Middle Kingdom Studies 7

Labour organisation in Middle Kingdom Egypt



Micòl Di Teodoro

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LIST OF ABBREVIATIONS:

BM	British Museum
CAD	The Assyrian Dictionary of the Oriental Institute of the University of Chicago.
ES	Eastern Settlement (Qasr es-Sagha)
FIP	First Intermediate Period
KRI	Kitchen K.A. Ramesside Inscriptions
LÄ	Lexikon der Ägyptologie (Helck & Otto1984)
MBA	Middle Bronze Age
MBII-A	Middle Bronze Age II-A
MBII-B	Middle Bronze Age II-B
MK	Middle Kingdom
NK	New Kingdom
NSGH	North Street Gate House (Heit el-Ghurab, Giza)
OK	Old Kingdom
PB	Papyrus Berlin
PR	Papyrus Reisner
QeS	Qasr es-Sagha
RAB	Royal Administrative Building (Heit el-Ghurab, Giza)
SIP	Second Intermediate Period
TeD	Tell el-Dab'a
TIP	Third Intermediate Period
Urk.	Urkunden des aegyptischen Altertums
Wb	Wörterbuch der ägyptischen Sprache (Erman & Grapow 1926-50)
WS	Western Settlement (Qasr es-Sagha)

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1. INTRODUCTION

This book explores the organisation of labour in the Middle Kingdom through a combination of written sources and the archaeological record. Previous studies have focussed predominantly on the upper ranks of labour organisation and have favoured sites which yielded repertoires of 'valuable' objects. The aim of the present study is to reconstruct labour organisation at the bottom end of administration, and to understand how labour was embedded in the material world. Emphasis will be given to methodological questions arising from a comparative assessment of different categories of evidence.

1.1 - LABOUR ORGANISATION IN SOCIAL HISTORY

As Nicholas Postgate (1992, 225) stresses, "central to all accounts of urbanization or state formation is the concept of specialization: the distribution of essential functions among the population so that some concentrate on one task, some on another, whether it be administrative or productive". Intensive labour was necessary for the production of surpluses in kind, which resulted in the development of crafts and trades (Sahlins 1972, 82; Steinkeller 2015, 5–6). The improvement of the skills to manage and organise labour and resources is thus the foundation for craft specialisation and the emergence of every complex society (Trigger 2003; Wittfogel 1957). Labour organisation with or without training holds a pivotal role in the economy of a country, being central for the development of socioeconomic relations. It contributes to the recognition of social and economic differentiation, revealing a vertical stratification within the population (Richards 2005, 16–17). The study of the managerial aspects of labour organisation and the variation of these systems over time also provides insights on the general structure of the government and the political situation of a country.

This is especially useful at times of state crisis or reorganisation of the central administration. This is the case in the Middle Kingdom of Egypt, which is characterised by a passage from the disunity of the First Intermediate Period to the reunification of the country and the re-establishment of kingship in the Twelfth Dynasty, followed by political changes in the late Twelfth–mid Thirteenth Dynasty (below 1.5). In such a context, administrative texts dealing with the recruitment of workers and the departments in charge of their management, along with material culture from contemporary settlements, can contribute substantially to clarifying the structure of Middle Kingdom society, offering insights into the economic and political situation of that time, production strategies, relations between local and central administration and the organisation of resources (*e.g.* Engel 2013, 21ff; Kóthay 2013; Papazian 2013). Attestations of newly created institutions and offices (2.4) can also help in reconstructing the process of reorganisation of the government. In conclusion, the study of labour organisation can help understand the Middle Kingdom at a more general level.

1.2 - FIELDS OF INVESTIGATION AND RESEARCH QUESTIONS

The focus of the present study is the social profile of the individuals summoned for temporary labour during the Middle Kingdom, their management, and the settlements of the workforce. The first research question concerns the social identities of the people registered for labour. Under the broad heading of social identity, my particular research targets are status, gender, ethnicity, diet, domestic life and work conditions.

The second research question concerns the nature of the assignments given to this workforce. I will investigate whether the entire range of temporary collective activities were obligations requested from specific strata of Egyptian society. The answer to this question involves a discussion of the types of activities and projects for which people were recruited, the temporality of labour, and the managerial roles of mid-ranking supervisors.

A third sub-set of questions address the material dimension of labour organisation, specifically food supply and accommodation. I will explore the degree of self sufficiency of worker communities and discuss settlement plans, the spatial arrangement in settle-

ments, and the layout of housing units.

An additional field of investigation is the management of labour. The aim is to reconstruct the administrative procedures of labour organisation through an understanding of the roles of the newly created bureau *ḥ3 n dd rmṯ* and the institution *ḫnrt wr*. What was the relation between these two departments? Were they involved in different stages of labour organisation? What position did they occupy in the work chain? An additional aim is the identification of the officials in charge of temporary workers during the phases spanning from recruitment through to completion of the assignments. Thus there is a need to inquire into the associations of the bureau *ḥ3 n dd rmṯ* and the institution *ḫnrt wr* with other bureaux and other sectors of the administration (economy, security, and central and local executive branches).

The last research question relates to the degree of control exercised on the workforce. Do architectural features and written sources reveal insights into the level of supervision of temporary workers? These questions will engage with the discussion on the debated authoritarianism of Middle Kingdom society.

1.3 - LITERATURE REVIEW, ORIGINALITY AND METHODOLOGY

The written production of the Middle Kingdom is characterised by a wealth of administrative documents relating to the organisation of labour, unparalleled in scope among the written sources of other periods of the Egyptian Bronze Age (ca. 3000–1000 BC) (2.1). The Middle Kingdom papyri from Lahun (2.2.1) and the Reisner Papyri (2.2.2) are the earliest extensive text corpora which record the names of recruited workers and the regulations dealing with temporary obligations. The New Kingdom data offer surprisingly few direct sources on this topic (2.1). Together with the earliest Old Kingdom *Gallery Complex* of Heit el-Ghurab (3.2.1), the Middle Kingdom Western Settlement of Qasr es-Sagha and Tell el-Dab'a e/3 are the first two examples of large pre-planned settlements purposely built to accommodate workers (3.3, 3.4).

Hitherto, little work has been done on the organisation of labour during the Middle Kingdom. Christopher Eyre (1987a; 1987b) has examined work organisation during the Old and New Kingdoms but leaves out the Middle Kingdom. On the one hand, the incomplete publication of the Lahun Papyri has limited the possibilities for research (2.2.1). On the other hand, the absence of valuable objects from Qasr es-Sagha and Tell el-Dab'a e/3, and the poor preservation of architecture and material culture, seem to have discouraged further study on these sites.

Previous research on labour during the Middle Kingdom is characterised by a separation between the use of written sources and archaeological record. After the first excavation reports and monographs by Ernst Czerny (1999) for Tell el-Dab'a and Joachim Śliwa (*e.g.* 1986; 1992a) for Qasr es-Sagha, these settlements have only been rarely mentioned and never discussed together, in the frame of labour organisation (*e.g.* Bietak 2010; Davoli 1994; Forstner-Müller 2010b; Kemp 2006, 223–31; Moeller 2009, 2016).

The first studies of labour through textual sources were the publication of the Reisner Papyri by W. Kelly Simpson (1963, 1965, 1969, 1986) and of P. Brooklyn 35.1446, the 'register of the *ḫnrt wr*', by William Hayes (1955). The two categories of unskilled workers recorded in the namelist registers of the Reisner Papyri were later studied by Gerald Kadish and Mahmoud Ezzamel in two articles on the organisation of workers in gangs, focussing on accounting practices and discipline (Ezzamel 2004; Kadish 1996). Since the Hayes publication of P. Brooklyn 35.1446, the *ḫnrt wr* has been an object of interest for Stephen Quirke (1988; 1990).

The present book offers the first comprehensive study of labour during the Middle Kingdom that includes the entire written record on temporary workers and their management, combining it with archaeological evidence from contemporary settlements for workers. First, the written evidence and the archaeological record will be examined and interpreted in two independent sections (chapters 2 and 3). The purpose of this is to see how texts and material culture answer the main research questions separately.

In chapter 2 the research questions are addressed through examination of the written evidence. This chapter is primarily a lexicographical study focussing on specific terminologies of the Lahun and Reisner papyri that deal with the labour obligation *hȝw*, the related main categories of temporary workers (2.3), and the departments in charge of the management of labour (2.4). Consequently, the focus on workers will be identity and social relations. For these reasons the present book will not include a detailed examination of sources which refer to the bulk of workforce as an undifferentiated collection (egyptian *mšʿ*). Such sources include the large number of rock inscriptions from

quarry and mine sites (such as Wadi Hammamat, Wadi el-Hudi, and Hatnub), and the marks of teams of workers on blocks from pyramid sites. Both corpora provide insights into the logistic of expeditions, technology and engineering techniques, such as the disposition of rows of stone blocks and the transport of material to destinations (Arnold 1990; Couyat-Montet 1912; Fakry 1952; Goyon 1957; Sadek 1980; Seyfried 1981). However they offer remarkably little information about social relations beyond the geographical origin of the workers (Arnold 1990) and the organisation of the teams (Verner 2003). Additionally, the workers recorded in rock inscriptions and block marks are called neither *ḥsbw* nor *mnyw*, the two key terms for temporary workers mentioned in the current study; the exceptions are three inscriptions discussed in 2.3.2 (pp. 50-52). These terms are also absent from the formula of the *shabtis* statuettes; for this reason the formula will not be discussed in detail, but mentioned only to clarify the meaning of an expression specifically associated with the obligation *ḥȝw* (2.3.1 D).

On the other hand, the *corpus* of dated Middle Kingdom rock inscriptions from Wadi Hammamat is useful for a different purpose, namely to identify and fix the seasonality of the quarrying process in the context of the current book' s study of the temporality of work. The outcome of this will also be crucial for the identification of the purpose of the settlements investigated in chapter 3. Some rock inscriptions from Aswan also contribute to establishing correlations among specific offices and the *ḫnrt wr* institution (2.4).

This lexicographical study, along with the philological analysis of the texts, inform my reconstruction of the temporal framework and the types of activities performed by workers. Comprehensive studies on the temporality of work in Ancient Egypt are lacking. Previous inquiries into the subject are scant and usually based on temporal references from rock inscriptions (above) (*e.g.* Beckerath 1997; Eyre 1987a). The seasonal timing of recruitments of workers recorded in the Lahun and Reisner papyri has enabled me to reconstruct the temporality of work for a wide range of activities included in the obligation *ḥȝw* (2.3; 4.2.7). An important question in this context is the way in which the civil and solar calendars correlated, one used for administrative purpose and the other determining physical experience. Due to a discrepancy between the calendars, the dates of the papyri do not coincide with the stages of the agricultural process. A calculation of the exact time frame is thus needed. In 2.2.3 I will illustrate the steps I followed to deal with this issue.

In chapter 3 I will examine the archaeological record, focussing on the two major case-studies Qasr es-Sagha and Tell el-Dab'a. Through an analysis of architecture, material culture and faunal remains, I will investigate the purpose and temporality of these settlements, and the social profile of their inhabitants. The analysis of faunal remains will allow a reconstruction of the subsistence patterns of the dwellers. A comparison with earlier and later workmen's settlements and industrial sites will then provide useful clues for the identification of social patterns, use of spaces, and the reconstruction of work conditions and dietary habits.

In the final chapters the conclusions reached by examining independently written sources and archaeological evidence will be combined. This comparison will be done by subject matter, with emphasis on the social and task profile of workers (4.2.2), the administrative procedures (4.2.3), work chain (4.2.4), and the organisation of the workforce on site (4.2.5). The discussion then aims to integrate different strands of the debate about the disciplines of history and archaeology that currently tend to co-exist separately (4.1). Written sources and the archaeological record shed light on the research topics to varying degree and in chapter 5 I will discuss to what extent they constitute a consistent picture, or whether there are contradictions in textual and archaeological evidence. Separate investigations of these different lines of evidence, and a final comparison of the results, proved to be the clearest and most productive approach to the subject of the present book. The main written sources come from Lahun, while the archaeological record comes from Qasr es-Sagha and Tell el-Dab'a, sites which did not yield any written evidence (4.2.1).

All types of data are equally important as each provides insights into different aspects of the topic. However, the written data set on labour organisation is more detailed than the archaeological evidence from the settlements. Additionally, the managerial aspects of labour can be reconstructed only through the written record. For this reason the section dedicated to written sources (chapter 2) will be longer than that dedicated to the examination of material culture from the settlements (chapter 3).

I was able to check the hieratic papyri in Berlin and

London in the original. For the analysis of ceramic and faunal remains from Qasr es-Sagha and Tell el-Dab'a I rely on the excavation reports, supplemented by personal communications from the Qasr es-Sagha excavation director Joachim Śliwa. Re-examination of the remains in the Egyptian Museum Cairo was not possible during the period of my research.

1.4 - PRELIMINARY REMARKS ON TERMINOLOGY

The noun *manpower* might be the best word to define the mass of people summoned for temporary collective labour. It is used for instance by Katalin Kóthay (2013, 511) in reference to conscription and temporary labour. However this word, a combination of the words *man* and *power*, like *mankind* may be considered partial and to refer to a male dominated society (Coxali 1995–96, 6). According to Margaret Conkey and Janet Spector (1998, 12) "our intellectual tradition is based on a fundamental conceptual error that led to define some generic concepts using gender-specific terms belonging to an androcentric view". So *manpower* and *mankind,* as *man*, are often used in reference to people in general. For instance the word *mankind* can replace the neutral *human race*. Similarly, the personal pronoun *he* for the third person masculine singular, is used in generic third singular form when linked to a neutral subject. In these contexts, the limits of the specific gender-restricted meaning are crossed, moving from a narrow and definite field to a wider and more general one. As I will discuss in chapters 2 and 3, the evidence indicates that those summoned for labour were of both sexes. Therefore, the use of the word *manpower* in the context of this research would be ambiguous, as it might be considered restrictive or misleading and give the impression that only men were present in the particular context under discussion. For these reasons I decided to avoid the use of the term *manpower* in favour of either specific or neutral words and locutions, as the evidence warrants in each case: *workers, female worker, male worker,* and *workforce.*

Moreover, I will use the expressions *titleholders* and *officials* to denote those members of the court and the administration who are identified by specific designations placed before their personal name. These *titles,* or *offices,* are either *ranking titles* or *function titles*. The first, usually placed before the function title, provides information on the holder's "social status at the royal court" (Grajetzki 2009, 5). Those with ranking titles held the highest positions in the administration. During the Middle Kingdom there were five ranking titles: *ỉry-pʿt* 'member of the elite', *ḥɜty-ʿ* 'foremost of action' (also used as function title to denote the local 'mayor'), *ḫtmty-bỉty* 'royal sealer', *smr-wʿty* 'sole friend of the king', and *rḫ-nswt* 'king's acquaintance'. The function titles identify the holders' roles and sphere of action. An example of a function title is *imy-r ɜḫwt* 'overseer of fields', which denotes the main official of the bureau of fields. Designations of profession such as baker, brewer, cook and fisher will not be identified as *titles* because they may "simply describe what a person does, without ever being used in appointments of personnel to a position within an administration" (Quirke 2004, 3).

Another expression which requires a preliminary discussion is *middle class.* The term *class* is used in Egyptology to define different social groups and social levels (Grajetzki 2010, 180ff). The most common criterion used to classify social groups is according to wealth. For example, Lynn Meskell (1999) divides the society of the New Kingdom workmen's village of Deir el-Medina according to tomb equipment, using the term *middle class* to denote the workmen. Jac Janssen (1975, 536) instead divides the community of the village by using information from the written record. He denotes scribes and chiefs as *upper class*, and workmen as *middle class.* The *smdt* – people who supported the village with a wide range of services – were identified as the proletariat. Christian Tietze (1985, 1986) used the size of the house to identify the social status of the owners. The smaller units of about 50m^2 were classified as houses for low-status people, while larger houses provided with a courtyard were identified as accommodation for middle-level officials. Furthermore, a third group of large units provided with storage installations and granaries were associated with high status officials.

The textual analysis of documents from Lahun has revealed that minor officials, titleless men denoted as *man of town X*, and in some instances individuals identified by 'modest' professions were sometimes wealthy enough to own dependants who could replace their masters in labour duties (2.3.1 A; 2.3.2 O, P). Therefore, in the present study I will use the term *middle class* to denote these people, who can be defined as those having "a certain income" (Grajetzki 2010, 182), placed somewhere between the administrative ruling class and the low-status working population

(Grajetzki 2006, 149–51; Quirke 1991, 149).

In some instances I will also use the term *elite*. In sociology this noun can have two main meanings. First it can refer to high-status people with wider control and more access to resources. Secondly, it can refer to the 'best' in a group of people (Bottomore 1965). In the present study I will use *elite* in its sociological meaning to indicate people of markedly privileged status (Frood 2010, 476), the "non producing population in society supported by surplus" (Richards 2005, 16).

Since the huge area of Tell el-Dab'a shows continuous occupation from the FIP to the Persian time, the name *Tell el-Dab'a* will be used only with reference to the early Twelfth Dynasty settlement, which is the earlier occupation phase of the site. Only in 3.4.1, where I give an overview the entire excavation area, will I differentiate the settlement from other structures dated to different times by using the label 'Middle Kingdom settlement'.

1.5 - HISTORICAL BACKGROUND

I follow Luft's studies in relation to the chronology of the Lahun Papyri (Luft 1982, 1983, 1992b) and for the chronology of the late Middle Kingdom, while for the other periods I use the studies by Detlef Franke (1988, 2008) and Erik Hornung *et al.* (2006).

The end of the Old Kingdom (22th century B. C.) is still much disputed. Explanations of its collapse combine internal factors (weakness of the central government against the rise of the provinces), climatic changes (droughts and famine) (Barta 2009; Hassan 1997, 2007), and invasion of 'Asiatics' from the northeast (Jansen-Winkeln 2010).

The period which followed the Old Kingdom, the First Intermediate Period, was characterised by the regionalisation of the political landscape and struggles for power between independent lines of kings of the north and the south. These conflits ended with the victory of the Thebans and the reunification of the country under Montuhotep II (Eleventh dyn.) (Grajetzki 2006, 7–17). Important information on the history of this time is provided by the necropolis of the provinces XIII, XV and XVI of Upper Egypt, namely Asyut, Deir el-Bersheh and Beni Hasan, where the local governors of these provinces were buried. The disunity of the First Intermediate Period is reflected in the material culture of the time, which shows the development of local styles (*e.g.* in pottery production). These remain visible in the period after the reunification (Grajetzki 2006, 23; Seidlmayer 2000).

The history of the Middle Kingdom (ca. 2050–1700 B. C.) is commonly divided in two parts on the basis of political and cultural developments (*e.g.* Franke 2008; Grajetzki 2009; Wegner 2010). The first spans from the reunification of the country to the reign of king Senwosret II, early Twelfth Dynasty (ca. 2050–1850 B. C.). During this time, the provincial potentates kept their authority, and the administration reveals the maintenance of some Old Kingdom traditions. For example, some court titles from the Old Kingdom were reintroduced (Grajetzki 2006, 20–1; Grajetzki 2009, 2–4; Willems 2013). Under Amenemhat I a new capital was established in the north at Itjtawy (ca. 1975 B. C). The town has not been identified, but probably it was near Lisht where the pyramid of Amenemhat I is located (Grajetzki 2006, 29; Wegner 2010, 121). A new organisation of the government with 'vizier', 'treasurer' and 'steward' (later becoming 'high steward') seems to have been already established under Montuhotep II (Grajetzki 2006, 21).

The second part of the Middle Kingdom embraces the late Twelfth Dynasty from the reign of Senwosret III to the mid Thirteenth Dynasty (ca. 1850–1700 B. C.). The Faiyum region and Lower Nubia were two prominent areas of interest and intervention during the Twelfth Dynasty. Some irrigation works may have been undertaken, in particular during the reign of Amenemhat III, to obtain new ground for agricultural use. However, the extent of such works is not clear, as there is neither written nor archaeological evidence which show irrigation projects in the region during that time (Willems 2013, 345). The progressive conquest of Lower Nubia started by Amenemhat I and completed by Senwosret III, was followed by major building activity. A linked series of thirteen forts was strategically sited along the river to establish control in the region. With the construction of the Semna Fort on the western bank of the Nile and the specular twin Kumma Fort on the eastern bank, Senwosret III established the new Egyptian border (which until the Eleventh Dynasty was at Elephantine, First Cataract). Apart from assuring defence from, and allowing the monitoring of, the desert Nubian populations, these forts were trading posts between Nubia and Egypt and a means to exercise control over quarries and mines (Moeller 2009, 208–9; Smith 1993; 1995; Trigger 1982). For example, the Askut Fort was involved in

the exploitation of the gold mines of Saras (2.4.1, p. 72). Rock inscriptions from quarrying and mining sites attest to several expeditions for the procurement of raw materials from the Eastern Desert. The largest concentrations of inscriptions from this time have been discovered at Wadi Hammamat, Hatnub, Wadi el-Hudi, and Serabit el-Khadim in Sinai, which were the main sources of greywacke, alabaster, amethyst and turquoise respectively.

The early Thirteenth Dynasty administration exhibits continuity with the late Twelfth Dynasty, as does the material culture (*e.g.* Grajetzki 2005, 73; Quirke 1991b, 123–6). The administration of the late Middle Kingdom is better known thanks to the preservation of administrative papyri such as P. Boulaq 18, a financial record of a twelve-day royal visit to Thebes. This papyrus was probably compiled in the reign of Sobekhotep II on the occasion of the beginning or the end of construction works for Montu-in-Medamud. It was discovered at Dra Abu el-Naga, and allows for the reconstruction of the late Middle Kingdom court and administration (Quirke 1990). Seal impressions with names and titles are also abundant, as well as funerary stelae of officials from small chapels at Abydos (Grajetzki 2006, 2009) (2.4.1, p. 73). A process of centralisation of the government at the expenses of the provincial potentates reached its peak under Senwosret III. As part of this process, the duties of each official were narrowed and refined and new hierarchies were created (Grajetzki 2009; Quirke 2004, 8; Wegner 2010, 133–5). P. Boulaq 18 and the Karnak donation stela of Sobekhotep (Cairo JE 51911: Helck 1969) attest to the existence of four *wʿrwt* "sectors", units of central administration: the Treasury (economic branch), the 'bureau of the vizier' (executive branch), the 'bureau of issuing people' (labour organisation: 2.4.2) (Quirke 2004, 25) and the *wʿrt* of the 'Head of the South' (region encompassing the area from the First Cataract to Abydos). The existence of a twin *wʿrt* for the North is debated (Hayes 1953, Shaw 2000, 175; Wegner 2010).

The decline of central government after the reign of Sobekhotep IV can be considered the passage from the Middle Kingdom to the Second Intermediate Period (ca. 1700–1550 B. C.). This period, spanning from the late Thirteenth Dynasty to the Seventeenth Dynasty, was characterised by a new fragmentation of power and struggles, due also to the establishment of a foreign dynasty, the Fifteenth, in the Delta (*e.g.* Grajetzki 2006; Ryholt 1997).

*

The administrative papyri used in the present book cover the entire Twelfth Dynasty: the Reisner Papyri date to the beginning of the dynasty, the assemblages from Lahun to mid and late Twelfth Dynasty. The miscellaneous written sources used for the bureau *ḫ3 n dd rmṯ* and the institution *ḫnrt wr* cover the late Twelfth Dynasty and the Thirteenth Dynasty. The occupation of Tell el-Dab'a dates to the beginning of the Twelfth Dynasty, while that of the Qasr es-Sagha complex dates from the late Twelfth Dynasty and the Thirteenth Dynasty.

2. LABOUR ORGANISATION THROUGH THE ANALYSIS OF TEXTUAL RECORDS

Key sources are identified by number of subchapter followed by letters in alphabetic order. For instance, the first key source for workers *ḥȝw* and *ỉwȝw* to appear in subchapter 2.3.1 is identified as **2.3.1 A**. A list of key sources is offered at p. xvi.

2.1 - BRIEF REVIEW OF EARLIER AND LATER WRITTEN SOURCES ON LABOUR ORGANISATION

Old Kingdom evidence on labour organisation is very scant. Tomb paintings of non-royal individuals provide significant details about the development of technology (Arnold 1976; Davies 1935; Eyre 1987; James 2007; Szpakowska 2008). However, those scenes communicate less information about the employment of non-specialised workers. In addition, tomb decoration tends to present stereotypes (*e.g.* Harpur 1987; James 2007, 104; Robins 1994). Sociologically, the perspective of the elite the decorations were created for influenced the message of the paintings which could not be representative of the entire Egyptian society (Davies 1989). Moreover, the idea that men were appropriate to work outside and women inside (Szpakowska 2008, 81–4) affected the representation of a gendered division of duties (*e.g.* in scenes of bread making and textile production mostly women were represented: Davies 1935; Newberry 1893; Tylor & Griffith 1895). Therefore, tomb paintings alone cannot contribute either to clarifying the organisation of labour or the mechanism of recruitment or the social profile of the workforce involved.

Royal exemption decrees of the Fifth and Sixth Dynasties, such as the decree of Neferirkara, the Koptos decrees of Pepi I and Pepi II, and the Dahshur Decree of Pepi I, clearly refer to state labour imposed on the population (*e.g.* Eyre 1987a, 18; 1999, 52–3; 2013, 274–5; Goedicke 1967, 22–36). The word which identifies this obligation is *ḥȝ(w),* maybe the same word used in the Lahun Papyri (1.3; 2.3.1 below). However, the decrees do not provide additional details about the nature of the obligation. They were created to protect the personnel of specific temples from being recruited to perform compulsory works.

The two main Old Kingdom bodies of administrative documents are the Abusir Papyri and the Gebelein Papyri. The Abusir archive is associated with the mortuary complexes of Neferikare and Neferefre, kings of the Fifth Dynasty. These texts provide significant insights into the roster system of the temporary temple staff and allow for the reconstruction of the temple economy. A few tables of duties to be performed by the *phyle*'s members during their month attest to a common practice: some priests delegated their duty to a member of their household, a *ḏt*-servant (Posener 1976, 586), or to 'assistants' *ḫryw-ʿ* (Vymazalová 2013, 188). However these papyri do not mention labour obligations required from the population (Posener-Kriéger & Cenival 1968; Posener-Kriéger 1976). Substitutions of workers seem instead attested in the Gebelein Papyri (Posener-Kriéger 2004; Roccati 2006). This *corpus* of papyri focuses on the administration of a large estate during the Fifth Dynasty. They record lists of people and provisions. People were locally recruited and employed mostly in construction activities and deliveries of goods. Aside from professionals, the papyri also mention low-status workers: *ḫm(w)-nsw,* 'king's slaves', and *nfrw.* The first expression refers to the Egyptian servile population as the "basis of Egyptian social structure" (Berlev 1987, 154). The second word refers to a military context. *Nfrw* were young recruits of the army who could engage also at building and quarrying sites (Stefanović 2007).

P. Gebelein IV *recto* records an inventory of textiles, while on the *verso* delays in the deliveries of textile items are listed, giving the corresponding names of the persons in charge of the operations and their replacements (who actually delivered the goods). The latest were household members, usually women, and individuals identified as *sn-ḏt* 'brother of the endowment' (Moreno García 2007; Posener-Kriéger 2004, 16–18, plates 34–5). The *snw-ḏt* were individuals tied to the head of the household by patron-client links which enabled them to carry on tasks on behalf of their patrons. In funerary context, the *snw-ḏt* acted as representatives of the head of the household in

the performance of rituals and could be in charge of the "organisation of the funerary ritual service of the 'patron' or the building of his tomb" (Moreno García 2007, 135).

Other information comes from the pyramid sites of Abusir (Userkaf's Sun Temple, and pyramids of Sahure, Neferefre, and Niuserre) and Giza (pyramid of Menkaura). Here stone blocks preserve marks and graffiti with names of working crews (Verner 2003). Thanks to these marks we know that the organisation of the pyramid builders followed a naval system. One crew, having the name of a boat crew, included two gangs, each comprising at least four *phyles*, in turn divided in at least four divisions of ten (Lehner 2004, 11–12; 2010; Roth 1991, 120).

Well documented are the New Kingdom communities living in the villages of Amarna and Deir el-Medina. They included specialised craftsmen involved in construction and decoration of the royal tombs (*e.g.* Černy 1973; Kemp 1987b; Lesko 1994). The main source for collective non specialised labour – in particular during the Ramesside period – was the army. This runs parallel to an increasing militarisation of the government (Eyre 2010, 130–6; Gnirs 1996, 36–9; Kemp 2006, 127–30). Egyptian soldiers, joined by war prisoners, were employed in building projects and quarrying activities.

The New Kingdom is lacking of administrative documents comparable to the Middle Kingdom Lahun and Reisner papyri. Additionally, departments of public works for the management of labour seem to be absent. However, a few documents such as P. Leiden I 350 *verso* (Janssen 1961), P. Turin 1882 (Turin A: Caminos 1954, 454–64, 508–11; Gardiner 1937, 123), P. Sallier IV (Gardiner 1937), and stela Florence 1580 (Schiaparelli 1887) mention a type of service (Janssen 1961, 30–1) called *hȝy*(*t*). This word might correspond to the Old Kingdom and Middle Kingdom *hȝw* on the basis of paleographic similarity and associations with menial tasks (2.3.1 below). Janssen first suggested a relation between the Old Kingdom *hȝw* and *hȝy*(*t*), contra Spiegelberg (Janssen 1961, 28).

Other New Kingdom documents mention a different type of forced labour called *bḫ*. Noticeable examples are ostraca from Deir el-Bahari (Fifteenth century B.C.) such as MMA CN33 (Hayes 1960, 31, Pl. IX

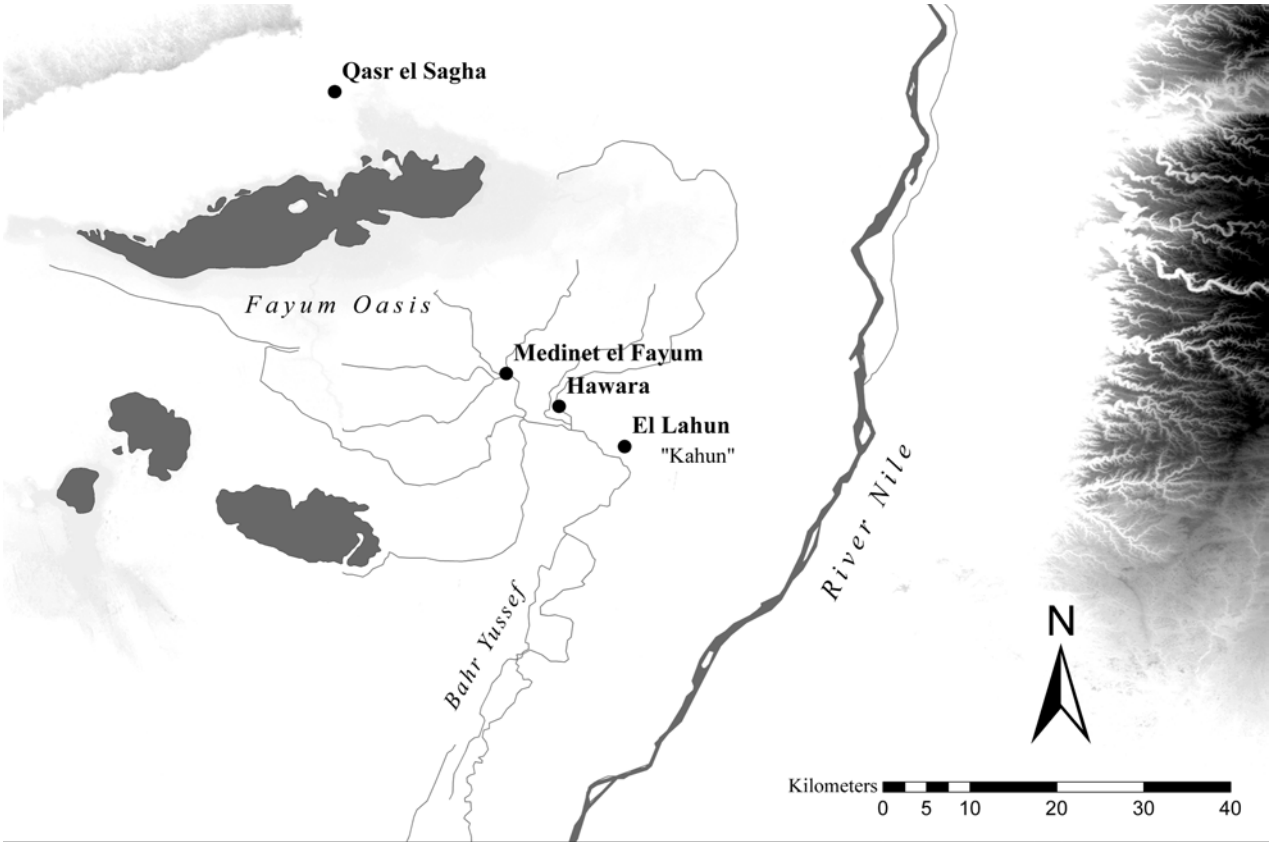


Fig. 1 - Map of the Faiyum, Middle Egypt, with the modern settlement of Lahun (© C. Langer).

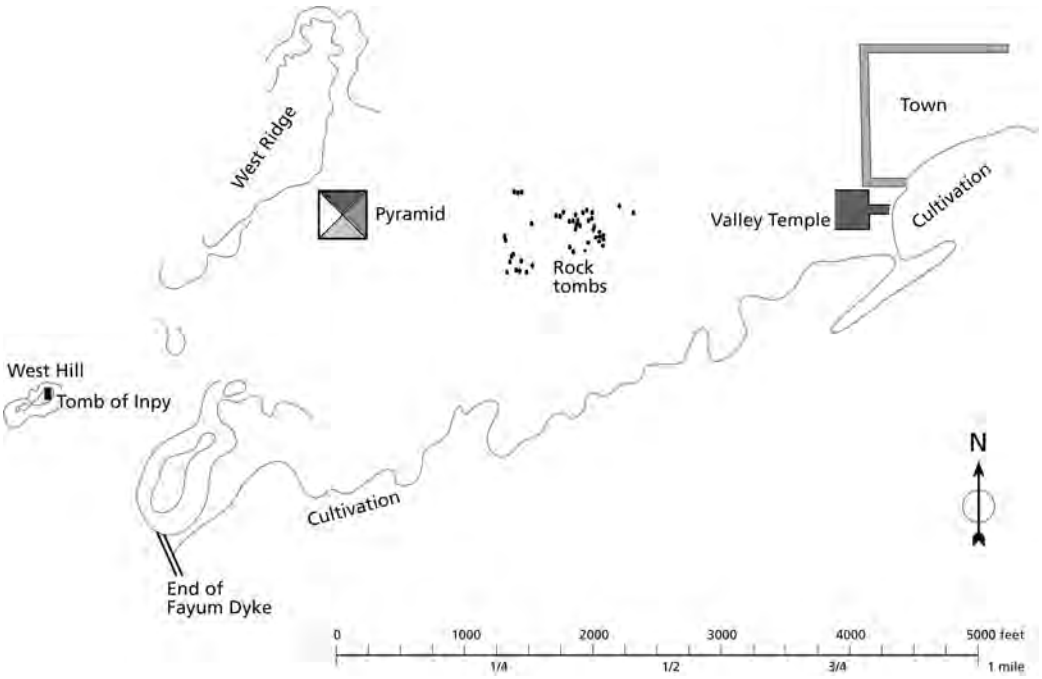


Fig. 2 - Map of the Lahun area with the orthogonal town and the funerary complex of Senwosret II: the Valley Temple south of the town and the Pyramid 1.2 km to the east (drawing © G. Maserati. From Manley 1996, 46).

and IXA no.2) and the potsherd from the tomb of Senmut (Hayes 1942, 22, pl. XIV no. 69), and the Nauri Decree (Thirteenth century B.C.) (Edgerton 1947; Gardiner 1952; K*RI* I, 52, 14–15). The same word is mentioned also on a rock inscription from Gebel el-Silsila dating to the time of Akhenaten (Fourteenth century B.C.) (Lepsius 1972, pl. 110), and in the Ramesside (Thirteenth century B.C.) documents P. Mallet III (Kitchen 1970–90, VI, 66), P. Anastasi VI (Caminos 1954; Gardiner 1937) and P. Turin 1882 (above), and in the later P. Reinhardt (Tenth century B.C.) (Vleeming 1993). The ostraca of Deir el-Bahari refer to construction activities undertaken under Tuthmosis III. The Nauri decree, like the Old Kingdom exemption decrees, aimed to protect the staff of institutions from being requested for labour. P. Reinhardt is a register of lands owned by the temple of Amun in Thebes. Papyri Mallet III and Turin 1882 are letters between officials. In the latter and the ostraca of Deir el-Bahari the obligation relates to construction tasks, while in the other three written bodies, to work in the fields.

2.2 - THE DATA: THE LAHUN PAPYRI AND SECONDARY SOURCES

2.2.1 - The Lahun Papyri: The main source

LAHUN: OVERVIEW OF THE SITE

A large orthogonal settlement lies 1.2km far from the modern village of Lahun (or el-Lahun), Faiyum, Middle Egypt (Figs. 1 and 2). It was founded near the funerary complex of Senwosret II, fourth ruler of the Twelfth Dynasty. Currently, Egyptologists refer to the settlement as 'Kahun', an invented name mistakenly given to the site by its excavator W. Flinders Petrie: "I asked to an old man whom I met, what the name of it was, and he replied at once Kahun, and so it has been since called" (Quirke 2005, 1). The complex includes the Valley Temple for the cult of the deceased king and his pyramid.

The temple was already destroyed in dynastic times during the reign of Ramses II when its material may have been reused in buildings at Herakleopolis (Horváth 2010, 189; Quirke 1997, 34). It lies beside the town in correspondence to its south-west corner, just outside the enclosure wall. One kilometre to the west stands the pyramid with the cemetery of cour-

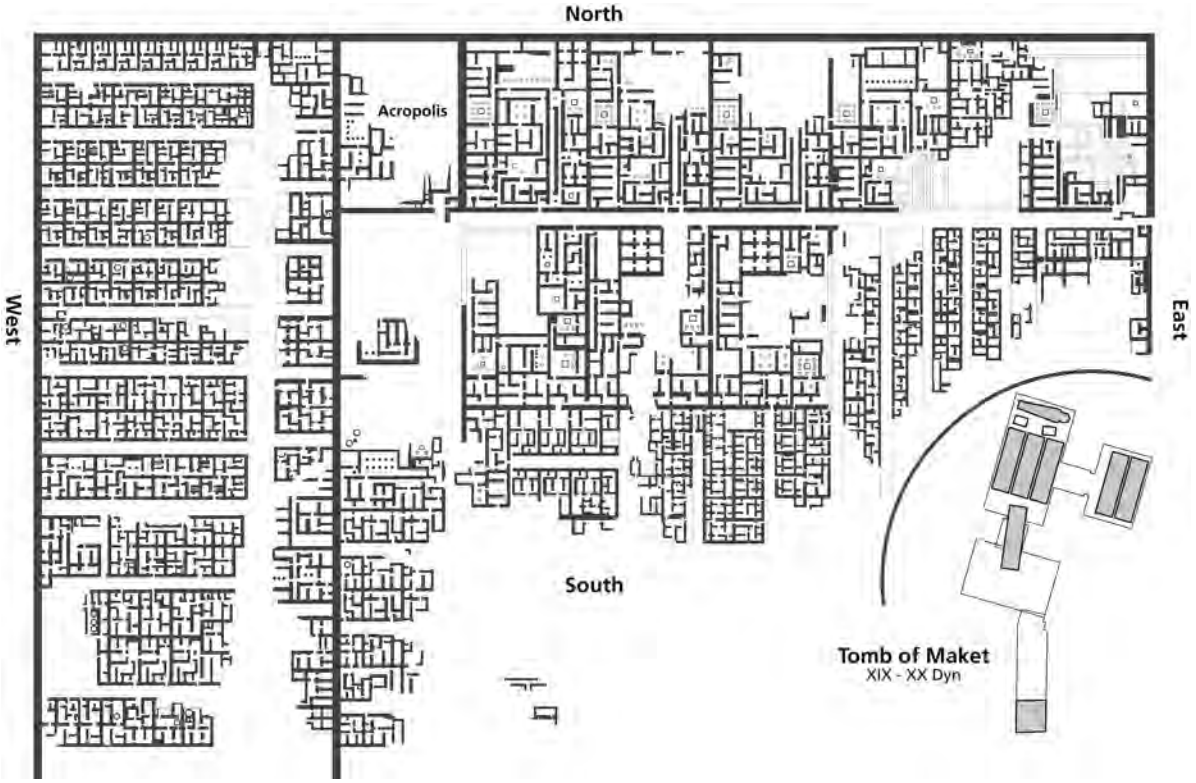


Fig. 3 - Plan of the Middle Kingdom town of Lahun (Petrie Kahun) (drawing © G. Maserati. From Doyen 2010, 82)

tiers. Some tomb-chapels and associated mud-brick mastabas were recorded by Petrie, Brunton and Murray at the beginning of the 1920s. A small limestone quarry lies not far from the tomb-chapels (Petrie & Brunton 1923, 2).

The Middle Kingdom settlement, discovered by Petrie in 1888, is organised in two 'quarters' (Fig. 3). The western quarter is a narrow strip of units separated from the eastern quarter by a thick wall running north-south. The northern part of the eastern quarter presents two west-east oriented rows of ten large palatial houses for the mayor and high officials (Quirke 2005, 69–71). The rest of the town is arranged in blocks of houses in parallel rows each comprising two long strips of units placed back to back and side by side, ranging in size from 44m^2 to 170m^2 (Doyen 2010). The smallest dwellings of the whole settlement (44m^2) are located in the eastern quarter, right below two palaces (Doyen EV, EVI). Another large group of small-scale units (the size of which varies from 58m^2 to 77m^2) are included in the western quarter, where two large houses exceeding 200m^2 are also located (Doyen 2010; Quirke 2005). The large residences for privileged people were provided with granaries, source of provisions for the small-scale dwellings. A similar relationship existed in the main city of Amarna, where the larger houses with granary installations supplied grain to the lower status residents of the smaller units (Kemp 2006, 216–7; Samuel 1999, 134).

The papyri discovered in the settlement area (2.2.1 below) attest to two main key sites associated with the movement of workers: Sekhem-senwosret "Senwosret is strong" and Hetep-senwosret "Senwosret is satisfied". The latter has been identified with the settlement Kahun (Parkinson 2008, 88; Quirke 1990; 2007, 277). Other hypotheses have been proposed for Sekhem-senwosret (Di Teodoro 2014, 69). The presence of the determinative of the pyramid at the end of the word Sekhem-senwosret in P. Berlin 10096 should be relevant for identification purposes. Sekhem-senwosret included a granary (P. Berlin 10203 *verso*: Kaplony-Heckel 1971, 105 no.243), 'the provisioning area of the god's offerings' (P. Berlin 10048: Kaplony-Heckel 1971, 22 no. 38), and the temple of Anubis (Quirke 1997, 29; Zecchi 1999). The presence of this temple is substantiated by the title *mȝȝ bsw m ḥwt-nṯr nt Inpw tp-ḏw.f n sḫm-snwsrt mȝʿ ḫrw* 'he who sees the secrets in the temple of Anubis who-is-on-his-mountain of Sekhem-senwosret true of voice'. According to Quirke, the Lahun Papyri show that Anubis and Senwosret II were worshipped inside the same building at Sekhem-senwosret. Plausibly there were

two chapels inside one temple only (Quirke 1997, 33). Additionally, the officials directly associated with Sekhem-senwosret belonged to the religious sector. On the basis of the previous observation, I support the interpretations of Quirke and Horváth. According to the papyri, the difference was evident between the administrative centre and Sekhem-senwosret, so closely associated with the temple cult. Therefore, Quirke identified Sekhem-senwosret as an architectural unit separate from Hetep-senwosret. This included the western quarter of Lahun and the mortuary complex of Senwosret II (pyramid and Valley Temple) (Quirke 1990, 159; 2005, 39). To this reconstruction Horváth added an area south of the western quarter where he places the temple of Anubis and another one dedicated to Sobek Lord of Ra-sehwy (Horváth 2009). The domestic spaces of the western quarter were likely to have accommodated the religious personnel and their households involved in daily religious affairs.

LAHUN: FIELDWORK AND PUBLICATIONS

Petrie directed excavations in 1889–90 (which included the main clearance of the town) and then in 1914 and 1919–1920, followed by Ludwig Borchardt in 1899. The Royal Ontario Museum, under the direction of Nicholas Millet, joined by the Canadian Institute in Egypt, conducted additional campaigns (1988–1997). In 2008 the Museum of Fine Arts of Budapest, in collaboration with the Supreme Council of Antiquities of Egypt and the Petrie Museum of Egyptian Archaeology of London, initiated the 'el-Lahun Survey Project', an ongoing study to reconstruct the architectural landscape of the area (Horváth 2010).

The results of the first excavations at the site were published by Petrie (1890; 1891), and by Petrie, Murray and Brunton (1920; 1923). As Carla Gallorini observes, these publications "provide in effect an ethnographic description of life in a Twelfth Dynasty town… rather than an archaeological report" (Gallorini 1998, 42). Other relevant publications on the site are: *Lahun Studies* (Quirke ed. 1998), Quirke 2005, and Szpakowska 2008. Relevant articles on the settlement layout and architectural remains have been recently published by Doyen (Bietak *et al*. 2010), and by Frey & Knudstad (2008). Reports of the recent el-Lahun survey project are: Horváth 2009b, 2009c, and 2010–11. Recently Stephen Quirke (2010) published a part of the archive recording the work of Petrie in Egypt, focussing on the organisation of modern labour during the excavations supervised by Petrie. A part relates to the site of Lahun.

THE PAPYRI

In 1889 Petrie discovered within the settlement a conspicuous body of miscellaneous hieratic manuscripts dating from the end of the reign of Amenemhat III to the early Thirteenth Dynasty. This assemblage is now preserved at the Petrie Museum of Egyptian Archaeology, University College London (UCL). After a first publication of the most complete fragments by F. Ll.Griffith (1898), the entire corpus was published by Mark Collier and Stephen Quirke in three volumes (2002, 2004 and 2006). Other papyri were assembled by Ludwig Borchardt in 1899 from the antiquities market in Egypt. He undertook sondages in order to confirm the provenance from Lahun that he had inferred both from information from the sellers and the subject of the texts. During this survey, more papyri were discovered next to the Valley Temple. This coherent corpus in hieratic, over four hundred items, comprises business documents from the temple archive (Quirke 1991a; 1998; 2005). This assemblage is now preserved in the Ägyptische Museum of Berlin – except for four documents exchanged with the Egyptian Museum in Cairo. The Berlin Papyri were mostly transcribed from the original hieratic writing to the hieroglyphic form by the Egyptologist Eugène Dévaud at the beginning of the Twentieth century. Photostats of Dévaud's transcriptions are now preserved at the Griffith Institute in Oxford. Dévaud's transcriptions of the Berlin Papyri were grouped and provided with inventory numbers from 10001 to 10096 and with some provisional numbers. In 1971, Ursula Kaplony-Heckel made a new inventory of the entire material preserved in Berlin, separating the four hundred items into 679 entries, renumbering some early fragments and assigning definitive numbers to the Dévaud provisional list. The frames from 10001 to 10130, 10132–10161, 10201–10450 are in Berlin, while frames 10005A-B, 10017, 10020 and 10022 are in Cairo (Quirke 1997, 25). Some fragments were published by Borchardt (1899) and Scharff (1924) and later by Ulrich Luft (1992a; 2006). Another significant publication is Luft 1992b where the author furnishes essential data to fix the lunar calendar analysing many festival dates mentioned in the papyri. Many

Berlin papyri are still unpublished.

Fifty-five documents from Lahun containing keywords that identify categories of workers provide the basic source of my research: 34 fragments in Berlin and 21 UCL letters and accounts. Among the Berlin papyri examined, 15 fragments were published by Luft (1992a, 2006), the remaining 19 are still unpublished.

The examined texts are messages exchanged between the town, the seat of the local administration, and the temple, the seat of the cult of the deceased king. Sender and addressee of most communications are the 'mayor and temple overseer' and the 'temple scribe', the "practical daily manager of temple economic affairs" (Quirke 2004, 121). The *ḥ3ty-ʿ* 'mayor/governor' of a town generally also held the title *ỉmy-r ḥwt nṯr* 'overseer of the temple', the higher position of the local temple's staff (Borchardt 1899; Quirke 2004, 121). He was the person responsible for the management of the town and the supervision and direction of all the temple operations.

2.2.2 - Other written sources

THE REISNER PAPYRI

Named after their discoverer, the Egyptologist George Reisner, these papyri come from one of the three wooden coffins of tomb 408, Naga ed-Deir, Upper Egypt (Simpson 1963, frontispiece). These documents record building projects in This and Koptos executed during the reign of Senwosret I (early Twelfth Dynasty). Beside the work of a professional team, the papyri record menial tasks performed by two categories of workers attested also in the Lahun Papyri: *mnyw* and *ḥsbw.*

A systematic study of the entire body of the Reisner Papyri was published in four volumes by W. Kelly Simpson (1963, 1965, 1969 and 1986). Some relevant articles are: Berlev 1965, Kadish 1996 and Ezzamel 2004.

MISCELLANEOUS EVIDENCE

In addition to the administrative papyri, two categories of people are known also from inscriptions on different materials. A female 'substitute' appears on a ceramic dish discovered inside a house in the Twelfth Dynasty town of Elephantine (Pilgrim 1996; Andrássy 2012; 2.3.1 M) while *ḥsbw* workers are recorded on two rock inscriptions from the quarry site at Wadi Hammamat and perhaps on one rock inscription from the Wadi el-Hudi mining site (2.3.2). As previously introduced (1.3), the section of 2.3.2 related to rock inscriptions will deal exclusively with those records where the term *ḥsbw* is mentioned.

Subchapter 2.4 will focus on the management of labour and will deal with the evidence of two departments involved in the organisation of the workforce: the institution *ḫnrt wr* and the bureau *ḫ3 n dd rmṯ.* In addition to the Lahun Papyri, these departments are attested also in other administrative papyri and different types of material. The hieratic administrative documents which record evidence of the institution *ḫnrt wr* are Papyrus Brooklyn 35.1446 and Papyrus Boulaq 18. The first was published by William Hayes in 1955. The second was partially studied and published by Auguste Mariette in 1872. Later three articles with translation of some sections appeared in the German periodical *Zeitschrift für ägyptische Sprache*: Borchardt 1890, Griffith 1891, and Scharff 1922. The most comprehensive and recent study on the papyrus was published by Quirke in 1990. In addition to hieratic administrative papyri, attestations of *ḫnrt wr* and *ḫ3 n dd rmṯ* appear on heterogeneous sources, in the formal designations of individuals who worked for those departments. Relevant sources are funerary stelae, rock inscriptions and sealings. Detailed tables with the complete list of all sources are offered in the Appendix (Plates II and III).

2.2.3 - Dating the Papyri

The Lahun temple papyri were written in the late Twelfth Dynasty during the reigns of Senwosret III (ca. 1872–1853 B. C.) and Amenemhat III (ca. 1853–1809 B. C) while the UCL letters and accounts, which assemble administrative documents from within the town, embrace a wider time span from late Twelfth Dynasty to early Thirteenth Dynasty.

For the internal chronology of the Twelfth Dynasty I followed Luft's studies (Luft 1982; 1983; 1992b) taking into consideration discussions by Obsomer (1995), Ryholt (1997), Jansen-Winkeln (1997), and

Schneider (2006). For the duration of regnal years and the issue of coregencies I followed the recent discussion by Schneider (2006) based on the available Middle Kingdom written sources.

A crucial step of my research was to tackle the problem of the discrepancy between civil and solar years in order to identify the temporality in labour organisation (1.3). Due to this discrepancy, the civil year anticipated the heliacal rising of Sirius of one day more every four years (Luft 1992b, 13). Many studies have been done on the Egyptian calendars, and efforts have been made to calculate the Sirius cycle and the rising of Sirius over the years (*e.g.* Beckerath 1997; de Jong 2006, 447–9; Ingham 1969; Krauss 2006; Parker 1950; 1977). Luft (1992b) proposed a computational system which allowed for correlating the dates of several festivals recorded in the Lahun Papyri with their corresponding dates in the Julian calendar. For my study I based my computation on Luft's work.

The Egyptian year included 360 days plus five extra days at its end (*epagomenae*). There were three seasons, Akhet, Peret, and Shemw including four months each. Every month was 30 days long divided into three weeks of ten days each. The agricultural cycle comprised two main stages, sowing (in Peret) and harvest (in Shemw). The remaining four months of the year (Akhet) coincided with flooded fields, thus with a break in agricultural activities.

I approached the 'discrepancy issue' following a specific procedure (Di Teodoro 2014, 67). First, I identified kings and regnal years for each document, along with chronology for kingships and coregencies. Some papyri were already dated by Scharff (1924) and Luft (1992b; 2006), and some letters and accounts by Collier and Quirke (2002; 2006). For documents on which the name of the king was not recorded or preserved, I based my computation on different elements. One is the length of the regnal years of Senwosret III and Amenemhat III. The reign of Senwosret III has long been debated between a short 19-years reign and a long 39-years reign. Evidence of a longer reign are: a control mark of year 30 discovered at Dahshur, and the attestation of the first *sed*-festival – which was celebrated on the occasion of the 30th regnal year – of the king (Grajetzki 2006, 55; Schneider 2006, 172–3; Wegner 1996). In 1994 the University of Pennsylvania discovered a fragment of limestone with reference to a regnal year 39 inside the temple of the mortuary complex of Senwosret III at Abydos. As Wegner (1996, 257) stresses, the date should refer to Senwosret III because the limestone was placed there at the time of construction of the centre of the complex. Usually the works of funerary complexes were undertaken during a king's life. Therefore, a construction in regnal year 39 of Senwosret's successor Amenemhat III, twenty years after Senwosret death, would be very unlikely. Although the context suggests that it referred to Senwosret III, confirming the hypothesis of a long reign (Wegner 1996, 257ff.), the identification of the king is still debated. According to Schneider (2006, 172–3), the coregency between the two kings – attested by several sources – must have comprised those 19 years from year 20 to 39 of Senwosret III. This is supported by P. Berlin 10055 which attests that year 19 of this king was followed by year 1. Consequently, we need to consider a coregency of Senwosret III with his son Amenemhat III from year 20 (Grajetzki 2006, 55). Evidence from the Lahun letters confirms also that Amenemhat III ruled for 46 years. Taking into consideration the coregency with his father, Amenemhat III ruled alone from his Twentieth regnal year.

Further information was obtained through the philological analysis of the documents. Most papyri of the temple archive were written by the 'temple scribe' Horemsaef who lived during the reigns of Senwosret III and Amenemhat III (Luft 1982 cited by Quirke 1991a, 142; Quirke 2005, 33–4). This scribe frequently recurs as sender or addressee of communications in the documents I examined. In certain cases, these messages were exchanged between officials over a precise and limited span of time which is sometimes possible to identify. For example, the correspondence between the *ḥ3ty-ʿ* 'mayor' of the town Senwosret and the 'temple scribe' Horemsaef occurred between years 9 and 18 of Amenemhat III. Additionally, the correspondence between the same *ḥ3ty-ʿ* Senwosret and the *ỉmy-r pr* 'estate overseer' Horemsaef occurred between years 19 and 24 of Amenemhat III (Luft 1992b). Moreover the title of *ḥ3ty-ʿ* was held by one person at a time. Among the mayors recorded in the Lahun Papyri, I recognised a succession of three individuals in the office: the *ḥ3ty-ʿ* Senwosret, whose career is attested between years 9 and 24 under Amenemhat III; Nebkawra who appears to have been Senwosret's predecessor holding the role of *ḥ3ty-ʿ* under the reign of Senwosret III; and Kakheperraseneb – Senwosret's son and successor – whose activity is still documented

in years 37 and 38 of Amenemhat III (Papyri Berlin 10030B, 10038A, 10038B and 10038D: Luft 1992a; 1982b). Other dating elements were associations with other papyri, such as the names of specific officials attested in already-dated documents or in documents where the name of the current king is preserved. For example, the 'estate overseer' Horemsaef held this position at least from year 19 to 38 under Amenemhat III and the 'estate overseer' Qemau was active during year 38 of the same king (Luft 2006).

Secondly, I had to calculate the heliacal rising of Sirius for the Twelfth Dynasty, to which both Lahun and Reisner papyri are dated. In accordance with Luft's (1992b) study on chronology, I started the calculation from year 7 of Senwosret III, day 17, month 4, season Peret, which, on the basis of information from P. Berlin 10012B *recto*, coincided with a *prt spdt*, a heliacal rising of Sirius. According to Luft (1992b, 224–9) this day should correspond to 17 July (Julian date). Recently Krauss (2006, 448–50) proposed that the event might also have occurred on day 16 or 18 of Peret. I applied that procedure also to the Reisner Papyri. P. Reisner I was composed during regnal years 24–25 of Senwosret I and P. Reisner III during regnal years 22–23 of the same king (Simpson 1963; 1969). Starting from the known date of the heliacal rising of Sirius under Senwosret III, I counted, adding one more day every four years, moving forward from year 7 of Senwosret III for the Lahun Papyri and backward from Senwosret III to Senwosret I for the Reisner Papyri. For the chronology and regnal years of Senwosret I, Amenemhat II, and Senwosret II, I followed Grajetzki (2005) and Schneider (2006). Thus, I determined the first day of the civil year coinciding with the heliacal rising of Sirius, and the corresponding Julian dates for the entire length of the Twelfth Dynasty. In my calculations I considered some variables such as royal coregencies and geographical reference. For the latter I followed the current idea of the observation of the heliacal rising of Sirius from the latitude of Memphis (*e.g.* Ingham 1969; Krauss 2006; Luft 1992b, 224–29; Parker 1977). Through this series of steps, I was able to locate the events recorded in the papyri at a precise point of the solar year and of the agricultural process. Since most of the papyri are fragmentarily preserved, I was only able to apply the entire procedure to some documents. A detailed table with the complete list of the dated written sources mentioned in the present book is offered in Plate I in the Appendix.

2.3 - THE WORKERS

A modern parallel of the Lahun labourers may be the 'hidden hands', the men recruited and employed in menial work by Petrie in his excavation campaigns at the same site of Lahun at the beginning of the Twentieth century. Official journals and personal notebooks record namelists and daily payments, along with movements of workers, including runaways, and daily roll-calls (Quirke 2010, *e.g.* 41–2, 135–6, 159–61; 227–33, 259–67): a multitude of people whose names and vital contribution to the excavations and, consequently, to a wider enhancement of knowledge, would have remained out of sight.

*

	common origin/ association with same toponym	**presence in the same document**	**other**
ḥ3w* and *ỉw3w	Sekhem-senwosret	√	*nhw n* ***ḥ3w*** = reason to enrol ***ỉw3w***
ḫsbw* and *mnyw	Hetep-senwosret	√	label *stone haulers*

Table 1 - The categories of workers and their shared features.

The following discussion will be approached dividing the workers into two groups, on the grounds of shared features (Table 1) (Di Teodoro 2014).

The first group includes *ḥ3w* and *i̯w3w,* the second group *ḥsbw* and *mnyw.* Palaeographic and etymological notes are followed by a detailed examination of the evidence, aiming to understand the following characteristics: status, gender, type of tasks performed and work conditions of the labourers, procedures in labour organisation, and temporality of work.

2.3.1 - People for *ḥ3w* and *i̯w3w*

ḥ3w: WORD AND MEANING: PALAEOGRAPHIC, PHILOLOGICAL AND ETYMOLOGICAL NOTES

List of hieratic documents with the keyword *ḥ3w* and its hieroglyphic transcription:

- UC 32198, PB 10023A, PB 10065, PB 10081C:
- UC 32205:
- PB 10033, PB 10104:
- PB 10081B: [probable].

The root of the term *ḥ3w* includes three radicals *ḥ, 3* and *w.* The stem is always followed by the determinative of the armed person (hieroglyph). The determinative, or classifier, is a pictogram added at the end of a word to "provide semantic information" or the class of meaning (Goldwasser 2006, 17). The determinative of the armed man usually suggests that a physical endeavour is involved. It can refer to the idea of effort or forced action. In P. Berlin 10065 and 10081C, and in letter UC 32198 the word has also a second determinative: a single seated man with three strokes marking the plural (Fig. 4). The presence of this second determinative in P. Berlin 10023A and P. Berlin 10081B is not certain. In P. Berlin 10023A (Fig. 5), the last recognisable hieratic sign is the determinative of the armed man; however Luft plausibly reads the following sign as the seated man with plural strokes (Luft 1992a). I support Luft's reading. Despite the bad preservation of the papyrus, I propose that the scribe drew the determinative with two separated strokes as it appears in the list of hieratic signs by Möller (Fig. 6).

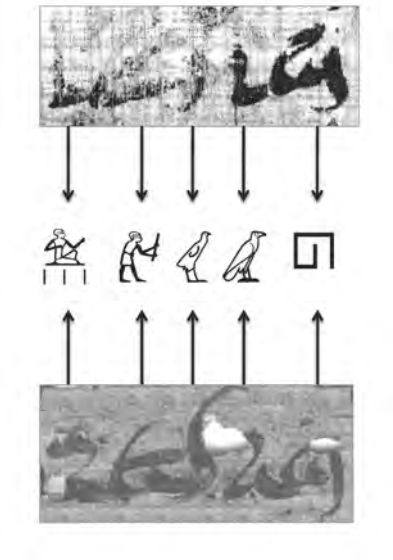


Fig. 4 - The hieratic term h3w *as it appears in P. Berlin 10081C on the top, and in UC 32198.*

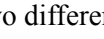


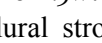
Fig. 5 (left) - Facsimile of the hieratic word h3w *as it appears in P. Berlin 10023A (© C. Langer).*
Fig. 6 (right) - Two different ways to draw the determinative of the seated man with plural strokes (facsimile from Möller 1909, 74 © C. Langer).

In P. Berlin 10081B (Fig. 19), the last edge of the first line which ends with the word *ḥ3w* is missing, and it is not possible to know whether or not the first determinative of the armed man was followed by the seated man with plural strokes. However, the presence of this determinative is plausible on the basis of the comparison with P. Berlin 10023A where the word *ḥ3w* appears in the same expression *nhw n ḥ3w* (Fig. 20). The writings with the second determinative have only the single seated man . Writings with both genders are not attested. In Papyri Berlin 10104 (2.3.1 A) and 10033 (unpublished, summary of content in Kaplony-Heckel 1971, 15 no. 24, and Scharff 1924, 41) the term *ḥ3w* presents neither the hieroglyphic

sign for the semiconsonant *w*, nor the determinative of the seated man with plural strokes.

A word *ḥ3(w)* first appeared during the Old Kingdom in the royal decrees (2.1). The study of these documents confirmed that the term indicated temporary labour for the state (*e.g.* Goedicke 1967; Quirke 1988; 1991a; 2004, 12–13; Strudwick 2005). According to the decrees of Pepi II (*e.g.* Koptos B, Cairo JE 41893), the obligation included manual works (*k3t*) consisting of *f3ḏ* "to carry" and *šdḏ* "to dig" (*e.g.* Urk. I, 282, 17; 283, 3; 286, 16–17). The verb *f3ḏ* likely refers to menial tasks. In the Dahshur decree the verb for "to dig" is *š3d*, and specifically refers to canals (Urk. I, 212). As mentioned above (2.1), the New Kingdom *ḥ3y(t)* might be the same word. It was closely associated to temple estates (*e.g.* the temple of Thot in P. Turin 1882 and P. Sallier IV: Gardiner 1937; Janssen 1961, 29–30) and could involve stone hauling (*e.g.* P. Turin 1882; Spiegelberg, 1895, 158).

At the beginning of my study I considered the Middle Kingdom term *ḥ3w* written with the first determinative of the armed man only, and the term *ḥ3w* written with the additional second determinative of a seated man and plural strokes as two different words, the first referring to the activity and the second to the workers (Di Teodoro 2014, 68). Contra my initial hypothesis, I now propose to identify the two ways of writing *ḥ3w* with the same word. The reason lies in the comparison with the writing of *bḥ/bḥw,* the New Kingdom term for forced labour (2.1). Interestingly this later word, which refers to the activity, has the same determinatives attested for *ḥ3w*: the armed man and the seated man with plural strokes. This may suggest that also those instances of *ḥ3w* written with the seated man and plural strokes referred to the activity instead of people. Therefore the words  and  were likely interchangeable. Another possibility is that those are two different ways of writing the same word which could denote either the activity and the group of individuals involved in the activity, depending on the context. Interestingly, the New Kingdom *ḥ3y(t)* could be preceded by the word *rmṯ* "people" (*e.g.* in P. Sallier IV and P. Turin 1882: Gardiner 1937) in the locution *p3 rmṯ ḥ3y(t)* "the *ḥ3y(t)* people", which corresponds to the sentence *rmṯ nty m p3 ḥ3y(t)* "people who are doing the *ḥ3y(t)*" or, in agreement with Janssen's translation of *m ḥ3y(t)* as "in the service" (Janssen 1961, 30), "people who are on the *ḥ3y(t)* duty".

The determinatives of seated man and seated woman usually emphasise the category 'human being' to which the word belongs. In this context, the presence of a single gender is usually indicative of a dominant masculine or feminine aspect of the word. For example, the word for "father", *ỉt* (*e.g.* P. Berlin 10104), always presents the determinative of the seated man, while the word for "mother", *mwt* (*e.g.* P. Berlin 10067), always presents the determinative of the seated woman. Additionally the word for "people" *rmṯ* always presents the combined seated man and seated woman determinative over three plural strokes (*e.g.* P. Berlin 10104). Consequently, the presence of the seated man only at the end of the word *ḥ3w* may suggest a gender restriction to men. Another term referring to workers which presents the plural determinative with only the seated man is *ỉkyw, "*quarrymen" (*e.g.* P. Berlin 10217b). In the Old Kingdom decrees the word *ḥ3w* ended with a different determinative: the seated man who carries a jar on his head , which is usually linked to manual work or construction activity. The Middle Kingdom writing of *ḥ3w* with  instead of might symbolise the determination to highlight a basic change. In the word *k3t* "work" the effort to perform tasks remains implicit. Making that concept explicit may be a means to emphasise it. Therefore, the new determinative can be interpreted as expression of the intent to draw attention, not to the simple idea of 'effort' but to a stronger notion of 'constraint' in conjunction with an increased 'responsibility'. The same determinatives of the armed man and seated man with plural strokes appear in the New Kingdom *ḥ3y(t)*  (2.1).

When the word *ḥ3w* is preceded by the word *nhw* in the expression *nhw n ḥ3w* (2.3.1 F, G), it is accompanied by the genitival adjective *n.* In the other circumstances, when it is preceded by a preposition (2.3.1 A, B, C) this is usually *r,* denoting purpose or movement towards a place. In one case the word *ḥ3w* is preceded by the preposition *m.* It is the stela of Sobekhotep IV from Karnak (Helck 1969, 200, line 16; see also 2.4.2). The text reveals that people are given to the 'provisioning area of the god's offerings' of the Amun temple at Karnak. Among them, some seem to have to perform work *m ḥ3w*, "as *ḥ3w* service", which may denote the compulsory nature of that specific assignment.

As for the etymology of *ḥ3w*, it is possible to connect it to a noun which shares same stem and same reading: *ḥ3w* . This word does not refer to pe-

ople; it has the determinative of the class of abstract words. The main meanings of this *ḥ3w* are "time", "vicinity", "environment", and "belongings", "possessions" (Meeks 1980, 177–8; Wb 477–8; Wilson 1997, 599). The concept of "vicinity" may be at the root of another noun *ḥ3w*  written with the determinative for 'people' which means "neighbourhood", "relatives", "kindred". I speculate that the Lahun Papyri's *ḥ3w* may be linked to the first noun "time", acquiring the sense of 'temporary' and denoting an activity undertaken over a limited period of time. In addition, P. Berlin 10033 (above) seems to suggest a connection between the activity *ḥ3w* and the building *pḫr* . Inside *pḫrw* different materials and substances were stored. P. Berlin 10033 records the delivery of provisions for a group of people, possibly those engaged in the *ḥ3w* activity. A major lacuna in the central part of the sheet prevents us from understanding the purpose of the *pḫr*. However, on the basis of the comparison with UC 32181 (2.3.2 I), we may speculate that it stored provisions and material for those employed in *ḥ3w.* The noun *pḫr* derives from the verb *pḫr.* The meanings of this verb are "to turn", "to surround", "to enclose", "to circumambulate", "to unroll" (a papyrus) (Meeks 1980, 101; Wb 544 ff.; Wilson 1997, 366–7), which stress a circular and repetitive movement. It can also refer to a ritual direction meaning "to go around four times". Another noun deriving from the same verb is *pḫrt* "transitory state", which clearly contains the nuance of temporary, momentary and provisional. Moreover, the noun *pḫrt* "frontier patrol" suggests periodicity, because the detachments of patrols watched over an area at regular intervals and presumably followed rotating shifts. These meanings suggest nuances of cycle, repetition, temporary state, and periodicity (Hannig 1995; Meeks 1980, no.791029; Wilson 1997, 366–7). Consequently, the term referring to the stores *pḫrw* might also have contained the same nuances, identifying a place where commodities and tools for temporary workers were kept.

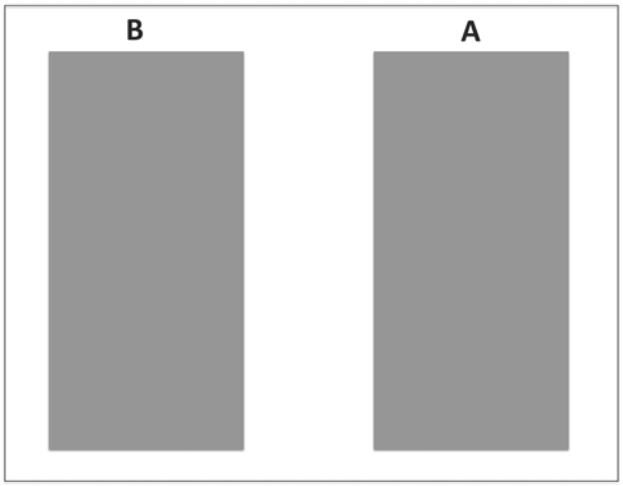


Fig. 7 - Sketch of P. Berlin 10104 verso.

DATE
line 1
HEADING FOR CONTENT
lines 2-4 (type and aim of the list - two toponyms)
NAMELIST
lines 5-54

Table 2 - Structure of the text of P. Berlin 10104.

PEOPLE REGISTERED FOR *ḥ3w*

2.3.1 A - P. Berlin 10104 *verso* (unpublished, brief summary of the content in Kaplony-Heckel 1971, 47 no. 86, and Quirke 1991a) comprises a document arranged in two flanked blocks (A and B in Fig. 7).The text is written from right to left in horizontal lines starting from A, which is structured as indicated in the table above (2).

Block B, placed on the left side of the papyrus, contains the remaining namelist. The heading provides, firstly, information on the type of document: *ỉmy rn.f rmṯ* "namelist of people"; secondly, it locates the event geographically at Sekhem-senwosret true-of-voice; thirdly, it explains content and target: *nty r ḥ3w* "who are for/towards? *ḥ3w*". Then lines 3 and 4 mention two toponyms, while beginning with line 5 there is a long namelist of fifty people. The event occurred in year 12 (in contrast with Luft who reads *year 24*: Luft 1992b), first month, season Peret, day 6. Year 12 should correspond to the coregency of Amenemhat III with his father. The individuals are identified with the general collective noun *rmṯ* "people", the "semantic plural" of the noun *s* "man" which has no grammatical plural (Quirke 1991a, 145).

The individuals for *ḥɜw* of P. Berlin 10104 can be classified as summarised in table 3. The person recorded at line 33 is a *ṯsw* 'commander', the official in charge of the workers, or of part of them (below 4.2.5). The title is written in red ink like in account UC 32170 (below 2.3.2 O).

Those whose names are preceded by a title/different designation can be divided into six main groups: *s n town X* 'man of town X'; the 'Asiatics'; minor officials from the religious sector, namely 'doorkeeper of the temple' and 'pure priest'; individuals identified by professions such as 'baker' with his 'assistant', 'assistant of the cook', and 'gardener'; *s n X* 'man of X' (with X minor official) of the temple staff such as the 'ka servant of the high steward', the 'district overseer of the temple' and the 'master lector'; *s n X* 'man of X' (with X minor official) of officials of civil administration such as the 'bodyguard of the district councillor' and the 'store overseer'.

IDENTIFICATION		lines
Title	Name	6, 23, 28, 33, 35
s n + Title X+ Name		30, 49, 50, 54, 31, 47, 48, 53
s n + town X	Name	36, 18, 37, 38, 40
age + *s n* + town X		17
Profession	Name	11, 12, 14, 10, 29
Ethnicity	Name	52
Ethnicity + *n* + Name		34
Kinship		19, 26, 32
Age		51

Table 3 - Identification system of the individuals recorded in P. Berlin 10104.

