entitled “Mesolithic sites at Malham Tarn and Great Close Mire, North Yorkshire”. A field survey was done of the different sites in the area of Malham Tarn and these were then compared with those sites that existed in Great Close Mire based on an analysis of the artefact types recovered from the different areas (Williams; et al., 1987). A very similar type of Category 9 article concerned the topic of artefact comparisons. For example, in 1947 article entitled “The Neolithic Cultures of South East Italy” published in

Volume 13 of the PPS dealt with the subject of Neolithic pottery and its distribution throughout South Eastern Italy (Stevenson, 1947).

The JRS had 147 Category 9 articles and these were similar to the kinds of articles found in the PPS. Settlement patterning, cultural patterning, site comparisons, inter-site artefact comparisons, etc. were all represented in articles found in the JRS. Category 9 articles have had a fairly common frequency throughout the JRS's publication history. While the JEA contains the fewest number of Category 9, 147 articles in all, a similar situation to that of the JRS obtains for Category 9 articles in the JEA. All the basic types of articles were represented in the JEA from the beginning of its publication in 1914, although the frequency of Category 9 articles has dropped off in the last several years.

Data base construction and data entry

The data base programme that was used for this study was an old MSDOS programme called First Choice that was developed and published around 1989 by PFS Software. While there are certainly newer software programmes, such as Microsoft Access, the First Choice data base programme provided a quick and simplistic method of form design, data entry and record sorting. Another consideration that had a bearing on why the First Choice programme was chosen for use was that, even though MSDOS programmes are considerably older than current software technology, they tend to be fairly reliable programmes because of their simplicity. The one obvious drawback of using this programme was the fact that few people, if any, are using this programme today. Eventually, the First Choice data bases will be converted to Microsoft Access formats to make the information more widely available.

A separate data base was constructed for each of the three sets of journals that were selected for this study, but all three of the data bases contained identical data entry fields. These included the year and month of publication, the volume number, the article number, the title and author, the categorical type of the article and any noteworthy comments about the article. Once the data base record forms had been developed, each article was reviewed and the data was entered onto the forms. When this had been completed for each set of journals, it was then possible to run different sorting instructions that facilitated the analysis of the data. When all of the data entry had been completed, the PPS data base contained 886 records; the JRS data base held 1260 records and the JEA data base contained the most records with 1686.

Method of Analysis

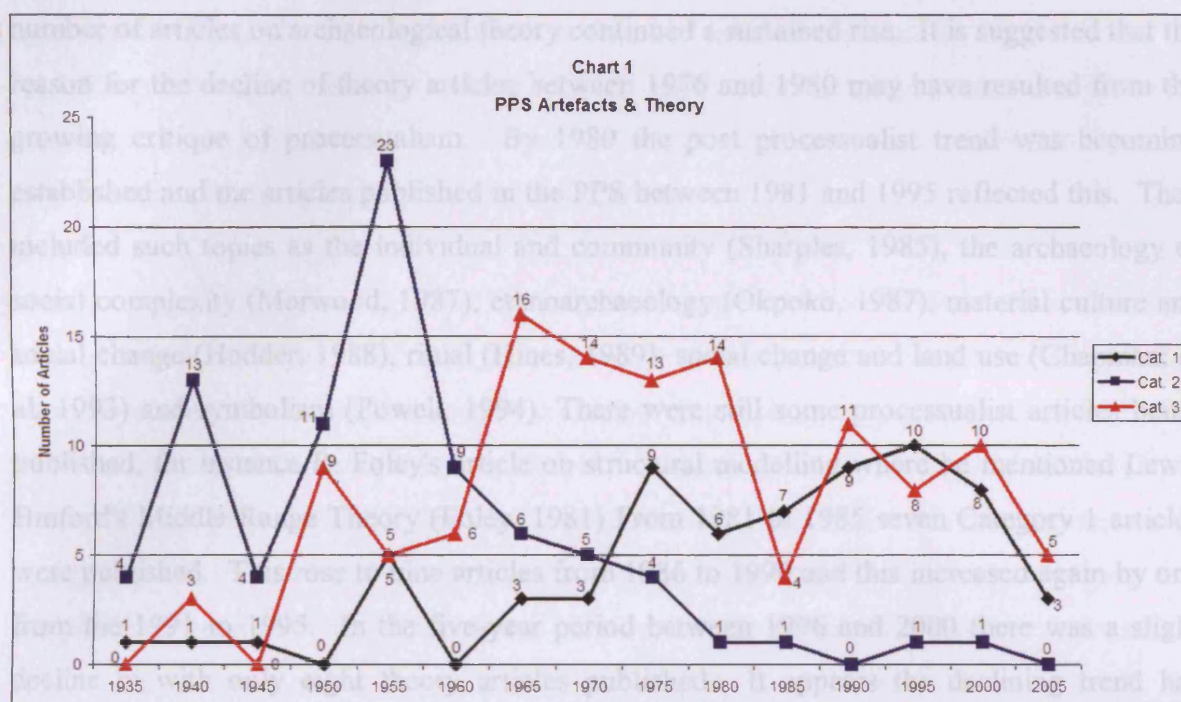
Once all the articles had been entered into the proper data bases it was possible to begin the analysis process. The purpose for categorising the articles and constructing data bases for each set of journals was to be able to identify and track trends over a period of time. The first thing that needed to be decided was what time divisions would best facilitate that goal. Small time groupings would certainly allow detailed tracking, but would be too unwieldy to use. The problem with using larger time groupings was that they would not provide enough detail in order to identify and track trends. It was decided that five-year groupings would provide the necessary detail and be easily usable. The Microsoft Excel spreadsheet programme was used to enter the data for each category in five-year groupings for each of the sets of journals. The advantage of doing this was that the Excel programme allowed each yearly column to be totalled and each categorical row to be totalled as well. Lastly, another column could be added on the right-hand side of each five-year grouping that automatically figured the percentages of the types of articles.

When all the data had been entered into spreadsheets, it was possible to construct line graphs that easily showed the trends for each set of journals. Four charts were done for each. The “Artefacts and Theory” chart showed the relationship between theory articles (Category 1) and the two artefact articles categories (Categories 2 and 3) in raw numbers. The second type of chart utilised the same data, but expressed that data in percentages. The “Artefacts, Site Analysis & Theory” chart showed the relationship of theory articles (Category 1) and Artefact Analysis/Interpretation Articles (Category 3) with Excavation Reports (Category 5) and Site Analysis Articles (Category 9). Finally, pie charts were constructed that showed the percentages of article types over the entire publication history for each of the three selected sets of journals.

Graph analysis

Chart 1: PPS Artefacts and Theory Chart [Categories 1, 2 and 3]

The PPS Artefacts and Theory Chart (Chart 1) contained line graphs for Categories 1, 2 and 3. In 1935, the starting year of the PPS, only one Category 1 (Archaeological Theory) was published during that year. From 1936 to 1945 there continued to be only one theory article



published for each of those five-year periods. However, during the five-year period from 1946 to 1950 there were no theory articles published. An increase in theory articles occurred during the period from 1951 to 1955 with five articles being published. A possible reason for the increase of theory articles during this period may have been as a result of the growing importance of functionalism that occurred after World War II (Trigger, 1989: 288). Indeed, several of the articles written during this period dealt with subjects such as economics in primitive trade (Hutton, 1951) and prehistoric social groups and V. Gordon Childe's concept of "socio-archaeology" (Gjessing, 1955). In the period from 1956 to 1960 the publication of theory articles once again dropped to zero.

Starting with 1961, a major change began to take place which was almost certainly brought about by the "New archaeology" that was championed by the Processualist School of archaeological thought. From 1961 to 1965 three theory articles were published and this held steady for the next five-year period from 1966 to 1970. From 1971 to 1975 the number of articles on archaeological theory published in the PPS rose to nine. The kinds of articles being published during this time covered such various topics as matrix analysis of pottery (Clark, 1962), population ecology in southern Africa (Lee, 1963), experimental archaeology (Jewell; et al, 1966) and explanations in prehistory (Harris, 1971). There was a slight from 1976 to 1980, with only six archaeological theory articles being published, but from 1981 to 1995 the

number of articles on archaeological theory continued a sustained rise. It is suggested that the reason for the decline of theory articles between 1976 and 1980 may have resulted from the growing critique of processualism. By 1980 the post processualist trend was becoming established and the articles published in the PPS between 1981 and 1995 reflected this. They included such topics as the individual and community (Sharples, 1985), the archaeology of social complexity (Morwood, 1987), ethnoarchaeology (Okpoko, 1987), material culture and social change (Hodder, 1988), ritual (Hines, 1989), social change and land use (Chapman; et al, 1993) and symbolism (Powell, 1994). There were still some processualist articles being published, for instance R. Foley's article on structural modelling where he mentioned Lewis Binford's Middle Range Theory (Foley, 1981) From 1981 to 1985 seven Category 1 articles were published. This rose to nine articles from 1986 to 1990 and this increased again by one from the 1991 to 1995. In the five-year period between 1996 and 2000 there was a slight decline in with only eight theory articles published. It appears the declining trend has continued to 2005.

In the first year of publication, 1935, there were four Category Two (Artefact Description/Categories) articles published. From 1936 to 1940 there was a major increase in these kinds of articles to 13, but this drop back down to only four articles being published during the war years of 1941 to 1945. For the next 10 years there was a sharp increase in Category 2 type articles, with 11 articles being published between 1946 and 1950 and 23 articles being published between 1950 and 1955. As noted previously, the "New Archaeology" or Processualist School of archaeological thought became increasingly influential from about 1960 on. Because of this, it is not too surprising that the number of articles that simply describe artefacts or assigned them to basic categories declines in the five-year period between 1955 and 1960. From 1960 on, there was a sustained 30 year decline to 1990 when no Category 2 articles were published in the five-year period from 1986 to 1990. For the next 10 years from 1991 to 2000 there were only two Category 2 type articles published, one in each five-year period. There is an apparent decline to the year 2005.

There were no Category 3 (Artefact Analysis/Interpretation) articles published in the first volume of the PPS in 1935, but three Category 3 articles were published in the period from 1936 to 1940. This immediately dropped to zero during the war years of 1941 to 1945. Just as there was a rise in Category 2 type articles between 1945 and 1950, so was their rise in Category 3 articles during this period. Nine articles were published that could be said to be

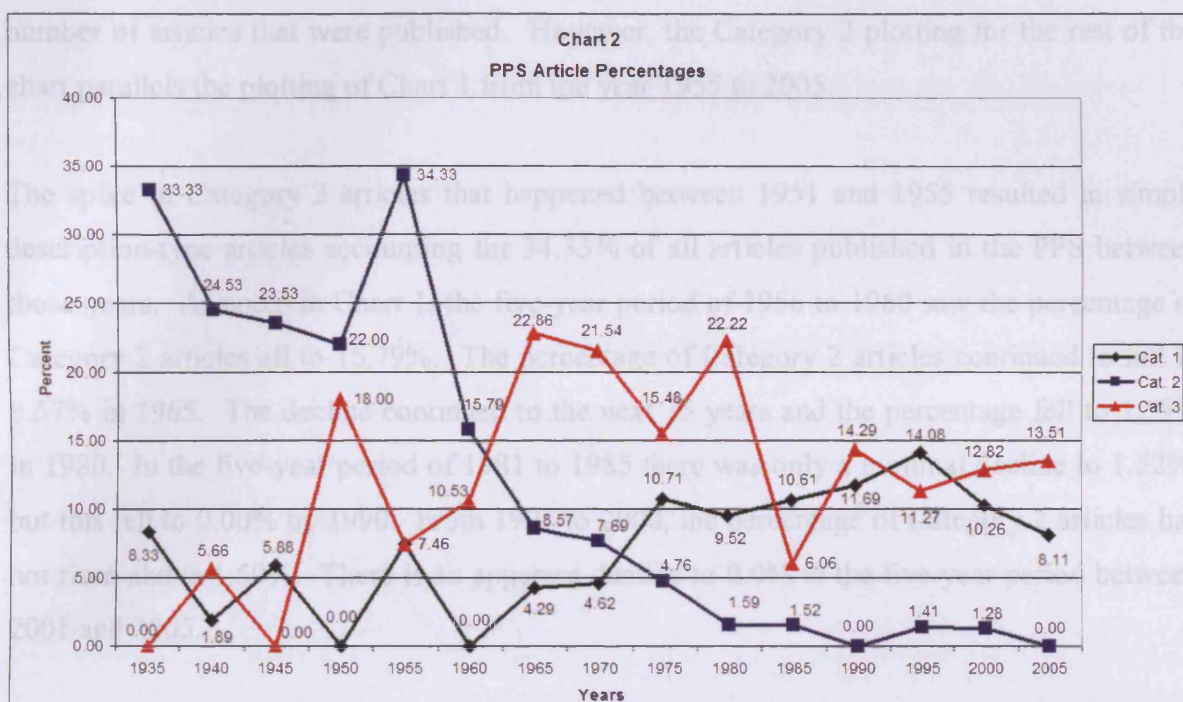
truly analytical or which placed artefacts within analytical classifications. However, in the next five-year period between 1951 and 1955 only five Category 3 type articles were published. In the period between 1956 and 1960 there was only a slight increase in Category 3 type articles, but things changed markedly after that.

What is specifically interesting about the information on this section of the chart is that in the time period between 1951 and 1955, there were 23 simple descriptive Category 2 articles as opposed to only five analytical Category 3 articles. In the five-year period between 1955 and 1960 the number of Category 2 articles dropped to only nine while the number of Category 3 articles published rose to six. The time period between 1961 and 1965 saw an increase in Category 3 articles to 16 and this surpassed Category 2 articles by a wide margin. Again, this can probably be attributed to the interests of processualist archaeologists in the function and analysis of artefacts rather than simply describing them. Things hold fairly steady for Category 3 type articles for the next 15 years with only slight declines and rallies.

There is a major decrease in Category 3 articles between the years 1981 and 1985. This is perhaps not too surprising. Certainly processualist archaeologists were interested in the functional analysis and analytical classifications of artefacts, but when the post processualist trend became influential in the early 1980s, there was a de-emphasis on functionalism. It's interesting to note that while there was a major decrease in Category 3 type articles in the five-year period from 1981 to 1985, this was the start of the 15 year increase in Category 1 theory articles. The years 1981 to 1990 saw an increase in Category 3 articles to 11 articles published. There was a small decline from 1991 to 1995, but this rally to 10 articles published between 1996 and 2000. From 2000 to 2005 it appears that there is another decline.

Chart 2: PPS Article Percentages Chart [Categories 1, 2 &3]

The PPS Article Percentages Chart (Chart 2) perhaps demonstrates the trends shown in Chart 1 even more definitively since it shows the percentages as they relate to articles in other categories. In Volume 1, 1935 of the PPS Category 1 articles account for 8.33% of the overall articles in that volume. This drops between 1936 and 1940 to 1.89%, but rebounds within the next five years to being 5.88% of the overall articles in 1945. One should note that while Chart 1 shows the same number of Category 1 articles being published in 1935 and



each of the two following five-year periods, Chart 2, showing percentages, plots an up-and-down pattern for the same timeframe. The reason for this is that the percentages are affected by the number of articles that were published in any given five-year period. The publication of Category 1 articles drops again between 1946 and 1950 to 0.00%. Between 1951 and 1955 there is another rise in Category 1 articles to 7.46% , but this falls of again between 1956 and 1960 to 0.0%. From 1960 onward, there is a continual increase in the percentage of Category 1 articles through to 1995. The percentage of Category 1 articles goes from 0.00% in 1960 to 4.29% by 1965. This only slightly increases to 4.62% by 1970, but increases to 10.71% by 1975. There was only a slight decline in the five-year period from 1976 to 1980. From 1981 to 1995 there is a continual growth in the percentage of Category 1 articles to 14.08%. The percentage of Category 1 articles falls between 1996 and 2000 to 10.26% and there appears to be a continuing declined to 2005.

Category 2 articles accounted for 33.33% of the overall articles in the first year of publication in 1935. This percentage fell to 24.53% for the five-year period of 1936 to 1940 and continued to fall for the next 10 years to a low of 22.00% in 1950. There is something striking about this part of Chart 2 when compared with Chart 1. Chart 2, which plots percentages, shows a continual decline from 1935 to 1950, whereas Chart 1, which plots raw numbers, shows a very up and down plotting. Again, the percentages are affected by the

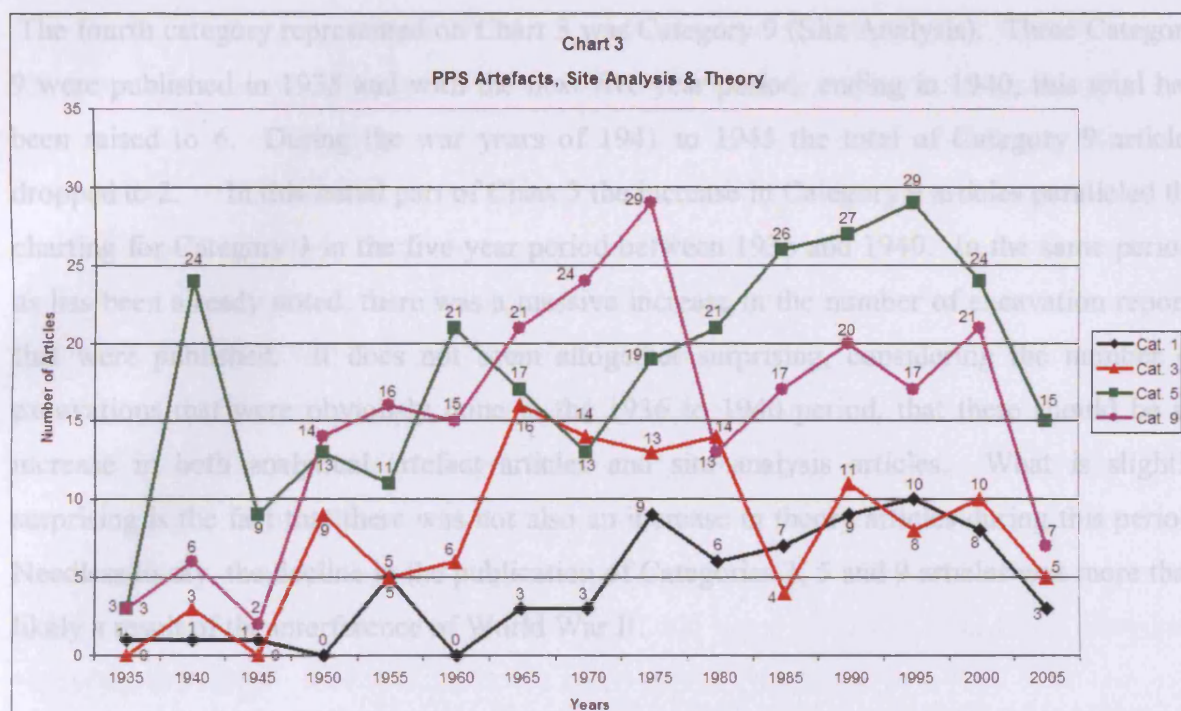
number of articles that were published. However, the Category 2 plotting for the rest of the chart parallels the plotting of Chart 1 from the year 1955 to 2005.

The spike in Category 2 articles that happened between 1951 and 1955 resulted in simple description-type articles accounting for 34.33% of all articles published in the PPS between those years. As noted in Chart 1, the five-year period of 1956 to 1960 saw the percentage of Category 2 articles all to 15.79%. The percentage of Category 2 articles continued to fall to 8.57% in 1965. The decline continued to the next 15 years and the percentage fell to 1.59% in 1980. In the five-year period of 1981 to 1985 there was only a minimal decline to 1.52%, but this fell to 0.00% by 1990. From 1991 to 2000, the percentage of Category 2 articles has not risen above 1.50%. There is an apparent decline to 0.0% in the five-year period between 2001 and 2005.

The plotting for Category 3 articles in Chart 2 reflects fairly closely the plotting found in Chart 1. While there were no Category 3 articles published in 1935, Volume 1, the percentage of Category 3 articles published rose to 5.66% by 1940. This dropped to 0.00% in 1945. A sharp rise in Category 3 articles occurred by 1950 when the percentage of Category 3 rose to 18.00%, however the percentage fell in the next five-year period to 7.46%. For the next 10 years there was a sustained rise in Category 3 articles from 7.46% to 22.86%. Once again, it should be noted that in the same timeframe, from 1955 to 1965, the publication of Category 2 articles fell drastically while the publication of Category 3 articles rose significantly. In the five-year period of 1961 to 1970, there was a slight decrease in the percentage to 21.54% and this drop even further, percentage wise, in the next five-year period to 15.48%. By 1980 this had rebounded to 22.22%. From 1981 to 1985 fewer Category 3 were published and only accounted for 6.06% of the articles published in that five-year period in the PPS. The percentages increased from 1986 to 1990 and the gram shows that to the year 2005 category three articles continued to account for between 10.00% and 15.00% of all articles published in the PPS.

Chart 3: PPS Artefacts, Site Analysis & Theory Chart [Categories 1, 3, 5 & 9]

The Artefacts, Site Analysis & Theory Chart (Chart 3) plots the relationship between Category 1 (Archaeological Theory), Category 3 (Artefact Analysis/Interpretation), Category 5 (Excavation Reports) and Category 9 (Site Analysis). The plotting for Category 1 articles



has already been described in the analysis of Chart 1 as has the plotting for Category 3. Rather than repeat what has already been done, the plotting for Categories 5 and 9 will be described and relevant comments inserted concerning the interactions of the four categories graphed in this chart. There were three excavation report articles published in the first volume of the PPS in 1935. From 1936 to 1940 this number increased to 24. Not surprisingly, fieldwork was a bit curtailed during the war years from 1941 to 1945 and this could be seen as a reason for the decline in the number of excavation report articles during that five-year period. From 1946 to 1950 the number of category five articles rose to 13, but this fell between the period of 1951 and 1955 to 11 articles. From 1956 to 1960 there was a flurry of archaeological activity from all over the British Isles on Upper Palaeolithic (Mace, 1959) (McBurney, 1959) Mesolithic (Higgs, 1959) (Rankine; at al, 1960), Neolithic (Ashbee, 1957) (Thompson, 1957), Bronze Age (Burstow, 1958) (Burstow; at al, 1957) (Christy, 1960) and Iron Age (Gelling, 1958) sites that resulted in 21 excavation report articles, being published during that period. This activity was not sustained, for there was a continued 10-year decline between 1961 and 1970. By 1971 however, a major change was in the air. From 1971 to 1995 there was a marked sustained increase every year in the number of excavation report articles. This reached its peak in 1995 when 29 excavation report articles had been published between the years 1991 and 1995. The number of category five articles declined somewhat between 1996 and 2000. It appears that the decline has continued for 2005.