Regarding the 'men of town X', Quirke has suggested that these people did not belong to the lower stratum of society but to a 'middle class'. As attested by P. Berlin 10470, a 'man of town X' could manage households like titleholders of minor offices (*e.g.* UC 32166: Collier & Quirke 2006) (Quirke 1991a, 146–7; Smither 1948). The double domicile of some individuals, who in P. Berlin 10104 are at the same time people of Sekhem-senwosret and from a town X located in the Faiyum area, may have two explanations. They could have been born in town X and then moved to Sekhem-senwosret, or be owners of lands/properties in different places. As inferred by Quirke (1991, 145), it may be reasonable to think that the temple of Sekhem-senwosret owned lands in other villages of the Lahun area. The expression 'man of X', suggests that the person was a dependant of the X official. The papyri confirm that the community of 'Asiatics' in Lahun during the Twelfth Dynasty was quite large (Luft 1993; Quirke 2005). Their provenance and the origin of the Egyptian word *ʿɜmw,* used to label this ethnic group, are debated. The term possibly derives from a Near Eastern word indicating Semitic people from Syria/Canaan. According to Luft, three Near Eastern words may be possible candidates for the origin of the Egyptian *ʿɜmw* (Luft 1993, 291). The first is *ʿrm,* an unknown toponym from Ugaritic texts. The semitic stem *ʿlm* is a second possibility. It is used in Ugaritic with the meaning "slave" and in Hebrew for "young man". The last term is *ʿrm,* which relates to the population of Arameans. Saretta has recently proposed a development from *ammu/ḫummu*, an Amorite term for kinship which can also appear as element in personal names. According to her, that term was "used by West Semitic people in Egypt themselves to address one another or, through personal names, to stress their lineage, blood ties, and inner homogeneity of the group that is perceived as biologically and/or socially related." (Saretta 2016, 11–17). During the Middle Kingdom 'Asiatics' entered the country as captives or immigrants. In the late Middle Kingdom 'Asiatic' men appear in lists of workforce for quarries and mines (Luft 1996, 297; Muhlestein 2011, 14–15). Additionally, in the Lahun Papyri numerous 'Asiatics' of both genders appear next to Egyptians in namelists of dancers and musicians (*e.g.* in UC 32191: Collier & Quirke 2006, 92–95). Furthermore, a list of dependants transferred to an official as part of property, records 'Asiatic' women employed as weavers (2.4.2). On the basis of these sources, it is evident that most 'Asiatics' were treated as low-status people (Schneider 1998, 2003). They could be dependants of households and appear in property transfers between officials.

The toponyms recorded at lines 3 and 4 may be the places where the group of people performs the *ḥɜw* activity. The first, the "fields of Hetep-Her", may suggest that *ḥɜw* concerned tasks in a field (Quirke 1990, 181). The second toponym is related to the sanctuary of Sobek 'Lord of Ra-sehwy' (below 2.3.1 D). In agreement with Quirke (1991, 145), it is plausible that the wealthier officials registered for *ḥɜw* avoided





Figs. 8 (left) and 9 (right) - UC 32205 and UC 32198 (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

manual labour by sending their dependants – the 'men of X' – to perform it. This practice may recall the Old Kingdom 'replacement mechanism' in religious context recorded in the Abusir archive (2.1). The attestation of *s n* X, 'man of X' in the namelist for *hɜw* only, may mean that this expression is confined to a specific context. In contrast, those identified by professions may have been heads of households, like the minor officials identified by title and name, who apparently needed to perform the obligation in person. Although modest professions such as gardener, baker and cook were frequently performed by the low-class *mrt* (below 2.3.1 J), the way to denote these individuals in the papyrus is similar to that used to identify minor officials: role/job followed by name, not preceded by the locution *s n* "man of". To sum up, the group of people listed for *hɜw* in P. Berlin 10104 included individuals of different status.

The namelists of some Lahun Papyri which I will discuss later (*e.g.* 2.3.1 J; 2.3.2 O, P) show clear black ink marks for attendance and red for absence, that were presumably added at the moment of the roll-call. The preposition *r* in the expression *nty r hɜw* of P. Berlin 10104 lends to two different interpretations. First, a translation "who are <u>for</u> *hɜw*" suggests that the individuals of the namelist are those registered for tasks *hɜw*, who are waiting to pass the roll-call. Conversely, a translation "who are <u>towards</u> *hɜw*" would refer to a second step of the process: the attendance of the individuals has been checked and the workers are moving towards the workplace. The first interpretation is preferable due to the lack of attendance marks.

2.3.1 B - In letter UC 32205 (Fig. 8) Khemem, sender of the communication, complains to his lord, a nameless 'overseer of the chamber' (a palace official: Gauthier 1918), for not having been informed about any decision of his lord. Furthermore, he is alone and the only available boat has been taken by someone else.

Lines 11–14:

Transcription (Collier & Quirke 2002, 121):

in-ntt ỉtw tɜ mʿt ỉn
sḫtp-ỉb-rʿ m ḫnt ỉw bɜk-ỉm
wʿw nfryt-r pɜ šmsw n nb ʿ.w.s. itɜ
ỉw.f ỉrw r? hɜw

Translation:

since the mʿt *boat has been taken*
by Sehetepibra upstream. So the servant-there
is now alone down to the follower of the lord l.p.h.
Ita
he has been assigned to? the hɜw *activity*

The 3ms suffix pronoun *f* in the sentence *ỉw.f ỉrw r? hɜw* likely refers to the last mentioned male individual, namely the 'follower' Ita. Then, from line sixteen, Khemem records a catch of 500 fish for his lord. The lack of any other reference to *hɜw* does not allow to clarify Ita's role in association with the *hɜw* activity.

2.3.1 C - In letter UC 32198 (Collier & Quirke 2002, 92–5) (Fig. 9), addressed to the 'temple overseer' Ptahpuwah, the sender Iymiatib informs that he accomplished what he was ordered to do: bring to his lord the 'head of people". This unclear expression might refer to an official in charge of workers, or perhaps mean "the amount of people" implying a calculation by heads. Then, in the second part of the letter it is announced that the following month Iymiatib will come for *hɜw.*

2.3.1 D - P. Berlin 10065 *recto* (unpublished, brief summary of content in Kaplony-Heckel 1971, 30 no. 51) contains a namelist of people on the right side (A1) and a separate letter on the left side (B). The namelist continues in the *verso* (A2) (Fig. 10).

The communication in B was exchanged between the *ḥɜty-ʿ* 'mayor' Senwosret's son Kakheperraseneb and the *ỉmy-r pr* 'estate overseer' Horemsaef. As mentioned (2.2.3), Senwosret's career as *ḥɜty-ʿ* is attested until year 24 of Amenemhat III and Horemsaef's career as *ỉmy-r pr* until year 38 of the same king. Therefore, the communication between Kakheperraseneb, son of Senwosret and his successor as *ḥɜty-ʿ*, and Horemsaef should have occurred between year 24 and 38 of Amenemhat III. For these reasons I date this papyrus to the late years of Amenemhat III.

The namelist in A1 and A2 is written from right to left on horizontal lines. The names are followed by the glyph of the seated man used as checkmark. The first twelve individuals, identified by name only, are counted by means of a vertical stroke drawn behind the seated men 𓏤𓀁. Line 17 records [*pr šnʿ*] *ḥtpw-nṯr sḫm-snwsrt mɜʿ ḫrw* "the provisioning area of the god's offerings of Sekhem-senwosret true-of-voice". Then from line 18 there is a list of people whose profession is related to food production. The corresponding seated man of those named on lines 18–28 does not present the vertical stroke. Probably the same feature also characterised the remaining 17 names, but the part of the papyrus corresponding to the seated men is missing. In contrast to P. Berlin 10104 (2.3.1 A), the leading horizontal lines with date and heading for the content are not preserved. As shown below (Table 4), the word *hɜw* is placed on the left side of the text, on the top of the seated men used as checkmarks.

The peculiar placement of the hieratic word for *hɜw* may suggest that the scribe added the term later, maybe after he had finished listing all the people for *hɜw,* in order to specify the reason of the gathering: *hɜw*

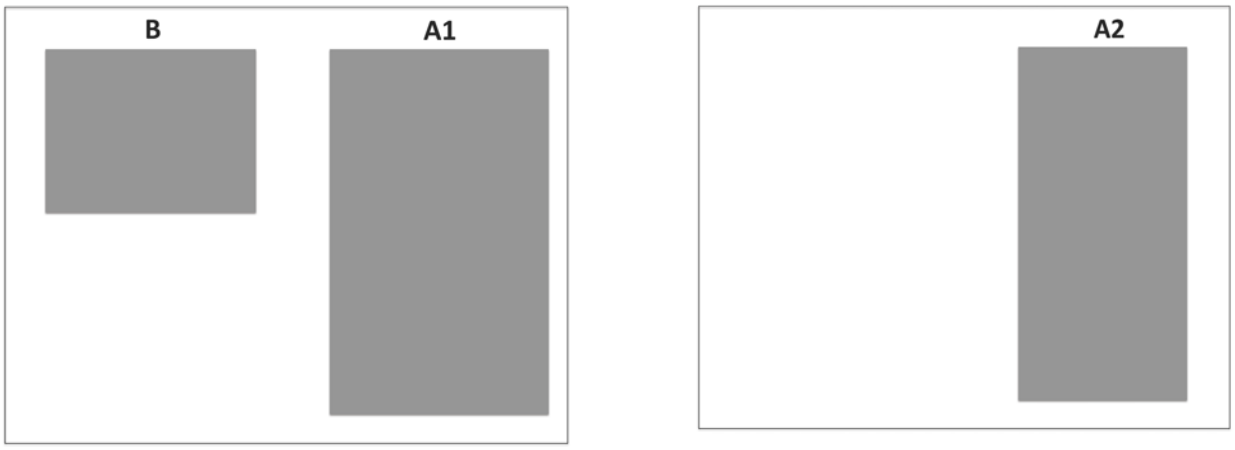


Fig. 10 - Sketches of recto (left) and verso (right) of P. Berlin 10065.

hȝw

 (hieroglyphs in Kaplony-Heckel 1971, 30, n.51)	NAMELIST personal name
	personal name
	personal name

Table 4 - Sketch of the first lines of the namelist of P. Berlin 10065 recto.

PROFESSION	LINES
cook	18, 20, 22, 24, 26, 37
assistant (of the cook)	19, 21, 23, 25, 27, 38
baker	28, 30, 33, 43, 45
assistant (of the baker)	29, 31, 34, 35, 36, 44

Table 5 - Professions attested in the namelist of P. Berlin 10065.

activities. The name Neb-ra-sehwy is attested three times. The poor preservation of the papyrus makes reading difficult: the beginning of the first ten lines is totally missing due to a large vertical gap in the sheet. However, the reading of the name Neb-ra-sehwy in the second and fourth line is sure. I agree with Dévaud's reconstruction of the name Neb-ra-sehwy also in the first line, even if the only preserved hieratic sign is the ending -*wy*. Neb-ra-sehwy 'Lord of Ra-sehwy' refers to the crocodile Sobek, the main god worshipped in the Faiyum (LÄ V, 1002). The same association appears in P. Berlin 10081C (2.3.1 E) where two individuals listed for *hȝw* are recorded as Sa-neb-ra-sehwy ('Lord of Ra-sehwy's son') Snefrwkha and Sa-neb-ra-sehwy Keky. According to Luft (2006, 107), these two individuals may have belonged to the temple of Sobek Neb-ra-sehwy. Based on the comparison with this papyrus, it is possible that the missing right side of P. Berlin 10065 contained the beginning of the name "Sa". The list of people identified by profession covers the second part of the *recto* and continues on the *verso*. These people were cooks (sing. *psy*) and bakers (sing. *rtḥty*) each followed by his *ḫry-ʿ* assistant (Table 5).

The provisioning area of the god's offerings of Sekhem-senwosret was likely the place where these cooks and bakers were employed, as that was presumably the largest provisioning sector in the vicinity (Berlev 1978, 319–26). In such areas, commodities were stored and prepared in specific 'chambers'. Due to the lack of the beginning of the first lines, it is not possible to ascertain whether the names of the first twelve individuals listed for *hȝw* were preceded by designations. Bakers and cooks are professions attested among those registered for *hȝw* in P. Berlin 10104 (2.3.1 A). However, it is not clear whether or not the second namelist of P. Berlin 10065 also referred to people for *hȝw*.

A difference between the namelists of Papyri

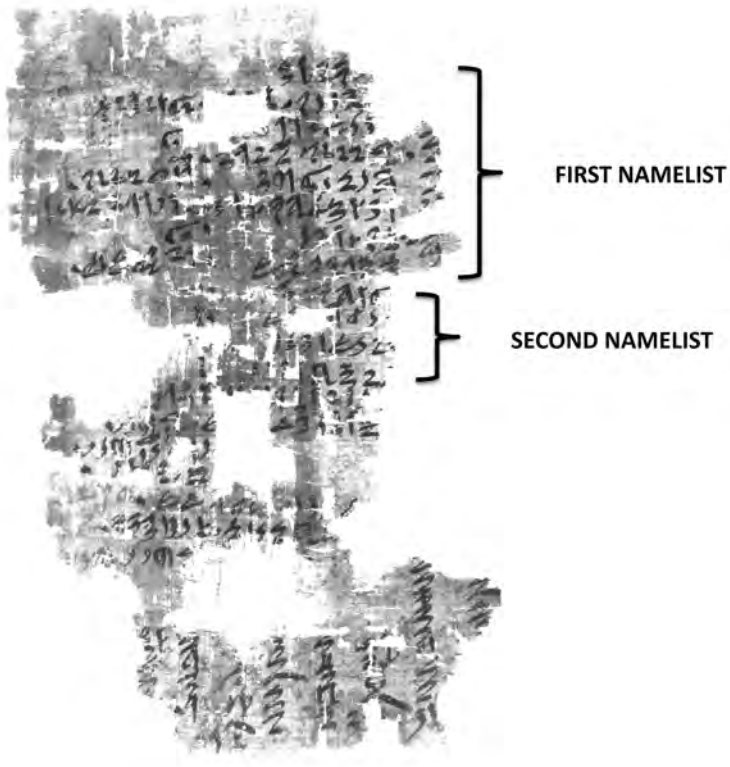


Fig. 11 - P. Berlin 10047 with the namelists (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing).

Berlin 10104 and 10065 is the presence in the second of a stroke beside the seated man for the first twelve individuals. The men of P. Berlin 10104 are not numbered, except for the last person, the "man of the ka servant of the high steward", whose corresponding seated man has three strokes . Several strokes beside the seated men are attested in another two Lahun Papyri: P. Berlin 10004 (unpublished, brief summary of content in Kaplony-Heckel 1971, 3, no. 4) and P. Berlin 10047 (Luft 2006).

The larger fragment on the *recto* of P. Berlin 10004 presents a namelist of officials. Behind every name there is the sign of the seated man with strokes ranging from 1 to 7. Luft suggested a link between this large fragment and another one smaller glued together on the same papyrus. The small fragment attests to a group of people, read by Luft (1996, 297) *ʿȝmw* 'Asiatics', at Sekhem-senwosret. According to Luft, the namelist of the larger fragment could be part of the census of 'Asiatics' living at Lahun, while the small fragment might have referred to those 'Asiatics' living in the same place three days later. In his opinion, the number of strokes (1–7) placed behind the hieroglyphs of the seated men in the larger fragment corresponded to the exact number of 'Asiatic' members of the household of each official on the list (Luft 1998, 29–30). However, as Luft himself observes, the join of the small fragment is very uncertain (Luft 1998, 30).

The *recto* of P. Berlin 10047 (Fig. 11) is covered by a list of attendants and absentees divided into two sections: the first (horizontal lines 2–8) records name and filiation of the individuals, with the sign for the seated man, followed by the title of the officials to whom they belonged. Then, on the next four lines are listed officials, followed by the sign of the seated man with strokes (1–4) which should mark the number of individuals for each titleholder (Luft 2006, 96). The reason why the scribe decided to change the way to enlist people is undisclosed. However, based on these examples I propose that the three strokes after the seated man in P. Berlin 10104 may actually refer to the number of *men* available to replace the 'ka servant of the high steward'.

The communication on the left side of the *recto* of P. Berlin 10065 (B in Fig. 10) is a letter of complaint concerning Senwosret from Atfih (the greek Aphroditopolis) which, together with Shedyt, was the closest

town to Lahun (Quirke 1997, 28).

4 - *r ḏd ỉw.f m ?*
5 - *m sḫm snwsrt mɜʿ-ḫrw*
6 - *nn bɜkw.f rnpwt ʿšɜw*
(transcription in Luft 1998, 23–24)

Translation:

4 - *to say: he is in/in the function of ?*
5 - *in Sekhem-senwosret true of voice.*
6 - *There are no* bɜkw *of his for many years.*

Line 5 informs that Senwosret is in Sekhem-senwosret. The last word at the end of line 4 after the preposition *m* is unclear. If we interpret the *m* as '*m* of predication', the following word could specify what Senwosret's condition is: "he is in the function of X". Luft (1998, 23) attempted to read the difficult final word as *sɜw* 'guard' . I am not convinced by this reading because the first sign does not coincide with the common hieratic writing of , and the last sign does not resemble the determinative of the armed arm. However, if we compare this word with Smither's tentative reading of the title *sɜw* in P. Berlin 10470, we notice that the last sign for the determinative seems to correspond to that sign at the end of the word in P. Berlin 10065. Smither, who published P. Berlin 10470, suggests reading the last sign as a determinative of the man with plural strokes adding a question mark (see note in Smither 1948, plate VIII). Since I do not find the reading *sɜw* convincing enough, in absence of a more credible alternative I prefer to leave a question mark after *m*.

The meanings of *bɜkw* move from the activity "work" to its outcome "value of work" (Janssen 1993), "produce", and "tax". According to Kóthay the verb *bɜk* refers to the act of "working up raw material into a finished product" (Kóthay 2010a, 83). This action requires control, and as such, differs from the verb *kɜt* which expresses a creative activity like construction work. The opposition between *kɜt* and *bɜk* would affect the performers of such activities, identifying two socially different groups of people: "privileged members of a community" (Kóthay 2010a, 83) (performing *kɜt*) on the one hand, and the rest of the tax-paying population (performing *bɜk*) on the other hand. In Lahun accounts of commodities for the temple, *bɜkw* is usually linked to a specific individual denoting a "personal obligation" (Quirke 1998b, 11). On the basis of the previous considerations, I would see Senwosret's *bɜkw* as the results of compulsory work. Apparently, Senwosret refused to perform his obligations over a long period. Since the letter was written on the same sheet of the namelist of *hɜw*, the existence of a connection is plausible.

The last three preserved lines of the letter record the presence of the *šmsw* 'guard' Imeny's son and state *ỉḫ dr.k sḏbw ỉm.f,* "then you remove the obstacles from him". This expression recalls the 'obstacle clause' of the *shabti* formula. The *shabtis* were mummiform shaped statuettes made of a wide range of different materials (*e.g.* wood, stone, wax, faience) which were introduced in the funerary equipment during the Twelfth Dynasty (Janes 2002; Schneider 1977; Stewart 1995). At the beginning they acted as a representation of the deceased in case of destruction of the body. Subsequently, they became servants of the deceased in charge of performing tasks in the fields in the underworld. The *shabti* formula, written on the body of the statuettes, obliged the *shabtis* to perform the work in place of their masters. The obstacle clause causes the *shabti* to intervene when a *sḏb* is imposed on his master. The word *sḏb,* "obstacle", is usually interpreted in the *shabti* context as an 'unpleasant task' which the deceased was compelled to perform. Among the Lahun Papyri examined in my research, the expression recurs ten times. Sometimes the obstacles are removed (Papyri Berlin 10022, 10030B, 10038A, 10061, 10065 and 10066). Other documents have instead a negative clause: *n dr.n.f sḏbw* (P. Berlin 10098), *nn dr.n.f sḏbw* (P. Berlin 10447), *nfr pw dr-t(w) sḏbw* (P. Berlin 10038C, 10056B). In these cases, the negative expressions suggest that the obstacles are not removed. In P. Berlin 10098 (unpublished, brief summary of content in Kaplony-Heckel 1971, 46 no. 84) the lacunose text preceding the negative sentence *n dr.n.f sḏbw* "not removed for him the obstacles" displays the verb *ḫsf* "to punish" as a consequence. According to Dévaud's transcription, the person to be punished is probably a male 'substitute' *ỉwɜw* (see below). I agree with Quirke (2004, 94) suggesting that the expression "to remove obstacles" in a labour context may refer to the annulment of the obligation, namely the imposed duties. As regards the case of Senwosret in P. Berlin 10065, maybe the obstacles can be removed because someone else completed the task in his place.

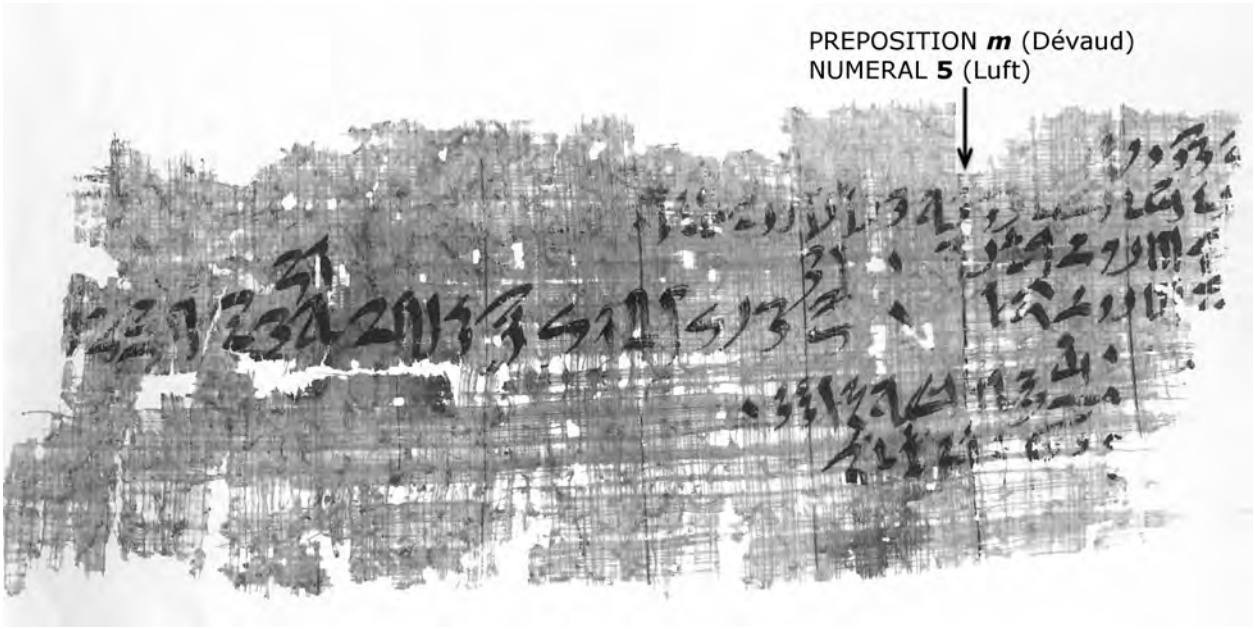


Fig. 12 - P. Berlin 10081C (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing). Above: different readings of the debated hieratic sign as proposed by Dévaud and Luft.

2.3.1 E - Another short namelist of people registered for *hɜw* appears in P. Berlin 10081C (Luft 2006) (Fig. 12). The first horizontal line bears the civil date: month 3, Akhet season, day 12. According to Luft the document is dated to year 27 of Amenemhat III. This is supported by the presence of the *ỉmy-r pr* 'estate overseer' Horemsaef as addressee of the communication (2.2.3).

The heading provides the following information:

Line 2:

Dévaud's reading:

[…] *hɜw nty m ỉnt m sḫm-snwsrt mɜʿ-ḫrw*

Line 2:

Luft's reading and translation (Luft 2006, 105–7):

[…] *hɜw nty* 5 *ỉnt m sḫm-snwsrt mɜʿ-ḫrw*
[…] hɜw *workers, who are 5, brought out from Sekhem-senwosret true-of-voice*

A determinative of the seated man with plural strokes is recognisable at the beginning of line 2, just before the term *hɜw,* as the last hieratic sign of a missing word. On the basis of the attestation of the expression "namelist of men" restricted to the masculine gender in other Lahun Papyri, I suggest reconstructing the sentence in P. Berlin 10081C starting with *ỉmy rn.f.*

Where Dévaud reads the preposition *m* before the verb *ỉnt,* Luft reads the numeral 5 (Luft 2006, 105–6, pl. 32). The presence of exactly five names in the list of people may have induced Luft to prefer that reading. As the image shows (Fig. 12), the upper part of this hieratic symbol is lost. An expression with the relative pronoun *nty* followed by the preposition *m* before the verb *ỉn* "to bring" occurs in account UC 32151D: " […] *nty m ỉnt m nhw*" (Collier & Quirke 2006, 267). Collier and Quirke's translation is " […] who are in supply as lack". This may work in favour of Dévaud's reading of *m* suggesting the following translation of line 2: "who are in supply in Sekhem-senwosret-true-of-voice".

The preposition *m* when linked to toponyms can have a static meaning as locative 'in' or a dynamic meaning of separation denoting the movement out of a container (Allen 2010, 84; Nyord 2010, 29, 31). As Gracia Zamacona (2010, 226) and Nyord stress, the Middle Egyptian *m* in its dynamic meaning can be an illative, marking a motion towards an entity which possesses an interior space, or an elative marking a motion from inside the same type of entity. Nouns defining surfaces such as *wʿrt* "plateau" and *wɜt* "way" and similar entities lacking interior space are usually preceded by the preposition *ḥr*. Conversely, natural sites, territorial divisions (designed as having volume), and buildings are conceived as containers and marked by the locatives *m* and *r* (preposition for the direction towards something or someone). The presence of the

preposition *m* before the toponym Sekhem-senwosret implies that this place was a container. As previously mentioned, Sekhem-senwosret included certainly a granary, the provisioning area of the god's offerings, likely three temples, and the domestic units of the western quarter, delimited by an enclosure wall (2.2.1). Usually, the movement towards entities with interior space and *limit* features, is marked by the preposition *r*. However, this rule seems to be quite flexible. In the formula of the passage of the deceased is the sentence: "*ḥ3.n.i̯ m i̯s*" where *i̯s*, "tomb", is a container provided with limits. The sentence is translated "I have gone down into the tomb". In addition, even the expression "enter into the house" can be indifferently written "*ʿḳ r pr*" or "*ʿḳ m pr*" (Allen 2000, 84; Gracia Zamacona 2010, 241). To conclude, the preposition *m* before the toponym in P. Berlin 10081C could involve both the movements of people to or out from the place. However, when the preposition *m* precedes the toponym Sekhem-senwosret in other Lahun Papyri involving the category of workers *iwʒw* (below 2.3.1 K, N), the context suggests that the movement is out from the place. In particular, P. Berlin 10030A (2.3.1 N) presents the same expression with the same toponym, but with the feminine passive form of the verb *i̯n*: "*i̯nyt m sḫm-snwsrt mʒʿ-ḫrw*". Therefore, the movement of people for *ḥʒw* of P. Berlin 10081C was probably out from Sekhem-senwosret as Luft has suggested. The text of P. Berlin 10081C continues providing the following information:

Lines 3–7 (Luft 2006, 105–7)

Transcription:

nb rʒ-shwy sʒ snfrw-wsr
nb rʒ-shwy sʒ kki̯ i̯mi̯ rdi̯.tw r ḥwt-nṯr r ʒbd.sn ḫnʿ i̯nt nʒ.sn
[…] *ḥm-kʒ n imy-r pr wr i̯ntf-i̯qr*
[…] *ḥm-kʒ n imy-r pr wr i̯ntf-i̯qr*
[…] *mty n sʒ bʒstt sʒ*

Translation:

Sa-neb-ra-sehwy Snofrw-wser
Sa-neb-ra-sehwy Keki let them to be given to the temple for their month and bring those […]
[…] the ka priest of the high steward Intefiker
[…] the ka priest of the high steward Intefiker
[…] the controller of the phyle Sabastet

The first names of the list of people for *ḥʒw* refer to individuals identified by second names which, according to Luft, might have been of 'Asiatic' origin. As mentioned above (2.3.1 D), the names of these men led Luft to assume an association with the temple of Sobek Lord of Ra-sehwy. The location of this temple is debated. According to Horváth, it was probably within the area of Sekhem-senwosret (Horváth 2009a, 189–90).

The last three individuals for *ḥʒw* – whose names are missing – are marked by the seated man used as checkmark, followed by two titleholders of the temple staff: the 'ka priest of the high steward Intefiker' (for the third and fourth individual), and the 'controller of the *phyle*' Sabastet (for the fifth individual). Presumably, these officials were the masters of the last three *ḥʒw* workers, who therefore, using the terminology of P. Berlin 10104 (2.3.1 A), were 'men of X' (Fig. 13).

The imperative *i̯mi̯ rdi̯.tw r ḥwt-nṯr r ʒbd.sn* "cause them to be given to the temple for their month" referred to the 'Asiatics' and suggests that the task they were called to perform was one month long. This recalls the *phyle*-system associated with priestly service. The officials of the temple were divided into two main groups: a permanent one which included the managerial staff, and a temporary one organised in four watches or *phyles* (using a greek word). Temple staff was chosen from each *phyle* on the basis of a monthly rota. Every *phyle* was in charge of the temple for one month (Quirke 2004, 119–20). It seems that the same monthly organisation affected another category of male workers, the *ḫntyw-š* . They could be attached to the cult of the dead king; for instance the Old Kingdom decrees of Dahshur attest that they lived at the pyramid town and were protected from taxes. The same decrees associate them to work on land (Goedicke 1967). The Abusir Papyri (2.1) mention also *ḫntyw-š n pr ʿʒ* "*ḫntyw-š* of the pal-

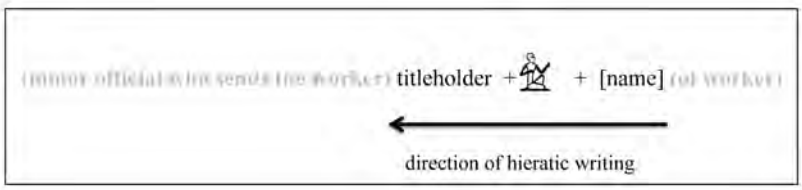


Fig. 13 - Sketch of the relations between masters and dependants sent as replacement.

	minor officials temple	men of the town X	men of minor officials		'Asiatics'	professions
			temple	*civil administr.*		
namelists for *hɜw*	10023 (temple worker)		10081c			10065
	10104	10104	10104	10104	10104	10104

Table 6 - People for hɜw *grouped in 5 main categories.*

	Minor officials temple	men of minor officials		professions	other
		temple	*civil administration*		
PB 10023	temple worker				
PB 10081C		of controller of *phyle* - of ka servant of the high steward			'Asiatic' (2)
PB 10104	temple doorkeeper (2) - pure priest - pure priest and master of *phyle*	of ka servant of the high steward (3) - of district overseer of the temple - of master lector	*of bodyguard of the district councillor* - of store overseer - of distributor? of staff-lists	assistant cook (2) - baker - assistant baker - gardener	'Asiatic' (2) - man of town X (5) - boy - old man of a man of town X

Table 7 - Offices, professions and different labels of those registered for hɜw.

ace", translated by Posener (1976, 413) "the employee of the palace". The same texts seem to suggest that *ḫntyw-š* were in charge of rituals like the *ḥmw-nṯr*, and involved in the transport of offerings (Posener 1976, 565, 577, 580–1). According to Quirke they may have been in charge of temple business "outside the enclosure wall of the temple, mainly temple lands" (Quirke 1991a, 144). Papyri Berlin 10106, 10244A and 10264 record namelists of *ḫntyw-š* "of this month", which denote a temporary duty. As Quirke has stressed, a monthly rota was not applicable to employments on lands. Therefore, the expression "of this month" should just designate the presence of workers during that month (Quirke 1991a, 144). The sentence in P. Berlin 10081C is quite different as it refers to "their month", which, in my opinion, implies that the time of service was restricted to one month only.

The tables above (6 and 7) summarise the main categories and designations/labels associated with people for *hɜw.*

ỉwʒ: WORD AND MEANING: PALAEOGRAPHIC, PHILOLOGICAL, AND ETYMOLOGICAL NOTES

We have two words: the verb *ỉwʒ* and the noun *ỉwʒ*. The feminine singular form of the noun is *ỉwʒyt*, generated by the addition of the feminine ending *-yt* to the root *ỉwʒ*. The plural forms of the noun are *ỉwʒw* and *ỉwʒyt/wt.* The first form is generated by the addition of the plural ending *-w* to the root and refers to both genders. The second form is generated by the addition of the feminine plural ending *-yt/wt* and is a feminine plural form.

List of documents with *ỉwʒ* (verb) and its hieroglyphic transcription:

- PB 10023A:  - *ỉwʒ.kw* (stative).
- PB 10081B :  - *ỉwʒ.kw* (stative).
- UC 32118E:  - *ỉwʒt*(*w*) (passive form).

List of documents with *ỉwʒyt* (noun, feminine singular form) and its hieroglyphic transcription:

- PB 10030A:  - - 
- Elephantine dish 19606P from house 69b (sector BIX): 
- PB 10043: (Dévaud).
- PB 10019, PB 10021, PB 10067, PB 10081A, PB 10081B, PB 10082: 

List of documents with *ỉwʒyt* (noun, feminine plural form) and its hieroglyphic transcription:

- PB 10016B:  (Scharff 1924) - (Luft 2006).

List of hieratic documents with the keyword *ỉwʒw* (noun, masculine and feminine plural form) and its hieroglyphic transcription:

- PB10021: 

List of documents with unclear reading:

- PB10098:  *ỉwʒw* (masculine noun?).
- UC 32118E: […] *ỉwʒw* (masculine noun/verb?).
- UC 32119A: […] *ỉwʒ[yt?]* (feminine singular form?).

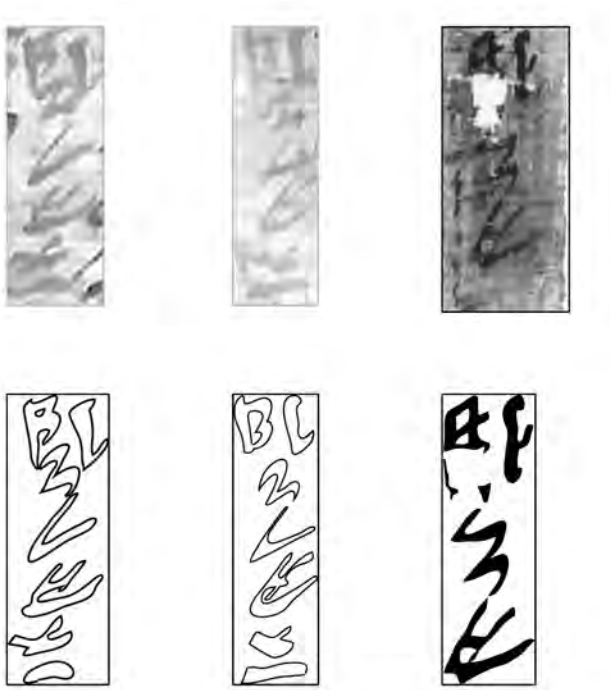


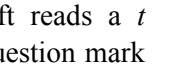
Fig. 14 - From left to right: the word for iwʒyt *as it appears in vertical lines 4 red and 5 red of P. Berlin 10016 compared with the writing in P. Berlin 10043. Top: originals. Bottom: facsimiles (© C. Langer).*

Like the word *hʒw*, the words generated by the root *ỉwʒ* present the determinative of the armed man, suggestive of physical endeavour or forced action. The feminine form of the noun also has the determinative of the seated woman , which identifies the class of meaning ‘human being’ and, in particular, the feminine gender. This determinative always follows the sign of the armed man, which is constantly attested in the masculine form of the noun, and in the verb, while not always attested in the feminine form of the noun. This raises the question of whether the absence of this determinative in a few documents is significant or not. In P. Berlin 10030A (2.3.1 N) the noun *ỉwʒyt* appears three times, drawn in different ways. In the first case, the *-t* part of the feminine ending is missing, along with the determinative of the armed man. In the second case, all the phonemes, the feminine ending, and the seated woman are present, while the determinative of the armed man is missing. In the third case, the *-y*, part of the feminine ending, is missing, but determinatives of armed man and seated woman are present. These variations in the same document may suggest that the absence of the determinative of the armed man does not imply the existence of a different meaning or nuance. Two plural forms of the noun are attested: one possesses the determinative with both



Fig. 15 - P. Berlin 10043 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing). The curly bracket marks the word iwʒyt.

genders, the other possesses only the seated woman with plural strokes. Unlike the noun *hʒw,* a plural form with only the seated man marking the masculine gender is absent.

In the instances of P. Berlin 10016 (2.3.1 K; Fig. 27), Scharff reads the semiconsonant *w* between ʒ and the determinative of the armed man:  (Scharff 1924, pl. 2). In contrast, Luft reads a *t*  at line 5 *red*, adding a question mark under *t* in the reading of the same word at line 4 *red* (Luft 2006, 30). On the basis of an examination of the original, it is clear that the noun is written in the same way in both lines. Although in P. Berlin 10043 (2.3.1 L) the noun is singular (cf. my view below, contesting Luft's reconstruction of a plural form), the identification of the sign below *ʒ* as *t* is certain. If we compare it with the writing of the sign below *ʒ* in the lines of P. Berlin 10016 (Fig. 14) we notice that the drawings of the latter are quite different: the signs are much bigger and the angle formed by the strokes is wider. Additionally, the upper stroke is convex rather than concave like in P. Berlin 10043, and the lower stroke flat rather than curved. Therefore, I consider Scharff's reading of *w* more plausible. I cannot provide additional parallels in support of writing the plural form of the feminine word *ỉwʒyt* with *w* because P. Berlin 10016 seems to contain the only example.

Luft recognises a plural feminine form of *ỉwʒyt* in P. Berlin 10043. However, I do not believe that the original hieratic text contains the seated woman with plural strokes as in Luft reconstruction (Fig. 15). Aside from the clearer sign for *-f* at the bottom of the line, the faint remaining ink marks might not have been hieratic signs but instead blurs due to the worn condition of the sheet. As the image shows, the vanishing ink procedes along a vertical line which runs parallel to the column of text like a fold. Consequently, I agree with Dévaud's transcription of the singular form *ỉwʒyt*.

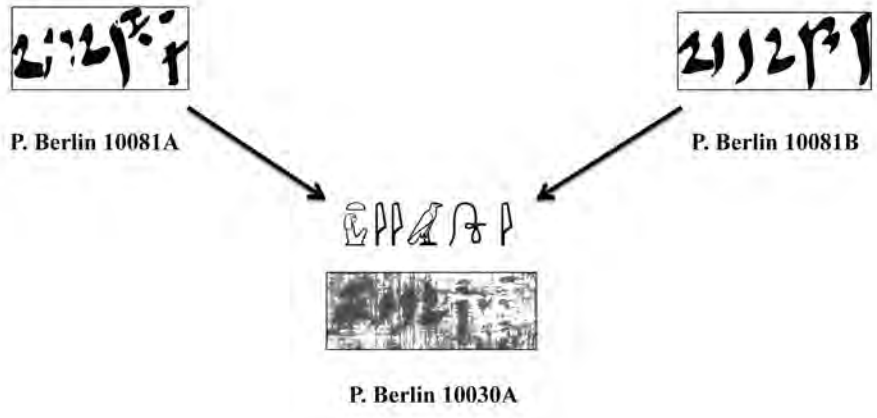
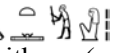


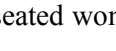
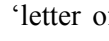
Fig. 16 - The word for iwʒyt *as it appears in Papyri Berlin 10081A and 10081B (facsimile © C. Langer) in comparison with P. Berlin 10030A.*

In P. Berlin 10081A Luft correctly reads the

word as *ỉwʒyt*. However, he interprets the last hieratic sign of the word as a seated man, but it is instead the feminine ending *-t* grouped with the determinative of a seated woman, as it appears in 10081B. The comparison with P. Berlin 10030A may help, as it shows the word *ỉwʒyt* written with hieratic phoneme *-t* and determinative of seated woman drawn separately (Figs. 16, 18, 19).

I did not find any evidence of the words *ỉwʒw* and *ỉwʒyt* in earlier documents. A later attestation of *ỉwʒyt* could be in P. Anastasi VI (Nineteenth Dynasty, New Kingdom). In a 'letter of complaint' written on the *recto* of that papyrus, a plural feminine noun *ỉwʒyʒt*  refers to women who were seized, along with *mr(w)t* workers, from the estate of a person accused of negligence: according to the authorities he did not send clothes and other textile items – the produce of his workers – to the Treasury, as he was expected to do (Caminos 1954, 280–93; Gardiner 1937, 73–76). Two *ỉwʒyʒt* were the wives of cultivators *ỉḫwtyw* employed as regular workers on the fields of the culprit (P. Anastasi, 43, Gardiner 1937, 75). Text and context suggest that those *ỉwʒyʒt* were workers too. Alan Gardiner (1951, 111) was the first to hypothesise that the word *ỉwʒyʒt* of P. Anastasi VI corresponded to the Middle Kingdom *ỉwʒyt* of the Lahun Papyri, suggesting the translation "substitutes". Later Ricardo Caminos, who first translated P. Anastasi VI, accepted Gardiner's interpretation (Caminos 1954, 285). I agree with Gardiner's identification. Apart from the paleographic similarity of the nouns, the shared labour context may support the equivalence between *ỉwʒyʒt* and *ỉwʒyt.* The main paleographic difference is the presence of the redundant bilitter *ỉw*  before the bilitter *wʒ* , and the consequent absence of  before , in the P. Anastasi's *ỉwʒyʒt*, which might be a singular feature of the New Kingdom.

Gardiner (1951, 111) suggested also a link between *ỉwʒyt/ ỉwʒyʒt* and the demotic feminine noun *ỉwy.t* (hierogliphic script: ; alternative classifier: ). This noun means "pledge", "surety", "guarantee", and corresponds to the coptic feminine noun ⲉⲣⲱ with the same meaning (Černy 1976, 40; Erichsen 1972, 22; Pestman 1977, 39, no. 374; Sethe 1920, 391, 781, plate 47). Crum recalls the Greek *enecyrasma* "surety", and *synallagma* "deal, agreement, guarantee" (Crum 1939, 62). The demotic word *ỉwy.t*/*ỉwʒ.t* with the meaning "pledge" appears in contracts of Ptolemaic Egypt. In those legal documents *ỉwy.t* denotes pledges taken as securities by creditors against debtors for the money (or objects) the latter owed to the former. Such pledges coud be anything of the debtor's property such as land, objects, clothes, and dependants (Pierce 1972, 110ff).

According to Richard Pierce (1972, 130), the noun *ỉwʒ*  of P. Mayer A (Twentieth dyn., New Kingdom), may correspond to the same word of P. Anastasi VI, and consequently to the Middle Kingdom *ỉwʒ* of the Lahun Papyri. Joachim Quack agrees referring back to Pierce's interpretation concerning the verb *ỉwʒ*  of P. Pushkin 127 – the so called 'Tale of a woe' – (Twentieth–Twenty-second dyn., New Kingdom) which he interprets as an independent verb, rather than a variant of *ʿwʒỉ* "to rob" as Caminos had previously suggested (Quack 2001, 175, n. 73). In P. Mayer A (Peet 1920, 3/7–9) – one of the 'Tomb Robbery Papyri' – the relative of a suspected missing (?) tomb-robber undergoes a judicial interrogation about the robbery. According to the text, that person was brought *m ỉwʒ* "as *ỉwʒ*" of the culprit, and then set free. Pierce, following Gardiner's association of *ỉwʒyt/ỉwʒyʒt* with the demotic term for "pledge" proposed that since the authorities could not find the culprit, they seized one of his relatives keeping him as a hostage, so a 'living pledge' (Pierce 1972, 130). Similarly Quack (2001, 175) translates *ỉwʒ* of the difficult P. Pushkin 127 with the German word *Pfand* "pledge", in reference to people of a village from which the priest Wermai has been expelled. Wermai has been reduced to poverty, and his property (objects and dependants) robbed and sold. The meaning of that passage is unclear and on the basis of the context of the document I would not exclude Caminos' alternative reading and interpretation (above). On the other hand, the noun *ỉwʒ* of P. Mayer A might be associated to the words *ỉwʒyʒt* (P. Anastasi VI) and *ỉwʒyt* (Lahun Papyri) meaning a person who is taken at the place of another as a 'living pledge'. Pierce's conclusion is closely bound to a wrong interpretation of the Middle Kingdom *ḫnrt* – which the mother of a *ỉwʒyt* is given to (see chapter 2.4, and 2.3.1 I) – as a prison (Pierce 1972, 132). However his translation of the noun *ỉwʒ* as "hostage" in the context of P. Mayer A seems reasonable to me. The examination of the Lahun evidence will clarify whether the Middle Kingdom words *ỉwʒw* (n.), *ỉwʒyt* (n.), and *ỉwʒ* (v.) carried the same nuance or not.

Anyhow, the possible association with the demotic word for 'pledge' may provide the meaning of the

Middle Kingdom words with a sense of legal bond and 'guarantee', and a strong connotation of 'commitment'. The same sense can be found in a verb directly linked to females *ỉwʒyt* in the Lahun Papyri: *sfḫ* "release", "set free from bonds", "unbind" from a duty/obligation (Papyri Berlin 10019, 2.3.1 H, and 10081B, 2.3.1 F). This verb appears in an Eighteenth Dynasty sandstone stela from the Kurkur Oasis (Aswan) where a *mḏʒy* patrolman, blamed for not reporting for duty, asks not to be released from the task ("*m dỉ sfḫ.ỉ*": Darnell-Haddad 2003, 82, pl. 8). He does not want to be dismissed. The verb *ỉwʒ* with the meaning "replace" is used in letter UC 32213 in reference to an object: a vessel which is removed and replaced (Collier & Quirke 2002). As opposite to the verb *sfḫ* I would consider relevant the presence, in the meanings of the verb *ỉwʒ*, of a specific connotation equivalent to "engage", "bind", and "commit". Moreover, the determinative of the armed man may add a sense of 'limited freedom'. The verb *ỉwʒ* seems to have a contrasting meaning also to *dr* (written itself with the determinative of the armed man ), the verb used with the vessel in UC 32213 with the meaning "remove" and in the expression referring to the annulment of the obligation (see above). I would conclude that the verb *ỉwʒ* and the nouns *ỉwʒyt* and *ỉwʒw* contain in their meaning the nuance "to bind, hold" where the verbs *dr* and *sfḫ* seem to work in a different direction. Contemporary texts from Larsa and Mari (Mesopotamia, MBIIA and Old Babylonian Period) may provide a parallel. The Akkadian verb *nasaḫu* (CAD vol. II, part 2, 1–15) is used in texts centred on temporary labour to release from duty and move workers. This verb which means "to remove", "to withdraw", has a nuance of forced action attesting a close relationship with the Egyptian verb *sfḫ* used with female 'substitutes'. Considering the previous discussion, for the moment I agree with the current translation of the verb *ỉwʒ* as "replace" or "take in place of another" and the nouns *ỉwʒyt* and *ỉwʒw* as "substitutes" (*e.g.* Kóthay 2013, 519; Luft 1992a, 1998, 2006; Pantalacci 2010; Quirke 1988, 1990, 163), taking into consideration the nuance of commitment, and that of 'pledge' provided by the link to the demotic *ỉwy.t.* These interpretations will be tested by the following analysis of the Lahun Papyri.

The reading of the word in UC 32119A is uncertain (Collier & Quirke 2004, 42–5). The fragment is very small. The word *ỉwʒ* is at the end of the second vertical column (Fig. 17). As shown in the image, the



Fig. 17 - UC 32119A (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

column ends after the root *ỉwʒ* with no trace of the ending of the word. However, the sentence "someone wrote to him about his wife" may suggest that the incomplete term *ỉwʒ*[...] is actually *ỉwʒyt,* the feminine form of the noun.

REPLACEMENTS: COMMITMENT AND RELEASE FROM DUTY

2.3.1 F - Papyri Berlin 10081A and 10081B (Luft 2006) are closely connected (Figs. 18 and 19). The link is represented by the *ỉwʒyt* 'female substitute' of the musician Hotepi. Both fragments, dated to year 37 of Amenemhat III, preserve short communications addressed to the 'estate overseer Horemsaef'. On the basis of the context, P. Berlin 10081B precedes 10081A. Only two lines are preserved of the communication recorded in P. Berlin 10081B (Fig. 19). The beginning of both letters is missing.

P. Berlin 10081B (Luft 2006, 103–4)

Transcription:

[…] *šmʿw ḥtpỉ r ḏd ỉwʒ.kwỉ ḥr nhw n hʒw* […]

[…] *k tzy.f ỉwzyt wnn nz pw ḏdy.f*

Translation:

[…] *the musician Hotepi saying: I was taken as a replacement because of deficit of* hzw

[…] *you his female substitute; this is what he needed to say*.

P. Berlin 10081A (Luft 2006, 101-2)

Transcription:

[…] *ỉmỉ sfḫ ỉwzyt nt šmʿw sbk-nḫt sz ḥtpỉ ỉnyt ḥr h[zw ?]*

[…] *snwsrt ʿnḫ nty ? ḥrỉ pr n pr ʿz ỉw r ḏd nfr pw sfḫt(w).s*

[…] *n.k ḫr ḥzt*

note: At the end of the first line I suggest to complete the word as *hzw*.

Translation:

[…] *release the female substitute of the musician Sobek-nakhet's son Hotepi, brought concerning/on account of/for* [hzw ?]

[…] *Senwosret-ankh who ? the domestic servant of the palace to say: she has not been released*

[…] *to you before*.

These papyri attest that the action of *ỉwz* was in a close relationship with *hzw*. The first communication informs that the musician Hotepi did not perform his duty in person. A woman had been sent to replace him. I consider the second line – […] *k tzy.f ỉwzyt wnn nz pw ḏdy.f* "[…] you his female substitute"; this is what he needed to say" – as connected to the subject of the second communication, P. Berlin 10081A. The missing text before […] *k tzy.f ỉwzyt* (first communication) contained probably the order to release the woman, order that apparently was not executed as P. Berlin 10081A

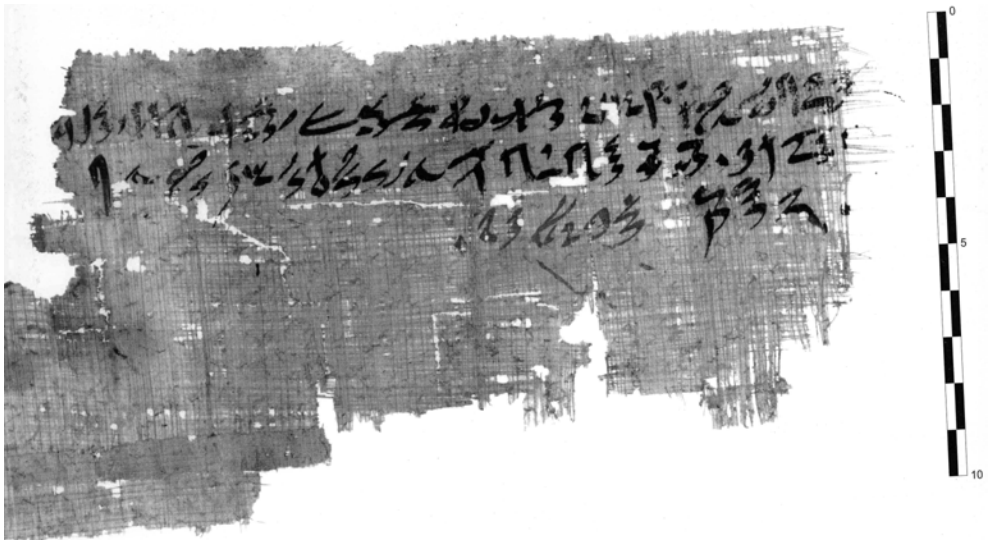


Fig. 18 - P. Berlin 10081A (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing).



Fig. 19 - P. Berlin 10081B (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing). At the top, the corresponding hieroglyphic writing of the term hzw.

confirms ("she has not been released"). Probably, the woman had completed the required task and should be set free from the bonds. The type of assignment is not specified and the context provides no clues. The reason for the replacement is the condition *nhw n hɜw*. Possibly the same word *hɜw* followed *ḥr* at the end of the first line in P. Berlin 10081A where only the initial letter *h* of a word is preserved. Therefore, the line could be reconstructed as "[…] release the female substitute of the musician Sobek-nakhet's son Hotepi, brought concerning/for *h*[*ɜw*]". Apparently, the context of Papyri Berlin 10081A and 10081B does not present links with the context of 10081C (2.3.1 E). However, it is evident that the relation with *hɜw* must have worked as a basic link for grouping the three documents together.

2.3.1 G - P. Berlin 10023 A-B (Luft 1992a) contains the same expression *nhw n hɜw* (Fig. 20). The papyrus includes two original letters glued together and written in vertical columns, common practice in the Lahun temple papyri until the second half of the reign of Amenemhat III (Horváth 2009a, note 126). In the first letter (A) the 'temple overseer' Senwosret writes a complaint to the 'temple scribe' Horemsaef. The 'temple doorkeeper' Imeny had been mistakenly summoned to replace his son, a 'temple worker'. The second letter (B) discloses that the offerings for a procession are delayed.

P. Berlin 10023A - Columns 1–3 (Luft 1992a, P 10023 A 1)

The father of the worker says:

ỉwɜ.kwỉ ḥr sɜ .ỉ kɜwty n ḥwt-nṯr

ỉm […] r ḏd ỉw.f m nhw n hɜw ḫrw.fy sw

mk pɜy.f sɜ km

Translation:

I was taken to replace my son, the temple worker there.

[…] *saying: he is in deficit of* hɜw. *This is what he said.*

Look, his son has completed (his assignment?)

In this papyrus and in P. Berlin 10081B the condition *nhw n hɜw* is the reason for a person to be engaged to replace a minor official. Due to the main meaning of the noun *nhw* as "loss" and "decrease" I would translate the expression as "deficit of state labour" in agreement with Quirke (1988, 89), contra Luft's translation "des Mangels an *hɜw* Leuten" which refers to the absence of *hɜw* workers (Luft 2006, 103). I also translate the last column as "his son has completed" assuming the implied following word "assignment" or "duty" as suggested by Quirke (1988, 89), in contrast with Luft's translation "der Sohn ist ernannt", "his son has been appointed" (Luft 1992a: P 10023 A 1, 2).

2.3.1 H - P. Berlin 10019 (Luft 1992a) (Fig. 21) is another communication about releasing a female 'substitute'. The text is written in two vertical columns. The central section of the second column shows major lacunae.

Column 1 (Luft 1992a, P 10019 1–2)

Transcription:

ḥɜty -ʿ mr ḥwt-nṯr [Nb]kɜw-rʿ ḏd n ỉmy-r pr n ḥtpw nṯr sbk-nḫt ḏd rd.t rḫ.k ḥr rd.t sfḫt(w) ỉwɜyt nt ỉbḥ snt sɜ sn-wsrt ?

Translation :

The mayor and overseer of the temple Nebkaura says to the overseer of the god's offerings Sobeknakhet: I speak informing you about have the substitute of the libationer Senet's son Senwosret ? been released

Note: After the name *sn-wsrt* at the end of column 1 I prefer to add a question mark, contra Luft's reading "mn(?)".

Column 2

Transcription:

r ḥsbt.f mk sw m tbtb dỉdỉ.k ỉnt(w) m ? ḫft? nty ʿɜ

Translation:

According to his calculation/registered labour duty? Look he is ? remunerated? You send the substitute? to ? is here

The reading and interpretation of this papyrus present some difficulties. The first column is the most clear: the 'mayor', sender of the letter, informs the 'overseer



Fig. 20 - P. Berlin 10023A (first three vertical columns, right side of the sheet) and B (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK).

of the god's offerings' about the freeing of the *ỉwʒyt* of the 'libationer' Senwosret. The verb used to release the *ỉwʒyt* is the same utilised in P. Berlin 10081A: *sfḫ*. Seemingly the female 'substitute' of the minor official has met her obligations and can be set free.

The second column is more problematic. The difficult hieratic word read by Luft *tbtb* (not translated by him) could be the reduplication of the verb *tby* "to remunerate". The noun *tbt* is used in UC 32201 *verso* concerning the delayed remuneration for workers *ḥsbw* (2.3.2 E). In P. Berlin 10019 it is not clear however who should be remunerated. Moreno García (2005, 115) refers to the expression *r ḥsbt.f* as "travail enregistré". I agree with this interpretation suggesting that the expression may refer to calculations of the work expected from the 'libationer'.

The following section of the communication relates to someone or something who/which needs to

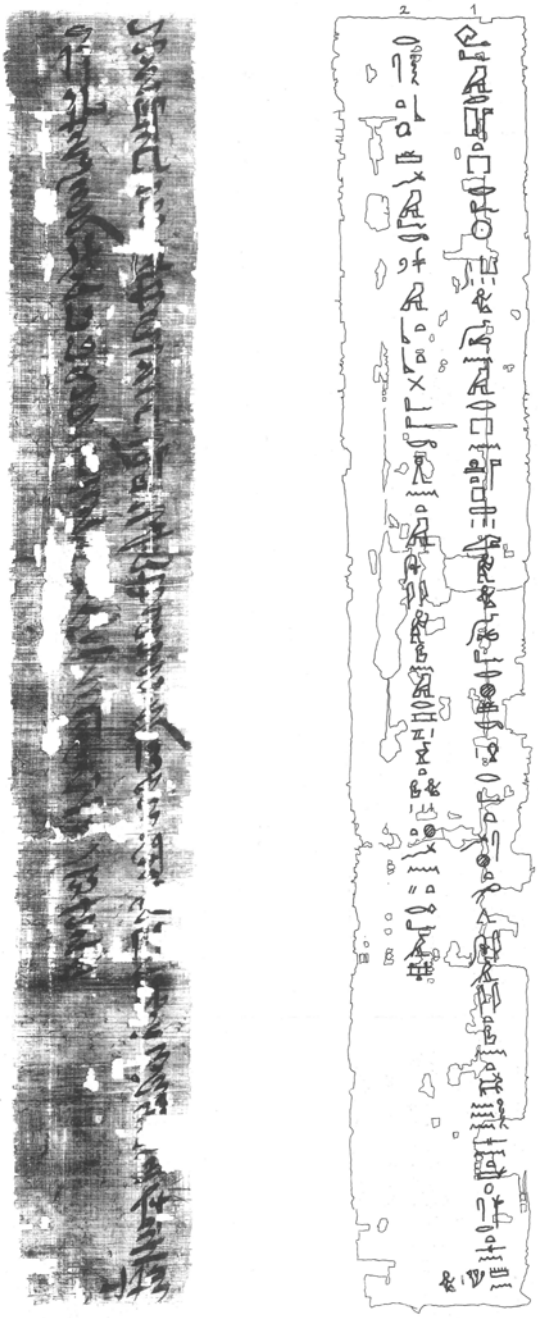


Fig. 21 - P. Berlin 10019 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Hieroglyphic transcription: courtesy of U. Luft).

be sent to an official. A lacuna after *dỉdỉ.k ỉnt(w)* prevents us from reading the next word (Fig. 21). Dévaud recognises only the determinative of the armed man, and Luft's tentative reading "*ỉwʒyt*" casts some doubts. The first visible sign of the word might be the lasso  (Gardiner sign list V 4), and the first sign of the following line a missing , which could be the first of the group that always follows the aleph

in *ỉwʒyt*. Next to it lies a preserved 𓀀 which might be the second 𓀀 of the group. In this instance, the aleph is absent and the armed man recognised by Luft may also be a different sign. In the other attestations of the noun *ỉwʒyt* the aleph is consistently present (see list above). The only exception is the dish from Elephantine (2.3.1 M). Also the reading of the title of the official, to whom someone/something is sent, presents some difficulties. Luft's reading as *ỉmy-r mrt* 'overseer of *mrt*'– an official who could be involved in textile production (below 2.3.1 J) – is not convincing. In the lack of better alternatives I prefer to replace Luft's reading with a question mark.

The same verb *sfḫ* is used in account UC 32132 to

	minor officials of temple	minor officials of civil administration
ỉwʒyt nt "female substitute of"	10019 10021 10023 10081A-B	10067

Table 8 - Categories of officials for whom female "substitutes" are attested.

	minor officials of temple	minor officials of civil administration
P. Berlin 10019	libationer	
P. Berlin 10021	embalmer	
P. Berlin 10023	temple worker	
P. Berlin 10067		*bodyguard of the district councillor*
P. Berlin 10081A-B	musician	

Table 9 - Titles of officials replaced by female "substitutes".

release a woman identified as "the daughter of" (Collier & Quirke 2006, 231). Due to the bad preservation of the papyrus, it is not possible to identify the context. However, the situation may be comparable with the freeing of the female 'substitutes' in Papyri Berlin 10081A and 10019. As shown in the above tables (8 and 9) female 'substitutes' replaced minor officials belonging to temple staff and to the civil administration.

If we compare the above tables with those with namelists for *hʒw* (Tabs. 6 and 7) we can recognise a pattern. The *ỉwʒyt nt X* "female substitute of X" might be compared with the *s n X* "man of X" registered for *hʒw*. In both cases 'X' denotes a minor official from the same sectors of the administration. We can also note that the religious sector is dominant and that the *ỉwʒyt nt X* and the *s n X* share one office of the civil administration: the 'bodyguard of the district councillor' (written in *italics* in tables 7 and 9). I stressed that men of minor officials listed for *hʒw* may have been dependants sent by their masters in their place to fulfil compulsory activities. Text interpretation seems to indicate that the *ỉwʒyt* held a similar 'role' as replacements of the same class of titleholders. This raises the questions of whether semantically *s n X* might be the masculine equivalent of *ỉwʒyt*, and in turn why the male replacement *s n X* is not identified using the singular masculine form of the noun derived from the root *ỉwʒ*.

The philological study seems to suggest that men were preferably replaced by women (Di Teodoro 2014, 69). Twelve out of fifteen attestations of 'substitutes' refer to women. Among the twelve attestations, ten present the sure reading *ỉwʒyt.* In the other two cases, UC 32119A (p. 30, Fig. 17) and UC 32132 (above) – where the reading is uncertain due to the fragmentary nature of the papyrus – the identification of the 'substitute' as a woman is suggested by the context. However, a gender restriction of 'substitutes' *ỉwʒw* is excluded for two reasons. Firstly, because in P. Berlin 10021 (2.3.1 J) the plural form of the noun presents the determinative of the class of 'people' with both genders. In addition, in P. Berlin 10023A (2.3.1 G) the 'doorkeeper of the temple' Imeny complains to the 'mayor' for having been taken to replace his son. In this case the father who has been summoned to replace his son is not labelled as 'substitute', but the verb *ỉwʒ* is used to mark the action. In two documents, P. Berlin 10098 and UC 32118E (p. 27) the reading is uncertain and the context does not provide useful clues to identify the gender of the 'substitute'. The documents with attestations of 'substitutes' *ỉwʒw* are all communications between officials about specific matters concerning the temple's economic affairs. In the Lahun Papyri, the *ỉwʒw* do not appear in the namelists of people for *hʒw* nor in different namelists.

The only source where the label *ỉwʒyt* appears in a list comes from a different site: Elephantine. It is a dish recording provisions for adult women and children (mainly girls) likely employed in a textile workshop (2.3.1 M). Therefore, this is a list of different type as it records people present at a workplace where they are assigned to a specific activity.

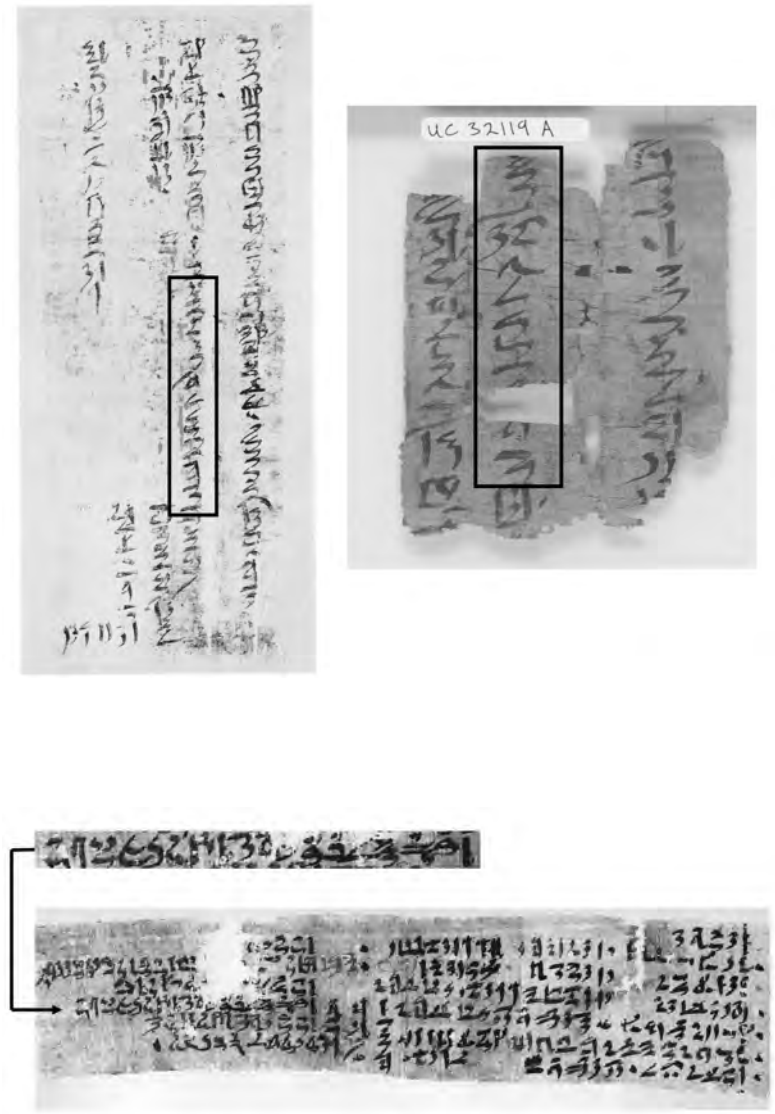


Fig. 22 - Lahun documents with negative sentences with gm *"to find" and request to bring 'substitutes'. Top left P. Cairo Jd'E 71582 (after Kaplony-Heckel 1971); top right UC 32119A (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL); bottom P. Berlin 10021 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing).*

Some sources seem to suggest that the 'substitute' was a family member of the 'regular' worker. For example, in the aforementioned P. Berlin 10023A, the 'substitute' is the worker's father. Another example may come from letter UC 32119A (above). This is a communication to the 'overseer of the district' Sepedher[khenet] about a case of replacement, probably involving a woman who is recorded as *ḥmt.f* "his wife". Additional evidence is provided by UC 32132 (above) which records the freeing of a "daughter".

An earlier parallel may be provided by the Old Kingdom Gebelein Papyri IV and V, where male workers in charge of deliveries of goods were preferably replaced by female family members (wives and daughters) (2.1). However, these texts do not provide any information about the reason for the replacement. Additionally, in the Gebelein Papyri the substitutions are not associated to a specific obligation to be performed, and the substitutes are not identified by a technical word.

The recruitment of a 'substitute' could be the result (or consequence) of a specific condition: someone is not found (Egyptian verb *gm* "to find"). In UC 32119A (Fig. 17) and P. Berlin 10082 (unpublished, brief summary of content in Kaplony-Heckel 1971, 37 no. 65) I recognise the same expression: *ỉr tm(.n?).f gm*. The comparison with P. Berlin 10082 confirms the reading of the expression in UC 32119A, in contrast with the reading *ḏd.n.f gm* by Collier and Quirke (2002, 43). I read the entire line of UC 32119A as "[*ỉr*] *tm(.n?).f gm ỉw rdỉ.n.k ỉnt ỉwʒyt* [*.f* ?]". In P. Berlin 10082 the only preserved part is the beginning "*ỉr tm(.n?).f gm ỉw*". However, I would reconstruct the entire sentence as it appears in UC 32119A, because the next line starts with "*ỉwʒyt nt*" "the female substitute of", which is surely linked to the matter introduced in the previous section of the document. The translation of this sentence might be "if it is not possible to find him, then come? bringing his female 'substitute' (cause his female 'substitute' to be brought)". A very similar expression is attested in P. Cairo Jd'E 71582 *recto* (Dévaud 10020: Luft 2002, 743–52) "*nn gm.tw.f ỉw rdi.n.k ỉnt*" in reference to individuals labelled *s n ḫr.f* "man of his household" and *st nt ḫr.f* "woman of his household". I agree with Moreno García (2012, 4) who suggests that the subject of the communication is a labour demand involving two *šm ʿw*, 'musicians'. The presence of the negative expression marked by *gm* could suggest that those household members were *ỉwʒw* who needed to replace their masters (who are not avail-

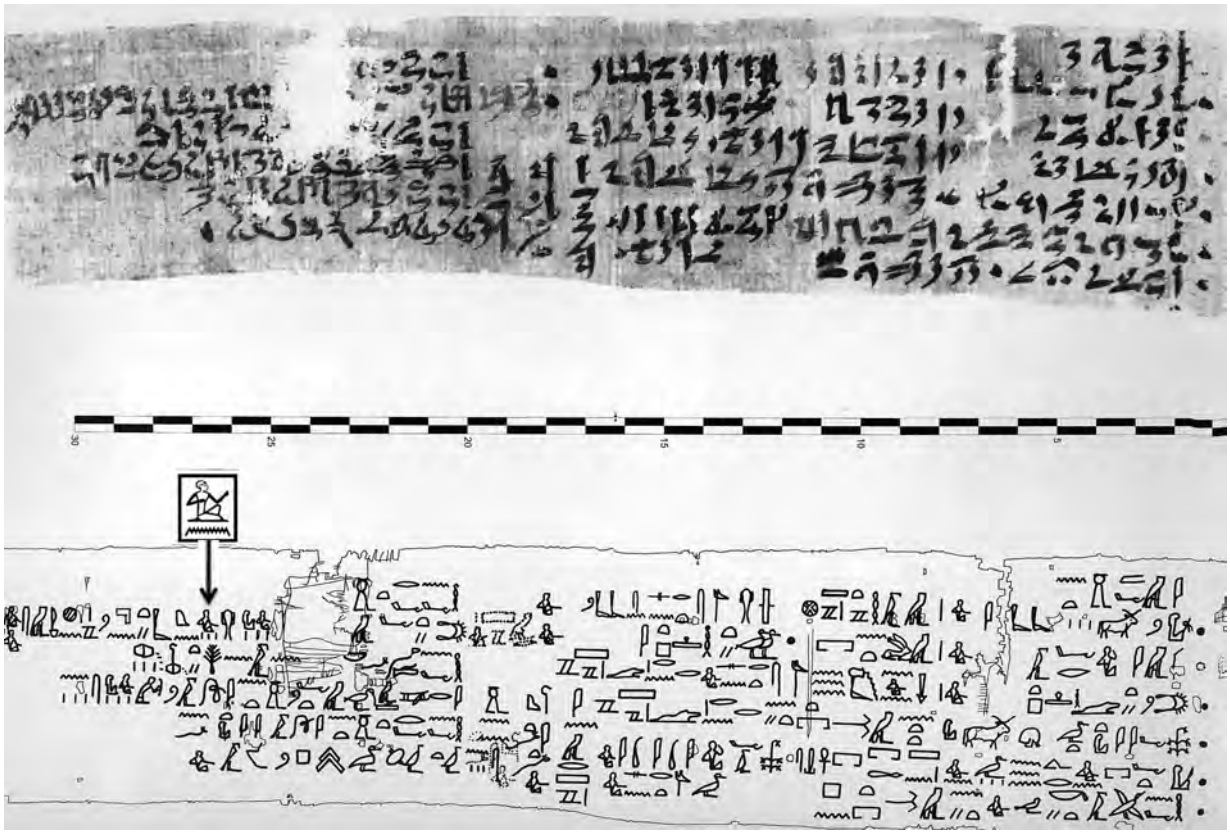


Fig. 23 - P. Berlin 10021 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing. Hieroglyphic transcription: courtesy of U. Luft). Alternative reading by Dévaud added inside the black frame.

able). This raises the question of why they are not identified using the nouns deriving from the root *ỉwȝ,* as I observed for the expression *s n X* "man of X" of P. Berlin 10104. Another question is: are the expressions "man of X" and "man of the household of X" identical? Another comparable expression is recorded in P. Berlin 10021 (2.3.1 J), *ỉr tm.t(w) gm*, "if they cannot be found", followed by the result *dỉ.tw ỉny.t ỉwȝw. sn* "then bring their substitutes" (Fig. 22). P. Berlin 10032 (unpublished, brief summary of the content in Kaplony-Heckel 1971, 14–15, n. 23, and Scharff 1924, 41) records the same sentence *ỉr tm.t(w) gm* followed by the specification "those whom I have sent". Although in this case 'substitutes' are not mentioned, the content may suggest that this communication also was related to *ḥȝw* and instances of replacement.

2.3.1 I - P. Berlin 10067 (unpublished, brief summary of the content in Kaplony-Heckel 1971, 31 no. 52, Quirke 1988, 89, and Scharff 1924, 44) attests to a specific case. The communication relates to people linked to the 'provisioning area of the god's offerings'. Probably among them there are two 'assistants' of the temple of Anubis, and a gardener. The individuals belong to categories who could be listed for *ḥȝw* (minor officialdom and modest professions). A major lacuna in the central body of the sheet prevents confirmation of the connection of these people with the *ỉwȝyt nt ỉmy sȝ n knbty n w*, the female 'substitute' of the 'bodyguard of the district councillor' who is mentioned in the second part of the communication. As regards the *ỉwȝyt*, the expression "*bw nb bỉn*" "all manner of evil" seems to allude to a fault committed by the woman. The consequence of this 'bad behaviour' fell on her mother as the sender's order is to cause her mother to be consigned to the *ḫnrt.* The *ḫnrt* was the physical entity and operating arm of the institution *ḫnrt wr,* which was involved in the management of labour and concerned with defaulters (below 2.4.1).

The woman must be "brought" (verb *ỉn*) to be given (verb *rdỉ*) to the *ḫnrt. ỉn* "to bring" seems to refer to a movement towards the place where the sender or the recipient of the communication is. The mother of the 'substitute' thus seems to be brought (to the place

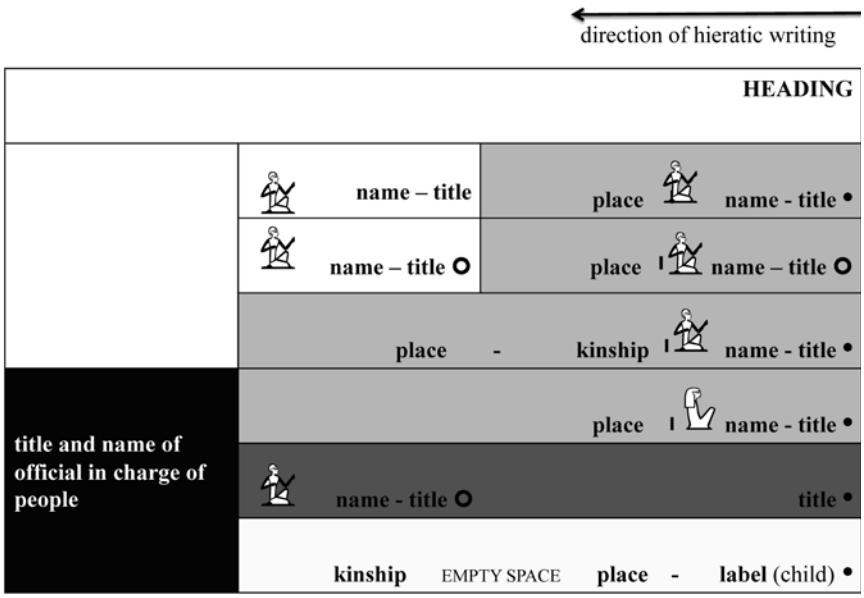


Table 10 - Sketch of the structure of P. Berlin 10021.

of the sender/recipient of letter) and then redirected to the *ḫnrt*. In this case the verb *rdi* probably entailed not only a movement, but also a change of responsibility allowing for the translation "to consign". Also in a rock inscription from Lower Nubia – area of the Kumma Fort – dated to year 9 under Amenemhat III, the action of bringing people to the *ḫnrt* is marked by the verb *rdi* (Dunham & Janssen 1960, 164, RIK 116, plate 102; Yvanez 2010, 29, SNM 34317). The use of this verb may have implied a change with regard to individuals, consisting in the acquisition of a negative sense and a condition of dependency or subjugation to someone else. Compared with the verb *ini,* it may have included a 'binding' meaning. In conclusion, I would see the person "given" to the *ḫnrt* as passed under the authority of the institution. Probably the 'substitute' of P. Berlin 10067 never started or never completed the assigned task.

2.3.1 J - Also P. Berlin 10021 contains a connection of *iwʒw* with *ḫnrt* (Scharff 1924: Anhang, 9; Luft 2006, 43–8, 140) (Fig. 23). The papyrus comprises a communication separated in two blocks. The first – written on horizontal lines from right to left on the right side of the sheet – is structured as summarised in table 10. A namelist of people is introduced by a heading which informs that these individuals are *int* "brought" to a unrevealed destination point. The authority is not specified. The order followed by the scribe in the arrangement of text is unclear. Lines 2–5 show a specific pattern (light grey in the table): the mark for attendance (black mark: • in the table) and for absence (red mark: O in the table) is followed by title and name of the person plus checkmark (seated man or seated woman) – line 4 presents kinship after them – and place where they can be found:

Lines 2-5 (Luft 2006, 44–5; line 5 follows Quirke 1988, 88)

Transcription:

mnỉw ỉḥw bbỉ m ʒḥt š

ʿʒm ỉʿrw m wnt

ỉḥwty sbk-ḥtp sn n wʿb sn-wsrt r r n š sbk

šmʿyt sʒt-tp-ỉhw ntt m ḫnrt nty r r n š sbk

Translation:

the herdsman Bebi from the fields of the Lake

the 'Asiatic' Iaru who is in ?

the farmer Sobekhotep brother of the wab priest Senwosret which is at the mouth of Sobek lake

the female musician Sat-tepihw who is inside/from the ḫnrt *which is at the mouth of Sobek lake*

note: At the end of line 3 I prefer to replace Luft's translation of *wnt* as "Camp" with a question mark.

Then line 6 (dark grey in the table) records two offices: 'keeper of the chamber of the poultry of the garden of the royal palace' and 'musician'. Only the se-

cond is provided by a name, Ititi. The presence of one name only might suggest that the titles referred to the same person. However, the presence of two marks for attendance seem to identify two different individuals: the first is present (black mark) while the second absent (red mark). The place of provenance is not added and there is no checkmark for the first person. Then line 7 (white in the table) records a boy "who is inside/from this *ḫnrt*", the same place of provenance of the female musician of line 5. The kinship "son of Senwosret" written on the same line after an empty space might refer to the child. The child too lacks a checkmark.

The label 'Sobek lake' denoted the Faiyum region which was divided in narrower districts, presumably four. The Lahun Papyri attest to northern, southern and eastern Sobek lakes. The term "lake" surely refers to the Lake Moeris, landmark of the area. The reference to Sobek can be easily explained as the link of the god with the Faiyum (Zecchi 1999). The meaning of the word *wnt,* place where the 'Asiatic' Iaru (line 3) can be found, is uncertain. Fischer (1959, 261–4) recorded nine attestations of the term – including P. Berlin 10021 (source *h*, p. 264) – which he

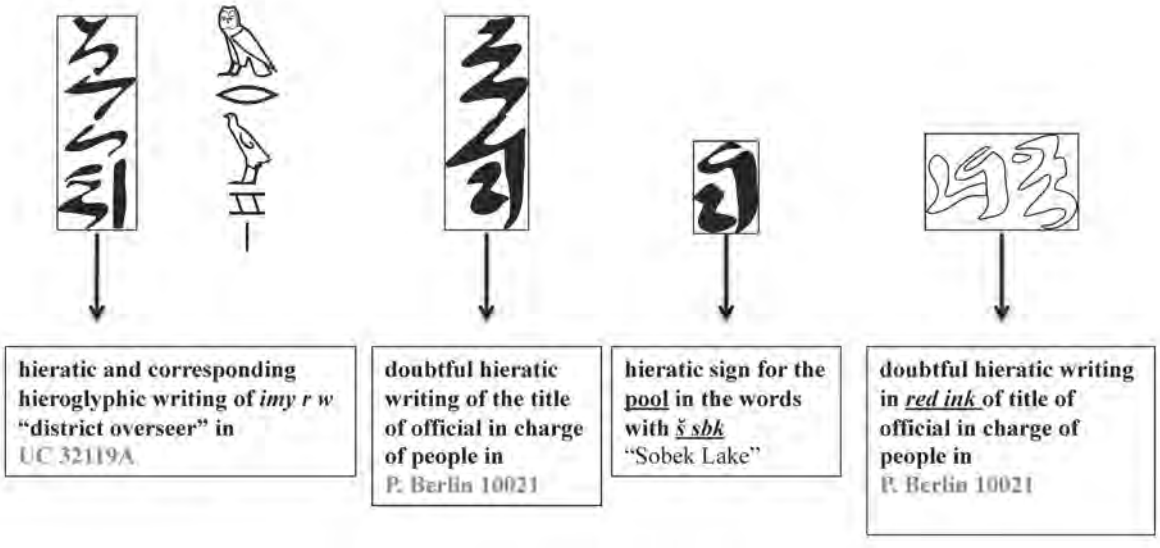


Fig. 24 - Hieratic writing of titles in UC 32119A and P. Berlin 10021 (facsimiles © C. Langer).

associated with the foreign place *Wnt* attested in Old Kingdom sources. In these sources the word presents the determinative of 'foreign Land' 𓎛. In the tomb of Uni (Sixth dyn.) the word is written with the plural determinative of fortified settlement 𓉐, and seemingly refers to walled settlements belonging to *ꜣmw ḫryw-šꜥ* "semi-nomadic Asiatics" (Urk. I, p.103, 12). The reference to a plurality of settlements is also suggested by the writing of the term in the contemporary tomb of Mereri. There, however, the plural determinative for general building 𓉔 replaces the fortified structure. Based on the available evidence, Fischer proposed that from the Sixth Dynasty onwards *wnt* – previously designating a foreign place – started being used in an "extended sense, to refer to the type of walled camps or settlements which were constructed by the semi-nomadic Asiatics" (Fischer 1959, 264). Thus, he considered the Middle Kingdom *wnt* of P. Berlin 10021 a settlement for Asiatics, followed in his argumentation by Luft (1993, 296; 2006, 46). However Fischer did not consider the attestation of the term in P.Westcar (7.7.9,2: Blackman 1988; Erman 1890). This is the only source where *wnt* is written in the same way as in P. Berlin 10021, namely without the determinative of foreign land and a single 𓎛. In this regard we need to take into account that the copy of the papyrus (P. Berlin 3033) we possess dates back to the Sixteenth Dynasty (Second Intermediate Period). In P.Westcar the word *wnt* is directly linked to the god Thoth: *ỉpt nt wnt nt Ḏḥwtỉ* "the chamber of the *wnt* of Thot". On the basis of the context, a plausible translation is "sanctuary" (Erman 1890, 42–3). This is also the translation chosen by Quirke for the *wnt* of P. Berlin 10021 (Quirke 1988).

Then another two individuals, a 'bodyguard' (contra Luft's translation "Phylenmitglied", "member of a *phyle*": Luft 2006, 45) and a fuller, are added in two lines – 8 and 9 – which are the prosecutions of lines

2 and 3 (white in the table). These people are identified only by title and name, and only the second has the attendance mark, which is red, hence marking his absence. The structure and attendance marks suggest that the content of the document referred to a demand for people for labour. The role of the 'bodyguard Senwosret's son Bebi', the only one not provided with an attendance mark, is not clear. He might have been a security official appointed to escort and control the workers.

Title and name of the official who needs to bring this group of people are written at the left side of the document on three vertical lines (black square in the table). The reading of this title is debated. Luft (2006, 44–5) reads it *ỉmy-r š* "der Vorsteher des Seelands" 'overseer of the lake lands', Quirke *ỉmy-r mrt* 'overseer of *mrt* workers', and Berlev *ỉmy-r w* 'district overseer' (Quirke 1988, 87). The difficulty lies in the interpretation of the hieratic sign  which can correspond to the writing of *mrt*  (signs N 36 and N23 of Gardiner) and *š*  (signs N 37 and N 23 of Gardiner). If compared with the writing of the title *ỉmy-r w* in UC 32119A, Berlev's reading would seem justified. As shown in the image (Fig. 24), in P. Berlin 10021 the head of the long vertical sign of the title (second from left in the image) is more pointed than the one in the writing of the pool in the words relating to *š sbk.* The less rounded head of the former can be compared with the hieratic writing of phoneme *w* in the title *ỉmy-r w* in UC 32119A (Fig. 24). If we join together the *w* with the vertical bar of the determinative, the writing will be similar to the title of P. Berlin 10021. However, the same title repeated in red ink in the communication on the left side of the papyrus is clearly written with the rounded head (first from right in the image). Therefore, I would exclude Berlev's reading as *ỉmy-r w*. On the basis of the presence of references to 'Sobek lake', Luft's reading "overseer of the lake lands" seems plausible.

As regards Quirke's reading as *ỉmy-r mrt*, the collective noun *mrt* – attested from the Old Kingdom onwards – can be written in two main different ways:  and  . Some scholars such as Berlev (1978), Eyre (1999) and Moreno García (1998b), tend to consider these as different writings of the same word. Moreno García (1998b, 75–6, 79, 80–3) has called attention to the temporary aspect of the *mrt* status, suggesting the translation "travailleurs corvéable" (Moreno García 2005, 115), and Eyre defines them as "dependant agricultural workers attached to an estate or endowment" (Eyre 1999, 41). Berlev has argued that in the Middle Kingdom *mrt* was the social collective term comprising 'Asiatics' and *ḥm(w)-nsw* 'king's slaves' (2.1) employed on private estates of institutions and officials (Berlev 1972, 7–27; 1987, 155–6; Roccati 1974). Berlev (1972) defines these groups of people as *trudovoe naselenie* "working population". He infers that the 'Asiatics' shared the status and rights of the native *ḥm(w)-nsw* (Roccati 1974). *Mrt* were engaged in menial tasks in fields and less prestigious occupations, such as gardener, fuller, brewer, weaver, baker, and cook (Berlev 1972, 108). Craftsmen engaged in wood, metal, clay and stone work were not included among *mrt.* The words *ḥm(w) nsw* and *mrt* can be used to define these categories of people socially or professionally. Thus, sometimes *mrt* can be used with the broad occupational meaning "estate workers", and sometimes with the technical meaning "weavers", "weaving being the most densely concentrated or 'industrial' of the trades" (Berlev cited by Quirke 1991a, 145, note 14). Quirke (1997, 29), in agreement with Berlev's assumption, prefers the translation "estate workers".

A different opinion comes from Allam (2010) who recognises two different words. According to him, the first word written with the sickle blade has to be read *meryt* and refers to agricultural workers. He notes that in the written records this term appears constantly associated with the words 'fields' and 'cattle' (Allam 2010, 58). The second word written with the channel for the phoneme *mr*[1] should instead be read *meret* and refers to weavers. Allam reports many examples from the Old to the New Kingdom where the word *mrt* and the title *imy-r mrt*, 'overseer of *mrt*' written with the hieroglyph of the channel are closely associated with textile production. This link is clear also in some tomb paintings where the 'overseer of *mrt*' supervises weavers (*e.g.* tomb of Khnum-hotep II at Beni Hasan: Newberry 1893, pl.29; tomb of Nefer-renpet: Hofmann 1995, pl. 40; tomb of Paheri at El-Kab: Tylor & Griffith 1895, pl.4). A strong association with weaving is present also in P. Berlin 10030 A (2.3.1 N) where to the title 'overseer of *mrt*' – written – is added "for fine linen" and a female 'substitute' involved in textile production is sent to him. The same association appears in P. Cairo Jd'E 71583.

The same writing is used in the title 'overse-

[1] Gardiner (1994, sign N 36) stresses that this sign in the collective word *mrt* "weavers" was probably interpreted as ideogram for a rake of loom.

er of *mrt*' for two individuals on stela CG 20431 (Lange & Schäfer 1902, 28–9). The presence of a 'keeper of clothing' as recipient of the offering might support the connection between the 'overseer' of  and textile production. However, other offices recorded on the stela may suggest a different connection. The second recipient of the offering is a 'store overseer', the senior official of the *pr šnꜥ* 'provisioning area' for food and drink preparation. Among the dedicators, one individual held the title 'keeper of a chamber', the official involved in supervision of the chambers, the units of the *pr šnꜥ*. Every chamber was assigned to the preparation of a specific commodity. All the mentioned titleholders are brothers of the recipients of the offering, which makes the connection among the offices stronger. As P. Berlin 10048 attests, the *mrt* people gathered to work inside the *pr šnꜥ* comprised cooks and brewers (Moreno García 2005, 115; Quirke 1997, 29). This document records 13 men and 12 women employed inside the 'provisioning area of the god's offerings'. Some women are identified by their name only, others by the label *ḥmt* 'servant'. The men instead are identified by their professions as cooks, brewers and their assistants. These *mrt* people might have been the property of the temple, so juridically attached to the institution 'temple'. Based on Allam's assumption, this group of people should be agricultural workers, as the word for *mrt* in this case is written with the sickle blade. The only title on stela CG 20431 linked with fields or farming is 'estate overseer'. Although Allam has reported many examples supporting his identification of two different words for *mrt,* I believe Berlev's hypothesis (broad meaning "estate workers" and specific "weavers") to be more plausible. The *ỉmy-r mrt* on stela CG 20431 could have been an official in charge of estate workers employed as weavers or inside the food production area.

Coming back to the title of the person in charge of labourers in P. Berlin 10021, besides Luft's reading 'overseer of the lake lands', Quirke's translation "overseer of *mrt* workers" intended as "overseer of estate workers" may fit the scenario also, due to the plausible association between the namelist of the papyrus and a labour demand (below).The second part of the communication which covers the left side of the papyrus relates to other people to be brought to another, or perhaps the same, destination (Fig. 23). The central part of the second and third lines is missing.

Lines 1–6 (1, 3–6: Luft 2006, 44–5)

Transcription:

ḥnꜥ rdỉt ỉn[nt]
ꜥfty ḫr? ỉmy?-sȝ n ḳnbty n w ḫnms
ḥnꜥ ḏd.f [...] *nȝ n bty ḥḳȝt*
ỉr tm gm dỉ.tw ỉnt ỉwȝw.sn
ḥnꜥ rdỉt ỉnt(w) ỉwȝyt nt
wtw sȝ ḥpw mȝ

note 1: At line 5 after *iwȝyt* I read *nt* following Dévaud and Quirke (1988, 88) contra Luft's reading *n.f*.

Translation:

then to be brought
the brewer […] of the household? of the bodyguard? of the district councillor
and he says […] the emmer
if they cannot be found, have their substitutes brought
and have the female substitute of
the embalmer Sahepuma brought

At the beginning of the second horizontal line I read *ꜥfty* "brewer", in contrast with Luft's *iḥwty* "farmer". After brewer I agree with Dévaud's and Luft's readings of a plural determinative of the class of people . I suggest that it might have been the end of the collective *ḫr* "household". After this sign Dévaud reads *sȝ*  followed by a seated man on the preposition *n* . Conversely, Luft reads a seated man with plural strokes. I would agree with Dévaud. Additionally, between the plural determinative of the class of people and *sȝ* there may be a vertical bar which could be interpreted as *ỉmy* completing the title *ỉmy sȝ n ḳnbty n w* 'the bodyguard of the district councillor', even if the hieratic sign for *ỉmy* usually presents two vertical bars (Möller 1909, 564). The emmer mentioned in line 3 might be provisions for the workers or refer to the task they needed to perform.

On the basis of the attestation of the practice of finding 'substitutes' *ỉwȝw* in the case of absence/unavailability of workers, I propose to identify the subject of the communication as a mustering of people for *hȝw*. The lists include minor officials from the religious and civil sectors of the administration, one 'Asiatic', and people identified by modest professions (fuller,

herdsman, brewer) which correspond to the categories of individuals registered for *ḥȝw* in P. Berlin 10104 (2.3.1 A). Exceptions are the woman and the boy moved from the *ḫnrt*. The farmer Sobekhotep of line 4 (first part of the communication) is perhaps sent to work at the place of his brother who held the office 'wab priest'. Consequently, he may be considered a *man of X*. Possibly he is not identified with such a label due to his kinship with the person replaced.

The basic difference between the lists of P. Berlin 10021 and 10104 (2.3.1 A) is that only in the former are there attendance marks. This is decisive to identify the list of P. Berlin 10021 as the updated namelist of the 'actual' workers who are going to perform the task. It is not clear whether the sentence *ỉr tm gm dỉ.tw ỉnt ỉwȝw.sn* "if they cannot be found, have their substitutes brought" of line 4 in the second part of the communication refers only to those mentioned in the two preceding lines (provided that the individuals to be brought are more than one), or to both namelists, including those of the first part of the communication. If the sentence refers to the entire namelist, we may conclude that in addition to *ỉwȝw* of minor officials, there could be *ỉwȝw* of other categories of people, such as men identified by profession.

*

People for *ḥȝw* and *ỉwȝw* are consistently associated with the toponym Sekhem-senwosret. This connection is revealed for *ḥȝw* by Papyri Berlin 10104 (2.3.1 A) and 10081C (2.3.1 E). In the first case the word *rmṯ* "people" and the toponym *sḫm-snwsrt* are juxtaposed expressing a direct genitive where the possessor noun follows the possessed. Both documents seem to attest to a movement outwards.

As regards *ỉwȝw*, in P. Berlin 10016 (2.3.1 K) and P. Berlin 10030A (2.3.1 N) the toponym is the place of provenance of a woman 'substitute'. In both documents the toponym is preceded by the preposition *m*. In other papyri, the association is indirect. For instance, in P. Berlin 10019 (2.3.1 H) the presence of the 'overseer of the god's offerings' as addressee of the letter suggests that the *ỉwȝyt*, who should be set free, was at Sekhem-senwosret where the 'provisioning area of the god's offerings' was located (2.2.1). The same provisioning sector is attested in P. Berlin 10067 (2.3.1 I) as a place to which the female 'substitute' was possibly linked. This particular, together with references to the temple of Anubis, set the event at Sekhem-senwosret (2.2.1). The same 'overseer of the god's offerings' Sobek-nakhet is the sender of communications about 'substitutes' also in Papyri Berlin 10016 (2.3.1 K) and 10043 (2.3.1 L). The woman released in UC 32132 also (above), probably a female 'substitute', is at Sekhem-senwosret.

ḥȝw AND *ỉwȝw*: ACTIVITIES AND TEMPORALITY OF LABOUR

During the time covered by the Lahun Papyri, the heliacal rising of Sirius was foreseen on day 17, Peret, month 3, which should correspond to 16 or 17 July (2.2.3). Therefore, the first season (inundation) spanned roughly mid-July to mid-November, with a peak of high water around mid-September. Thus, the water should have started receding roughly in October. None of the undated papyri gives clear information about the type of activities *ḥȝw* workers were due to perform. An employment in fields might be suggested by the reference to emmer in P. Berlin 10021 (2.3.1 J).

Among the dated papyri (Plate I, Appendix), some clues come from P. Berlin 10104 (2.3.1 A) and UC 32198 (2.3.1 C) (Di Teodoro 2014, 69, 72). The date to late March-first half of April of the first document may merge with the allusion to the "fields of Hetep-Her" at line 2, suggesting an employment in harvest tasks. The association with fields might be suggested also by the presence of an *ỉḫwty* as deliverer of the communication recorded in UC 32198 (2.3.1 C). The role of the *ỉḫwty* ranges from "agricultural contractor" during the Old Kingdom (Moreno García 2006), to officials-farmers responsible for plots of land and field-labourers in the New Kingdom (*e.g.* Katary 2013, 748). At the end of the communication in UC 32198, the sender Iimiatib informs that he will come for *ḥȝw* the following month. This date falls in January, sowing time, supporting a potential employment in the fields. In line with my preliminary results (Di Teodoro 2014), people were mustered for *ḥȝw* in particular from January to mid-April, times of high demand for hands in the fields (Fig. 26). Furthermore, P. Berlin 10033 which associates the store *pḫr* to *ḥȝw* (above) is datable to the beginning of February, sowing time. Considering that the harvest of some cereals could start at the end of Peret (Bowman-Rogan 1999; Felber 1997, 281–9; Krauss 1993, 27–34; 2006;

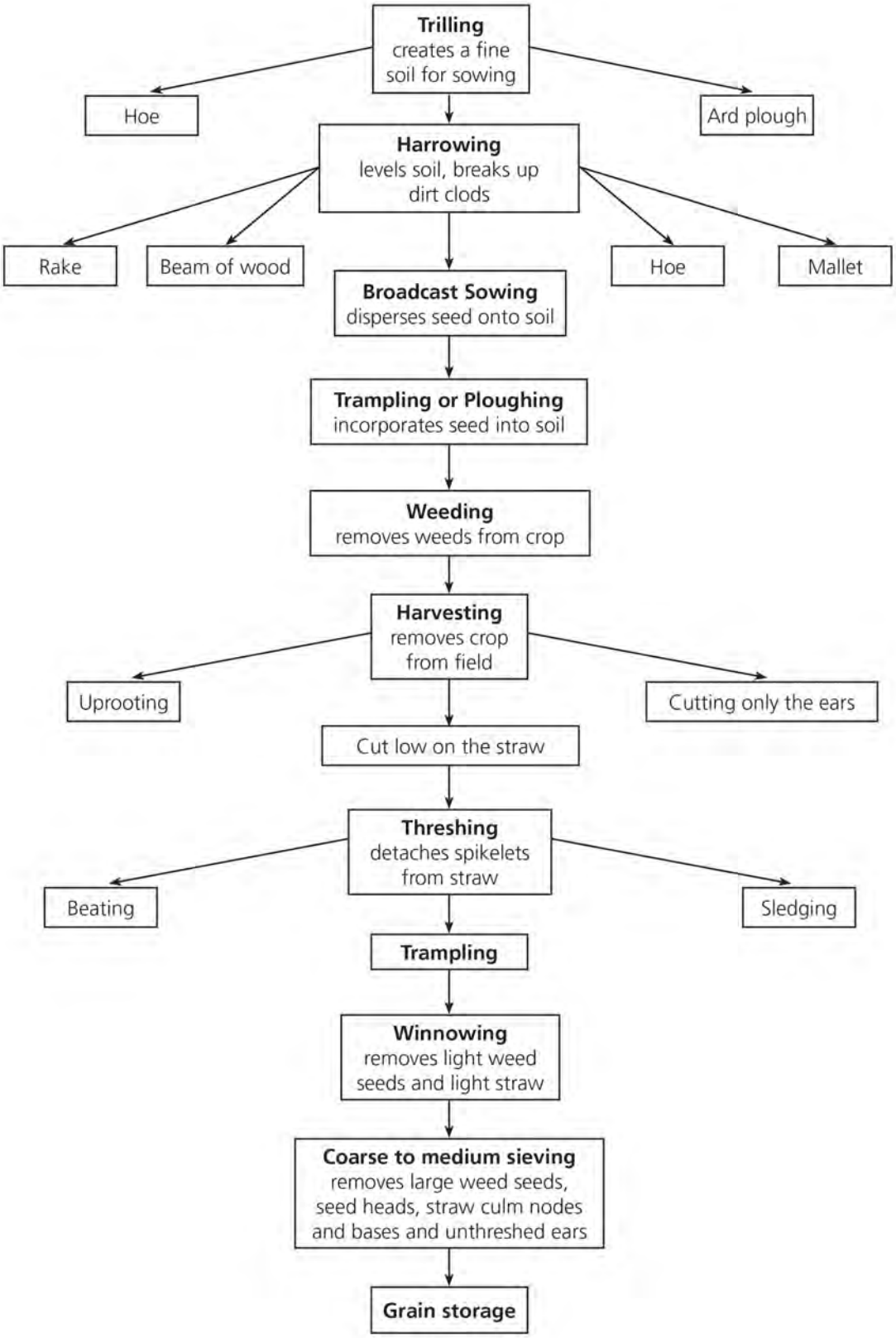


Fig. 25 - Cereal production: processing stages (Drawing by the author. From Murray 2010, 506).

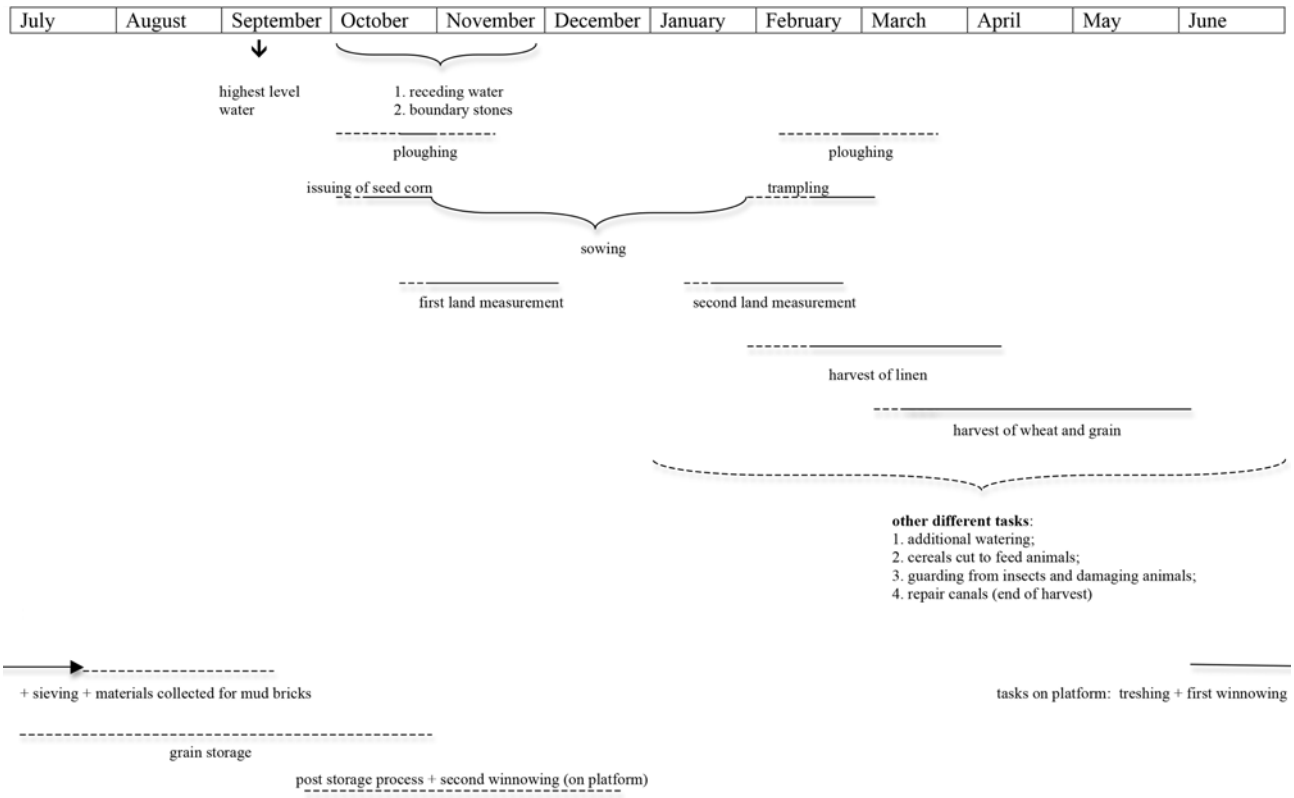


Fig. 26 - Activities performed in the fields by the Egyptian peasant over the year (Drawing by the author).

Murray 2000) so during February, *ḥȝw* could involve several tasks which were carried out before the harvest, such as sowing, trampling, a possible second ploughing of the ground, and the second land measurement (Murray 2000, 520; Smither 1941) (Figs. 25 and 26). An employment as "temporary harvesters" is not excluded as grain and flax (linen) could be harvested as soon as February-March (Di Teodoro 2014, 72).

P. Berlin 10033 and P. Berlin 10081C (2.3.1 E) suggest that the activities assigned to those registered for *ḥȝw* were temporary, possibly 1 month long. Since two *ḥȝw* workers of P. Berlin 10081C needed to be sent to the temple for their monthly duty, it is reasonable to suppose that they were employed in tasks on the temple domain. The document is datable to the end of February, which coincided with the end of the sowing and the beginning of the harvest of some plants (Fig. 26).

In addition to work in fields, an engagement in other tasks related to temple events is also possible. The only document that does not date to sowing and harvest times is P. Berlin 10023A-B (2.3.1 G), which is datable to August. As discussed above, the first communication (A) focuses on a case of replacement while the second (B) informs that offerings that had been sent in occasion of a procession had not yet been received. The parallel with P. Berlin 10016 (2.3.1 K below) might suggest that the two texts (A and B) were related to each other (Di Teodoro 2014, 75). Therefore, P. Berlin 10023A might also refer to the same event, seemingly a religious festival. Associations with religious events are suggested also by the following texts.

2.3.1 K - First of all, P. Berlin 10016 (Luft 2006). The text, disposed in vertical columns, comprises a communication written in black ink addressed to the 'mayor' Senwosret, and its answer written in red ink (Fig. 27). The first is a letter of complaint whose subject recalls P. Berlin 10023B: delays in sending offerings and workers to the temple on occasion of a religious event to take place four days later. The event is the *wagi*-feast and the delays also involve female 'substitutes' (mentioned in the answer):

Columns 4red–5red (Luft 2006, 30–1)

Transcription:

ỉw rdỉ.n.k int ỉwȝyt n šspt mk nḥm gs ỉry

m [Sḫm]snwsrt mȝʿ-ḫrw

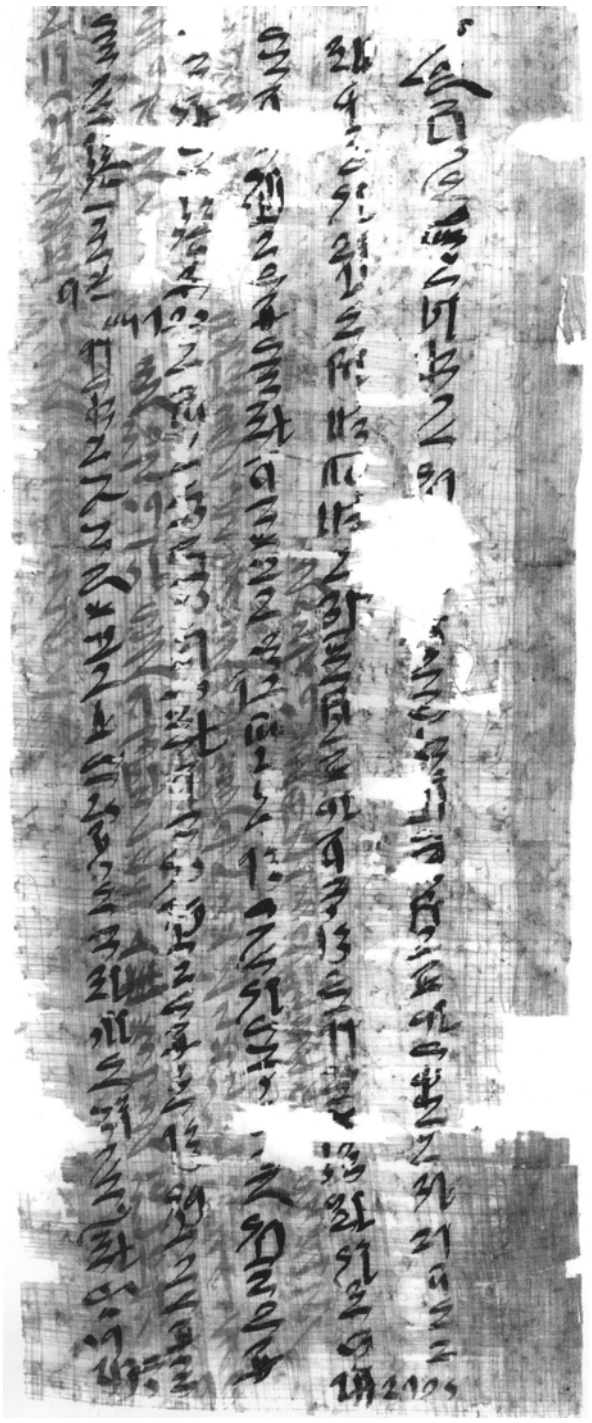


Fig. 27 - P. Berlin 10016 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing). Due to the black and white photograph, the columns in red ink of the original are light grey.

Translation:

the female substitutes that you sent have not been received. So then, take half of them

from Sekhem-senwosret true-of-voice.

The solution for the delay of the *ỉwʒyt* is to take half of them from Sekhem-senwosret. The verb *nḥm* "take" ends with the determinative of the armed arm which could suggest an action of force used against the women. They seem to have had no choice, which supports the idea that they were compelled to accomplish duties.

The author of the answer is the 'overseer of the god's offerings' Sobek-nakht. This information and the association with the festival may suggest that the 'substitutes' were employed in activities closely related with the event. The Lahun archive attests to two *wagi*-feasts, one fixed within the civil calendar and occurring the first month of the year (first month of Akhet) day 18, and another moveable one. The *wagi* of P. Berlin 10016 should refer to the moveable feast, as it happened in the second month of Shemw day 17 (Luft 1994, 39). On the basis of utterance 442 from Merenra Pyramid Texts and the reference to the festival in association with the performance 'first divine offerings of wine' in P. Berlin 10007 *recto*, Belmonte suggests that the moveable *wagi*-feast was associated with wine. Considering the dates for grape harvest in Egypt to be from mid-July to mid-September, he infers that a festival to celebrate vintage likely occurred "at any point within that period of time" (Belmonte 2009, 116). To support his inference, Belmonte adds an Old Kingdom piece of evidence from the Abusir archive where a *wagy*-feast could be celebrated either in mid-July or mid-September, depending on the reading of the season as Akhet or Peret. This information fits well with the date of the communications of P. Berlin 10016: mid-September. Another document attesting the celebration of the same *wagi*-feast occurring in mid-September is P. Berlin 10007 *recto* (Kaplony-Heckel 1971, 4, no. 6) (same month 2 Shemw).

2.3.1 L - The sender of the communication of P. Berlin 10043 (Luft 2006) (Fig. 28) is the 'overseer of the god's offerings' Sobek-nakht attested in P. Berlin 10016. The document – written on three vertical columns – lacks of any date but the presence of Sobek-nakht helps to place the event under the reign of Amenemhat III (probably during the coregency with his father).

In this fragmentary text Sobek-nakht informs an unknown addressee about a female 'substitute' *ỉwʒyt* (p. 28). Then in column 2 it is stressed that some people deliver items to an official labelled *rwḏw* 'inspec-

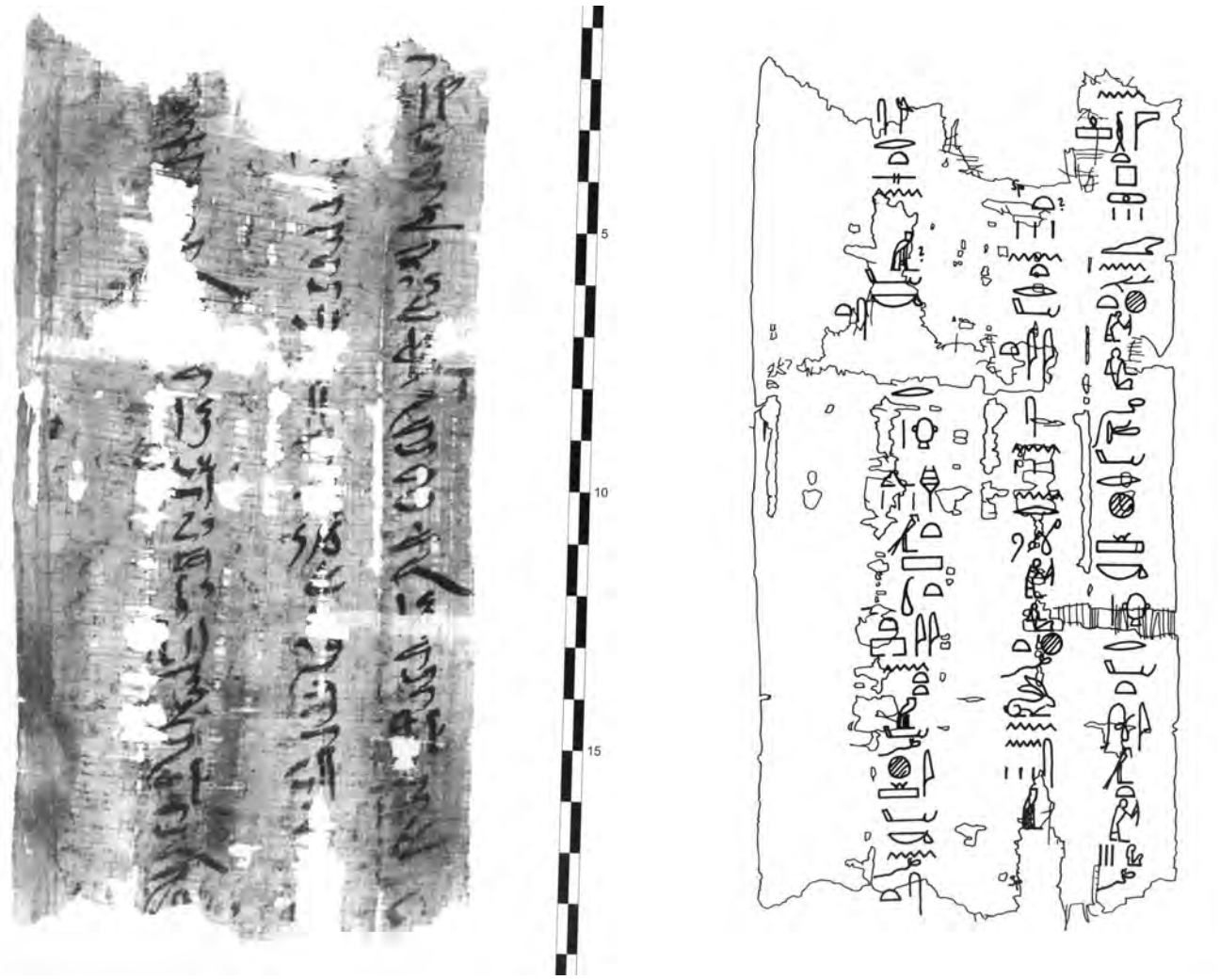


Fig. 28 - P. Berlin 10043 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: M. Büsing, Hieroglyphic transcription: courtesy of U. Luft).

tor/agent', while column 3 contains reference to *tȝ štyt*, usually the sanctuary of Sokar (Luft 2006, 85). During the New Kingdom, the broad title *rwḏw* could refer to individuals involved in different duties and operating on behalf of more than one department or authority. The written material from Deir el-Medina for example attests to at least six types of *rwḏw*, which could be grouped in two main types: 'inside agents' and 'outside agents'. The formers were probably 'captains' of the workmen's gangs, while the latters acted as representatives of the vizier. Some were involved in legal matters as inspectors of irregularities reported by villagers, others delivered rations to the workmen's community (McDowell 1990, 59–65, 88). Furthermore, they could be fiscal agents (Eyre 1999, 44). Possibly they also held similar roles earlier in the late Middle Kingdom. The presence of the 'overseer of the god's offerings' and the reference to the temple of Sokar may also suggest that the Sokar festival was the context of the operations. On the basis of this hypothesis, I might date the letter to month 4 of Akhet, when the Sokar festival was celebrated (Luft 1992b, 179–81). This corresponds to the end of March. The *ỉwʒyt* could thus be involved in tasks related to the religious event, possibly to the food offerings. The date does not exclude employment in agriculture. Other sources suggest a link between female 'substitutes' *ỉwʒyt* and textile manufacture (Di Teodoro 2014, 72).

2.3.1 M - The first is a dish from house 69, sector BIX of the Middle Kingdom town of Elephantine (Fig. 29). It has been proposed that the piece dates to late Twelfth Dynasty, but an earlier date cannot be excluded (Pilgrim 1996, 285–7, pl. 41). The object presents two lists of provisions. The first includes 28 adult women, the second 18 children (11 girls, 6 boys, 1 uncertain). Lines 2–8 record 5 *mrt* and 2 *sḫtt*, "wea-

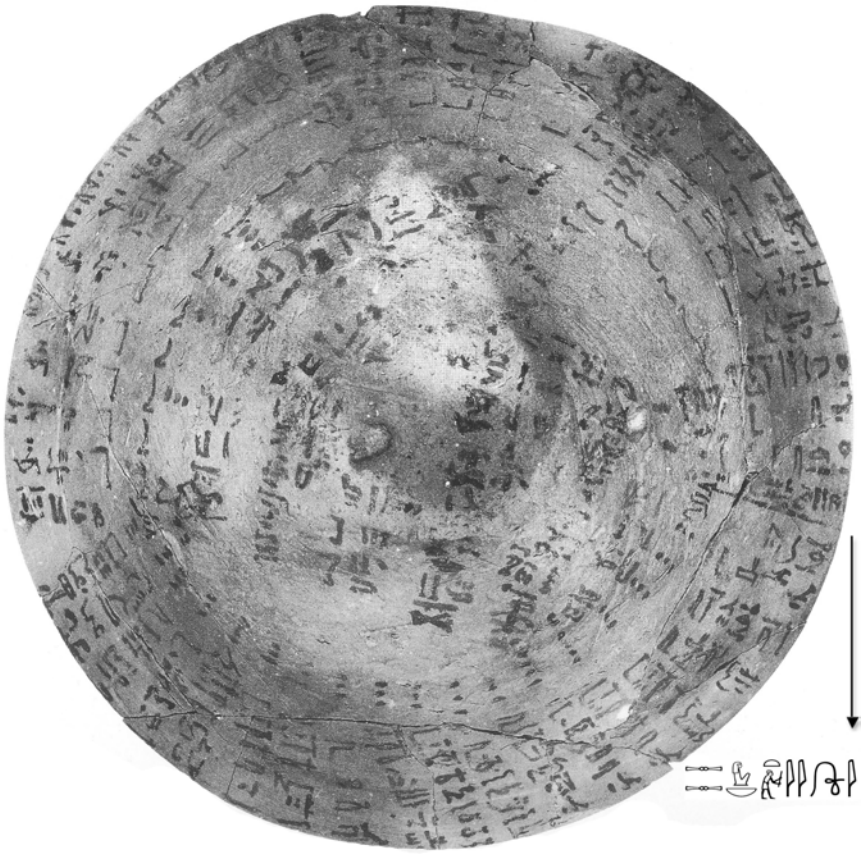


Fig. 29 - Dish from Elephantine (Courtesy of the German Archaeological Institute, Cairo). Bottom right: the hieroglyphic transcription of the hieratic iwʒyt *Nbss? "the female substitute Nebses?".*

vers", followed by 15 *sbtt* "bearers" from line 9 to 23. An *ỉwʒyt* concludes the namelist of adult women. As Pilgrim observed, her name is unclear. He proposed Nebses (1996, 29, note *ad*).

profession + name	lines 2-23
name	line 24
***ḥmt* + name**	line 25
name	line 26
***ḥmt* + name**	line 27
***ỉwʒyt* + name**	line 28

Table 11 - System of identification of the women listed in the dish from Elephantine.

The presence of weavers suggests that these people worked inside a textile workshop. The bearers might have been involved in the delivery of flax bundles, the raw material, from a store. According to tomb paintings from Middle and New Kingdoms men and women were indifferently employed as spinners (Vogelsang-Eastwood 2000, 273). Spinning was the method used for making a thread with fibres of yarn, the stage that preceded the weaving. Prior to the replacement of the horizontal loom with a vertical one during the New Kingdom, the stage of weaving was instead a female-oriented task (Kemp & Vogelsang-Eastwood 2001, 434; Watterson 2013). Men and women equally engaged in field, the first stage of the textile process, which occurred in spring. New Kingdom imagery shows that, during the harvest, women were involved in the operation of pulling stalks of flax (*e.g.* Book of the Dead, vignette 110: Taylor, 2010, 258, Fig. 132) (Plate 1). Children were commonly employed as spinners (Szpakowska 2008, 81–5)

The women on the dish are listed following a specific order: those identified by their profession, and those identified as *ḥmt* "woman" or by their names only (Table 11). The presence of the *ỉwʒyt* at the end of the namelist and her low supply ration equal to four must be meaningful. The other adult women receive rations ranging between 50 and 57. The exceptions are the bearer Heqay of line 18 and a woman recorded only by her name, Sates, who receive low supply rations equal to four and three respectively. Such a low ration is close to the rations for children, which range from three to seven with a majority of three (fourteen out of eighteen attestations). This might either suggest that Heqay and Sates were young women or of low status. As regards the *ỉwʒyt,* her presence at the bottom of the list of adult women may depend on her condition as temporary worker in contrast with the other adult women who were perma-

nent employees. Her low supply ration may have the same explanation or alternatively be associated with her young age or low status as conjectured for Heqay and Sates.

The date on the dish refers only to season and month: Peret 3. Year and day are not mentioned. If the event occurred in the late Twelfth Dynasty, I can approximately place it in June, the end of harvest time. If the event occurred in the early Twelfth Dynasty, the corresponding Julian date would move forward. It would include roughly the first twenty days of July at the beginning of the reign of Senwosret I, lowering gradually to the first days of July at the end of the reign of Amenemhat II and during the reign of Senwosret II (2.2.3). The flax harvest could start as early as February (Cartwright *et al* 1998; Vogelsang-Eastwood 2000). Therefore, at the end of the season, in June/July, the yarn was ready to be spun and woven into clothes (Di Teodoro 2014, 72). For example account UC 32096, which records a delivery of flax bundles just harvested, is datable to February. The importance of the dish from Elephantine lies in the fact that it is the only source that provides evidence of a 'substitute' at a workplace. The documents from Lahun do not mention this stage of the 'labour process'.

2.3.1 N - P. Berlin 10030A (Luft 1992a) (Fig. 30) is the only papyrus with clear evidence of textile production associated with *ỉwʒw*.

The aim of the communication is to inform the 'estate overseer' Qemau that an *ỉwʒyt* needs to be taken from Sekhem-senwosret and redirected to the 'overseer of *mrt* for the fine linen, sealer and follower' (Berlev 1978, 176; 2.3.1 J).

Lines 3–14 (Luft 1992a, P 10030 A 1–2)

Transcription:

r ntt ḥm kʒ n ? […]
ỉwt r ḏd n […]
ỉwʒyt […]ỉnyt m
sḫm-snwsrt mʒʿ-ḫrw ỉn ỉmy-r pr ḳmʒw
ḫrw-fy sw swḏʒ ỉb pw n nb ʿnḫ wḏʒ snb
r ntt ỉn ỉwʒyt.f
sʒt ḏʒtt pw ỉrt pʒḳt
mnt sʒt ? rnsnb ḏdtn.s kmʒ
ỉmy-r mrt pḳt ḫtmw šmsw
m ḥʒt sp 38 ʒbd 4 prt sw 6

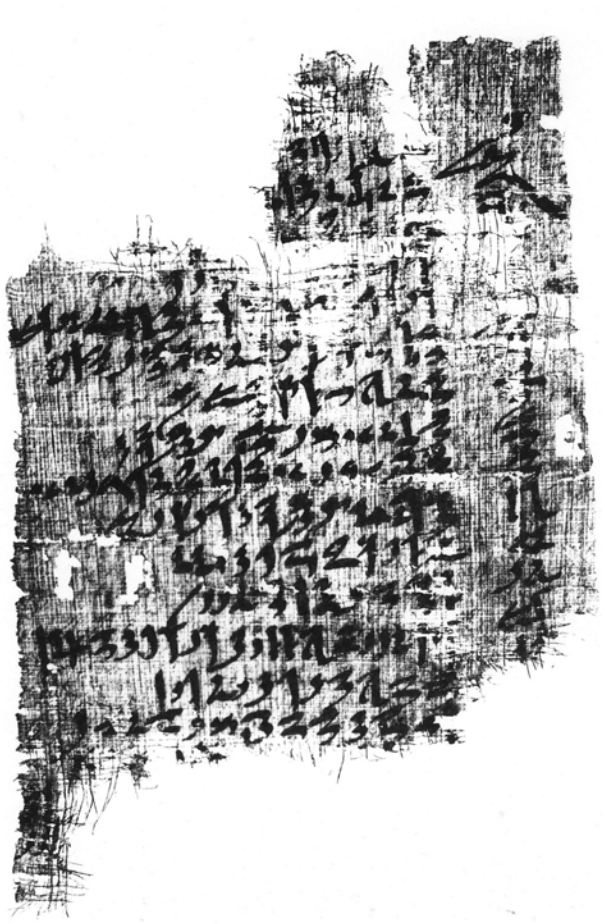


Fig. 30 - P. Berlin 10030A (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK).

ỉḫ rdỉ.tw sʒ r tʒy.f
ỉwʒyt ỉnyt m sḫm-snwsrt mʒʿ-ḫrw

note: At the end of line 3 I prefer to add a question mark contra Luft's *imy-r mrt.*

note: At line 9 I read *sʒt ḏʒtt* "the daughter of a weaver" contra Luft's reading and translation *sʒt ḏʒ*, personal name "Satdja".

Translation:

as follows: the ka-priest of ? […]
came in order to say […]
the substitute […] to be brought out from Sekhem-senwosret true-of -voice by the estate overseer Kemau
so he said. This is a communication to the lord l.p.h.!
as follows: his substitute has been brought ?

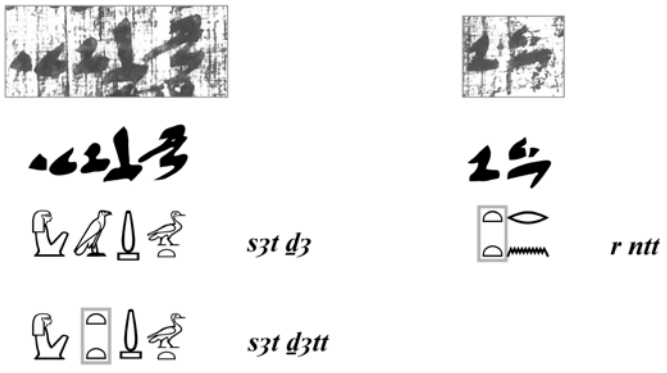


Fig. 31 - Writing of hieratic sign for -tt *as it appears in lines 9 (left) and 3 (right) of P. Berlin 10030A. (Facsimiles of the original hieratic: © C. Langer).*

> *she is the daughter of a weaver she makes?/able to work fine linen*
>
> *Menet's daughter? Renseneb, called Kema,*
>
> *to the overseer of* mrt *for the fine linen, sealer and follower*
>
> *in year 38, month 4 of Peret, day 6*
>
> *then stop/annul? his*
>
> *substitute brought from Sekhem-snwosret true-of-voice.*

The connection between the female 'substitute' and the product of fine linen in line 9 is unclear. Luft (1992a) translates "die feines Leinen bereitet" "she makes fine linen" suggesting that probably the woman was a weaver "capable of weaving fine linen" (Luft 1998, 36). His assumption may be supported by an alternative reading of *s3t ḏ3* at the beginning of line 9 (translated by Luft with the personal name "Satdja") as *s3t ḏ3tt* "the daughter of a weaver", interpreting the hieratic sign after the biliteral *ḏ3* as double *t* instead of aleph. As the image shows (Fig. 31), the double *t* of line 3 included in the locution *r ntt* "as follows", could be comparable to the hieratic sign after *ḏ3* of line 9. The uncertain reading of line 9 allows for a double interpretation of the text. First, the 'substitute' has completed her work and needs to deliver the item to the official responsible for the weaving of fine linen. The papyrus is datable to the end of the harvest, mid-June, the right time for weaving and delivery of finished linen products (Di Teodoro 2014, 72). Second, the 'substitute' will be sent to the 'overseer of *mrt* for the fine linen' because she is the daughter of a weaver, consequently she is fit for the task.

Another document which may link the duties of female 'substitutes' to textile manufacture is UC 32132. As mentioned above, the woman set free in the text of the *recto* was likely a *ỉwʒyt*. The *verso* of this fragment records expenditures of flax and linen. At the bottom of the text, Collier and Quirke tentatively reconstruct a namelist of women (2006, 231). The *recto* dates to year 23, month 2 of Peret, day 17 which should correspond to early May. The *verso* is two years earlier and datable to early March. Even if the presence of both texts on the same sheet does not imply a link, a connection might still exist and may be represented by the linen. It is possible that the woman recorded on the recto had accomplished her task producing linen clothes at a textile workshop after the yarn had been harvested and could thus be released from the bond.

Evidence for textile production *in situ* has been discovered inside the funerary complex of Senwosret III at Abydos (Smith V. E. 2010, 252–262). The spot where spinning whorls and spinning bowls were found corresponds to the area where Wegner (2007) identified the *šnʿ n ḥtpw-nṯr*, the 'provisioning area of the god's offerings'. Material remains attest that other types of craft production occurred inside the *šnʿ* of Abydos, apart from the processing of staple food: metal working and pottery production. Evidence for the former is a certain amount of copper slag. Evidence for pottery production is a circular feature which, on the basis of several parallels (*e.g.* Ayn Asil, Amarna and Mirgissa) has been identified as a pottery kiln (Smith V. E. 2010, 246ff.). As Smith observes, usually in settlements like Amarna these activities were undertaken in workshops and were separate from food production (Smith V. E. 2010, 226ff.). Smith explains the evidence for such activities within the *šnʿ* of Abydos assuming they were both ancillary and incidental, as providing support and implements to the main activity: food processing. Possibly they could have also supplied the temple with tools used in rituals (Smith V. E. 2010, 226, 242). Abydos may be taken as an example for proposing the existence of a specially created space for textile manufacture in the *šnʿ* of the god's offerings of Sekhem-senwosret (Di Teodoro 2014, 77). We need to consider that linen was used on a daily basis in temple contexts (*i.e.* for celebrations and rituals). The list made by Berlev (1978) of the chambers included within the *šnʿ* may substantiate the hypothesis, as it records also a

chamber for linen. Later evidence may be provided by an inscription of Thutmosis III (Eighteenth dyn., New Kingdom) which states that foreign captives are given to the *šnʿ* of the Karnak temple in order to make different types of linen clothes (Sethe 1907: Urk. IV 742:10, 743:9).

2.3.2 - *ḥsbw* and *mnyw*

The previous studies which attempted to define *ḥsbw* and *mnyw* focussed mostly on the attestations of these workers in the Reisner Papyri. Their presence also in the papyri from Lahun was rarely considered (*e.g.* Berlev 1965; Quirke 1990), and usually refers to the UCL material rather than the temple archive. The reason lies certainly in the high percentage of attestations of both groups in the UCL assemblage. The partial publication of the temple archive also prevented the full inclusion of the Lahun attestations of *ḥsbw* and *mnyw* in previous studies.

*

WORDS AND MEANING: PHILOLOGICAL AND ETYMOLOGICAL NOTES

List of documents from Lahun with *ḥsbw* and its hieroglyphic transcription:

- P. Cairo Jd'E 71583 (Dévaud 10022), UC 32201: *ḥsb* (n. m. s).
- PB 10080, UC 32143D: *ḥsbw* (n. m. pl.).
- PB 10095, UC 32133, UC 32201, UC 32278, UC 32284: *ḥsbw* (n. m. pl.) followed or preceded by the number of individuals.
- PB 10080, UC 32099A, UC 32174, UC 32201, UC 32181: *ḥsbw ỉtḥw ỉnrw* (n. m. pl.).

List of documents from Lahun with *mnyw* and its hieroglyphic transcription:

- PB 10038C, PB 10073, PB 10080, UC 32182, UC 32190: *mnyw* (n. m. pl.).
- UC 32168: *mnyw ỉtḥw ỉnrw* (n. m. pl.).
- UC 32272B: ? *ỉtḥw ỉnrw mnyw*? (n. m. pl.).
- UC 32194: *mnyw* (n. m. pl.).

List of documents from Lahun with the expression *ỉtḥw ỉnrw* "stone haulers" not followed by *mnyw* or *ḥsbw*, and its hieroglyphic transcription:

- PB 10102, UC 32194, UC 32352: (n. m. pl.).

*

The masculine noun *ḥsb,* plural *ḥsbw,* derives from the verb *ḥsb* "count", "calculate", "reckon", from which originates also the noun *ḥsbw* "reckoning", "account". The latter is attested in the Old Kingdom clay tablet 7089 from Balat (Pantalacci 2010, 148–51). This is a list of daily tasks of a group of workers. The second line begins with the expression "day of the enrolment".

The only determinative attested in the nouns *ḥsb* and *ḥsbw* in reference to the workers is the seated man denoting the class of meaning 'human being' which is associated with the three strokes of the plural. The noun *ḥsbw* can be translated as "counted men". The frequent attestation of *ḥsbw* in lists to enrol people for projects, has led some scholars to translate the word as "enlisted" and "conscripts" (*e.g.* Berlev 1965; Collier & Quirke 2006; Simpson 1963, 1969).

The Middle Kingdom masculine noun *mnyw* is always followed by two determinatives: the seated man steadying a basket on his head and the seated man with the plural strokes. The word is consistently attested in its plural form either in the Reisner Papyri and the Lahun Papyri. The first determinative is linked to manual work or construction activity. Only one earlier attestation of the term is known. It is an Old Kingdom papyrus discovered at Saqqara which deals with the management of a construction site (Collombert 2011). In this document the word does not present the hieratic signs for *-y*, and the phonem for *-n* is replaced by the sign of the vase, the bilitter *nw* .

The translation of the word *mnyw* is quite problematic. Due to its frequent attestation in the same type of namelists of people recruited for projects where *ḥsbw* appear, the noun *mnyw* often receives the same translation of *ḥsbw,* namely "conscripts" or "enlisted workers" (Collier & Quirke 2004, 13, 49, 57,

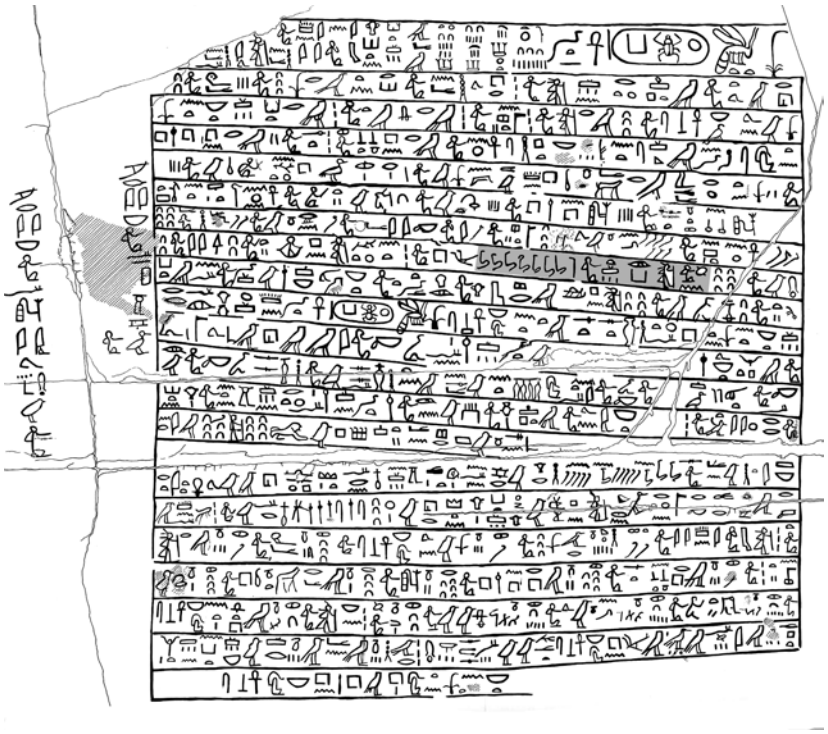


Fig. 32 - Rock Inscription G61 from the stone quarries at Wadi Hammamat (Courtesy of the Institut français d'archéologie orientale; from Farout 1994, Pl. II, Fig. 2, 170). Highlighted in grey the sentence which relates to ḥsbw.

ḥsbw IN ROCK INSCRIPTIONS FROM QUARRY SITES

In namelists of the members of expeditions moving towards quarries, *ḥsbw* always follow the specialised workers. The lists usually record all those who took part in the expedition with the total amount of each group. For instance, in inscription G61 from the stone quarries of Wadi Hammamat (Farout 1994, 146–8) (Fig. 32), dated to year 38 of Senwosret I, the members list begins with the officials at the head of the expeditions, followed by the number of soldiers. After are listed craftsmen directly involved in the quarrying activity, such as the *ḫrtyw-nṯr* "necropolis workers". These were probably employed in the extraction of stone blocks that, at a second stage, would have been roughly shaped by the *ỉkyw* "quarrymen" (Kóthay 2007, 141). Necropolis workers are followed by rowers, fishermen and sandal-makers, professions which formed the core of the logistics element. Next, separated from the skilled workers, come the *ḥsbw n mšʿ ỉr kȝwt 17,000* "*ḥsbw* of the army which carries out the work: 17,000", suggesting the involvement of a huge number of 'counted men' in the hardest operations. Certainly, such a large number of individuals were needed to drag heavy stones from the quarries to the destination place, while the extraction phase might have required small groups of skilled workers (Kóthay 2007).

Another inscription from Wadi Hammamat that mentions *ḥsbw* is rock inscription CM 87 (Farout 1994, 148–9) (Fig. 33), dated to the same year as G61. The text records that the operations involved the hauling of 80 stones by 1000, 1500 and 2000 men. In this case also, the different groups of people are listed in the same order. The officials at the head of the expedition are followed by security forces and craftsmen. The list ends with the amount of thirty *ḥsbw,* part of the equipment of the *pr šnʿ* of the personal property of the 'chief of the tenth of Upper Egypt' Amenemhat, the main official in charge of the expedition. Consequently, on this occasion the *ḥsbw* were

103, 271; Simpson 1962, 1969). Maspero suggested that the word might be connected to the expression *m mnt* "daily" (Simpson 1963, 34). Therefore these people could be day labourers. Griffith's translation as "dock workers", following an association with the noun *mny* "harbour", may be appropriate for the work at the dockyard workshop in Reisner Papyrus I (Simpson 1963, 34) but does not match the context of the Lahun Papyri.

Like the words for those registered for *hȝw,* both words *ḥsbw* and *mnyw* present the determinative of class of people with the seated man only, suggesting a gender restriction to men. The namelists of masculine personal names only, substantiate the inference. Both words *ḥsbw* and *mnyw* can be followed or preceded by the expression *ỉtḥw ỉnrw* "stone haulers", which marks the generic type of activity the workers might perform. Despite the hard manual labour in which they could be employed, the words *ḥsbw* and *mnyw* never present the determinative of the armed man, in contrast to the words *hȝw* and *ỉwȝw.*

engaged in operations related to food supplies.

According to Sadek (1980, 65) the term *ḥsbw* might appear in rock inscription no. 53 from the amethyst mines site of Wadi el-Hudi (3.3.3). The inscription, largely damaged, preserved a list of officials. Among them there is the 'caravan leader of *ḥsbw*?'. The reading of the word *ḥsbw* is not sure. Sadek himself prefers to add a question mark after the term.

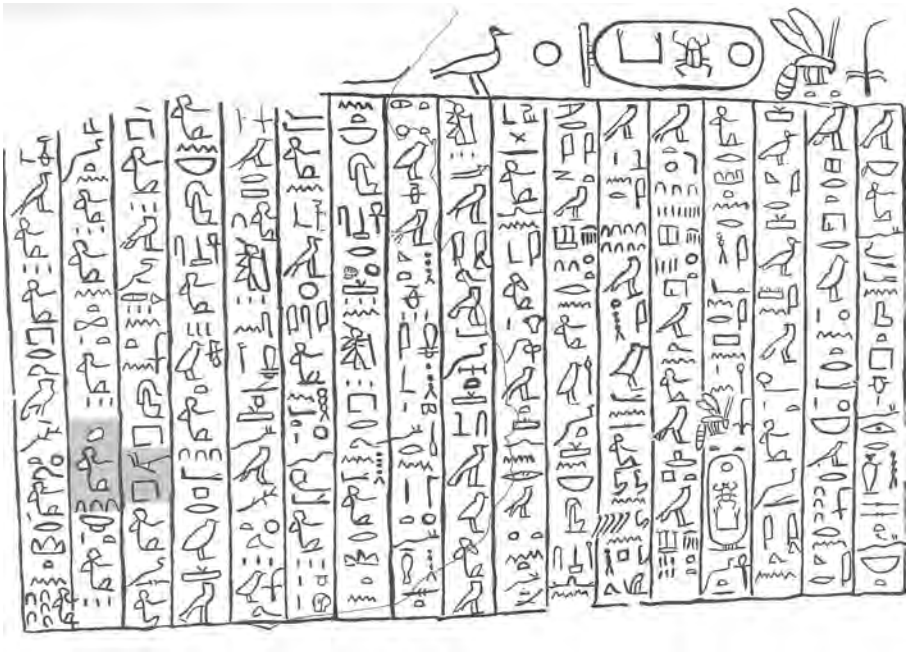


Fig. 33 - Rock Inscription CM 87 from the stone quarries at Wadi Hammamat (Courtesy of the Institut français d'archéologie orientale; from Farout 1994, Pl. III, Fig. 3, 171). Highlighted in grey the words šnʿ *and* ḥsbw.

Several other rock inscriptions mention large numbers of people involved in stone hauling of raw material from quarries throughout the desert towards the river banks (see below). Likely those stone haulers coincided with *ḥsbw,* however they are not identified using that term (1.3). *Mnyw* too could be labelled 'stone haulers', but they are never attested in similar inscriptions from quarry sites. Additionally, as I will show later, *mnyw* and *mnyw stone haulers* are not attested at quarry sites even in the documents from Lahun, while *ḥsbw* are. This observation may suggest a basic difference between the two categories of people.

Inscription G61 dates to month 3, Akhet, day 25 and inscription CM87 to month 4, Akhet, day 4, which correspond to March, harvest time (Di Teodoro 2014, 76). The quarrying process followed a seasonal pattern. Due to the location of most quarries and mines in desert environments, it is reasonable to think that the work at quarry sites was a winter activity and that during the Egyptian summer, which coincided with the inundation, all operations were suspended (Eyre 1987a, 15). In addition to G61 and CM87, other rock inscriptions from Wadi Hammamat seem to support this assumption. The Twelfth Dynasty inscriptions from the site attest that expeditions for the procurement of raw material were sent between month 2 of Akhet and month 1 of Peret (Couyat-Montet 1912, inscriptions no. 149, no. 104, no. 42, no. 43, no. 47, no. 48, no. 96, no. 113, no. 114, no. 123, no. 191, no. 192). This timespan coincided with December–April, the cooler months of the year, recording a peak of activity in February. A good example is inscription CM 104, dated to Senwosret II (Couyat & Montet 1912, 64–6 and 72–3), which, like CM 87, refers to stone hauling in January (Di Teodoro 2014, 76). Contemporary rock inscriptions left by officials at other quarry sites in the Eastern Desert, in particular at Hatnub, Wadi el-Hudi and in Sinai at Serabit el-Kadhim, substantiate the assumption. In addition, CM87 specifies that it took 14 days for the labourers to haul the heavy blocks of raw material through the desert to reach the bank of the Nile, an impractical operation in the summer. Other attestations datable to the Old Kingdom from the same sites confirm a winter activity (*e.g.* Eyre 1987a, 16). However, there are a few attestations of desert missions occurring in the summer (Beckerath 1997, 53; Krauss 2006, 369): two rock inscriptions from Wadi Hammamat dated to the Nineteenth Dynasty and the Twentieth Dynasty under Ramses IV (Couyat & Montet 1912: inscription no. 240, p. 112), and four dated to the reign of Darius I (ca. 521–486 b. C.) (Couyat & Montet 1912: inscriptions no. 14, no. 134, no. 186 and no. 190). To the aforementioned kings belong two objects in greywacke, material extracted from Wadi Hammamat. One object is the inner sarcophagus of Ramses IV, later reused for Ramses VI (Shaw & Nicholson 2000, 57). The other is a statue of Darius I from Susa.

Petrographic examination of the statue confirmed that it was made of Egyptian greywacke blocks (Klemm & Klemm 2008, 302). Possibly the material used to shape these objects was procured at the times when the inscriptions above were left at the quarries. These inscriptions refer to a timespan between July and mid-September, with a peak in August: the hottest months of the year. Another two rock inscriptions from the amethyst mines of Wadi el-Hudi, and one from the turquoise mines of Serabit el-Khadim (Sinai) dated to the Twelfth Dynasty, attest to summer activities (Sadek 1980, inscription no. 149; Gardiner, Peet & Černy 1952, inscription no. 90). A summer procurement may depend on a constant need of specific raw materials for building purposes (*e.g.* obelisks, *naoi*) and large objects (*e.g.* statues, sarcophagy, stelae), which finds a parallel in the Old Kingdom exploitation of the Tura quarries (Eyre 1987a, 16). The demand for stone during the New Kingdom and Darius' kingship might have been substantial, requiring the organisation of regular periodic expeditions. Another reason for summer quarrying might be the need of additional exploitations for immediate use at a specific time. The attestations of summer expeditions towards the amethyst mines of the Eastern Desert and the turquoise mines of Sinai may be considered isolated occasions of precious stones procurement.

To sum up, apart from a few specific attestations of summer activity, stone hauling from quarries to the river banks happened preferably during the winter. In particular, during the Middle Kingdom, the work ranged from December to April, corroborating the inference made by Eyre for the Old Kingdom (Eyre 1987a, 16). Then as soon as the water started rising during the inundation season, the material was probably ferried to its destination.

ḥsbw AND *mnyw* IN THE REISNER PAPYRI

The Reisner Papyri record building projects in This and Koptos at the beginning of the Twelfth Dynasty (2.2.2). They provide lists and daily activities performed by specialised workers and a mass of labourers which included *ḥsbw* and *mnyw.* These papyri demonstrate that the labourers worked in shifts and were divided into gangs. The workforce was monitored, spatially and temporally; their activities and movements were tracked and supervised, just as their attendance, and they were paid on the basis of working days (Ezzamel 2004; Kadish 1996). These workers were employed from two to four months in a row (P. Reisner I *sections* A, B, D, F, O, P: Simpson 1963).