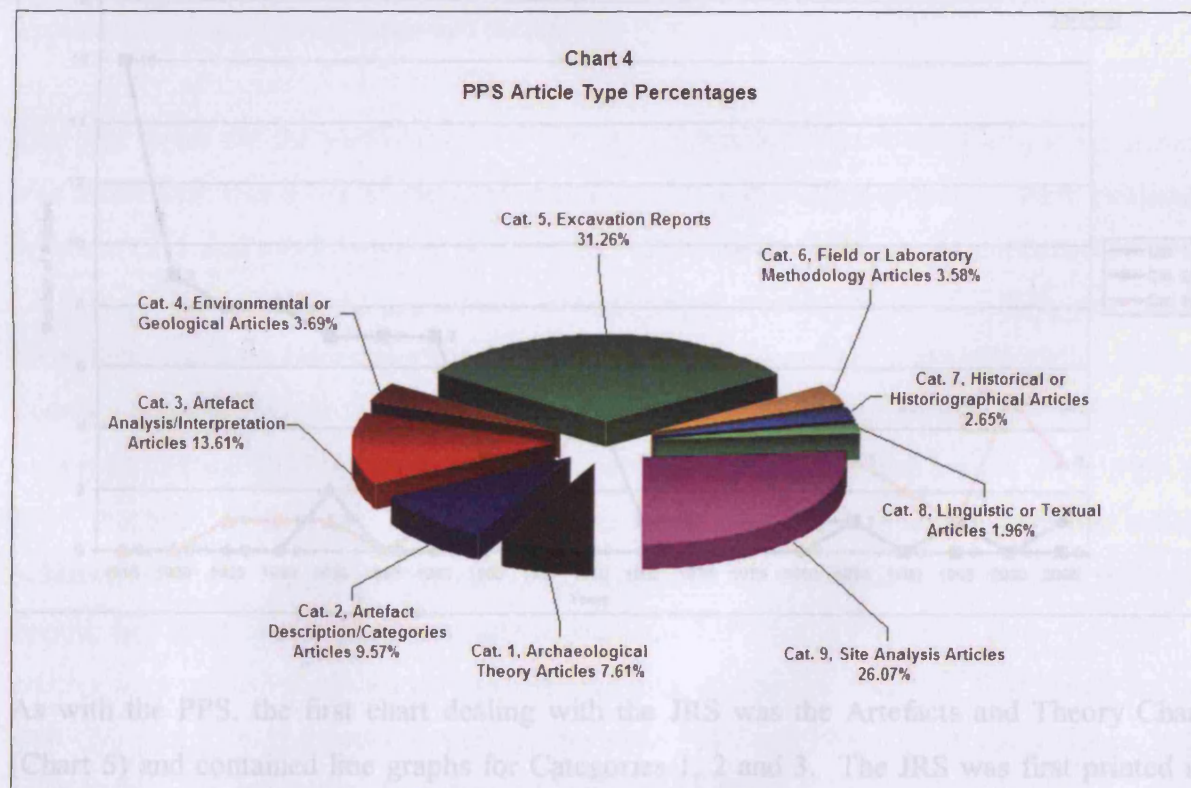
The fourth category represented on Chart 3 was Category 9 (Site Analysis). Three Category 9 were published in 1935 and with the next five-year period, ending in 1940, this total had been raised to 6. During the war years of 1941 to 1945 the total of Category 9 articles dropped to 2. In this initial part of Chart 3 the increase in Category 9 articles paralleled the charting for Category 3 in the five-year period between 1936 and 1940. In the same period, as has been already noted, there was a massive increase in the number of excavation reports that were published. It does not seem altogether surprising, considering the number of excavations that were obviously done in the 1936 to 1940 period, that there should be an increase in both analytical artefact articles and site analysis articles. What is slightly surprising is the fact that there was not also an increase in theory articles during this period. Needless to say, the decline in the publication of Categories 3, 5 and 9 articles was more than likely a result of the interference of World War II.

From 1946 to 1950 there was a sharp increase in Category 9 articles to 14 and this was the beginning of a continued increase that would last until 1975. Again, the rise in Category 9 articles was paralleled quite closely by Category 3 articles during this same time period. From 1950 to 1955 there was a slight increase to 16 articles and this fell off only slightly during the years 1956 to 1960 to 15 articles published. It is suggested that the sharp increase in the publication of site analysis articles that happened between 1946 and 1950 and the subsequent continuation of a significant number of site analysis articles over the next 10 years could be attributed to the rising importance of functionalism in prehistoric archaeology after World War II in Britain, Europe and the United States (Trigger, 1989: 244-288).

From 1961 to 1975, the publication of Category 9 articles rose significantly during each five-year period to a high point of 29 articles being published between 1971 and 1975. It is reasonable to attribute this phenomenon to the impact of processualism and the New Archaeology. The PPS published a number of articles on varied topics such as settlement pattern studies, culture patterns and change, site comparisons and artefact comparison studies and topics such as these figured prominently in processualist thinking (Sabloff, 2005). Paralleling the rise of Category 9 articles from 1961 to 1975 was a rise in Category 1 theory articles as well. Initially, in the time period between 1961 and 1965, there was also a rise in Category 3 articles as well, but this levelled off from 1966 to 1975.

During the five-year period from 1976 to 1980 the number of Category 9 articles dropped to 13. It must be remembered that in the latter part of the 1970s some archaeologists, influenced by the work of anthropology is such as Bourdieu Sahlins and Turner, were becoming disenchanted with processual archaeology (Hodder, 2005: 208). It is suggested that the growing criticism directed toward processual archaeology could have been a factor in the decline in Category 9 articles during this period. The publication of site analysis articles rebounded from 1981 to 1990 and was more than likely the result of the growing influence of post-processual or interpretive archaeology. The same time this increase was occurring, there were also rises charted for Category 1 (archaeological theory) and Category 5 (excavation reports) articles. While there was a slight decline in Category 9 articles during the five-year period of 1991 to 1995, there was again a rebound between 1996 and 2000. Category 9 articles appeared to decline between 2001 and 2005 along with the other three categories plotted on this chart.

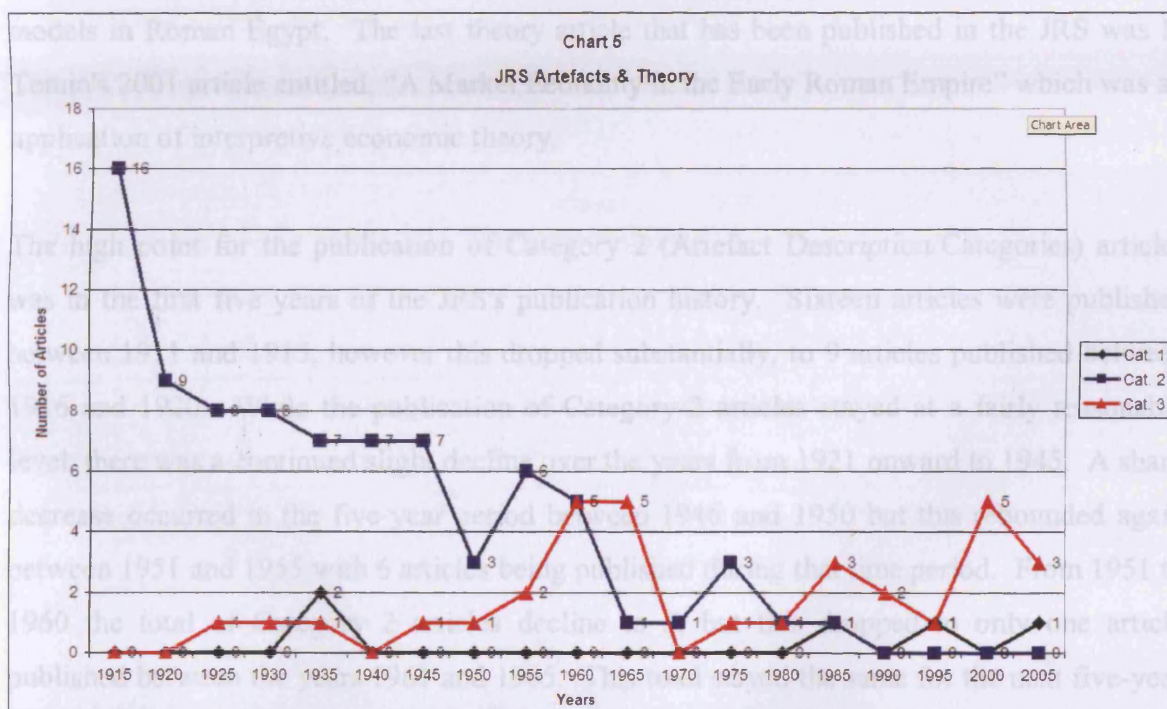
Chart 4: PPS Article Percentages



The last chart concerning the PPS was a pie chart showing Article Type Percentages (Chart 4). This particular chart was done in order to graphically show the percentages of the

different article categories over the entire publication run for the PPS. Category 5 articles (Excavation Reports) accounted for 31.26% of all the articles in the PPS's publication history while Category 9 articles (Site Analysis) were the second most common at 26.07%. Category 3 articles (Artefact Analysis/Interpretation) ranked third at 13.61% followed by Category 2 articles (Artefact Description/Categories) which accounted for 9.57% of all PPS articles. Category 1 articles (Archaeological Theory) were not as numerous as expected and made up only 7.61% of the overall articles. Somewhat surprisingly Category 4 articles (Environmental or Geological) accounted for only 3.69% of the total number of articles in the PPS and Category 6 articles (Field or Laboratory Methodology) came in slightly lower at 3.58%. What was not really surprising was that Category 7 articles (Historical or Historiographic) and Category 8 articles (Linguistic or Textual) contributed just 2.65% and 1.96% respectively.

Chart 5: JRS Artefacts and Theory Chart [Categories 1, 2 and 3]



As with the PPS, the first chart dealing with the JRS was the Artefacts and Theory Chart (Chart 5) and contained line graphs for Categories 1, 2 and 3. The JRS was first printed in 1911 which conveniently allowed the plotting to cover a full five years to 1915. As this particular chart shows, there were few theory articles published throughout the publication history of the JRS. There were literally no Category 1 articles published in the JRS until the

five-year time period from 1931 to 1935. Only two theory articles were published during this time. The first was written by R.G. Collingwood in 1931 concerning the excavations along Hadrian's Wall that took place from 1921 to 1930. The article dealt specifically with excavation theory (Collingwood, 1931). The second article, written by G. MacDonald and entitled, "The Dating-Value of Samian Ware", explained dating techniques using pottery and also mentioned the idea of scientific archaeology (MacDonald, 1935).

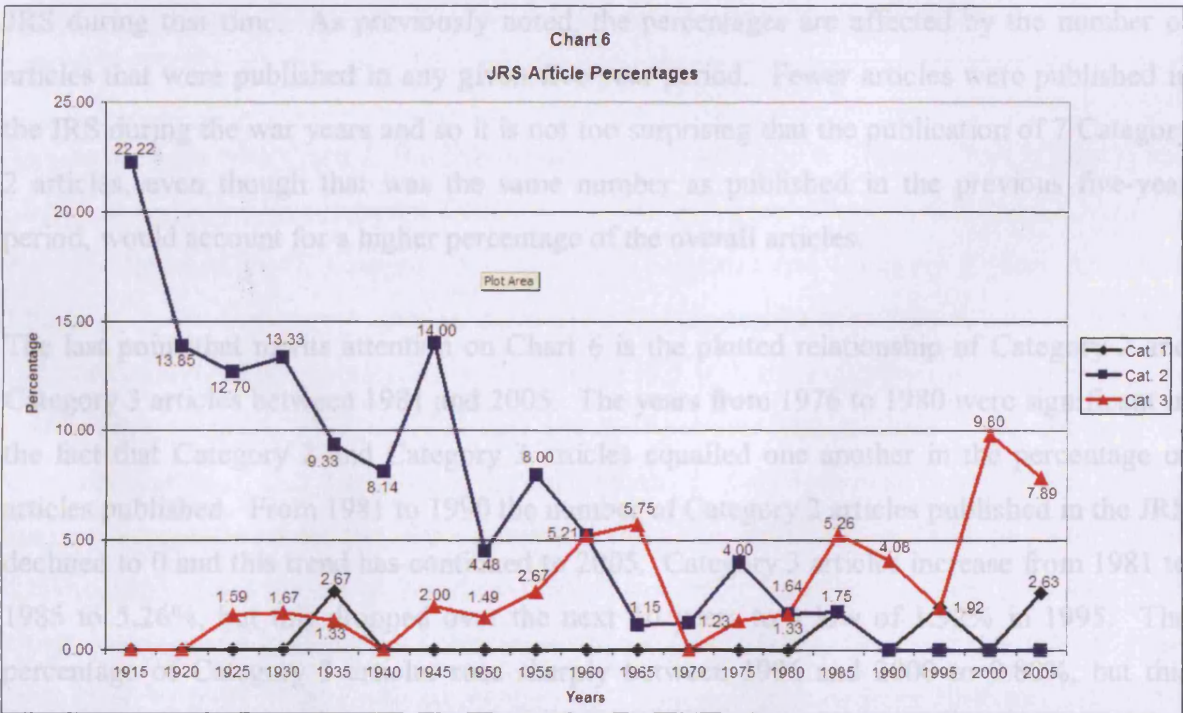
From 1936 to 1940 the number of theory articles published dropped to 0 and this continued to be the situation for the next 40 years. From 1981 to 2005 there have only been three other theory articles published. D.W. Rathbone wrote an article in 1981 on interpretive theory entitled, "The Development of Agriculture in the 'Ager Cosanus' During the Roman Republic: Problems of Evidence and Interpretation" (Rathbone, 1981). In 1992 the JRS published R.S. Bagnall's article, "Landholding in Late Roman Egypt: The Distribution of Wealth", which contained an in-depth statistical analysis on wealth, population and nome models in Roman Egypt. The last theory article that has been published in the JRS was P. Temin's 2001 article entitled, "A Market Economy in the Early Roman Empire" which was an application of interpretive economic theory.

The high point for the publication of Category 2 (Artefact Description/Categories) articles was in the first five years of the JRS's publication history. Sixteen articles were published between 1911 and 1915, however this dropped substantially, to 9 articles published between 1916 and 1920. While the publication of Category 2 articles stayed at a fairly reasonable level, there was a continued slight decline over the years from 1921 onward to 1945. A sharp decrease occurred in the five-year period between 1946 and 1950 but this rebounded again between 1951 and 1955 with 6 articles being published during that time period. From 1951 to 1960 the total of Category 2 articles decline to 5, but this dropped to only one article published between the years 1961 and 1965. This total stayed the same for the next five-year period, but there was a slight resurgence between 1971 and 1975 when three Category 2 articles were published. From 1971 to 1980 the total dropped to 1 and this held steady for the next five years, but the total dropped to 0 between 1986 and 1990. From that point to 2005 there have been no Category 2 articles published in the JRS.

The charting for Category 3 (Artefact Analysis/Interpretation) articles in the JRS's first 10 years of publication shows that no Category 3 articles were published. Things changed only

slightly in the time period between 1921 and 1935. Only one Category 3 article was published in the JRS in each of those five-year periods. The publication of artefact analysis/interpretation articles dropped to 0 between 1936 and 1940. The year 1941 marked the start of a slight rise in Category 3 articles that continued until 1960. The year 1960 is significant on this chart because it shows, for the first time in the JRS's publication history, that the publication of Category 3 articles equalled the publication of Category 2 articles. From 1961 to 1965 Category 2 articles nosedived to only 1 published while the number of Category 3 articles remained at 5. While the publication trend for Category 3 articles levelled off between 1961 and 1965, it was not sustained and dropped to 0 in the five-year period between 1966 and 1970. The number of Category 3 articles again fell below the number of Category 2 articles. In the next 10 years, only 1 artefact analysis/interpretation article was published in each five-year period from 1971 to 1980. From 1981 to 2000 Category 3 articles completely supplanted Category 2 articles in publication. From 2001 to 2005 it appears that has been another downturn in the number of Category 3 articles that have been published.

Chart 6: JRS Article Percentages Chart [Categories 1, 2 &3]



The plotting for the three categories represented on the JRS Article Percentages Chart (Chart 6) follows almost precisely the plotting for those three categories one Chart 5. There are

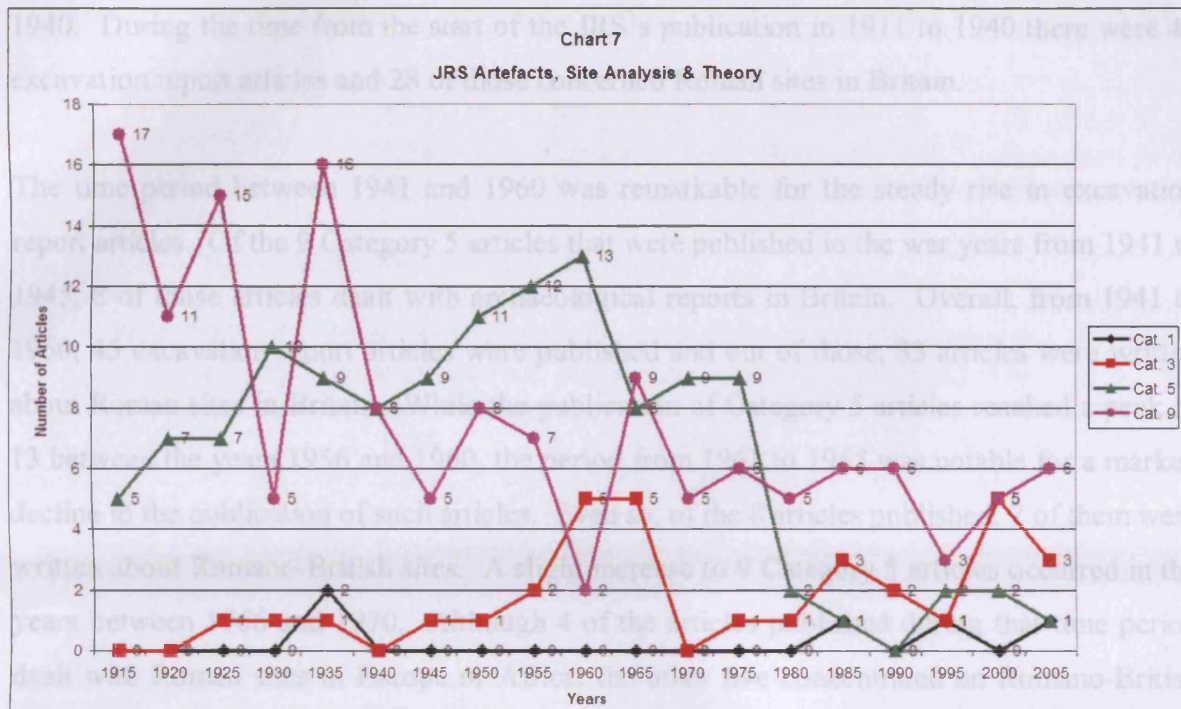
however, several noteworthy points. It is significant that, in the first five years of the JRS's publication history, Category 2 (Artefact Description/Categories) articles made up 22.22% of the overall articles published during that time period, while there were no Category 1 (Archaeological Theory) or Category 3 (Artefact Analysis/Interpretation) articles published. The implication seems to be that scholars working within the field of Roman studies at that time were more interested in data collection, and placing artefacts within descriptive categories than in constructing archaeological theory or engaging in interpretive analysis of artefacts. Certainly, this mindset would fit in well with the culture-historical trend that was so influential in archaeology from the 1880s to the mid-1930s (Trigger, 1989: 148-206).

Another difference in the plotting of Category 2 articles between Chart 5, which showed the publication of articles in raw numbers, and Chart 6, which plotted the percentages, is that the decline in the publication of Category 2 articles that occurred from 1921 to 1940 appears much greater in Chart 6 when expressed in percentages. Chart 5 also shows that the number of Category 2 articles published held steady at 7 between 1941 and 1945. Chart 6 shows this as an increase where Category 2 articles accounted for 14.00% of all articles published in the JRS during that time. As previously noted, the percentages are affected by the number of articles that were published in any given five-year period. Fewer articles were published in the JRS during the war years and so it is not too surprising that the publication of 7 Category 2 articles, even though that was the same number as published in the previous five-year period, would account for a higher percentage of the overall articles.

The last point that merits attention on Chart 6 is the plotted relationship of Category 2 and Category 3 articles between 1981 and 2005. The years from 1976 to 1980 were significant in the fact that Category 2 and Category 3 articles equalled one another in the percentage of articles published. From 1981 to 1990 the number of Category 2 articles published in the JRS declined to 0 and this trend has continued to 2005. Category 3 articles increase from 1981 to 1985 to 5.26%, but this dropped over the next 10 years to a low of 1.92% in 1995. The percentage of Category 3 articles rose sharply between 1996 and 2000 to 9.80%, but this appears to have dropped off slightly toward 2005. The important point to note here is that from 1981 to 2005, the kinds of artefact articles that have been published has changed dramatically. Articles that simply describe artefacts or that place them in simple descriptive

categories steadily declined to 0 over that period while articles that involved real artefact analysis became the standard.

Chart 7: JRS Artefacts, Site Analysis & Theory Chart [Categories 1, 3, 5 & 9]



As was the case with Chart 3, the JRS Artefacts, Site Analysis & Theory Chart (Chart 7) and plotted the relationships between Category 1 (Archaeological Theory), Category 3 (Artefact Analysis/Interpretation), Category 5 (Excavation Reports) and Category 9 (Site Analysis). The plotting for Category 1 articles, as noted in the discussion for Chart 5, was fairly much flat line throughout the publication history of the JRS with the exceptions noted from 1931 to 1940, 1981 to 1985, 1991 to 1995 and apparently from 2001 to 2005. The plotting for Category 3 articles, also discussed in the description of Chart 5, showed that very few artefact analysis/interpretation articles were published from the JRS's start in 1911 to 1950. From 1951 to 1965 things improved, but then dropped to nothing between the years 1966 and 1970. Only a modest rise in Category 3 articles occurred from 1971 to 1985 and this fell off again from 1986 to 1995. There was an increase in Category 3 articles from 1996 to 2000, but it appears that there has been a slight decline in the years from 2001 towards 2005.

From 1911 to 1915 there were 5 Category 5 (Excavation Reports) articles published in the JRS. This increased to 7 articles in the next five year period, from 1916 to 1920, and this number stayed steady between 1921 and 1925. The years 1926 to 1930 saw a rise in excavation report articles to 9 and this trend held steady for the next five year period from 1931 to 1940. The publication of Category 5 articles fell only slightly between 1936 and 1940. During the time from the start of the JRS's publication in 1911 to 1940 there were 44 excavation report articles and 28 of those concerned Roman sites in Britain.

The time period between 1941 and 1960 was remarkable for the steady rise in excavation report articles. Of the 9 Category 5 articles that were published in the war years from 1941 to 1945, 8 of those articles dealt with archaeological reports in Britain. Overall, from 1941 to 1960, 45 excavation report articles were published and out of those, 33 articles were written about Roman sites in Britain. While the publication of Category 5 articles reached a peak of 13 between the years 1956 and 1960, the period from 1961 to 1965 was notable for a marked decline in the publication of such articles. Even so, of the 8 articles published, 7 of them were written about Romano-British sites. A slight increase to 9 Category 5 articles occurred in the years between 1966 and 1970. Although 4 of the articles published during that time period dealt with Roman sites in Europe or Africa, the other five concentrated on Romano-British sites.

It should be perceptible that a large majority of the excavation report articles that were published in the JRS, especially in the period of 1941 to 1960, dealt with Roman sites in Britain. As noted earlier in this chapter, by 1970 the editorial staff of the JRS determined that there was sufficient need for a special journal specific to the subject of Roman Britain. The resultant journal was entitled *Britannia* and made its debut in 1970. In an editorial that appeared in the first volume, *Britannia's* editor, S.S. Frere, provided statistical evidence gleaned from the Annual Reports of the Roman Society published in the JRS that supported the Society's decision to publish the new journal.

"In the years since the end of World War II there has undoubtedly been an 'exploration-explosion' in our subject, to adapt current jargon; for in addition to be vastly increased range of official excavations necessitated by the development up and down the country and largely financed by the Ministry of Public Building and Works, there are growing numbers of local groups working like beavers but not all possessing adequate media of publication. A simple way to illustrate the great growth of known activity is to work out figures from the Annual Report in

JRS. The reports for the years 1939, 1950 and 1968 have been chosen for this purpose: 1939 to illustrate the culmination of pre-war activity; 1950 to illustrate the situation when the immediate stringencies of the war-years were past; and 1968 to illustrate the current position.

(i) *Total number of discoveries recorded*

1939	1950	1968
73	61	152

(ii) *Geographical distribution of discoveries*

1939	Wales: 4	Scotland: 14	England: 55
1950	Wales: 2	Scotland: 7	England: 52
1968	Wales: 11	Scotland: 9	England: 132

(iii) *Relative importance of discoveries*

From the total is given, those discoveries considered of sufficient general significance to have warranted full publication in *Britannia*, if it had then existed, can be calculated as follows:

1939	1950	1968
18	20	38

These analyses seem to show that there had been a 100 per cent increase and more, not merely in discoveries made but in *important* discoveries" (www.36).

The data provided in this editorial seems to provide very good support for the information as presented in Chart 7. Even though there was a drop in the number of Category 5 articles published between 1961 and 1965 from that the previous five year period, it must be remembered that the majority of the excavation report articles that were published in the JRS between 1961 and 1965 were about Roman sites in Britain.

The same number of Category 5 articles were published in the JRS between 1971 and 1975, but because most Roman Britain articles from 1970 on were being published in *Britannia*, the articles published in the JRS after 1970 overwhelmingly dealt with non-British subjects. There were, however, some exceptions. Two articles, one published in 1973 and the other in 1977, concerned the topic of air reconnaissance of Roman sites in Britain (St. Joseph, 1973) (St. Joseph, 1977).

The publication of excavation report articles in the JRS declined sharply to only 2 between the years 1976 and 1980. Only 1 Category 5 article was published in the next five year period and this dropped to 0 between 1986 and 1990. From 1991 to 1995 a total of 2 excavation

report articles were published in the JRS and this number held steady from 1996 to 2000. At the present time, it appears that there is a slight decline in the publication of Category 5 articles toward 2005.

One of the noticeable things about the plotting of Category 9 articles in the first 25 years of the JRS's publication history is its erratic nature. The publication of Category 9 (Site Analysis) articles in the JRS reached an all-time high in the initial years of publication between 1911 and 1915. Seventeen site analysis articles were published during that time period. Between 1916 and 1920 the number of Category 9 articles decline to only 11, but it is possible that part of the reason this may have occurred was due to Europe's preoccupation with World War I. Between 1921 and 1925 the number of site analysis articles rose to 15, but this dropped dramatically between 1926 and 1930 when only 6 Category 9 articles were published.

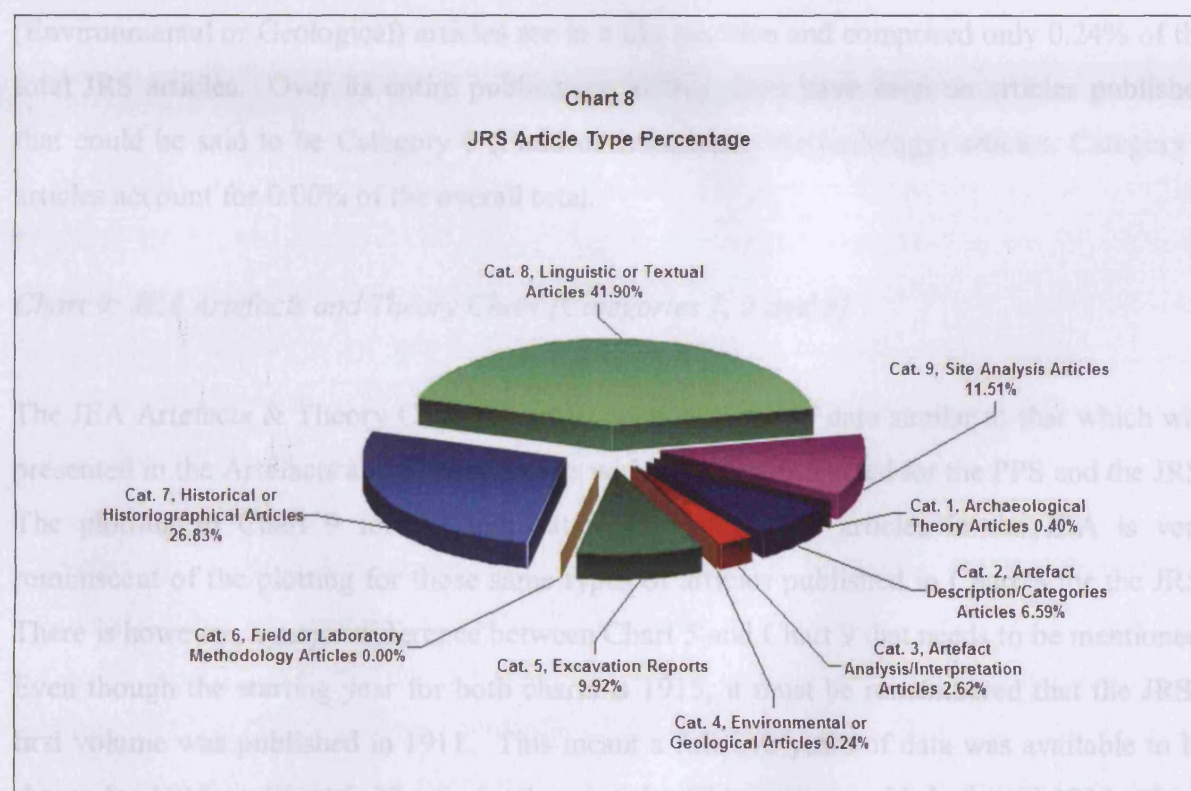
As dramatic as was the decline in the publication of Category 9 articles in the JRS between 1926 and 1930, the following increase in such articles between 1931 and 1935 was equally so. A number of significant Category 9 articles were published during this time and topics in clue to such things as artefact patterning (Curle, 1932) (Pryce; et al, 1935), site comparison (Richmond, 1932) and site analysis (Rostovtzeff, 1932). The time period between 1931 and 1935 was significant not only for the types of site analysis articles that were being published in the JRS, but also because there was a significant amount of fieldwork being done, as evidenced by the line graph of Category 5 articles on this chart, and a modest increase in the publication of theory articles during this time frame.

From 1936 to 1940 the number of Category 9 articles fell by half. Not surprisingly, this trend continued during the war years between 1941 and 1945. After the war, from 1946 to 1950, there was a rebound in site analysis articles which mirrored a rise in the publication of Category 5 and Category 3 articles. This trend did not last long as in the time period between 1945 and 1950 there was a slight decrease in the publication of Category 9 articles and this trend increased dramatically between 1956 and 1960 when only two site analysis articles were published in that five-year time period.

While there was a decrease in Category 5 articles between 1961 and 1965 such was not the case for Category 9 articles. During this five-year period, 9 site analysis articles were

published in the JRS. It appears that analysis articles were popular at this time as it was also during this time period that Category 3 articles hit a peak. This situation did not last long as the publication of both Category 9 and Category 3 declined significantly between 1966 and 1970. While the number of Category 9 articles decrease by about half, to only 5 articles published between 1966 and 1970, the publication of site analysis articles remained fairly constant for the next 20 years. Between 1971 and 1990 the publication of Category 9 articles averaged between 5 and 6 articles for each five-year period. There was a decline in the publication of site analysis articles between 1991 and 1995, but there has been a steady rise in the publication of those articles up to 2005. Interestingly, Chart 7 also shows that the trend in the publication of Category 9 articles from 1971 to 2005 was fairly closely mirrored by the publication of Category 3 articles.

Chart 8: JRS Article Percentages

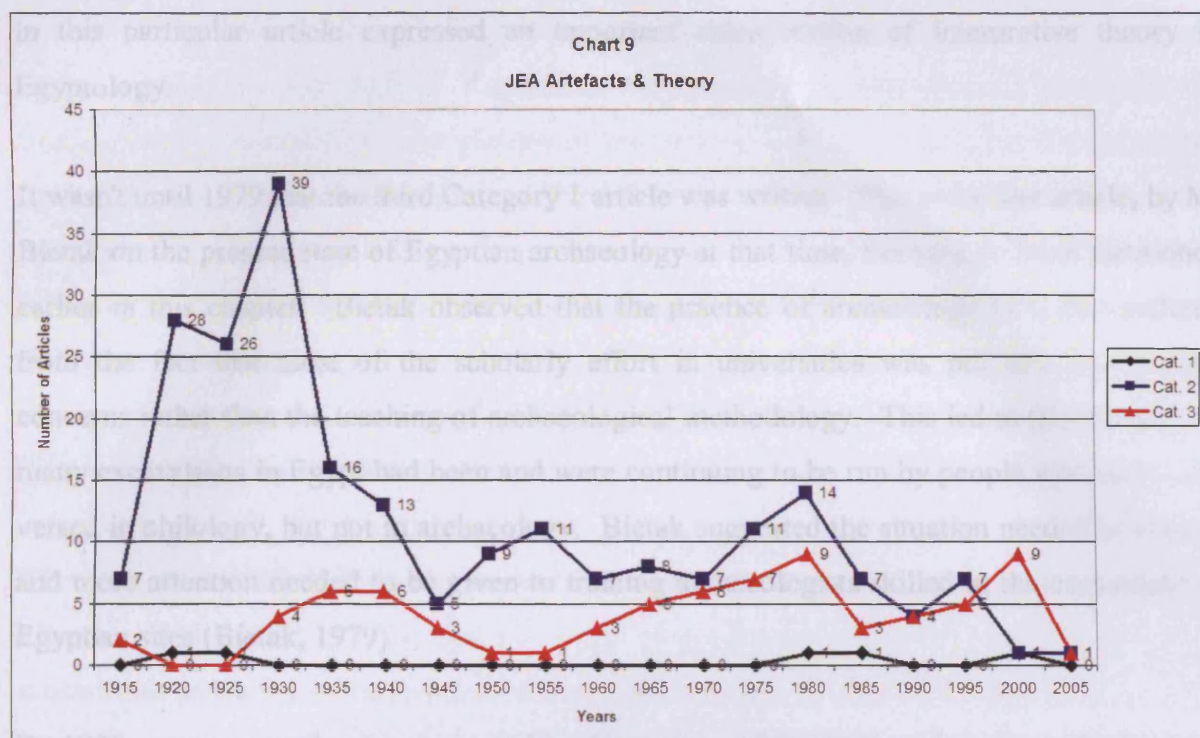


The JRS Article Type Percentages Chart (Chart 8) is another pie chart showing that percentages of article types published in the JRS over its publication history. Since there has been so much interest in classical Roman studies since the time of the Renaissance it is not surprising that the majority of the articles published in the JRS over its publication history

have been linguistic, textual or historical in nature. Category 8 (Linguistic or Textual) articles accounted for 41.90% of the overall articles published in the JRS while Category 7 (Historical or Historiographical) accounted for another 26.83% of total. The third largest percentage, 11.51%, of JRS articles was Category 9 (Site Analysis) and this was followed closely by Category 5 (Excavation Reports) articles which comprised 9.92% of the total. Because of the influence of the cultural-historical approach in archaeology that was popular in the beginning part of the 20th Century, it is understandable that there were numerous articles written about artefacts during those years that were simply descriptive or which placed artefacts in simple categories. As a result, 6.59% of the articles dealing with artefacts are Category 2 (Artefact Description/Categories). Attempts to really analyse artefacts and place them within analytical classifications was a phenomenon that started to occur after World War II. Because this trend was relatively recent, Category 3 (Artefact Analysis/Interpretation) accounted for only 2.62% of the JRS's articles. Category 1 (Archaeological Theory) articles have been nearly nonexistent and cover a mere 0.40% of the JRS's article total. Category 4 (Environmental or Geological) articles are in a like position and comprised only 0.24% of the total JRS articles. Over its entire publication history there have been no articles published that could be said to be Category 6 (Field or Laboratory Methodology) articles. Category 6 articles account for 0.00% of the overall total.

Chart 9: JEA Artefacts and Theory Chart [Categories 1, 2 and 3]

The JEA Artefacts & Theory Chart (Chart 9) contains graphic data similar to that which was presented in the Artefacts and Theory Charts which were constructed for the PPS and the JRS. The plotting in Chart 9 for the publication of Category 1 articles in the JEA is very reminiscent of the plotting for those same types of articles published in Chart 5 for the JRS. There is however, a major difference between Chart 5 and Chart 9 that needs to be mentioned. Even though the starting year for both charts is 1915, it must be remembered that the JRS's first volume was published in 1911. This meant a full five years of data was available to be shown for 1915 on Chart 5. The first volume of the JEA was not published until 1914, which meant that only two years worth of data were available to make the statistical calculation for 1915. This accounts for the overall low numbers of articles shown for 1915 on Chart 9.



From 1914, when the JEA was first published, until 2005 there have only been five theory articles published in the JEA. The first of these, “What Is the Ka?” was written in 1920 by N.W Thomas and published in Volume 6. Thomas used West African ethnographic parallels to refute the suggestions of French Egyptologist, Alexandre Moret, that the ancient Egyptian concept of the “Ka” was a type totemism. Thomas then examined terminology from modern West African languages seeking linguistic parallels for the Ka. He concluded that the West African words could have been derived from the Egyptian word “Ka”, although he admitted that the linguistic influence may have been two-way (Thomas, 1920).

The second of these was published two years later in Volume 8 by the well-known Egyptologist T.E. Peet. In his article, “The Antiquity of Egyptian Civilisation: Being a Plea for Some Attempt to Formulate the Laws Which Should Form the Basis of Archaeological Argument”, Peet lamented that, while he understood that archaeology was not an exact science, too many archaeologists reached conclusions he felt were only based on “nebulous possibilities” (Peet, 1922:5). He specifically suggested, especially in reference to Sir William Flinders Petrie, that archaeologists needed to stop falling into the fallacious line of thinking that, simply because artefacts in one part of the world may share similar attributes to artefacts in other parts of the world, they must necessarily date to the same time period regardless of provenance, other artefacts in association, flora or fauna (Peet, 1922:12). The ideas presented

from the fact that most of the scholarly effort in universities was put into concerns rather than the teaching of archaeological methodology. This led to the many excavations in Egypt had been and were continuing to be run by people well versed in philology, but not in archaeology. Bietak suggested the situation needed and more attention needed to be given to training archaeologists skilled in the Egyptian sites (Bietak, 1979).

By 1982, computer technology was making its presence felt within archaeology. B.J. Kemp, professor of Egyptology at the University of Cambridge, wrote a well known field theory article entitled, "Automatic Analysis of Pre-dynastic Cemeteries: a solution for an Old Problem". Kemp acknowledged that most analytical methods in archaeology had been the product of prehistorians working in Europe and North America. He noted that one of the few analytical methods to have come out of Egyptology was the sequence dating method. As important as Petrie's sequence dating methodology were problems with its use as it did not take into account over-lapping life spans, reuse, usage, incomplete grave assemblages or robbed-out graves and the near impossibility of calculating all the possible permutations in the grave assemblages. Kemp explained that using a computer program called HORSHU, it was possible, through multiple scaling, to more accurately analyse graves and their associated grave goods and place them into more accurate seriation groupings. He demonstrated how the system could be applied by analysing the artefactual assemblages of Pre-dynastic cemeteries located at El-Faiyûm and El-Mahâsna. Kemp's article provided a refinement to seriation theory.

The most recent of the Category 1 theory articles was written in 1999 by D. M. Bailey, published in volume 85 of the JEA. (Bailey, 1999) In his article entitled, "Sebakh survey", he explained that "Sebakh" was debris excavated from historic sites. It contained the remains of mud brick houses, pottery, floral material and animal waste. This material has been continually used by the local farmers along the Nile.

of fertiliser for their fields. The local farmers sometimes remove the pottery from the soil matrix, but just as often do not. Regardless, the spread of cultural material throughout the fields creates a completely false picture of the size of archaeological sites. Consequently, unlike Europe, the United Kingdom and North America where field survey is done in order to ascertain site parameters, it is nearly pointless to use such a technique in the Nile Valley. Bailey does explain that while field survey is unreliable field technique to use in the Nile Valley, its use on desert sites may be valid. While it is not specifically stated, Bailey's article does suggest that excavation theory used in other parts of the world may not be applicable for Egypt.

The years from 1916 to 1930 represented a period of tremendous increase in the publication of Category 2 articles. In the first two years of publication there were only 7 Category 2 articles published, but in the first full five-year period, from 1916 to 1920, the total rose to 28. This total declined only slightly between 1921 and 1925 to 26 articles published. The high point for the publication of Category 2 articles was between 1926 and 1930 with 39 articles being published. There was a fair amount of fieldwork being done in Egypt between the years 1916 and 1930 such as Reisner's excavations at Nuri and El-Kurru from 1916 to 1920, Winlock's work at Deir el Bahri between 1920 and 1929, Carter's discovery of the tomb of Tutankhamen in 1922, Rowe and Reisner's discovery of the tomb of Hetepheres on the Giza Plateau in 1925, the discovery and excavation of the Karnak Colossi by H. Chevrier in 1925 and B. Bruyere excavations at Deir el Medina in 1928 (Reeves, 2000: 147-178). Regardless of the amount of fieldwork being done, the largest share of the Category 2 articles published in the JEA between 1916 and 1930 dealt with artefacts that were part of private collections or that were housed in the British Museum.

From 1931 to 1935 there was a massive drop in the number of articles that simply described or categorised Egyptian artefacts. There was plenty of excavation fieldwork still being done in Egypt in the 1930s, but the trend continued of publishing articles in the JEA that were either in private collections or in museums. There is, however another consideration that must be counted. From 1926 to 1935, there was an increase in Category 3 articles. From 1931 to 1935 there were 6 Category 3 written and this trend held steady into the next five-year period from 1936 to 1940. During that same five-year period, Category 2 articles continued to decrease from 16 to 13 articles published. The decline in Category 2 articles continued

during the war years, but then so did the writing and publication of Category 3 articles as well.