The activities assigned to them did not require training. For instance, P. Reisner I-I attests that a group of thirty *ḥsbw* were needed to loosen brick clay. Other tasks performed by *ḥsbw* included water removal from fields and retrieval of clay to make bricks. These operations occurred during civil month two of Shemw, datable to September-October (Di Teodoro 2014, 76). Other tasks performed by *ḥsbw* were: carrying sycamore and willow wood, straw, and water, removal of wood from the river banks, and stone hauling. In P. Reisner III five *ḥsbw* are involved in the construction of ramps over two days. It is evident that *ḥsbw* had to carry out a wide range of supplementary tasks in support of the specialised team.

In P. Reisner I-C and P. Reisner III-B (Simpson 1963, 1969), *mnyw* are employed on the plough-lands of the *ỉmy-r pr* 'estate overseer' Inisahotep. The *ỉmy-r pr* was the local official responsible for the administration of estates and concerned with agrarian products. In P. Reisner I-C *mnyw* were sent to the fields at the end of June, just a few weeks before the arrival of the flood. They are organised in gangs under officials *ḫrpw* 'directors' of work (below 4.2.5). The text does not specify what type of tasks they needed to perform. Maybe they engaged in canal repair or in retrieval of straw after the winnowing to make mud-bricks, operations that occurred at the end of the harvest (James 2007, 121) (Figs. 25 and 26). In P. Reisner III-B a first group of *mnyw* is sent to the fields in year 22 of Senwosret I from October to November, while a second group, recruited one year later, from December to March. These times correspond exactly to the entire sowing season and the beginning of the harvest, which might suggest an involvement in agriculture. A wider range of menial tasks including non agricultural activities performed in the fields, such as the autumnal repositioning of boundary stones to delineate properties, cannot be excluded (Smither 1941; Murray 2000, 516) (Fig. 26).

The heading of P. Reisner I-A identifies the workforce as *ḥsbw nt(y) m Gbtw m mnyw* "*ḥsbw* who (are?) from Koptos as/consisting of *mnyw*" (Simpson 1963, 24, 111). This passage provides important information which could help to clarify the difference between *ḥsbw* and *mnyw.* The sentence attests that, on that specific occasion, the listed *ḥsbw* are *mnyw*, which

suggests that *mnyw* could be part of a group of *ḥsbw* along with other people who did not belong to the category *mnyw.* Thus not all *ḥsbw* were necessarily *mnyw*.

CONSTRUCTION AND QUARRYING ACTIVITIES FROM THE LAHUN PAPYRI

Information from the Lahun Papyri substantiates the employment of *ḥsbw* and *mnyw* in menial construction tasks at quarries and building sites. Some papyri datable to August, September and October and referring to stone haulers (*ỉtḥw ỉnrw*) seem to suggest that over the late summer when most fields were inundated, labourers were recruited for building projects. However, some occurrences fall also within the harvest season. In the following section I will examine key documents with evidence for both summer and winter calls.

2.3.2 A - UC 32174 (Fig. 34) contains a namelist of *ḥsbw ỉtḥw ỉnrw* of Hetep-senwosret, dated to year 43 of Amenemhat III and datable to mid-August when the flood*,* foreseen by the heliacal rising of Sirius in mid-July, had likely just arrived or was expected shortly. Between the headline and the list of workers are mentioned the officials in charge of the workforce who correspond to those at the head of gangs of *mnyw* in P. Reisner I-C: *ḫrp, sš* and *ṯsw.*

2.3.2 B - The small, poorly preserved UC 32272B dates to the end of August, probably a "short communication or supplementary note" (Collier & Quirke 2006, 271). This account was reconstructed joining together two fragments (Fig. 35). The larger fragment contains: date (line 1), the words *ỉtḥw ỉnrw*? (line 2), and two masculine names (lines 3 and 4). The smaller fragment contains: final part of the date? (line 1), the word *mnyw* (line 2), and two titles on lines 3 and 4: 'musician' and 'controller of *phyle*'. The fragments are part of the same Lot XLI, and the type of burns on the material suggests that the pieces were part of the same papyrus. However, the order of the pieces and the reading of *ỉtḥw ỉnrw* before *mnyw* in line 2 are uncertain. Additionally, usually the label *ỉtḥw ỉnrw* follows *mnyw* and *ḥsbw*, it does not precede it (*e.g.* P. Berlin 10080, UC 32099A, UC 32168, UC 32174, UC 32181, UC 32201). Furthermore, in the other papyri the writing of *ỉtḥw* associated with *mnyw* and *ḥsbw* does not present the determinative of the armed man, as in UC 32272B.

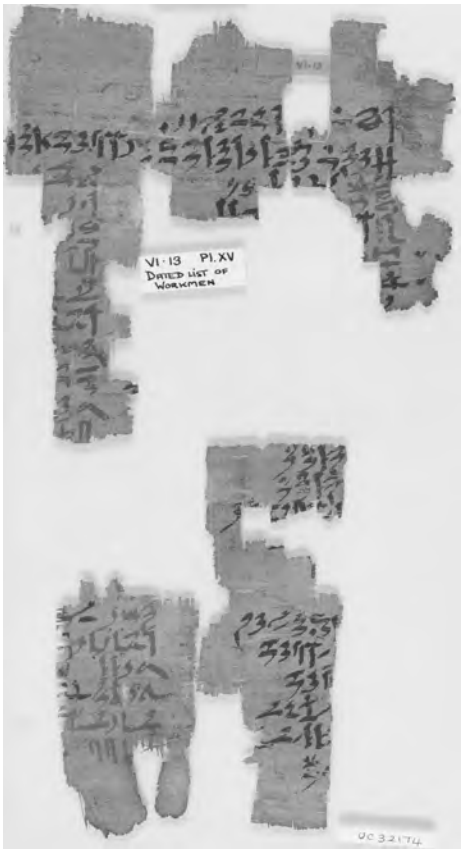


Fig. 34 - UC 32174 (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).



Fig. 35 - UC 32272B (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

2.3.2 C - Also UC 32352 (Collier & Quirke 2006, 104–5), which refers to *ỉtḥw ỉnrw* of Hetep-senwosret, can be dated approximately to August (Di Teodoro 2014, 75). Although the text does not specify

whether the stone haulers were *ḥsbw* or *mnyw,* it refers to events occurring during the inundation.

These accounts do not provide any details about tasks and locations, but the label *ỉtḥw ỉnrw* is strongly suggestive of an engagement in hard menial tasks. The month of August might also have been a possible time to load ships with blocks of material extracted from quarries during the winter.

2.3.2 D - Account UC 32194 (Collier & Quirke 2006, 100–3) is datable to the end of the inundation, October. Despite the indication "year 2", it is without specification of the king. However, the early year may refer to Amenemhat IV. Consequently, the event might have occurred at the beginning or the first half of October, when the water started to recede prior to the beginning of sowing. This account presents just two lines with *ʿḳw* "daily supplies" for *ỉtḥw ỉnrw* (line 1) and *mnyw* (line 2). After the nouns of these groups, Collier and Quirke (2006, 102–3) reconstruct a possible *sš* 'scribe'. Despite the uncertainty of this reading, it is noteworthy that *ỉtḥw ỉnrw* and *mnyw* are mentioned separately here. This may suggest that on that occasion *mnyw* and stone haulers needed to be recorded as two different 'entities'. At the time of the distribution of daily provisions it was seemingly necessary to distinguish sub-groups from among a larger group.

2.3.2 E - Another document datable to the end of the inundation season is letter UC 32201 (Collier & Quirke 2002, 104–9). The *recto* is a communication sent by a man, Irysw, to the 'internal overseer' Sikainw about the situation he found at the quay of Hut-nebes. The *ḫrp* 'director of works' Impy, who is at that quay, reports that the 'internal overseer' has already sailed south with three *ḥsbw.* Additionally, he sends to his lord another *ḫrp* who was at the same quay with a cargo of goods (coarse-barley, emmer, floor-mats, vessels) and one *ḥsb* coming from the 'Garden of the Prince'. The *verso* procedes with a complaint concerning two groups of *ḥsbw*. Eleven *ḥsbw* are *ʿ3* "here" waiting for their remuneration. Probably these workers had completed their task and were waiting to be released from the duty. Apparently, there were delays in the delivery of supplies. Moreover, another five *ḥsbw n ỉtḥ ỉnrw* "*ḥsbw* for stone hauling" are *ʿ3 m ỉkw* "here in the quarry" (line 25). Due to the double meaning of the preposition *m* (as above), the last sentence can also be interpreted as movement away from the quarry. However, the presence of the preposition *n* between *ḥsbw* and *ỉtḥ ỉnrw* suggests that the five *ḥsbw* were about to start work. Consequently, they had probably just arrived at the quarry site. The quay and the quarry were probably far from each other. It is most plausible that a cargo of raw food and daily-use items, such as vessels and floor-mats, were sent towards the quarry for the workers rather than away from it. Therefore, the quay of the first letter was perhaps the starting point while the quarry was the destination.

Based on the information provided by the text, I propose the following interpretation. At the quay the 'internal overseer' Sikainw and one *ḫrp* 'director of works' have just left sailing south, likely towards the quarry site, bringing respectively three *ḥsbw,* and a cargo of supplies and necessary items, along with one more *ḥsb*. The presence of a quarry site may suggest that the 'internal overseer' (the lord addressee of the communications) was also a *ḫrp skw*, a title usually added to 'internal overseer' when engaged in managerial duties at quarry and mining sites (Quirke 2004, 79). At the quarry, in the meantime, a group of eleven *ḥsbw* has completed its shift and is waiting to be released and remunerated, while the second group of five *ḥsbw* has just arrived to begin the new shift. The small number of *ḥsbw* may indicate a local quarry or small-scale quarry activity.

The identification of the quarry and the quay, however, are problematic. In the vicinity, a possible candidate for the quarry could be the limestone quarry near the Lahun pyramid (Harrell & Storemyr 2009, 51–2; Shaw & Nicholson 2000, 8 and 12 n.4). The toponym of the quay, Hut-nebes (reading uncertain: Gauthier 1928, Montet 1957), might be translated "the place/temple of the thorn tree" (Baum 1988). Yoyotte (1989, 42) suggests an identification with Saft el-Henna. However the town, situated in the Eastern Delta, does not present, at the moment, any evidence of site occupation earlier than the Eighteenth Dynasty, New Kingdom (Davoli 2001). The identification of the toponym is thus open to question.

This letter confirms that, not only *mnyw,* but also *ḥsbw* were under the charge of the officials *ḫrp, sš* and *ṯsw.* The *ḫrp* was also at the head of stone haulers: *mnyw* in UC 32168, *ḥsbw* in UC 32174 (2.3.2 A), and without specification in Papyri Berlin 10102 and 10254. A *ḫrp* is also present in UC 32182 (2.3.2 H) at the head of *mnyw* employed in construction tasks.

This suggests that *ḫrp, sš* and *ṯsw* were involved in building projects. Therefore, the *ḫrpw* at the quay in UC 32201 could be the officials in charge of units of *ḥsbw* and *ḥsbw* stone haulers assigned to quarrying activities. This letter is also important because it attests that quarrying activities were carried out at the end of October, allowing us to set back the *terminus antequem* for quarrying operations from December (the earliest date in the rock inscriptions from quarry sites) to October (Di Teodoro 2014, 76). P. Berlin 10024A may support the assumption as it attests to *ỉtḫw ỉnrw* employed in November. Possibly also UC 32194 (2.3.2 D), datable to October, referred to quarrying tasks.

2.3.2 F - Construction works performed during the inundation season are attested also in UC 32178 (Collier & Quirke 2006, 54–5). This small fragment records *kȝt* "work" performed in stone yards by *ḳdw m nḏȝ ỉnrw* "masons breaking stones". The date, month 3 Shemw, days 10-11, corresponds to the end of September when the fields were still flooded. Other papyri attest to construction activities performed during the sowing and the harvest time.

2.3.2 G - In account UC 32168 *recto* (Collier & Quirke 2006), dated to the end of the reign of Amenemhat III (year 45), the official *ḥsb rmṯ* 'accountant of people' draws up a document with the list of *mnyw* stone haulers recruited for a task (Fig. 36). The heading informs that the namelist was compiled inside the *ḫȝ n spȝt n Ḥtp-snwsrt mȝʿ-ḫrw* "bureau of the district of/for Hetep-senwosret true-of-voice". This line can receive at least two interpretations. On the one hand, the word *ḫȝ* "bureau" is linked to the locution *n spȝt*, with the meaning "bureau of the district". In this case the text may refer to the presence of that bureau inside the town of Hetep-senwosret. On the other hand, the word *ḫȝ* is not linked to *n spȝt*, denoting the 'bureau of the vizier' of the district of Hetep-senwosret. In this case the scribe would have turned the attention on that 'bureau of the vizier' in order to distinguish it from the same seat located in other places (*e.g.* at the capital Itjitawy).

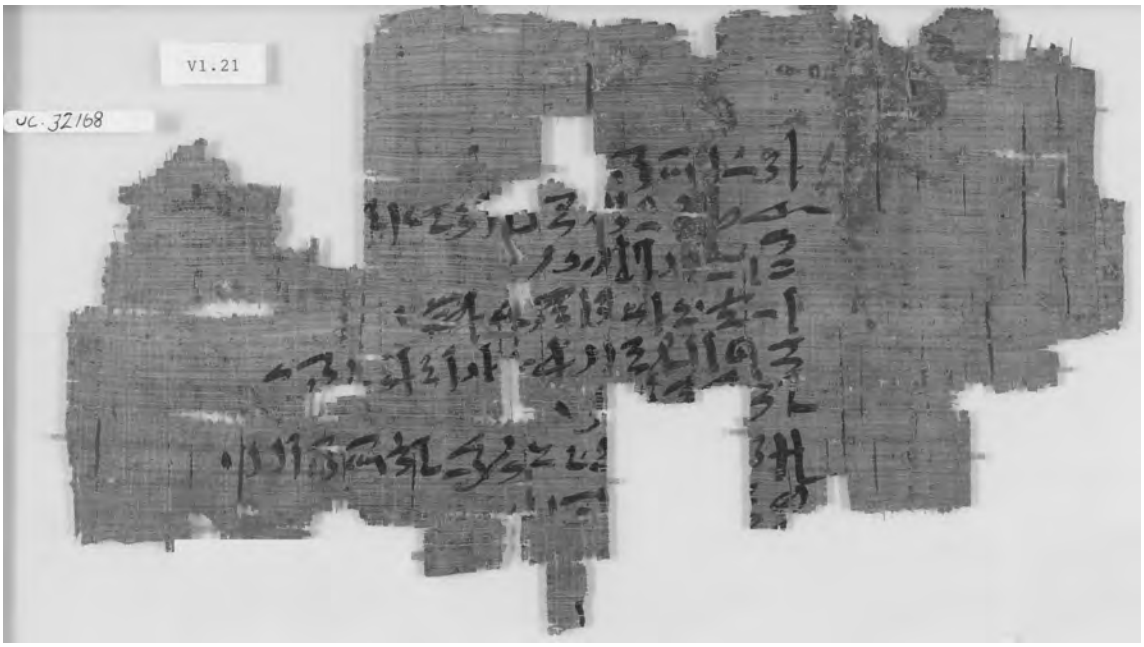


Fig. 36 - UC 32168 recto (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

Lines 5–7 (Collier & Quirke 2006, 56–7):

Transcription:

snhy mnyw ỉtḫw ỉnrw nty r
wʿrt nt ȝbd 4 ȝḫt ȝbd 1prt
ỉmy-rn.f mnyw dỉ r ḏddt wʿrt nt ȝbd 4 ȝḫt ȝbd 1prt

Translation:

listing of mnyw *stone haulers who are for*
the sections of month 4 of Akhet and month 1 of Peret
namelist of mnyw *given as stipulated for sections of*

month 4 of Akhet and month 1 of Peret

The namelist of *mnyw itḥw inrw* that started at line 8 is missing. The only readable word at the beginning of line 8 is the title *ḫrp* 'director' Khety. Comparison with accounts UC 32174 (2.3.2 A) and UC 32182 (2.3.2 H) allows for reconstruction of the second and third lines with the second and third positions in the hierarchy after *ḫrp*, namely *sš* and *ṯsw.* The type of task assigned to the workers is not specified, but the label *ỉtḥw ỉnrw* suggests to an employment in construction activities two months long. The dates, month 4 of Akhet and month 1 of Peret, correspond roughly to the entire months of March and April (probably from the first days of March to the first days of May) (contra the first results in Di Teodoro 2014, 76), when the most intense activities of the harvest were performed (Fig. 26).

2.3.2 H - A 'director' Khety is named also in UC 32182 (Collier & Quirke 2006) (Plate 2). This account dates to year 43 of Amenemhat III. Since UC 32168 *recto* dated to year 45, possibly the directors are the same individual who held the role for at least two years.

Heading (Collier & Quirke 2006, 48–9)

Transcription:

ỉmy-rn.f mnyw dỉ r ḏddt ḥtp-[sn]-wsrt […]

kȝt m ꜥnḫ ỉmn-m-ḥȝt ꜥnḫ ḏt r nḥ[ḥ]

Translation:

Namelist of mnyw *given as stipulated to Hetep-senwosret […]*

for a work at Ankh-Amenemhat-living-forever-in eternity

The toponym Ankh-Amenemhat-living-forever-in eternity refers to Hawara, the location of the funerary complex of Amenemhat III, north-west of Lahun. The task was two months long, from month 2 to month 3 of Peret, roughly from mid-April to mid-June, harvest time (Di Teodoro 2014, 76). The list starts with the three offices in charge of the workforce, *ḫrp*, *sš* and *ṯsw* (lines 5–7)*,* followed by the names of the workers, most now lost. This account informs that a group of *mnyw* is gathered at the town of Hetep-senwosret waiting to be sent to the construction site of Hawara to perform a two-month task.

The presence of the same 'director' Khety, same length of activity equal to two months in a row, and same season (harvest), may suggest that the group of *mnyw* stone haulers recorded in *recto* of UC 32168 (2.3.2 G) was employed in the same construction project at Hawara (Di Teodoro 2014, 76). Support may come from the text of the *verso* (plus UC 32269 *verso*). It is a livestock account dated to a previous year 9 of an unnamed king, probably Amenemhat III (although a reference to his predecessor Senwosret III cannot be excluded). The connection with the text of the *recto* may be the reference to *š sbk mḥty* "Sobek lake north" of line 3, perhaps denoting the northern sector of the Faiyum area including Hawara. Both accounts recorded on *recto* and *verso* of the sheet might be, consequently, reports of economic business pertaining to the same northern area.

2.3.2 I - The association between the office *ḫrp* and construction activities is substantiated by UC 32181

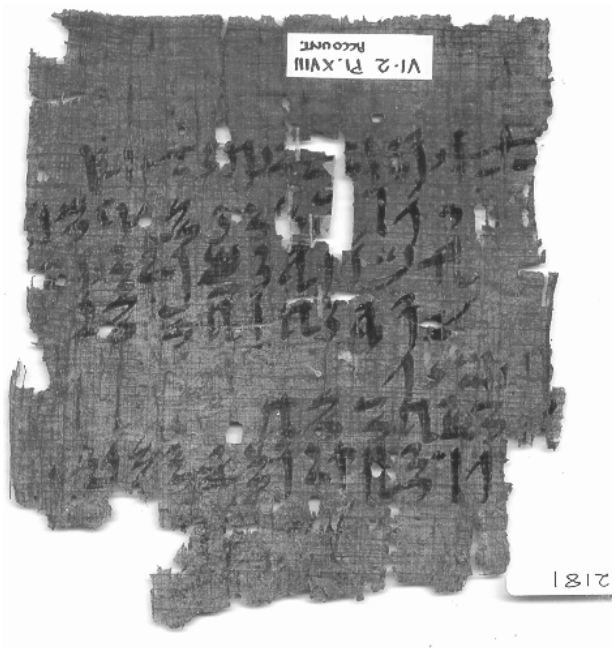


Fig. 37 - UC 32181 (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

(Collier & Quirke 2006, 22–3) and P. Berlin 10102 (Kaplony-Heckel 1971, 46, no. 85). In the latter, the *ḫrp* is *ḫrp ỉtḥw ỉnrw* 'director' of workforce of stone haulers. In UC 32181 (Fig. 37) the individual involved in the operations is the *ỉmy-sȝ n ḫrp kȝt* 'bodyguard of the director of works'. Probably in accounts linked to

building activity, where the title *ḫrp* has no specification, the word *kȝt* was implied. UC 32181 is not dated. Consequently it is not possible to place it at a specific point of the solar year. It provides a list of commodities given to *pḫrw* stores: loaves of bread, baskets and wood from the treasury. As previously suggested for the *pḫr* linked to *hȝw* (2.3.1), this was perhaps a temporary or seasonal store which contained provisions and implements for the workers. In this account it is associated with *ḥsbw ỉtḥw ỉnrw* of Hetep-senwosret. Hypothetically, the baskets were utilised to carry construction material, such as clay. The presence of stone haulers and the office 'bodyguard of the director of works' suggest an employment of *ḥsbw* in construction tasks.

2.3.2 J - Also P. Berlin 10080 (unpublished, brief summary of content in Kaplony-Heckel 1971, 36, no.63) which records lists of absentees, including *ḥsbw ỉtḥw ỉnrw,* is datable to the end of the sowing-beginning of harvest time.

The papyrus contains twelve horizontal lines. The first eight lines are arranged in two groups of four lines each. The first line of each group is introduced by *rḫt* "amount of", while the last line by *dmḏ* "total". The first list (first group, lines 1–4) concerns the number of absentees of Hetep-senwosret: *ḥsbw ỉtḥw ỉnrw* (line 2) and *mnyw* (line 3). I think that the noun *ḥsbw* is implied at the beginning of line 3 where a space, in correspondence with the placement of the hieratic sign for *ḥsbw* of line 2, is left empty before the noun *mnyw* (in light grey in Table 12). This is the common method used in hieratic documents to avoid repetitions of the same words in following lines.

The second list (second group, lines 5–8) concerns the amount of *ḥsbw* sent to an unknown destination. Since the total of the first list refers to Hetep-senwosret, the total of the second list may refer to Sekhem-senwosret. The employment of these *ḥsbw* inside the *pr šnʿ n ḫtpw-nṯr* 'provisioning area of the god's offerings' which was located at Sekhem-senwosret may substantiate the inference. The hieratic sign for the number of the civil month is missing for the most part; either numbers three and four can fill the gap. Therefore the right date could be either month 3 or 4 of Akhet which correspond to January-February and February-March (Di Teodoro 2014, 76). The task assigned to *ḥsbw ỉtḥw ỉnrw* is not specified but the label *ỉtḥw ỉnrw* is suggestive of an engagement in construction activities.

ḥsbw	*ỉtḥw ỉnrw*
(*ḥsbw*)	*mnyw*

Table 12 - P. Berlin 10080: lines 2 and 3.

Other *ỉtḥw ỉnrw* employed during the sowing and the harvest are attested in P. Berlin 10102 (Kaplony-Heckel 1971, 46, no. 85) and account UC 32275 (Collier & Quirke 2006, 272–3) datable from mid-January to mid-March, and roughly from mid-March to mid-July respectively (contra the preliminary results in Di Teodoro 2014, 76).

LABOUR IN FIELDS AND INSIDE STORES FROM THE LAHUN PAPYRI

P. Reisner III-B only may attest that *mnyw* sent to work in the plough-lands of the *ỉmy-r pr* 'estate overseer' engaged in agriculture.

2.3.2 K - UC 32186, dated to year 26 (Collier & Quirke 2006, 74–5) provides the amount of arouras and *ḥsbw* "emerging from a household list" of an earlier regnal year 33. Plausibly year 26 corresponded to the reign of Amenemhat III. Therefore, as proposed by Collier and Quirke, year 33 may refer to the reign of his predecessor Senwosret III. As mentioned (2.2.3), the length of the reign of Senwosret III has been long debated. Thus the identification cannot be certain. As line 2 attests, these are *ȝḫt nt wʿb* "fields of the pure priest" Hori, a minor official from the religious sector. Only the year is recorded; neither season nor month are added. For this reason I cannot place the event at a key point of the agricultural cycle. Since the document drawn up in year 26 is datable to the last days of October-beginning of November, we might speculate that it aimed to report data related to similar events which occurred years before in the same period. The time corresponds to the right period for planting crops: sowing. Maybe in year 26 of Amenemhat III a comparison was needed with the number of arouras and workers of previous years. In any case, this papyrus attests that a small quantity of *ḥsbw* could be assigned to work in the fields, maybe on temple lands. Possibly the provenance of a *ḥsb* from the 'Garden of

the Prince' in UC 32201 may also be suggestive of work in fields (2.3.2 E).

Two documents reveal that *ḥsbw* and *mnyw* could also produce goods. The first document is P. Berlin 10080 (2.3.2 J) with *ḥsbw* of the *šnꜥ* of the god's offerings of Sekhem-senwosret. Plausibly *ḥsbw* were involved in menial tasks related to food preparation, since the *šnꜥ* was the area where food was processed and stored.

2.3.2 L - The second source is account 32190 C *recto* which attests to *mnyw nỉwt tn dỉ r wḏȝ* "*mnyw* of this town given to the store *wḏȝ*" (Collier & Quirke 2006, 14–15). Inside *wḏȝw* were stored provisions, usually food; consequently, these *mnyw* sent to work inside the store might have been involved in tasks related to food supplies. Unlike the *šnꜥ* of the god's offerings, the *wḏȝ* was not associated with the cult. Since this account is part of a journal that records specific operations, a division of a plot of land and brick-making, it is possible that the *wḏȝ* contained provisions for the workforce employed there. However, I cannot exclude that workers were employed in different tasks inside the *wḏȝ*, such as the repair of the building itself.

*

The clear evidence of the recruitment of *ḥsbw* and *mnyw* for construction tasks, not only during the inundation but also during sowing and harvest times – in particular from March to May when the harvesting of cereals and grain reached its peak – seems to suggest the following conclusion: they were unskilled workers preferably employed in building projects rather than agriculture (Di Teodoro 2014, 77). Moreover, the label 'stone haulers' might refer, not only to construction and quarrying activities, but also to general menial tasks that required dragging material such as straw and clay.

RECRUITMENT OF *ḥsbw* AND *mnyw* FROM THE LAHUN PAPYRI

Both *ḥsbw* and *mnyw* were subject to roll-calls to check attendance (UC 32168, UC 32174, UC 32190, Papyri Berlin 10073, 10095 and 10102).

2.3.2 M - P. Berlin 10073 (Luft 1992a) attests that a list of absentees is delivered to the town.

Lines 4–7 (Luft 1992a, P 10073 1–2)

Transcription:

r ḏd ỉr nhw gmy.k ḫnt ỉm
ḫr.k hȝb.k ḥr.s n ỉmy-r pr ḥrmsȝf
ỉw rdỉ n bȝk ỉm ỉnt ỉmy rn.f nhw r
[ḥtp]snwsrt mȝꜥ-ḫrw

Translation:

...saying: if you find absentees
then write about it to the estate overseer Horemsaef.
And the servant-there had the namelist of the absentees brought to
[Hetep]senwosret true-of-voice

In most of the sources both *ḥsbw* and *mnyw* were commonly identified by their name only. On a few occasions, as in P. Berlin 10073, their main profession is indicated (Di Teodoro 2014, 70): among the absent *mnyw* there are two gardeners. In other sources *ḥsbw* are mat makers and fishermen. Additionally, *ḥsbw* could be of 'Asiatic' origin (Table 13).

2.3.2 N - The list of *mnyw* in account UC 32190B *verso* (Collier & Quirke 2006, 8–17) is arranged in two main columns (Fig. 38). The first records ten personal names and the expression "[…] who is? in the mayor's charge" (line 12). On the left side of the sheet there is a second column with the hieratic sign of the

	professions	**other**
UC 32174		'Asiatic' (*ḥsbw ỉtḫw ỉnrw*)
UC 32201	mat maker (*ḥsbw*)	'Asiatic' (*ḥsbw*)
P. Berlin 10073	gardener 2 (*mnyw*)	
P. Cairo Jd'E 71583		one of the *ḫwrw*

Table 13 - The main categories to which ḥsbw *and* mnyw *belonged.*

seated men used as checkmark for each name of the right side, followed by strokes up to six. The expression "[…] who is? in the mayor's charge" for example corresponds to a seated man with three strokes . The content of the third column on the left is uncertain due to the missing first two lines of the heading. It contains high numbers up to 336 (line 3) which may have referred to the number of work days, or maybe to the quantity of loaves supplied to each worker. On the basis of the parallels of Papyri Berlin 10081C and 10047 (2.3.1 E), it is plausible that the *mnyw* of the heading are those individuals whose number ranges from one to six, who belong to each person named in the first column on the right.

A similar interpretation can be applied to the position of the titles of minor officials from the religious sector recorded in UC 32272B (2.3.2 B), provided that the link between the fragments is correct. In Papyri Berlin 10081C and 10047 the workers were denoted by their name (missing in 10081C), followed by the seated man and, after that, the minor official to whom they belonged (Fig. 13). Therefore, the missing part of the text between name of the worker and title of minor official in UC 32272B may have been intended for the seated man. UC 32272B and UC 32190B seem to attest that also *mnyw,* like *hȝw* workers, could be part of the personal estate of officials, namely they were household's members (Table 14).



Fig. 38 - UC 32190B verso (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

2.3.2 O - The same pattern appears in UC 32170 (Collier & Quirke 2006, 44–7) (Fig. 39 and Plate 3). The heading is missing but the presence of *ṯsw* 'commanders' under the charge of two gangs of people (lines 2 and 12), suggests that this is a namelist of temporary workers, as the same official was at the head of *hȝw* workers (2.3.1 A), *ḥsbw* and *mnyw.* The thirteen people listed for the task in the *recto* and identified by place of provenance, name and second name are people sent by minor officialdom of religious and civil administration, and individuals identified by professions. These senders are recorded in the fourth column on the left side of the sheet (Plate 3 and Table 15). The variety of the masters is similar to the type of list for *hȝw* (2.3.1 A, Table 3). In particular the identification as *s n X* (with X title and name of minor official) of P. Berlin 10104 equates those workers denoted by their name *plus* title and name of the minor official (lines 5, 6, 8, 10, 15), and name *plus* title *plus* title and name of minor official (lines 3, 7, 13) of UC 32170 (Table 15). In the right-side list of line 9 the worker Hori is recorded. At the place of the office of a master, the corresponding line of the left-side list records: "*ḫr ỉmy-r w ỉpwỉ*" "dependant of the 'district overseer' Ipwi". This locution should identify the condition of Hori. The previous workers are seemingly *ḫr* sent by their masters, but no one presents the label *ḫr*; they are all identified

	dependants of officials of religious sector	**dependants of officials of administrative sector**
UC 32186	pure priest	
UC 32190B		minor official/profession? under the mayor (*mnyw*)
UC 32272B?	musician (*mnyw ỉtḥw ỉnrw*) controller of *phyle* (*mnyw ỉtḥw ỉnrw*)	

Table 14 - People from whom the workers come.



Fig. 39 - UC 32170 recto; hieroglyphic transcription (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL).

by office and name of their masters. The placement of the term *ḫr* in the column reserved for the masters may thus mean that Hori goes in person to perform the work, namely he is not a replacement. Among the masters, one line attests to a modest profession: brewer (line 14). Interestingly he is wealthy enough to send someone to perform the task (Table 15). At line 16, left-side list, is recorded the expression "butcher of the mayor himself". This may be interpreted either as the reference to the master and sender of the work-

I column from right to left	**II and III columns** from right to left	**IV column** from right to left	**lines**
		reference to Masters	
[…]	[…]	[…]	1
	'Commander' [Name]	[Title?]*n* + Title + Name	2
	"Commander" + Name	Title + Name	12
	Name	Title + Title + Name	3, 13
Toponym	Name	Title + Title + Name	7
Toponym	Name	Name	4
	Name	Title + Name	5
Toponym	Name	Title + Name	6, 8, 10, 15
	Name	*ḫr* + Title	11
Toponym	Name	*ḫr* + Title + Name	9
Toponym	Name	Profession + Name	14
Toponym	Name	Profession + Title	16

Table 15 - UC 32170: system of identification of the workers.

er recorded in the corresponding line of the right-side namelist, and as the profession of the worker himself, who goes in person to perform the duty. In this text 'brewer' and 'butcher', which are usually considered 'modest' professions held by low-status people, seem to indicate a higher social level instead, being comparable to minor officials who were owners of dependants. This supports what I have suggested concerning similar roles recorded in P. Berlin 10104 (2.3.1 A). Hence I suggest that the expression "[…] who is? in the mayor's charge" of UC 32190B refers to a similar situation.

In correspondence with the places of provenance, there are attendance marks (red for absentees, black for those present) on the first column on the right (Plate 3). The namelist continues in a second column on the extreme left side of the sheet, and on the *verso* where a third *ṯsw* 'commander' is attested.

2.3.2 P - A butcher with dependants is attested in UC 32121 (Collier & Quirke 2006, 48–9) (Plate 4). This fragment records a namelist of eight people whose profile is not specified, as in UC 32170. However, the categories listed equate to those of UC 32170 and to *ḥȝw*: minor officials, relatives of minor officials presumably recorded for their position as household members, and *ḫr* "household member" of a person identified by a modest profession: the butcher. Black and red ink marks placed on a right side vertical column attest that attendance has been checked.

Then P. Berlin 10038 C (Luft 1992a) confirms that the annulment of the obligation marked by the expression *dr sḏbw* "to remove obstacles", attested for *ḥȝw,* occurred also with *mnyw.* The document focuses on *mnyw* who did not perform their duties many times as Senwosret in P. Berlin 10065 (2.3.1 D). In P. Berlin 10022 the annulment of obligation from *rmṯ* "people" is associated with the action to bring a *ḥsb.* However, there are no clues to ascertain that those from whom the obstacles were removed were actually *ḥsbw.*

As regards the length of service, the Reisner Papyri provide evidence that crews (*ṯswt*) of *ḥsbw* and *mnyw* were subject to shifts which lasted from two to four months. The Lahun Papyri confirm the temporary employment, organisation in small groups under the officials *ḫrp, sš* and *ṯsw,* and the same span of engagement. In UC 32168 (2.3.2 G) and UC 32182 (2.3.2 H) *mnyw* are "given as stipulated" for a task of a duration of two months, while a longer employment of four months in a row is recorded in UC 32190B *verso* (2.3.2 N). The expression "given as stipulated" implies a decision previously taken by an administrative body.

The Lahun letters and accounts refer to *wʿrwt* "sections" of *mnyw* (*e.g.* UC 32168, UC 32182 and UC 32190B *verso*). The term 'section' seems to refer to the portion of the year denoting the timespan of engagement for the workers. I am not persuaded to identify these *wʿrwt* as division units, because the *wʿrt* was the typical division of craftsmen and artists, such as sculptors, jewellers, pottery-makers, metal-workers (*e.g.* goldsmiths and coppersmiths), carpenters, draughtsmen, and fullers and sandal-makers (Kóthay 2007; Quirke 2004, 74–8).

In addition to being the only attestation of *ḥsbw* working inside a store/production area, P. Berlin 10080 (2.3.2 J) is the only document which indirectly associates *ḥsbw* with the toponym Sekhem-senwosret where the 'provisioning area of the god's offerings' was located. The other sources constantly link *ḥsbw* and *mnyw* with the other main toponym of the Lahun area: Hetep-senwosret, the administrative centre. The connection between workers and town is often direct. An example is the sentence "given as stipulated to Hetep-senwosret true-of-voice" in reference to *mnyw* in UC 32182. Additionally, in accounts UC 32174 (2.3.2 A) and UC 32181 (2.3.2 I) there is the expression *ḥsbw ỉtḥw ỉnrw n ḥtp-snwsrt mȝʿ-ḫrw* "the *ḥsbw* stone haulers of Hetep-senwosret true-of-voice". Furthermore, the list of *mnyw* of UC 32168 (2.3.2 G) is drawn up inside the office of the district of Hetep-senwosret. Besides, UC 32352 (2.3.2 C) refers to *ỉtḥw ỉnrw n ḥtp-snwsrt mȝʿ-ḫrw* "stone haulers of Hetep-senwosret true-of-voice". Six occurrences out of seven connect *ḥsbw, mnyw* and stone haulers to Hetep-senwosret. In contrast, *ḥȝw* and *ỉwȝw* were constantly linked to the other toponym Sekhem-senwosret (see above 2.3.1).

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As we have hitherto seen, the same type of workforce was utilised in different activities for which, apparently, they did not need to be trained, and that usually required considerable effort (*e.g.* dragging stones

from quarry and construction sites, and other menial tasks). Aside from these temporary or seasonal activities, during the remaining part of the year the workers did their own jobs, such as gardener, mat maker, and fisherman. When these people were recruited to accomplish temporary duties, they became an anonymous mass of 'counted men' or 'enlisted men', no matter what their main profession was. Seemingly, they changed from the state of being differentiated individuals to an unskilled workforce. As *ḥȝw* and *ỉwȝw,* they were not hierarchised inside their work group. *ḫsbw* and *mnyw* shared the same features: origin, professions, type of duties, and label of 'stone haulers'. These similarities raise the question of what the difference between them actually was.

2.4 - LABOUR MANAGEMENT

2.4.1 - The institution *ḫnrt wr*

INTRODUCTION

The institution comprised two main entities: the *ḫnrt wr*, the central seat, and its *ḫnrt/w*, operative 'arm/s'.

The sources with *ḫnrt* and *ḫnrt wr* which will be discussed in this chapter are listed in Plates II and III of the Appendix, including the relevant bibliography. The earliest source for *ḫnrt* dates to the late Eleventh Dynasty, time of Montuhotep II (NY MMA 57.95). The first attestations of *ḫnrt wr* appear later under the reign of Senwosret III. As the table shows (Plate III) the attestations of *ḫnrt wr* reached their peak in the late Middle Kingdom (from the second half/end of the Twelfth Dynasty to the beginning of the Thirteenth Dynasty). The latest sources of *ḫnrt* and *ḫnrt wr* date to the Seventeenth Dynasty: a juridical stela from Karnak (Plate III), and perhaps Vienna ÄS 91 (Plate II) and CG 20322 (Plate III).

The expression *ḫnrt wr* appears in function titles of officials from heterogeneous Middle Kingdom monuments: rock inscriptions, stelae and sealings (2.2.2). Rock inscriptions can help to identify the geographical range of intervention of *ḫnrt wr,* as they are left in specific places as records of activities undertaken nearby, or to mark passages of expeditions through the area. The same type of information can come from sealings, as they attest to the presence of officials at the place where they are discovered. Funerary stelae, which represent the highest percentage of sources, offer a different type of information. They can provide insights into relations among offices and family ties, helping to identify the roles of the institution. The only known attestations of the expression *ḫnrt wr* not included in titles are in two tiny fragments of administrative documents, namely P. Berlin 10381A and UC 32109E, and in P. Brooklyn 35.1446 (2.4.1 A below).

The term *ḫnrt* appears in the same type of written sources. In addition to be part of function titles of the officials working for the institution, the word *ḫnrt* is frequently recorded alone with reference to the entity. Most attestations of the latter come from the Lahun Papyri (*i.e.* Papyri Berlin 10021, 10026, 10059, 10067, 10090, 10242 A, 10303, 10412 D, and UC 32128).

PALAEOGRAPHIC AND PHILOLOGICAL NOTES ON THE WORD *ḫnrt*

The hieroglyphic writing of the word *ḫnrt* comprises the sign  plus the sign  for the singular feminine ending *t,* followed by  the determinative for the class of meaning 'building'. The hieroglyph can be read as triliterals *ḫnr, rtḥ* and *ỉtḥ.* As noticed by Quirke (1988, 83), the absence of phonetic complements does not help in the choice of the reading. In my study, I will follow the conventional reading *ḫnr* (Grajetzki 2006; Hayes 1955; Menu 1981; Quirke 1988, 1990, 2004; van den Boorn 1988). Despite the *-t*, the noun *ḫnrt* is masculine. In Papyri Berlin 10026, 10242 and 10303 the term is preceded by the Middle Egyptian masculine article *pȝ,* and in P. Berlin 10021 (2.3.1 J) it is followed by the masculine form of the demonstrative adjective *pn.* Moreover, the term can be followed by the masculine form of the qualitative adjective *wr* "great". Only on funerary stela BM EA 828 is the adjective *wr* replaced by the synonym *ꜥȝ* (p. 66). Like *wr*, also *ꜥȝ* is used in its masculine form without the feminine ending *-t.*

As for the hieratic writing, I observed three different versions in the drawing of the phonetic *t,* and the determinative . The signs conventionally form a vertical group with the *t* preceding and consequently placed above the determinative. In the first version, the two signs are traced separately and the hieroglyphic form of the determinative, the building, is easily recognisable. A good example is the following from P. Berlin 10021 (2.3.1 J): . This orthography oc-

curs also in Papyri Berlin 10026 and 10067 (2.3.1 I). In the second version, the two signs are divided as in the first version, but the rectangular determinative is written with two strokes only: the upper horizontal one, drawn with a very short stroke, and the longer vertical one on the right, as in P. Berlin 10216: . The same type of writing is present in P. Brooklyn 35.1446. Finally, in the third version, the *t* and the determinative are joined, generating a ligature, the result of a single stroke as in P. Berlin 10026: .

The existence of such variants may find an explanation in the different style and handwriting of the scribe, as well as in varying levels of skill and practice, and in different writing speeds. Among the documents, P. Berlin 10026 is the only case where the noun *ḫnrt* is written in two different versions: the first where the hieratic signs are separated, revealing that the scribe paid attention in drawing the determinative, and the third version where the signs are united in a single one (highlighted in yellow in Plate 5). Other irregularities involve the hieratic sign for the phoneme *alef* and the biliteral *pȝ*. As the image shows (Plate 5), in lines 13 and 14 the lower part of the sign (highlighted in red) is traced with a long diagonal stroke. Conversely, at the beginning of the text in line 5, the lowest stroke is shorter and horizontal. The way to draw this biliteral and *t* and  of the word *ḫnrt* can be considered what Janssen defines a 'principal' variation, as it reveals a totally different style (Janssen 2000, 52). Such irregularities in the same document might be due to the higher speed of writing at the end of the document (most plausible) or to the intervention of a second scribe, perhaps an assistant.

THE MAIN WRITTEN SOURCES: P. BROOKLYN 35.1446 AND *THE DUTIES OF THE VIZIER*

2.4.1 A - Papyrus Brooklyn 35.1446 was published by Hayes in 1955. Subsequently, a new analysis and interpretation of the text appeared in Menu 1981 and Quirke 1990. The content of the *recto* was begun in the late Twelfth Dynasty under the reign of Amenemhat III and completed in the early Thirteenth Dynasty. The content of the *verso* dates to the first years of Sobekhotep III, ruler of the mid Thirteenth Dynasty (Hayes 1955, 15–16; Parkinson 2008, 99–100; Quirke 1990, 128). This hieratic papyrus is part of an administrative document known as 'register of fugitives', where offences were recorded and archived by officials of the *ḫnrt wr*.

The institution is the addressee of directives about defaulters, which were issued by the bureau of the vizier. The register of the *recto* is organised in horizontal entries, each for one defaulter, crossed by vertical columns providing basic information: name and filiation (col. *a*), designations (col. *b*), sex (col. *c*; in some instances the role of the defaulters is specified), summary of the case (col. *d*), checkmark and brief note on the current state of the person (col. *e*), and confirmation addressed to the vizier that the case is closed (col. *f* and *g*). Due to the fragmentary nature of the papyrus, this information is not available for all the entries. Most of the preserved lines refer to men; only one case seems to involve a woman (entry 63). The offences committed are: fleeing from the *ḫnrt,* fleeing from an assigned duty, being absent, and being absent for more than six months. As highlighted by Quirke, the verb used in the first two cases, *wʿr*, may mean "flee from a place", the *ḫnrt* in the first instance, a workplace in the second one. Conversely, the verb used in the third case, *tš*, may refer to the "failure to arrive for work" (Quirke 1990, 135).

The papyrus reveals the existence of procedures and punishments on the basis of specific regulations (*hpw*), which strongly suggests that the tasks assigned to these people were compulsory. An example of the directives is "[…] being (an order) issued to execute against her the law pertaining to one who flees without doing his labour-duty" (Parkinson 2008, 101). The existence of regulations associated with the institution is confirmed by the *Admonitions of Ipuwer* that "lay out in explicit terms the relationship between destruction" of the "scribal recording and the collapse of social control" (Eyre 2013, 73). A section of this text records that *ḥwrw* tear up *hpw nw ḫnrt* "the written regulations/laws of the *ḫnrt*" in the street (Parkinson 1997, 178–9). The word *ḥwrw*, 'rebellious', is of literary use only, and does not pertain to the administrative sphere. According to Berlev (1978, 64–6) and Kóthay (2013, 486), it may denote people of the poorest stratum of society.

Some directives (entries *d*) relate to the freeing of the defaulters, *wḥʿ* "release them" (lines 59–80), and the release of the *ḫr* of a defaulter, *wḥʿ ḫr.f* (lines 55, 56), from the *ḏȝḏȝt, "*the board". This was a body of officials intended as a commission instituted for specifc assignments or projects (Quirke 2004, 24). *ḫr* was one of the terms used to indicate the Egyp-

tian households, whose size and composition "varied greathly depending on their social status" (Moreno García 2012, 3). In the early Middle Kingdom Coffin Texts (*e.g.* spells 131, 132, 136, 142, 146, 173: De Buck & Gardiner 1935–61; Faulkner 1973; Willems 2008, 214–20) the extended Egyptian 'family', here denoted by the word *ꜣbt*, embraced family members (*ỉt* "father", *mwt* "mother", *msw* "children"), dependants, friends and associates, what Willems defines "ensemble domestique […] responsable de la gestion de la propriété familiale" (Willems 2008, 194). The main core of the average household however included family members and dependants who were under the head and lived in the same house. Hayes first, then Kemp (2006, 181), interpreted the word *ḫr* of P. Brooklyn 35.1446 as "members of the family" suggesting that one or more relatives of the transgressors were taken and detained as hostages. Menu (1981), Parkinson (2008, 100) and Quirke (1990, 136), and recently Kóthay (2013, 508) preferred the translation "dependants". According to the text, every ten years the cases were re-examined to set free those who were still under the charge of the institution (Quirke 1990, 136).

The punishment might have been indefinite labour on state lands (Quirke 1990, 136–8). This may be suggested by the case of a transgressor and his *ḫr* given to the ploughlands as *ḏt nt ḏꜣḏꜣt* "(permanent) servants of the board" (entries *d*, lines 57–8). Furthermore, according to Hayes, entries *b* lines 31–7 seem to refer to the *ḏꜣḏꜣt wʿb-ḫt,* a board related to some type of state lands, maybe "newlands" (Hayes 1955, 130; Quirke 1990, 136). The reading of the word *ḏꜣḏꜣt* is difficult, due to a lacuna and faded ink. However, Hayes may be right. As conjectured by Quirke, that *ḏꜣḏꜣt* might correspond to the *ḏꜣḏꜣt* which releases the transgressors in entries *d.* This would suggest that transgressors could be condemned to work state lands.

2.4.1 B - The *Duties of the Vizier*, is a literary text. It is preserved in four parallel versions on the walls of New Kingdom tombs of viziers at the Theban necropolis (Reckhmire TT no. 100, User TT no. 131, Amenemhopet TT no. 29 and Paser TT no. 106). The date of composition is uncertain. According to van den Boorn (1988, 344–76), orthographical and lexicographical details, content, and type and motive of the text, relate to a New Kingdom background, probably to the beginning of the Eighteenth Dynasty under Ahmose. Other scholars argued that the text was composed during the Thirteenth Dynasty (*e.g.* Eyre 2013, 56 ff; Grajetzki 2009, 16) because administrative terminology and titles are compatible with a late Middle Kingdom administration (van den Boorn 1988, 334 ff; Eyre 2013 56–7; Quirke 1988, 98).

The *Duties of the Vizier* provide important details on the spheres of authority and daily routine of the *tꜣty*, 'vizier', "the highest office at the royal court" in charge of palace and provincial administration and, as main judge of the country, the "responsible for right procedures in the offices" (Grajetzki 2009, 15). Section 6, columns 13–15 of the text mentions the *ḫnrt wr* (van den Boorn 1988, 120 ff). This section focuses on hearing cases instituted inside the office of the vizier about people, including officials, who failed to fulfil their duties. The failure is considered an offence, and the consequence is a black mark: the names of the offenders were added on the *šfd n ḫbnty wnn m ḫnrt wr,* the "roll of transgressors which is in the *ḫnrt wr*". The text informs that, if the transgressors commit the offence a second time, the entries must be "reported with a summary of the case" (Quirke 2004, 94).

This roll may correspond to the register of P. Brooklyn 35.1446, as Hayes has suggested (Hayes 1955, 65–6; Quirke 2004, 94–5; van den Boorn 1988). A different opinion comes from Eyre. He recently cast doubts on the identification of the two registers, stressing that they focus on different "types of deficit", and that the format of the register of P. Brooklyn 35.1446 may not be "appropriate to the type of reference implied" in the *Duties of the Vizier* (Eyre 2013, 71 n. 100). Eyre translates the sentence *tm t(y).f(y) dr.n.f sḏb* of section 6 of the *Duties of the Vizier* as "if he shall not refute the complaint for him" (Eyre 2013, 71), which is similar to van den Boorn's translation "the one who will be unable to exculpate himself" (van den Boorn 1988, 121). However, the expression *dr sḏb* is the locution used in the Lahun Papyri (2.3.1 D) for the annulment of the labour obligation. Consequently, I prefer Quirke's translation "anyone whose (labour) duty he not remove" (Quirke 2004, 94). In disagreement with Eyre, I think that the type of deficit recorded in the *Duties of the Vizier* corresponded to that recorded in the register of P. Brooklyn 35.1446. Therefore, I support Hayes' inference identifying the *roll* mentioned in the first text with the *register* of P. Brooklyn 35.1446. The *Duties of the Vizier* seem to provide evidence of the procedure undertaken by the vizier and the *ḫnrt wr* concerning defaulters.

	Papyri (administrative and legal documents)	stelae/coffins	rock inscriptions/ graffiti	tomb paintings
ḫnrt ʿ3		√ (BM EA 828, *Budge 1911*)		
ḫnrt	√ (Papyri Reisner I and IV)	√ (MMA 57.95; CG 28040)	√	√ (Djehuti-hotep tomb, Deir el-Bersheh)

Table 16 - Distribution of attestations of the departments in different types of written sources of end Eleventh Dynasty and early Twelfth Dynasty. When the number of sources is lower than five, they are indicated in brackets.

	Papyri (administrative and legal documents)	stelae	rock inscriptions	sealings
ḫnrt wr	√ (PB10381A - UC32109E - P. Brooklyn 35.1446)	√	√	√
ḫnrt	√	√	√	√
ḫnrt n Ikn? (*ḫnrt* of the Mirgissa Fort)				√
ḫnrt Ḏr-styw? (*ḫnrt* of the Askut Fort)				√
ḫnrt n sḏm	√ (UC 32209)			

Table 17 - Distribution of attestations of the departments in different types of written sources from late Twelfth Dynasty onwards. When the number of sources is lower than five, they are indicated in brackets.

MEANING OF THE WORD *ḫnrt*

The noun *ḫnrt* derives from the transitive verb *ḫnr* which means "restrain", "lock up". Considering the *ḫnrtw* as prisons and work-camps where people who escaped from state corvée were detained, Hayes (1955) proposed translating the noun *ḫnrt* as "prison" and *ḫnrt wr* as "Great Prison". He distinguished between a central institution based in Thebes and local prisons intended as sub-departments widespread throughout the country. Subsequently, Quirke preferred to translate *ḫnrt* as "enclosure" interpreting the *ḫnrt wr* as the main bureau. He first highlighted the strong association with labour organisation, suggesting that the translation "prison" and "Great Prison" were inappropriate (Quirke 1988; 1990; 2004, 94–5). Grajetzki agreed, utilising the translations "enclosure/ compound" and "Great Compound" (Grajetzki 2006; 2009, 85–6). On the basis of the evidence that the *ḫnrt* contained people who could flee from it, I think that the translation "enclosure" is appropriate. We do not have similar evidence for the *ḫnrt wr*. As I will discuss later, the sources with *ḫnrt wr* suggest that the main role of the entity was to record and archive administrative documents. Consequently, I do not think the translations "great enclosure" or "great compound" to be appropriate. I agree with Quirke in considering the *ḫnrt wr* the central seat, a reference point for the operative enclosures. Accordingly, a possible translation may be "the main *ḫnrt*".

	in formal designations of individuals (titles)	outside titles
ḫnrt wr	√	√
ḫnrt ꜥ3	√	
ḫnrt	√	√
ḫnrt n Ikn? (*ḫnrt* of the Mirgissa Fort)		√
ḫnrt Ḏr-styw? (*ḫnrt* of the Askut Fort)		√
ḫnrt n sḏm	√	√

Table 18 - Type of attestation for each department.

STRUCTURE OF THE INSTITUTION

DEPARTMENTS AND STAFF

The following tables show the range of attestations for each department in different types of sources. The first (Table 16) includes attestations dated to the end of the Eleventh Dynasty and early Twelfth Dynasty, the second (Table 17) focuses on the late Twelfth Dynasty. A differentiation is needed due to the diverse nature of early and late Middle Kingdom administration (1.5).

Only later, when the first evidence of *ḫnrt wr* appears in the mid Twelfth Dynasty, is the *ḫnrt* clearly intended as a labour base. Attestations of *ḫnrt* in Nubia – rock inscriptions and graffiti (Plate II) – during the First Intermediate Period refer to a military enclosure for defensive purposes (Quirke 1988). The expression *ḫnrt ꜥ3*, attested only once in a stela of the early Twelfth dynasty (Table 16), was later replaced by *ḫnrt wr*. The use of *ꜥ3* for "great" became very rare after Senwosret I (Rosati 1980, 71). Each department can be mentioned in formal designations of the officials who worked for it, or be disengaged from titles denoting the entity. Exceptions are the *ḫnrtw* of forts which do not appear in titles (Table 18). The tables 19 and 20 show the titles of officials working for each department.

The managerial role within the institution was associated to the office *ỉmy-r* 'overseer'. The most attested is the 'overseer' of the *ḫnrt,* who, during the Thirteenth Dynasty, could be appointed *ḫtmty bỉty* 'royal sealer' (*e.g.* Ibia in BM EA 1348 and Montuhotep in Khor el-Aqiba 21), the highest ranking title (1.4) at the royal court during the Middle Kingdom (Grajetzki 2009, 5). The high status and power of the *ỉmy-r ḫnrt* are confirmed by the title *ṯ3ty* 'vizier', to which that official or his relatives could be appointed (*e.g.* Ibia of MMA 22.3.307 and Aswan 1343; Habachi 1984, 115–16). The other officials of the *ḫnrt* were the *ỉry-ꜥ3* 'doorkeeper' (Papyri Berlin 10026, 10216, 10303, and Louvre C6) and the *ṯ3w* (Sinopoli Egi 06; Vienna

STRUCTURE IN HIERATIC DOCUMENTS	OFFICIALS
ḫnrt wr	*sš* (scribe) (P. Boulaq 18)
ḫnrt	*ỉry-ꜥ3* (doorkeeper) (Lahun Papyri)

Table 19 - Attestations of officials working for the departments as attested in hieratic administrative documents. When the number of sources is lower than five, they are indicated in brackets.

STRUCTURE ON MONUMENTS AND SEALINGS	OFFICIALS
ḫnrt wr	***ỉmy-r* (overseer)** (9441T, Tell el-Daba) ***sš* (scribe)** ***ṯzw n sš* (assistant scribe)** (BM EA 250) ***ṯzw* (*n sš* ?) (bearer/assistant scribe?)** (Jerusalem 76.31.4502)
ḫnrt	***ỉmy-r* (overseer)** ***ỉry-ꜥ3* (doorkeeper)** (Louvre C6) ***ṯzw* (bearer?)** (Vienna ÄS 91 - Sinopoli Egi 06)
ḫnrt ꜥ3	***sš* (scribe)** (BM EA 828)
ḫnrt n sḏm	maybe: ***sḏm rmṯ*** (hearer for people) ***sš wr n sḏm rmṯ*** (chief scribe of the hearer for people) ***ỉdnw n sḏm rmṯ*** (deputy of the hearer for people) ***ỉry ḫt n sḏm (rmṯ)*** (keeper of items for the hearer)

Table 20 - Attestations of officials working for the departments as attested in hieroglyphic writing on monuments and sealings. When the number of sources is lower than five, they are indicated in brackets.

ÄS 91), a person usually attached to higher officials, a "trainee" (Ward 1980, 170–4).

As regards the staff of the *ḫnrt wr*, only one attestation of 'overseer' has hitherto been discovered. It is a sealing of the 'overseer of the *ḫnrt wr*' Ptahemheb, found at Tell el-Dab'a in 2011 (Marée 2012, 75–76). All other officials linked to the *ḫnrt wr* are *sšw* 'scribes'. One case only is known for *ṯzw n sš ḫnrt wr* (Table 20) possibly an 'assistant' or 'bearer of the writing equipment' (Ward 1980, 174). The title *ṯzw n ḫnrt wr* recorded on seal Jerusalem 76.31.4502 may be an abbreviated variant of the former. The evidence of scribes associated with the *ḫnrt wr* identifies the writing as a dominant activity performed by the personnel of the main bureau.

No sure attestations of 'scribes' of the *ḫnrt* have been hitherto discovered. The only three known cases are very dubious. The 'scribe of the *ḫnrt*' Sasobek in Wadi el-Hudi rock inscription 23 (Sadek 1980, 48; 1985 Pl. XI) probably corresponds to the homonym 'scribe of the *ḫnrt wr*' on stela Sinopoli Egi 06 (Roccati 2003) and seal Martin 1339 (Franke 1984, no. 548). A large damage of the central part of the Wadi el-Hudi rock does not allow for the reading of the text after the word *ḫnrt.* As regards statue 98 from Kerma (Reisner 1923, 523, Fig. 345), the first transcription made by George Reisner – subsequently mentioned by Brigitte Gratien (1991, 44) and Ronald Leprohon (1993, 429) – records only 'scribe of the *ḫnrt*' without the adjective *wr*. However Gratien herself, in a later article, refers to the same statue denoting Sasobek 'scribe of the *ḫnrt wr*' (Gratien 1994, 196). The reading of the title in stela Cairo CG 20322 (Grajetzki & Stefanović 2012, 13, No. 25) is also uncertain. In the vertical inscription of title *plus* name of a male figure, the sign of the old man with the stick  – biliteral *wr* – is written on the right side of *sš* rather than after *ḫnrt* (and before the personal name), suggesting the reading *sš wr n ḫnrt.* However, this may reflect the choice of the author of the inscription, due to the limited space available between two male figures. Consequently I think that the title must be read *sš n ḫnrt wr.* Perhaps, the only indication of scribes working in the *ḫnrt* might be the attestation of the title *ṯzw n ḫnrt* (Table 20), which could have been an abbreviated variant for *ṯzw n sš n ḫnrt,* as I have previously proposed

concerning the title *ṯzw n ḫnrt wr*. However, in the latter case we have sources attesting both forms, with and without *sš*. Since no form with *sš* is preserved for the *ḫnrt* official *ṯzw*, the proposed correspondence of titles cannot be substantiated. Thus, currently we do not have any sure evidence that scribes (or assistant-scribes) worked in the *ḫnrt*.

The roles of the *ḫnrt wr* and the *ḫnrt* seem to have been different. The first was seemingly centred on writing. Besides the 'register of fugitives' of P. Brooklyn 35.1446 and the roll attested by the *Duties of the Vizier*, the fragment P. Berlin 10381A provides additional evidence recording a *šʿt m ḫnrt wr* "document which is in/from the *ḫnrt wr*" (Kaplony-Heckel 1971, 219 no. 554). Moreover, in the funerary stelae, the scribes of the *ḫnrt wr* are prevalently associated with other scribes (see below p. 76). The sources reveal that the *ḫnrt* was instead a place from which people could flee (2.4.1 A) and could be requested by external institutions for labour (2.3.1 J). It seems clear that the *ḫnrt wr* kept an archive of directives (Quirke 1988), while the *ḫnrt* managed those people mentioned in the records.

Two sources – the early Twelfth Dynasty stela BM EA 828 (Budge 1911) and UC 32209 (below 2.4.1 E) attest to the existence of another entity: the *ḫnrt n sḏm*. Van den Boorn, following Hayes (1955), believes that the *ḫnrt n sḏm* was a subsection of the *ḫnrt wr,* responsible for investigations. Based on section 6 of the *Duties of the Vizier* (2.4.1 B), he assumes that officials of this branch were involved in hearing, namely inquiring about the activities of all the branches of the administration, as an "internal bureaucratic control system", in order to find defaulters (van den Boorn 1988, 120–1, 142). Quirke, on the other hand, has proposed the translation "the *ḫnrt* of the hearer", suggesting that it could be an unofficial designation of the *ḫnrt* placed near the Residence under the supervision of the official *sḏm rmṯ* 'hearer for people' (Quirke 1986, 127; 1988, 99-100; 2004, 50). The word *sḏm* in offices is attested in two late Middle Kingdom suffix-titles: *sḏm rmṯ* and *sḏm šnʿ*. Both are specifications of the office *ỉmy-r ḥtmtyw* 'overseer of sealers' (Quirke 2004, 50 after Berlev 1978). The first refers to estate workers "outside the compound walls, in the fields of the palatial estate" (Quirke 2009, 311), the second to the food production area of the palace. According to Quirke, there was the need to distinguish between a temporary staff, the heterogeneous group of *rmṯ*, and a permanent staff who took the name of the institution to which it was attached, the *šnʿ* (Quirke 1988, 99; 1986, 127). On the basis of the interpretation of 'hearing' as royal decrees, Quirke (2004, 50) also suggests that the 'hearer for people' was likely in charge of communicating decrees concerning workers on estates. Additionally, some stelae suggest that the office *sš wr n sḏm rmṯ* 'great scribe of the hearer for people' was part of the staff of the *ỉmy-r pr wr* 'high steward', one of the highest officials at the royal court after the 'vizier' and the 'treasurer' (Grajetzki 2009, 70, 127 after Berlev 1978). The 'high steward' was the "administrator of the domains of the country, basically responsible for the management of fields and cattle" (Grajetzki 2009, 70). Joining function titles such as 'overseer of the double granary', highlight his role in the management of agriculture. I agree with Quirke's reasoning and I further propose that the role of the 'hearer for people' could be also directly related with the role of the local official *wḏb wpwt* 'distributor of staff-lists/commissions', who was involved in the management of estates.



Fig. 40 - Funerary Stela CG 20562 (after Lange & Schäfer 1903).

2.4.1 C - This assumption may be supported by stela CG 20562 (Lange & Schäfer 1903, 196–8) which records the same family as on stelae CG 20015, CG 20101 and Sinopoli Egi 06. In this stela (Fig. 40) the 'distributor of staff-lists' Imeny was also 'high steward'. Relevant is the presence of two *sš ḫnrt wr* 'scribes of the *ḫnrt wr*', one of whom was Imeny's family member, which may be a piece of evidence for family members holding positions in the same or related spheres of the administration (see below). An official on the same stela bears the title *sš wr n sḏm rmṯ* 'chief scribe of the hearer for people', which may substantiate interrelations between the *sḏm rmṯ* 'hearer for people', the *ḫnrt* institution, the *wḏb wpwt* 'distributor of staff-lists', and the involvement in the management of work on estates. Moreover several funerary stelae dated to the Thirteenth Dynasty seem to confirm that the 'chief scribe of the hearer for people' was a member of the staff of the 'high steward', the responsible for fields and agrarian products (Grajetzki 2009, 127). On the basis of these considerations, I agree with the close link suggested by Quirke between the *ḫnrt n sḏm* and the officials whose titles present the component *sḏm rmṯ* (Table 20). However, a legal and 'punitive' aspect is implied in the functions of the institution for its association with offences (2.4.1 A). This is revealed in three documents which I am going to examine: P. Berlin 10303, UC 32209, and *Insert B* of P. Brooklyn 35.1446.

2.4.1 D - P. Berlin 10303 *verso* (unpublished, brief summary of content in Kaplony-Heckel 1971, 164–5, no. 403), is a communication between a 'doorkeeper of the *ḫnrt*' and a *ḳnbty n w* 'district councillor'. The latter was the official responsible for the state of the territory *w*, usually translated "district". According to Barbara Russo (2010, 79), the *w* was "smaller than a *spꜣt*". The latter may have referred to a 'province' with more towns (Quirke 2004, 114). According to van den Boorn (1988, 326), it comprised the urban area and its related rural zone, which he identifies with the *w*. As Russo (2010, 80) notes, the territory *w* "was affiliated to inhabited places" and included cultivated fields, plough-lands, and pools of water. The range of action of the 'district councillor' includes economic resources and technical operations related with lands, such as construction and maintenance of canals (Hayes 1955, 69; Russo 2010; Smith 1995, 47). Family ties in late Middle Kingdom sources suggest that his role was linked to juridical and security sectors. First, in stela Odessa 52970 (Andreu 1991, 21–6), a brother of two individuals holding the office *ḳnbty n w* is an *imy-ḫt sꜣw-prw*. This title is variously translated 'security official of the estate guards' (Quirke 1990, 79, 82) or 'contrôleur des *sꜣ-pr*' (Yoyotte 1952). His roles range from security/police to economic sectors (below). A *sꜣw-prw* is also the dedicator of an altar, together with the *ḳnbty n w* Imeny (Spiegelberg 1930, 49–51). The security and juridical sectors are also suggested by stela Cairo CG 20393, where a brother of the *ḳnbty n w* Senwosret is an *ỉmy-r šnt* 'dispute overseer'. This official had prominent responsibilities in criminal law but could also preside over property transfers having as object members of households (*e.g.* in UC 32166, Collier & Quirke 2004, 116–17). P. Berlin 10303 centres on the case of a *s n nỉwt tn* "man of this town" Sobekhotep. In line 4, the expression *sỉp pꜣ ḫnrt* "the *ḫnrt* will examine/inspect" appears. A parallel may come from P. Berlin 10065 (2.3.1 D) where the *s n* Atfih Senwosret was guilty of wrongdoing. Possibly the *s n nỉwt tn* of P. Berlin 10303 was accused of a similar offence and was waiting for the examination by the *ḫnrt*.

2.4.1 E - A comparable situation is recorded in the previously mentioned UC 32209. This is a communication about a *ḥm(w)-nsw* 'king's servant' (see above) who *wʿr*, fled. The author of the letter informs that he had been found and consigned to the *ḫnrt n sḏm*. The presence of the *ḫnrt* suggests that the offence committed by the *ḥm(w)-nsw* could be fleeing from the structure *ḫnrt* or from a workplace to which he had been assigned (2.4.1 A).

Lines (7–8) (Collier & Quirke 2002, 128–31)

Transcription:

mt ḏd […] n […]ḥr bꜣk n.ỉ

nꜣ n [ꜣḫwt?]ʿnḫ-ỉmn-m-ḥꜣt-mꜣʿ-ḫrw

Translation:

Look […] said to […] about working for me

the [fields?] in Ankhamenemhat true-of-voice

On the basis of the reference to a 'scribe of fields' some lines below, after a large lacuna, I propose completing the missing end of line 8 with *ꜣḫwt*, "fields". This might suggest the attachment of the defaulter

to lands. In addition, the identity of the fugitive as *ḥm(w)-nsw*, category from which *ḥsbw* workers could be recruited (2.3.2), may be meaningful.

2.4.1 F - A transgressor *ḥm(w)-nsw* is mentioned also in *Insert B* of P. Brooklyn 35.1446 (2.4.1A). This is the copy of a petition to the vizier written on the *recto* of the 'register of the *ḫnrt wr*'.

Lines 1–4 (Quirke 1990, 140–6):

Transcription:

ḥm(w)-nsw […] *ḫnt rmṯ*
tkkw m wʿrw sʿnḫ wi̯
pȝy.i̯ <nb> m rdi̯t in.tw.f r Ḥnw
wšd.tw=f ḥr pȝ tkk i̯r.n=f

Translation:

a king's servant […]from among the people
who transgressed as fugitives; redeem me,
my <lord> by having him brought to the Residence
and questioned concerning the transgression he committed

According to the text, a fugitive is brought to the Residence to be questioned. Using the language of the 'register of fugitives' we might say that the 'law pertaining to one who flees' had been or was about to be executed (see 2.4.1 A).

Based on the information provided by the previous three documents, I would propose that a *ḫnrt* near the Residence was responsible for questioning, judging, and eventually punishing defaulters. The punishment could be the assignment to indefinite (?) labour in fields, as P. Berlin 10303 and some entries of P. Brooklyn 35.1446 might suggest (2.4.1 D, 2.4.1 A). Accordingly, that *ḫnrt* may ineed have corresponded to the *ḫnrt n sḏm*, as it is designated in UC 32209 (2.4.1 E). The specification *n sḏm* in P. Berlin 10303 may have been implicit, as well as the unexpressed espression *ḫnrt n sḏm* before "the Residence" in *Insert B* (2.4.1 F). In the latter case, we need to consider that the communication had been issued by the *ḫnrt wr* institution. Consequently, there was no need to state that the transgressor had been given to the *ḫnrt (n sḏm)* of the Residence. That was already implied in the expression 'the Residence', as the addressee was familiar with context and circumstances. Moreover, these considerations may support Quirke's definition of the *ḫnrt n sḏm* as an unofficial designation of the *ḫnrt* near the Residence, and also fit the structure's involvement in the management of workers on estates (above and 2.4.1 C). In conclusion, I propose that the *ḫnrt n sḏm* was the authority in charge of the interrogation of defaulters and subsequent punishment by reassignment of the culprits to indefinite (?) work in fields.

THE ḫnrt *AND* ḫnrt wr *AS BUILDINGS*

The determinative suggests the existence of a building. This may be supported by the title *i̯ry-ʿȝ n ḫnrt,* 'doorkeeper of the *ḫnrt*' (Papyri Berlin 10026, 10216, and 10303), and the reference to a woman and a child *m ḫnrt,* "in/from the *ḫnrt*" at the entrance of the Faiyum, in the namelist of P. Berlin 10021 (2.3.1 J). The escape from the *ḫnrt,* one of the offences committed by the defaulters of P. Brooklyn 35.1446, is instead not decisive as it can be interpreted, not only as real escape from a physical place, but also in a theoretical way as escape from the *ḫnrt* authority, consequently from the duty. The sources for *ḫnrt wr* do not attest the existence of a physical installation.

THE ḫnrt *OF EGYPTIAN FORTS IN NUBIA*

A few sealings discovered inside the forts of Mirgissa and Askut seem to refer to a *ḫnrt.* These are two of the thirteen forts built by the kings of the Twelfth Dynasty along the river in the Second Cataract area, Lower Nubia (1.5) (Fig. 41). Mirgissa and Askut were built by Senwosret III and show occupation until the SIP (Dunham 1967; Smith 1995; Vercoutter 1970). The Askut Fort was then reused during the New Kingdom. These complexes usually include a fort and a lower citadel. Habitations and workshops developed beyond the walls. The discovery of sealings for documents proved the presence of specific departments within the forts: treasury, granary, and magazines for provisions (Gratien 1994; Smith 1993, 1995).