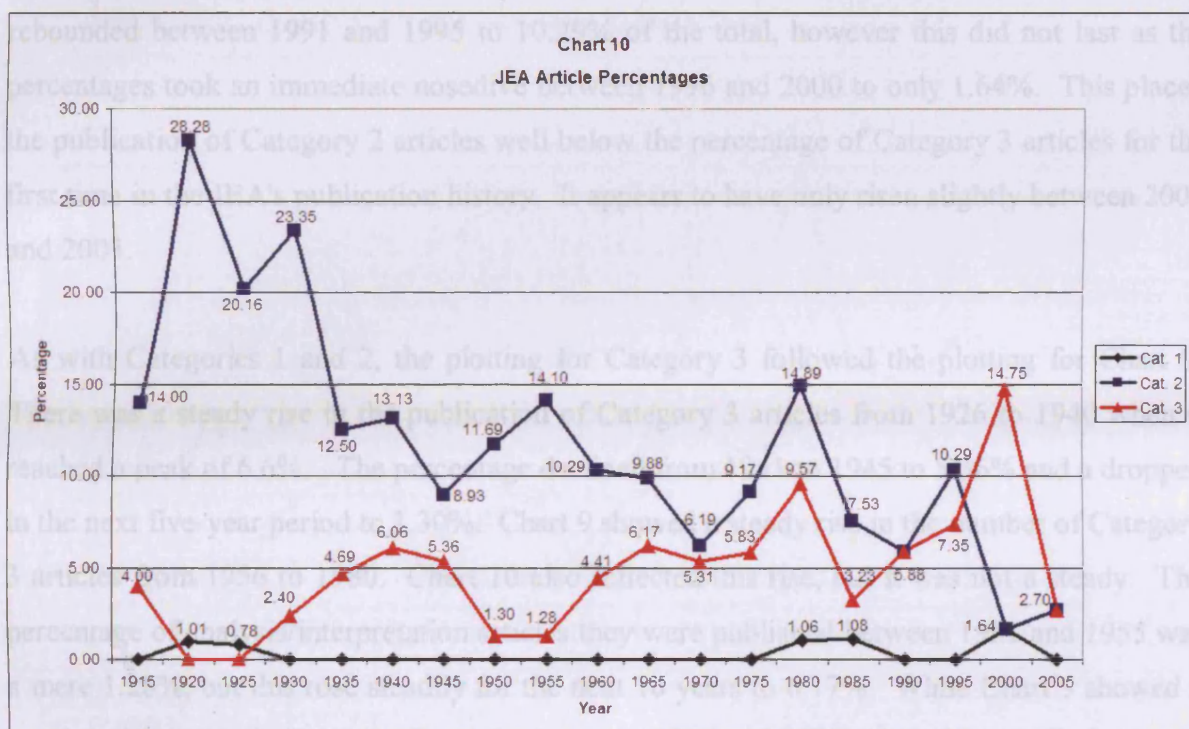
After the war, from 1946 to 1950, there was an increase in simple description categorisation articles to 9 and that trend continued in the next five-year period between 1951 and 1955 when 11 articles were published. The years 1956 to 1960 witnessed another small decline in Category 2 articles to just 7 and this coincided with a sustained rise in Category 3 articles. The writing and publication of Category 2 articles held steady between 1961 and 1970 well Category 3 articles continued to rise. From 1971 to 1975 Category 2 articles rose to 11 and the rise continued into the next five-year period when 14 Category 2 articles had been published. Category 3 articles also continued to rise during that same period. One of the situation is that may have influenced the rises in both Category 2 and Category 3 articles may have been the UNESCO sponsored archaeological projects that took place from 1962 approximately 1980 as a result of the building of the Aswan High Dam (Fairservice, 1962:226-229).

In the timeframe from 1981 to 1985, the publication of both Category 2 and Category 3 articles fell. For Category 2 articles this trend continued in the next five-year period from 1986 to 1990. Category 3 articles rose slightly in the time period from 1986 to 1990 and, for the first time in the JEA's publication history, the number of Category 3 articles published equalled the number of Category 2 articles. From 1991 to 1995 the number of Category 2 articles rebounded to seven but the number of Category 3 articles also increased. The years from 1996 to 2000 were significant because, for the first time in the JEA's publication history the publication of Category 3 articles surpassed publication of Category 2 articles. Only 1 Category 2 article was published between 1996 and 2000 and this appears to continue from 2001 to 2005.

Much of the discussion about Category 3 graph line has already been expressed in the discussion of Category 2. Several points are worth noting. In the first two years of publication 2 Category 3 articles were published, that this quickly dropped to zero between 1916 and 1920. This situation continued until 1925. As was noted earlier, in the discussion above, there was a rise in Category 3 articles from 1926 to 1935 and that trend continued to the next five years until 1940. There was a steady decline in the publication of Category 3 articles during the war years which continued through to 1950. Only one Category 3 article

was published between 1951 and 1955. Again, as noted above, from 1955 until 1980 there was a steady rise in the publication of Category 3 articles. The publication of artefact analysis/interpretation articles declined between 1981 and 1985, but then steadily rose from 1986 to 2000. The important point to note about the Category 3 plotting is that, while it may have somewhat mirrored the plotting for Category 2 articles from 1955 to 1995, it was only in the time period between 1996 and 2000 that the publication of Category 3 articles surpassed that of Category 2 articles.

Chart 10: JEA Article Percentages Chart [Categories 1, 2 &3]



As was done for the PPS and the JRS, the JEA Article Percentages Chart (Chart 10) plotted the percentages of the articles in Categories 1, 2 and 3. The plot lines on this particular chart followed those found on Chart 9 fairly closely. For the most part, the only real difference is that some of the lines are more graphically defined. Not much needs to be said about the plotting of the Category 1 articles line except to say that at no point to the number of theory articles exceed 2% of the totals.

The high point on Chart 10 for Category 2 articles was for the five-year period that ended with 1920. Category 2 articles accounted for 28.28% of all articles written during that time.

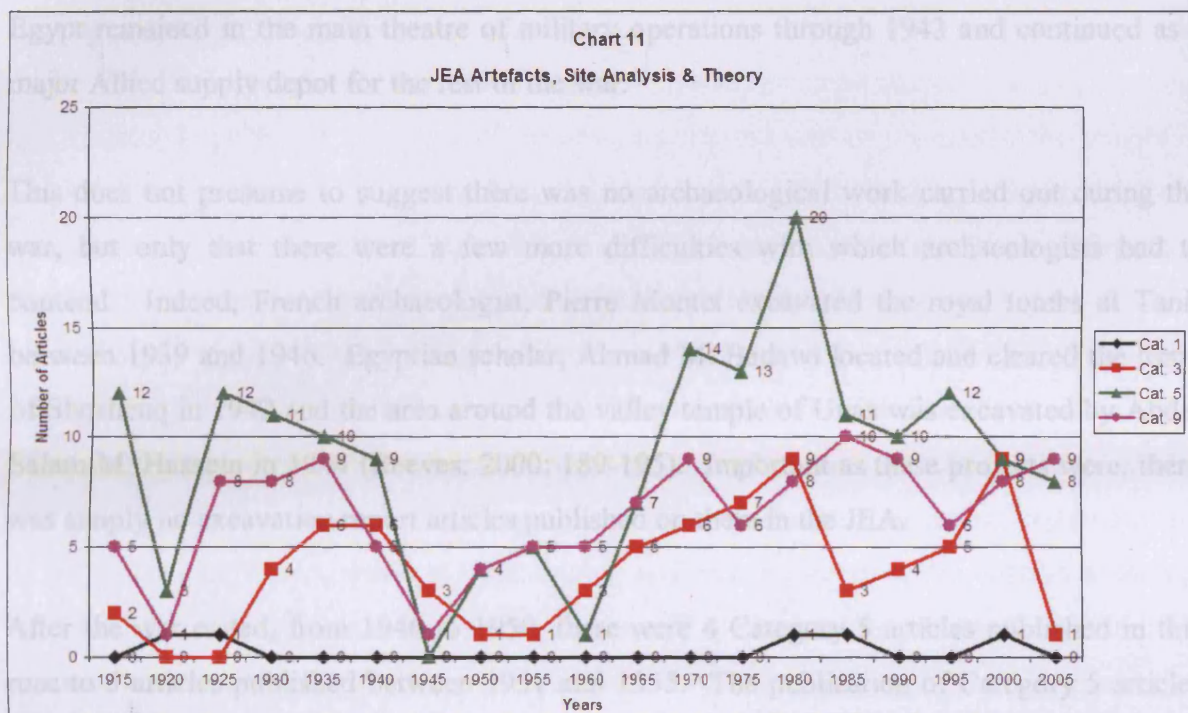
While this time period is shown as a high point in Chart 9, the high point on that chart came in the five-year period that ended in 1930. Thirty-nine Category 2 articles were written during that timeframe, but Chart 10 shows they accounted for 23.35% of the total articles. The plotting for Category 2 articles from 1935 onward follows the plotting on Chart 9. The high point between 1951 and 1955 shows that Category 2 articles accounted for 14.10 percent only articles written during that five-year period. The percentages fell over the next 15 years to 1970 when Category 2 articles accounted for only 6.19%. The publication of descriptive/category articles reached another peak of 14.89% between 1976 and 1980. Between 1986 and 1990, Category 2 articles percentages fell again to another low of only 5.88% of the total and this was equalled by Category 3 articles. Category 2 percentages rebounded between 1991 and 1995 to 10.29% of the total, however this did not last as the percentages took an immediate nosedive between 1996 and 2000 to only 1.64%. This placed the publication of Category 2 articles well below the percentage of Category 3 articles for the first time in the JEA's publication history. It appears to have only risen slightly between 2001 and 2005.

As with Categories 1 and 2, the plotting for Category 3 followed the plotting for Chart 9. There was a steady rise in the publication of Category 3 articles from 1926 to 1940 when it reached a peak of 6.6%. The percentage declined from 1941 to 1945 to 5.36% and a dropped in the next five-year period to 1.30%. Chart 9 showed a steady rise in the number of Category 3 articles from 1956 to 1980. Chart 10 also reflected this rise, but it was not a steady. The percentage of analysis/interpretation articles they were published between 1951 and 1955 was a mere 1.28%, but this rose steadily for the next 10 years to 6.17%. While Chart 9 showed a continued increase in Category 3 articles between 1966 and 1970, Chart 10 actually indicated a slight decline in the percentage to 5.31%. The percentages increased between 1971 and 1975 and then increased dramatically between 1976 and 1980 to 9.57%. Both Category 2 and Category 3 articles decrease in the years from 1981 to 1985.

A major rise in the publication of Category 3 articles occurred in 1986 and continued until 2000. From 1986 to 1990, Category 3 articles accounted for 5.88% which an equal the numbers of Category 2 articles published in that same five-year period. While Category 2 articles increased again to 10.29% from 1991 to 1995, Category 3 articles increased to 7.35%. Chart 9 showed that the publication of Category 3 articles finally over took the publication of Category 2 articles in the years between 1996 and 2000. This situation was even more

dramatically highlighted in Chart 10. By the year 2000 Category 2 articles accounted for only 1.64% of the total articles published in that five-year period. Category 3 articles accounted for 14.75% in that same timeframe. This was the highest percentage achieved by Category 3 articles from throughout the publication history of the JEA. As noted in Chart 9 it appears that the publication percentage for Category 3 articles may have declined between 2001 and 2005.

Chart 11: JEA Artefacts, Site Analysis & Theory Chart [Categories 1, 3, 5 & 9]



The plot lines for Categories 1 and 3 on the JEA artefacts, Site Analysis & Theory Chart (Chart 11) are identical to those found in Chart 9 and 10 and have already been discussed in those sections. Twelve Category 5 articles were published in the years 1914 and 1915, and this rose to a highpoint of 14 articles published between 1916 and 1920. From 1921 to 1940 there was a continuous steady decline in the publication of excavation report articles. During the 1920s, Category 5 articles published in the JEA covered excavations at Amarna, cemeteries at Abydos and Thebes. What is strangely missing is any kind of report, even in preliminary form, on the clearance of the tomb of Tutankhamun. In the 1930s excavation report articles covered work at Amarna, Thebes, Abydos, Libya, Nubia and the Sudan.

In the five-year period from 1936 to 1940 nine excavation report articles were published in the JEA, but this dropped to 0 between 1941 and 1945. Part of the reason for this particular drop in excavation work may have been the result of military action in North Africa during World War II. The successful British military campaign waged by Generals Wavell and O'Connor against the Italians in the fall of 1940 would have made it possible for archaeological fieldwork to continue through to the end of that year. However, the situation changed and Egypt was directly threatened by General Erwin Rommel's Deutsches Afrika Korps and the reorganised Italian army. The German and Italian forces were eventually defeated and turned back at the Battle of Alamein on the doorstep to Alexandria. Even so, Egypt remained in the main theatre of military operations through 1943 and continued as a major Allied supply depot for the rest of the war.

This does not presume to suggest there was no archaeological work carried out during the war, but only that there were a few more difficulties with which archaeologists had to contend. Indeed, French archaeologist, Pierre Montet excavated the royal tombs at Tanis between 1939 and 1946. Egyptian scholar, Ahmad M. Badawi located and cleared the tomb of Shoshenq in 1942 and the area around the valley temple of Unas was excavated by Abdel Salam M. Hussein in 1944 (Reeves, 2000: 189-195). Important as these projects were, there was simply no excavation report articles published on them in the JEA.

After the war ended, from 1946 to 1950, there were 4 Category 5 articles published in this rose to 5 articles published between 1951 and 1955. The publication of Category 5 articles dropped again between 1956 and 1960 and only 1 article was published during that time. The publication of excavation report articles underwent a massive increase between 1961 and 1980. Fifty-five Category 5 articles were published during those 20 years. From 1961 to 1965 seven Category 5 articles were published and this total doubled to 14 Category 5 articles in the next five years from 1965 to 1970. There was only a very minor decrease in the publication of excavation report articles between 1971 and 1975. Another massive jump was recorded for Category 5 articles between 1976 and 1980 when 20 articles were published in that five-year period.

It was suspected that much of the reason for the large increase in the number of excavation report articles may have been due in part to the reporting of UNESCO projects that were undertaken between 1960 and 1980. The UNESCO projects were designed to record and save

important ancient monuments that were threatened with submersion as a result of the building of the Aswan High Dam. The international organization, Documentation Centre on Ancient Egypt, began doing recording surveys as early as 1955 at Wadi-es-Sebua, Debad, Kalabsha. Epigraphic surveys were done by the University Of Chicago's Oriental Institute of chapels at Abu Oda, Jebel Chams and Temples at Medinet Habu, Beit-el-Wali. A number of the UNESCO salvage programmes were undertaken by American universities such as the University of Chicago whose teams worked at Beit-el-Wali and the Aswan region, Brown University was projects included Qasr Ibrim and Buhen and joint projects by Yale University and the University of Pennsylvania who was projects included Ermenna and Toshka (Fairservice, 1962: 226-229)

The Federal Republic of Germany dismantled, transferred and reconstructed the temple of Kalabsha during 1961 to 1963. The United States contributed financially to the removal and reconstruction of the temples of Beit al-Wali and Wadi es-Sebua and the Tomb of Pennut at Aniba. American archaeological teams, supervised by the Egyptian Antiquity Service, worked from 1962 to 1965 to dismantle and transport the temples of Dendur, Dakka and Maharraqa. From 1963 to 1967 a number of temples were dismantled and reconstructed in Khartoum. Financial contributions came from France for the removal of the temple of Aksha. The United Kingdom and the United States provided funds for the removal and reconstruction of the temples of Buhen, while the dismantling and reconstruction of the temples at Semna East and West was financially supported respectively by the Netherlands and Belgium. Italy provided assistance to the Egyptian Antiquity service in cutting up and removing the chapel of Ellesyia (www.9).

What is somewhat surprising is that, out of 55 articles published in the JEA between the years 1961 and 1980, only 11 the articles dealt with sites that were threatened by the rising waters of Lake Nasser. Out of these, 8 articles concerned work at Qasr Ibrim, 2 articles reported the excavations at Qasr el Wizz near the present-day town of Faras (Scanlon, 1970) and 1 article reported on the remains of the Kalabsha temple that had been removed to Elephantine Island. The reason more articles on the UNESCO projects were not published in the JEA may well be that it is, ostensibly, a British publication and much of the work was done by an international community who had their own national journals. Of the 44 other fieldwork and excavation reports that were published in the JEA, many detailed work done on sites located throughout Egypt. A number of the articles concerned work at Hierakonopolis, Saqqara, Tell el Fara`in

in the Delta and Amarna, although project reports from Karnak, Memphis and Thebes were also common.

From 1981 to 1985 only 11 Category 5 articles were published and this dropped slightly more between 1986 and 1990 when 10 Category 5 articles were published. From 1991 to 1995 the publication of Category 5 articles rebounded to 12 in that time period. This did not last long however because in 1996 to 2000 Category 5 articles dropped to nine and it appears that this downward trend is continuing to 2005.

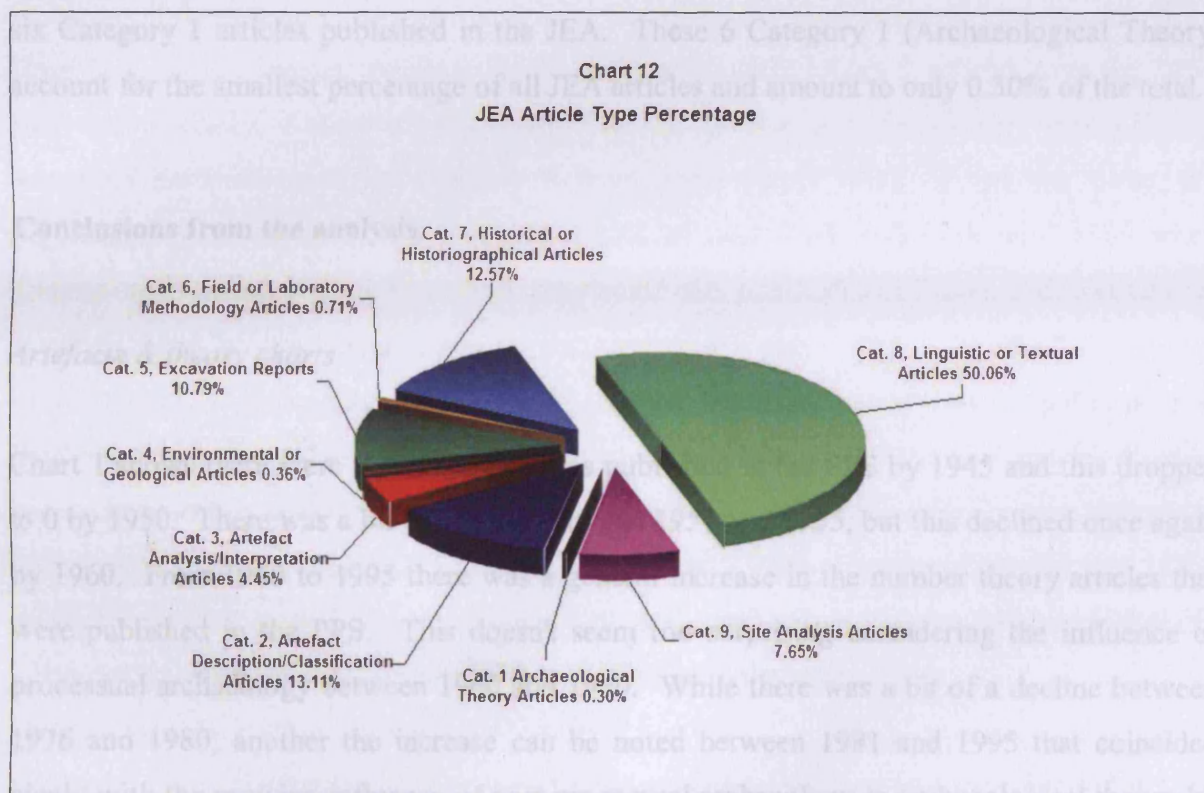
In the first two volumes of the JEA, 5 Category 9 were published. This was the beginning of a 20 year increase in site analysis articles. Seven site analysis articles were published during the five years between 1916 and 1920 and this increased by one 1921 and 1925. From 1926 to 1930 the total remained at 8. One of the noteworthy Category 9 articles written during this time period was J.D.S. Pendlebury's 1930 article entitled, "Egypt and Aegean in the late Bronze Age". This was the first of the Category 9 articles published in the JEA that was similar in its content to those being written in the PPS (Pendlebury, 1930). By 1935, 9 Category 9 articles were published in the five year period between 1931 and 1935.

From 1936 the number of Category 9 articles published went into a sharp decline that continued through the years of World War II. This coincided with the downturn for both Categories 3 and 5. Only 5 Category 9 articles were published between 1936 and 1940 and this number dropped to 1 by 1945. A sustained increase in site analysis articles began in 1946 and this was paralleled by an increase in Category 5 articles until 1955. Between 1956 and 1960, while site report articles fell to only 1, the publication of Category 9 articles remained steady and then resumed an increase that continued through 1970. The publication of Category 9 articles rose to 4 between 1946 and 1950 and increased by one in the next five year period from 1951 to 1955. This level of publication remained the same between 1956 and 1960, but rose again over the next 10 years. From 1961 to 1965 the number to Category 9 articles rose to 7 and then increased to 9 articles between 1966 and 1970. This increase shadowed the increase in Category 3 articles between 1955 and 1970. It must also be remembered that this was also the timeframe that the UNESCO salvage projects associated with the building of the Aswan High Dam were being done. As was the case with Category 5 articles during this time period, few site analysis articles were published in the JEA that concerned sites threatened by the building of the Aswan High Dam. B.R. Trigger's 1969

article entitled, "The Royal Tombs at Qustul and Ballana and Their Meroitic Antecedents" dealt with sites that were in the affected area (Trigger, 1969).

A decrease occurred from 1971 to 1980 when only 6 were published, but this changed in the next five year period. From 1981 to 1985 the publication of site analysis articles rose to 8 and rose by another 2 between 1986 and 1990. After 1990, site analysis articles decreased over the next 10 years to equal 1975 levels. This was followed in the next ten years by another rise. Between 1995 and 2000 the number of Category 9 articles increased to 8 and it appears there is a continued increase to 2005.

Chart 12: JEA Article Percentages



The JEA Article Type Percentages Chart (Chart 12) is the third pie chart and is similar in purpose to Charts 4 and 8. Chart 12, however, shows the percentages of article types published in the JEA over its publication history. Category 8 (Linguistic or Textual) accounted for 50.06% of all articles. The second largest percentage of article type was Category 2 (Artefact Description/Classification), which accounted for 13.11%, while Category 7

(Historical or Historiographical) came in third at 12.57% of the total. The great amount of excavation work that occurred between 1961 and 1980 resulted in Category 5 (Excavation Reports) articles accounting for 10.79% of all articles and the fifth largest percentage of articles was Category 9 (Site Analysis), which comprised 7.65% of all JEA articles. As noted previously in this chapter, Category 3 (Artefact Analysis/Interpretation) articles only surpassed simple description/categorization articles between 1996 and 2000. As a result,

Category 3 articles account for only 4.45% of the JEA article total. It seems there has been little innovation reported in the JEA concerning new field or laboratory methodologies. Category 6 (Field or Laboratory Methodology) articles comprise a mere 0.71% of all articles. Environmental, landscape or geological articles have been similarly neglected as a subject for publication and Category 4 (Environmental or Geological) articles account for only 0.36% of the total. It was previously mentioned in the description of Chart 9 that there had only been six Category 1 articles published in the JEA. These 6 Category 1 (Archaeological Theory) account for the smallest percentage of all JEA articles and amount to only 0.30% of the total.