The inscriptions on the sealings are: *ḫtmt ḫnrt Ḏrstyw* "sealing of the *ḫnrt* of Djer-setyw"and *ḫtmt ḫnrt n Ikn* "sealing of the *ḫnrt* of Iken" (Fig. 42). Djer-setyw and Iken were the ancient names of Askut and Mirgissa respectively. Askut yielded two pieces,

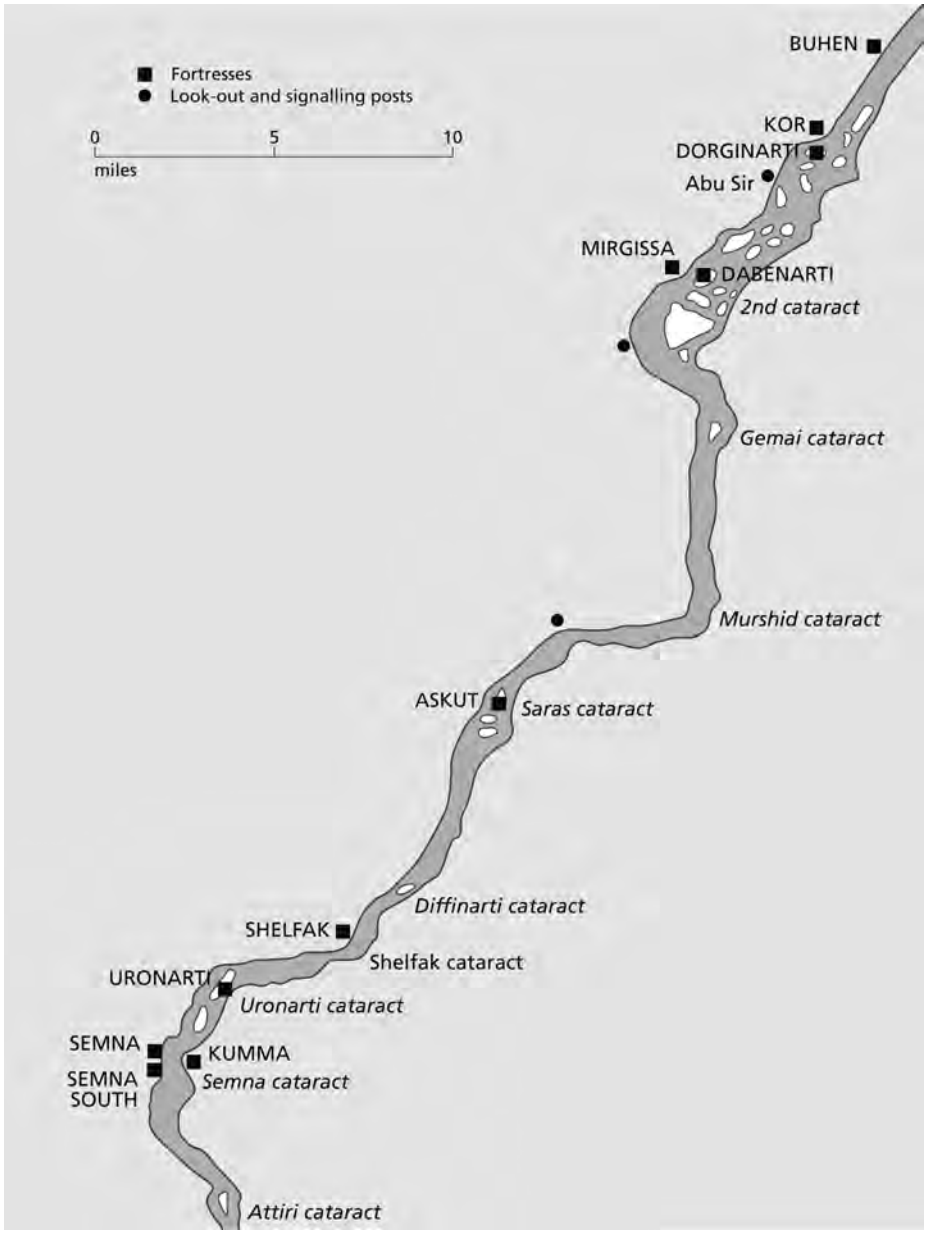


Fig. 41 - Map of the Egyptian Fortresses in the Second Cataract area in Lower Nubia (drawing © G. Maserati. After Adams 1977).

Mirgissa seven (Gratien 1994, 195–6; Smith 1995, 44). Both Gratien (1994, 187, 192, 195–6) and Smith (1995, 44) added the *ḫnrt* to the departments of the forts.

However, reading the term as *ḫnrt* presents some difficulty. In the attestations of *ḫnrt* the triliteral  and the sign for the ending *-t* are always followed by the determinative  for the class of buildings. As the image shows (Fig. 42), the samples of the sealings are written without the determinative. This absence makes the evidence ambiguous. If we compare the writing on similar sealings with terms referring to the other departments, *pr-ḥḏ* 'treasury', *wḏȝ* 'magazine' and *šnwt* 'granary' from Askut, Mirgissa, and from other Nubian forts, we can see that the determinative identifying the noun with a physical structure is usually added (*e.g.* Gratien 1994, 193, 196–7).

In Askut the sealings with *ḫnrt?* were discovered in the southeast quarter, outside the main defensive wall, near a basin likely used for gold processing and a storehouse (Smith 1995, 47) (Figs. 43 and 44). The Askut Fort, built on a island, contained a huge grain stock (22% of the entire area) that acted as grain reserve for all other forts of the territory (Gratien 1994, 194; Smith 1995). The identification of the "settling basin" with a system for gold washing (Smith 1991, 111-14; 1995, 47, 50), is supported by a similar structure discovered at Wadi Allaqi and associated with gold processing by Linant De Bellefonds (Smith 1991, 114) (Fig. 45). This discovery seems to attest that the Askut Fort was actively involved

Fig. 42 - Drawing of one sample of the sealings of the ḫnrt *of Askut (left, sealing A20) and Mirgissa (right, sealing S66) (drawing © G. Maserati. From Gratien 1994, 197).*

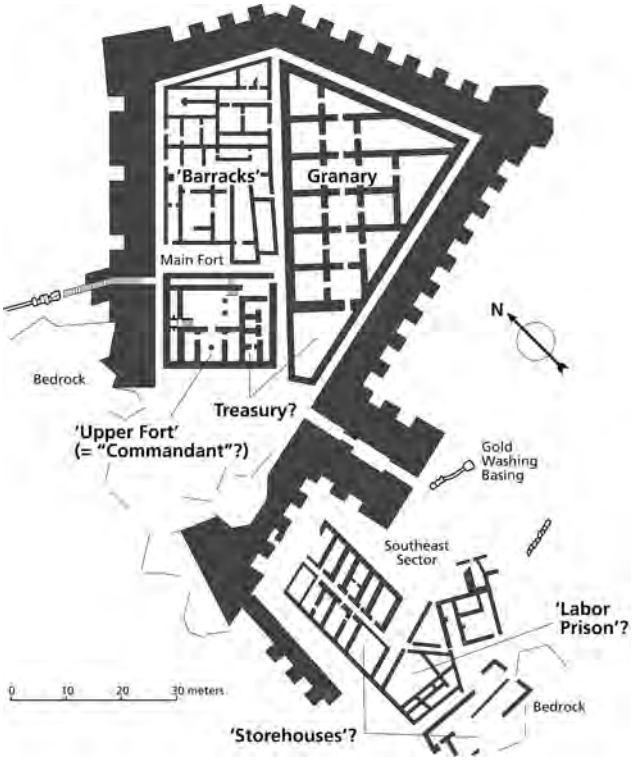


Fig. 43 - The Askut Fort. The label 'Labor Prison?' indicates the spot where the sealings of the ḫnrt*?* n dr-styw *were discovered (drawing © G. Maserati. From Smith 1995, 45).*

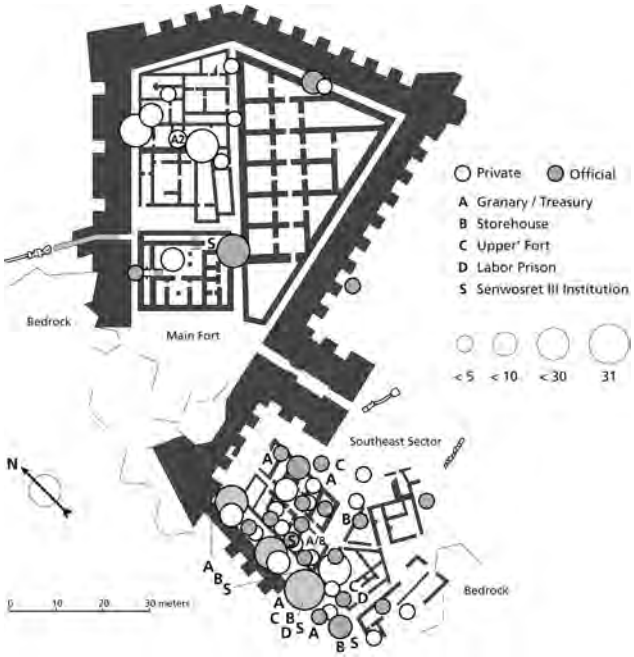


Fig. 44 - The Askut Fort. Distribution of sealings within the area (drawing © G. Maserati. From Smith 1995).

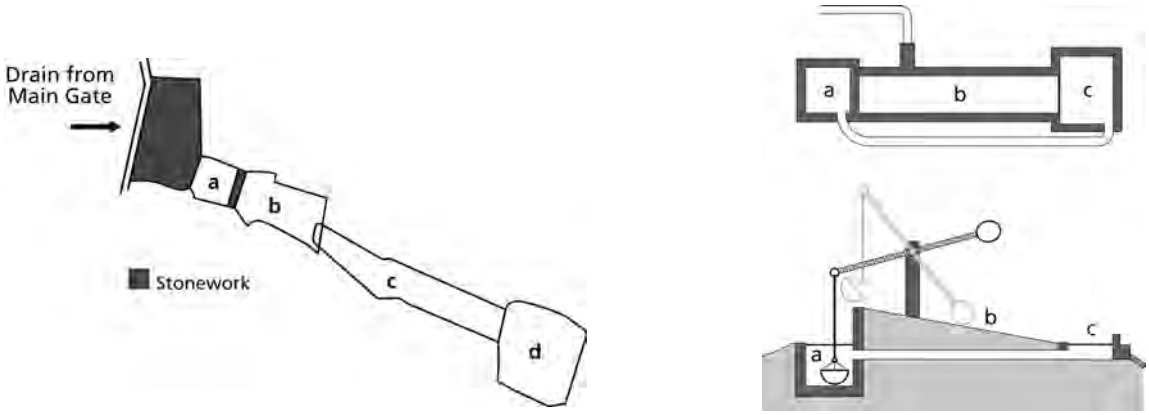


Fig. 45 - Settling basin from Askut (left) and gold washing system from Wadi Allaqi (right) (drawing © G. Maserati. From Smith 1991, 114).

in the exploitation of the nearby gold mines of Saras (Smith 1995, 47, 50). Additionally, the discovery of a statue of the *ỉmy-r ḫbsw* 'director of the plough-lands' Sobek […] might suggest that agriculture was practiced to a certain extent. Another *ỉmy-r ḫbsw* is attested in one sealing found inside the Mirgissa Fort. On the basis of the discussed evidence, if a *ḫnrt,* intended as labour base, existed at Askut and Mirgissa, it might have been involved in mine exploitation and work in the fields, supporting the settlement's life (and the replenishment of the huge granary of Askut). The people living inside the *ḫnrt* of Mirgissa may have been employed also in the workshop for brick-making discovered outside the fort (Vercoutter 1970, 214–6). The 2 km long slipway, built as defence against the rapids of the river near Mirgissa, might be suggestive of further employment. According to Vercoutter (1970, 204–14), the boats were moved by means of sledges hauled by men and oxen.

It might be thought that a *ḫnrt* provided workers also for the first stages of formation of the fort itself, like the unspecialised workers ('corvée' and hired la-

bourers) who supported the army in the construction of fortifications in the Near East during the Middle Bronze Age (Burke 2008, 141–58). However, these projects must have required a considerable number of labourers, while the structure identified by Smith as the *ḫnrt* of Askut (Fig. 43) is fairly small and not appropriate for providing accommodation for a large workforce. If we hypothesise that a department for labour *ḫnrt* was present inside each Egyptian fort in Nubia or in most of them, we have to raise the question of where labourers were accommodated. The plans of Askut and Mirgissa do not seem to show evidence of structures intended for that purpose. Another limitation is the lack of evidence of *ḫnrt wr* south of the First Cataract. To sum up, the sealings from Askut and Mirgissa might attest the existence of *ḫnrtw* as a labour base inside the Egyptian forts of Lower Nubia, but the evidence is too scant and ambiguous to confirm it.

GEOGRAPHICAL LOCATION OF ḫnrt wr *AND* ḫnrt

Thebes is the place of provenance of P. Brooklyn 35.1446 (Hayes 1955, 37 ff). This, along with several references in that papyrus to the "Southern City", may suggest that Thebes could actually be the location of at least one seat of the *ḫnrt wr* (Hayes 1955, 16–17). The Eastern Nile Delta is the northern area where evidence of the *ḫnrt wr* has been found (*i.e.* the sealing of the 'overseer of the *ḫnrt wr'* Ptahemheb from Tell el-Dab'a). Since attestations of *ḫnrt wr* cover a wide area from Lower to Upper Egypt, I suggest considering the possibility that, along with a southern seat, there existed also a northern seat (maybe near the capital Itjtawi?). P. Berlin 10381A, recording a document from the *ḫnrt wr*, may indirectly support the hypothesis, as part of the temple's archive from Lahun. Additionally, a late Middle Kingdom scarab of a 'scribe of the *ḫnrt wr*' was among the finds from the town of Lahun (UC 11357: Martin 1971, n. 1325 plate 4). Furthermore, three other scarabs of 'scribes of the *ḫnrt wr*' (UC 11467, UC 11468, UC 11506: Martin 1971 ns. 1645, 1646, 652) were discovered in the Middle Kingdom cemetery at Harageh, which during the Middle Kingdom was likely used also by the community living at Lahun (Richards 2005, 93).

A first reference to the *ḫnrt* in the area of the Residence at Itjtawi comes from P. Westcar (Quirke 1986, 127, n.57). Additionally, P. Berlin 10021 (2.3.1 J) provides certain evidence for the presence of one structure at the Faiyum entrance, where the Bar Yussef canal enters the Faiyum oasis. Possibly these two *ḫnrtw* referred to the same structure. The Reisner Papyri I and IV seem to suggest that a *ḫnrt* was located also in the south near Thebes (see below 2.5.2). This evidence may support the Hayes hypothesis of more *ḫnrtw* branches widespread throughout the country (2.4.1 A).

NETWORK OF OFFICES AND COLLABORATIONS

The word *ḫnrt wr* is prevalently attested in titles of the officials associated with it. Most of the relevant monuments come from offering chapels (Figs. 46 and 47): funerary stelae, offering-tables, statues, statuettes, and more rarely, jambs and wall-blocks. Monuments and textual sources are important pieces of evidence for the identification of family ties and collegiality (Grajetzki 2009, 125–9). Above all, funerary stelae are the most useful pieces, because those named with the deceased are his relatives, and colleagues or friends at the same level "who worked in the same branch of the administration" (Grajetzki 2009, 125) or from different but interrelated sectors. As a result, the associations among offices on monuments in the 'private' sphere can reveal relations between bureaux and departments of central and local administration, which are not otherwise obvious. Such sources can provide convincing evidence for interconnections between functions, jobs and responsibilities, contributing to the understanding of the different types of duties and roles. The same information can be obtained by examining the consecutive stages and posts of the officials' careers. Moreover frequently, "family members tended to work in the same part of the administration" (Grajetzki 2006, 154) or in collaborating branches.

Many funerary stelae which memorialise officials of the *ḫnrt wr* come from Abydos, the best attested Middle Kingdom religious centre. According to Grajetzki (2009, 9), the Abydos cemetery yielded about 2000 funerary stelae of members of the ruling class from this period. Some high ranking officials were probably involved in projects in the area, as Grajetzki (2009, 9) suggests for 'treasurers'. The officials of *ḫnrt* and *ḫnrt wr* are either the owners of funerary stelae or appear among the dedicators of the

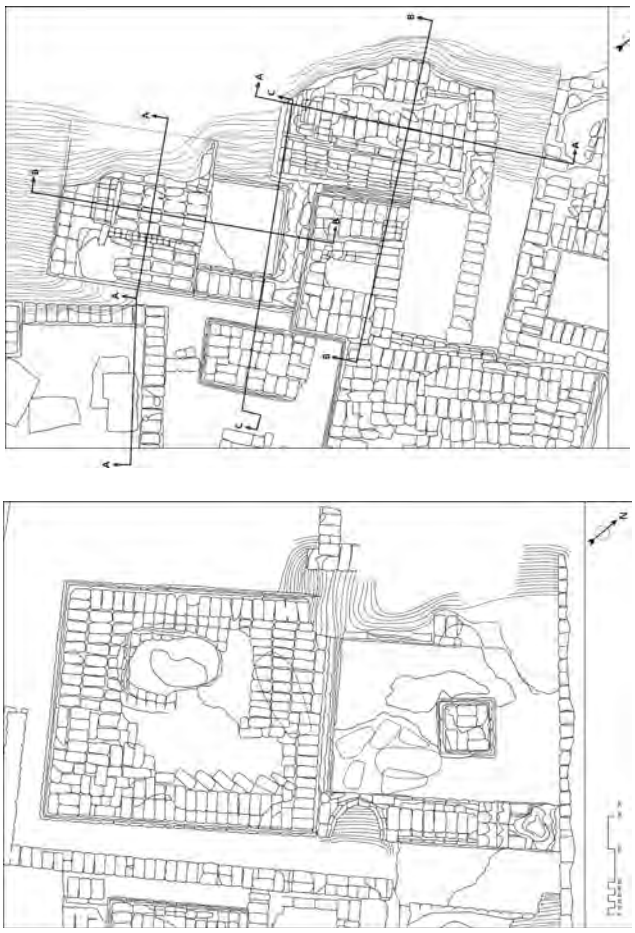


Fig. 46 - Examples of offerings-chapels plans. Top: single-chambered chapels G 7-2,8 and 9 and F 7-2; bottom: E 7-4, a 'solid' chapel, namely a chapel without chamber (drawing © G. Maserati. From O'Connor 1985).

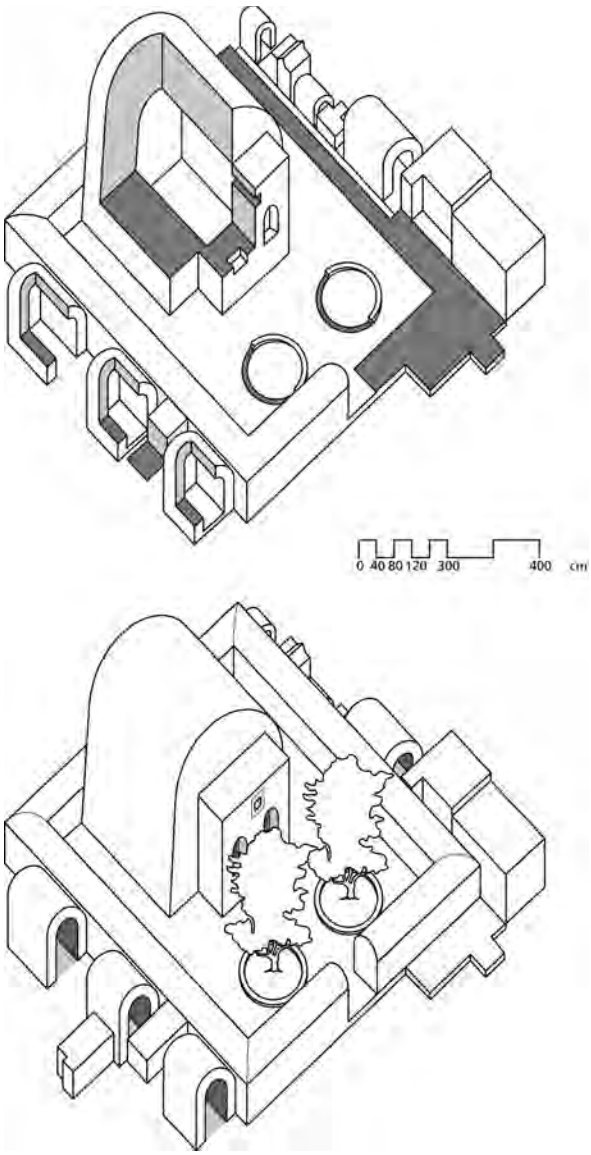


Fig. 47 - Reconstruction of offering-chapel F 6-14 with a main larger chapel surrounded by smaller chapels probably belonging to relatives or colleagues of the owner of the main one (drawing © G. Maserati. From O'Connor 1985).

monument. The occurrences of offices belonging to specific fields of the administration can greatly contribute to understanding the scope of the institution and the range of its roles and its actions. The offering formula with name and title/s of the monument's owner, joined by the offering scene, is followed by a namelist of the dedicators. It is plausible that those men who are not denoted as family members were friends or colleagues of the deceased.

The following bar charts show the occurrences of the main offices held by individuals attested on monuments together with officials of the *ḫnrt wr,* joined by a few key monuments with officials of the *ḫnrt* (Figs. 48–50). The sources for *ḫnrt wr* are 34 funerary stelae, 4 rock inscriptions (3 from Aswan and 1 from the amethyst mine site at Wadi el-Hudi) and one chapel (Berlin 1624). The sources for *ḫnrt* are 2 statues (Aswan 1343 and Walters 54), one offering table (CG 23027) and two funerary stelae (BM EA 1348 and Vienna ÄS 91). They all belong to the late Middle Kingdom (Plates II, III, in Appendix). The sources with *ḫnrt* dated to the early Twelfth Dynasty are excluded from the graphs and the following discussion due to the absence of attestations of *ḫnrt wr* in that time. I divided the offices into three groups: 'central and local administration'; 'military/security'; 'labour organisation'. The first group 'central and local administration' comprises four sectors: the vizier and his staff, and offices closely related to the vizier; Treasury and sealing; palace administration and the king; regional administration (Quirke 2004). The third group 'labour organisation' comprises six

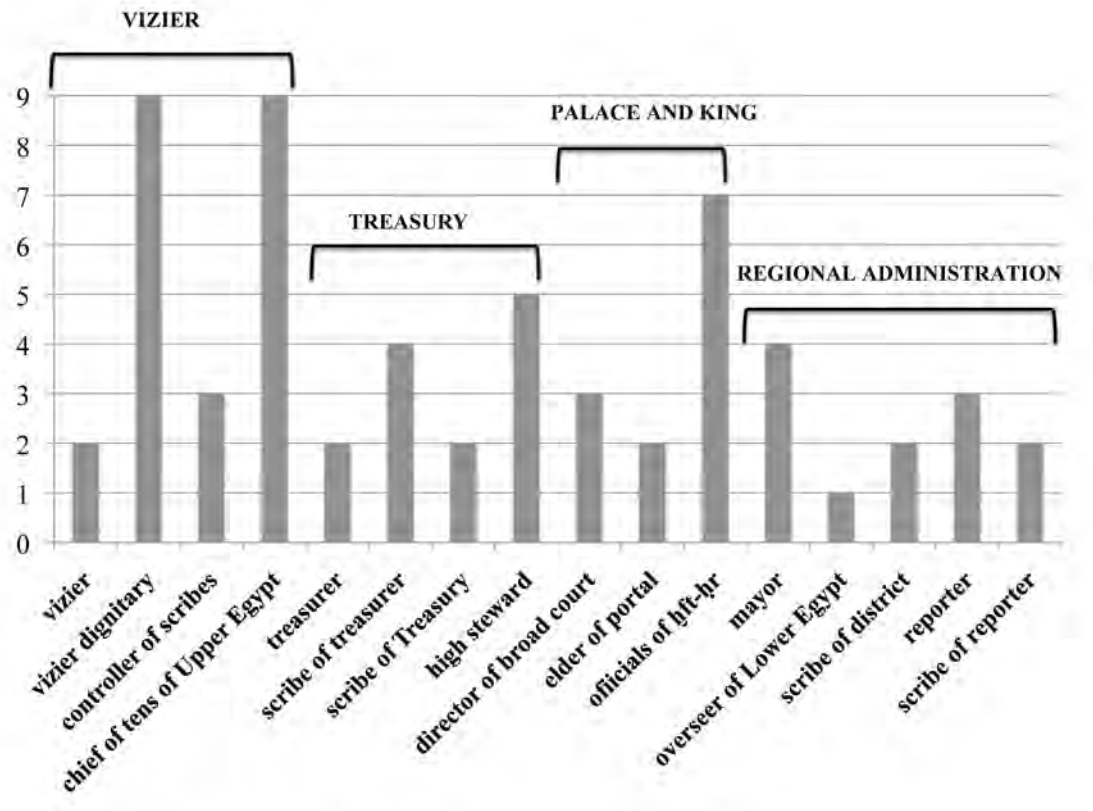


Fig. 48 - Occurrences of offices of central and local administration.

SECTOR	TITLES	NUMBER OF SOURCES	NUMBER OF INDIVIDUALS
Vizier Bureau	*wr mḏw šmʿ* 'chief of tens of Upper Egypt'	**9** (1 with *imy-r ḫnrt*)	**15** (2 with *imy-r ḫnrt*)
	sꜣb 'dignitary' and titles with *sꜣb* as prefix	**9** (1 with *imy-r ḫnrt*)	**15** (6 with *imy-r ḫnrt*)
Treasury	*imy-r ḫtmt* 'treasurer' and his staff (scribe and chief scribe)	**5** (2 with *imy-r ḫnrt*)	**6** (2 with *imy-r ḫnrt*)
	sš n pr-ḥḏ 'scribe of treasury'	**2**	**2**
	imy-r pr wr 'high steward'	**5**	**5**
Palace and King	officials of the *ḫft-ḥr*	**7**	**8**
Regional Administration	*wḥmw* 'reporter' and his scribe	**5** (1 with *imy-r ḫnrt*)	**8** (1 with *imy-r ḫnrt*)
	ḥꜣty-ʿ 'mayor'	**4**	**6**

Table 21 - The most attested offices of 'central and local administration'.

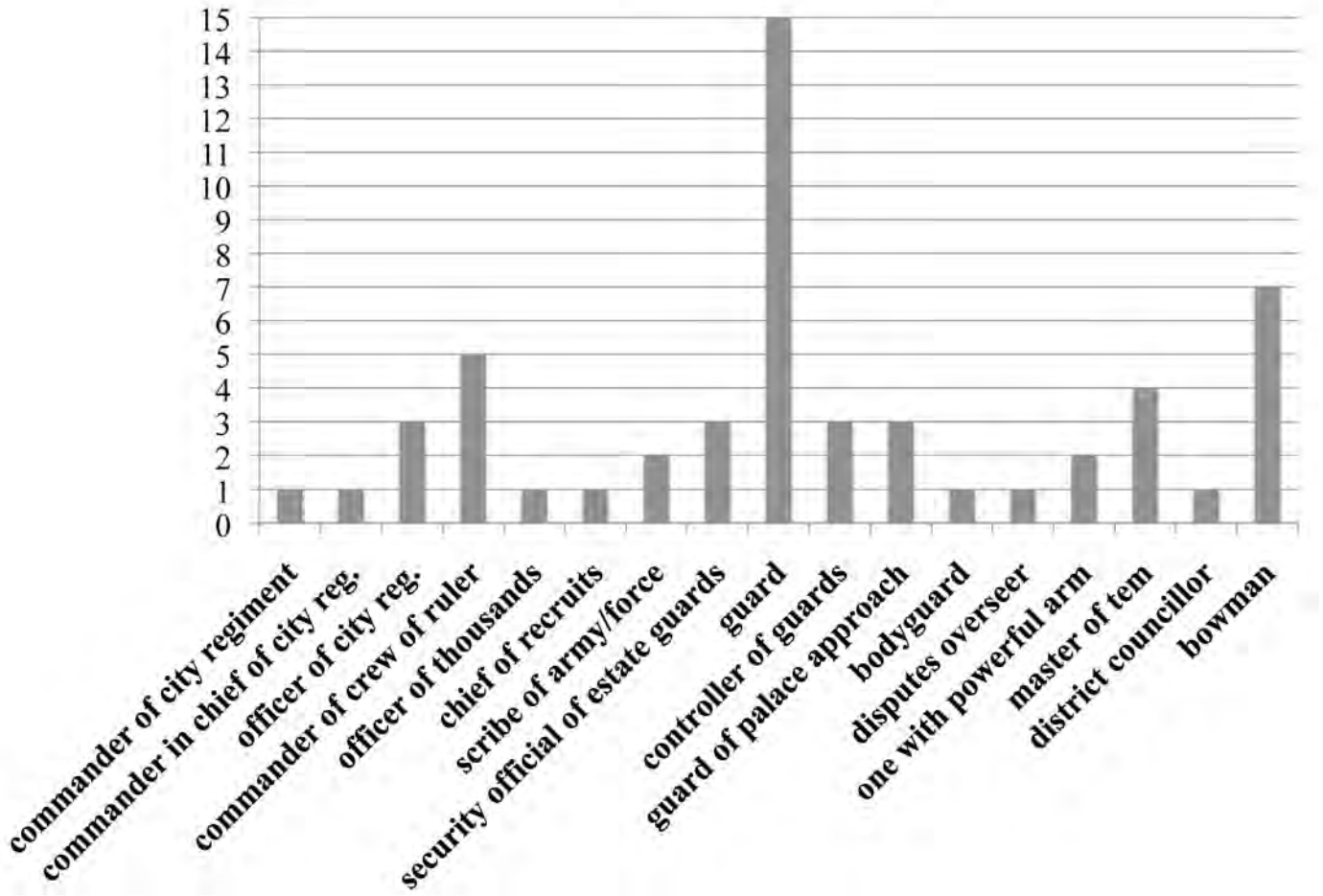


Fig. 49 - Occurrences of offices of military and security sectors.

sectors: estates, bureau of fields, commodities, quarry and construction activities, provisioning area, and other. The sector labelled *commodities* includes those titles involved in the production or collection of equipment not related to agriculture and food. Some titles appear in more than one bar chart due to their wide range of roles. For instance, the 'master of tem' seems to have been related to both security and labour, and the 'overseer of the army' could be involved in military operations as well as construction projects. Then, since each office may be represented on the same monument by more than one person (*e.g.* in BM EA 1348 six people hold the title *sꜣb*) I created pie charts where I grouped the total number of single individuals whose offices can be with certainty associated to a specific field (Figs. 51 and 52).

As the charts (Figs. 48 and 52) and table 21 show, the staff of the institution regularly collaborated with officials at the head of central and local administration. Many officials associated with *ḫnrt wr* are scribes, such as the 'scribe of the reporter' and 'scribe of the treasury'. The titles 'chief of tens of Upper Egypt' and 'dignitaries' belonged to the bureau of the vizier. Both seem to have been generalised titles attached to that specific bureau, denoting in a broad sense executers of commissions for the vizier (Quirke 1990, 79–80; 2009). The title 'mayor' (of a town) relates to the local administration, while *ỉmy-r tꜣ mḥw* 'overseer of Lower Egypt' refers to the larger division of the country. Then the *ỉmy-r ḫtmt* 'treasurer' was the main authority of the economic sector in charge of sealed items of the Treasury (Grajetzki 2009; Quirke 2004).

During the Middle Kingdom the treasurer and the vizier were the two most important officials of the country. The first had responsibilities for all 'treasures' entering the palace, such as precious stones, metals, linen clothes and scented oils. The agricultural products were under the charge of the '*ỉmy-r pr wr*', the 'high steward', who was directly under the treasurer (Grajetzki 2009, 45). The latter was also in-

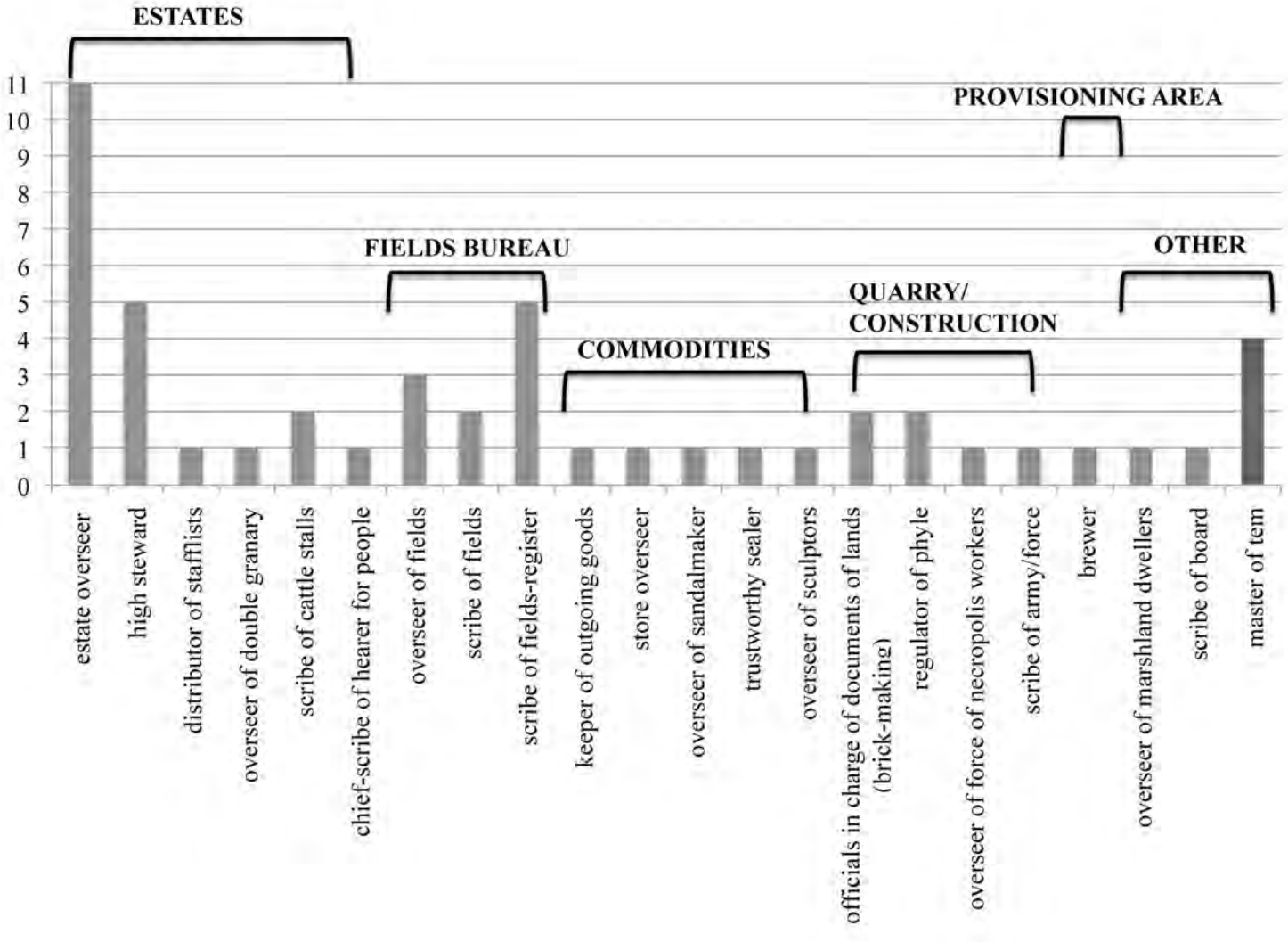


Fig. 50 - Occurrences of offices of labour organisation.

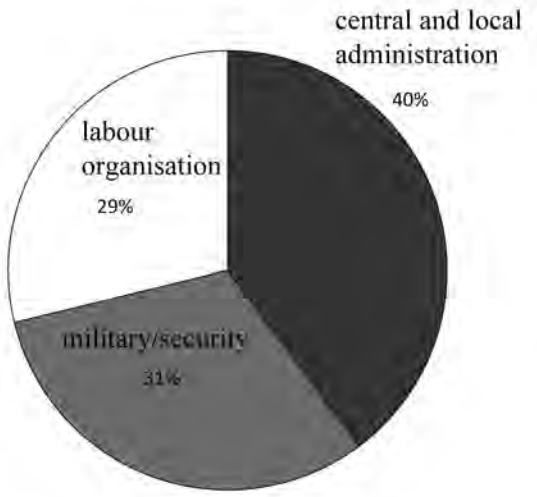


Fig. 51 - Percentage of officials from each monument. Total sample number: 191.

volved in the organisation of royal building projects and expeditions for the procurement of raw material (Grajetzki 2009, 9, 43–5). The officials of the *ḫft-ḥr* were high officials part of the secretarial staff of the king.

The locution *ḫft-ḥr* is usually translated "the Presence" as it referred to the physical presence of the king (Quirke 1986, 128–9; 2004, 42–3). These officials were probably involved in the writing of "king's letters and official documents" (Grajetzki 2009, 83) and show frequent association with officials in charge of documents of *sꜣtw* "the lands". The link of such lands with brick-making is suggestive of a link with the context of building projects.

2.4.1 G - This connection may be substantiated by stela Vienna ÄS 136, which reveals relations among the *ḫtmty bity sš ʿ n nswt n ḫft-ḥr* 'royal sealer, scribe of the king's document of the Presence' Senebtyfy, a *ḫr ʿ n nswt n sꜣtw* 'assistant scribe of the king's document of the land', and a *ḫtmw kfꜣ-ỉb n ḫrp kꜣỉt* 'trustworthy sealer of the director of works'. The latter needed to provide implements to the craftsmen involved in missions aiming to construction projects within the Nile

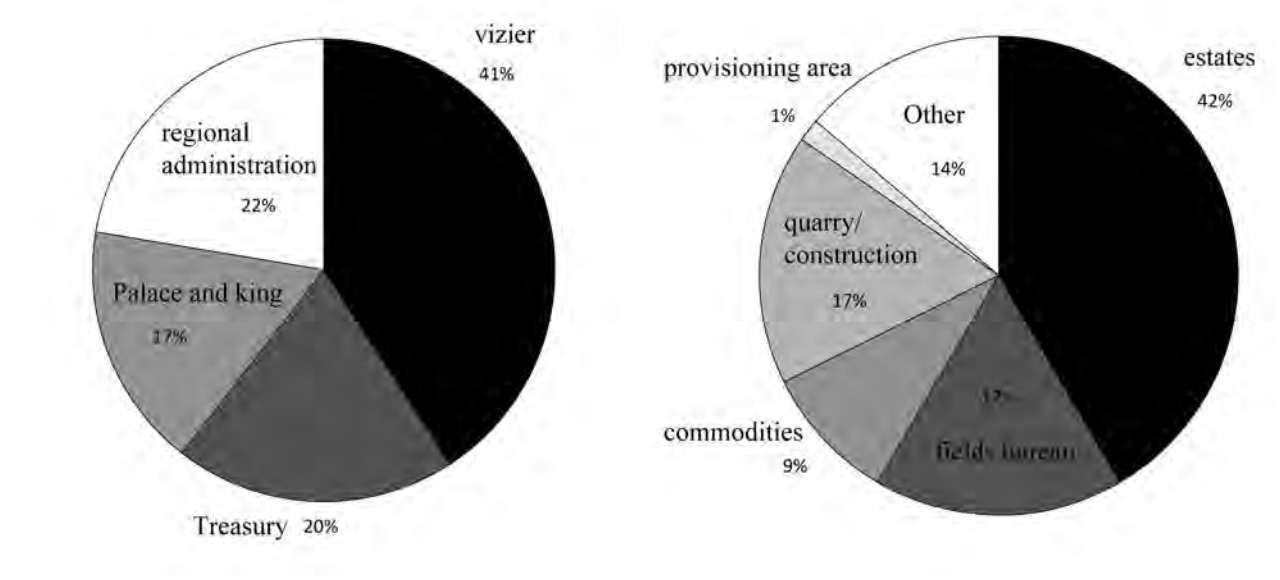


Fig. 52 - Percentage of total number of officials from each sector of the larger groups 'central and local administration' (left) and 'labour organisation' (right).



Fig. 53 - Rock Inscription Aswan 86 (after Petrie 1887).

Valley (Quirke 2004, 52). On this stela the 'royal sealer, scribe of the king's document of the Presence' and the 'assistant scribe of the king's document of the land' Senbef are brothers, which suggests a close relationship between the offices. The scribe of the *ḫnrt wr* Ptahsokar was probably their colleague.

2.4.1 H - An association among the staff of the *ḫft-ḥr*, two *ṯzw n sʒtw* 'bearers of the documents of the land', and a scribe of the *ḫnrt wr*, is present in rock inscription Aswan 86 (Petrie 1887; Quirke 2004, 139–40), presumably left by an expedition in the area (Fig. 53). The 'scribe of the treasury' and the 'scribes of the board' (instituted for the mission) needed to provide protection to the expedition body. The 'district councillor' was instead responsible for the state of the district, and associated with the security sector (2.4.1 D).

All these titles may suggest that the object of the expedition was a construction/quarrying activity. It might refer to a ramp at the First Cataract, as suggested by Quirke (2004, 138), or to the enlargement of the canal of Merenra at Shellal under Senwosret III. We may also consider the possibility that these rock inscriptions were religious records of missions directed towards Lower Nubia, and so just passing through the First Cataract area. Apparently, this was one of at least three missions in the area, as some of its officials are recorded on two other rock inscriptions (Aswan 87 and 114: Petrie 1887) which reveal a more agricultural character in the presence of a *ỉmy-r pr* 'estate overseer' and a *ỉmy-r ʒḫwt* 'overseer of fields'. These last two titles may also suggest an intervention for canal maintenance.

A close relationship between the *ḫnrt wr* staff and the officials of the *ḫft-ḥr* is also clear from family trees. For example, in rock inscription Aswan 287, a father is a functionary of the *ḫft-ḥr,* one of his two sons is also a functionary of the *ḫft-ḥr* and the other a scribe of the *ḫnrt wr.*

It is plausible that the personnel of the *ḫnrt wr* and

SECTOR	TITLES	NUMBER OF SOURCES	NUMBER OF INDIVIDUALS
Military/Security	*šmsw* 'guard'	**15** (1 with *ỉmy-r ḫnrt*)	**19** (2 with *ỉmy-r ḫnrt*)
	sḫḏ šmsw 'controller of *šmsw*'	**3** (1 with *ỉmy-r ḫnrt*)	**3** (6 with *ỉmy-r ḫnrt*)
Military	*iry pḏt* 'bowman'	**7**	**8**
	sš n mšʿ 'scribe of the army'	**2**	**4**
Security	*ḫry n tm* 'master of tem'	**4**	**6**
	ỉmy ḫt sʒw-prw 'security official of the estate guards'	**3**	**5**
	sḫm-ʿ 'one with powerful arm'	**2** (1 with *ṯʒw n ḫnrt*)	**3** (1 with *ỉmy-r ḫnrt*)
	ỉmy sʒ 'bodyguard'	**1**	**1**
	ỉmy-r šnt 'disputes overseer' or 'overseer of police' *(Grajetzki 2009, 107)*	**1**	**1**

Table 22 - The most attested offices of military and security fields.

the 'overseer of *ḫnrt*' collaborated and communicated the most with officials of the same level from the other branches of the administration. On the stelae military and security titleholders are numerous (Figs. 49 and 51) and appear frequently as family members of the *ḫnrt wr* officials. The most relevant titles are summarised in Table 22.

The most frequently attested is *šmsw* (Fig. 49, Table 22). This title is often translated 'follower' or 'guard' (Quirke 2004, 103). The late Middle Kingdom *šmsw* could play different roles and perform different tasks. As Stefanović (2008) highlights, they participated in military missions and were probably part of garrisons stationed in Lower Nubia. They could also be engaged in non-military assignments. For example, the *šmsw ʿrryt* 'guard of the palace approach' was a security official of the palace (Quirke 2004, 105; Stefanović 2008, 235). Moreover, as 'followers' of highest officials they could be responsible of the security of their masters. They could also be engaged at quarry and mine sites, as rock inscriptions from Wadi Hammamat, Wadi el-Hudi and Aswan reveal. In these occasions they probably escorted the members of the expeditions during the journey and perhaps during the work at the sites. Similar double military and non-military roles are well attested for the *ỉmy-r mšʿ* 'overseer of the army/force'. This official supervised the workforce in expeditions for the procurement of mineral and raw material and at construction sites. It is interesting to note that all the military titleholders who appear in those monuments where officials of the *ḫnrt wr* are recorded, attended the royal visit to a building site at Thebes. This event is recorded in P. Boulaq 18 (1.5), composed by the 'scribe of the *ḫnrt wr*' Neferhotep and discovered inside his tomb at Dra Abu el-Naga (Miniaci & Quirke 2008, 2009; Quirke 1990). Several scribes of the *ḫnrt wr* are listed among the officials visiting the site.

Military and security officials are often connected with construction works as supervisors and responsible for the transportation of stone blocks (Quirke 1990). For example, the *sḫm-ʿ* 'one with powerful arm' was a security official employed at construction sites (Quirke 2004, 96). Interestingly this is also an

additional office held by a scribe of the *ḫnrt wr* (Saimen of stela Trento, CG 20360, seal Martin 1276 and Berlin 1624 where a second 'one with powerful arm' occurs).

Both 'one with powerful arm' and *ỉmy ḫt sʒw-prw* 'security official of estate guards' are often attested on Middle Kingdom rock inscriptions from the Gebel Tjauti (Upper Egypt, Western Desert) along caravan tracks (Darnell 2002). Probably they had to ensure protection for caravans across the desert against possible attacks. In addition, the *sʒw-prw* were in charge of security on estates (Yoyotte 1952). They are depicted in Old Kingdom tomb chapels beating cultivators with a stick inside the office of the *ỉmy-r pr* 'estate overseer'. They could be comparable to an 'economic police' in support of tax assessors.

Additional sources substantiate cross-sector activities in economy and security: stelae BM EA 250 (2.4.1 I), Sinopoli Egi 06 and Cairo CG 20360 (2.4.1 J).

2.4.1 I -The owners of stela BM EA 250 are a *ṯʒw n sš n ḫnrt wr* 'assistant-scribe of the *ḫnrt wr*' and a *sš n spḫrw* 'scribe of the copies'. Among the people mentioned on the monument are an *ỉmy ḫt sʒw-prw* 'security official of estate guards', an *ỉmy-r pr* 'estate overseer', and a *šmsw* 'guard'.

A close relationship is also evident between the 'security official of estate guards', the 'scribe of the *ḫnrt wr*', and the *ḥry n tm* 'master of tem'. The word *tm* is attested in titles of the late Middle Kingdom only, making it difficult to translate (Quirke 2004, 95). However, the officials with whom the 'master of tem' is usually attested belong to the security sector and labour, such as the 'security official of estate guards', 'guard', 'controller of guards', and craftsmen. A connection with work in fields and at construction sites may be suggested by two variants of the determinative of *tm*:  'land' and  stone/brick. The variant  might add a juridical nuance (Di Teodoro 2018). One funerary stela is relevant: Sinopoli Egi 06.

2.4.1 J - The owner of the funerary stela Sinopoli Egi 06 is the 'scribe of the *ḫnrt wr*' Iy. Another three scribes of the *ḫnrt wr* are mentioned, revealing also the father-son succession in that office. Another official of the institution is recorded: the *ṯʒw n ḫnrt* Ninsetib. The office 'security official of estate guards', held by three individuals, along with 'master of tem' and two officials of the *ḫft-ḥr* are not linked by family ties with the owner. Probably they were his friends or colleagues from cross-branches of the administration. The same assumption can be made for military and security titleholders, namely *šmsw* 'guards' (three individuals), their *sḥḏ* 'controller' and the 'commander in chief of the city regiment'. Relevant are the family ties of the owner, as his brothers held the two most important offices in the economic sector: *ỉmy-r ḫtmt* 'treasurer', the person responsible for all the 'treasures', and *ỉmy-r pr wr* 'high steward', main authority on agricultural matters. The presence among those mentioned on the monument of a *ỉmy-r ʒḫwt* 'overseer of fields' and a 'security official of estate guards' is certainly connected.

Cairo CG 20360 may provide additional evidence. The 'scribe of the *ḫnrt wr*' Saimen and the 'security official of estate guards' Dedusobek are two out of three owners of this stela. The right side of the monument is partially damaged, not allowing a certain reading of the title of Sankhkara, the third owner. Only the beginning of the title is visible: . Franke (1988, 333, no. 553) suggests the reading *ḥry n tm* adding a question mark. Given the lack of other Middle Kingdom titles intriduced by *ḥry*, I reckon Franke's interpretation probable. This may therefore support a strong relationship between those offices, substantiated by the kinship, father and son, (CG 42043: Legrain 1906, and CG 23018: Kamal 1909) between Sankhkara and Dedusobek (Franke 1988, 438, no. 759). The same tie between a 'master of tem' and a 'security official of estate guards' is attested on stela Boston 1970.630 (Leprohon 1985).

As regards the offices directly involved in the organisation of labour, the charts (Figs. 50–52) reveal that the most numerous are those associated with estates, to which we can add the 17% belonging to the bureau of fields. Then it follows the group of supervisors at quarry/building sites, which may be joined by those military/security officials who directed or escorted expeditions for the procurement of minerals and raw material, and who could be involved in building projects (*e.g. šmsw* 'guards', *sḫm-ʿ* 'one with powerful arms', *wr n ḏʒmw* 'chief of the recruits'). The most attested titles of the group 'labour organisation' are summarised in the table below (Table 23).

The 'overseer of fields', 'scribe of fields' and

SECTOR	TITLES	NUMBER OF SOURCES	NUMBER OF INDIVIDUALS
Estate	*ỉmy-r pr* 'estate overseer'	**11** (3 with *ỉmy-r ḫnrt*)	**15** (5 with *ỉmy-r ḫnrt*)
Fields	*sš n tmȝ* 'scribe of fields register'	**5**	**5**
	ỉmy-r ȝḫwt 'overseer of fields'	**3** (1 with *ỉmy-r ḫnrt*)	**3** (1 with *ỉmy-r ḫnrt*)
	sš ȝḫwt 'scribe of fields'	**2**	**3**
Quarry/Construction	*mty n sȝ* 'regulator of *phyle*'	**2**	**2**
	ỉmy-r mšʿ n ḫrtyw-nṯr 'overseer of necropolis workers'	**1**	**1**

Table 23 - The most attested offices of 'Labour organisation'.

'scribe of fields-register' worked together inside the bureau of fields (Table 23). As P. Harageh 3 seems to reveal, the 'estate overseer'– the responsible for the management of agriculture at local level (and at the head of estates) – was also involved in rents recording (Smither 1941). His additional late Middle Kingdom titles, such as 'accountant of grain', 'accountant of people', 'accountant of livestock' and 'accountant of ships' usually defined the object of his supervision (Quirke 2004, 61). In the sources with *ḫnrt* and *ḫnrt wr* are mentioned an 'estate overseer of the chamber of fat' (Berlin 1198), two 'estates overseer and accountant of grain' (Tübingen 462 and Sinopoli Egi 06), and two 'overseers of the slaughterhouse' (BM EA 1348). In the sources with personnel of the *ḫnrt wr*, the 'estate overseer' is closely associated with the 'scribe of fields' and the 'scribe of fields-register', (*e.g.* in CG 20056 and Edinburgh A 1951.344). Together they collaborated in the operations concerned with field assessment, tasks managed by the bureau of fields. On this occasion, the 'scribe of fields-register' needed to provide regulations for field boundaries (Smither 1941). Additional links between the bureau of fields and the *ḫnrt wr* is revealed by *Insert C* of P. Brooklyn 35.1446, the 'register of fugitives' where an 'overseer of fields' is the sender of a letter addressed to the vizier about the replacement of workers (below 2.4.2).

The offices clearly associated with building projects and quarrying activity are *ỉmy-r sȝ n ỉkyw* 'overseer of a work group of quarrymen', those of *sȝtw*, "lands", involved in brick making, *ḫtmw kfȝ ỉb n ḫrp kȝt* 'trustworthy sealer of the director of works', *ỉmy-r mšʿ n ḫrtyw–nṯr* 'overseer of a workforce of necropolis workers', *sš n mšʿ* 'scribe of the army/force', *mty n sȝ* 'regulator of a *phyle*', *sš n ḏȝḏȝt* 'scribe of the board' and perhaps *sš wr n sḏm rmṯ* 'scribe of the hearer for people' (above).

The absence of religious titles in the stelae CG 20056 and CG 23027 may suggest that in these cases the *mty n sȝ*, 'regulator of *phyles*', was involved in the management of *phyles* of workers at building sites, rather than *phyles* of priests (2.3.1 E). As previously mentioned, in stela Vienna ÄS 136 (2.4.1 G) are recorded a 'trustworthy sealer of the director of works' and an 'assistant scribe of the king's document of the

land' for brick-making. Their presence is suggestive of an involvement in building projects. Furthermore, the 'overseer of a work group of quarrymen' Iufni is the owner of stela Florence 2503. He shares this honour with the *šmsw* 'guard' Iyw and his son, the 'scribe of the *ḫnrt wr*' Iy, which substantiates the relationship among these offices.

The association between the scribes of the *ḫnrt wr* and high ranking officials at the head of the administration of the country attests to the relevance of the institution. It is important to remember that, according to P. Brooklyn 35.1446, the *ḫnrt wr* received orders directly from the bureau of the vizier. Additionally, in the Thirteenth Dynasty the 'overseer of the *ḫnrt*' could have as prefix the highest ranking title 'royal sealer' and could be appointed as 'vizier' (stela MMA 22.3.307, stela BM EA 1348, and statue Aswan 1343). The importance and high position of the scribes of the *ḫnrt wr* is confirmed also by their presence as owners of most of the monuments. Additionally, some monuments reveal family ties between scribes of the institution and the royal family. For example, on three stelae (Tübingen 462, Chiddingstone EDECC 01.2882, and CG 20322) the scribes of the *ḫnrt wr* are kin of women holding the titles *ḫkryt nsw* 'ornament of the king' and *ḫkryt nsw wʿtt* 'sole ornament of the king'. The first title during the late Middle Kingdom and SIP identified "women of the highest social status who were likely to have been connected with the king and the palace" (Grajetzki 2009, 158). Additionally, on stela Chiddingstone EDECC 01.2882, the 'scribe of the *ḫnrt wr*' and the king's son are cousins (Grajetzki 2005). Furthermore, stela MMA 22.3.307 attests that the daughter of a 'scribe of the *ḫnrt wr*' became Great King's Wife of King Djehuti (Sixteenth Dyn.).

To sum up, family ties reveal that the officials of the institution belonged to the ruling class. This is confirmed also by the common practice of father-son succession in the offices associated with both *ḫnrt* and *ḫnrt wr*, sign of a firm and continuous presence of the same families at central positions in the administration. For instance, the scribe of the *ḫnrt wr* Sobekhotep (Edinburgh A 1951.344, CG 20145, Guimet C 8, Marseille 228, Tübingen 458; see Di Teodoro 2018) succeeded to his father Senebeni's office, and another 'scribe of the *ḫnrt wr*' Sobekhotep succeeded to his father Iy (2.4.1 J). Even brothers could be employed in the institution; for instance the brothers Senwosret and Seneb were both 'overseer of the *ḫnrt*' (CG 23027 and Walters 54).

2.4.2 - The office *ḫ3 n dd rmṯ*

The other department involved in labour organisation is the *ḫ3 n dd rmṯ*: . The expression received translations such as "the office of the provider of people" (Hayes 1955, *e.g.* 54–6), "bureau of workforce" (Berlev 1978, 60–1), or "bureau of issuing pe-

sš n ḫ3 n dd rmṯ 'scribe of the bureau of issuing people' (maybe abbreviation of the following office)	Stela Leiden 30 (1) *Boeser 1908* Stela Louvre C 249 (2) *Andreu 1980*
sš ḥry-ḫtm n ḫ3 n dd rmṯ 'scribe in charge of the seal of the bureau of issuing people'	UC 32167 (1) *Collier & Quirke 2004*
ỉmy-s3 n ḫ3 n dd rmṯ 'bodyguard for the bureau of issuing people'	Cairo CG 20577 (1) *Lange & Schäfer 1902*
ỉmy-r ʿḫnwty n ḫ3 n dd rmṯ 'estate interior overseer of the bureau of issuing people'	Stela Louvre C 249 (1) *Andreu 1980*

Table 24 - Offices associated with the ḫ3 n dd rmṯ. *In brackets are the number of attestations of each title on the monument.*

ople" (Quirke 2004, 92). I agree with the translation suggested by Quirke, reading the double arms with loaves, derived from the verb *rdi* "to give". Due to the identification of the entity as *ḫȝ,* I will denote it using the term 'bureau'. The references to the 'bureau of issuing people' share the same timespan with the *ḫnrt wr*: mid Twelfth–Thirteenth Dynasty. The attestations are not numerous: four funerary stelae, two property transfers between officials – *Insert C* of P. Brooklyn 35.1446 and legal letter UC 32167 – P. Berlin 10004 (2.3.1 D), the Karnal stela of Sobekhotep IV (Cairo JE 51911) (Helck 1969), a small fragment with distribution of provisions UC 32150 A (Collier & Quirke 2006, 36–9), and the administrative P. Boulaq 18. Table 24 summarises the titles associated to the bureau.

The stela of Sobekhotep IV and P. Boulaq 18 (Quirke 1990, 110–15) are relevant, as they provide the status of the *ḫȝ n dd rmṯ* as *wʿrt*, namely, one of the main branches of the central administration of the late Middle Kingdom (1.5). The relation with the *ḫnrt wr* is revealed by the letter known as *Insert C* of P. Brooklyn 35.1446 (2.4.1 A). According to this text, the vizier Ankhu acted as intermediary between the *ḫȝ n dd rmṯ* and an 'overseer of fields', who asks for replacements of workers (Quirke 1990, 145–6). The result is a property transfer whose object is people of the household of another official: forty-five 'Asiatics' (included eight 'Asiatic' children) and thirty-three low status Egyptians. Among the Egyptians, fifteen men and twelve women are socially identified as *ḥm*(*w*)*-nsw* and *ḥmwt* together with their modest profession, such as gardener and hairdresser. This document is clearly a transfer of people for labour. The same inference could be made for UC 32167 where a *sš ḥry-ḫtm n ḫȝ n dd rmṯ* 'scribe in charge of the seal of the bureau of issuing people' is involved in another property transfer. Also in this case the object of the operation is people of a household, in particular 'Asiatic' women. Additional association between household members and the *ḫȝ n dd rmṯ* is attested in P. Berlin 10004 (2.3.1 D), where the name of the office appears within the larger document that records the number of 'Asiatics' owned by minor officials. The bureau is also the provider of five workers *mrt* (2.3.1. J) who are given to the *šnʿ n ḥtpw-nṯr*, the 'provisioning area of the god's offerings', of the Amun temple at Karnak (Helck 1969, 200, line 17).

The funerary stelae reveal a close association between the *ḫȝ n dd rmṯ* with: the offices 'estate overseer' and 'high steward', responsible at local and national level for domains and estates; the 'scribe of the vizier'; offices with the expression *sḏm rmṯ* 'hearer for people' (Table 20) such as *ỉdnw n sḏm rmṯ* 'deputy of the hearer for people' and *sš wr n sḏm rmṯ* 'the great scribe of the hearer for people' (Stele Louvre C 249). The last link supports a collaboration with the *ḫnrt n sḏm,* consequently the involvement of the bureau in questions dealing with defaulters in the context of compulsory labour.

2.5 - CONCLUSIONS

2.5.1 - Labour obligations requested from a middle social structure

The Lahun Papyri show clear evidence of a type of temporary labour denoted by the word *hȝw*. It was required as a compulsory service for heads of households of a local 'middle class': minor officialdom from the religious sector and civil administration, and titleless men identified with the name of a town (*man of town X*). People of lower status, namely those classified as *man of X* (with X minor official), were plausibly dependants of those titleholders who did not perform the duty in person, sending a member of their household as replacement. The namelist of people for *hȝw* of P. Berlin 10104 is mixed, as it includes at the same time heads of households (titleholders and *men of town X*) and replacements (2.3.1 A). Probably also those identified by modest professions were heads of household who went in person to perform the duty (2.3.1 A, J; 2.3.2 O). Identification by modest profession usually pertains to the lowest stratum of Egyptian society, namely the *ḥm(w)-nsw* 'king's slaves' (2.3.1 J). According to Berlev (1987, 155), each profession corresponded to a specific "social badge". Therefore, in some documents, naming the profession was enough to reveal the social identity of an individual as *ḥm(w)-nsw*, without the need to label him using that expression. Other type of documents, however, such as legal property transfers, may have needed to emphasise the social aspect of the identity of the individual. A good example is the list of household members in P. Brooklyn 35.1446, *Insert C* (2.4.2). However, a brewer and a butcher, individuals with modest professions, could have dependants (2.3.2 O, P). This evidence seems to suggest that in some instances the status of brewer and butcher could vary depending on

their owner's status. This matches Grajetzki's remark about the status of 'cupbearers' *wdpw* working for high ranking officials (Grajetzki 2001, 78), and Quirke's comments about the status of 'musicians' *šmʿw* (Quirke 1991, 144) and the status of a barber of the king (Quirke 2004, 16). If the owner is a high official, his dependants holding modest professions could be socially higher than similar dependants owned by minor officials. Consequently, the higher status dependants could have someone under them and be heads of household at the same social level as minor officials. In this case, the person identified by profession would belong to the same 'middle class' liable to be registered for *hȝw* and be able to send a replacement. The gender restriction to men suggested by the determinative of the single seated man in the term *hȝw* plausibly referred to the head of the households registered for the activity, who was always a male (Kóthay 2013, 512).

The workers denoted by the words *ḥsbw* and *mnyw* have proven to equate those sent to replace their masters registered for *hȝw*: they were members of households (2.3.2 B, K, N); they could be identified by name only or by modest professions such as mat-maker and gardener (2.3.2 E, M); they could be 'Asiatics' (2.3.2 A, E). The social and juridical status of *ḥsbw* and *mnyw* and people for *hȝw*, as well as that one of their masters seem to have been equal. Additional shared features are the followings. The temporary and periodical nature of the assignments associated to people for *hȝw* and *ḥsbw* is supported by the link with *pḫrw* stores. Additionally, both groups, *ḥsbw* and *mnyw* on the one hand, and people for *hȝw* on the other hand, were under the charge of the same officials *ṯsw* 'commanders' (2.3.1 A; 2.3.2 A, H), which may be suggestive of the same arrangement in small divisions of ten supervised by the three level offices *ḫrp* 'director', *sš* 'scribe', and *ṯsw*.

The overall written evidence leads me to propose that the word *hȝw* denoted the general labour obligation. Once those registered for *hȝw* had been counted by the official *ḥsb rmṯ* 'accountant of people' (2.3.2 G) – namely they had attended the roll-call – they became a mass of undifferentiated 'counted men' *ḥsbw*. After the roll-call the workers were finally enrolled and were ready to start their period of compulsory service for the state.

The several shared features between *ḥsbw* and *mnyw*, from type of tasks to the label *stone haulers*, make it difficult to ascertain the differences between them. Wadi Hammamat rock inscription no. 84 (Goyon 1957) attests that *ḥm(w)-nsw* was the social stratum from which *ḥsbw* could be recruited. Additionally, P. Cairo Jd'E 71583 records one *ḥsb nty n ḥwrw* "*ḥsb* who is one of the *ḥwrw*" (Luft 2006, 123), those 'rebellious' recorded in the act of ripping up the laws of the *ḫnrt* (2.4.1 A). The involvement of the *ḫnrt* in the organisation of compulsory labour confirms that *ḥwrw* were among those liable to conscription. Probably the word, which has a strong negative nuance, was the literary designation of the *ḥm(w)-nsw* or of the poorest among *ḥm(w)-nsw*. To sum up, texts seem to suggest that most *ḥsbw* were recruited from among the socio-economic class of *mr(y)t,* which comprised *ḥm(w)-nsw* (literary *ḥwrw*?) and 'Asiatics' (2.3.1 J) (Fig. 54).

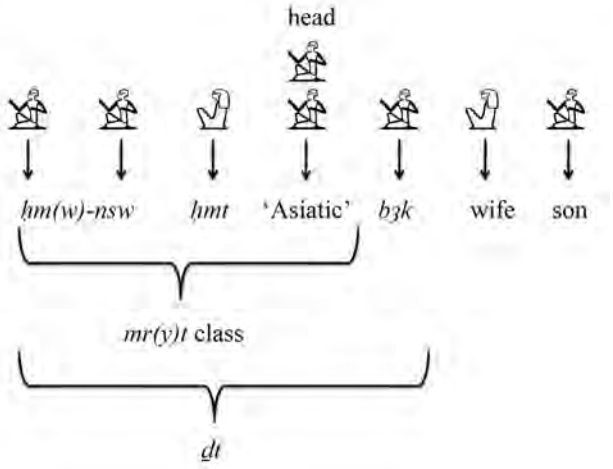


Fig. 54 - Structure of the household unit.

ḥsbw	*itḥw inrw*
[*ḥsbw*]	*mnyw*

Table 25 - P. Berlin 10080. Amount of absentees.

The interpretation of P. Reisner I-A, "*ḥsbw m mnyw*", "*ḥsbw* as consisting of *mnyw*", seems to suggest that *mnyw* shared their place within the larger group of *ḥsbw* with others who seemingly were not *mnyw*. This has led some scholars, such as Kóthay (2013, 495–6), to suggest that the term *mnyw* iden-

tified people belonging to a different socio-economic level from among which *ḥsbw* could be recruited. However, the exclusive association of this word with contexts of labour may challenge that assumption. In P. Berlin 10080 (2.3.2 J) and UC 32194 (2.3.2 D) there is a differentiation between *mnyw* and *ỉtḫw ỉnrw* 'stone haulers' which are recorded on two different lines (Tabs. 25, 26). In P. Berlin 10080 the noun *ḥsbw* is placed before both *ỉtḫw ỉnrw* and *mnyw* (implied in this case), which may suggest the presence of the same collective noun in UC 32194 also, and recalls

(*ḥsbw?*) *ỉtḫw ỉnrw*
(*ḥsbw?*) *mnyw*

Table 26 - UC 32194. Distribution of supplies.

the juxtaposition *ḥsbw m mnyw* of P. Reisner I.

These documents seem to differentiate between *ḥsbw* engaged in stone hauling and *ḥsbw mnyw.* The distinction may have depended on the type and purpose of the documents, namely an account providing the number of absentees and a distribution of supplies. The need to separate sub-groups of people from among the larger collective group of 'counted men' when dealing with absences and provisions, may be explained by different socio-economic levels, different assignments, and diverse 'enrolment profile'. As discussed above, the first is arguable. Regarding the second, the exclusive distinction with *ỉtḫw ỉnrw* may actually mean, considering *mnyw* as a label equal to *stone haulers*, namely identifying the dominant activity. For instance, Kóthay associates *mnyw* with an exclusive or main employment in agriculture. While the attestation of *mnyw stone haulers* (2.3.2 G) is not incompatible with work in fields, since it can include a wide range of menial tasks, the explicit attestation of *mnyw* for a *kȝt* at the building site of Hawara challenges instead that exclusive link, questioning the label 'agricultural workers' (2.3.2 H). This seems supported by the Old Kingdom papyrus from Saqqara where *mnyw* are engaged in construction activities (2.3.2 p. 49).

A wide range of Near Eastern texts dated to the Old Babylonian period and Ur III (*e.g.* the archive of an estate at Garšana: Heimpel 2009), attest that, at time of highest needs – over the harvest and for construction activities – a mass of hired workers was added to the regular forces. These people were hired for a limited period of time, usually for one month, and their employment was regulated by a written contract. Among them there were also some day labourers who apparently did not have any contract (Klengel 1987). This may recall Maspero's inference about the identification of *mnyw* as daily workers (p. 50). The absence of *mnyw* in lists of expedition members from quarry sites, against the exclusive presence of *ḥsbw*, may fit that hypothesis, but their recruitment for four months in a row (2.3.2 L) seems instead to challenge it. The attestation of only *mnyw* in Lahun namelists for activities longer than one month (*i.e.* 2.3.2 G, H, N), may be suggestive of a more permanent nature of their commitment.

On the basis of the previous conclusions, the namelists of UC 32121 (2.3.2 P), UC 32170 (2.3.2 O) and P. Berlin 10021 (2.3.1 J) that do not include heading identifying either type of document or category of workers, can be recognised as namelists of people for *hȝw*. The absence of the word *hȝw* in documents recording namelists of *ḥsbw* and *mnyw* might receive the following explanation: they referred to the same obligation and to the same people but were drawn up at different times of the labour procedure (Table 27). The first document to be compiled was probably the namelist of those who needed to meet the periodical obligation *hȝw*. P. Berlin 10104 (2.3.1 A) may be an example. Each person recorded as household member sent to replace his master in UC 32170 (2.3.2 O) can be identified with the *s n X* "man of X" (with X denoting minor official) of P. Berlin 10104. However, if we compare the namelists of P. Berlin 10104 and UC 32170 (Tabs. 3 and 15) we can notice a difference: in the first document, those identified as *s n X* are not named; the name written after the office refers to the minor official. In contrast, those listed in UC 32170 are all named (second and third column from the right: Fig. 39 and Plate 3) and their attendance has been checked. This seems to suggest that after a pristine document, a new one was compiled with complete names of the 'real workers'. The same document was then updated at the time of the roll-call, marking attendance and absence. At this stage the present men were finally enrolled to the project. In this final document there was no need to repeat that the enlistees were due to perform *hȝw*, as probably the term *ḥsbw*

itself implied that. The noun *ḥsbw* maybe replaced the identification *rmṯ* "people" of the first document (2.3.1 A). Additionally, in the final document the type of assignment is sometimes disclosed replacing the general definition *hȝw* (2.3.2 H, L). P. Berlin 10065 is exceptional as it is the only namelist for *hȝw* where the individuals are counted by means of a stroke after the seated man (2.3.1 D). The comparison with other two papyri with similar strokes has revealed that these signs mark the number of individuals owned by officials. The beginning of the lines of P. Berlin 10065 is missing, consequently we cannot establish whether attendance marks were present or not, and whether the names of the individuals were preceded by an office or different designations as in P. Berlin 10104. Possibly these strokes refer to the number of people, one for each name, available to meet the duty. Similarly, as proposed above (2.3.1 A), the three strokes corresponding to the last person registered in P. Berlin 10104, a *s n X*, referred to the number of people available to replace the X official (or the number of individuals he is going to send?). Speculatively, in the second document – which was subsequently updated with attendance marks – the name (or names?) of the *s n X* sent as replacement was recorded.

The coercive nature of the assignments is supported by the allusion to 'wrongdoing' if the regular workers failed or avoided accomplishing their duty (such as in P. Berlin 10065: 2.3.1 D, and 10067: 2.3.1 I). The reasons for requiring specific 'substitutes' identified with the technical term *ỉwȝw* are marked by the negative locution with the verb *gm* (*e.g.* "if you do not find them, then bring their substitutes": 2.3.1 J) and the expression *nhw n hȝw*. The latter, attested in two papyri only, reporting in direct speech the words of the worker (2.3.1 F, 2.3.1 G), may equate the negative sentence with *gm* (2.3.1 H). Consequently, the two reasons may have referred to an identical situation: failure to meet the obligation, which resulted in a deficit of labour duty. According to my interpretation, the difference between these *ỉwȝw* and those recorded in the namelists as household's members sent at the place of their masters (*e.g.* 2.3.2 O) lies in a diverse level of substitution. The person sent to meet the duty at first instance is the 'real worker', the 'first level substitute'. In this case the act of replacement was the result and mark of the 'privileged' status of their masters: these officials were wealthy enough to own dependants who could answer the call in their place (2.3.1 A). The texts however do not tell us whether or not a technical terminology existed to denote the first level replacements before their enrolment as *ḥsbw*. 'Second level' substitutes *ỉwȝw* were instead provided by necessity. They were the result of offences, namely

SOURCE	PRESENCE OF MARKS	TYPE OF DOCUMENT
PB 10021 (2.3.1 J)	attendance marks	document 2 updated?
PB 10065 (2.3.1 D)	attendance marks ? (beginning of lines is missing)	document 1?
PB 10081 C (2.3.1 E)	attendance marks ? (beginning of lines is missing)	document 2 (updated?)
PB 10104 (2.3.1 A)	no attendance marks	document 1
UC 32121 (2.3.2 P) **UC 32170** (2.3.2 O) **UC 32174** (2.3.2 A) **UC 32182** (2.3.2 H)	attendance marks	document 2 updated
UC 32168 (2.3.2 G)	attendance marks? (namelist missing)	document 2 (updated?)
UC 32181 (2.3.2 I)	attendance marks? (beginning of lines is missing)	document 2 (updated?)

Table 27 - Classification of the documents with workers for hȝw.

labour defaults. I imagine that when the person registered for the duty avoided to accomplish it, someone else from the same household was taken to replace him. Hence, the *ỉwʒw* were not called to intervene at the first stage of the labour process, but at a later time; for probably this reason *ỉwʒw* do not appear in namelists of people first registered and enrolled for the projects. Their presence in the record depended on the context. They appear in communications aiming to tackle the problem of deficit in labour duty, and in letters exchanged between officials asking for the release (*sfḫ*) of the 'substitute' from the commitment. Therefore *ỉwʒw* were exclusively associated to the context of substitution for offences. These conclusions enable me to answer one of the questions raised above (2.3.1 H): *ỉwʒyt* was not the feminine counterpart of the *s n X*, "man of X". Conversely, the question raised by P. Cairo Jd'E 71582*,* remains unanswered. The presence of the negative sentence marked by the verb *gm* should suggest that *s n ḫr.f* "man of his household" and *st nt ḫr.f* "woman of his household" were 'substitutes' *ỉwʒw*. However, these people are not identified using that technical word. As regards the comparison between *s n X* "man of X" and *s n ḫr.f* "man of the household of X" with X denoting titleholders, the different terminology possibly aimed to stress a difference in the recruitment from among the household unit (2.4.1 A). Dependants *ḏt* were part of the unit (Fig. 54). This word referred to the "entire working staff of an official" (Grajetzki 2006, 148), which included *mrt* (*ḥm(w)-nsw* and 'Asiatics') and *bʒkw.* According to Grajetzki (2006, 148), *bʒkw* were privately owned and inheritable 'property', while *mrt* – when owned by a person – were attached to the office. Speculatively the expression *man of X* might have limited the range to dependants only, excluding relatives

Interestingly, women represent the highest percentage of *ỉwʒw*, while the first level replacement was usually a man. Moreover, P. Berlin 10067 provides the evidence that also 'second level substitutes' *ỉwʒw* could commit the same offence of the people they replaced (2.3.1 I). *ỉwʒw* could also be family members of the defaulter: a father (2.3.1 G), and maybe a wife (UC 32119A) and a daughter (UC 32132). Similarly, in the New Kingdom P. Anastasi VI, the *ỉwʒyʒt* were wives of regular workers (2.3.1, p. 29). It seems that being replaced by a family member, preferably a woman, was 'common practice' since the Old Kingdom (Gebelein Papyri IV and V, 2.3.1 H). The blood tie with the transgressor, and the exclusive use of the verb *sfḫ* "to release/set free" with workers *ỉwʒw* (never attested with *ḥsbw* or *mnyw*) might mean, recalling the hypothesised association of the Middle Kingdom *ỉwʒyt* with the demotic *ỉwyt* "pledge", and Pierce's interpretation of *ỉwʒ* in P. Mayer A as "hostage" (2.3.1 p. 29). We might thus consider the possibility that the authorities intended to exert psychological pressure over the defaulters seizing their relatives and holding them until the period of compulsory service *hʒw* was completed. This may have been done by the *ỉwʒw* themselves or the defaulter forced to return to set free his relative. However, we need to consider that *ỉwʒw* were in any case 'living guarantees' as they could guarantee the completion of the period of compulsory service, even if they were assigned to tasks which did not necessarily coincide with the transgressors' ones. Thanks to them the state ceased being in deficit of labour. Consequently, in my opinion, the association to 'pledge' does not inevitably indicate a 'hostage status'.

The expression "to remove obstacles" (*dr sḏbw*) – which recalls the 'obstacle clause' of the shabtis – seems to disclose whether the labour duty has been accomplished or not (2.3.1 D). Once the head had met the duty, in person or through a replacement, the obligation was annulled from his person. According to Quirke (2004, 13), these compulsory duties could be "*per capita* obligations calculated from *wpwt*" 'household lists'. These lists, preserved in the material from Lahun only, are interpreted as periodical census data of the local population, and are considered an instrument of social control (Eyre 2013, 201; Kóthay 2013, 511). The *wpwt* provided lists of all members of the household unit and details on the occupation of its head. A modern parallel could be the census registers of Ottoman Egypt under Muhammad Ali Pasha, which were used to "help officials choose men for the corvée and conscription" (Cuno 1999, 312).

Context and seasonal patterns suggest that construction tasks at building and quarrying sites was the highest percentage of the assignments in the Lahun area, while work in the fields and inside stores of supplies were the lowest (Tabs 28, 29). 'Counted men' were employed in menial tasks requiring considerable strength and limited skills. At building sites they engaged in a wide range of tasks in support of specialised craftsmen. For example the workforce employed at This and Koptos (Reisner Papyri) was engaged in dragging stones and carrying different

number of attestations	TYPE OF EMPLOYMENT
12	**stone haulers**
2	**storehouses** (1 *pr šnʿ*, 1 *wḏȝ*) (2.3.2 J, L)
2	**textile manufacture** (2.3.1 M, N) *ỉwȝyt*
1	**textile manufacture?** (for context and date) (UC 32132) *ỉwȝyt*
1	**festival- work inside *pr šnʿ*** (for context) (2.3.1 G) *ỉwȝyt*
1	**festival-work inside *pr šnʿ*** (for context, *wagi* feast) (2.3.1 K) *ỉwȝyt*
2	**fields** (for context and date) (2.3.2 K)
2	**fields?** (for context and date) (2.3.1.A, C)
1	**fields?** (for context) (2.3.1 J)
1	**fields?** (for date only: October–November and December–March) (PR III-B)
1	**fields?** (for date only: January–February) (PB 10082) *ỉwȝyt*
3	**fields?** (for date only: February–March) (PB 10033, 2.3.1 B, E)
2	**uncertain** (date: June-July) (PB 10038C, Cairo Jd'E 71583)
1	**uncertain** (date: mid August) (PB 10098) *ỉwȝw*

Table 28 Type of employment of people registered for hȝw.

NUMBER OF ATTESTATIONS	TASK
2	**quarry** (2.3.2 D, E)
1	**quarry?** (PB 10024A)
2	***kȝt*** (2.3.2 H, I)
1	***kȝt*?** (same 'director' as in 2.3.2 H) (2.3.2 G)
6	**either building or quarrying sites possible** (PB 10102, UC 32275, 2.3.2 A, B, C, J)

Table 29 - Type of tasks performed by stone haulers.

types of material, such as wood and straw, and preparing clay for brick-making. The seasonal quarrying activities included stone hauling of material from the quarries to the river banks/quay and loading ships at the time of the flood. In the Lahun Papyri, some calls of stone haulers occurring during the summer, in particular in August and September, might have referred to this last stage of quarrying (*e.g.* 2.3.2 A, B, C). The evidence reveals that female 'substitutes' *ỉwȝyt* could be employed in textile manufacturing (2.3.1 M, 2.3.1 N). Two texts seem also to suggest an employment on the temple domain on occasion of religious feasts (2.3.1 K, L). Indirect links of *ỉwȝyt* with the 'provisioning area of the god's offerings' may suggest that the 'substitutes' were engaged inside this area. However, we need to consider that the link with the temple domain could be explained also by the provenance from the temple archive of most of the attestations of *ỉwȝw*. Therefore, some outcomes may

be the reflection of the main source available. On the basis of the date of a few sources I cannot exclude an employment in fields.

2.5.2 - System for labour organisation: the departments

The sources seem to suggest that the national bureau *ḫȝ n dd rmṯ* was in charge of providing people in response to labour demands and took part in the legal procedures in property transfers of household members for labour. The *ḫnrt wr* instead was the authority responsible for the care, execution, and accomplishment of state labour. Both were directly under the vizier.

The temporary nature of the word *rmṯ* "people", the collective used in the namelists of individuals mustered for labour (*e.g.* 2.3.1 A), is suggested by the differentiation between the offices *sḏm rmṯ* and *sḏm*

***sḏm rmṯ* - 'the hearer for people'**
***ỉdnw n sḏm rmṯ* - 'the deputy of the hearer for people'**
***sš wr n sḏm rmṯ* - 'the great scribe of the hearer for people'**
(*ỉmy-r pr*) *ḫsb rmṯ*/*ỉmy-r pr n rmṯ* - '(estate overseer) and accountant of people'/'estate overseer of people'
***sš ḫsb rmṯ* - 'scribe of the accountant of people'**
***tp n rmṯ* - 'head of people'**

Table 30 - MK offices with the key word rmṯ.

šnʿ (p. 68). Since on monuments the offices with *sḏm rmṯ* are associated with the *ḫȝ n dd rmṯ*, also other titles with the word *rmṯ* might have been, even if indirectly, linked to the bureau. The word *rmṯ* in reference to the people provided for temporary tasks may have been the connection element (Table 30).

The *ḫnrt wr* executed orders from the vizier according to specific regulations (*hpw*) which included procedures and disciplinary actions concerning defaulters. The term referred to the central seat and bureaucratic arm of the department concerned with the organisation in writing and archive of directives. If we compare the classification of the defaulters of P. Brooklyn 35.1446 (Table 31) with the classification of the individuals registered for *hȝw,* we can notice similarities (Tabs. 3, 15). The former presents a few exceptions: those identified as *man of the plough-lands of X* (with X official), *man of the plough-lands of town X*, and those identified by the office 'scribe of fields'. I agree with Hayes that these definitions have to do "with the recent assignments which" the defaulters "had illegally abandoned" (Hayes 1955, 130).

As the register of the *ḫnrt wr* (2.4.1 A) and *Insert B* (2.4.1 F) reveal, consequences were expected for those who fled from the *ḫnrt* or failed to accomplish their duties. The *Duties of the Vizier* attest that also officials who failed to perform their duty were liable to be sanctioned; likely it included those minor officials registered for *hȝw*.

The steps of this procedure are attested at a local level in the Lahun Papyri. The juridical aspect of the institution revealed by *Insert B*, where a fugitive *ḥm(w)-nsw* is questioned at the Residence, is confirmed by P. Berlin 10303, where the conduct of a man is about to be examined (2.4.1 D). A similar aftermath is expected for another fugitive *ḥm(w)-nsw* who is fetched and given to the *ḫnrt n sḏm* in UC 32209 (2.4.1 E). Moreover, in the fragmented account UC 32190A *recto,* there is a reference to a *hp* "law" to be applied. Apparently, it concerned "staff of old age", namely a younger person who supported the titleholder in order to inherit his title benefits through the *ỉmyt-pr*, a legal transfer of the office (Théodoridès 1993, 88–91). This person did not come to perform the assigned task. This fragment does not seem to present any relation with those *mnyw* for the store mentioned in fragment B (2.3.2 N) and those *mnyw* enlisted in C (2.3.2 L). However, all the fragments were part of the same official journal which related to a division

IDENTIFICATION			LINES
Name	*s n* + town X		1, 2, 7, 9
Name	Land	Title + Name (title = 'estate overseer')	3, 11
Name	Title	Land + town X	4
Name	*ḏdt.n.f* (he is called) + Name	Title + town X	5, 6, 10
Name	Profession	Title + Name	8
Name	town X		12, 13, 14, 15, 18, 19, 20, 24
Name	Land	town X	16, 17, 23
Name	*s n* + town X	*wʿrt* + Land +[…]	21
Name	*s n* + Land		22
Name	Title + town X (title = 'scribe of fields')		25–37, 59–65
Name	Title + Land (title = 'scribe of fields')		38, 39, 40, 41
Name	[…]		42–54
Name	*s n* + […]		55, 56
Name	Title		57
Name	*ḫr n* + [name]		58

Table 31 - Identification system of the defaulters recorded in P. Brooklyn 35.1446.

of plots and brick-making. As a result, the person who avoided the duty was likely involved in these operations. According to my reconstruction, the *ḫnrt n sḏm* – maybe based near the Residence at Itchitawy – was likely the entity responsible for the application of the laws of the *ḫnrt wr* against the trasgressors. Every case of transgression was recorded and archived by the scribes of the *ḫnrt wr*. The defaulters of P. Brooklyn 35.1446 (2.4.1 A) were guilty of absenteeism (*tš*), or failed to complete a task by fleeing from the workplace or from the *ḫnrt* (*wʿr*). The escape from the *ḫnrt* could be interpreted not only as real escape from a physical place, but also in a theoretical way as escape from the *ḫnrt* authority. These offences may correspond to those instances of the Lahun Papyri that required 'substitutes' *ỉwʒw* to be provided. Applying the terminology of P. Brooklyn 35.1446 to the defaulters of the Lahun papyri, I would identify those who do not appear at the time of the roll-call and are marked by red ink signs as *tšw*. Senwosret of P. Berlin 10065 (2.3.1 D) could be either *tšw* and *wʿrw*, while the *ḫm(w)-nsw* of UC 32209 was one of the *wʿrw*. Also, the *ỉwʒyt* of P. Berlin 10067 whose mother is given to the *ḫnrt* might be considered guilty of *wʿr* (2.3.1 I). Since the *ỉwʒyt* could not be found/fetched, we might conjecture that her mother was brought to the *ḫnrt* (*n sḏm*?) for questioning and/or kept by the institution as a 'living pledge' (see above). A later parallel may be the case recorded in P. Mayer A where the relative of a suspected missing tomb-robber undergoes a judicial interrogation at the place of the culprit (2.3.1 p. 29). I cannot exclude that the mother of the culprit in P. Berlin 10067 was also (subsequenty?) relocated to a task elsewhere to complete the period of service as *ỉwʒyt* of her daughter, the *ỉwʒyt* of a *ỉwʒyt* as Quirke (1988, 89) has suggested.

The defaulters identified in the register of P. Brooklyn 35.1446 as attached to the plough-lands of the

'estate overseer' (entries 3 and 11), recall those *mnyw* attached to lands of an 'estate overseer' in Papyri Reisner I-C and III-B (2.3.2). According to Hayes the 'estate overseers' mentioned in the register of the *ḫnrt wr* owned lands at This and Thebes, which correspond to the same area where the activities recorded in the Reisner Papyri were performed (despite at earlier times). Column B_1 of P. Reisner III-B also identifies some *mnyw* as *w'rw*. Supposedly, the names of these deserters *mnyw* were reported in the register of the *ḫnrt wr* identifying their current state as people attached to the lands of the 'estate overseer X'.

P. Brooklyn 35.1446 attests that transgressors were kept under the charge of the institution, probably until their 'debt' was paid, and then sometime released: "release them" and "release his *ḫr*" (2.4.1 A). The latter instance corresponds to two defaulters identified as *s n [...]*, "man of ?". Unfortunately, a lacuna obscures whether they were *s n X* (with X minor official) or *s n town X*. In agreement with Hayes I interpret *ḫr* as "family members" intending those relatives of the defaulters who were seized and held under the charge of the institution at the place of the fugitives (2.4.1 A). The woman and the child from the *ḫnrt* in the list of P. Berlin 10021 (2.3.1 J) might have been examples of those *ḫrw* taken from the household of defaulters, indefinitely kept under the charge of the institution (2.4.1 A), and redistributed to tasks responding to local requirements. The verb used to release *ḫr* and defaulters in P. Brooklyn 35.1446 and the verb used to release the *ỉwǯw* in the Lahun Papyri are different. The first is *wḥ'*, the second is *sfḫ*. Possibly the difference lies in the level of bond: the first may be the release from the authority and subjugation to the institution *ḫnrt wr*, while the second referred to the release of the *ỉwǯw* from commitment and duty. Another possibility is that different types of document required a different terminology.

Section N of P. Reisner I attests that women denoted as spinners are "taken away from the town" (Simpson 1963). The verb used with the meaning "take away", *šdi,* may imply an action of force, also highlighted – at its ending – by the determinative of the armed man. The text records that these women are somehow connected with a *ḫnrt* (Quirke 1988). Two interpretations are at least possible. First, the *ḫnrt* was involved in textile production at the site. Since the Reisner Papyri record a building project, possibly those women are engaged in making clothes for the workers. It is reasonable to imagine spinners and weavers – employed in an on-site workshop – who provided the mass of craftsmen and unskilled workers with clothes and mended the ruined items. Secondly, the *ḫnrt* may have taken weavers from a workshop to reassign them to compulsory activities under its responsibility. Then P. Reisner IV-F and G concern the distribution of clothes mentioning the *ỉnw* "produce?" of the *ḫnrt.* Although this account is earlier than the text of *section N* of P. Reisner I (Eleventh against early Twelfth Dynasty), it may refer to the involvement of the *ḫnrt* in textile production (Quirke 1988). The employment of the female 'substitutes' of the papyri in linen processing (2.3.1 M, N) may be meaningful. However we need to consider the chronological discrepancy between the Reisner Papyri, dated to early Twelfth Dynasty, and the sources with *ḫnrt wr* dated from mid Twelfth Dynasty onwards. The Reisner Papyri are the only evidence of a *ḫnrt* as producing entity. This aspect might have been limited to the first phase of the 'new' *ḫnrt*, the passage from a military connotation to the role in labour context (2.4.1).

In P. Boulaq 18 which records a royal visit to the construction site at Thebes (1.5), scribes of the *ḫnrt wr* (sections S22 and S66: Scharff 1922; Quirke 1990), seem to be associated with the dockyard. Officials of the institution may have held the role to keep under control temporary workers engaged at the building site, reporting all instances of misconduct.

The relationship between the scribes of the *ḫnrt wr* and officials from different fields, as displayed by funerary stelae and rock inscriptions, can be explained in the following ways: the involvement of officials of the institution in the supervision of temporary labour, with recording of fulfilments and wrongdoings; the implication of the *ḫnrt wr* officials and security officials working for the institution in fetching and questioning the defaulters; the implication of the *ḫnrt wr* officials as representatives *in loco* at workplaces where the transgressors might have been assigned to permanent labour as a punishment; as representatives among members of expeditions to quarries and mines where *ḥsbw* were employed as stone haulers; the roles of *ḫnrt wr* officials as addressees of complaints or notifications concerning misconduct.

A detailed discussion of the officials most involved with the organisation of the temporary workforce at national and local levels, and a reconstruction of the organisation of the supervision of workers on site will follow in chapter 4. The next chapter 3 will instead address the research questions by examining archaeological evidence from two key sites.

3. LABOUR ORGANISATION THROUGH THE ANALYSIS OF ARCHAEOLOGICAL RECORDS

3.1 - INTRODUCTION

The case studies utilised are the late Twelfth Dynasty complex of Qasr es-Sagha and the early Twelfth Dynasty settlement of Tell el-Dab'a. They are located in different environments: Qasr es-Sagha in the Western Desert near the shores of the Lake Birqet Qarun (Faiyum), Tell el-Dab'a in the Delta near the easternmost branch of the Nile (Bietak 2010, 16). The choice of these sites resides in the peculiarity of settlement layout, and in the arrangement of interior spaces and house-units. The Western Settlement of Qasr es-Sagha and Tell el-Dab'a are planned compounds surrounded by an enclosure wall and organised with a rigid layout: uniform units are placed on parallel rows back to back and side by side. Both settlements were designed to accommodate a large group of people and both seem to lack the division between private and public spaces. These settlements exhibit specific architectural features recognisable in the Old Kingdom *Gallery Complex* of Heit el-Ghurab (Giza) and the New Kingdom *Workmen's Village* of Amarna, which can be defined as purpose-built compounds for workmen (Fig. 55).

The *Gallery Complex* and the *Workmen's Village* of Amarna can be defined as temporary settlements (Samuel 1999, 121), however this concept is relative as both sites lasted for more than 20 years. As settlements were aimed at specific projects, their existence in time was associated with the length of the project itself. These compounds provided the accommodation for workers engaged in activities in the surrounding area. The workplace was located beyond the enclosure wall.

In section 3.2, I introduce the two closest examples of settlements for workers from earlier and later times: the *Gallery Complex* of Giza and the *Workmen's Village* of Amarna. In absence of Middle Kingdom comparable settlements, the *Gallery Complex* and the *Workmen's Village* provide basic hints for the interpretation of multiple interrelated aspects of Qasr es-Sagha and Tell el-Dab'a. In addition, the faunal remains from the *Gallery Complex*, constantly updated, are the only large assemblage from a dynastic workmen's settlement available to be analised. This assemblage provides basic clues on the status and habits of people, and function and temporality of occupation of both Middle Kingdom sites. Moreover the barracks-like style of the galleries' layout and other architectural features of the complex provide important insights for interpreting Qasr es-Sagha.

The New Kingdom workmen's village of Deir el-Medina will not be discussed in a separate section but some references to the site will be added for comparison. The reason lies in the exceptional profile of the village community. As stressed by Lehner (2010, 95), Deir el-Medina developed customs different from all of the other contemporary villages. It accommodated a specialised community of craftsmen and their families employed in tomb cutting at the royal necropolis at the Valley of the Kings and Valley of the Queens (Černy 1973; Lesko 1994). After a first brief occupation at the beginning of the Eighteenth Dynasty, the village was occupied for about 230 years from the Nineteenth to the Twenty-first Dynasty (Lesko 1994, 7). Its layout does not present a rigid organisation of spaces and the house-units are not identical, in contrast with the plan of the *Workmen's Village* of Amarna. The size of the houses varies greatly from $40m^2$ to $120m^2$ and houses were also built outside the village, probably to deal with the growth of the population (McDowell 1999, 11–13).

Section 3.3 is dedicated to Qasr es-Sagha and section 3.4 to Tell el-Dab'a. These subchapters are structured as follows: the general setting of the area is followed by the description of the layout and architectural remains, and a review of the finds (objects and faunal remains). The second part of each section is dedicated to the discussion and interpretation of the evidence. The results will allow for the understanding of the function and temporality of the sites, as well as the main characteristics of their population. Then in subchapter 3.5 a series of industrial sites will be reviewed for comparison including the contemporary Middle Kingdom settlements of Abu Ghalib and Ezbet Rushdi, the Old Kingdom site of Al-Shaykh Said, and the New Kingdom *Stone Village* of Amarna.

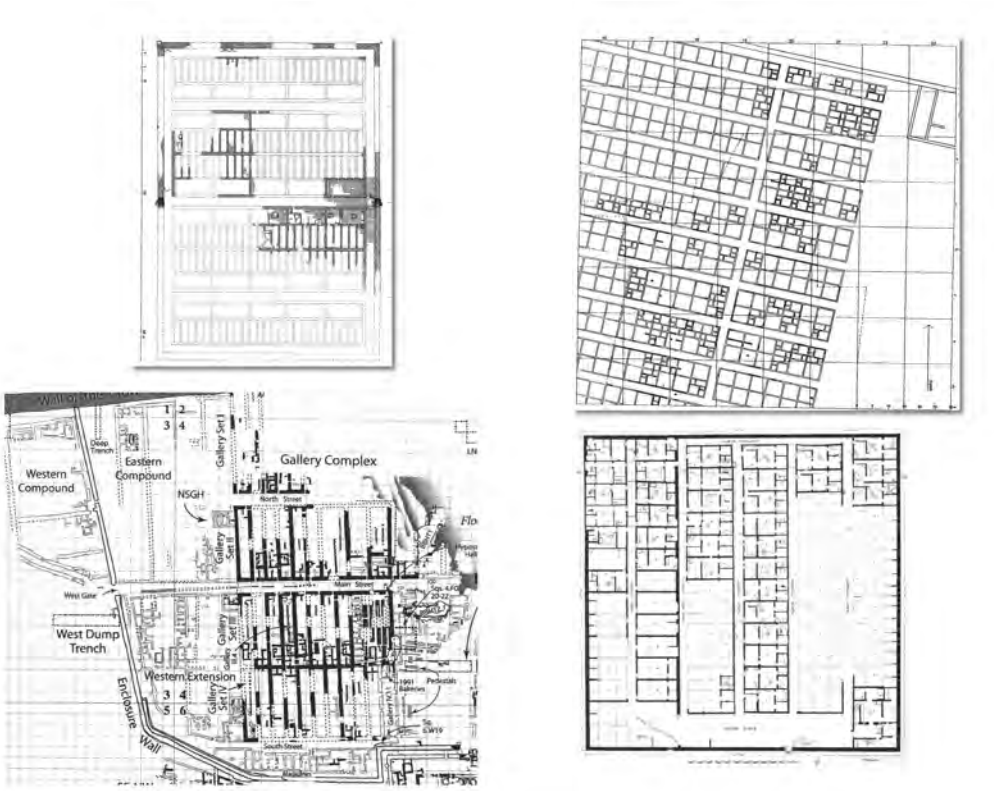


Fig. 55 - Above: the Middle Kingdom case studies, Qasr es-Sagha (Western Settlement, left) and Tell el-Dab'a (right). Below: Gallery Complex of Heit el-Ghurab (left) and Workmen's Village of Amarna (right).

3.2 - SETTLEMENTS FOR WORKERS: THE MAIN PARALLELS

3.2.1 - The Old Kingdom *Gallery Complex* of Heit el-Ghurab

Dated to the Fourth Dynasty (ca. 2543–2436 B.C., Hornung *et al*. 2006), the *Gallery Complex* was discovered in 1988 at Heit el-Ghurab in the Giza Plateau, south of the Sphinx, by Mark Lehner and his team.

It is isolated from the other functional areas of the site by an enclosure wall, namely the Eastern and Western Towns, and the Royal Administrative Building (RAB) which includes granaries and storage installations. It is crossed by three west-east streets: North, Main and South Street (Fig. 56). The *Gallery Complex* comprises four barracks-like blocks surrounded by bakeries, breweries, magazines and a fish processing area. The blocks are organised in long, parallel, narrow rows of units according to a rigid model. Each unit, or gallery, of *Gallery Set* II, III and IV is 35m long, while the galleries of *Gallery Set* I are 55m long (Fig. 56). *Gallery Set* I and IV total eleven galleries and *Gallery Set* II and III total eight (Lehner 2004, 13). The core of each gallery is a long hall presumably used as dormitory (Lehner 2010). These units were likely designed to accommodate a large group of people mustered there by the state for a specific project.

Considering similar patterns inside some Egyptian forts in Nubia (*e.g.* Buhen) (Fig. 57) and the so called *police quarter* in the main city of Amarna (Pendelbury 1951, 131–138) (Fig. 58), Lehner first hypothesised that the galleries were military dormitories for troops (2004, 14–15). The current idea is that the complex was the living quarter for the gangs employed in the construction of the Pyramid of Menkaure (Lehner 2010, 91–94; 2015; Redding 2010; 2011; 2013). Recently it has been estimated that an average 8000–10.000 people might have lived inside the complex (Redding 2013, 315).

On the basis of architectural features Lehner and Tavares (2010) have suggested that the population of the galleries was highly supervised. Pathways and the street that encircles the enclosure walls of the complex from inside were likely patrolled by sentries. Moreover, at the north-western corner of the Complex lies the so-called *Chute* (Fig. 59) which consists of two parallel walls forming a narrow path 2.5m wide. This may have been utilised to bring in animals to feed the pyramid builders or control the movements

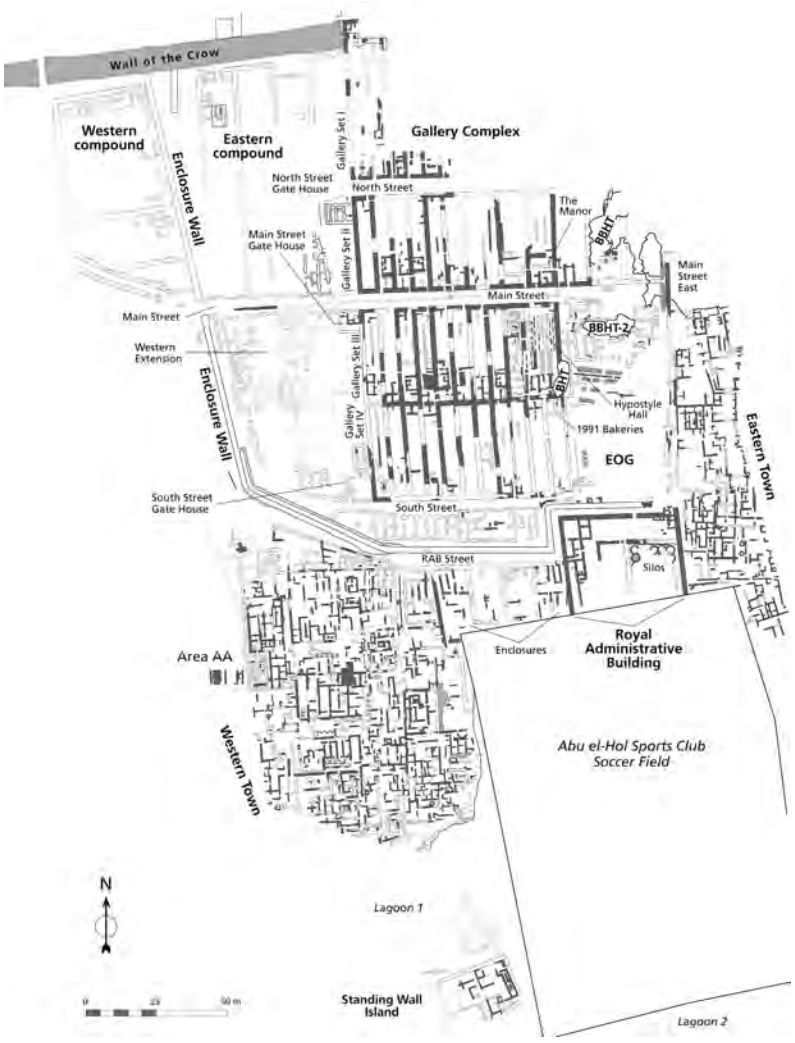


Fig. 56 - The site of Heit el-Ghurab with the Gallery Complex (drawing © G. Maserati. From Lehner & Tavares 2010, 172).

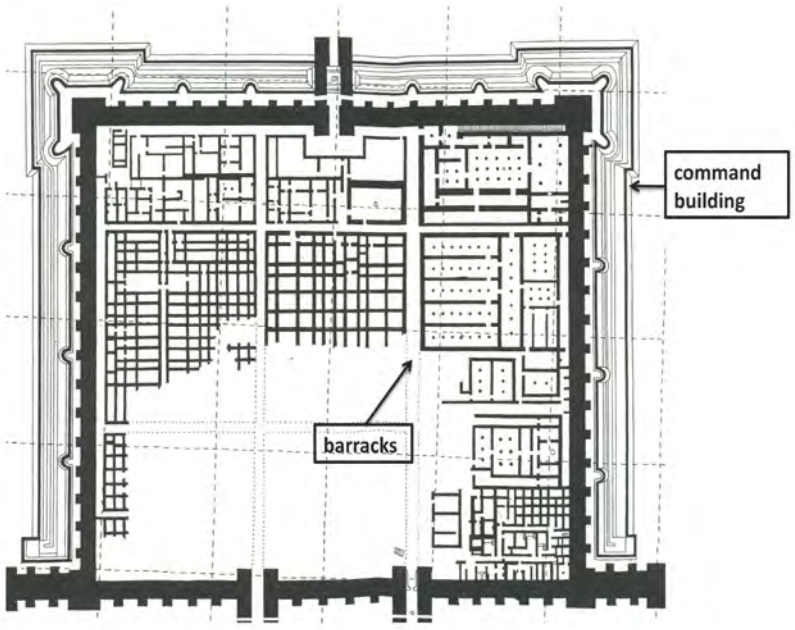


Fig. 57 - The Egyptian fort of Buhen, Nubia, Second Cataract area. (adapted from Emery et al. 1979).

of workers (Redding 2011). The second explanation is at present the most likely, as there is no confirmed evidence of animal herding within the structure (Abd el-Aziz 2009). The distribution pattern of finds and faunal remains seems to support the Lehner and Tavares hypothesis (Lehner & Tavares 2010, 206–13) since it allowed for the identification of the buildings placed at key points of the western end of the streets as gate-houses for guards (see below).

The dietary habits and socio-economic status of the residents of each area have been reconstructed on the basis of the distribution of faunal remains across the site (Fig. 60). The population of the galleries consumed more sheep and goats (91%) than cattle (7%) (Fig. 61) and more catfish (*Clarias* and *Synodontis*: 95%) than perch (*Lates Niloticus* 5%) (Redding 2010, 71; 2013). Ovine (or caprine) meat and catfish were considered of low quality, while bovine meat and perch of more desirable quality (Redding 2007a, 278). The type of mammals and fish consumed can be a reliable indicator of social status (Redding 2010). Therefore, the data from the galleries suggest that the diet of the pyramid builders was in general a low status diet. As Redding points out, the "cattle-perch complex seems to be associated with control areas" (Redding 2010, 73). For example, the North Street Gate House (NSGH), one of the three control points of the complex, yielded more bones of wild birds, cattle and perch (Redding 2007a, 266–267; 2010, 71). The percentage of cattle bones against sheep/goats bones is 56 : 40 (Fig. 62), and the percentage of high quality perch against less desirable catfish is 67 : 26. These data reveal that the residents of the NSGH consumed better food than the population of the barracks, which fits the identification of the former with the guards of the work-camp (Lehner & Tavares 2010, 194–199; Redding 2010, 69).

Similar data comes from the We-

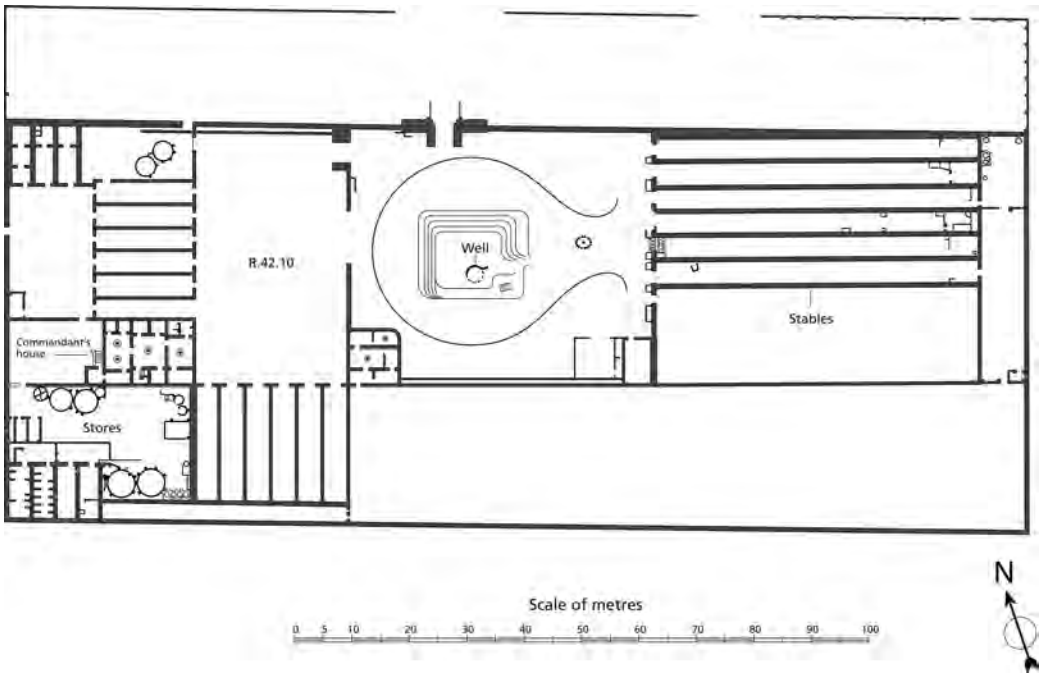


Fig. 58 - Amarna, police (or military) quarter (drawing © G. Maserati. From Pendelbury 1951).

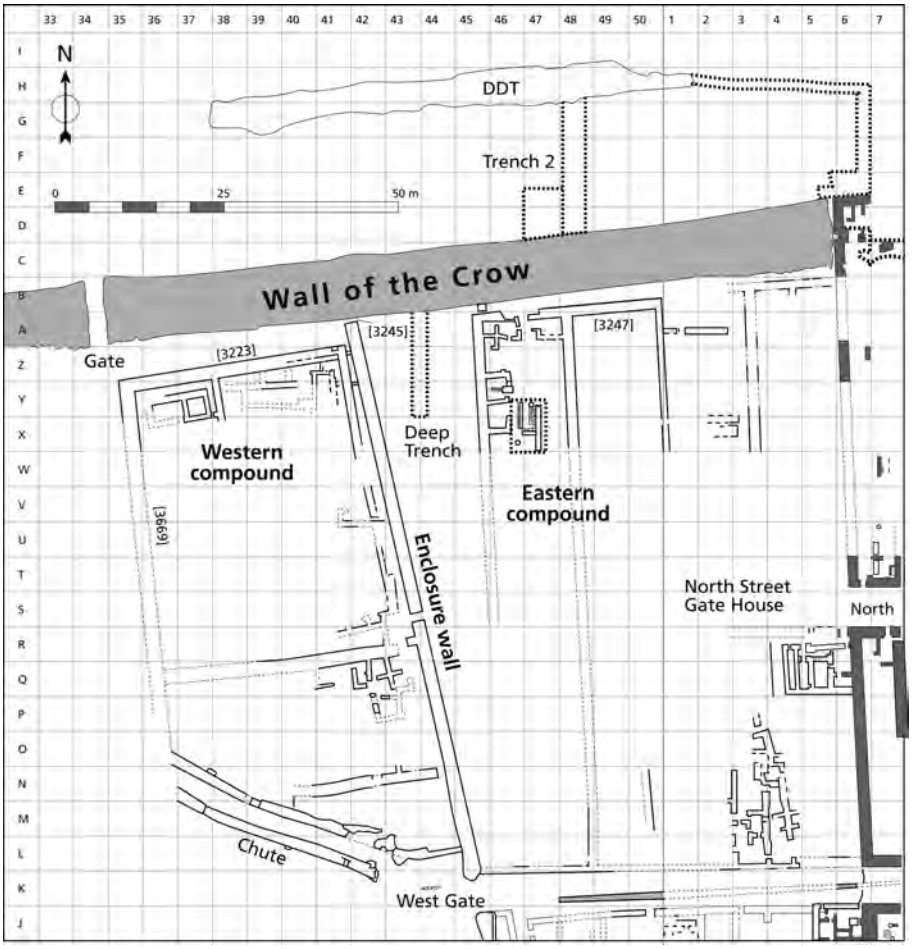


Fig. 59 - The northern area of Heit el-Ghurab, Giza, with the Wall of the Crow and the Chute leading towards the west gate of the Gallery Complex (drawing © G. Maserati. From Lehner & Tavares 2010).

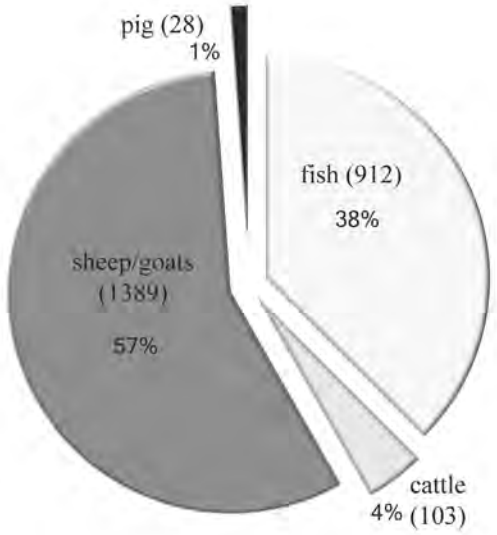


Fig. 60 - Amount of faunal remains from the Gallery Complex (sample from Gallery III.4: Redding 2010, 71). Total sample number: 2432.

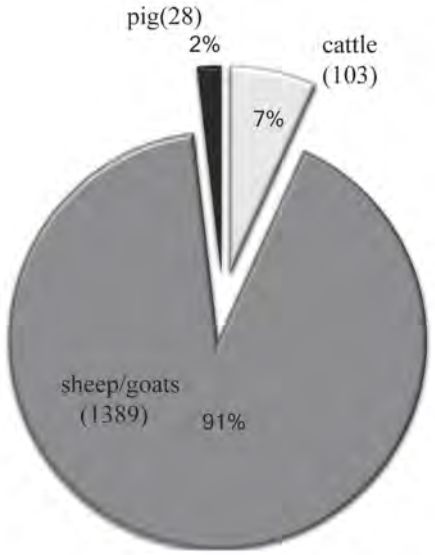


Fig. 61 - Percentage of domestic mammals from the Gallery Complex (sample from Gallery III.4: Redding 2010, 71). Total sample number: 1520.

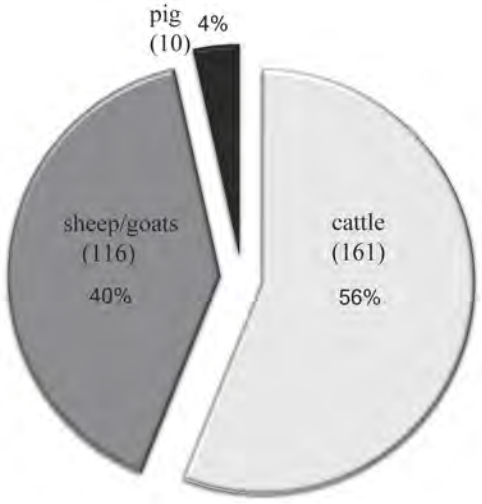


Fig. 62 - Percentage of domestic mammals from the NSGH, Gallery Complex. Total sample number: 287.

stern Town, which adjoins the *Gallery Complex* on its southern border. The discovery of several sealings of central administration officials and luxury items, along with the large size of the units (up to 500m^2) – the largest houses of the entire area – mark the high status of its population. Most of the animal bones from the town belong to young specimen of cattle, which reveals a higher status diet. There are also numerous remains of geese and wild fauna, which points to the game of hunting, an elite prerogative (Lehner & Tavares 2010, 211; Redding 2007b, 6–7).

Redding has suggested that the overall evidence points to the galleries, along with Western Town and the RAB, being provisioned by different centres (Lehner 2015, 408). In contrast, the population of the Eastern Town was probably self sufficient; evidence indicates the population was involved in production activities such as the processing of cereals, marked by the discovery of grindstones (Lehner 2010, 92; Redding 2010; 2013). As a result, the Eastern Town has been interpreted as support settlement for the pyramid builders of the galleries (Redding 2010, 69). Furthermore, the analyses of material from the Towns suggest that the residents of the Western Town were wealthier people (Redding 2013, 75).

Recently, the Levantine wood remains from the galleries and examples of similar 'gallery patterns' from Egyptian port settlements along the Red Sea western coast, have encouraged researchers to consider an alternative hypothesis for the function of the galleries and the profile of its residents. According to Lehner (2013), the *Gallery Complex* may have been a 'port city' of the pyramids. The Levantine Egyptian port sites, Mersa Gawasis (Old–early New Kingdom), Ayn Soukhna (Fig. 63) and Wadi el-Jarf (Old–Middle Kingdom) (Fig. 64) were logistical bases used to organise expeditions to mines, such as the turquoise mines in Sinai. Rock-cut galleries were used as accommodation for the crew members and as storage areas (Manzo 2010, 65) (Fig. 65).

Considering the similarity between the rock-cut galleries of Mersa Gawasis and the mud-brick galleries of Heit el-Ghurab, it has been suggested that the *Gallery Complex* was possibly used as a "template for expeditionary forces that the Egyptians transplanted

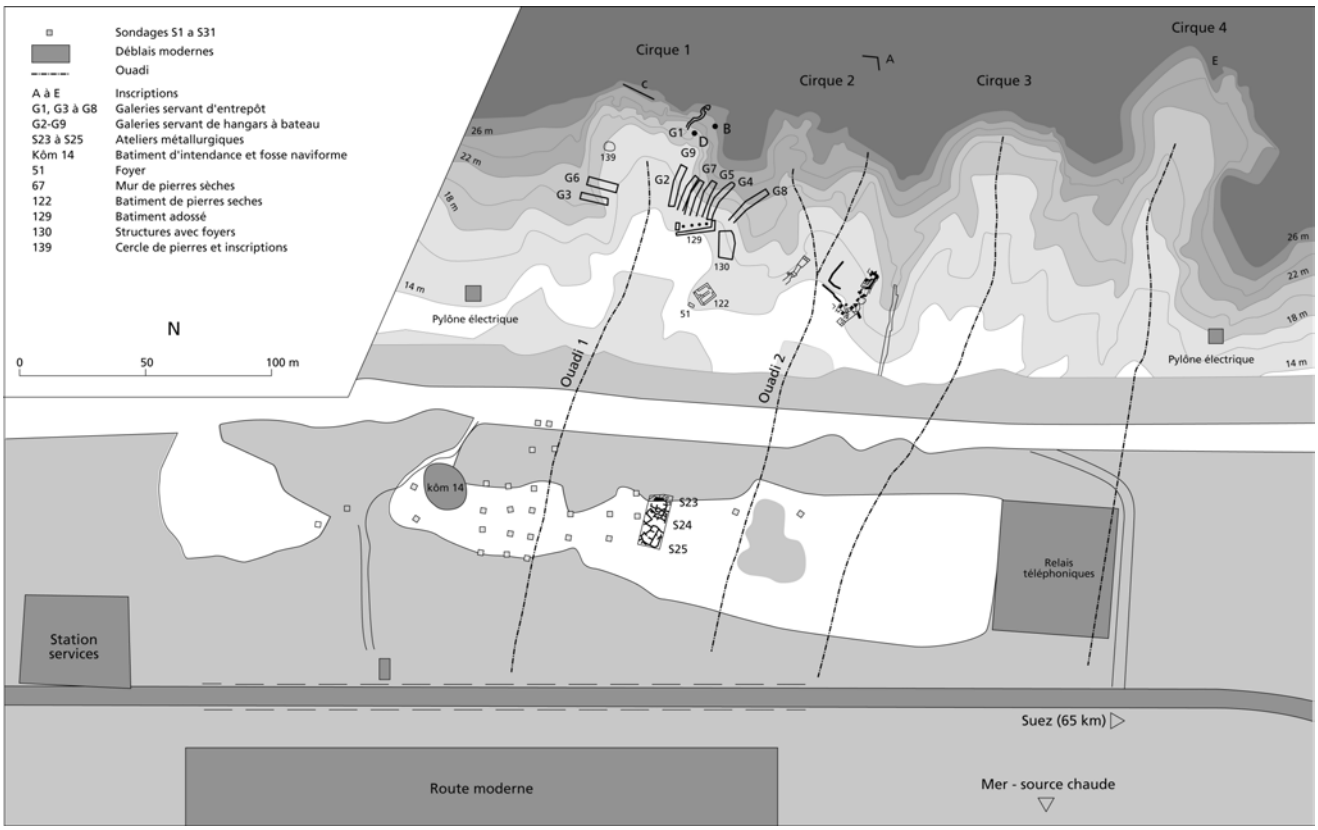


Fig. 63 - Topographical map of the Ayn Soukhna area (drawing © G. Maserati. From Tallet 2012).



Fig. 64 - Topographical map of the Wadi el-Jarf area (drawing © G. Maserati. From Tallet 2012).

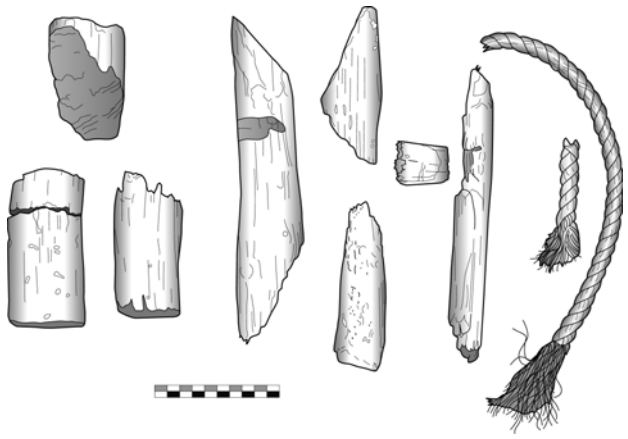


Fig. 65 - Pieces of boat equipment from the galleries of Wadi el-Jarf: wood and ropes (drawing © G. Maserati. From Tallet 2012).

and accommodated to other ports" (Lehner 2013, 5). The result is less formal rock-cut galleries. Moreover, the cedar charcoal discovered throughout the *Gallery Complex* has been interpreted as a result of the activity of disassembling and trimming ship timbers to reuse it as fuel hearths, as it has been concluded concerning the wood chips of Mersa Gawasis (Gerisch *et al*. 2007; Lehner 2013, 5; Ward 2012).

On the basis of the latest discoveries, the residents of the Giza galleries may have been crew members, including both officials and menial workers. However, as Lehner (2013, 6) stresses, these speculations would not automatically preclude the current interpretation of the *Gallery Complex* as a settlement for pyramid builders. Scenes along the Sahure's causeway show that the same people who had engaged in pyramid construction were involved in games celebrating the end of the work. This shows how "versatile was the function of the crews" (Verner 2003, 449). Additionally, evidence for the existence of a port in the surrounding area of Heit el-Ghurab still needs to be discovered.

3.2.2 - The New Kingdom *Workmen's Village* of Amarna

The *Workmen's Village* is located in Upper Egypt in a desert area east of the city founded by Akhenaten during the Eighteenth Dynasty. This settlement probably housed the craftsmen employed in the construction of the royal tombs (Kemp 1987, 43; Samuel 1999, 128–129; Shaw 2013, 321). Poblome has suggested that the houses were later reused by a police unit to "patrol the environment of the City" or stand on "guard on an important point, like the Rock tombs" (1993, 33) during the tough period of transition after the death of Akhenaten.

The village is surrounded by an enclosure wall and arranged in six north-south parallel rows of 72 identical mud-brick houses. As the image shows (Fig. 66), the units are placed along five streets. The two rows on the west side were not part of the original plan; they were added later under Tutankhamun (Kemp 1987; Poblome 1993). A larger unit located in the south-east corner probably housed the supervisor of the village (Kemp 1987b). Outside of the walls there are animal pens and small chapels.

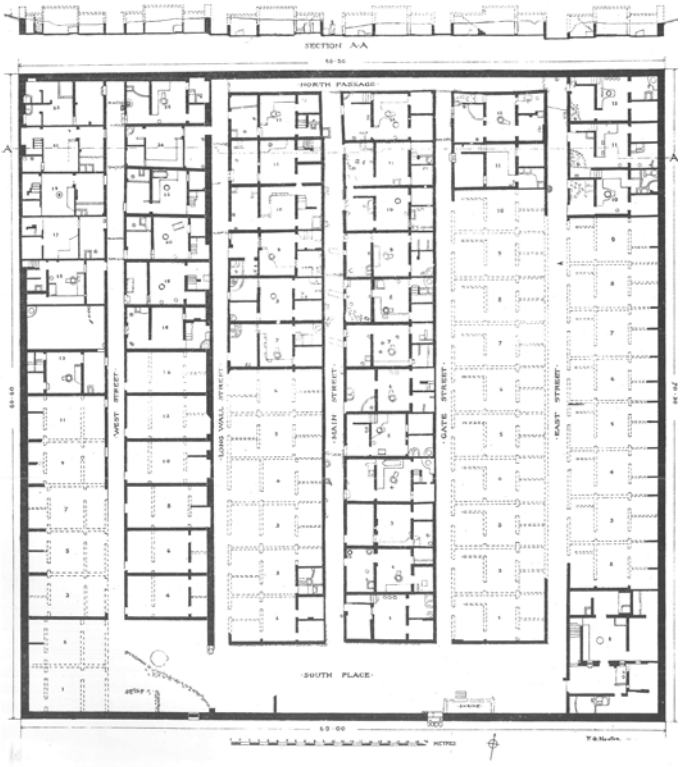


Fig. 66 - The Workmen's Village of Amarna (after Peet & Woolley 1923).

As the pie-chart shows (Fig. 67), the amount of pig bones yielded at the site outnumbers goat and cattle remains indicating that the population was involved in pig rearing (Hecker 1984, 155). Hecker suggests that the sparse vegetation of the arid area – primarily xerophytic species – was suitable for goats. Moreover, as pigs are omnivores like humans, they can be easily fed with a great variety of food. Along with goats, this provides the best solution for the desert environment of the *Workmen's Village* (Hecker 1984, 161–162).

Due to the lack of wells inside the village or in its vicinity, water must have been provisioned by the main city, along with cattle meat (Bailey & Luff 2000, 104; Hecker 1984; Kemp 2012, 194). During the final years of the occupation of the settlement, local rearing of cattle was established to deal with a reduced state support (Hecker 1984 159–160).

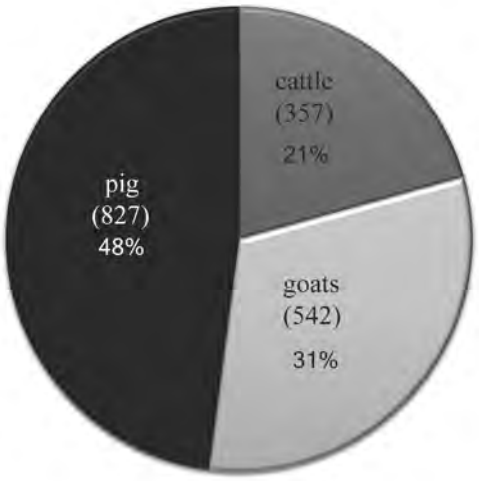


Fig. 67 - Amount of faunal remains of domestic mammals from the Workmen's Village, Amarna. Total sample number: 1726.

3.3 - FIRST CASE STUDY: QASR ES-SAGHA

3.3.1 - Overview of the site, fieldwork and publications

THE DYNASTIC COMPLEX

The site is located in the Western Desert, north of the Lake Birqet Qarun in the Faiyum Oasis, Lower Egypt, on a level platform at the foot of the escarpment towards the Gebel Qatrani. The dynastic complex includes a temple, two settlements, a paved road and a cemetery. The site was excavated by the Institute of Archaeology of the Jagiellonian University of Krakow in collaboration with the German Archaeological Institute of Cairo from 1979 to 1988.

The first report (Ginter *et al*. 1980, 106–169) focuses on the stratigraphy and paleogeography of the site during the Holocene, discussing Neolithic settlements and stone industries in the area of the dynastic complex. The second report (Ginter *et al*. 1984, 33–102) includes descriptions of stone artefacts from the area of the Eastern Settlement, and provides the first overview of the fortification system and preserved architecture of the Western Settlement.

A summary of the first excavations appeared in Śliwa (1983). Further reports and publications focussed on the Middle Kingdom complex. The most relevant are Śliwa 1986, 1992a, and 1992c. In 1999, a German-Polish mission directed by Tomasz Herbich of the Warsaw University conducted a magnetic survey in order to complete the plan of the Western Settlement and to establish whether it continued around the southern side of the temple (Herbich 2001). *Der Tempel Qasr el-Sagha* (1979) by Dieter and Dorotea Arnold is the main publication on the temple. The only description of the burials of the cemetery and preliminary results of the analysis of the human remains appeared in Caton-Thompson and Gardner 1934.

Both settlements are poorly preserved. The layout of the Western Settlement was reconstructed by Joachim Śliwa, the director of the Polish-German mission, on the basis of brick walls visible on the surface. The Eastern Settlement survived only fragmentarily. The radiocarbon dating of organic samples – consisting of charcoal pieces and powder – suggests a date for the entire area from the Qarunian to the dynastic time (Pazdur 1983, 114–117; Śliwa 1983). The occupation phases of both settlements were assigned to the Twelfth Dynasty (probably from Senwosret II or III) – early Second Intermediate Period (Śliwa 1983, 80–114). Later analyses of the ceramic seem to confirm that date (Śliwa pers. comm. 22/12/2011). Additional evidence is provided by a fragment of *Pan-Grave pottery* found in a room of the Western Settlement (Fig. 84 below). The type of decoration, an incised spider-web, points to the early Pan-Grave Culture of the late Twelfth – mid Thirteenth Dynasty (Gatto *et al* 2010, 95).

THE QUARRIES: LANDSCAPE LANDMARKS

The industrial landscape north of Qasr es-Sagha includes the basalt quarries of Widan el-Faras and farther north-east of Widan el-Faras, the gypsum and limestone quarry of Umm es-Sawan (Fig. 68). Both quarries were exploited during the Old Kingdom (Bloxam & Storemyr 2002; Harrell & Bown 1995; Storemyr 2003). The procurement of basalt from Widan el-Faras during the Fourth and Fifth Dynasties seems to have exceeded its use at any other time. Du-

ring the Old Kingdom the basalt was widely used for architectural purposes such as floors of temples and causeways of the pyramid complexes (Fig. 69).

Evidence for the Old Kingdom exploitation of Widan el-Faras includes the so called *quarrymen's camp* and *encampment,* both situated at strategic positions at the entrance of the quarries. The *quarrymen's camp* – ca. 160 circular depressions with diameter up to seven metres (Bloxam & Storemyr 2002, 31ff) – was first interpreted as either a temporary camp for workers or a storage yard for blocks of raw material extracted from the quarries (Harrell & Bown 1995, 78) (Plate 6). Most recently Elisabeth Bloxam and Per Storemyr cast doubts on its use as a habitat, preferring es-Sagha over a distance of 11km (Storemyr 2003, 3) (Fig. 70 and Plate 7).

Potsherds from the quay date to Old and Middle Kingdoms (Bloxam & Storemyr 2002, 30–31). A deposit with several blocks of basalt arranged in circular depressions was also discovered near the quay. The similarity with those at the *quarrymen's camp* may support Bloxam and Storemyr's interpretation of the camp as storage yard. One of the blocks weighs 3000 kg: the largest piece discovered far from the quarry (Harrell & Bown 1995, 80–82). The pavement of the road does not show any grooves left by sledges, the common device used to drag material from quarries. Grooves were observed, for instance, on the Hatnub

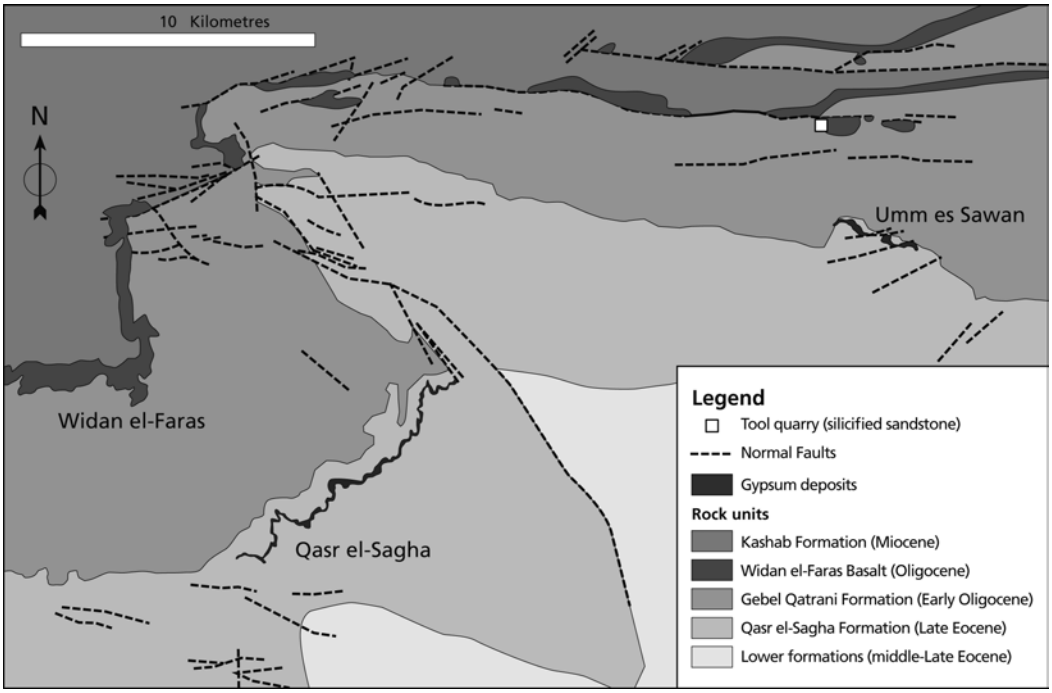


Fig. 68 - Geology of the norther Faiyum area with basalt deposits at Widan el-Faras and gypsum deposits at Umm es-Sawan (drawing © G. Maserati. From Heldal et al. 2009).

the second hypothesis (Bloxam & Storemyr 2002, 32; Storemyr 2003, 9). The scant evidence of human occupation (*i.e.* artefacts and ceramic) seems to support their view.

Conversely, a temporary habitative use has been assigned to the *encampment* (Bloxam & Storemyr 2002, 33–34), a cluster of circular structures of basalt blocks, dated by pottery to the Old Kingdom. The discovery of a limestone deposit in association with several pounders and mauls may suggest that the workers housed at this camp built the paved road (Storemyr *et al*. 2003, 10). This purpose-built road, which ends with a quay, connected Widan el-Faras and Qasr quarry road (Shaw 2010, 123). Their absence suggests that the blocks were carried by "porters on a bier, or suspended from or mounted atop shoulder-borne poles" (Harrell & Bown 1995, 82) while the beams were put in advance of sledges. Once carried from the quarry to the quay, the basalt blocks were left there waiting for summer flood to be ferried to destination.

The seven road branches that are preserved reveal that the road was built using local material, namely basalt, sandstone and limestone. The highest percentage of the material employed was sandstone (Harrel & Bown 1995, 78–83). Some sections also show the use of fossilised wood from the Tertiary petrified fo-

Dyn.	Structure	L. (m)	W. (m)	H. (m)	V. (m)	Comment	Ref.
Fourth	Khufu Mortuary Temple Floor	50	42	0.4	840	possible small addition of arris line blocks on Queen's pyramid	*JARCE* 30, 118
Fourth	Khufu Valley Temple floor				100	size of Valley Temple floor is an estimatic - only part remains	*JARCE* 32, 71; Lehner, *Pyramids,* 109
Fourth	Khufu harbour Wall				100	estimate, wall not complete, found 500m east of the Valley	Lehner, *Pyramids,* 109
Fifth	Userkaf Mortuary Temple Floor	35	21	0.4	294	dado in mortuary temple of basalt and possible the sarcophagus was basalt	*JARCE* 30, 118; Verner, *Pyramids*, 276-7
Fifth	Userkaf Sancuaries (2) and Chapel Floors	10	5	0.4	60	volume total for three floors	*JARCE* 30, 118
Fifth	Userkaf Causeway Floor				100	estimate: causeway never found, however, basalt blocks making up the top end of the causeway were observed in 2002 by the authors	*JARCE* 30, 118
Fifth	Sahura Mortuary Temple Floor (iclu. Side rooms)15	15	25	0.4	150	total volume for floor was calculated (Heldal pers. comm. 2002) at 140m_. The higher figure of 150m_ remains as this includes the side rooms	*JARCE* 30, 119
Fifth	Sahura Valley Temple Floor	20	10	0.4	80		Borchardt, *Sahu-re*, (1910), 32
Fifth	Sahura Causeway Walls	235	1.5	0.4	282	volume total is for two walls, unclear if floor was also basalt	Borchardt, *Sahu-re*, (1910), 32
Fifth	Nyuserra Mortuary Temple Floor	15	25	0.4	150		Borchardt, *Ne-User-re*, (1907), 56
Fifth	Nyuserra Valley Temple Floor	18	10	0.4	72		Borchardt, *Ne-User-re*, (1907), 56
Fifth	Nyuserra Walls of Mortuary Temple	80	0.4	1	128	approximate volume for four walls	Borchardt, *Ne-User-re*, (1907), 56
Fifth	Nyuserra Causeway Walls	400	0.4	1.5	480	volume total is for both walls although they now cannot be observed, unclear if floor was also basalt	Borchardt, *Ne-User-re*, (1907), 13

Fig. 69 - Use of basalt during the Old Kingdom (drawing by the author. From Bloxam & Storemyr 2002).

rest near Umm es-Sawan, north of the Gebel Qatrani escarpment (Fig. 71). The silicified wood of the forest was also used to make quarrying tools to work the gypsum at Umm es-Sawan: several chisels of this material were found at the gypsum quarry itself and scattered in the nearby area, along with hammer stones and cobbles of chert.

The quarry of Umm es-Sawan is more than 20km west of Widan el-Faras and more than 30 km from Qasr es-Sagha. In the Umm es-Sawan area, Caton-Thompson identified three workshops for the production of vessels. The mounds contained gypsum debris derived from stone working, tools and pottery. Near the workshops 'hut circles' were discovered, later interpreted as grinding stone quarries. The numerous natural shelters (Fig. 72) provided temporary accommodations *in situ* to the quarrymen during the Old Kingdom (Caton-Thompson & Gardner 1934, 120–122; Heldal *et al*. 2009).

James Harrell and Thomas Bown (1995) suggest the workers may have come from the Nile Valley through the well preserved long track departing from Dahshur towards Umm es-Sawan. An additional track that connected the gneiss quarry with Widan el-Faras has been also discovered by Shaw (Shaw *et al* 2010, 303–305). The distance from the Nile Valley and Widan el-Faras has been estimated at around 65km, a two-day long trip (Harrell & Bown 1995, 78). The pottery from the mounds and the huts date to the Old Kingdom (with a peak during the Third and Fourth Dynasties) and to the Greco-Roman period (Heldal *et al*. 2009, 63). Some aspects point to small campaigns and small groups of workers at a time: the finds and type of accommodations at Umm es-Sawan, and the small size of the extraction sites at Widan el-Faras (Bloxam & Storemyr 2002, 35–36; Heldal 2009, 61).

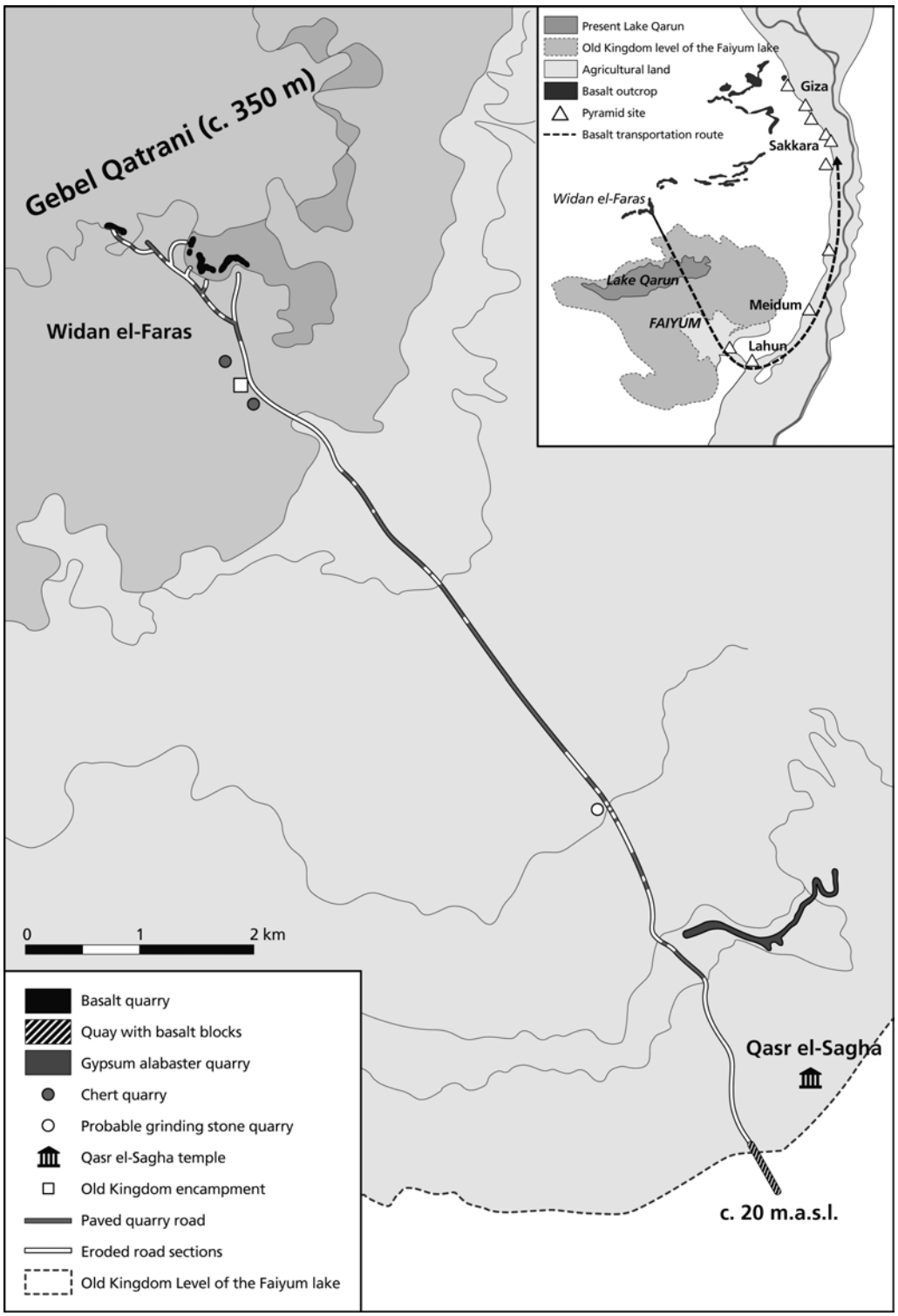


Fig. 70 - Map of the Gebel Qatrani area during the Old Kingdom with the paved road connecting the quarries of Widan el-Faras and Qasr es-Sagha (drawing © G. Maserati. From Harrell & Storemyr 2009).

3.3.2 - Architecture of the Settlements and review of the finds

After the excavation reports and the first publications by Śliwa (1983), the settlements have not been further studied. Descriptions of the site have appeared in later works of Barry Kemp, Nadine Moeller and Ian Shaw, who focussed on the architecture of the Western Settlement and its association with Widan el-Faras (Kemp 2006, 227–231; Moeller 2009; Shaw 2010, 132). The singularity of the settlement's layout compared with the scant amount of objects drew attention to the structure at the expense of the finds. Recently Moeller

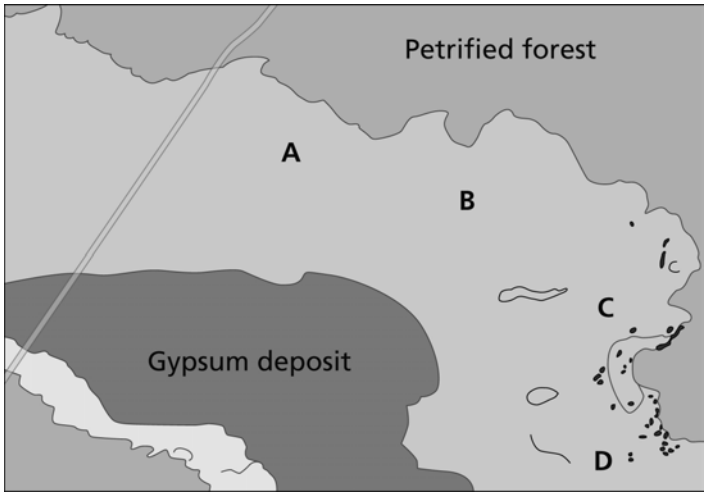


Fig. 71 - Map of the area of Umm es-Sawan; at top right the petrified forest (drawing © G. Maserati. From Heldal et al. 2009, 55).

(2016, 262–71) reviewed the evidence from the site including both the settlements, temple, and cemetery in her discussion.

*

ARCHITECTURE

The Western Settlement – only partially excavated – is placed to the south-west of the temple at a distance of ca. 250m (Fig. 73). With a rectangular layout of 217 x 153 cubits (113.9 x 80.3m) and an orthogonal internal pattern, it is orientated along north-east and east-west axes (Fig. 74). A fortified brick wall, 2.1m thick, encircles the compound (Śliwa 1992c, 20–21). The settlement was also bordered from the east by a natural embankment of sand reinforced with bricks. This construction likely protected the settlement from the seasonal rise of the water table of lake Qarun (Ginter *et al*. 1984, 74, 99). A street, 3.15m wide, encircles the walls from the inside, and one street crosses the middle of the compound linking the two main gates of the town. Due to the better preservation of the external walls of the houses of the western side of the settlement, Śliwa assumed that a western street ran parallel to the central one (Śliwa 1992a). The eastern part of the compound is almost entirely destroyed. However, on the basis of the arrangement of its western side, Śliwa reconstructed an eastern street aligned with the other two.



Fig. 72 - A natural shelter at Umm es-Sawan (adapted from Heldal et al. 2009, 62).

Thirty identical houses are aligned in six rows with five units each, planned on the basis of a consistent template. The houses are placed side by side following the north-south axis and the central four north-south rows are organised in two blocks divided by the central street. The twenty houses of the two central blocks, consisting of two rows of ten units each, are aligned side by side on the north-south axis and back to back on the east-west axis (Fig. 74). Every house measures almost square at 25 x 24 cubits. They include a rectangular courtyard north-south measuring 24.5 x 10 cubits (12.90 x 5.25m) overlooking the street. The courtyards are provided with one or two round ovens, 1.20–1.50m in diameter, usually located in the northern side of the yard (Śliwa 1992a, 178ff). Along the western north-south wall of each yard are placed the entrances to five identical long narrow rooms measuring 15 x 4 cubits (7.90 x 2.10m). The discovery of mammal and fish bones along with ostrich eggs and several conical bread moulds, attests that food preparation and bread-baking occurred in the courtyards (Śliwa 1992a, 180). Granaries were not discovered.

The magnetic survey carried out in 1999 by the German-Polish mission missed the enclosure wall because apparently the mud-bricks of the structure are non-magnetic. However, the walls of the rooms and courtyards in the central part of the compound are emphasised by a different material which appears to be strongly magnetic. According to Herbich (2001, 184) it may be ashes deposited along the walls and inside the rooms. The presence of ash may be evidence for the destruction by fire of the core of the settlement (Fig. 75).

The Eastern Settlement is placed to the south-east of the temple at a distance of 250–300 m from it and is

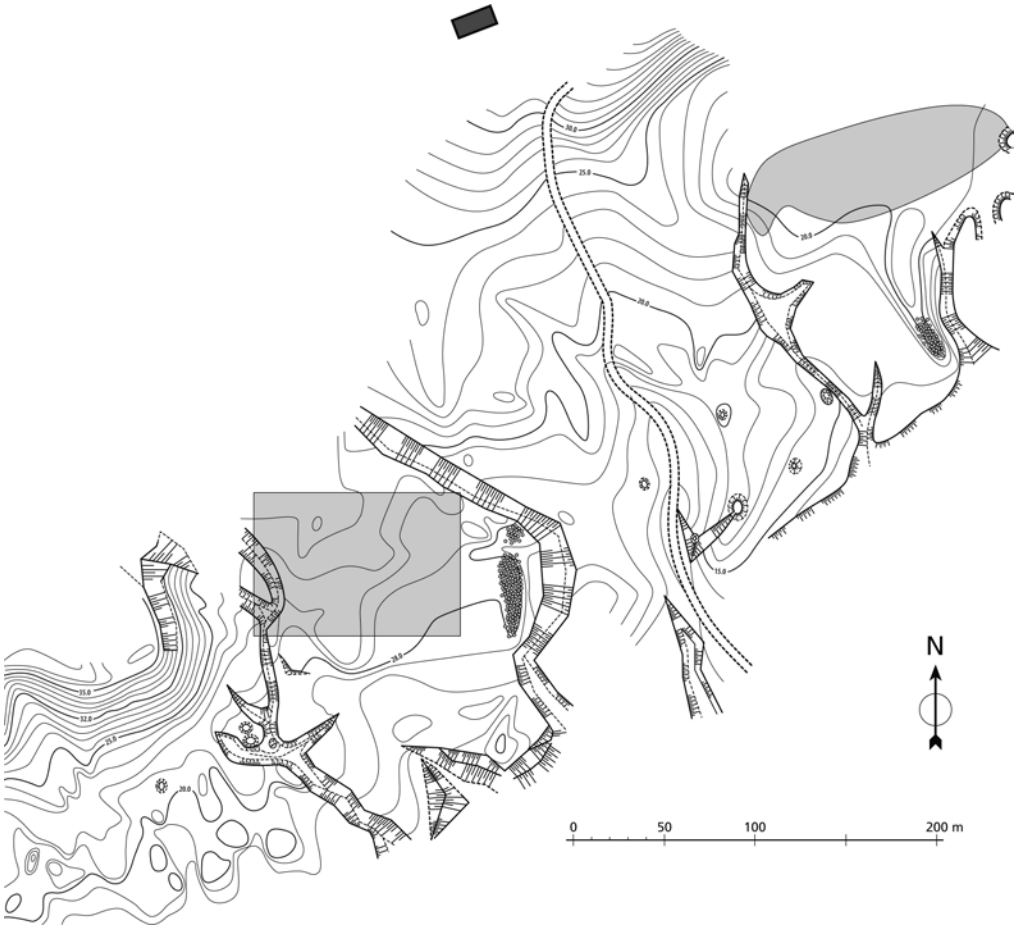


Fig. 73 - Map of the Qasr es-Sagha area with the locations of Western and Eastern Settlements separated by a wadi (drawing © G. Maserati. From Śliwa 1986, 168).