Conclusions from the analysis

Artefacts & theory charts

Chart 1 shows there were few theory articles published in the PPS by 1945 and this dropped to 0 by 1950. There was a bit of a spike between 1951 and 1955, but this declined once again by 1960. From 1960 to 1995 there was a general increase in the number theory articles that were published in the PPS. This doesn't seem too surprising considering the influence of processual archaeology between 1960 and 1980. While there was a bit of a decline between 1976 and 1980, another the increase can be noted between 1981 and 1995 that coincided nicely with the growing influence of post processual archaeology in archaeological theory by 1980.

Chart 5 showed that only five theory articles were published in the JRS during its entire publication history. Two theory articles were published between 1931 and 1935 and the other three were published after 1985. Chart 9 showed a similar situation for the JEA. It is apparent that from 1960 onward, the publication of theory articles in the PPS became

increasingly important. Both the JRS and the JEA seem to indicate that there has been a lack of interest in archaeological theory in both Roman studies and in Egyptology.

When considering articles that simply described or categorised artefacts, Chart 1 showed an increase of such articles in the PPS from 1936 to 1940, but it appears this was evidently interrupted by the war years of 1941 to 1945. From 1946 to 1955 there was a spike in Category 2 articles, but this dropped dramatically between 1956 and 1960. Category 2 articles continued to decline to 2000 and this coincided with a growing importance of Category 1 and Category 3 articles. It was expected that the publication of simple descriptive or categorical articles about artefacts in the PPS would decline as theory articles and artefact analysis/interpretation articles became the archaeological standard. Chart 1 provides verification of this expectation.

Chart 5 showed a general decrease in the publication of Category 2 articles over the JRS's publication history. Simple artefact description and category 1 station articles were still well above the publication of Category 3 type articles until 1960. From that point, the publication of Category 2 and Category 3 articles went back and forth until 1980 when artefact analysis/interpretation articles supplanted the publication of simple descriptive or categorical articles concerning artefacts.

The Category 2 articles plotting in Chart 9 showed a dramatic increase in the publication of those articles between 1916 and 1930 when it reached its peak. Category 2 articles dropped just as dramatically in popularity between 1931 and 1945, but continued to remain well ahead of the publication of Category 3 articles in the JEA until 1990. Category 2 articles rose above the publication of Category 3 articles between 1991 and 1995. Only between 1996 and 2000 did Category 3 articles finally overtake the publication of Category 2 articles.

Certainly, Chart 1 showed that Category 2 articles became less and less important after 1960 as compared with Category 3 articles. Category 2 articles also lost most of their importance after 1960 in the JRS as well, but it was not until the time period from 1981 to 1985 that the publication of Category 3 articles supplanted Category 2 articles. Category 3 articles would not overtake the publication of Category 2 articles in the JEA until the time between 1996 and 2000. It was expected that the publication of Category 3 articles would supersede the publication of Category 2 articles in the JRS at an earlier date than for the JEA. Indeed,

Charts 5 and 9 showed that Category 3 articles superseded Category 2 articles approximately 15 years earlier in the JRS than they did in the JEA.

From the standpoint of sheer numbers, from 1961 onward, 19 Category 2 articles were published to 2000 in the PPS. Chart 5 showed that only 7 Category 2 articles were published in the JRS from 1961 to 2000. In that same time period, 59 Category 2 articles were published in the JEA. It should be apparent that, up until recently, many of the contributors to the JEA have been content to provide simple descriptions of artefacts or to group them into simple categories rather than to provide in-depth analysis and interpretation for Egyptian material culture.

Initially, few Category 3 articles were published in the PPS between 1936 and 1940 and this dropped off during the war years. Category 3 articles increased between 1946 and 1950, but then dropped again between 1951 and 1955. The number of Category 3 articles increased from 1956 to 1960 and then surpassed Category 2 articles by 1965. This trend was fairly steadily maintained except for the five-year period between 1981 and 1985 when Category 3 articles dropped dramatically. It rebounded between 1986 and 1990 and has maintained a fairly respectable total of articles until 2000. It appears that Category 3 articles have declined between 2001 and 2005, but all the data has not collected yet. It was expected that Category 3 articles would surpass Category 2 articles by the 1960s and Chart 1 verified that expectation.

Chart 5 showed there were no Category 3 articles published in the JRS in the first 10 years of publication and this increase is only slightly until 1935. Publication fell off between 1935 and 1940, but from 1941 on there was a continued rise to 1960 when Category 3 articles equalled Category 2 articles in number. Category 3 articles maintained a steady level between 1961 and 1965 and surpassed Category 2 articles for the first time. Category 3 articles declined to nothing between 1966 and 1970 and then only slowly rose again to 1980. From 1980 on, Category 3 articles surpassed Category 2 articles in number.

The plotting in Chart 9 showed that only two Category 3 articles were published in the JEA by 1915 and this was reduced to 0 in 1920. It remained at that point until 1925. There was a rise in Category 3 articles from 1926 to 1935 and the publication of those articles remained steady until 1940. There was a slight decline in during the war years and this decline continued to 1950. The publication of artefact analysis/interpretation articles remained steady

to 1955, but from that point, they continued a steady increase to 1980. This generally coincided with a shaky increase in Category 2 articles that occurs from 1945 to 1980. Category 3 articles fell between 1981 and 1985, but from 1986 to 2000 there was a general steady increase and Category 3 articles finally outnumbered Category 2 articles between 1996 and 2000.

Again, looking at sheer numbers, since 1961 there have been 90 artefact analysis/interpretation articles published in the PPS. Eighteen Category 3 articles have been published in the JRS according to the plotting of Chart 5. For the JEA, Chart 9 shows that 51 Category 3 articles were published. Certainly, this is a considerably greater number of artefact analysis/interpretation articles than was found in the JRS during the same time. Certainly, this seems to indicate that there was more of an attempt by archaeologists working in Egypt to write analytical and interpretive articles about artefacts than those archaeologists who were working in Roman studies. Even so, the important points to note are that, although the number of Category 3 articles published in the JEA surpassed those published in the JRS, Category 3 articles still did not bypassed the publication of Category 2 articles until quite late in the JEA's publication history. Furthermore, articles that provide analysis and interpretation of artefacts have still not become the standard in the JEA as they have become in the PPS.

Article percentages charts

Generally, the plotting on the Article Percentages charts followed the plotting on the associated Artefacts & Theory charts. There were however, some differences. For the PPS, only 1 theory article was published in each period up until 1945. Even though this was the case, the percentage for each of the 3 periods was as follows: 1935 – 8.33%, 1940 – 1.89% and 1945 – 5.88%. The percentage is of course dependent on the number of articles written during any five year period.

The increase in Category 1 articles that transpired between 1951 and 1955 accounted for 7.46% of the total articles during that time period. That total equalled the percentage for Category 3 during that same time. The percentage fell to 0.00% between 1956 and 1960, but then increased steadily to 1995. By 1995, Category 1 theory articles accounted for 14.08% of all the articles being published in the PPS, although the percentage declined by 2000.

In contrast to this, Chart 6 showed that Category 1 articles never increased above 3.00% of the total during the entire a publication history of the JRS. The highest percentage of Category 1 articles published in the JRS, 2.67%, was achieved between 1931 and 1935. Only from 2001 to 2005 does it appear that the percentage could rise above 3.00%. Chart 10 showed a similar situation for the JEA, but in its case the percentages of Category 1 articles never increased above 2.00% during the JEA's publication history. As a matter of fact, 1.64% is the highest percentage achieved for theory articles in the JEA and this only occurred recently between 1996 and 2000. This data buttresses the conclusion expressed in the discussion of the artefacts and theory charts about the relative lack of importance of theory articles historically in both Roman studies and Egyptology.

The plotting of the percentages for the publication of Category 2 articles in the PPS follows very closely the plotting of Chart 1. Between 1951 and 1955 Chart 1 showed 23 Category 2 articles were published in the PPS and this worked out to an all time high of 34.33%. Between 1956 and 1960 however, this percentage was cut by over half. The percentage of Category 2 articles published in the PPS continued to decline to 1990 when Category 2 articles accounted for 0.00% of the total articles published. To the present time, Category 2 articles have not risen above 1.50%.

In the JRS charts it shows that the highest percentage of Category 2 articles was achieved in the first five years of publication. By 1915, Category 2 articles accounted for 22.22% of all the articles in the JRS. Percentages fell quickly after that point. Between 1916 and 1920 Category 2 articles accounted for only 13.85% of all articles published in that five year period. Percentages continued to fall to 8.14% by 1940. Only between 1941 and 1945 was there a spike in the percentages of Category 2 articles. During the war years, Category 2 articles accounted for 14.00% of all JRS articles, but it is suggested this spike was somewhat artificial and occurred only because of abbreviated forms of the journals that were printed during the war years. By 1955, Category 2 articles accounted for 8.00% of the JRS articles, but this fell over the next 10 years to 1.15% in 1965. Category 2 articles have remained below 2% of the JRS total articles since 1965 except for the period between 1971 and 1975 when they accounted for 4.00%. Basically, articles that only describe artefacts or which group them into general categories have not had any real share of the article percentages in the JRS since 1955.

The highest percentage for Category 2 articles published in the JEA was between the years 1916 and 1920 when the simple description and categorical articles accounted for 28.28% of the total. Between 1921 and 1925 the percentage dropped to 20.16%, but then rose between 1926 and 1930 to 23.35%. In the five-year period that ended with 1935 Category 2 articles fell to 12.50%. From 1936 onward, the percentage of Category 2 articles tended to average around 10.00% of the total until 1995. There was a highpoint between 1951 and 1955 when Category 2 articles obtained a percentage rating of 14.10% and another spike occurred between 1976 and 1980 when Category 2 articles made up 14.89% of the total JEA articles for that five year period. After 1995 Category 2 articles fell to an all-time low of 1.64% by 2000 and the percentage has apparently only risen to 2.70% in 2005.

When one looks at the percentages of Category 2 articles in the three journals it is apparent that simple description and categorisation articles fell out of favour in the PPS by 1965 and dropped below 2.00% by 1980 where it remains to this day. Category 2 articles fell below 2% in 1965 and the JRS with the exception of the time between 1971 and 1975 when the percentage hit 4.00%. In the JEA, it is a different story. Category 2 articles did not fall below 2.00% until the year 2000. There is no doubt that until recently, simple description and categorisation articles continued to be commonly published in the JEA whereas such articles have been almost totally replaced in the PPS and the JRS by analytical and interpretive studies of material culture.

In the PPS, Category 3 articles had a poor showing percentage-wise up until 1945, but this changed between 1946 and 1950 when Category 3 articles attained a percentage of 18.00%. It is possible this spike may have been the result of the growing influence of functionalism in archaeology that happened after World War II. Regardless, the trend did not last long as between 1951 and 1955 Category 3 articles fell to 7.46%. After 1960 analysis/interpretation articles replaced elementary descriptive articles in the PPS as a method of writing about artefacts. From 1961 to 1965 Category 3 articles had increased to 22.86% of the articles published in the PPS. This percentage level remained fairly steady through to 1970, but drop to 15.48% in 1975. At the end of 1980, the percentage rebounded to 22.22%, but fell to 6.06% in 1985. It is possible that the high percentages of Category 3 articles published in the PPS from 1960 through 1980 were a result of the influence of processual archaeology. The decline that happened from 1981 to 1985 may have been caused by the general rejection, on the part of the rising group of post-processualist archaeologists, of functionalist analyses of

artefacts common to processualist approaches of material culture. From 1990 to 2005 Category 3 articles rather steadily ranged between 10.00% and 15.00%. This also coincided with a fairly high percentage of Category 1 theory articles during the same time period.

For the JRS, Chart 6 showed that Category 3 articles did not reach 2.00% until 1945. While the percentage dropped slightly between 1946 and 1950 to 1.49%, the percentage continued to rise after that through 1965. From 1956 to 1960 Category 3 articles accounted for 5.21% of the articles published in the JRS. This equalled the publication of Category 2 articles for the same time period. Category 3 articles continued to rise to 5.75% between 1961 and 1965, while Category 2 articles fell to 1.15%. This trend did not last long however. Even though the percentage for Category 2 articles remained at a low 1.23% during the period from 1966 to 1970, Category 3 articles fell to 0 by 1970. It was not until 1980 that Category 3 articles once again equalled Category 2 articles in the percentage of publication. From 1980 onward, Category 2 articles fell to 0.00% while analytical and interpretive articles became the standard for artefact articles.

In the first two volumes of the JEA Category 3 articles accounted for only 4.00% of the total articles. Between 1916 and 1925 the percentage dropped to 0.00%. The first real rise in the percentage of Category 3 articles occurred from 1926 to 1940. Even so, Category 3 articles accounted for only 6.06% in 1940. This corresponded with a continuing decline though, in Category 2 articles. Category 3 articles declined only slightly during the war years, but from 1946 to 1950 the percentage dropped to 1.30%. It maintained that approximate level through to 1955 as well. During the same time, Category 2 articles rose to 14.10% of the total. From 1956, Category 3 articles increased for the next 10 years and dropped only slightly to 1970. This coincided with falling percentages for Category 2 articles. From 1971 to 1980 Category 3 articles increased to 9.57%, but this was outmatched by an increase in Category 2 articles to 14.89%. Both Category 3 and Category 2 article percentages fell between 1981 and 1985, but whereas Category 2 percentages continue to fall into through 1990 Category 3 articles increased. For the five-year period of 1986 to 1990 Category 3 and Category 2 articles achieve the same publication percentage of 5.88%. Category 3 articles continued to increase through 1995 to 7.35%, but this was again outmatched by Category 2 articles which accounted for 10.29% of all JEA articles. Category 3 articles, which increased to 14.75%, finally surpassed the publication of Category 2 articles between 1996 and 2000. This was the

highest percentage achieved by Category 3 articles during the JEA's publication history. It is possible that Category 3 article percentages may have fallen by 2005.

When one takes the three charts in total, it is noticeable that analytical and interpretive artefact articles accounted for over 20.00% of the article totals in the PPS between 1961 and 1980, with the exception of the five-year period that ended in 1975. From 1991 to the present, Category 3 articles have ranged between 10.00% and 15.00% of the PPS article totals. In the JRS, Category 3 articles finally surpassed Category 2 articles by 1981, but Category 3 articles did not approach 10.00% of the article totals until the five-year period ending in 2000. By contrast, Category 3 articles only surpassed the publication of Category 2 articles between 1996 and 2000 in the JEA, even though they accounted for 14.75% of the total articles for that period. As stated in the discussion of the artefacts and theory charts, it appears recently that the contributors to the JEA been more willing to write and publish analytical and interpretive articles about artefacts than their counterparts in the JRS. Indeed, the percentage totals for Category 3 articles are on a par with those found in the PPS for the same five-year period. What is unfortunate for the field of Egyptian archaeology is that this trend may have decreased for 2005. Ultimately, the important point here is that Egyptologists have, until recently, been far behind prehistoric scholars in the publication of theory articles and articles that provide analysis and interpretation of artefacts rather than mere description and categorization.

Artefacts, site analysis & theory charts

The artefacts, site analysis & theory charts plotted the relationships between theory articles, analysis/interpretation articles, excavation report articles and site analysis articles. The discussion and analysis of Chart 1 noted there was a general increase in the publication of theory articles between 1961 and 1995 in the PPS. It was also observed that there was a general increase in Category 3 articles from 1945 through to 1965 and that this trend reduced only slightly through 1980. Category 3 article publication fell between 1981 and 1985, but then remained fairly steady from 1986 through 2000. As the publication of theory articles in the PPS became more common, the increase in Category 1 articles was mirrored in a rough way by the publication of Category 3 articles.

One of the most notable points about Chart 3 is the high number of excavation report articles that have been published in the PPS over the years as compared with the other journals. One of the first high points in Category 5 publication came between 1935 and 1940 when 24 excavation reports were published. Excavation reports dropped to a low point of only 9 articles during the war years of 1941 through 1945, but the publication of excavation report articles increased over the next 15 years to a high of 21. Category 5 articles decreased over the next 10 years through 1970, but from 1971 through 1995 there was a marked, steady increase. Between 1991 and 1995 29 excavation report articles were published in the PPS. While the publication of Category 5 articles continued to be substantial, there was a sharp decrease in the publication of those articles from 1996 to 2005.

The plotting in Chart 7 showed that the publication of Category 5 articles in the JRS increased from 5 articles published by the end of 1915 to a high of 13 articles published between 1956 and 1960. While the rate of increase for excavation report articles was steady, the number of Category 5 articles published in the JRS did not come close to matching the numbers published in the PPS. The number of Category 5 articles fell between 1961 and 1965 and this was mirrored by a decline in the publication of those articles in the PPS as well. From 1966 to 1970 Category 5 articles increased slightly and held steady throughout 1975. Excavation report article publication dropped sharply in the JRS between 1976 and 1980 and did not rise above two articles published in each five-year period since that time. During the same timeframe, Category 5 article publication underwent a sustained increase in the PPS.

Category 5 article publishing in the JEA was plotted in Chart the 11, which showed an early peak of 14 articles between 1916 and 1920. Unlike the steady increase shown in Chart 7 for excavation report articles in the JRS, Chart 11 showed Category 5 article publication steadily decreased between 1921 and 1940 in the JEA. No excavation reports were published in the JEA during the war years of 1941 through 1945, but the probable reason for this situation has already been mentioned in the previous discussion of Chart 11 earlier in this chapter. It should be noted that there was a similar decrease in the number of excavation report articles published in the PPS during the same time period.

From 1946 to 1955 there was an increase in Category 5 articles, but then decreased to only 1 article between 1956 and 1960. Unlike the JEA, Charts 3 and 7 both showed increases in excavation report articles in the PPS and JRS between 1956 and 1960. Chart 11 showed a

massive increase in the publication of Category 5 articles in the JEA from 1961 through 1980. During the five-year period that ended in 1980, 20 excavation report articles were published in the JEA. This total came within one of matching the level of Category 5 article publication in the PPS. Category 5 article publication declined between 1981 and 1985, but has hovered around the 10 article mark to the present time. What is most troubling about Chart 11 is that it shows the huge gap between excavation report articles and theory articles. This disturbingly suggests there has been a great deal of excavation work and little attention paid to innovative theory.

The plotting for Category 5 articles in the Artefacts, Site Analysis & Theory Charts suggests that excavation report article publication has been more of a priority in the PPS and the JEA than it has been in the JRS. Without question, the publication of excavation report articles in the PPS has far outstripped the totals published in either the JEA or the JRS. The Article Type Percentage Charts provide an explanation of why this may be so. Charts 8 and 12, both to be discussed later, show that the JRS and the JEA have historically devoted 68.73% and 62.81% respectively of their publication space to Category 8 (Linguistic or Textual Articles) and Category 7 (Historical or Historiographic Articles). In contrast, the PPS, being a journal dedicated to prehistory, has had few of these article types with which to deal. Without philological, textual or historical concerns, archaeologists studying prehistory have focused on excavations and analysis of material culture for information. Another factor that certainly affected the number of excavation report articles published in the JRS was the start of the journal, *Britannia*, which handled the publication of British Roman sites from 1970 onward (www.3).

It was expected that the increases and decrease in the publication of Category 9 or site analysis articles would bear a distinct relationship to the plotting of both Category 3 and Category 5 articles. In the PPS, this expectation was generally realised. The charting for site analysis articles followed very closely the plotting for Category 3 articles through 1950. Certainly, the publication of Category 5 articles from 1936 to 1940 far outstripped the publication numbers of both of Category 3 and Category 9 articles, but all three categories increased during that timeframe. From 1946, site analysis articles maintained a sustained rapid increase through 1975. Site report articles decreased between 1951 and 1955, but increased above Category 9 articles by 1960. After that, Category 5 articles went through a 10-year decline while the publication of Category 9 articles continued to increase. Artefacts

analysis/interpretation articles also decreased between 1951 and 1955, but they also had increased by 1960 and that increase accelerated through 1965. Interestingly, from 1961 to 1975 when the publication of Category 9 articles was increasing, there was also a marked increase in the number of Category 1 theory articles.

The publication of site analysis articles fell by the path between 1976 and 1980 and this was mirrored by a one third decline in theory articles as well. From 1981 to 1990 there was an increase in Category 1, Category 5 and Category 9 articles. In the 10 years between 1991 and 2000 the plotting for Category 9 and Category 3 has recorded similar declines and increases, while Category 1 and Category 5 plotting remained similar. All for category is plotted on Chart 3 appear to a followed in between 2001 and 2005, but all the data has not been collected this point. When one looks at the general trends for the PPS shown in Chart 3 between the publication of theory articles, artefact analysis/interpretation articles, excavation reports and site analysis articles, it appears that there is a definite relationship between increases and decrease in theory, excavation and analysis of both sites and material culture.

The plotting of Category 9 articles in the JRS shown in Chart 7 presents a very different situation from that of Chart 3. Although there is quite a gap between the numbers of Category 3 and Category 5 articles, the plotting follows the same pattern of increases and decreases for those categories from 1911 through 1960. Category 1 articles are negligible through that period. In that same time period, the plot line for the publication of Category 9 articles in the JRS is very erratic and seems to bear very little relationship to the other categories. From 1966 to 2005 the situation for Category 9 articles become more regular and site analysis article plotting in Chart 7 mirrors that for artefact analysis/interpretation articles. During that same time period the plotting for Category 5 articles suggests it had very little relationship to either side or artefactual analysis. Although there was almost nothing in the way of theory articles published in the JRS over its publication history, it is perhaps conceivable that processual and post processual ideas, so popular among prehistorians during the 1970s and 1980s, could have influenced archaeologists working on Roman sites to produce articles about sites and artefacts that were more analytical and interpretive than previously. This situation is suggested by the plotting of Category 2 and Category 3 articles in both Charts 5 and 6.

The relationship of Category 9 articles to Categories 3 and 5 articles in the JEA, as shown on Chart 11, is a bit more similar to the relationships of those articles as shown on Chart 3 for the PPS. Certainly, theory articles in the JEA had little impact on the relationship of Categories 3, 5 and 9 on one another. Site analysis articles increased from 1914 through 1935, while excavation report articles fell. There were few artefact analysis/interpretation articles published by 1925, but they increased along with Category 9 articles to 1935. Category 9 articles decreased from 1936 to 1940 and declined again, along with Category 5 and Category 3 articles, between 1941 and 1945.