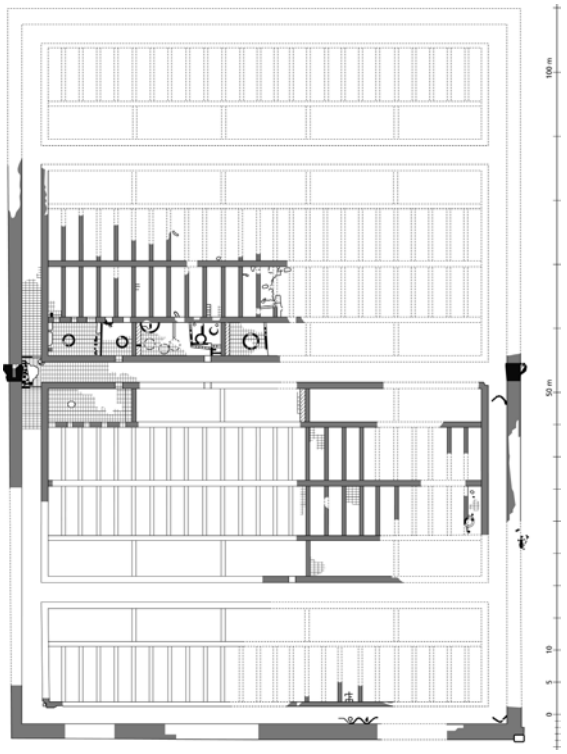


Fig. 74 - Layout of the Western Settlement (drawing © G. Maserati. From Śliwa 1992c, 22).

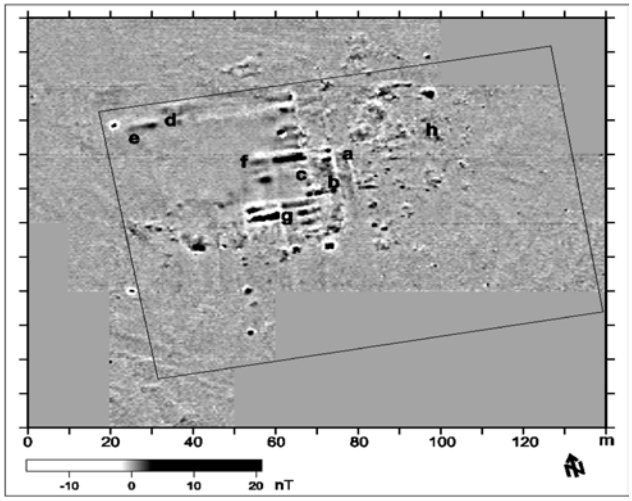


Fig. 75 - The layout of the Western Settlement on a magnetometric map (Courtesy of T. Herbich).

300 m far from the Western Settlement. Even though separated by a large wadi, the two compounds were probably related to each other (Fig. 73). The poor preservation of the Eastern Settlement does not allow for the reconstruction of its original plan.

FINDS

Widespread stone artefacts in the area constitute the highest percentage of finds, followed by ceramic sherds. Objects of value are nearly absent. Daily items are scarce. This is attributable to the poor preservation of the settlements, and biases of object repertoire due to publication and excavation. According to Śliwa, many samples of carbonised plant remains were gathered from the ovens of the Western Settlement, along with faunal remains, but at the time of the excavation – 1979–1988 – this type of evidence was not analysed. The organic material, pottery and flints were deposited in the magazines of the Museum of Cairo waiting for later studies (Śliwa pers. comm. 17/10/2012). A partial list of mammal and fish bones retrieved from the Western Settlement area and the temple was compiled by the zooarchaeologist Angela von den Driesch in 1986.

*

THE WESTERN SETTLEMENT

A mound located near a ramp outside the settlement yielded more than 700 stone finds. Many are blades, flake tools and bifacial implements. The pebbles were interpreted as coming from Umm es-Sawan, due to their similarity with the same material found at that quarry site. These stone artefacts do not seem to constitute a homogeneous assemblage (Ginter *et al*. 1980, 136–8). Therefore, it is not clear if they were associated with the main activity performed by the inhabitants of the settlement.

Some objects are pieces of cosmetic equipment. Unit D2, room 4 yielded a rectangular palette with the grinder (Fig. 76), two faience bracelets, a bone pin, an uninscribed amethyst scarab and few amethyst beads plausibly part of the same string (Śliwa 1992a, 182–85). The string from the Late Middle Kingdom tomb 734 of Qau (Brunton, 1930) offers a contemporary parallel (Plate 8). The trapezoidal head of the Qasr es-Sagha scarab (type D8) is comparable with the head of three amethyst scarabs discovered in tombs of group V at Jericho (J39 and H13), Palestine (Tufnell 1984). A fragment of *Tell el-Yahudiya ware* also comes from the same room (Fig. 77). The term refers to a particular type of pottery, named after the site of Tell el-Yahudiya, Eastern Delta, where most of the examples were found (Aston & Bietak 2012, 24). They are widely spread throughout the whole Eastern Mediterranean from the MBA IIA period. The fragment should belong to the family of *piriform juglet* 'el-Lisht type', so called because of its high occurrence at el-Lisht (Kaplan 1980, 6, 19). Aston and Bietak place that category of juglets among the Early Levantine jugs, type group F3. They infer that this type is primarily of Levantine origin. Similar examples were discovered at Tell el-Dab'a, Lahun and in Palestine at Kfar Djarra.

A pair of bone clappers comes from the adjacent room 3 (Fig. 78). Shaped as two arms pierced at the end and strung together with a cord, they were used to beat time in dancing and in cultic cerimonies (Capel & Markoe 1996; Hayes 1959, 247; Petrie 1927, 43 n.91; Szpakowska 2008, 141). Similar contemporary examples come from Lahun (Plate 9). Unit D2 yielded also a limestone axe with a geometric incision (Fig. 79) and a limestone slab with an incised human figure (Fig. 80).

Another fragment of *Tell el-Yahudiya ware* was found in unit D1 room 3 (Fig. 81). It should belong to the juglet type 'Levanto-Egyptian group', primarily of Levantine origin but may also be copied in Egypt by Near Eastern potters (Aston & Bietak 2012, Preface and 58). From the same room come fragments of *Pan-Grave pottery* (Fig. 82). This type of ceramic is named after the Pan-Grave Culture that appeared in Nubia from the end of the Middle Kingdom through the Second Intermediate Period (ca. 1750–1550 B.C.). Many examples of *Pan-Grave pottery* were discovered in Nubia inside Egyptian fortresses (*e.g.* Kuban) (Liszka 2012).

The fragments belong to the upper part of two large decorated bowls. The incised decoration with crisscross bands – the most common pattern of *Pan-Grave pottery* (Gatto *et al* 2010, 94) – most likely corresponds to the motif on a vessel from the necropolis of Sheikh Mohamed (Fig. 83). This is a Pan-Grave site located on the west bank of the Nile, near the

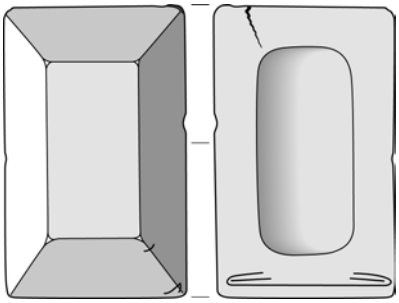


Fig. 76 - Rectangular palette from unit D2 room 4, WS (drawing © G. Maserati. From Śliwa 1992c, 36 Fig. 18).

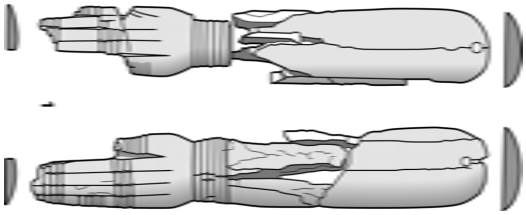


Fig. 78 - Clappers, WS, Qasr es-Sagha (drawing © G. Maserati. From Śliwa 1992c).

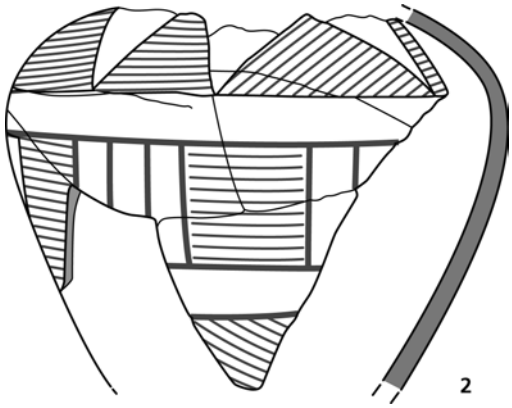


Fig. 81 - Lower part of Tell el-Yahudiya ware, WS, Qasr es-Sagha (drawing © G. Maserati. From Śliwa 1992c, 32 Fig. 11).

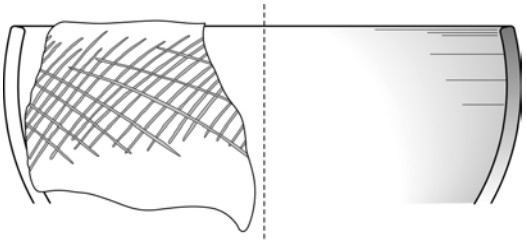


Fig. 83 - Pan-Grave pottery. Decorated ware from the necropolis of Sheikh Mohamed (drawing © G. Maserati. From Gatto et al 2010, 99 Fig. 10).

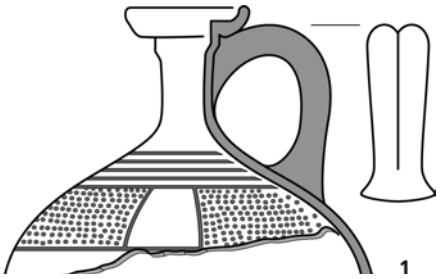
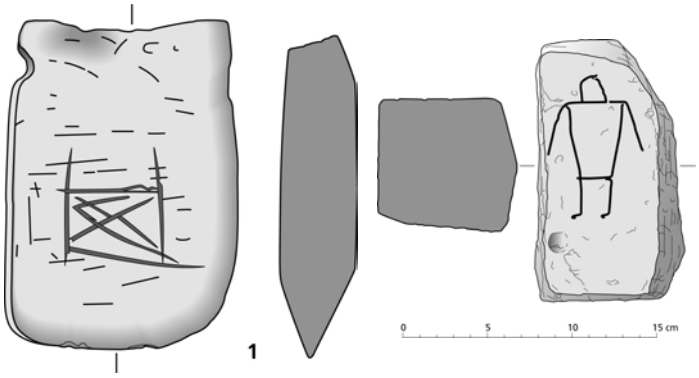


Fig. 77 - Tell el-Yahudiya ware, upper part of a vessel from unit D2 room 4, WS (drawing © G. Maserati. From Śliwa 1992c, 32 Fig. 11).



Figs. 79 and 80 - Limestone axe with geometric incision (left) and limestone slab with human figure (right), WS, Qasr es-Sagha (drawing © G. Maserati. From Śliwa 1992a).

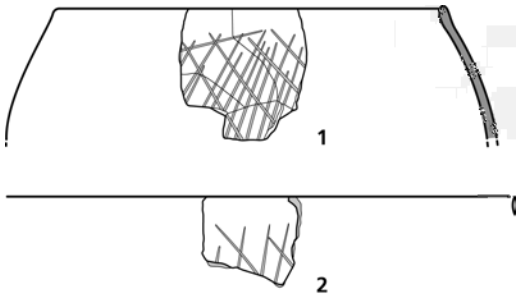


Fig. 82 - Pan-Grave pottery, upper parts of vessels, WS, Qasr es-Sagha (drawing © G. Maserati. From Śliwa 1992c, 34 Fig. 12).

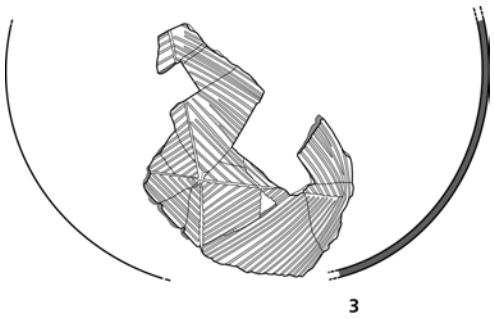


Fig. 84 - Pan-Grave pottery. Lower part of a vessel from unit D1 room 3, WS, Qasr es-Sagha (drawing © G. Maserati. From Śliwa 1992c, 34 Fig. 12).

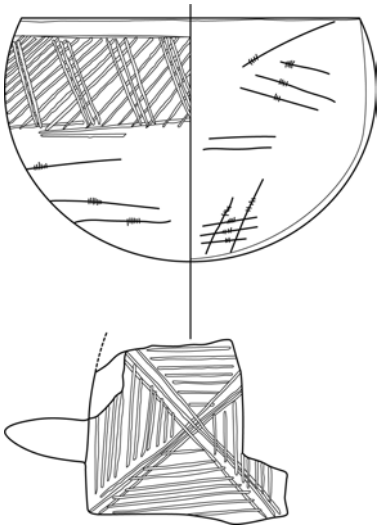


Fig. 85 - Pan-Grave pottery. Decorated ware from the cemetery of Nag el-Qarmila (drawing © G. Maserati. From Gatto et al 2010, 98 Fig. 9).

First Cataract. Not far from it lies another Pan-Grave site: Nag el-Qarmila. Both Sheikh Mohamed and Nag el-Qarmila include a camp with its cemetery and are dated to the early-mid Thirteenth Dynasty (Gatto *et al* 2010, 83). From the cemetery of Nag el-Qarmila comes another bowl whose decoration recalls the pattern of the third fragment of *Pan-Grave pottery* from unit D1 room 3 of the Western Settlement (Figs. 84 and 85). The design, an incised spider-web covering the lower part of the vessel, addresses to the old phase of Pan-Grave Culture, pointing to the late Twelfth-mid Thirteenth Dynasty (Gatto *et al* 2010, 95).

Some alabaster vessels were also discovered. The finds yielded at the Western Settlement total more than 2000 potsherds of daily use, mostly hemispherical thin walled bowls. Bread moulds for baking bread are 64% of the total amount of ceramic material (Ginter *et al*. 1984, 66–67).

THE EASTERN SETTLEMENT

Bread moulds are rare at the Eastern Settlement (Ginter *et al* 1984, 79). This settlement occupies a roughly oval area which includes different mounds of archaeological material. A mound in area QS VII H/81 on the eastern edge of the site includes more than 2000 ceramic sherds and more than 900 stone tools (Ginter *et al* 1984, 82–84). The same mound also yielded some limestone fragments with evident traces of burnishing, the upper part of a rough-sketch unfinished basalt statue – part of a double statuette – another fragment of basalt sculpture, and the lower part of an unfinished limestone female statue (Śliwa 1983, 89).

The central area of the settlement yielded one stone spindle whorl (Fig. 86) and a calcite object which was interpreted as either draughtsman or pawn, namely a game piece (Fig. 87). The long oval shape and the horizontal groove in the upper part of this object recall the shape and characteristics of net sinkers. Good parallels come from the early Twelfth Dynasty settlement of Tell el-Dab'a (below 3.4) (Fig. 88) and from the Middle Kingdom settlement of Elephantine (Fig. 89). The length of the sinkers from Tell el-Dab'a varies from 5 to 10cm; the object from Qasr es-Sagha is about 6cm in length, so its size is within those parameters. Despite the absence of a second horizontal groove at the opposite end of its length, which is clear in the two entirely preserved net sinkers from Tell el-Dab'a and in one sample from Elephantine, I sug-

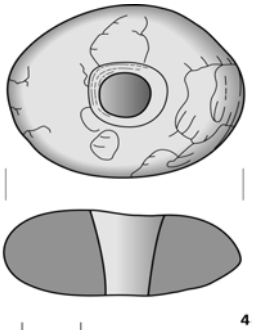
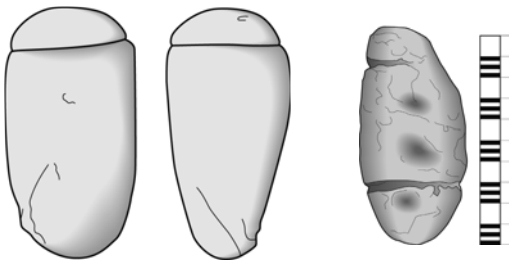


Fig. 86 - Stone spindle whorl, ES, Qasr es-Sagha (drawing © G. Maserati. From Śliwa 1983, 98).



Figs. 87 and 88 - The calcite object, ES Qasr es-Sagha (left) (drawing © G. Maserati. From Śliwa 1983, 98 Fig. 56) and a net sinker, Tell el-Dab'a (right) (drawing © G. Maserati. From Czerny 1999).

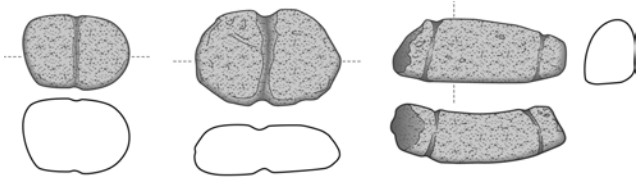


Fig. 89 - Net sinkers type B, Elephantine (drawing © G. Maserati. From Pilgrim 1996, 277).

gest that the calcite pawn from the Eastern Settlement could actually be a fishing net sinker. If we compare the Qasr es-Sagha object with a clay Middle Kingdom game piece (Fig. 90) the differences are apparent. The game piece has a constricted neck and a projecting rim. In addition, the body tends to become broader from the neck to the bottom, ending with a flat base fit for the purpose to be placed on a horizontal surface. Conversely, the object from Qasr es-Sagha does not show a strong demarcation between the head and the body; the groove is not deep. Moreover, the body seems to narrow from the neck to the bottom assuming an oval shape, and the base is rounded instead of flat.



Fig. 90 - Middle Kingdom game piece from Lahun (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL, acc. no. UC7142).

3.3.3 - Data interpretation: labour organisation at Qasr es-Sagha

THE INHABITANTS

TYPE OF ACCOMMODATION

The architecture and internal arrangement of the units of the Western Settlement suggest a simple structure built in a short amount of time to provide housing for a large number of people (Fig. 74). The amount of individuals accommodated in each housing-unit is a subject of debate. Based on the length of each long wall of the rooms (7.90m), Śliwa argued that every room could provide accommodation for eight people. Thus, the capacity of the whole unit could be equivalent to forty people. As there were thirty units, the average number of the inhabitants may have been around 1200 people (Śliwa 1992a, 186; 1992c, 25). Different opinions came from Kemp and Moeller. Kemp did not exclude the possibility that each room of the settlement accommodated one person only (Kemp 2006, 227). However he did not substantiate his conjecture with any evidence. Moeller (2016, 267) instead applied 'Naroll's constant' suggesting that 15–20 individuals may have lived in each housing-unit. This would mean four individuals per room, and an average total population of 450–600 people (the population size is further discussed in chapter 4.2.5). In 1962, Raoul Naroll offered a general formula to predict the population size from the dwelling floor area: Floor area/10m^2 . According to his study, which included evidence from eighteen modern societes, each individual needs at least 10m^2 of floor area (Naroll 1962). His method has been broadly used in archaeology to reconstruct the population size of ancient settlements. However some archaeologists and anthropologists such as Brown (1987), Kolb (1985, 583), and Warrick (2008, 67–8) have criticised Naroll's calculations highlighting limitations in his statistical method. Variables like seasonality, wealth, and settlement type were not considered in Naroll's calculations. Additionally, his 'floor area' included also nonliving architectural features and did not take account of the different use of each room of the housing-units (kitchen, bedroom etc.). Given the limitations to Naroll's formula, I consider its application to the unusual and distinctive settlement layout of the Western Settlement questionable. Thus I do not find Moeller's calculation reliable.

The uniformity in size and shape of the houses suggests that the residents were a homogeneous social group of people sharing the same place in society. Moreover, the rigid and regular modular replication of identical units, each provided with a courtyard for food preparation and consumption, and a set of five elongated rooms, suggests a very limited range of activities and roles. Śliwa (2005, 480) interpreted the elongated rooms as a dormitory. Moeller (2016, 409, n. 75) does not exclude multiple uses of those rooms by suggesting that some of them might have been used at the same time for sleeping and storage purposes. The poorly preserved architectural features of the settlement and the lack of evidence do not allow to support her hypothesis. However ancillary or secondary uses, especially at times of lower population density, may be reasonable.

The separation of spaces within the settlement does not show any variation. Such arrangement, along with the lack of specific tools, suggest that the internal structures of the compound were planned to meet just the basic daily needs of the individuals. Consequently, the compound was likely a place for sleeping and eating rather than work which seemingly took place outside the enclosure walls. The modest uniformity of the units points to low status. The Old Kingdom *Gallery Complex* of Heit el-Ghurab provides the main parallel (3.2.1). The architecture of the Western Settlement seems to mirror the pattern of the earlier barracks of Giza, which is paralleled in two structures that had a specific and explicit military purpose: the dormitories for troops of soldiers within the Middle Kingdom forts in Nubia and the later *police* or *military quarter* of Amarna (Fig. 91).

These examples may suggest a connection between the type of architectural organisation and the purpose of the structure, as well as social status and group identity of its inhabitants. The people accommodated in such structures – pyramid builders on the one hand, soldiers on the other hand – were mustered, recruited or moved in time of need or when their presence and expertise were required. During the Old Kingdom, the workforce engaged in building projects was organised on the basis of a rotating system of *phyles* (2.1). The barracks were not permanent accommodations for the pyramid builders and the soldiers. The first were locally recruited (Lehner 2010, 91-94) and gathered in a purpose built building forming an artificial community of disparate people. The alternative might have been a uniform group originally formed and established in a different place and then transferred to a new site, as it has been proposed for the community of the *Workmen's Village* of Amarna (Samuel 1999, 128–129) (3.2.2). According to the current hypothesis, the community of craftsmen of Deir el-Medina moved to the new founded village of Amarna (Andreu 2003, 30; Kemp 2012, 191; Stevens 2012, 422).

To conclude, it seems that the barracks-like style marks a structure occupied by a homogeneous group of people sharing an identical social status and/or levelled and equalised by the same purpose/activity/

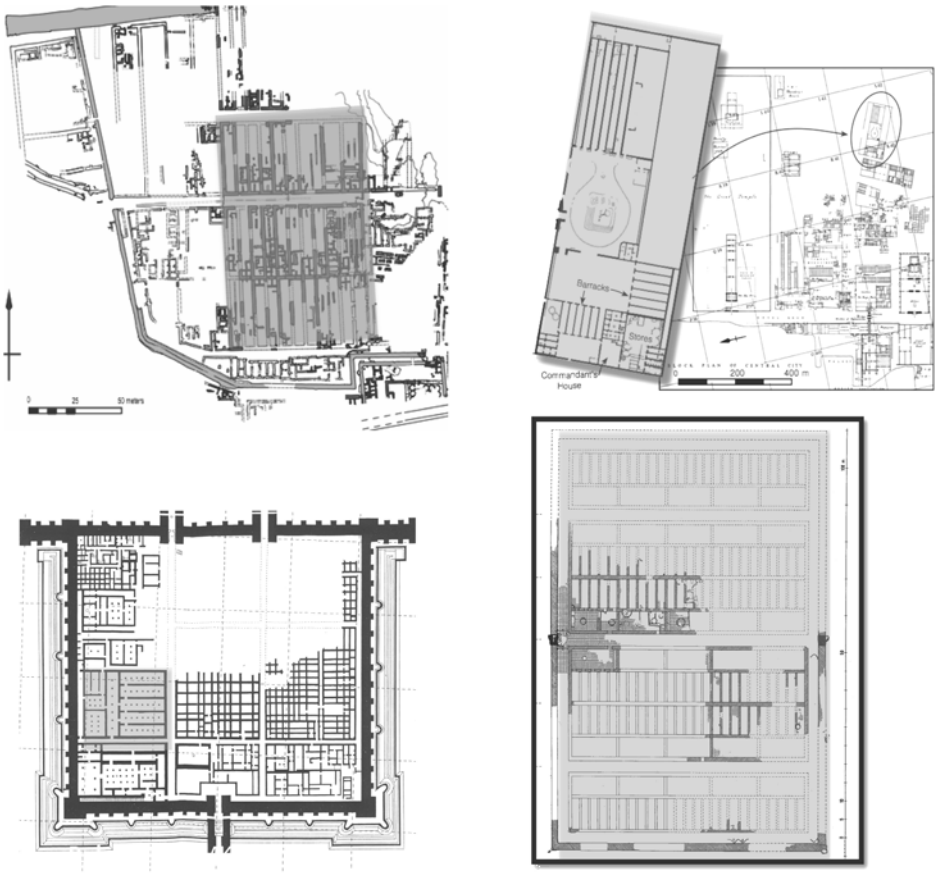


Fig. 91 - Comparison between the barracks-like style of the Western Settlement of Qasr es-Sagha (bottom right) and – from left to right – barracks for labourers at Heit el-Ghurab (Old Kingdom), and for soldiers at Amarna (New Kingdom) and Buhen (Middle Kingdom).

project. On the one hand soldiers and on the other hand workers. Troops were seemingly accommodated like a homogeneous group of menial workers engaged in a state project and vice versa. Since both are uniform groups of individuals, it can be concluded that the way to manage workers is comparable to the way to manage soldiers. A direct link between the type of architectural layout and the social profile of the community seems to be clear.

The arrangement of the internal spaces of the houses may also provide information about the gender of the inhabitants. We should take into account that the Western Settlement of Qasr es-Sagha, as well as Tell el-Dab'a (below 3.4) might be considered in some way 'atypical' as Wilfong suggests for Lahun, Deir el-Medina and the *Workmen's Village* of Amarna, all defined as purpose-built settlements "of limited duration, primarily workers' villages … usually walled or contained, of regular plan" different to "regular towns" (Wilfong, 2010, 174). The internal separation of spaces usually runs parallel to a division of activities (Koltsida 2007b, 2) and suggests 'behavioural patterns'. Each room had a different function and some spaces were more female oriented than others. Generally, food preparation areas were associated with women (Wilfong 2010, 174). Such spaces are recognisable inside the Western Settlement where the courtyards yielded bread moulds along with clear evidence of food consumption. However the rigid replication of identical units and the absence of variety and individual initiative in the layout restrict the range of activities and roles.

The barracks-like style may play a role in this discussion. The rooms of the military dormitories of the forts and the police quarter of Amarna had the same function. Since these buildings accommodated soldiers, they were gender restricted to men. Therefore, the barracks-like style seems to have marked gender restricted spaces, and an association appears to have existed between architectural layout and gender. According to Lehner (2010, 93) the finds from the settlement areas outside the *Gallery Complex* suggest that these areas were probably more gender-balanced than the galleries. Weaving tools from the Western Town and grinding stones from the Eastern Town indicate activities primarily assigned to women in the visual and written record. Such tools were not discovered within the galleries (Lehner 2010, 94).

The plans and architectural organisation of the

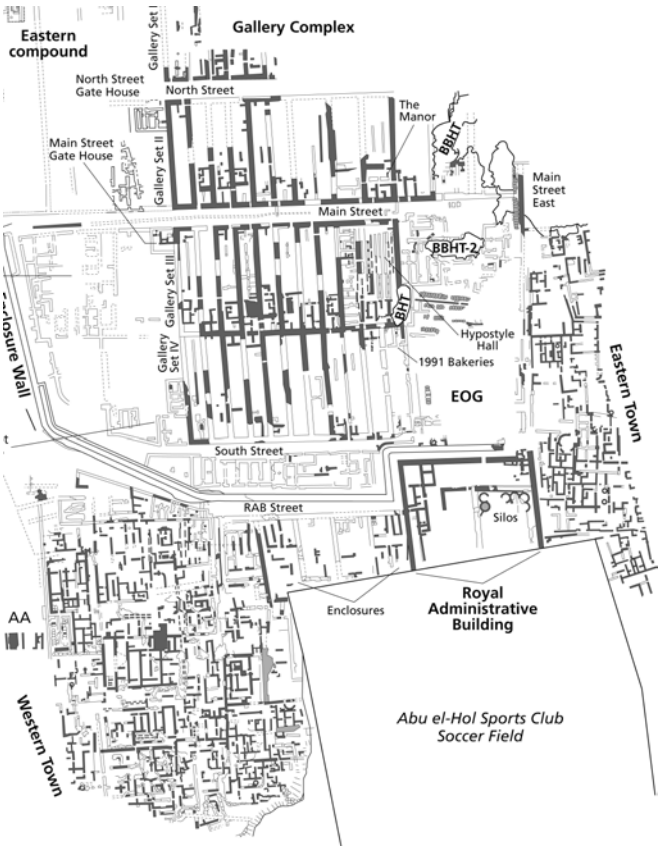


Fig. 92 - Heit el-Ghurab: the Gallery Complex and the Western and Eastern Towns (drawing © G. Maserati. From Lehner et al. 2009).

Eastern and Western Towns remarkably contrast with the *Gallery Complex* layout (Fig. 92). However, it is important to stress that each gallery has an internal organisation of spaces with a columned front and small back rooms – plausibly bed-rooms – resembling typical "enlarged houses" (Lehner 2010, 93). Considering the plausible masculine gender of the pyramid builders (Lehner 2010, 92; Wilfong 2010, 176–177), the division of spaces inside the galleries might be a limitation to the assumption of a close link between architectural layout and gender. Nevertheless we should consider that each gallery was an entire house-unit, while the long spaces of the Western Settlement of Qasr es-Sagha were rooms of house-units like the dormitories for soldiers at the forts and Amarna. Therefore it is my opinion that the barracks-like style of Qasr es-Sagha is more similar to the concept of the military dormitories. This supports Moeller's speculation that the site "was never inhabited by entire families" (Moeller 2009, 104).

In summary, this type of accommodation suggests that the inhabitants of the Western Settlement were low-status workers, possibly only men, recruited for

a specific project. The incomplete preservation of the architectural remains from the Eastern Settlement does not suffice to identify gendered spaces.

EVIDENCE FROM THE FINDS

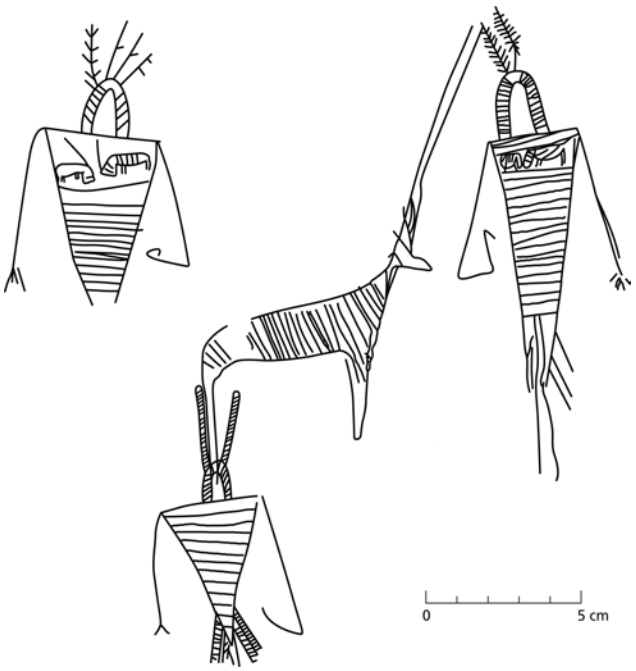
The objects yielded at the settlements offer contrasting picture: personal possessions and bread moulds from the Western Settlement, and mostly stone artefacts from the Eastern Settlement. The prevalence of different types of evidence results in a different understanding of the characteristics and habits of the population. The finds yielded at the Western Settlement provide hints on the status, gender and origin of its population, while the finds from the Eastern Settlement are more informative concerning the activities performed.

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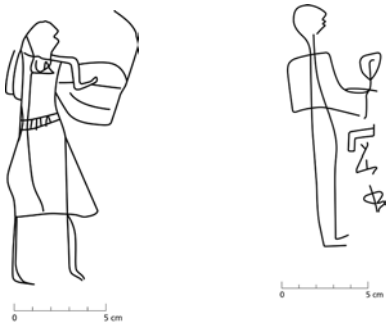
In the Western Settlement the pieces of cosmetic equipment, jewellery, and the clappers may allude to the presence of women (Figs. 76 and 78). However, in Ancient Egypt cosmetic items and jewellery were not just women's prerogative (Bard 1999, 386; Hayes 1959, 227–228). Tomb funerary equipment confirms this observation (Grajetzki 2003). Mirrors are also considered a piece of standard equipment associated with both sexes (Lilyquist 1979, 83–85). The same conclusion can be drawn about the clappers, as lists of dancers recorded in the Lahun Papyri confirm that men could also be engaged in performances (*e.g.* UC 32191: Collier & Quirke 2006; Szpakowska 2008, 141–142). To conclude, these objects are not sufficient evidence for the presence of women.

Even the presence of children is debatable. Similar items from Lahun suggest that the small limestone axe (Fig. 79) might have been a model. As for the limestone slab with rough representation of a human figure (Fig. 80), the lack of parallels make it difficult to ascertain the nature and purpose of the object. The simplicity and the stylisation of the drawing might suggest a child work. However, many examples of stylised human figures exist in graffiti on rocks dating from the Predynastic onward, such as some Predynastic graffiti discovered in the Theban Western Desert (Hendrickx *et al*. 2009). These represent hunters wearing feathered caps (Fig. 93). If we compare such figures with the Qasr-es-Sagha man, we can clearly see that the contours of the human body are delineated following the same 'scheme', with frontal head and body but arms and feet from a profile view. Other examples come from Gebel Tjauti and Wadi el-Hol Rock (Darnell 2002) where rock inscriptions discovered along caravan tracks are sometimes flanked by incised outlines of humans (Figs. 94 and 95). Another parallel is a faience votive plaque from the Satet temple at Elephantine (Fig. 96). The object, having a clear religious purpose, was dated to late Sixth–Eleventh Dynasty (Dreyer 1986). On the basis of this example I would not exclude that the Qasr es-Sagha temple area was the original place of provenance of the limestone slab, which may have been a cult object. I cannot even exclude that the Qasr es-Sagha slab dates to modern times.

The only activity attested at the Western Settlement is bread production. Regarding the ethnicity of the population, the *Pan-Grave pottery* and *Tell el-Yahudiya ware* (Figs. 82, 84, 77, 81) may provide some information. The main difference with the *Pan-Grave pottery* yielded at Sheikh Mohamed and Nag el-Qarmila is that in these cases the finds come from burials rather than from domestic context as at Qasr es-Sagha. Another example of *Pan-Grave pottery* from domestic context is the assemblage yielded at the šnʿ, the food production area, of the mortuary complex of Senwosret III at Abydos (Wegner 2007). Since the assemblage of Abydos was retrieved from ovens, it has been assumed that there the *Pan-Grave pottery* was associated with cooking (Smith cited in Liszka 2012, 445). However, the presence of such pottery may have been the result of trades with the Pan-Grave Culture instead of being necessarily evidence of Nubian Pan-Grave people living at the site (Liszka 2012, 445). Consequently the specific domestic context might also suggest that the *Pan-Grave pottery* discovered at Qasr es-Sagha was due to trade. The absence of objects typical of Pan-Grave burials in Egypt – such as *Nerita* snail shells, rectangular shell strip bracelets, and weaponry (Liszka 2012, 391) – from the cemetery at the feet of the Gebel Qatrani cliffs cannot be taken as evidence. This is due to the probable lack of connection between the Qasr es-Sagha settlements and the cemetery (below). The sherds of *Tell el-Yahudiya ware* of Levantine origin and the scarab may be interpreted either as result of trade with the Near East or as a sign of the presence of 'Asiatics' at the site.



Figs. 93 - Predynastic graffiti of hunters from the Theban Western Desert (drawing © G. Maserati. From Hendrickx et al. 2009).



Figs. 94 and 95 - Rock graffiti form Wadi el-Hol Rock. The one on the left (Wadi el-Hol n.3) dates to the Late Middle Kingdom. The one on the right (Wadi el-Hol n.14) dates to the FIP (drawing © G. Maserati. From Darnell 2002).

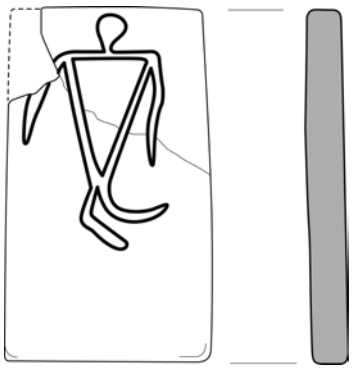


Fig. 96 - Drawing of the faience votive plaque from the Satet temple, Elephantine (drawing © G. Maserati. From Dreyer 1986).

As discussed, many 'Asiatics' lived at Lahun during the Twelfth Dynasty. 'Asiatics' were commonly enrolled in expeditions for the procurement of minerals and stones, and were often employed as weavers (women), or as singers and dancers (both sexes) in religious festivals (2.3.1). This may recall the clappers from the Western Settlement. Noticeably the presence of 'Asiatics' in lists of workers increased towards the second half of the reign of Amenemhat III (Luft 1993, 297), the date of occupation of the Qasr es-Sagha settlements. On the basis of this evidence, I cannot exclude the idea that 'Asiatics' were part of the population of Qasr es-Sagha.

Stone artefacts discovered at the Eastern Settlement include flakes, cores, chopping tools, and a very large amount of crescent drills from the activities of the local stone industries (Ginter *et al*. 1984, 82; Śliwa 1983, 99–113). The crescent drills were interpreted as tools used for the production of stone vessels (Caneva 1970; Śliwa 1983). Stone implements and unfinished basalt and limestone items may suggest that activities occurred that were directly connected with the Widan el-Faras basalt quarries and the limestone chip quarries nearby the settlement. It is likely that workshops were present at the site (Ginter *et al* 1984, 136ff; Moeller 2009, 105; Śliwa 1983), where the exploited raw material was chiselled and carved to be easily transported to its destination at a later time. Workshops are often found in the vicinity of quarry sites. Indications for this are the New Kingdom travertine vase-making workshop near the large quarry at Maghara Abu Aziz (Willems *et al*. 2009–10), an unfinished colossal statue at the granite quarry in Aswan, and, to some extent, travertine vessel-making at Hatnub (Shaw 2010, 27–30). In addition, some graffiti on granite wall-blocks from the Valley Temple of Khafra at Giza (Fourth Dynasty, Old Kingdom) attest to the existence of a *desert workshop*, which should refer to the tiny dwellings near the Khafra funerary complex (Shaw 2012, 65–67).

On the basis of the previous considerations, it can be assumed that a certain number of specialised workers were required. Moreover, many quarry pits of sandstone in the area may suggest an additional engagement of the inhabitants in sandstone carving. The crescent drills found in the compound might support that assumption, as this type of tool was used to carve vessels of soft stones (Stocks 1993, 598). The calcite object (Fig. 87), which I interpreted as net sinker, shows that the population was involved in at least one

acquisition practice: fishing. The stone spindle whorl suggests that yarn was spun at the site (Fig. 86). As mentioned, spinning was not gender restricted to women (2.3.1 M). It is difficult to ascertain whether or not the inhabitants processed the linen further, as loom weights used for weaving were not found. Similarly, the *Stone Village* of Amarna (3.5.3 below) yielded spindle whorls and metal needles, whereas loom weights were missing. On the basis of these finds Anna Stevens hypothesised that the population of the *Stone Village* was engaged in tasks to the benefit of the *Workmen's Village,* namely repairing damaged textile items and spinning yarn which was sent to the latter community (Stevens 2012, 428). As Kemp and Vogelsang-Eastwood stress, spinning was not necessarily performed inside workshops; it could be accomplished even in domestic spaces. Therefore the spun yarn at Qasr es-Sagha may have been used to make and repair fishing nets. Old Kingdom tomb scenes attest that the mending of nets was a male task (Kemp & Vogelsang-Eastwood 2001, 272). We need also to consider the possibility of men spinning in extreme conditions. The probable seasonal occupation of the site (below) and its desert-edge location, as well as the male oriented main activities, may have required a particular strategy. However we cannot exclude that the absence of loom weights might be due to the general poor preservation of the settlement.

To sum up, the population of the Eastern Settlement was potentially employed in at least three activities: rough-hewing blocks from the quarries, and daily tasks of fishing and spinning. Additionally, the female presence at this site is unsubstantial. The only item which might be associated to women, the spindle whorl, is an ambiguous piece of evidence. The association between the fragments of *Tell el-Yahudiya wares* and the clappers might suggest the presence of Asiatic women. However this evidence is inconclusive. The overall finds from Qasr es-Sagha raise a broader question of whether women were actually present at the site and how permanent their presence might have been.

BURIALS AND FUNERARY EQUIPMENT

The most conclusive evidence for a gender analysis is skeletal remains. The dynastic cemetery of Qasr es-Sagha is located at the feet of the Gebel Qatrani cliffs, at a distance of around 400m from the Western Settlement. Among the 43 tombs (Fig. 97), 15 seem to belong to the Middle Kingdom (Caton-Thompson 1934, 138–140). On the basis of the absence of other contemporary structures in the vicinity, Śliwa (1992c, 20) concluded that the cemetery was associated with the MK settlements. The burials were very badly preserved and some were disturbed, which made it difficult to recognise even the sex of the deceased. However at least four skeletons were identified as belonging to women (Caton-Thompson 1934, 138–139). A double burial dating to the Eleventh or early Twelfth Dynasty attests to both sexes, and another contemporary burial belonged to an infant. The other tombs date to the First Intermediate Period and a tomb of a child probably to the late Old Kingdom. The type of graves, simple pits in the ground, and the scant presence of precious burial equipments, may suggest to the "poorer stratum of the population" (Caton-Thompson 1934, 138).

Most of the deceased were buried with vessels and beads primairly made of carnelian, blue gaze, and very few were made of amethyst. The owners of two burials were probably women, as the examination of the skeletons has revealed (Caton-Thompson 1934, 138–140). These burials contained two limestone animal figurines (hippopotamus and frog) and a fish amulet respectively. The fish has a wooden body, copper dorsal fin and tail, lapis eyes and sides in calcite, cornelian and lapis gills. The double burial dating to Eleventh/Twelfth Dynasty reveals the richest funerary equipment which included an uninscribed amethyst scarab, 63 amethyst beads, 71 carnelian beads, 117 segmented blue beads, and a golden fly pin.

Despite the absence of other settlements in the area, some elements seem to challenge the hypothesis that the Twelfth Dynasty burials belonged to the inhabitants of the Western and Eastern Settlements, against Moeller's recent assumption (Moeller 2016, 269). First, the cemetery seems to show social differentiation (as suggested by Janet Richards for tomb wealth in cemeteries F and S at Harageh: Richards 2005, 118) which is not reflected in the finds from the settlements. Second, the cemetery is a heterogeneous cluster of tombs belonging to different times. Since the time of occupation of both compounds falls in the span between late Twelfth Dynasty (maybe from the time of Senwosret III) and early Second Intermediate Period, those burials dating to the Eleventh and early Twelfth Dynasties may not be linked to the complex. The burials dating to earliest periods

– Late Old Kingdom and First Intermediate Period – cannot be related to the complex either. Additionally, evidence of human presence during the First Intermediate Period is lacking at Widan el-Faras and at Qasr es-Sagha. Consequently, an association of the cemetery with the earliest exploitation of the quarries is also excluded. Finally, above this cemetery a series of rock-cut shaft tombs were discovered. According to Getrude Caton-Thompson (1934, 138, 140) these tombs should be contemporary to and connected with the cemetery below. Despite the fact that these burials and the material within them have not been examined since the discovery, Caton-Thompson indicates that they may have belonged to high status individuals. If these dates and interpretations are correct, the overall picture of the area includes a series of wealthier tombs and a series of less monumental tombs, in a way that mirrors a common Middle Kingdom burial 'pattern' recognisable in sites such as Beni Hasan and Deir el-Bersheh (Garstang 1907; Seidlmayer 2007; Willems 2013, 352–354). As a result, the cemetery would be related to a broader regional landscape and less confined to the local area of the Qasr es-Sagha settlements. Possibly, a nearby main town still waits to be unearthed. These observations would explain the incongruity between the evidence from the cemetery and the Qasr es-Sagha settlements, along with the chronological discrepancy between the cemetery and the phase of occupation of the settlements.

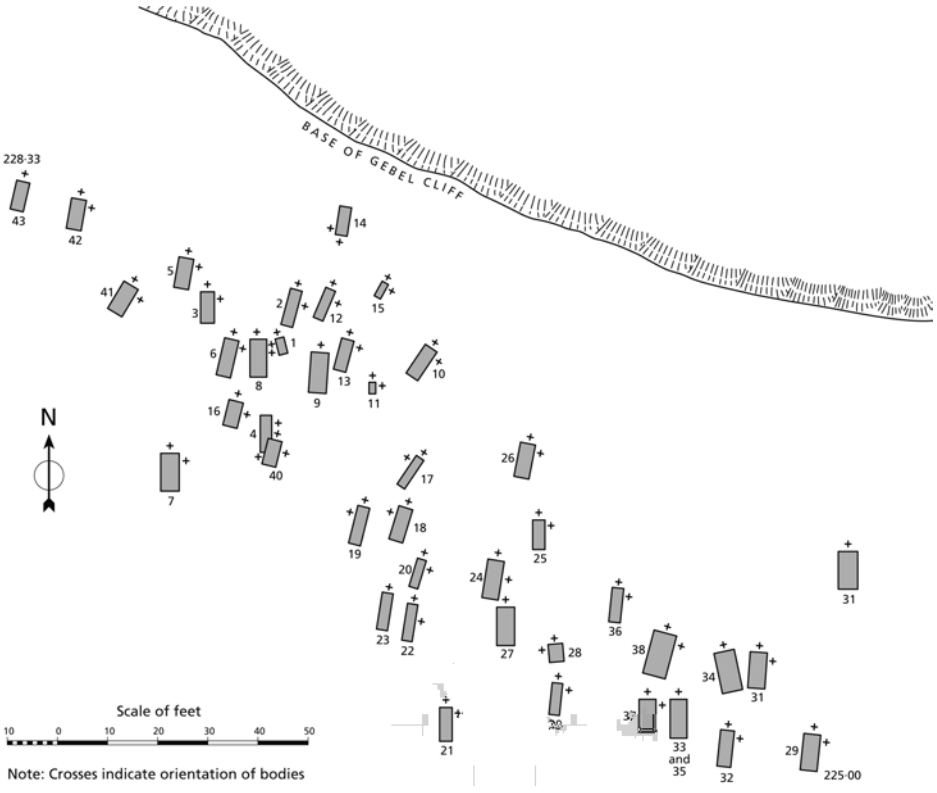


Fig. 97 - The dynastic cemetery at the foot of the Gebel Qatrani cliff (drawing © G. Maserati. From Caton-Thompson 1934).

FUNCTION AND TEMPORALITY OF THE COMPLEX

THE QUARRYING PROCESS AND ALTERNATIVE HYPOTHESES

Potsherds from the quay at the end of the road which connects the basalt quarries with Qasr es-Sagha may provide evidence of the use of the harbour and/or the road not only during the Old, but also the Middle Kingdom. Besides, the quarries, landmarks on the landscape, apparently represent the only evident reason for construction of that complex in a desert-edge location. In particular, the discovery of statues within the Eastern Settlement and other partly worked items, and a huge amount of stone tools ascribed to the Middle Kingdom suggest an involvement of the inhabitants in quarrying tasks. On the basis of this information and the environmental features of the Qasr es-Sagha area, the first possible scenario is that the Twelfth Dynasty settlements were connected to each other and interrelated with quarrying activities. This is consensus among egyptologists such as Śliwa (1992a, c), Kemp (2006, 227) and Shaw (below 3.6.1). Additionally, Śliwa's estimated number of 1200 individuals living in the Western Settlement may be the right amount of people for quarry exploitation during the Middle Kingdom. The workforce employed in the Nubian Khafra quarry under Amenemhat II counted around 1300 people, relying on written records, 1000 relying on archaeological finds (Bloxam & Storemyr 2002, 36).

An important point to

consider is the topographical setting of the settlements in relation to the workplace. It is not very convincing to assume that the workers walked twice a day the distance of 11km between Widan el-Faras and Qasr es-Sagha. Moreover, during their return trip, the workers would have been forced to proceed at a lower speed due to the stone blocks they dragged. Rock inscription CM87 from the stone quarry of Wadi Hammamat (Fig. 33) informs us that the workers dragged the heavy blocks of material to the river banks in 14 days (2.3.2). Since the distance from the quarry was 70km, the labourers dragged the basalt blocks over a distance of approx. 5km every day. Considering that the Qasr es-Sagha road is 11km long, the trip towards the quay was around 2 days. A number of factors impact this data: dimension and weight of the blocks, the number of workers involved, and the type of track associated with environmental features (flat or intermixed with gradients). According to Harrell and Bown (1995, 82) 20–40 people were needed to move huge blocks similar to the one discovered at the quay, which weighed 3000kg. Given the average number of 1200 people potentially living in the Western Settlement we may postulate a maximum of 40 huge blocks dragged at a time. Along the 16km long road from the Hatnub quarry to the river banks at Amarna, huts were provided to the workers during their travels (Shaw 2010, 1, 111). Although similar shelters are not preserved along the road to Qasr es-Sagha, they may represent a possible solution. Otherwise, as at Deir el-Medina, the workers could be employed for quarrying only 8 out of the 10 days of the week spending the nights in huts beside the workplace (Bierbrier 1982, 52–53; Lesko 1994, 22). A cluster of 64 stone huts located on the cliff slope of the Valley of the King has been documented (Toivari-Viitala *et al*. 2010; 2011–12) (Fig. 98). However, the shelters discovered at Widan el-Faras surely belong to the Old Kingdom (3.3.1 above), and no trace has been discovered of temporary accommodations dating to the Middle Kingdom.

Pivotal in the choice of the site may have been the need of a water supply. The lake was the main source of water, a sufficient reason to build a stable base-camp in its proximity. According to Bloxam (2002, 24), one of the basalt quarries preserves a few tool marks in the form of wedge-like holes. This may suggest that the water of the lake was also needed to moisten the wooden wedges used in the extraction phase.

The enclosure wall in a desert environment may have protected the compound from the sand and the weather conditions, enhancing the sense of safety for the labourers. It may also represent a solution to control the population and to communicate that the residents "were under state control" (Stevens 2011, 114), as it has been inferred for the *Stone Village* (below 3.5.3).

Structures for cults are common in desert quarries to meet the religious needs of the quarrymen. This is reflected in petroglyphs, orthostats, stone alignments and shrines at Hatnub; and sanctuaries at Serabit el-Khadim, Gebel el-Zeit, Timna and Gebel el-Asr (Shaw 2010, 97–104). The type of cult arrangement depended on the distance from the major cult centres of Nile Valley. The most isolated sites may have required the construction of temples, so more permanent buildings. Moreover, the workforce could include also different ethnic groups, namely 'Asiatics' and Nubians (*i.e.* at Wadi el-Hudi, Wadi Maghara, Serabit



Fig. 98 - Map of the cluster of stone huts for the artisans of Deir el-Medina (drawing © G. Maserati. From Toivari-Viitala et al. 2011–12).

el-Khadim and Gebel el-Asr); such varieties may have thus required different religious arrangements (Shaw 2010, 106). The stone temple of Qasr es-Sagha (Fig. 99, and Plates 10 and 11) was discovered by Schweinfurth in 1884, and dated to Senwosret II or Senwosret III by pottery analysis and type of alabaster vessels. The radiocarbon dating of charcoal pieces seems to support the date to mid Twelfth Dynasty (Arnold & Arnold 1979, 20). An incised basalt fragment may suggest that the temple, or just one chapel, was dedicated to the cult of Sobek, lord of Shedety (Fig. 100) due to the inscription *[...]šdty mr[y]*, "the loved of Shedety".

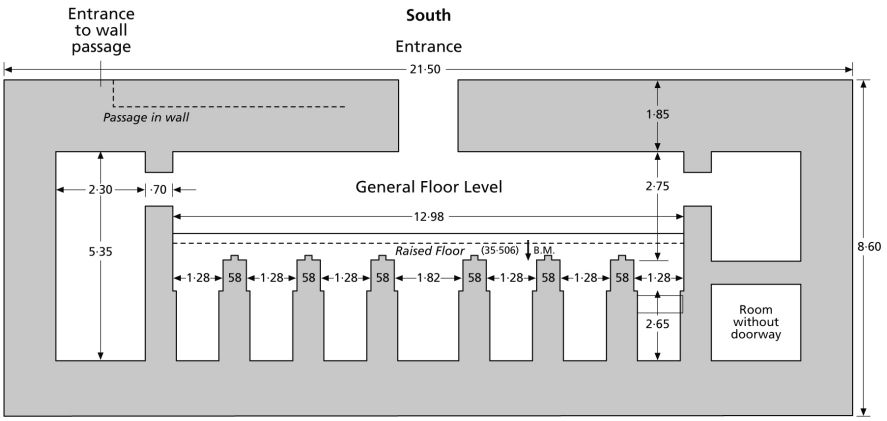


Fig. 99 - Plan of the temple, Qasr es-Sagha (drawing © G. Maserati. From Arnold & Arnold 1979).

As Zecchi (2010, 36) indicates, the internal arrangement of the Qasr es-Sagha temple seems similar to that of the later funerary temple of Seti I at Abydos, comprising seven chapels dedicated to the gods of the Osirian Triad and the Imperial Triad, plus one dedicated to the king himself (Fig. 101).

The plans are quite similar and the number seven chosen for the rooms is remarkable. The main morphological difference is the width of the central chapel. An absolute spatial hierarchy is applied at Qasr es-Sagha: the central room is larger than the other identical six. Conversely, the Abydos chapels are all of equal size and the king is placed at the same level of the gods. Since the central room at Abydos is dedicated to Amon, the principal among the others gods, the larger chapel of Qasr es-Sagha was likely dedicated to Sobek, the main god worshipped in the Faiyum. Minor local deities may have been worshipped in the other identical rooms, meeting the needs of workers of diverse provenance. A heterogeneous origin is, for instance, assumed by Lehner for the groups living in the *Gallery Complex* (Lehner 2010, 91–95). The temple seems incomplete due to the absence of inscriptions and decorations aside from the fragment described above (Fig. 100) (Arnold & Arnold 1979). However, this may be explained by a short-term (or seasonal) occupation of the site. An intermittent, rather than regular, cult associated with sporadic use (Arnold & Arnold 1979, 25) may require a simpler structure aimed to meet the basic religious needs of the population. The presence of a cult installation might then support the 'quarry site' hypothesis. However, like the cemetery, the association with the settlements is uncertain. The temple is placed around 250m north-east of the Western Settlement and around 180m north-west of the Eastern Settlement; it is visible from the settlements but no preserved connection paths are recognisable among them.

The different types of finds yielded at the two compounds suggest a functional differentiation. On the one hand, the apparent lack of quarrying tools –in particular the crescent drill type – and worked artefacts from the Western Settlement greatly contrasts with the number of stone tools yielded at the Eastern one. On the other hand, the Eastern Settlement totally lacks personal possessions such as jewellery and cosmetic equipment. Additionally, date and unifor-



Fig. 100 - Fragment of basalt with the reference to Sobek of Shedety, temple area, Qasr es-Sagha (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL, acc. no. UC3993).

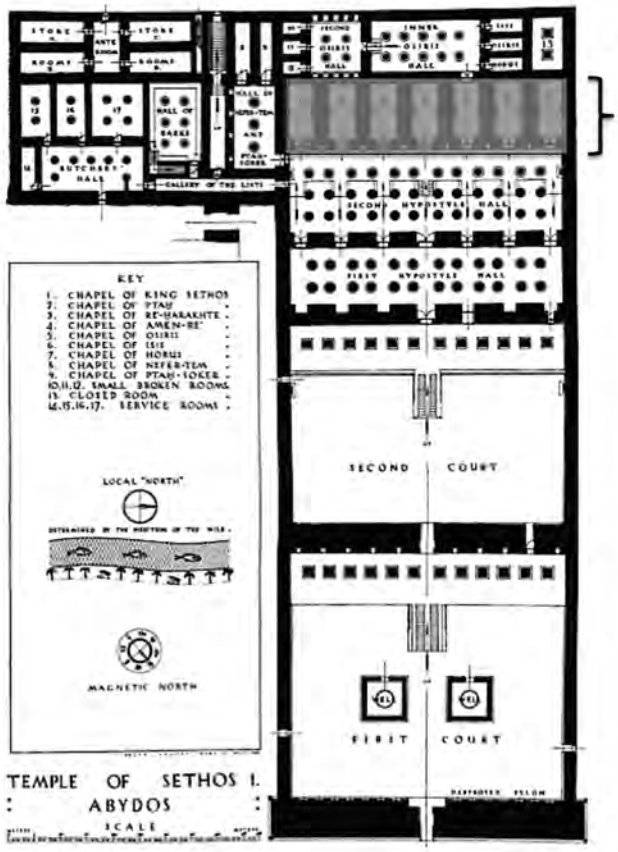


Fig. 101 - Plan of the temple of Seti I, Abydos. The seven chapels are highlighted in grey (adapted from Gardiner 1933).

mity of the assemblage of stone items discovered in the mound east of the Western Settlement is debated. These observations raise the question as to what extent the roles and functions of the compounds, separated and at a distance of 300m, were interlaced.

Perhaps the population of the settlements was furnished with a different degree of skill. As discussed, the Western Settlement was probably used as a dormitory only, while crafts were performed outside the enclosure wall. Therefore, I assume that people accommodated in the Western Settlement were used to moving, maybe daily, from this location seat to the workplace. Conversely, the inhabitants of the Eastern Settlement may have been stationary, as they worked inside the compound. Thus, the Western Settlement may have housed workers engaged in the first stages of the quarrying process (stone hauling). In contrast in the Eastern Settlement craftsmen were involved *in situ* in the last phases of quarrying, namely rough-hewing of raw material into future items to facilitate the transport to destination, waiting for the flood and the rising of water in the Faiyum.

The different phases of the quarrying process induces the proposition of seasonal work; the expeditions for the procurement of raw material were preferably sent during the cooler months (p. 51). Apart from a few exceptional instances, the evidence from the rock inscriptions at quarry sites support winter activity. In particular the hardest stages of quarrying – namely extraction and stone hauling – were undertaken by April when the material reached the river banks or the quays. Therefore, I conjecture that the extracted basalt blocks were transported from the Widan el-Faras quarry to the Qasr es-Sagha quay during the winter. The interpretation of UC 32201 also led me to move the *terminus antequem* for quarrying tasks to October (2.3.2 E). Thus the employment of the Qasr es-Sagha population in different stages of the quarrying activity may be seen as a clue for seasonal labour, suggesting a time of occupation from the end of October to April.

We may postulate that the paved road from Widan el-Faras was used not only during the Old Kingdom but also later during the Middle Kingdom. The analysis of the pottery retrieved at the quay, terminus of the road, might provide the evidence, despite the possibility that late fragments may have come from the nearby Middle Kingdom settlement area (Bloxam & Storemyr 2002, 31; Storemyr 2003, 11).

The suggested route for the transport of the shaped material to destination is across the Lake Moeris (ancient name of the Birqet Qarun), passing through the Hawara-Lahun gap to reach the Nile by the Bahr Yussef canal (Harrell & Bown 1995, 83–84). During the Old Kingdom the quay was on the shore of Lake Moeris. According to Harrell and Bown, after a severe drop of the flood levels during the First Intermediate Period (Bell 1975, 254–255; Bloxam & Storemyr, 2002, 34; Hassan *et al*. 2006, 40), the water elevation of the lake fell from the Old Kingdom level of +19-21m to a lower level (Harrell & Bown 1995, 84). A recovery to around +18m for the Twelfth Dynasty is debatable (Shirai, 2010). Fred Wendorf and Romuald Schild (1976) refer to periodic fluctuations of the lake level until the Ptolemaic time, against the previous theory of a progressive lowering (Caton-Thompson & Gardner, 1934; Caton-Thompson *et al*. 1937). Other scholars considered a certain degree of water recession, despite the debate on a natural event or human intervention (*e.g.* Brown 1892; Caton-Thompson *et al*. 1937). A multi-disciplinary UCL project currently conducted by Fekri Hassan and Roger Flower using remote sensing and geoarchaeological surveys to re-

cord climate and landscape changing in the Faiyum, seems to reveal an increase of +10m for the Middle Kingdom (Hassan *et al*. 2006, 39–40). Therefore, during the Middle Kingdom, the shores of the lake were probably still close to Qasr es-Sagha (Bloxam & Storemyr 2002, 30–31). Moreover, the new Middle Kingdom occupation of Qasr es-Sagha after its abandonment during the Fifth Dynasty and the activity of a workshop may point to a renewed use of the waterway across the lake and the Lahun-Hawara gap.

One limitation to the 'quarry site' hypothesis is the absence of Middle Kingdom pottery at the extraction site of Widan el-Faras, in contrast with the abundance of Old Kingdom and Late Roman sherds (Harrel & Bown 1995; Moeller 2009, 205). Another weak point is the scarce use of basalt after the Old Kingdom. By the end of this period basalt stopped being used as building material, instead becoming exclusively used for statuettes (Bloxam & Storemyr 2002, 28) (Fig. 69). This observation may fit well with the unfinished sculptures discovered at the Eastern Settlement but raises the question of the scale of quarry exploitation. A different opinion comes from Ian Shaw who states that basalt was "held in such high esteem by the Egyptian elite that a paved road and a planned village appear to have been constructed to facilitate its procurement on a fairly ambitious scale" (Shaw 2010, 132). Certainly Widan el-Faras was widely exploited during the Old Kingdom, insomuch as the activity left visible traces at the quarry site, such as sherds and shelters. The necessity to build a planned settlement may point to the need of a stable base for a long lasting project or for brief and frequent occasions responding to a constant and uninterrupted demand of raw material. However, the absence of Middle Kingdom pottery and shelters at the extraction site, along with the scarce use of basalt, suggests in contrast a low or very low scale of exploitation, challenging the hypothesis 'quarry site'.

An alternative theory is that activities took place in he courtyards of the houses of the Western Settlement. The absence of any evidence may be due to the type of craft performed, as some often do not leave any trace on the ground. For instance wood-working and leather-working are "largely invisible" industries (Shaw 2012, 131). A parallel could be the New Kingdom city of Amarna where most of the craft-works occurred in open areas (Shaw 2012, 319).

Otherwise, the population of the Eastern Settlement may have coincided with those who resided in the Western Settlement, as Śliwa had proposed (1986, 167–9). Certainly such a hypothesis may provide an explanation for the strikingly different types of finds yielded at the compounds. However, it is not very convincing to imagine hundreds of people only engaging in rough-hewing; other manufacturing activities should be taken into account.

Another possibility is that beside a small group of craftsmen working inside the Eastern Settlement, the population of the other compound was employed in a wider range of menial tasks in the surrounding area, such as stone hauling, limestone quarries exploitation, and other services in support of the professional craftsmen of the Eastern Settlement (road maintenance? temple construction?). This might be in line with Śliwa's later conjecture. In his reconsideration of Qasr es-Sagha he attempted to identify the Western Settlement with a *ḫnrt* (2.4.1) (Śliwa 2005). However, this alternative does not find any support from the material culture of the site.

Finally, Moeller has recently proposed that settlements, cemetery and temple were all related to each other as part of an original plan of the state to exploit that marginal area "with the overall aim of enhancing agricultural exploitation" (Moeller 2016, 271). This would match the efforts of the Twelfth Dynasty rulers to develop the Faiyum area (see 1.5). According to Moeller, the temple and the cemetery are evidence of the desire to found a permanent and long-term settlement which, for unknown reasons, was never completed. However, as I have previously discussed, the evidence from the cemetery seems to challenge the existence of a connection with the settlements. Additionally the Qasr es-Sagha area did not yeld any tool which may suggest an employment of the population in agricultural activities. On the contrary, as we will see, the sizable amount of sickle blades discovered inside the early Middle Kingdom settlement of Tell el-Dab'a were plain evidence that its inhabitants engaged in agricultural tasks (3.4 below).

A few architectural features of the Western Settlement might suggest a certain degree of control exercised on its population. The street encircling the enclosure wall from inside is one of the most common architectural features of the Middle Kingdom Egyptian forts in Nubia (*e.g.* Buhen, Askut, Uronarti, Mirgissa, Shalfak), where it defines the space between the outer wall and the internal building. This feature

has also been recognised in the partial corridor around the building in area A of the Wadi el-Hudi Fort which accommodated the members of expeditions towards the nearby amethyst mines (Fig. 102) (Shaw & Jameson 1993, 94). The Wadi el-Hudi region (Eastern Desert, First Cataract area) was the main location for amethyst mining during the Middle Kingdom, when the use of this stone in jewellery reached a peak (Shaw & Nicholson 2000, 51). The main purposes of that fortification were to enhance safety for the miners and the other expedition members against external attacks, and plausibly to protect the precious amethysts which were stored inside the building after their extraction (Shaw & Jameson 1993, 89–94). The examples listed above seem to suggest that the street which encircled the walls from inside was an architectural element designed for military and security purposes. Plausibly sentries used to patrol the pathways of the forts in order to guarantee safety to the members of the expeditions. At Heit el-Ghurab, that street together with constrictions along patrolled pathways, bed platforms, gate houses for guards, and possibly the *Chute* (3.2.1) were interpreted by Lehner and Tavares as evident signs of social control, as they allowed for monitoring of people within the site (Lehner & Tavares 2010). So the workers of the Gallery Complex were probably architecturally tracked and supervised. While at Heit el-Ghurab the control may have been directed to the inside, in the forts it was to the outside.

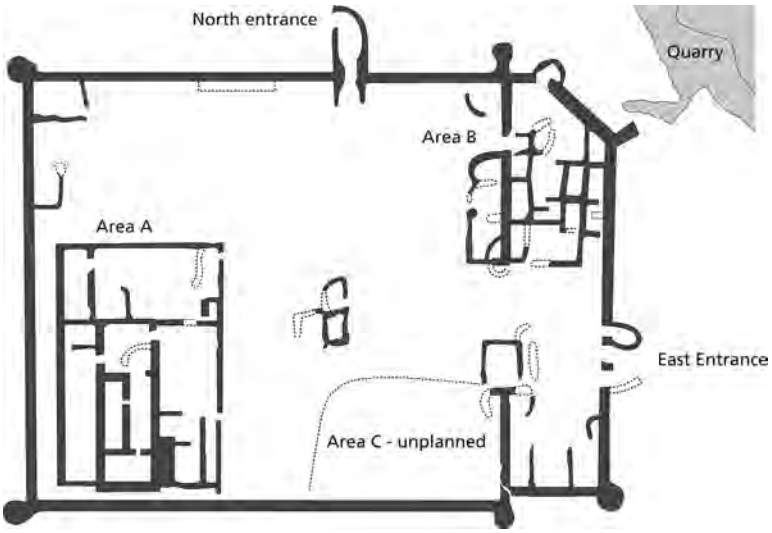


Fig. 102 - The Twelfth Dynasty fort of Wadi el-Hudi (drawing © G. Maserati. From Moeller 2009).

Given the isolated location of the Western Settlement, that street might have been a means to enhance the safety of the population, recalling the example of the forts. However we need to consider that the danger of external attacks must have been slightly low considering that the Middle Kingdom complex was not placed near a frontier (like the Wadi el-Hudi fort) nor in an area of new conquest (like the fortresses in Lower Nubia). Therefore, if the street was used by patrols, the control was most likely directed to the inside. The rigid organisation of the houses may also support the idea that the population was subject to a limited freedom.

The similarities with the military sphere, starting from the barracks-like style of the layout, could induce us to consider the possibility that the Western Settlement was a military outpost for soldiers. Nevertheless some factors seem to exclude this hypothesis. First of all, military equipment is absent in the artefact record. Secondly, as Lehner (2004, 13) has pointed out, the other barracks-like structures used as dormitories for troops in Amarna and inside the Buhen Fort reveal a clear pattern: the barracks are part of major buildings and are adjacent to other specific edifices namely a command house and granaries (Figs. 57, 58, 91). In contrast, the Qasr es-Sagha settlement seems to have comprised only barracks inside a walled isolated structure. Furthermore, the presence of a second settlement with clear evidence of industrial purpose does not adequately fit the idea of military outpost. Finally, the distance between the compounds discourages to think that a platoon of soldiers living at the Western Settlement provided protection to the craftsmen of the Eastern Settlement.

STORAGE AND PROCUREMENT

Signs of food preparation and consumption are well attested at the Western Settlement: ovens, conical bread moulds for bread baking, and food remains. A few conical bread moulds were also discovered at the Eastern Settlement. A certain degree of storage is revealed by the discovery of large storage vessels which show sign of pre-firing pot-marks, and wine jars for daily use (Śliwa 1992c, 30). Similar storage vessels come from dry-stone huts of the diorite quarry at Gebel el-Asr (Shaw *et al*. 2010, 301) and from the Middle Kingdom settlements of Tell el-Dab'a, Abu Ghalib (3.5.1), Lisht and Dahshur. This type of vessel was produced in the Memphis-Faiyum area and was used

for the storage of dry food. The peak time of use is from mid Twelfth to mid Thirteenth Dynasty. The absence of either storerooms or structures identifiable as granaries inside the Western Settlement may suggest a short-term occupation as it seems that the population did not need to store long-term provisions. Additionally, the site did not yield either grindstones nor querns which usually reveal the grain processing *in situ* (*e.g.* in the Eastern Town, Heit el-Ghurab: 3.2.1). Thus the cereals were possibly sent to the site already ground into flour.

The samples of faunal remains analysed by Angela von den Driesch (1986, 3, 7–8) include sheep/goats but no pig remains were found. Pig in Egypt was locally reared by households as private source of 'back up protein' when other types of meat were not available (Redding 1991; 2007a, 268; 2010; 2013). Moreover pigs were not transportable as easily as cattle and were not part of the species usually supplied (Redding 2013, 311–312). The absence, or a low level of pig bones, generally suggests that the population of a site does not need to rear that mammal in order to obtain animal proteins because it regularly receives sufficient cattle and sheep/goats from elsewhere (Moens & Wetterstrom 1988; Redding 1992, 104–105; 2007a, 268). Therefore, at consumption sites pig remains are nearly absent.

A good example is the Gallery Complex of Heit el-Ghurab where the percentage of pig remains from the whole site is lower than 5% of the entire amount of domestic mammal bones (Redding 2013) (Fig. 61). According to Redding (2016, 184), the ratio cattle:pig was 5.9:1, and the ratio sheep/goat:pig was 17.4:1. At Qasr es-Sagha however, the absence of pig may depend on the small percentage of data hitherto analysed. In different circumstances the lack of pig bones would have been major mark for a provisioned centre. Additionally, the reconstructed internal arrangement of the Western Settlement seems not to include a space suitable for animal breeding. Animal pens are usually the main sign of animal raising. They were, for instance, identified near the *Workmen's Village* of Amarna, at Kom el-Hisn (Hecker 1984, 157; Redding 2013, 308; Shaw 2013, 321), and at Ezbet Rushdi. Here Czerny (2010, 74) identified the area created for that purpose with a space between each double block of units (Figs. 123 and 124) (3.5.1 below). Paintings from Old Kingdom tombs and architectural remains, for example from Khom el-Hisn, attest that the animals were slaughtered inside a functional area arranged in two separate spaces. Additional example is the Old Kingdom royal installation located in front of the pyramid complex of Ranefref (Fifth Dynasty) (Redding 2011, 107).

The higher percentage of faunal remains from the Western Settlement are fish bones (Śliwa pers. comm. 17/10/2012) and ostrich egg shells retrieved from the ovens and the courtyards. According to Wendorf and Schild, the prehistoric sites placed on the banks of lake Moeris were inhabited during the "seasonal low stages of the lake to facilitate fishing" (Wendorf & Schild 1989, 471). The vicinity of the lake and the net sinker from the Eastern Settlement may induce the conclusion that the fish consumed at the site were locally procured by the population.