Site analysis articles began a sustained increase from 1946 through 1970. Initially, excavation report articles achieved an identical plotting through 1955 with Category 9 articles, but then dropped by 1960. While Category 3 articles remained low between 1951 and 1955, a sustained increase occurred until 1980 that was basically paralleled by Category 9 plotting. From 1960 to 1980 Categories 3, 5 and 9 all increased. After 1980, both Category 3 and Category 5 articles fell, but the rise in Category 9 articles continued. From 1986 to 2005 Category 9 articles have ranged between 5 and 10 articles.

According to the plotting on Chart 11, there was a steady strong relationship between Category 5 and Category 9 articles from 1935 through 1955. Another fairly strong relationship is evident between Category 3 and Category 9 articles from 1955 through 1980. This would seem to indicate some awareness on the part of archaeologists working in Egypt of the importance of analysis and interpretation of both archaeological sites and the material culture. Although the increases in Category 5 articles were far more dramatic between 1960 and 1980 than the increases for Category three and Category 9 articles, it must be noted that all three categories did increase. Chart 11 suggests that there has been some attempt, from at least the 1940s, on the part of archaeologist working in Egypt to provide analysis of the sites on which they had been working. Unfortunately, Chart 11 also suggests that these trends have been occurring largely without the benefit of innovative archaeological theory.

Article type percentages charts

Charts 4, 8 and 12, the Article Type Percentages Charts, were constructed as pie charts in order to graphically display the numerical percentages of article types over the publication histories of the PPS, the JRS and the JEA. They tell a revealing story. When one looks at

Chart 4, it is instantly apparent that the three largest sections are Categories 5, 9 and 3, in that order. Those three categories accounted for 70.94% of all articles published in the history of the PPS. It was expected that excavation report articles, site analysis articles and artefact analysis/interpretation articles would have quite large percentages in the PPS and Chart 4 demonstrably shows that such was the case.

Chart 8 showed the three largest sections of article percentages in the JRS were Categories 8, 7 and 9. Linguistic or textual articles, historical or historiographical articles and site analysis articles comprised 80.32% of the article totals in the JRS. It is instantly apparent that Greco-Roman linguistics and Roman history has been the main focus of the JRS. Interestingly, Categories 9 and 5 had the third and fourth highest percentage totals at the 11.59% and 9.84% respectively. Category 3 artefact analysis/interpretation articles accounted for only 2.62%. Far more common were articles that simply described or categorised artefacts. Category 2 articles accounted for 6.59% of the JRS totals. These percentages suggest three things. First, that archaeology was of secondary importance in the JRS as compared with linguistics or history. Second, that while site analysis and excavation report articles were quite well represented, less attention was paid to artefact studies. Third, over the JRS'S publication history it was more common for contributors to write articles that merely described or categorised artefacts rather than those that provided analysis or interpretation of artefacts.

The top three sections shown on Chart 12 for the JEA were Categories 8, 2 and 7. Linguistic or textual articles, artefact description/categories articles and historical or historiographical articles accounted for 75.74% of all articles published in the JEA over its publication history. It is significant that over 50% of all JEA articles have been linguistic or textual articles. This certainly supports the opinion that Bietak (1979) expressed that Egyptology has been dominated by philologists and linguists. Contributors to the JEA have historically also been content to simply described or categorised artefacts rather than to provide analysis or interpretation. Artefact description/categories articles accounted for the second highest percentage of article types, 13.11%, while artefact analysis/interpretation articles had the sixth highest percentage at 4.45%. Excavation report articles and site analysis articles accounted for the fourth and fifth highest percentages respectively. These percentages suggest that linguistics, artefact description and Egyptian history have historically been considered more important by Egyptologists than archaeological excavation or the analysis and interpretation of sites and artefacts.

As mentioned previously, the contributors to the PPS have concerned themselves with writing articles about archaeological excavation, site analysis and the analysis and interpretation of artefacts. Categories 5, 9 and 3 accounted for 70.94% of all articles in the PPS. In contrast to this, those same categories accounted for only 24.05% of the total articles in the JRS and an even lower total of 22.89% of all articles in the JEA. Linguistic or textual articles and historical or historiographical articles, which were so prominent in both the JRS and the JEA, had little share of the percentages in the PPS. Category 7 and Category 8 articles accounted for 68.73% of all articles in the JRS and accounted for 62.63% of all articles in the JEA. Those same categories accounted for only 4.61% of all articles in the PPS. Category 4 environmental or geological articles and Category 6 field or laboratory methodology articles accounted for 9.57% and 3.69% respectively of all PPS articles. The percentages for these categories in both the JRS and the JEA were negligible. Category 1 theory articles accounted for 7.61% of the article totals for the PPS. In contrast, theory articles only accounted for 0.40% of all articles in the JRS and accounted for a dismal 0.30% of the JEA article totals.

The basic conclusions to be drawn from these percentages is that scholars working in the field of prehistory who published articles in the PPS have been far more concerned with excavation, the analysis and interpretation of sites and artefacts, and archaeological theory than their counterparts who published articles in either the JRS or the JEA. According to the percentages of articles in the JRS and the JEA, scholars working in the field Roman studies and Egyptologists have concentrated on linguistic studies or historical subjects and have shown far less interest in archaeological analysis or theory.

APPENDIX TWO

Basic Corpus of Middle Kingdom Texts

STELAE

Stela of the Treasurer Tjetji

(Lichtheim, 1975: 90)

A Stela of King Wahankh Intef II

(Lichtheim, 1975: 94)

Rock Stela of Mentuhotep IV

(Lichtheim, 1975: 113)

Building Inscription of Sesostri I

(Lichtheim, 1975: 115)

Boundary Stela of Sesostri III

(Lichtheim, 1975: 118)

Stela of Intef Son of Sent

(Lichtheim, 1975: 120)

Stela of Ikhernofret

(Lichtheim, 1975: 123)

Stela of Sehetep-ib-re

(Lichtheim, 1975: 125)

Stela of Horbmkhau

(Lichtheim, 1975: 129)

STORIES

The Story of Sinuhe

(Erman, 1966: 14; Simpson, 1973: 57; Lichtheim, 1975: 222)

The Story of the Shipwrecked Sailor

(Erman, 1966: 29; Simpson, 1973: 50; Lichtheim, 1975: 211)

The Story of the Herdsman,

(Erman, 1966: 35)

King Khufu and the Magicians

(Erman, 1966: 36; Simpson, 1973: 15; Lichtheim, 1975: 215)

The Founding of the Temple

(Erman, 1966: 49)

The Tale of Neferkara and General Saset

(Parkinson, 1991: 54)

INSTRUCTIONS & COMPLAINTS

The Instruction of King Amenemhet

(Erman, 1966: 72; Simpson, 1973: 193; Lichtheim, 1975: 135)

The Instruction for King Merikere

(Erman, 1966: 75; Simpson, 1973: 180; Lichtheim, 1975: 97)

The Instruction of Sehetepibre

(Erman, 1966: 84; Simpson, 1973: 198)

A Man's Dispute with His Soul

(Erman, 1966: 86; Simpson, 1973: 201; Lichtheim, 1975: 163)

The Admonitions of Ipuwer

(Erman, 1966: 92; Simpson, 1973: 210; Lichtheim, 1975: 159)

The Complaint of Kekheperre-Sonbu

(Erman, 1966: 108; Simpson, 1973: 230; Lichtheim, 1975: 145)

The Prophecies of Neferti

(Erman, 1966: 110; Simpson, 1973: 234; Lichtheim, 1975: 139)

The Eloquent Peasant

(Erman, 1966: 116; Simpson, 1973: 31; Lichtheim, 1975: 169)

The Satire of the Trades

(Simpson, 1973: 329; Lichtheim, 1975: 184)

The Instruction of a Man for His Son

(Simpson, 1973: 337)

SONGS & HYMNS**Songs at Banquets**

(Erman, 1966: 132)

Three Harpers' Songs

(Simpson, 1973: 306; Lichtheim, 1975: 193)

Hymns to King Sesostris III

(Erman, 1966: 134; Simpson, 1973: 279; Lichtheim, 1975: 198)

Hymn to Min-Horus

(Erman, 1966: 137)

Hymn to the Sun

(Erman, 1966: 138)

Hymn to Thoth

(Erman, 1966: 140)

Hymns to Osiris

(Erman, 1966: 140)

Hymn to the Nile

(Erman, 1966: 146)

A Hymn to the Red Crown

(Lichtheim, 1975: 201)

A Hymn to Osiris and a Hymn to Min

(Lichtheim, 1975: 202)

The Hymn to Hapy

(Lichtheim, 1975: 204)

RELIGIOUS TEXTS**The Coffin Texts**

(Lichtheim, 1975: 131)

PAPYRI

1800 BC - Berlin Papyrus

1800 BC - Moscow Mathematical Papyrus

1650 BC - Rhind Mathematical Papyrus

1600 BC - Edwin Smith papyrus

1550 BC - Ebers papyrus

APPENDIX THREE

Artefact List: Kahun House and 'Cellar'.

301 object from cellar (separate list)
Cross piece of ankh - 1
Several pieces of netting - ?
Cord wound around flint - 1
Pieces of rope - ?
Complete papyrus case - 1
Alab weight - 1
Large trumpet stand, 27 (inches?) height - 1
Half of smaller 'do' (trumpet stand??) - 1
Hammer stone for burnishing metal - 1
Toggle - 1
Top of boomerang - 1
Piece of palm stick - 1
Sandals - 2
Wooden hand-shaped castanets – 2 pieces
Ivory button-belt - 1
Piece of alab shell - 1
Very small pot - 1
Needle - 1
Fish-hook - 1
Several flints
Wooden angle for hooking - 1
Oblong piece of ivory - 1
Several beads
Fragment of man holding duck cut on block of wood - 1
Foot from wooden statue - 1
Piece of palm branch - 1
Hyksos sherd - 1
ring stands - 2
1732
other pots - 2

Head-pad for water carrier - 1

Fisherman float - 1

Stone circular lid (?) - 1

Bottom of basket - 1

Piece of fine wicker - 1

Various pieces of wood from furniture, etc.

Large dish (broken) – 1

(Gallorini, 1998: 52-53).

Group 9 Artefacts

“28. The group No. 9 was the most numerous found in Kahun (see PL. XII, 1-18). It was in a house on the South side of the second street from the top, in the workmen's western quarter. The date of the group is not well fixed; but the flint and copper and copper implements, and the forms of the alabaster vases, show that it belongs to the XIIth or XIIIth dynasty. The mirror (8) is of fine yellow metal, and still bright and clean enough to reflect the greater part of it; the handle is of hard brown wood, carved with a head of Hathor on either side. The torque (18) is of copper; I do not remember another instance of a torque in ancient Egypt. The spoon (7) is of wood, and has had a little figure at the end of it, of which only the feet remain. Three alabaster vases are of one type (1), one thrice the size here drawn, and two about double of the drawing. Another alabaster vase is of the form (3). A vase of green paste (2) is of the same form as the alabaster; I have seen also green paste flies on a necklace of the XIIth dynasty. Of tools, there is the flint knife (6) with binding remaining on the handle, made of fibre lashed round with a cord: when first found this was very tender, but by wrapping it in paper I took it home safely, and then toasting it over a stove I dropped melted wax on it until it was saturated: thus the binding is now unalterable. This suggests that the other flint knives may have been similarly; handled when in use: such a handling would leave no traces on the flint after it had dropped away. Seven flint flakes (4, 5) were found in a leather bag, along with some nuts and some roots, the piece of wood (9) of unknown purpose, one copper piercer (15), and the spoon already described. There was also a broken piece of a flint knife, and a small whetstone (10). The copper tools are of the large knife (17); two small chisels or borers set in wooden handles (14, 16), a tapering piercer (12) set in a nut handle; two other piercers (11, 13) without handles; and the small piercer (15) found in the bag. There was also a small wooden box. All of these, except the metal of the mirror and the large knife, were in one chamber; but the mirror handle showed so plainly the mark of the mirror tang that I had a search for the remainder, and the mirror itself and large knife were in the next chamber” (Petrie, *et al.*, 1891: 12-13)

(1) Three alabaster vases are of one type, one thrice the size here drawn, and two about double of the drawing.

(2) A vase of green paste is of the same form as the alabaster; I have seen also green paste flies on a necklace of the XIIth dynasty.

(3) Another alabaster vase is of the form of the vases described in 1.

(4-5) Seven flint flakes were found in a leather bag, along with some puts and some roots

(6) Flint knife, cord-wrapped

(7) The spoon is of wood, and has had a little figure at the end of it, of which only the feet remain.

(8) The mirror is of fine yellow metal, and still bright and clean enough to reflect from the greater part of it; the handle is of hard brown wood, carved with a head of Hathor on either side.*

(9) A piece of wood of unknown purpose

(10) There was also a broken piece of a flint knife, and a small whetstone

(11) a piercer without handle.

(12) a tapering piercer

(13) a piercer without handle.

(14) A small chisel or borer set in wooden handle

(15) one small copper piercer

(16) A small chisel or borer set in nut handle

(17) a large copper knife*

(18) a copper torque

There was also a small wooden box

*These items were found together in the same room of the house.

1:3

KAHUN. GROUP N° 9, XII DYN.

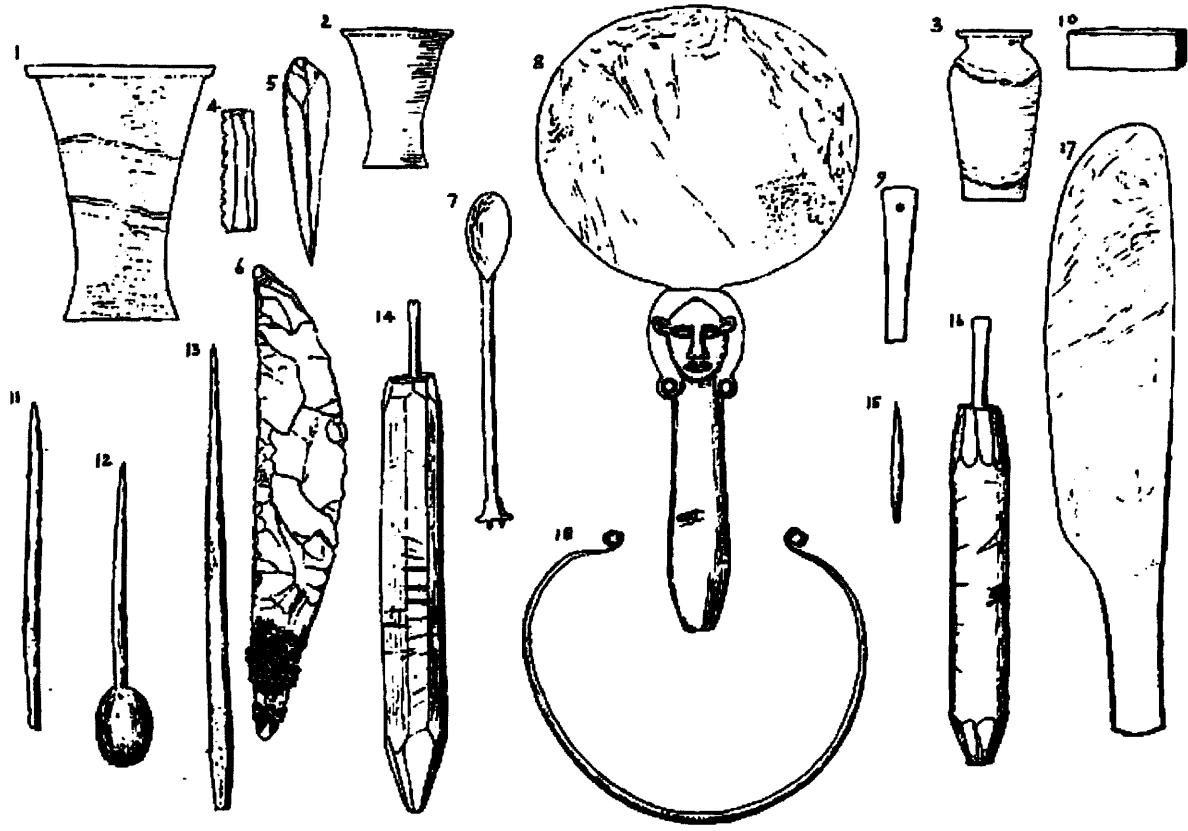


Plate XII, 1-18: (Petrie, *et al.*, 1891)

Kahun Botanical Inventory

Trees:

Balanites Aegyptiaca - several hundred fruits and fruit stones recovered

Dellach Palm (*Hyphaene argun*) - thirty stones found

Dom Palm (*Hyphaene thebiaca*) - large numbers of fruits recovered

Persea Tree (*Mimusops Schimperi*) - specimens of both the fruit and the leaves

Sycamore Fig (*Ficus sycomorus*) - fruits and wood found – “Nearly all the wooden boxes which Mr. Petrie found under the floors of the workmen’s dwellings at Kahun were made of wood of this tree” (Newberry, 1890:50)

Nebak (*Zizyphus spina-Christi*) – A number of fruits found

Nile Acacia (*Acacia arabica*) “Its wood was largely used, as is shown by the great number of wooden objects manufactured out of it, which have been found at Kahun” (Newberry, 1890:50).

Carob (*Ceratonia siliqua*) - 1 pod; 6 seeds recovered

Foodstuffs

Peas, small garden variety (*Pisum sativum*)

Broad Beans (*Faba vulgaris*)

Cucumbers (*Cucumis sativus*)

Radishes (*Raphanus sativus*)

Barley

Weed Seeds

Egyptian Clover (*Trifolium alexandrinum*) - 167 seeds

Flax, small species (*Linum* species) - 133 seeds

Flax, cultivated (*Linum humile*) - 20 seeds

Oats (*Avena strigosa*) - 4 seeds

Spiny Medick (*Medicago denticulate*) - 1 seed

Garden Peas, small (*Pisum arvense*) - 8 seeds

Peas (*Pisum* species) - 5 seeds

Egyptian Dock (*Rumex dentatus*) - 1 seed

Flower-heads (*Compositae* species) - 2 examples

Poppy (*Papaver rhoeas*) - 4 seeds

(Newberry [Petrie, et al], 1890: 50)

Botanical evidence from Kahun (Newberry [Petrie, et al.], 1890: 49-50)

APPENDIX FOUR

Artefact Inventory from Block C

(Objects are recorded by Catalogue numbers. References to descriptions and illustrations are to be found through Index I.)

HOUSE A:

Excav. No.	Cat. No.	Vol./Page
078	557	I/110 Pottery disk, originally painted yellow, 2 holes through centre, diameter, 4.0cm, section, 5.0cm.
116	595	I/119 Basalt head of bow drill, approx. 6.4cm.
077	556	I/124 Part of a pink-ware pottery hob
114	593	I/124 Part of an 'ear' or a pink-ware pottery hob
122	601	I/124 Part of a pink-ware pottery hob showing traces of burning
123	602	I/124 Part of a pink-ware pottery hob
039	514	I/134 Alabaster kohl pot, diameter, 3.8cm, height, 1.8cm.
115	594	I/135 Fragment of cylindrical alabaster toilet vessel. Height, 6.6cm, width at rim, 5.5cm
29	608	I/135 Fragment of red sandstone bowl, crude workmanship, possible mortar. Diameter, 25.2cm, height, 10.0cm.
106	585	I/139 Blue faience bead, type A3a, 5.0x5.0x1.0mm.
107	586	I/139 Blue faience bead, type A3a, 5.0x5.0x1.0mm.
130	609	I/139 Lt. blue faience bead, type A2a, 2.0x2.0x0.5mm.
108	587	I/144 Fragment of blue glaze, possible hair ring or ear stud, 2.3x1.7x0.8cm
065	544	I/148 Fragment of figurine in shape of pillar, holes marking pubic region, traces of burning. Height, 4.3cm, width, 1.8cm, thickness, 1.6cm.
066	545	I/148 Clay figurine of woman, breasts, one missing, traces of burning. Height, 7.5cm, base, 2.2x2.2cm, thickness.
085	564	I/150 Head of black basalt statue, woman wearing conventional wig. Middle Kingdom, Height, 7.4cm, width, 5.1cm, thickness, 4.2cm
103	582	I/156 Wooden object, unknown use, elliptical shape. Length, 13.0cm, diameter, 2.4cm at mid point.
127	606	I/153 Sherd of buff-ware pottery, crude sketch of head and forelegs of Anubis, 6.8x5.6cm.

HOUSE B:

Excav. No.	Cat. No.	Vol./Page
135	1109	II/26 Recovered from rubbish pit in foundation of House B, Fragments of papyrus sealings, probable evidence of commercial activity. Probably XIIIth Dynasty or Second Intermediate Period.

HOUSE C:

Excav. No.	Cat. No.	Vol./Page
009	717	I/117 part at a flint flake point, length, 5.1 cm

001	694	I/125 fragment pink-ware pottery hob showing traces of burning
015	734	I/125 fragment pink-ware pottery hob showing traces of burning
016	740	I/135 fragment, footed dish, grey granite, 3 feet. Diameter, 22.8 cm, height, 6.7 cm.
002	699	I/140 bead, type A2b, light blue faience, 4.0x4.0x1.0 mm.
003	704	I/141 bead, type C3, blue faience, 3.0x2.5x2 .5 mm
012	730	I/141 bead, type E1, blue faience, 8.0x3.0x3 .0 mm
008	716	I/147 head of animal figurine, baked clay height, 3.2 cm
010	718	I/153 ivory pin fragment, incised horizontal rings. Length, 4.2 cm, top diameter 0.5 cm.
005	713	II/12 Debris, House C. right side of limestone funerary stela, 11.0 x 14.0cm. <i>'A boon which the king gives to Hours, Lord of Buhen (and to . . . that they may live an invocation-offering consisting of bread, beer, oxen fowl, incense, oil and) everything good and pure which (heaven) gives, (which earth produces and which the Nile brings forth . . .)',</i> uncertain date – could be XIIth Dynasty, but possibly XVIIIth Dynasty
014	732	II/12 Debris, House C. small irregular sandstone stela, 12.5x12.0cm. Crude drawing, Second Intermediate Period

HOUSE D:

Excav. No.	Cat. No.	Vol./Page
022	778	I/147 head of a pottery duck, broken at the neck. Length, 4.9 cm, height, 3.4 cm
021	770	I/148 fragment, sandstone object, possible female figurine. Height, 7.8 cm, base 2.5x1 .5 cm.

HOUSE E:

Excav. No.	Cat. No.	Vol./Page
071	550	I/112 clay object, 11.0 x 9.0 x 1 .0 cm.
209	689	I/116 hard red sandstone grindstone of rough Oval shape with flat base and concave upper surface, 22.8 by 15.3 x 8 .1 cm.
052	527	I/118 pink-ware pottery scraper, circular shape, pockmarked, traces of burning. Diameter, 10.0 cm.
037	512	I/120 pear-shaped limestone pounder. Diameter, 5.0 cm, length 5.6 cm
126	605	I/120 squat cylindrical basalt hand-hammer, wear mainly on rounded sides. Diameter, 6.5 cm, height 3.7 cm. Top and bottom surfaces flattened.
029	497	I/124 pink-ware pottery hob fragment, traces of burning
030	498	I/124 pink-ware pottery hob fragment, traces of burning
055	530	I/124 pink-ware pottery hob fragment, traces of burning
056	531	I/124 pink-ware pottery hob fragment, traces of burning
087	566	I/124 pink-ware pottery hob fragment, traces of burning

091	570	I 128 pottery axe-head. Length, 6.5 cm, height, 4.5 cm thickness, 2.9 cm
035	510	I/132 base of bright blue faience cylinder and vase, exterior design in black, base diameter, 7.6 cm.
118	597	I/135 alabaster bowl fragment, inverted rim, possible large dimensions.
196	676	I/135 base fragment, limestone cylinder jar, heavily burnt.
090	569	I/137 mud jar stopper with flange. Diameter, 4.0 cm, height, 1.6 cm.
026	490	I/139 blue faience bead, type B1. 5.0 x 5.0 mm.
027	491	I/139 blue faience bead, type A3b. 4.0 x 4.0 x 2.0 mm.
031	499	I/139 mud bead, C1. 32.0 x 17.0 mm.
040	515	I/139 blue faience bead, type B2. 5.0 x 5.0 x 5.0 mm.
062	537	I/139 light-blue faience bead, type A2a. 4.0 x 4.0 x 2.0 mm.
072	551	I/139 mud bead, type D2a, irregular shape, blackened by burning. 35.0 x 15.0 x 15.0 mm.
076	555	I/139 bright-blue faience bead, Type D3. 18.0 x 3.0 by 3.0 mm.
081	560	I/139 white limestone bead, type A3a. 4.0 x 4.0 x 1.0 mm.
033	506	I/143 small faience plaque, relief of hare, 3.5 x 0.9 cm.
034	507	I/145 pyramidal sandstone object. Height, 7.2 cm, width, 5.5 cm, thickness, 4.3 cm.
054	529	I/148 upper part, pink-ware female figurine, breasts and navel marked, originally painted red, head missing. Height, 5.2 cm, width across arms, 6.0 cm.
125	604	I/148 clay figurine of woman, navel and pubic triangle marked, form of a pillar, originally plastered and painted yellow. Height, 3.8 cm, base 1.4 x 1.2 cm.
197	677	I/148 figurine of woman, buff-ware pottery, painted red, hollow at top, breasts are modelled, pricked decoration around the figure. Height, 5.7 cm, section, 3.0 x 3.0 cm.
028	494	I/155 vessel fragment, possible unbaked specimen -pottery corpus type 186. Height, 8.4 cm.
032	503	I/158 copper pin. Length, 8.5 cm, diameter, 0.1 cm.
070	549	II/9 Debris, House E. Lower right-hand corner of hard sandstone stela. 22.0x19.5cm. Probably XIIIth Dynasty. . . . (<i>an invocation offering consisting of bread, (beer, oxen, fowl) to the ka of the scribe in charge of the seal of the treasury, Siamun, justified: (dedicated) by his brother who causes his name to live, the scribe of the treasury Irigemtef.</i>)
100	579	II/10 Debris, House E. Red Nubian sandstone stela fragment 17.0x23.0cm, XIIth Dynasty (. . . <i>an invocation offering consisting of bread, beer, oxen, fowl, incense, oil, and everything good and pure upon which a god can live, to the ka of the chief of the flotilla Neferu, revered, whom the Lady of the house Mereret, justified bore.</i>)
119	598	II/10 Debris, House E. Hard red Nubian sandstone stela fragment, together with 712 make up the bottom part of a

stela 17.0x20.0x6.5cm, early XIIth Dynasty. . . . –*sen*.
 (. . . son of . . .) *si* . . . born to (?) . . . *The liege man*
Irer, whom Iw(. . .) procreated. The liegeman Iniotef
whom the Lady of the House Teti bore.

HOUSE F:

Excav. No.	Cat. No.	Vol./Page
080	558	I/110 pink-ware pottery disc, hole through centre. Diameter, 3.5 cm, flat section, 0.7 cm.
095	574	I/115 rectilinear sandstone object, 4.5 x 3.1 x 2.8cm.
138	617	I/117 flint flake point, one worked side. Length, 9.1cm, width, 1.6cm, thickness, 0.3cm.
139	618	I/117 Flint scraper, one worked side. 6.0 x 5.7 x 0.3cm.
113	592	I/124 fragment pink-ware pottery hob, burning, in shape of 'nose' of pig, 5 'nostrils' instead of 2.
147	626	I/124 fragment pink-ware pottery hob, traces of burning.
148	627	I/124 fragment pink-ware pottery hob, traces of burning.
186	666	I/125 fragment pink-ware pottery hob, traces of burning.
146	625	I/128 pottery axe-head, traces of burning. Length, 8.0cm, width, 4.9cm, thickness, 3.4cm.
128	607	I/135 fragment of course red sandstone large platter,
140	619	I/135 schist bowl, missing loop handle. Diameter, 12.0cm, height, 3.0cm.
152	631	I/135 fragment of basalt kohl pot, missing rim. Height, 3.7cm, diameter of base, 3.2cm.
063	539	I/139 bright-blue faience bead, type D2a. 10.0 x 3.0 x 3.0mm.
142	621	I/140 blue glass bead, type J1. 11.0 x 11.0 x 5.0mm.
143	622	I/140 blue faience bead, type A2a. 4.0 x 4.0 x 1.0mm.
155	634	I/140 blue faience bead, black spiral decoration, type K4. 32.0 x 4.0 x 4.0mm.
156	635	I/140 blue faience bead, type D2a. 11.0 x 3.0 x 3.0mm.
096	575	I/145 small clay object, burnt, black colour, possible game piece. Height, 2.0cm, diameter, 2.2cm.
176	656	I/155 burnt model mud bowl. Diameter, 3.2cm, height, 2.0cm.
064	543	I/156 curved piece of wood, part of head rest. Length, 5.6cm.
117	596	I/159 rough nugget, light-coloured amethyst. 30.0 x 30.0 x 15.0mm.
145	624	II/11 Debris, House C. right side of sandstone stela, 6.0x5.0cm – uncertain date. . . . <i>revered before</i> . . .

HOUSE G:

Excav. No.	Cat. No.	Vol./Page
165	645	I/110 pink-ware pottery disc, hold through centre. Diameter, 2.5 cm, section, 0.9 cm.
185	665	I/112 limestone plumb-bob, broken. Length, 6.0 cm, diameter, 4.6 cm.
031	711	I/113 yellow sandstone object. 12.0 x 7.8 x 0.8 cm.
049	742	I/113 pear-shaped sandstone object. 6.7 x 5.0 cm.

059	755	I/116 fine pink granite fragment, Oval shape, rounded base, flat upper surface. Originally shaped by water, used as grindstone. 30.0 x 14.8 x 6.4 cm.
047	738	I/120 quartz hand-hammer, rough spherical shape, diameter, 7.6 cm.
048	739	I/120 fine pink-granite hammer stone, rough spherical shape. Diameter, 10.4 cm.
188	668	I/125 fragment pink-ware pottery hob.
189	669	I/125 fragment pink-ware pottery hob.
191	671	I/125 fragment pink-ware pottery hob, traces of burning.
192	672	I/125 fragment pink-ware pottery hob, traces of burning.
016	693	I/125 fragment pink-ware pottery hob, traces of burning.
040	728	I/125 fragment pink-ware pottery hob, traces of burning.
041	729	I/125 fragment pink-ware pottery hob, traces of burning.
043	733	I/125 fragment pink-ware pottery hob, traces of burning.
077	775	I/128 pottery axe-head. Length, 6.1 cm, height, 3.6 cm, thickness 2.8 cm.
177	657	I/130 half a limestone mace-head, elliptical section. Diameter 7.5 cm, height, 2.2 cm.
182	662	I/132 blue faience bowl fragment, black line decoration interior and exterior.
206	686	I/132 blue faience bowl fragment, black Lotus pattern decorated interior.
207	687	I/132 blue faience bowl fragment black Lotus pattern interior and exterior.
020	698	I/135 sandstone mortar fragment, rough workmanship, traces of red ochre inside, probably used for pounding pigment. Height, 5.3 cm.
011	719	I/135 alabaster of toilet vessel fragment. Height, 7.0 cm, diameter at rim, 4.2 cm.
166	646	I/140 blue faience bead, type E2. 4.0 x 4.0 x 2.0 mm.
167	647	I/140 blue faience bead, type A2a. 4.0 x 4.0 x 1.5mm.
168	648	I/140 blue glass bead, type B2. 5.0 x 5.0 x 5.0mm.
169	649	I/140 blue faience bead, type A3a. 2.5 x 2.5 x 1.0mm.
171	651	I/140 blue faience bead, type A3a. 4.0 x 4.0 x 1.0mm.
172	652	I/140 8 - blue faience beads, type A2a. 2.0 x 2.0 x 1.0mm.
173	653	I/140 3 - light-blue beads, type B2. 4.0 x 4.0 x 1.0 mm.
174	654	I/140 blue faience bead, type C1. 5.0 x 3.0 x 3.0mm.
175	655	I/140 blue faience bead, type E5. 3.0 x 2.0 x 2.0 mm.
178	658	I/140 blue faience bead, type E1. 6.0 x 6.0 x 11.0 mm.
179	659	I/140 blue faience bead, type A2a. 6.0 x 6.0 x 0.5mm.
180	660	I/140 light-blue faience bead, type A2b. 4.0 x 4.0 x 1.5 mm.
181	661	I/140 red glass bead, type F4. 8.0 x 8.0 x 2.0 mm.
183	663	I/140 bone bead, type A2b. 2.5 x 3.0 x 1.5 mm.
198	678	I/140 blue faience bead, type E2. 8.5 x 2.5 x 2.5mm.
199	679	I/140 dark-blue faience bead, type D2a. 8.0 x 3.0 x 3.0mm.
201	681	I/140 light-blue faience bead, type D2a. 11.0 x 4.0 x 4.0mm.

202	682	I/140 blue faience bead, type C1. 5.0 x 2.5 x 2.5mm.
203	683	I/140 blue faience bead, type D1a. 4.0 x 3.0 x 3.0mm.
204	684	I/140 limestone bead, type A2a. 3.0 x 3.0 x 1.0mm.
205	685	I/140 mud, burnt red, bead, type C1. 32.0 x 16.0 x 16.0mm.
021	700	I/140 blue faience bead, type A2b. 1.5 x 1.5 x 2.0mm.
022	701	I/140 light-blue faience bead, type A2b. 2.0 x 2.0 x 1.0mm.
023	702	I/140 light-blue faience bead, type A2a. 2.5 x 2.5 x 1.0mm.
024	703	I/141 bone bead, type A2a. 3.5 x 3.5 x 1.0mm.
025	705	I/141 bright-blue faience bead, type A3b. 5.0 x 5.0 x 1.5mm.
026	706	I/141 bright-blue faience bead, type A3b. 6.0 x 6.0 x 2.0mm.
028	708	I/141 black glass, white inlay, spiral decoration bead, type C4. 23.0 x 7.0 x 7.0 mm.
018	749	I/141 blue faience bead, type E3. 4.5 x 2.0 x 2.0mm.
078	776	I/141 alabaster bead, type C2. 11.0 x 6.0 x 3.5mm.
195	675	I/144 fragment black and white porphyritic rock, oval, shallow central depression. Naturally formed, but indications it was used as a palette. 8.6 x 6.6 x 1.2 cm.
150	629	I/147 fragment crudely worked model tortois or turtle, yellow sandstone, incised lines. Length, 10.6 cm, width, 8.2 cm, height, 2.1 cm.
035	723	I/147 clay figurine, probably a cow. Length, 6.0 cm, height, 2.9 cm.
132	611	I/148 clay figurine of a woman, naval and pubic triangle marked, painted red, traces of burning. Height, 5.8 cm, base, 3.2 x 22.0 cm
007	715	I/148 baked clay figurine fragment, in the form of a pillar, model breasts, pricked decoration, painted red. Height, 3.0 cm, base, 2.0 x 2.0 cm.
045	736	I/151 pink-ware pottery soul-house fragment, traces of burning, part of the courtyard survives, four loaves shown in relief. 14.0 x 11.0 x 5.7 cm.
046	737	I/151 pink-ware pottery soul-house fragment, traces of burning. 7.4 x 7.0 x 5.0 cm.
208	688	I/155 crude baked-clay model, apparently representing someone seated in the carrying chair or perhaps in a portable shrine. Height, 3.4 cm, width at base, 2.1 cm, thickness, 1.7 cm.
124	603	I/156 unidentified wooden object, hole pierced at each end, pointed ends both broken. Original length approximately 12.0 cm, width 4.0 cm in thickness, 2.0 cm.
004	712	II/10 Debris, House C. fits together with 598. Hard red Nubian sandstone stela fragment, early XIIth Dynasty. (See the notes for 598)
133	612	II/27 House G. egg shape lump of mud with 9 trial sea impressions, mid to late Second Intermediate Period

HOUSE H:

Excav. No. Cat. No. Vol./Page

056	752	I/110 clay disk, hole in centre, Diameter, 4.0cm, section, 1.4cm.
060	756	I/125 fragment of pottery hob, traces of burning.
017	743	I/128 pottery axe-head, painted red, traces of burning. Length, 5.6cm, width, 4.0cm, thickness, 0.9cm.
058	754	I/135 fragment of shallow black granite bowl. Diameter, 32.8cm, height, 6.0 cm.
079	777	I/141 Light-blue faience bead, type E1. 16.0 x 4.0 x 4.0mm.

PASSAGE BETWEEN HOUSES G AND H:

Excav. No.	Cat. No.	Vol./Page
072	768	I/148 female figurine, unbaked mud, modelled breasts, pricked decoration. Height, 7.5 cm, width 1.8 cm, thickness, 1.4 cm.

COURTYARD EAST OF HOUSE H:

Excav. No.	Cat. No.	Vol./Page
050	744	I/118 Buff-ware pottery scraper. Length, 8.5 cm.

Buhen Block 'C' Pottery Inventory

HOUSE 'A'

Type	House	Level*	Count	*(L – Lower stratigraphic level; U – Uncertain)
003	A	L	1	narrow jar, pointed base, red-brown ware, red mat slip
004	A	L	2	narrow jar, pointed base, buff or red/brown ware
006	A	L	14	2 handled jar, pointed base, red or red/brown ware, cream slip
009	A	L	1	bellied jar, burnished redware
017	A	L	1	bellied jar, maximum diameter slightly below centre, sharp rim around mouth, incised decoration around middle of vessel
027	A	L	1	2 handled bellied jar, round base, buffware, cream slip
045	A	L	1	bellied jar, sharp inverted rim, red/brown ware
046	A	L	5	large bellied jar, pointed bottom, sharp inverted rim, red/brown ware
056	A	L	1	bellied jar, red/brown ware, mat or polished red slip
073	A	L	1	small deep bowl, rounded base, buff or brown ware, mat red slip
074	A	L	2	small bowl, lower half curved, upper almost straight to mouth, redware
079	A	L	1	small deep bowl, concave sides, curved base, ware unrecorded
080	A	L	1	small deep bowl, lower half curved, upper half concave to flaring mouth, upper half incised, buff or red/brown ware, mat pink slip
085	A	L	1	shallow flat bottomed bowl, sides slightly convex, interior incised, ware unrecorded
086	A	L	2	shallow flat bottomed bowl, sides curve out slightly, flaired mouth, centre interior raised, ware unrecorded
092	A	U	1	shallow dish, raised thick base, sides curve out to thick rim, course brown ware
096	A	L	8	large dish, thick flat base projects out slopes inward toward centre, body slope outward toward mouth, course brown ware
104	A	L	94	jar, flat base is smaller in diameter than mouth, course brown ware
105	A	L	91	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
116	A	L	4	2 handled jar, small flat base, concaved neck, wide modelled rim, buff ware, polished cream slip
129	A	U	1	jar, single spout, flat base, small modelled rim, red polished ware
131	A	L	2	shallow wide mouthed bowl, sides curve in slightly, mounted on tall pedestal with concave sides, base - rounded modelled rim and hollow, buff ware
132	A	L	4	shallow dish wide direct rim, mounted on tall hollow pedestal, modelled rim around base, buff/brown ware, whitish slip
138	A	U	2	very small shallow dish, wide mouth, small flat base, ware unrecorded
143	A	L	1	deep bowl, wide mouth, inverted direct rim, straight sides into small flat base, brown ware

153	A	L	1	small dish, flat bottom, sides - curve out to wide mouth, small rounded modelled rim, ware unrecorded
154	A	L	1	bowl, wide mouth, direct rim, sides curve into small foot, flat base, buff ware, pink mat slip, also red/brown ware, polished dk. red slip
164	A	L	48	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	A	L	25	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
167	A	L	1	bowl, wide mouth, curved sides, small flat base, brown ware, polished red slip
169	A	L	4	bowl, wide mouth, slight foot at flat base, inverted direct rim, incised and applied decoration, brown ware, mat pink or cream or dk. red slip
170	A	L	1	shallow bowl, wide mouth, flat base, exterior incised decoration, buff ware, pink mat slip, or red/brown ware, polished red slip, or pink ware
172	A	L	3	bowl, wide mouth, inverted direct rim, sides curve to slight foot at flat base
173	A	L	12	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
180	A	L	1	bowl, flat foot, sides curve out then rise steeply with a concave curve to mouth, rim made with series of curves, applied decoration on exterior, Qena ware, or red/brown ware with mat pink slip
181	A	L	1	bowl, flat base, sides slope from base then rise steeply in concave curve to mouth, inverted rim of series of curves, brown ware, pink mat slip
186	A	L	45	tubular vessel, open at both ends, wider at one end than other, course brown ware
199	A	L	8	open ended vessel, possible pot stand, narrow top, wide base, inverted direct rim, course brown ware
208	A	L	1	pot stand, concave sides, base and rim have modelled sides, ware unrecorded
211	A	L	1	pot stand, concave sides, top rim is modelled and inverted, base wider than mouth, thick modelled rim, ware unrecorded
216	A	L	3	pot stand, thick rounded modelled top rim, thin wide rim at base, sides slope in from base, red/brown ware, mat cream slip
218	A	L	1	pot stand, concave sides, base rim both thicker and wider than top, ware unrecorded
220	A	L	2	pot stand, rounded modelled rims at top and bottom, sides curve in from base, ware unrecorded
222	A	L	1	pot stand, thick rim top and bottom, sides slightly concave, red/brown ware
224	A	L	1	pot stand, rounded modelled rim, concave sides, ware unrecorded
232	A	L	1	pot stand, concave sides, rim thicker at base than top, ware unrecorded

235	A	L	3	pot stand, everted top rim thicker than base, base wider than top, sides curve in from base, red/brown slip, mat cream slip
237	A	L	1	pot stand, wide inverted top rim, underside of rim same diameter as bottom, sides slope unevenly up to rim, brown or buff ware
242	A	L	1	pot stand, top and base equal diameter, sides curve in from base the bulge out under wide inverted modelled rim, brown ware
235	A	L	4	pot stand, wider base than top, thick top rim, thicker base rim, concaved sides with holes, ware unrecorded
259	A	L	1	pot stand, equal diameter top and bottom, thick round rim over over slightly concaved sides, thick ridge around vessel just above base, buff ware

HOUSE 'B'

Type	House	Level	Count	
003	B	L	1	narrow jar, pointed base, red-brown ware, red mat slip
006	B	L	3	2 handled jar, pointed base, red or red/brown ware, cream slip
023	B	L	1	bellied jar, red/brown, brown ware
053	B	L	1	bellied jar, no external rim, polished redware, polished red-brown ware or red/brown ware with red mat slip
085	B	L	2	shallow flat bottomed bowl, sides slightly convex, interior incised, ware unrecorded
095	B	L	2	large dish, flat rough base projects around sides, sides sloping towards mouth, course brown ware
096	B	L	2	large dish, thick flat base projects out slopes inward toward centre, body slope outward toward mouth, course brown ware
104	B	L	2	jar, flat base is smaller in diameter than mouth, course brown ware
105	B	L	53	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
108	B	L	1	bellied jar, flat ring base, flaring mouth with everted plain rim, brown ware, dk. red mat slip
119	B	L	1	small bellied jar, flat base, short concave neck, small modelled rounded rim, buff or redware, polished cream slip
142	B	L	2	shallow dish, wide mouth, small flat foot at base, red/brown ware, polished red slip
161	B	L	1	deep bowl, wide mouth, small flat foot
164	B	L	34	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	B	L	1	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
169	B	L	2	bowl, wide mouth, slight foot at flat base, inverted direct rim, incised and applied decoration, brown ware, mat pink or cream or dk. red slip
172	B	L	1	bowl, wide mouth, inverted direct rim, sides curve to slight foot at flat base
173	B	L	6	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
178	B	L	1	bowl, small flat foot, sides curve out then rise steeply to concave curve to rounded modelled rim, red/brown ware, polished red slip and black painted decoration, or mat or polished cream slip, or polished cream slip with black or red paint decoration
180	B	L	1	bowl, flat foot, sides curve out then rise steeply with a concave curve to mouth, rim made with series of curves, applied decoration on exterior, Qena ware, or red/brown ware with mat pink slip
186	B	L	25	tubular vessel, open at both ends, wider at one end than other, course brown ware
208	B	L	1	pot stand, concave sides, base and rim have modelled sides, ware unrecorded

209	B	L	1	pot stand, concave sides, base and rim have thick modelled sides, ware unrecorded
215	B	L	1	pot stand, thick everted rim at top, thinner, wider rim at base, sides curve in slightly from base then rise straight to top, greyware
221	B	L	2	pot stand, base rim wider and thicker than top, concave sides, ware unrecorded
249	B	L	1	small pot stand, wider base than top, modelled top and bottom rims, sides slope from base then to top, buff or brown ware
252	B	L	1	shallow pot stand, rim at base is thicker and wider than the top, sides are straight with holes, ware unrecorded
254	B	L	1	pot stand, modelled everted top rim, thicker wider rim at base, sides slope inward

HOUSE 'C'

Type	House	Level	Count	
003	C	L	3	narrow jar, pointed base, red-brown ware, red mat slip
002	C	L	3	narrow, tubular vessel, grey or buff ware
004	C	L	1	narrow jar, pointed base, buff or red/brown ware
023	C	L	2	bellied jar, red/brown, brown ware
051	C	L	1	bellied jar, no external rim, unrecorded ware
052	C		6	bellied jar, no external rim, red/brown ware
095	C	L	3	large dish, flat rough base projects around sides, sides sloping towards mouth, course brown ware
096	C	L	3	large dish, thick flat base projects out slopes inward toward centre, body slope outward toward mouth, course brown ware
105	C	L	20	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
108	C	L	1	bellied jar, flat ring base, flaring mouth with everted plain rim, brown ware, dk. red mat slip
126	C	L	1	bellied jug, single handle, flat base, incurving rim, buff ware, dk. red mat slip
138	C	L	1	very small shallow dish, wide mouth, small flat base, ware unrecorded
157	C	L	1	bowl, flat footed base, sides curve out the curve in just below rim, wide mouth, modelled rim, Qena ware, others are red/brown ware, mat pink or dk. red polished slip
164	C	L	15	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	C	L	1	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
169	C	L	3	bowl, wide mouth, slight foot at flat base, inverted direct rim, incised and applied decoration, brown ware, mat pink or cream or dk. red slip
173	C	L	1	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
178	C	L	2	bowl, small flat foot, sides curve out then rise steeply to concave curve to rounded modelled rim, red/brown ware, polished red slip and black painted decoration, or mat or polished cream slip, or polished cream slip with black or red paint decoration
180	C	L	1	bowl, flat foot, sides curve out then rise steeply with a concave curve to mouth, rim made with series of curves, applied decoration on exterior, Qena ware, or red/brown ware with mat pink slip
181	C	L	1	bowl, flat base, sides slope from base then rise steeply in concave curve to mouth, inverted rim of series of curves, brown ware, pink mat slip
186	C	L	8	tubular vessel, open at both ends, wider at one end than other, course brown ware
204	C	L	1	small pot stand, concave sides, base and mouth rounded modelled sides, ware unrecorded

207	C	L	1	pot stand, concave sides, base and rim have modelled sides, course brown ware, polished red slip
208	C	L	1	pot stand, concave sides, base and rim have modelled sides, ware unrecorded
216	C	L	3	pot stand, thick rounded modelled top rim, thin wide rim at base, sides slope in from base, red/brown ware, mat cream slip
227	C	L	1	pot stand, base rim thicker than top, sides curve in then rise at steeper angle, ware unrecorded
249	C	L	1	small pot stand, wider base than top, modelled top and bottom rims, sides slope from base then to top, buff or brown ware
252	C	L	1	shallow pot stand, rim at base is thicker and wider than the top, sides are straight with holes, ware unrecorded

HOUSE 'D'

Type	House	Level	Count	
002	D	L	1	narrow, tubular vessel, grey or buff ware
003	D	L	4	narrow jar, pointed base, red-brown ware, red mat slip
052	D	L	5	bellied jar, no external rim, red/brown ware
074	D	L	1	small bowl, lower half curved, upper almost straight to mouth, redware
087	D	L	1	flat bottomed dish, thick base, flaired mouth, diameter exceeds base, incised decoration inside and out, buff ware
094	D	L	1	shallow dish, thick base, rounded sides, sloping mouth, incised interior, were unrecorded
096	D	L	1	large dish, thick flat base projects out slopes inward toward centre, body slope outward toward mouth, course brown ware
105	D	L	39	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
108	D	L	1	bellied jar, flat ring base, flaring mouth with everted plain rim, brown ware, dk. red mat slip
142	D	L	1	shallow dish, wide mouth, small flat foot at base, red/brown ware, polished red slip
164	D	L	13	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
169	D	L	2	bowl, wide mouth, slight foot at flat base, inverted direct rim, incised and applied decoration, brown ware, mat pink or cream or dk. red slip
173	D	L	4	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
186	D	L	8	tubular vessel, open at both ends, wider at one end than other, course brown ware
199	D	L	3	open ended vessel, possible pot stand, narrow top, wide base, inverted direct rim, course brown ware
204	D	L	1	small pot stand, concave sides, base and mouth rounded modelled sides, ware unrecorded
207	D	L	1	pot stand, concave sides, base and rim have modelled sides, course brown ware, polished red slip
208	D	L	1	pot stand, concave sides, base and rim have modelled sides, ware unrecorded
216	D	L	4	pot stand, thick rounded modelled top rim, thin wide rim at base, sides slope in from base, red/brown ware, mat cream slip
221	D	L	1	pot stand, base rim wider and thicker than top, concave sides, ware unrecorded
250	D	L	1	pot stand, thick bottom and top rims, base wider than top, sides curve in then upward

HOUSE 'E'

Type	House	Level	Count	
001	E	U	1	jar, pointed base, redware cream or red slip
003	E	U	2	narrow jar, pointed base, red-brown ware, red mat slip
004	E	L	1	narrow jar, pointed base, buff or red/brown ware
006	E	U	47	2 handled jar, pointed base, red or red/brown ware, cream slip
017	E	U	12	large, bellied jar, red, red/brown ware
018	E	U	1	large, bellied jar, pointed base, red, red/brown ware
023	E	U	4	bellied jar, red/brown, brown ware
036	E	U	4	bellied jar, pointed base, wide rim, red/brown ware
040	E	U	1	large bellied jar, pointed base, red/brown ware
041	E	U	1	bellied jar, pointed bottom, red/brown ware, red mat slip
045	E	U	9	bellied jar, sharp inverted rim, red/brown ware
046	E	U	5	large bellied jar, pointed bottom, sharp inverted rim, red/brown ware
078	E	U	1	small deep bowl, almost pointed at base, sides curve out sharply at top, ware unrecorded
104	E	U	532	jar, flat base is smaller in diameter than mouth, course brown ware
105	E	U	276	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
116	E	U	112	handled jar, small flat base, concaved neck, wide modelled rim, buff ware, polished cream slip
128	E	U	1	jar, single spout, sides flair out from neck to wide mouth, red polished ware
129	E	U	2	jar, single spout, flat base, small modelled rim, red polished ware
132	E	U	2	shallow dish wide direct rim, mounted on tall hollow pedestal, modelled rim around base, buff/brown ware, whitish slip
138	E	U	24	very small shallow dish, wide mouth, small flat base, ware unrecorded
142	E	U	3	shallow dish, wide mouth, small flat foot at base, red/brown ware, polished red slip
143	E	U	3	deep bowl, wide mouth, inverted direct rim, straight sides into small flat base, brown ware
144	E	U	4	deep bowl, mouth wider than flat base, interior - arch-like structure across floor of vessel, brown ware
153	E	U	1	small dish, flat bottom, sides - curve out to wide mouth, small rounded modelled rim, ware unrecorded
154	E	U	2	bowl, wide mouth, direct rim, sides curve into small foot, flat base, buff ware, pink mat slip, also red/brown ware, polished dk. red slip
157	E	U	2	bowl, flat footed base, sides curve out the curve in just below rim, wide mouth, modelled rim, Qena ware, others are red/brown ware, mat pink or dk. red polished slip
158	E	U	1	bowl, small flat foot, sides curve out then in just under rim, brown ware, red mat slip

160	E	U	4	decorated bowl, narrow hollow foot, sides curve out then in then flare to wide mouth,
161	E	U	2	deep bowl, wide mouth, small flat foot
164	E	U	56	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	E	U	105	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
167	E	U	2	bowl, wide mouth, curved sides, small flat base, brown ware, polished red slip
173	E	U	33	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
174	E	U	1	deep bowl, small flat foot, sides curve out then rise almost vertically to mouth, red/brown ware, polished red slip
178	E	U	8	bowl, small flat foot, sides curve out then rise steeply to concave curve to rounded modelled rim, red/brown ware, polished red slip and black painted decoration, or mat or polished cream slip, or polished cream slip with black or red paint decoration
180	E	U	3	bowl, flat foot, sides curve out then rise steeply with a concave curve to mouth, rim made with series of curves, applied decoration on exterior, Qena ware, or red/brown ware with mat pink slip
181	E	U	2	bowl, flat base, sides slope from base then rise steeply in concave curve to mouth, inverted rim of series of curves, brown ware, pink mat slip
186	E	U	129	tubular vessel, open at both ends, wider at one end than other, course brown ware
199	E	U	37	open ended vessel, possible pot stand, narrow top, wide base, inverted direct rim, course brown ware
205	E	U	1	small pot stand, concave inside, base and mouth modelled rims, ware unrecorded
209	E	U	1	pot stand, concave sides, base and rim have thick modelled sides, ware unrecorded
211	E	U	5	pot stand, concave sides, top rim is modelled and inverted, base wider than mouth, thick modelled rim, ware unrecorded
213	E	U	1	pot stand, slightly concave sides, direct rims top and bottom, ware unrecorded
215	E	U	2	pot stand, thick everted rim at top, thinner, wider rim at base, sides curve in slightly from base then rise straight to top, greyware
216	E	U	16	pot stand, thick rounded modelled top rim, thin wide rim at base, sides slope in from base, red/brown ware, mat cream slip
217	E	U	4	pot stand, very thick modelled rims, top rim everted, sides curve in from base, red/brown ware, mat cream slip
220	E	U	1	pot stand, rounded modelled rims at top and bottom, sides curve in from base, ware unrecored
221	E	U	1	pot stand, base rim wider and thicker than top, concave sides, ware unrecorded

226	E	U	1	pot stand, rounded modelled rims, base rim thicker than top, sides curve in slightly then rise virtically to top, ware unrecorded
231	E	U	4	pot stand, rounded modelled rims, concave sides, base wider than top, ware unrecorded
232	E	U	2	pot stand, concave sides, rim thicker at base than top, ware unrecorded
235	E	U	3	pot stand, everted top rim thicker than base, base wider than top, sides curve in from base, red/brown slip, mat cream slip
238	E	U	1	pot stand, wide everted top rim, rounded modelled base, sides slope inward from base, ware unrecorded
242	E	U	1	pot stand, top and base equal diameter, sides curve in from base the bulge out under wide inverted modelled rim, brown ware
250	E	U	1	pot stand, thick bottom and top rims, base wider than top, sides curve in then upward
251	E	U	4	shallow pot stand, thick modelled top rim, very thick base rim, short sides slope up from bottom, red/brown ware

HOUSE 'F'

Type	House	Level	Count	
006	F	U	52	handled jar, pointed base, red or red/brown ware, cream slip
034	F	U	1	bellied jar, redware, cream slip
039	F	U	1	bellied jar, short concave neck, rounded base, brown/buff ware, pink or red slip
045	F	U	1	bellied jar, sharp inverted rim, red/brown ware
074	F	U	1	small bowl, lower half curved, upper almost straight to mouth, redware
086	F	U	2	shallow flat bottomed bowl, sides curve out slightly, flaired mouth, centre interior raised, ware unrecorded
104	F	U	58	jar, flat base is smaller in diameter than mouth, course brown ware
105	F	U	30	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
116	F	U	2	2 handled jar, small flat base, concaved neck, wide modelled rim, buff ware, polished cream slip
132	F	U	1	shallow dish wide direct rim, mounted on tall hollow pedestal, modelled rim around base, buff/brown ware, whitish slip
164	F	U	9	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	F	U	16	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
170	F	U	1	shallow bowl, wide mouth, flat base, exterior incised decoration, buff ware, pink mat slip, or red/brown ware, polished red slip, or pink ware
173	F	U	3	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
178	F	U	2	bowl, small flat foot, sides curve out then rise steeply to concave curve to rounded modelled rim, red/brown ware, polished red slip and black painted decoration, or mat or polished cream slip, or polished cream slip with black or red paint decoration
186	F	U	13	tubular vessel, open at both ends, wider at one end than other, course brown ware
199	F	U	4	open ended vessel, possible pot stand, narrow top, wide base, inverted direct rim, course brown ware
218	F	U	2	pot stand, concave sides, base rim both thicker and wider than top, ware unrecorded
235	F	U	1	pot stand, everted top rim thicker than base, base wider than top, sides curve in from base, red/brown slip, mat cream slip
254	F	U	1	pot stand, modelled everted top rim, thicker wider rim at base, sides slope inward from base with holes pierced in them, red/brown ware

HOUSE 'G'

Type	House	Level	Count	
001	G	U	3	jar, pointed base, redware cream or red slip
003	G	U	2	narrow jar, pointed base, red-brown ware, red mat slip
006	G	U	17	2 handled jar, pointed base, red or red/brown ware, cream slip
016	G	U	1	large bellied jar, oval, redware
017	G	U	1	large, bellied jar, red, red/brown ware
023	G	U	1	bellied jar, red/brown, brown ware
024	G	U	1	bellied jar, red/brown ware, red slip
027	G	U	5	2 handled bellied jar, round base, buffware, cream slip
033	G	U	1	pilgrim flask, buff or red/brown ware
035	G	U	3	bellied jar, pointed base, buffware/cream slip or grey/polished mat slip
045	G	U	4	bellied jar, sharp inverted rim, red/brown ware
052	G	U	1	bellied jar, no external rim, red/brown ware
058	G	U	1	bellied jar, decorative bands about neck, red/brown ware, mat cream or red slip
086	G	U	2	shallow flat bottomed bowl, sides curve out slightly, flaired mouth, centre interior raised, ware unrecorded
096	G	U	5	large dish, thick flat base projects out slopes inward toward centre, body slope outward toward mouth, course brown ware
104	G	U	129	jar, flat base is smaller in diameter than mouth, course brown ware
105	G	U	71	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
108	G	U	1	bellied jar, flat ring base, flaring mouth with everted plain rim, brown ware, dk. red mat slip
116	G	U	5	2 handled jar, small flat base, concaved neck, wide modelled rim, buff ware, polished cream slip
128	G	U	1	jar, single spout, sides flair out from neck to wide mouth, red polished ware
131	G	U	3	shallow wide mouthed bowl, sides curve in slightly, mounted on tall pedestal with concave sides, base - rounded modelled rim and hollow, buff ware
132	G	U	1	shallow dish wide direct rim, mounted on tall hollow pedestal, modelled rim around base, buff/brown ware, whitish slip
156	G	U	2	small bowl, small raised foot, sides curve to wide mouth, wide thin modelled rim, red or brown ware, polished red slip
160	G	U	1	decorated bowl, narrow hollow foot, sides curve out then in then flare to wide mouth,
164	G	U	26	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	G	U	41	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
170	G	U	2	shallow bowl, wide mouth, flat base, exterior incised decoration, buff ware, pink mat slip, or red/brown ware, polished red slip, or pink ware
173	G	U	16	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware

174	G	U	1	deep bowl, small flat foot, sides curve out then rise almost vertically to mouth, red/brown ware, polished red slip
178	G	U	14	bowl, small flat foot, sides curve out then rise steeply to concave curve to rounded modelled rim, red/brown ware, polished red slip and black painted decoration, or mat or polished cream slip, or polished cream slip with black or red paint decoration
186	G	U	24	tubular vessel, open at both ends, wider at one end than other, course brown ware
199	G	U	8	open ended vessel, possible pot stand, narrow top, wide base, inverted direct rim, course brown ware
203	G	U	1	small pot stand, concave sides, base and mouth have thick modelled rounded rims, ware unrecorded
205	G	U	1	small pot stand, concave inside, base and mouth modelled rims, ware unrecorded
212	G	U	1	pot stand, concave sides, top and bottom rims modelled and inverted, ware unrecorded
216	G	U	9	pot stand, thick rounded modelled top rim, thin wide rim at base, sides slope in from base, red/brown ware, mat cream slip
220	G	U	1	pot stand, rounded modelled rims at top and bottom, sides curve in from base, ware unrecorded
221	G	U	1	pot stand, base rim wider and thicker than top, concave sides, ware unrecorded
233	G	U	3	shallow pot stand, base thicker than top, sides curved toward top, red/brown ware, mat cream slip
237	G	U	1	pot stand, wide inverted top rim, underside of rim same diameter as bottom, sides slope unevenly up to rim, brown or buff ware
Nubian Type 7	G	U	1	open bowl, hemispherical base, walls thicker at base, convex- concave profile, widened slightly at mouth, externally rounded plain rim, red polished black-topped Kerma ware, poorly levigated Nile clay, vegetable filler, external surfaces pebble-polished

HOUSE 'H'

Type	House	Level	Count	
003	H	U	1	narrow jar, pointed base, red-brown ware, red mat slip
029	H	U	1	small, bellied jar, ware?
006	H	U	10	2 handled jar, pointed base, red or red/brown ware, cream slip
009	H	U	5	bellied jar, burnished redware
011	H	U	1	oval-shaped, bellied jar, red, brown, brown with red slip
015	H	U	1	large bellied jar, buffware ware, cream slip
017	H	U	2	large, bellied jar, red, red/brown ware
027	H	U	3	2 handled bellied jar, round base, buffware, cream slip
044	H	U	2	bellied jar, pointed bottom, red polished ware
045	H	U	2	bellied jar, sharp inverted rim, red/brown ware
052	H	U	1	bellied jar, no external rim, red/brown ware
096	H	U	4	large dish, thick flat base projects out slopes inward toward centre, body slope outward toward mouth, course brown ware
104	H	U	79	jar, flat base is smaller in diameter than mouth, course brown ware
105	H	U	25	jar, flat base slightly smaller in diameter than mouth, convex sides, course brown ware
109	H	U	1	bellied jar, flat ring base, sides - 3 convex curves into a narrow neck, external rolled rim, redware
116	H	U	2	2 handled jar, small flat base, concaved neck, wide modelled rim, buff ware, polished cream slip
120	H	U	1	bellied jar, small foot, flat base, wide neck, wide modelled rim, buff ware (possibly red/brown ware), buff or red mat slip
128	H	U	1	jar, single spout, sides flair out from neck to wide mouth, red polished ware
131	H	U	3	shallow wide mouthed bowl, sides curve in slightly, mounted on tall pedestal with concave sides, base - rounded modelled rim and hollow, buff ware
132	H	U	1	shallow dish wide direct rim, mounted on tall hollow pedestal, modelled rim around base, buff/brown ware, whitish slip
138	H	U	1	very small shallow dish, wide mouth, small flat base, ware unrecorded
143	H	U	3	deep bowl, wide mouth, inverted direct rim, straight sides into small flat base, brown ware
145	H	U	1	deep bowl, wide mouth, narrow modelled rim, sides taper to small flat base, brown ware
154	H	U	1	bowl, wide mouth, direct rim, sides curve into small foot, flat base, buff ware, pink mat slip, also red/brown ware, polished dk. red slip
159	H	U	1	bowl, slight flat foot, bellied sides, wide mouth, thin modelled rim, buff ware, dk. red slip, course fabric
164	H	U	20	small bowl, wide mouth, curved side, small flat foot, red or red/brown ware, polished red slip, or brown ware
165	H	U	20	small bowl, wide mouth, curved sides, narrow flat foot, buff or brown ware, mat pink or dk. red polished slip
168	H	U	2	bowl, deep wide inverted modelled rim, curved sides, flat base, broken ware, with or without red slip

172	H	U	2	bowl, wide mouth, inverted direct rim, sides curve to slight foot at flat base
173	H	U	6	bowl, small raised foot, sides curve out then in slightly to mouth, red/brown ware, polished red slip, or redware
178	H	U	11	bowl, small flat foot, sides curve out then rise steeply to concave curve to rounded modelled rim, red/brown ware, polished red slip and black painted decoration, or mat or polished cream slip, or polished cream slip with black or red paint decoration
186	H	U	19	tubular vessel, open at both ends, wider at one end than other, course brown ware
199	H	U	21	open ended vessel, possible pot stand, narrow top, wide base, inverted direct rim, course brown ware
200	H	U	1	tall pot stand, concave sides, small indirect rim mouth, wider indirect rim base, buff ware, pink slip
204	H	U	1	small pot stand, concave sides, base and mouth rounded modelled sides, ware unrecorded
216	H	U	12	pot stand, thick rounded modelled top rim, thin wide rim at base, sides slope in from base, red/brown ware, mat cream slip
217	H	U	2	pot stand, very thick modelled rims, top rim everted, sides curve in from base, red/brown ware, mat cream slip
221	H	U	1	pot stand, base rim wider and thicker than top, concave sides, ware unrecorded
229	H	U	1	pot stand, concave sides, base rim thicker than top, ware unrecorded
233	H	U	1	shallow pot stand, base thicker than top, sides curved toward top, red/brown ware, mat cream slip
235	H	U	2	pot stand, everted top rim thicker than base, base wider than top, sides curve in from base, red/brown slip, mat cream slip
236	H	U	1	small pot stand, centre and bottom with concave curves between those points, modelled top rim, thin direct rim at base, ware unrecorded
237	H	U	2	pot stand, wide inverted top rim, underside of rim same diameter as bottom, sides slope unevenly up to rim, brown or buff ware
250	H	U	2	pot stand, thick bottom and top rims, base wider than top, sides curve in then upward
Type 'G'	H	U	19	juglet sherds, thick clay fabric, white grit sometimes with organic temper, fired black with black section, polished, incised design filled with white lime or gypsum pigment, Tell el Yahudia ware