As Shaw (2012, 129) stresses, some crafts required the utilisation of a great number of implements. For this reason the archaeological evidence of some activities is much clear than others. Neither the Western, nor the Eastern Settlement yielded sickle blades, which are the most common agricultural tools from urban contexts (*e.g.* from Lahun). This means we need to consider the factor of the environment. The degree of preservation of organic material – such as textiles, wood, animal and human remains – can depend on the environment. This assertion works to the advantage of sites located in the desert. Material like "wood, matting and textiles were much better preserved" in the *Workmen's Village* of Amarna "than in the city" (Shaw 2012, 129) thanks to the desert location of the first. In contrast, the main city, which is located along the floodplain edge, is affected by a higher rate of humidity. As previously discussed, the Qasr es-Sagha settlements were likely very close to the shores of lake Moeris. Consequently, the absence of wooden sickles might be due to the Faiyum wet ground, as organic decaying material. Nevertheless stone blades are also missing. This evidence might exclude the hypothesis that the residents of the Western and Eastern Settlements obtained their own sustenance through agriculture. Probably neither wheat nor other cereals for consumption were cultivated and processed locally. This can apply to all raw materials, including the fibres of flax needed for the spinning, activity attested at the Eastern Settlement. Plausibly Qasr es-Sagha was regularly provisioned with final products. All the aforesaid considerations may also suggest a temporary nature of both settlements.

*

In the following sections I will present other significant factors that can play a role in the discussion about temporality of site occupation.

THE DYNASTIC CEMETERY

Simple pit graves, as those associated with the residents of the *Stone Village* of Amarna (3.5.3), could be the type of burials one would expect for people living in a temporary settlement for workers. However the connection between the cemetery of Qasr es-Sagha and both settlements is questionable. Therefore in this case the type of burials cannot be considered a reliable evidence.

THE FAUNAL REMAINS

Fish bones from settlements can widely contribute to understanding the timespan of site habitation and use. The analysis of fish assemblages shed light on the human exploitation of the environment, identification of the species, and size and age of fish at the moment of capture (Wheeler & Jones 1989). This information, in addition to the spawning habits of particular species, may reveal a seasonal occupation of the site. The identification of species and size may also reveal methods of capture, and consequently the level of technology of a culture.

A quantitative study of the material retrieved from a site often has limitations. The physical and chemical aspects of the soil determine the preservation of organic material (Wheeler & Jones 1989, 61, 63). Additionally, the bones must be present in large quantities in order to reconstruct a plausible picture based on reliable percentages. Finally, when dealing with sites excavated in the past – principally during the nineteenth-century – we should consider that the faunal remains were often not collected as they were considered less interesting compared to other type of finds (Wheeler & Jones 1989, 38–40).

*

The research conducted by Douglas Brewer on seasonality in Prehistoric Faiyum has revealed that the most widely consumed fish in the Neolithic and Palaeolithic sites on the banks of the lake Moeris were *Clarias* (Brewer 1986). The list compiled by von den Driesch for Qasr es-Sagha is partial and it only includes a few remains from the Western Settlement and the temple areas. The list however contains remains of *Tilapia, Lates Niloticus* and *Clarias.* The bones of *Tilapia* would have belonged to a very large-size adult fish 60cm long (von den Driesch 1986, 7; van Neer 2004, 258).

Tilapia and *Clarias* are 'floodplain dwellers'. The large adults of these species migrate to the alluvial plain for spawning. Reasons for the migration are: shelters provided by the submerged vegetation; great quantity of food for juvenile fish; and absence of predatory fish. *Clarias* in particular are provided with "accessory breathing organs which enable them to use atmospheric oxigen" (van Neer 2004, 253). Therefore these species can survive out of water longer than the so called 'deep water species' such as *Lates Niloticus* (perch) (Wheeler & Jones 1989, 20; Wendorf & Schild 1989, 141–143). At the very beginning of the inundation, *Clarias* were the first to move towards the floodplain followed around September – the time of most intense flood – by *Tilapia* (van Neer 2004, 254 Fig. 2).

The size of the fish depended on the "time and place of capture" (van Neer 2004, 258). Usually the larger adults of *Clarias* were caught at the very beginning of the flood when they migrated from the main channel (van Neer 2004, 258). Conversely, the small young ones could have easily been caught from the shallow pools at the beginning of autumn, due to a greater capability of juvenile specimens to resist to lack of oxygen (van Neer 2004, 256). Since the spawning time of *Tilapia* occurred around September when the water reached its peak, it was easier to catch the larger adults when the fish moved back to the river, as far as the water started receding. Alwyne Wheeler and Andrew Jones have associated fish assemblages of large *Clarias*, small *Tilapia* and eels, which fed on the eggs, with a capture at the very beginning of the inundation season, so in early summer (Wheeler & Jones 1989, 138). Evidence of such an assemblage is the one from the Upper Palaeolithic site of Wadi Kubbaniya (van Neer 2001, 99). Conversely, assemblages with small *Clarias* and large *Tilapia* probably referred to a capture from shallow pools during the autumn (Hendrickx *et al*. 2001, 101; Wheeler 1989, 138). On the basis of all these considerations, the lar-

ge size *Tilapia* yielded at Qasr es-Sagha might have been captured as soon as the waters started receding, in October-early November.

As discussed, the net sinker suggests that the residents engaged in at least the acquisition practice of fishing. During the spawning season, *Clarias* could be caught from shallow waters by hand, without the need for nets (Brewer 1986, 461; van Neer 2004, 261; Wendorf and Schild 1989, 145). Considering that *Tilapia* behaved and had physical characteristics similar to *Clarias*, it may be possible to assume a similar method of capture. Nets may have been employed instead to catch perch (*Lates Niloticus*) from the deep waters of the lake. Consequently perch may have been available all year round. Regarding the prehistoric sites on the banks of the lake Moeris, Brewer (1986, 470–1) has suggested that the collection of *Clarias* and *Tilapia* occurred twice a year: in late spring-early summer and in summer-autunm, when the waters lowered.

The presence of a bird bone of *Anser Domesticus*, a winter visitor of the Egyptian Delta in a time spanning from mid-September to April, may support evidence of an occupation of the site over the cooler months.

In summary, the faunal remains from Qasr es-Sagha may suggest a period of occupation roughly from autumn to spring. The incomplete analysis of the faunal remains from the site does not allow a more detailed reconstruction and prevents from making the long period narrower.

3.4 - SECOND CASE STUDY: TELL EL-DAB'A

3.4.1 - Overview of the site, fieldwork, and publications

The Middle Kingdom settlement is located in Lower Egypt, Eastern Delta (Fig. 103), 500m to the west of the modern village of Tell el-Dab'a. The site is better known for its identification with Avaris, the capital city of the Hyksos during the SIP.

The Austrian Archaeological Institute of Cairo, in collaboration with the Institute for Egyptology at the University of Vienna, excavated 17 large areas covering spaces up to 8000m^2 (Bietak 2010, 15) (Fig. 104). Archaeologists identified 25 phases spanning from the early Twelfth Dynasty up to the Late Period. The phases of occupation are not consistent across the site, either temporally and spatially. The earliest surveys were conducted in 1941–1942 by Labib Habachi, who first identified the site with Avaris, and later by Shehata Adam in 1951–1954. The excavations of the Austrian Archaeological Institute of Cairo in collaboration with the Institute for Egyptology at the University of Vienna started in 1966 under the direction of Manfried Bietak.

Relevant publications focussing on specific periods, buildings or collections of finds appear in the series *Untersuchungen der Zweigstelle Kairo des Österreichischen Archaeölogischen Instituts*. The most recent include the collection of papers edited by Bietak (2010), Aston and Bietak (2012) which is centred on the analysis of Tell el-Yahudiya wares, and Bagh (2013) on Levantine painted wares.

The excavations conducted in area F/1 by Ernst Czerny in 1979 brought to light a settlement located near the easternmost branch of the Nile. This settlement is the earliest archaeological evidence of occupation of the entire area and it is built directly on a *gezirah,* namely a land between two waterways (Fig. 105). The settlement has been only partially unearthed. The results from the excavation and the study of the material were published by Czerny in a comprehensive volume (1999).

3.4.2 - Architecture of the early Middle Kingdom settlement and review of the finds

After the description of the layout and internal organisation of the compound, its housing units and an overview of the principal finds, Czerny's publication focussed on the analysis of the large ceramic assemblage. Later, Nadine Moeller (2009) and Irene Forstner-Müller (2010b) considered mainly architectural features and layout. As at Qasr es-Sagha, the peculiar plan of the compound strikingly contrasts with the extreme paucity of objects of value. Plausibly this is the reason why the later approaches to Tell el-Dab'a have been biased toward architecture.

*

ARCHITECTURE

The settlement shows three phases of occupation. The earliest, denoted as e/3, lasted 2 to 3 years (Czerny 1999, 132; Moeller 2009, 207). Analysis of pottery sherds, alabaster vessels and scarabs confirmed the date of the first occupation at the beginning of the Twelfth Dynasty, under Amenemhat I. The site appears to be abandoned during the reign of his son and successor Senwosret I (Bietak 2010; Forstner-Müller 2010b, 104–5). Consequently the first occupation phase of Tell el-Dab'a is earlier than the occupation of the Qasr es-Sagha settlements which date from the late Twelfth Dynasty (3.3.2). During the second phase, e/2, the duration of which is unknown, the inhabitants rebuilt some units and added new rooms; the end of this phase is marked by an "organised abandonment" (Moeller 2009, 207) of the compound. In the third, and final, phase the residents built larger habitations with storage facilities. According to Czerny (1999, 132) the final two phases lasted together 25–30 years. Czerny, on the basis of ceramic analysis, assumed that the compound remained in use for 50–100 years. The settlement of the earliest phase e/3 was planned with a regular layout "according to a modular system" (Bietak 2010, 17), and organised in two blocks (Fig. 106). The blocks are all arranged in stripes with housing units back to back and side by side on two rows. The houses were square covering an average area of 27m^2 (Fig. 107).

During this first phase the scheme is very rigid: all the houses have the same shape and size, and there is no sign of individuality in the plan. Every house has an internal division of four rooms (Fig. 107): a vestibule, a small room – presumably the kitchen – in the front, and the rear including two rooms of different size. These four rooms surrounded a yard. Narrow streets (2.60m wide) isolate the stripes of units. The unearthed section of the site allows for the identification of 342 houses (Forstner-Müller 2010b, 105). In the north-eastern corner lies a large isolated square building of which the size and shape sharply differ from the small-scale houses that are the typical unit of the compound. Since the settlement has been excavated only to some extent, the presence of other similar large buildings in other parts of the site cannot be excluded. The ceramic sherds found inside the corner building belong to the later phase e/2 (Czerny 1999, 277, 304). A street encircles the enclosure wall from the inside as in the Western Settlement of Qasr es-Sagha.

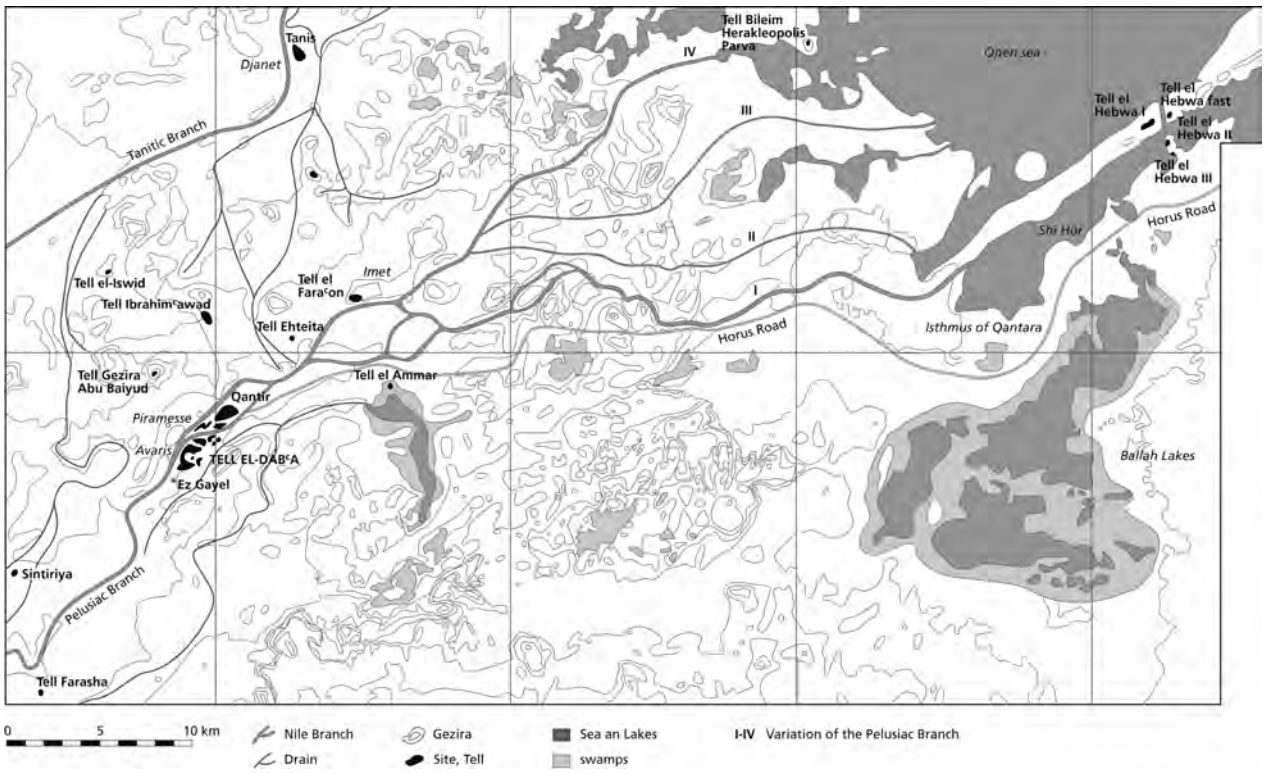


Fig. 103 - Map of the area of Tell el-Dab'a during the Hyksos period (drawing © G. Maserati. From Bietak 2010).

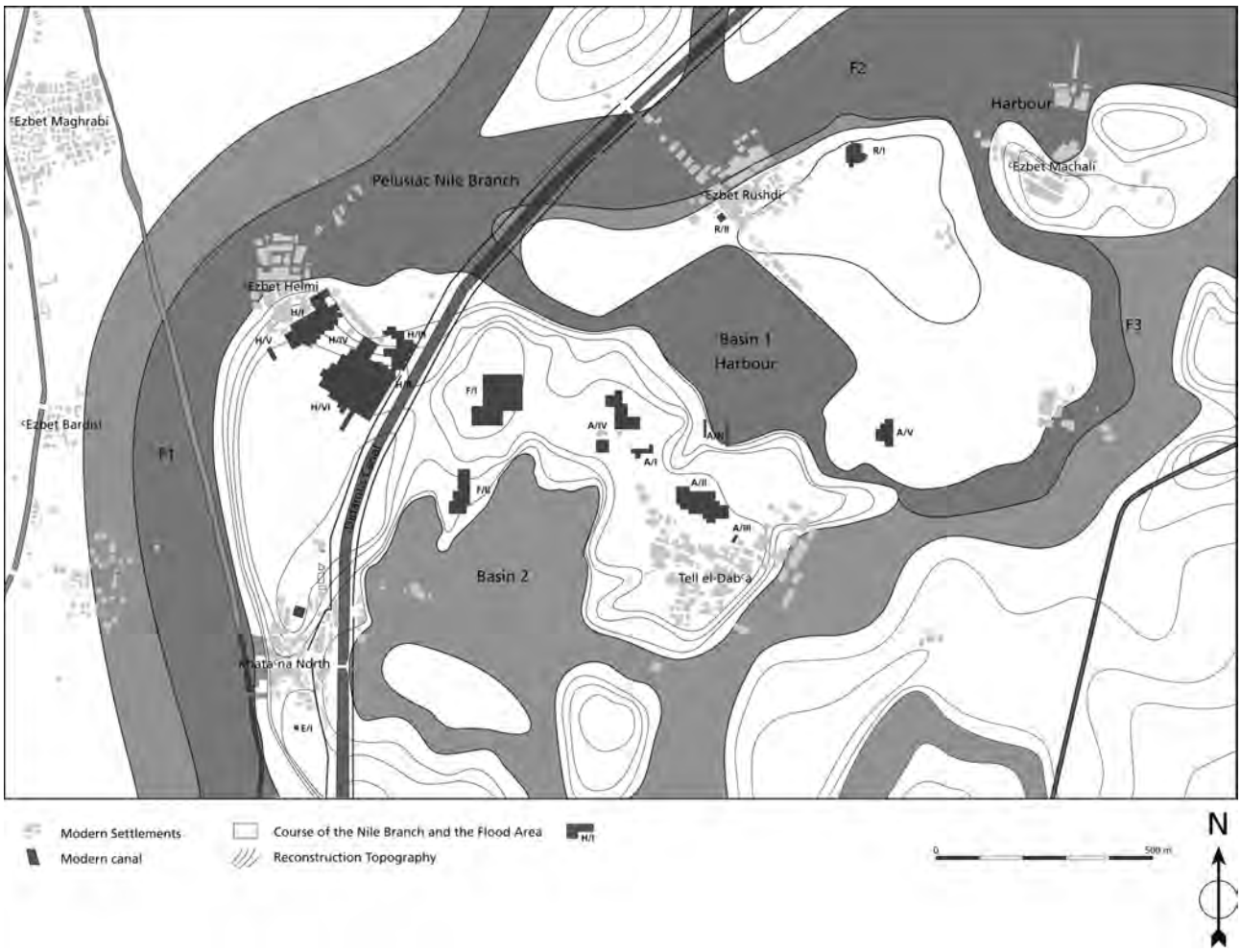


Fig. 104 - Map of the reconstructed site of Tell el-Dab'a with the excavation areas (drawing © G. Maserati. From Bietak 2010).

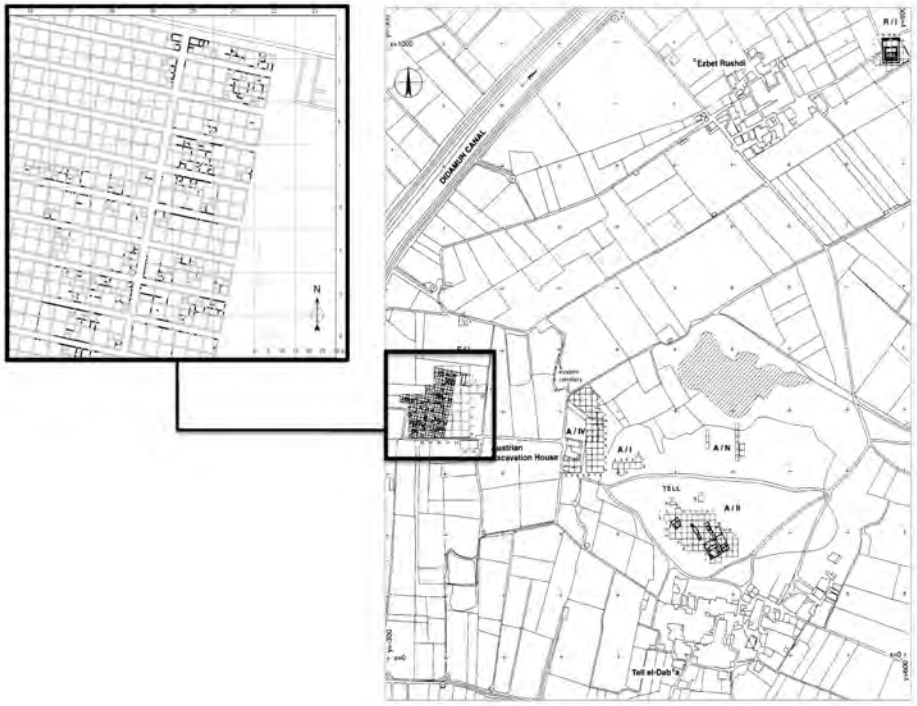


Fig. 105 - Map of the excavation areas at Tell el-Dab'a. Left: area F/1 with the Twelfth Dynasty settlement (drawing © G. Maserati. From Czerny 2010, and Czerny 1999).



Fig. 106 - Plan of Tell el-Dab'a phase e/3 (drawing © G. Maserati. From Czerny 1999).

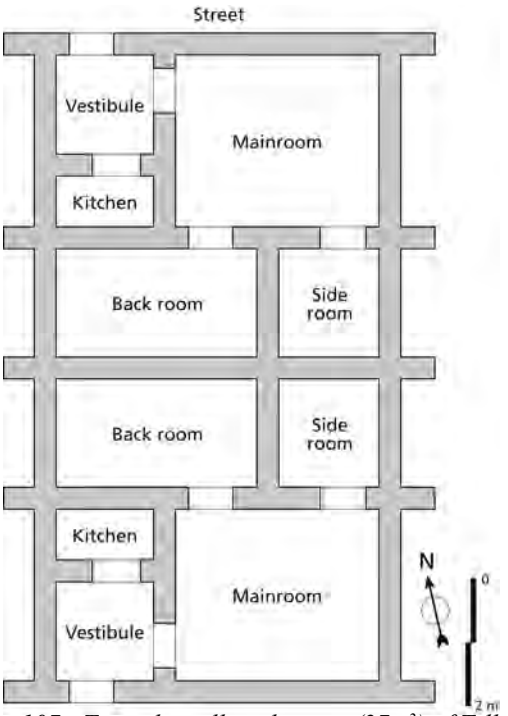


Fig. 107 - Typical small-scale units (27m²) of Tell el-Dab'a placed back to back (drawing © G. Maserati. From Czerny 1999).

FINDS

The largest numbers of finds are ceramics for domestic usage (*e.g.* conical and cylindrical bread moulds, cooking pots, bowl, plates) and flint tools, 77% of which are blades of sickles used in cereal harvesting. Wooden sickles are not preserved, most certainly due to the humid ground of the Delta. Legumes (lentils and peas) are the most abundant plant remains (Thanheiser 2006). The sample of faunal remains comes from a limited number of units (12 square-zones). An appendix to Czerny's volume compiled by Boessneck and von den Driesch presents a preliminary analysis of these remains. All the faunal remains collected in the sub-phases e/1, e/2 and e/3 were analysed together and inserted in the same list of results. As the graph shows, the

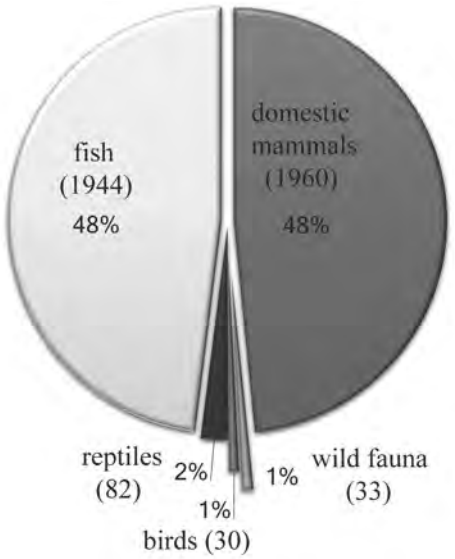


Fig. 108 - Percentages of faunal remains yielded at Tell el-Dab'a; total sample number: 4049.

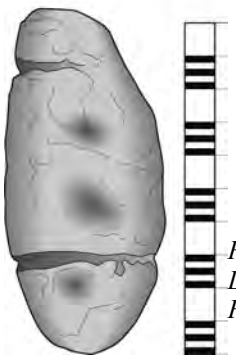


Fig. 109 - Net sinker, Tell el-Dab'a (drawing © G. Maserati. From Czerny 1999).

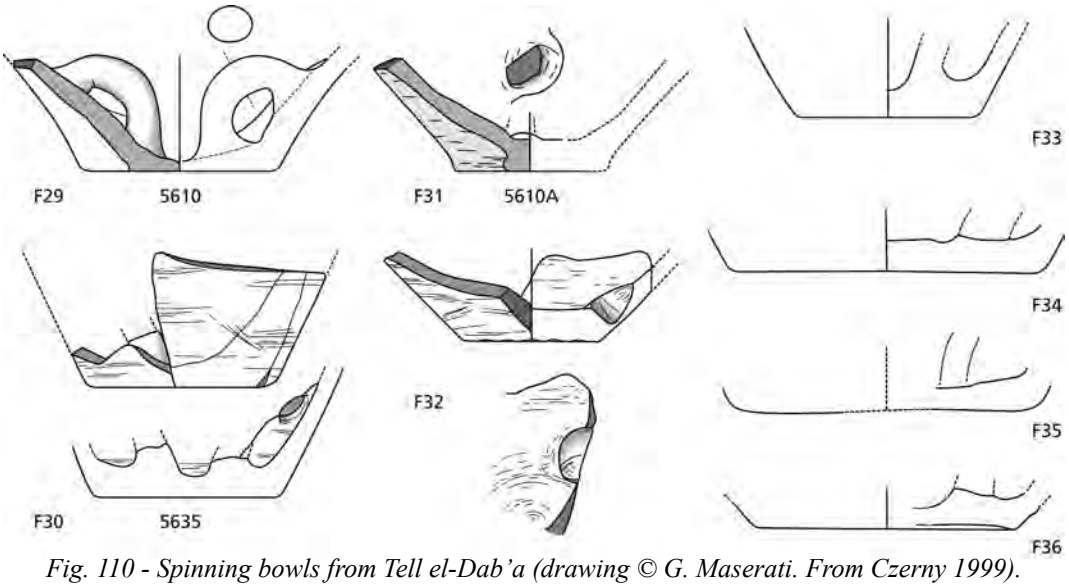


Fig. 110 - Spinning bowls from Tell el-Dab'a (drawing © G. Maserati. From Czerny 1999).



Fig. 111 - Fragments of the bottom of spinning bowls from Tell el-Dab'a. Left: the loop for the thread is preserved. Right: the bowl reveals traces of the missing loop (Courtesy of the Austrian Academy of Sciences).



Fig. 113 - Bone object from Tell el-Dab'a (Courtesy of the Austrian Academy of Sciences).



Fig. 114 - New Kingdom? bone weaving points, Medinet Habu 1912, Davis excavation (Courtesy of the Metropolitan Museum of Art, New York, acc.no.14.6.18).



Fig. 112 - Loom weight from Tell el-Dab'a (Courtesy of the Austrian Academy of Sciences).

highest percentages are domestic mammals (cattle 22%, sheep/goats 39%, and pig 36%) and fish (*Clarias* 81%) (Fig. 108).

A few stone net sinkers were also discovered (Fig. 109) (see also above for the comparison with the Qasr es-Sagha 'draughtsman'). Objects related to stages of textile manufacturing are found at the site. Twelve fragments of stone spinning bowls, including parts of the handles that were placed at the bottom of the vessel, and lower parts of the containers with spaces where missing handles once stood (Czerny 1999, 14–106; Vogelsang-Eastwood 2000, 272–274) (Figs. 110 and 111, and contemporary examples from different location: Plate 12). A stone weight for looms employed in the weaving of yarn into clothes was also found (Fig. 112).

Other items found include a copper needle and an object recorded by Czerny (Czerny 1999, 118) as *Knochenpfriem,* "bone awl", a tool for piercing holes in lether (Fig. 113). As the image shows (Fig. 114), the *Knochenpfriem* could be compared with weaving points. Thus, I do not exclude that the Tell el-Dab'a object, 7.5cm in length, was a sewing punch or a spin-

dle/point used for textile production.

Luxury items are absent. The only finds which differ from tools and domestic items are four steatite scarabs with symmetric floral motifs, a few faience beads, and fragments of four clay figurines portraying animals (ox, ox/sheep, dog and hippo). One fragment has been interpreted as part of human body (Czerny 1999, 108–9).

3.4.3 - Data interpretation: labour organisation at Tell el-Dab'a

THE INHABITANTS

TYPE OF ACCOMMODATION

While the 'barracks-like style' may have marked gender-restricted spaces, the dwellings of the Eastern and Western Towns of Heit el-Ghurab and the houses of Lahun likely marked more gender-balanced spaces (3.3.3). At Heit el-Ghurab such a trend may be supported by the lack in the galleries of specific classes of artefacts which were instead discovered in the Towns (p. 111). As the images show (Figs. 115–117), the arrangement and shape of the housing-units of Tell el-Dab'a e/3 resemble the organisation of the small-scale houses of Lahun (2.2.1) and the units of the NK *Workmen's Village* of Amarna (3.2.2), contrasting with the barracks-like style of the Western Settlement of Qasr es-Sagha. In both cases, Lahun and Amarna, the units have aspects of 'family dwellings' for households, suggesting the presence of both genders (Koltsida 2007a; Wilfong 2010, 174). In agreement with Moeller (2009, 208), I suggest that the similar arrangement and division of spaces inside Tell el-Dab'a e/3 might reflect a mixed population of men and women. Additionally, the houses cover an area of around 27m^2 meaning they are considerably smaller than the units of the Western Settlement of Qasr es-Sagha (Fig. 115). Nevertheless, common features of regularity and uniformity are respected in the general layout. As was the case with Qasr es-Sagha, the invariability and homogeneity of the internal organisation suggest that the inhabitants were of identical social status. The tiny size of the dwellings of e/3 suggests to low status individuals.

The only structure which sharply differs is the large isolated corner-building. This building is comparable to the gate-houses located at key points at the entrance of streets inside the *Gallery Complex* at Heit el-Ghurab (3.2.1), or the building at the south-eastern corner of the *Workmen's Village* at Amarna (3.2.2), which were interpreted as buildings for the officials/guards in charge of the settlements. The strikingly different layout, shape, and size that distinguish these particular buildings from all the remaining units appear to be closely related to a different social profile: potentially higher status officials. Similarly, I speculate an equivalent use of the larger corner-building of Tell el-Dab'a.

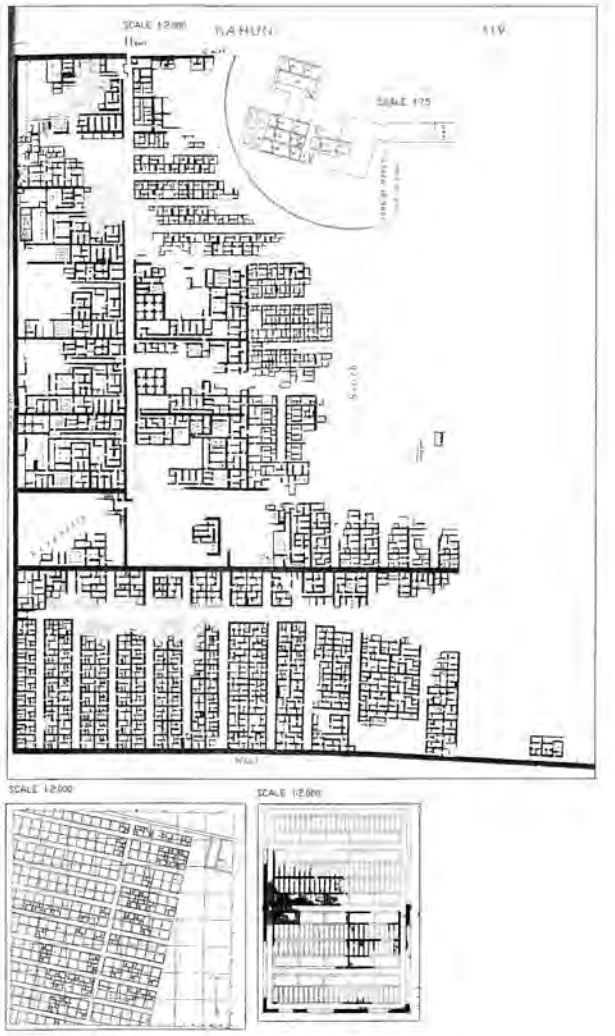


Fig. 115 - Comparison between the small-scale houses of Tell el-Dab'a e/3 (bottom left) and Lahun (top), and the contrasting barracks-like style layout of the WS of Qasr es-Sagha (bottom right), in scale 1:2.000.

FAUNAL REMAINS

The percentage of low quality meat of sheep and goats exceeded the percentage of more desirable cattle in a relation of 39:22 (the remaining 36% are pig bones) (Fig. 118). Similarly, low quality fish (*Clarias, Tilapia* and *Synodontis*) constitute 85% of the total against the very low percentage of high quality perch (*Lates Niloticus*) that corresponds only to 5% (Fig. 119). Since the data come from the three sub-phases analysed together, the results may be affected by variables. However, the percentage of low quality meat consumed at the site is higher than the percentage of high quality meat. The same applies to the fish bones. In both the Giza *Gallery Complex* and Tell el-Dab'a the amount of bones of more desirable perch is remarkably lower than the amount of low quality catfish. At Tell el-Dab'a the relation of perch to catfish (*Clarias*, *Bagrus*, and *Synodontis*) is 87:1603, at Giza 5:103 (Redding 2010; 2013) (Fig. 120). A similar example comes from the *Workmen's Village* of Amarna where most remains were the low quality fish *Synodontis* (31%). Further parallel come from the NK workmen's village of Deir el-Medina where the most part of the consumed fish is represented by *Tilapia* and *Synodontis*.

The overall evidence of faunal remains from Tell el-Dab'a suggests that its inhabitants followed a general low status diet. If Tell el-Dab'a was provisioned by the state like the *Gallery Complex*, the low status diet could be reflection of a low status population. Conversely, if Tell el-Dab'a was a self sufficient site where the inhabitants procured their own fish, the abundance of low quality catfish might be explained as result of a seasonal occupation of the site. A discussion of the nature and function of Tell el-Dab'a will be presented later (pp. 132-3). Nothing can be said on dietary habits of the larger building as the report on faunal remains does not refer to animal bones discovered there.

FINDS

Spinning is attested by the fragments of spinning bowls (Figs. 110 and 111), which are objects used to keep the fibres under tension during the task. The loom weight (Fig. 112) provides evidence that the next stage of textile production, weaving, also occurred at the site. The wooden elements of looms, such as heddle rods and spools, were not discovered likely due to their biodegradable nature as organic material. The copper needle and the bone object, which I interpreted as weaving bone point, may provide additional evidence for the existence of a linen-production industry inside the settlement (Fig. 113). The bone points are movable pieces of the loom, and tend to be interpreted as clear evidence for weaving *in situ* (Tavares 2004, 10). Additionally, metal needles were employed to sew and mend clothes. Some copper needles associated with spindle whorls and bone points were discovered at Heit el-Ghurab (Tavares 2004) and at the *Stone Village* of Amarna (Stevens 2012, 205, 427–28).

The net sinkers suggest that fishing was practiced (Fig. 109). The sickle blades for the harvesting of cereals, and botanic remains reflect an intense engagement of the population in agriculture. While the ploughing of ground that preceded sowing was primarily a male task (Murray 2000, 517) the harvesting was not gender restricted. Artistic records indicate that women also worked in the fields during the season Shemw. For example, the New Kingdom Tombs of Paheri at Elkab shows young women employed as gleaners picking up the stalks (Tylor and Griffith 1895). The overall finds do not firmly verify female presence at the site. However, since during the Middle Kingdom weaving and sewing were predominantly female oriented activities (2.3.1 M), the presence of a mixed population can be conjectured, matching the 'family dwelling' type of the housing-units.

A necropolis for the inhabitants has not been discovered. The burials of three children found inside the settlement belonged to post-phase e/1. Since they were not related to the Twelfth Dynasty occupation of the site (Czerny 1999, 29–31) these burials cannot substantiate the presence of women. The presence of the officials in charge of the workers accommodated in the corner building is only presumed on the basis of the examples from Heit el-Ghurab and the *Workmen's Village* of Amarna (above). A residential quarter for wealthier individuals is unlikely. The type of objects are suggestive of low-status people, substantiating the low status diet and the exceptionally small size of the dwellings.

As regards the ethnicity of the residents, the finds seem to allude to an Egyptian origin. Non-Egyptian items, which will be numerous from the Hyksos period onward, are very rare. They consist of sherds at-

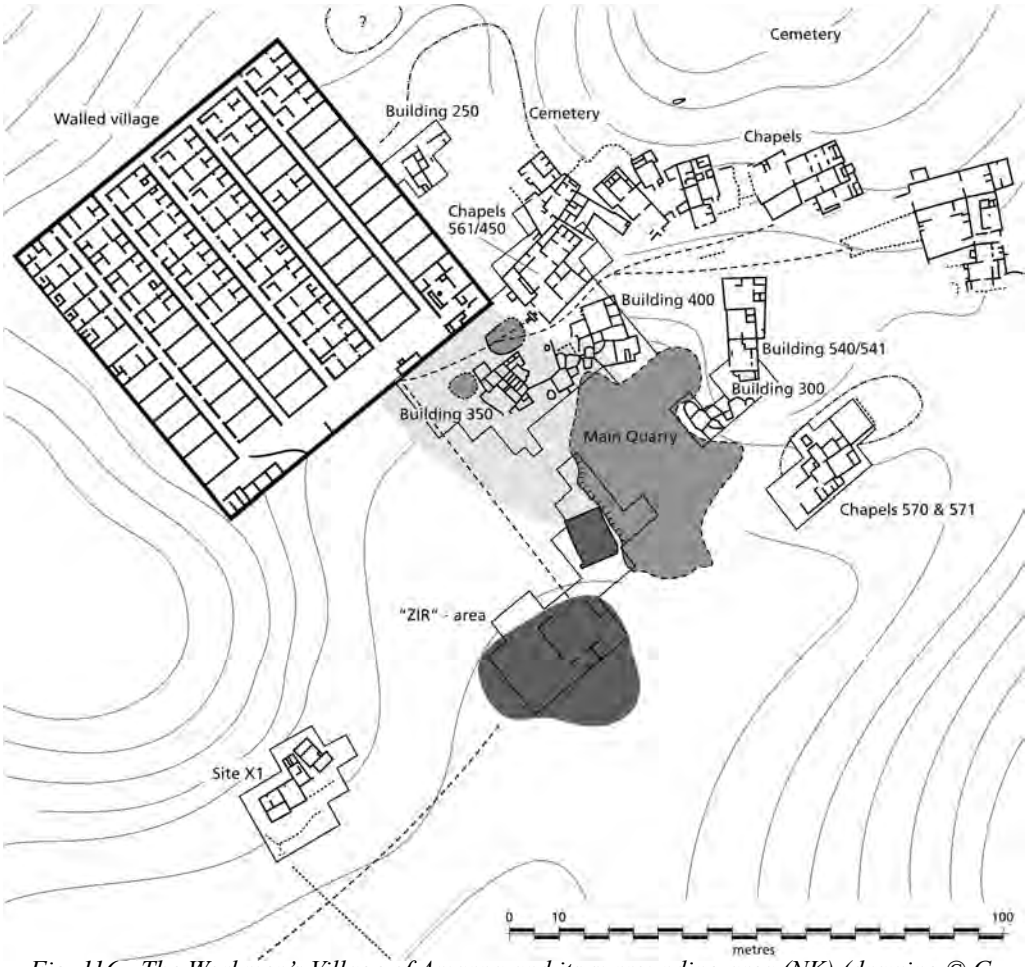


Fig. 116 - The Workmen's Village of Amarna and its surrounding area (NK) (drawing © G. Maserati. From Kemp 1986).

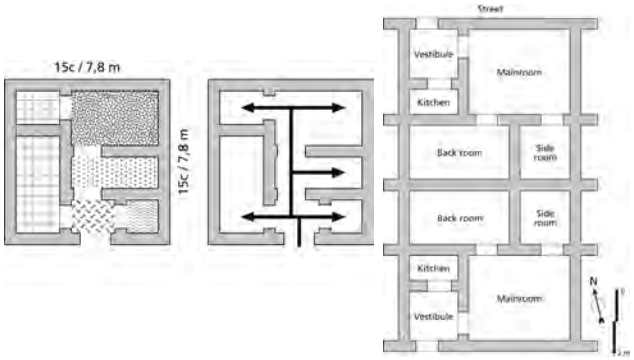


Fig. 117 - Comparison between the layout of units of Lahun, smallest house type of the western quarter (first two images from the left) (drawing © G. Maserati. From Doyen 2010) and Tell el-Dab'a e/3 (right) (drawing © G. Maserati. From Bietak 2010).

tributable to the typology '*Tell el-Yahudiya ware* of Levantine origin', which may be explained as a result of trade with the Near East (Czerny 1999, 110–112).

TEMPORALITY OF SITE OCCUPATION

STORAGE AND PROCUREMENT

Large storage vessels from phases e/3 and e/2 mark a basic degree of storage comparable to the Western Settlement of Qasr es-Sagha. A higher degree of self-sufficiency is revealed by the latest phase e/1, to which *silos* and storehouses belong (above). The difference in the method of storing supplies may suggest that the residents of phase e/1 needed to store food for longer than the previous phases. The sickle blades indicate habitation during the harvest, roughly from March to June.

The high percentage of pig remains within the assemblage of domestic mammals is suggestive of pig rearing. The percentage of cattle and sheep/goats bones in relation to pig is 61:36, with cattle equivalent to

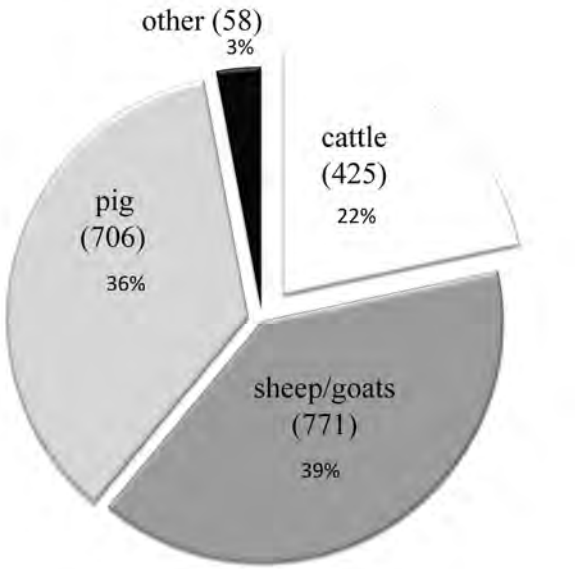


Fig. 118 - Assemblage of domestic mammals, Tell el-Dab'a; total sample number: 1960.

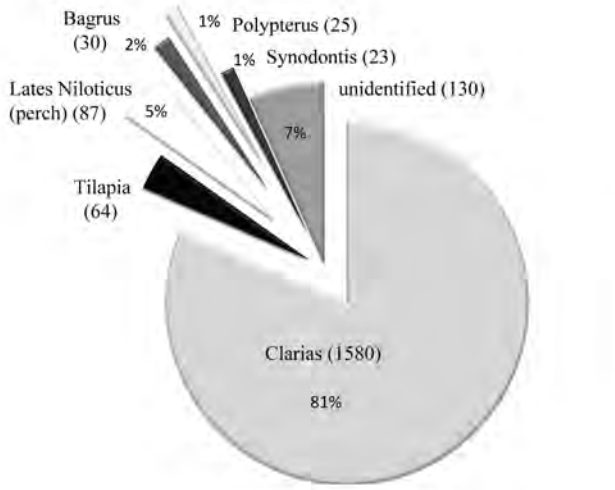


Fig. 119 - Fish bones assemblage, Tell el-Dab'a; total sample number: 1939.

22% and sheep/goats to 39% (Fig. 118). The ratio of sheep/goats to pigs is almost equivalent: 39% sheep/goats and 36% pig. Similar data come from the Eastern Town of Heit el-Ghurab where pig remains outnumber cattle remains, and the ratio of sheep/goats to pig is close (Redding 2013, 315). On the basis of this evidence and the discovery of grindstones, it has been proposed that the Eastern Town was not provisioned, different to all the other functional areas of the site (Redding 2010; 2013, 315) (3.2.1).

Tell el-Dab'a also yielded a few grindstones, suggesting that wheat was ground *in loco*. These finds, along with the large number of sickle blades attest to an intense engagement in acquisition practices, supported by the high percentage of pig bones. Pig rearing also reveals that the residents integrated their diet with supplementary proteins, usually mark of production centres (3.3.3). The low percentage of wild taxa (> 3%) was probably the result of accidental encounters during farming (Redding 2007a).

On the basis of this data and the changing in the method of storing provisions from the first phase to the last, I propose a progressive acquisition of self sufficiency, which is in line with what had been suggested by Czerny (1999, 131) and Moeller who hyptothesised a passage from a "state-controlled settlement" to a "much more privately organised settlement" (Moeller 2016, 259). It is thus possible that during the earlier phases e/3 and e/2 the settlement received regular food supplies that were simply stored in vessels. Subsequently, by the last phase e/1 the settlement may have become relatively independent,

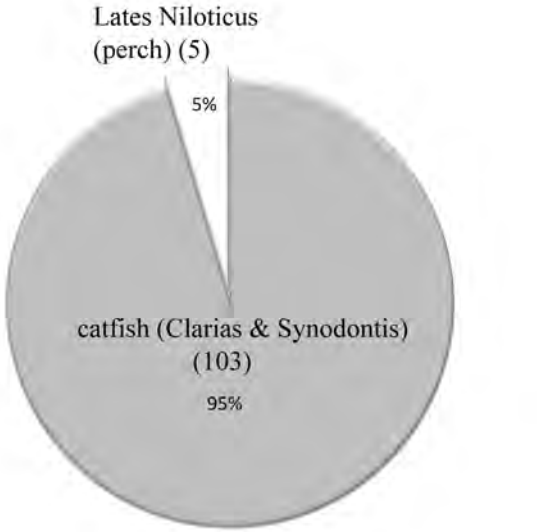


Fig. 120 - Fish bones assemblage, Gallery Complex (sample from Gallery III.4: Redding 2013). Total sample number: 108.

producing and storing provisions in purpose-built installations. This might explain the high percentage of pig bones yielded at the site.

FISH AND BIRD REMAINS

The discovery of net sinkers suggests that fish were available locally. Therefore, the low quantity of deep

water perch (*Lates Niloticus*) compared to the large amount of floodplain *Clarias* (81%) may be a seasonal mark for summer habitation (Fig. 119), when large quantities of catfish could be easily caught (p. 122). Moreover, the great amount of *Clarias*, which contrasts considerably with the lower percentage of *Tilapia,* combined with the presence of molluscs and the low percentage of open water fish (*Lates Niloticus*, *Bagrus* and *Synodontis*), may suggest a habitation during low waters, at the very beginning of the flood (Hendrickx *et al*. 2001, 99; van Neer 2004, 265). This assumption can be substantiated by the comparison with the assemblage of the Late Palaeolithic site of Wadi Kubbaniya. Here the large quantity of *Clarias* against the lower number of *Tilapia* from site E-78-3 led to propose an occupation in late June-July (Wendorf & Schild 1989, 459). At Tell el-Dab'a *Bagrus* and *Synodontis* were perhaps fished in the floodplain as soon as they moved there to spawn, at the beginning of the flood. Consequently, they may have been caught at the same period when *Clarias* were caught. This hypothesis might support a site occupation until the arrival of the flood. As far as bird remains are concerned (Boessneck & von den Driesch 1999, 312), most of them were migrant species that bred in Europe or Asia, spending the cooler months from September to April in Egypt (Cagle 2003, 130; Wendorf & Schild 1989, 459). To conclude, animal remains are suggestive of a continuous occupation of the site throughout the year, with a probable peak from March until early summer, matching the evidence provided by the sickle blades.

FUNCTION OF THE SETTLEMENT

Czerny has suggested that the residents of Tell el-Dab'a were colonists engaged in border protection (Czerny 1999, 133). In his opinion agriculture was probably a daily task performed by the population for their own maintenance rather than a primary activity. As Moeller (2009, 208; 2016, 259) has pointed out, the absence of nearby fortifications may be a weak point of Czerny's suggestion. The absence of weaponry may support Moeller's inference, excluding military activities.

Alternatively the workers may have engaged in construction works in the surrounding area (Grajetzki 2006, 146). Literary compositions (*i.e. The story of Sinhue* and *The Prophecy of Neferty*) attest to the existence of fortification systems, the so called 'Walls of the Ruler', built by Amenemhat I in the Eastern Delta in order to protect the eastern approach to the country after the invasion of 'Asiatics' during the First Intermediate Period (1.5). However this wall is yet to be discovered and the absence of any trace of fortification/building in the surrounding area is a limitation to the alternative hypothesis. Additionally, if the residents of Tell el-Dab'a performed their main activity outside the enclosure walls, we can assume they were not engaged in hard working, as this would have precluded or greatly limited the acquisition practices. As Redding stresses about Giza, the pyramid builders "were construction workers and specialists. They were not herding, hunting, nor planting crops" (Redding 2010, 69). The daily construction activities excluded the engagement of the galleries' residents in procurement tasks; the state supplied them with all the provisions they needed. At Tell el-Dab'a the large amount of sickle blades instead is a clear evidence for an intense engagement in agriculture. If the latter was performed as supplement to regular state provisions, we should raise the question of the type of supplies sent to the settlement. If meat was the basic provision, the need to rear pigs may mean that the domestic mammals (cattle and sheep) supplied were not sufficient to meet the people demands (as above). The *Workmen's Village* of Amarna seems to be an exception, as it was provisioned by the main city to some extent (Fig. 121) (3.2.2).

In contrast to Czerny, Moeller does not exclude farming as primary employment of the population. According to her Tell el-Dab'a could be a production site whose goods were "stored and sent elsewhere", namely to a different centre (Moeller 2009, 208). A parallel may be the capital of the Third nome, Kom el-Hisn, Western Delta. Archaeological finds and radiocarbon dating show an occupation from the Fifth to the Sixth Dynasty, and a reoccupation during the First Intermediate Period and early Middle Kingdom (Wenke *et al*. 1988, 13; Wenke 2016a, 8; 2016b, 367). Kom el-Hisn yielded a dominance of pig bones (Redding 1992). According to recent analyses, the ratio cattle:pig at Kom el-Hisn was 0.04:1 (Redding 2016, 184). Cattle dung and botanical remains from inside the dung prove that cattle were raised *in situ* (Moens & Wetterstrom 1988; Redding, 1991; Wetterstrom & Wenke 2016, 209–10). This evidence contrasts with the percentage of cattle remains, which is only 2% of the assemblage of domestic mammals yielded at

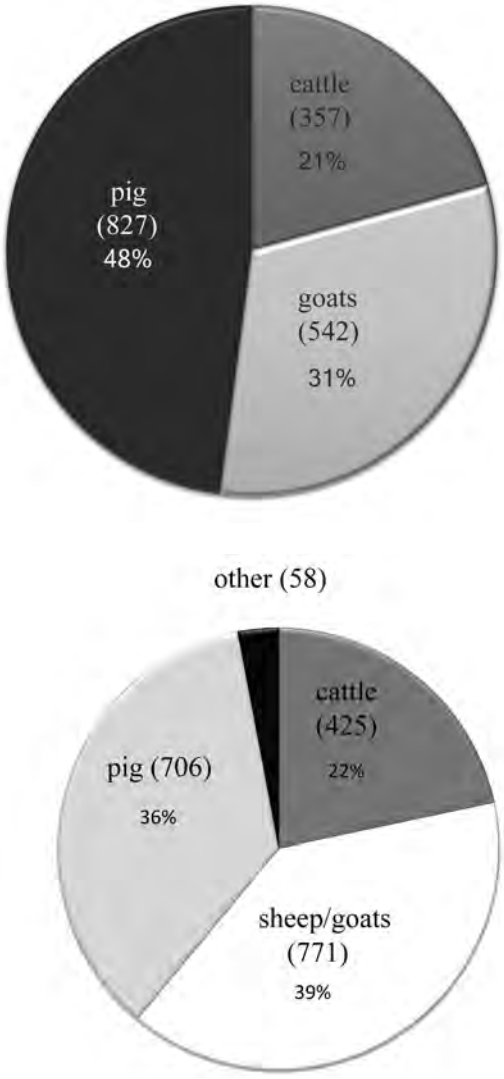


Fig. 121 - Assemblages of mammal bones from the Workmen's Village (top) and Tell el-Dab'a (bottom).

the site (Redding 1992, 103; Redding 2016, 162–85). Interestingly, the few cattle bones are female biased. On the basis of this data it has been concluded that female cattle were kept at the site and consumed by the local population when the animals died by natural causes, while the juvenile males were sent elsewhere (Moens & Wetterstrom 1988; Redding 1992, 103; Redding 2016, 194). As a consequence, the residents reared pig for their own subsistence.

Accordingly, Kom el-Hisn has been interpreted as a provincial production centre which supplied meat to consumption sites, such as the *Gallery Complex* of Heit el-Ghurab (Lehner 2015, 408–9; Redding 2007a; Wenke 2016b, 367, 371; Wetterstrom & Wenke 2016, 210). As Moens and Wetterstrom (1988, 168) have suggested, Kom el-Hisn may have been affiliated to the 'Estate of the Cattle', foundation placed in the third Lower Egyptian nome, the same area where Kom el-Hisn is located. The faunal remains of Kom el-Hisn allow for adequate reconstruction of context, as well as for the identification of a precise strategy of subsistence. On the basis of the example of Kom el-Hisn, Moeller's hypothesis about Tell el-Dab'a may be plausible, but it lacks evidence: animal breeding is limited to pigs, and cattle dung is absent in botanical samples. This might discourage the assumption that cattle was raised *in situ.* Whether the agricultural products were not only consumed by the population, but also sent as provisions to other centres, cannot be proved.

3.5 - INDUSTRIAL SITES

In the following section I will present three industrial sites useful for comparison. These sites contained workshops' areas for craftsmen specialised in the production *in loco* of specific class of items.

3.5.1 - The Middle Kingdom Abu Ghalib and Ezbet Rushdi

The settlement of Abu Ghalib, Western Delta, was partially excavated in the 1930s by a Swedish mission under the supervision of Hermann Junker, Pehr Lugn and Hjalmar Larsen. The settlement dates to the end of the Eleventh Dynasty by ceramic analysis, scarabs, and seal impressions (Bagh 2002, 32, 43–44). The settlement includes rectangular mud-brick houses built according to a grid pattern (Fig. 122), each with ovens and granaries.

The finds include pieces of pottery comparable to the examples from Tell el-Dab'a (Bagh 2002, 34) and Ezbet Rushdi (below). Valuable finds are limited to a few scarabs, sealings, and seal impressions. The remaining finds include a huge amount of flint implements, about 7000 micro-drills, numerous carnelian beads, and pieces of unworked carnelian (Bagh 2002, 41–42). On the basis of the comparison with similar finds discovered in connection with flint tools at Hierakonpolis, it has been suggested that the investigated area of Abu Ghalib was a workshop for the manufacture of carnelian beads (Bagh 2002, 42). Since the settlement has been unearthed only to some extent, the presence of a residential quarter for the wealthiest cannot be excluded. Other Middle Kingdom items

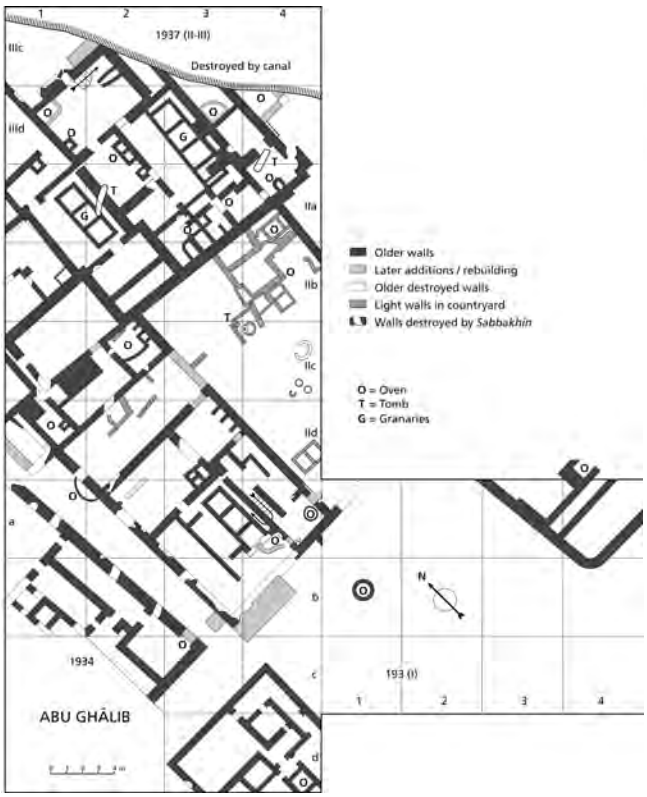


Fig. 122 - Plan of the settlement of Abu Ghalib (drawing © G. Maserati. From Bagh 2002).

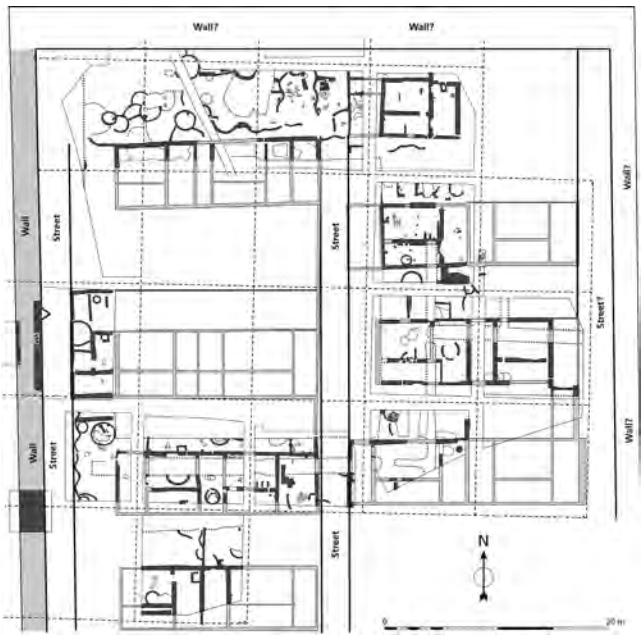


Fig. 123 - Reconstruction of stratum e of Ezbet Rushdi (drawing © G. Maserati. From Czerny 2010).

from the site include one fragmentary clay figurine of ox's head, hand made and poorly executed. The peculiarity of this figurine is its discovery in domestic space. Zoomorphic figurines usually come from shrines (*e.g.* at Medinet Habu: Teeter 2010; at Deir el-Ballas:

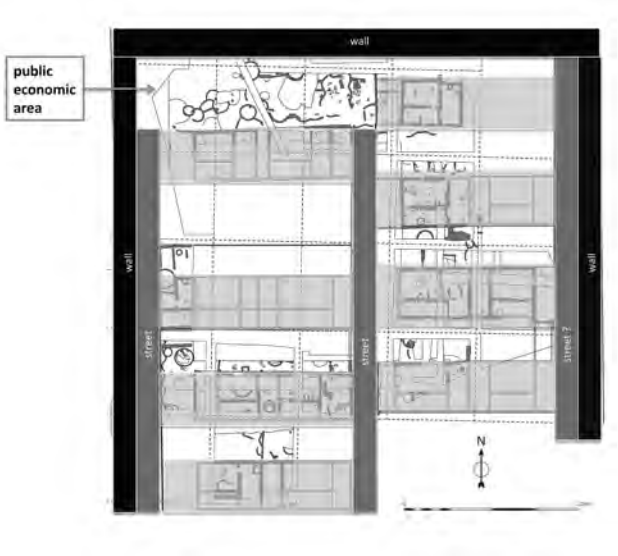


Fig. 124 - Hypothetical reconstruction of the block-pattern of Ezbet Rushdi (drawing by the author. From Czerny 2010).

Lacovara 1990; from the Hathor's shrine adjoining the Egyptian Fort of Mirgissa: Vercoutter 1965; from the Hathor's shrine at Serabith el-Khadim: Pinch 1993; from the Hathor's shrine at Deir el-Bahari: Teeter 2010, 6). When they are discovered in association with other offerings, they are interpreted as votive objects. In a funerary context they are instead amulets aiming to guarantee rebirth and health in the afterlife.

Zoomorphic figurines from domestic spaces were also discovered inside the Middle Kingdom forts of Buhen and Uronarti, Lower Nubia, and from the Old and Middle Kingdom phases of Balat, Dakhla Oasis (Soukiassian *et al*. 1990). The meaning and function of animal figurines from domestic context are debated (Teeter 2010, 110). The main hypotheses are the followings: toys, items for self defence, health, and votive offerings due to their association with specific gods (Quirke 1998c, 149–150).

The second Middle Kingdom industrial centre is the settlement discovered next to the modern village of Ezbet Rushdi, in the Tell el-Dab'a area (Figs. 123 and 124). It was excavated by the Egyptian Antiquities Organization during the 1950s and then in 1996 by the Austrian Archaeological Institute (Czerny 2010). Dated by pottery to the beginning of the Twelfth Dynasty, it lies beneath a temple for the ka-cult of Amenemhat I (Adam 1959; Marcus 2007, 160), built by Senwosret III. It is not clear whether a larger planned settlement identified around the temple during a geophysical survey belongs to the earlier settlement (phases e/4–e/1) or to the temple phase (Forstner-Müller 2010, 107).

Czerny proposed the reconstruction of the general layout of stratum *e* as shown in the image (Fig. 123). The compound, surrounded by a square enclosure wall, was organised according to an orthogonal street-grid. Double blocks of units were arranged back to back on parallel rows. Each house is 60m^2 large.

Similarly to the case study Tell el-Dab'a, Ezbet Rushdi presents a development from an initial stage of uniform and rigid arrangement of spaces, to a more individual layout (Czerny 2010). According to Czerny (2010, 74), the open space between each double block of units (5m broad) might have been utilised for animal breeding and storage (Fig. 124). Analyses of faunal remains suggest that the residents were engaged in pig rearing, reflecting a certain degree of self sufficiency. A "public economic area" (Czerny 2010, 76–77) has been identified in the north-western corner. The exact character of the compound remains unclear. However high percentage of flint implements, combined with type of layout, houses plan, and absence of an elite quarter, point to an industrial site or workshops (Czerny 2010, 69).

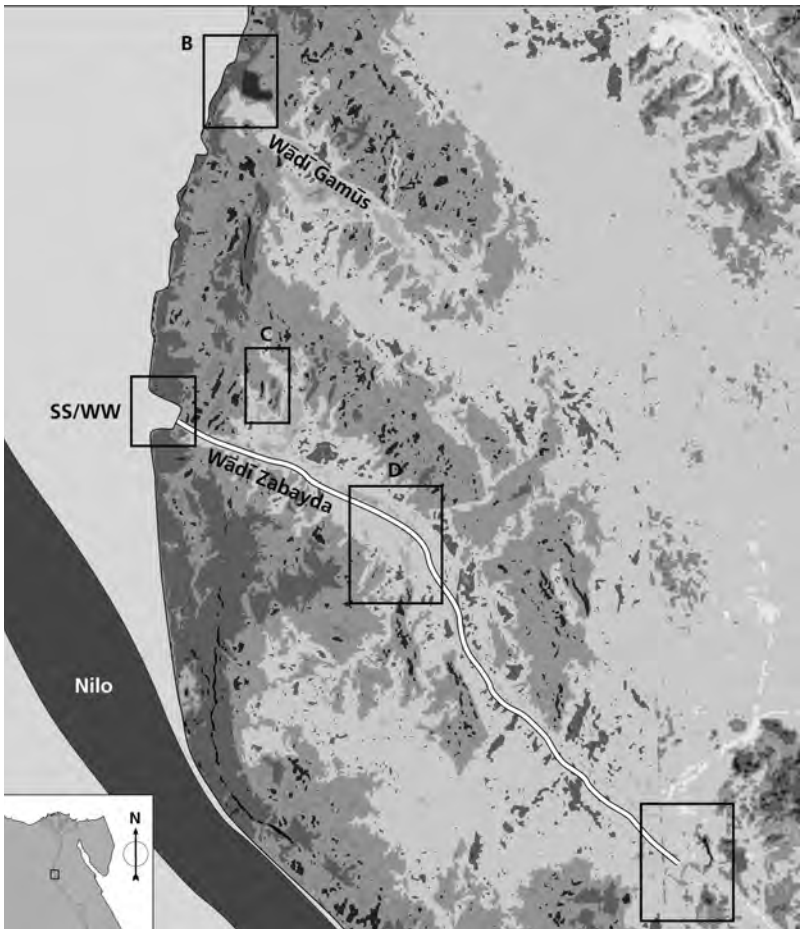


Fig. 125 - Satellite view of the Al-Shaykh Said site. The industrial settlement is located in area SS/WW. Highlighted by squares are the dynastic cemeteries (B, C and D) and the Maghara Abu Aziz quarry (drawing © G. Maserati. From Willems et al. 2009).

3.5.2 - Old Kingdom Al Shaykh Said

The industrial site of Al-Shaykh Said is located in Wadi Zabayda near Deir el-Bersheh, Middle Egypt (Fig. 125). In 2007 the Leuven University retrieved more than 1000 artefacts including stone drills, and pieces of vessels from the wadi. Only a few parts of the settlement are preserved. Most of the pottery comprises bowls for daily use and ceramics for the production of bread (Willems *et al*. 2009–10, 308–313). The site of Al-Shaykh Said shows signs of occupation in the early Old Kingdom and later during the New Kingdom and the TIP. The finds are suggestive of a specialised production of stone items and calcite alabaster artefacts (Willems *et al*. 2009). Quarries of calcite alabaster lay at a short distance from the end of the wadi (Fig. 125). Some luxury items – *i.e.* fine quality vessels – and several seal impressions were also discovered, showing the presence of wealthier individuals. The evidence has suggested that the settlement included residences for the elite and houses for craftsmen in the form of a "provincial state institution comparable to Heit el-Ghurab" (Willems *et al*. 2009, 324).

The highest percentage of faunal remains yielded at the site corresponds to highly desirable perch (*Lates Niloticus*), thus supporting the picture of marked social differentiation (Figs. 126 and 127). Among the mammal remains, more than 2000 bones were identified as belonging to sheep or goat against 1300 to cattle (Fig. 128). This result, combined with the numerous very young specimens and the low amount of wild faunal remains (less than 1% of the identified mammals), were interpreted as indications of a "large-scale centrally controlled food provisioning" (Willems *et al*. 2009, 323). The prevalence of young cattle specimens, combined with the large amount of perch, led the archaeologists to suggest a high quality

	Activity zone A	Activity zone B	Total
Shells			
Fossil Shell	1	1	2
Large Bivalve	0	1	1
Fish			
Polypterus sp.	0	2	2
Alestes/Brycinus	1	2	3
Hyperopisus bebe	3	4	7
Mormyridae	14	1	15
Cyprinidae (min. 2 species)	31	29	60
Distichodontidae/Citharinidae	0	1	1
Catfish 1 (Clariidae) (min. 2 species)	42	80	122
Catfish 2 (*Bagrus* sp.)	19	22	41
Catfish 3 (*Synodontis* sp.) (min. 2 species)	118	182	300
Catfish 4 (*Auchenoglanis* sp.)	1	0	1
Nile perch (*Lates niloticus*)	755	424	1179
tilapia (Tilapinii)	74	75	149
Unidentified fish	843	458	1301
Softshell turtle (*Trionyx triunguis*)	1	1	2
Wild mammals			
Hippopotamus (*Hippopotamus amphibious*)	13	6	19
Hartebeest (*Alcelaphus buselaphus*)	0	1	1
Domestic mammals			
Sheep (*Ovis ammon* f. aries)	7	49	56
Goat (*Capra aegagrus* f. hircus)	35	99	134
Sheep or goat	647	1185	1832
Cattle (*Bos primigenius* f. taurus)	671	464	1135
Unidentified mammal	3726	3661	7387
Carnivore dropping	1	0	1
Sheep or goat dropping	0	5	5

Fig. 126 - Quantitative chart of faunal remains and fish bones from Al-Shaykh Said (drawing by the author. From Willems et al. 2009).

diet (Willems *et al*. 2009, 319). However we need to consider that 1301 fish bones out of 3185, and 7387 mammal bones out of 10.709 were not identified: an undeniable weak point in the previous interpretations. Additionally, if fish was not provisioned but locally procured, as it has been proposed (Willems *et al*,.2009, 318–319), the low quantity of *Clarias* and *Tilapia* could be the result of a seasonal occupation of the site. Before considering the perch a mark of a high status diet, Willems himself discussed the possibility that its dominance in the assemblage against the little percentage of catfish could be affected by a reduced presence of people at the time of the flood or the small size of the floodplain when catfish was procured (Willems *et al*. 2009, 318). The former observation matches the seasonal quarrying process suggesting a peak of winter activity. These observations may suggest that the faunal remains from the site are not adequate to substantiate the presence of the elite as suggested by other finds.

Nevertheless we need to consider that the deposit zones which yielded these faunal remains produced diffe-

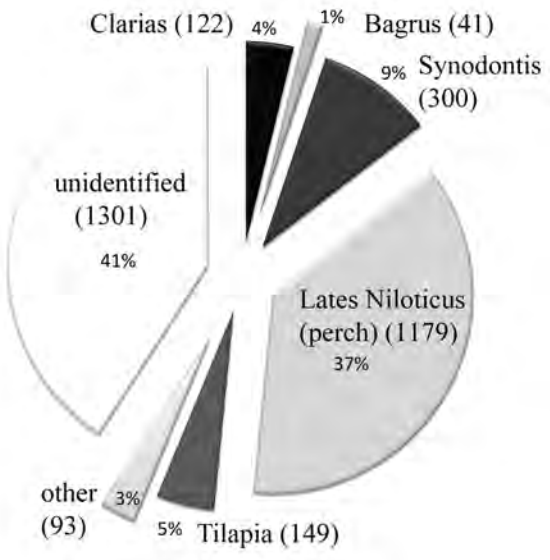


Fig. 127 - Proportion of fish bones from Al-Shaykh Said. Total sample number: 3185.

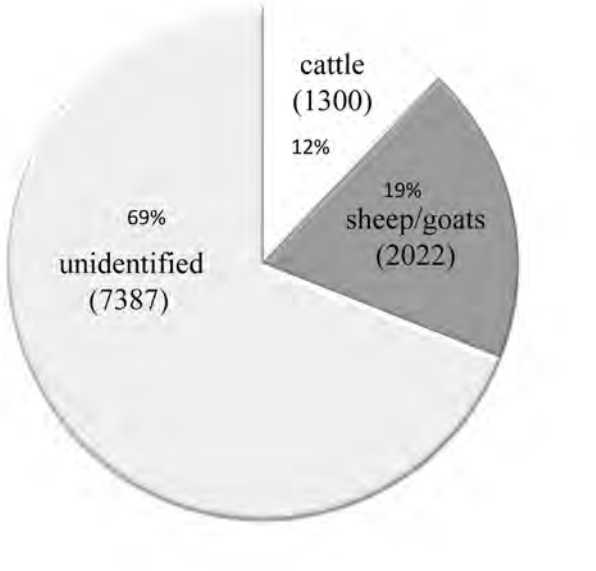


Fig. 128 - Assemblage of faunal remains of domestic mammals from Al-Shaykh Said. Total sample number: 10.709.

rent results. These zones are labelled by Willems *et al*. 'activity zones' A and B. The faunal remains from zone A contained a greater percentage of high quality fish (75%) while zone B a greater percentage of low quality meat (sheep/goats 74%); the percentage of high and low quality fish from zone B is roughly the same as the percentage of high and low quality meat from zone A. On the basis of those results, I might suggest that the faunal remains from zone A indicate a quality of diet higher than that of zone B. In conclusion, I disagree with the assumption that the diet of the population of Al-Shaykh Said was in general of high quality (Willems *et al*. 2009, 319, 323). The zones showing different results may be interpreted as food waste deriving from the elite's consumption on the one hand (zone A), and the workmen's consumption on the other hand (zone B) following the example of Heit el-Ghurab (3.2.1).

3.5.3 - The New Kingdom *Stone Village* of Amarna

At a distance of 1.2km, isolated and hidden from the *Workmen's Village* (3.2.2), lies the *Stone Village* (Fig. 129 and Plate 13). Its architecture was informal and less regular than the layout of the *Workmen's Village*, and its population was comprised of less skilled craftsmen. Its purpose is not clear. Stevens recently considered the following hypotheses: a settlement for quarrymen, a household in support for the main *Workmen's Village,* or a post or "service centre for other desert-based work sites" (Stevens 2012).

The compound included a permanent mixed population of women, men and children. Two main activities are present: the production of quarrying tools (hammer stones), and spinning. Evidence for the latter includes spindle whorls and metal needles. Loom weights and flat bone spatulas – clear evidence of weaving – are missing. This suggests that spun yarn was used to repair textile items or was eventually sent to the *Workmen's Village* to be woven into clothes (Stevens 2012, 427–8). Considering the craft production of hammer stones *in situ*, the *Stone Village* may be denoted as an industrial site.

3.6 – CONCLUSIONS

3.6.1 - Housing-units models for Middle Kingdom workers' settlements

THE BARRACKS-LIKE STYLE OF QASR ES-SAGHA

The most significant feature of the Middle Kingdom occupation phase of Qasr es-Sagha is the Western Settlement, a planned compound with rigid layout and modular replication of identical units. Such organisation sharply differs from the type of dwellings of the Old Kingdom phase: oval stone structures arranged to form a small encampment located at the entrance of the quarries of Widan el-Faras. During the Old Kingdom period, extraction and stone hauling from the quarries to the quay were the main activities performed in the area. Similarly, natural shelters provided temporary accommodation at the gneiss quarries at Umm es-Sawan, the other mineral source located in the surrounding area.

A similar contrast in the type of dwelling is recognisable at the amethyst mines of Wadi el-Hudi (p. 120). The Twelfth Dynasty planned fort greatly differs from the compound of simple stone huts irregularly scattered and dated by ceramic finds and inscriptions to the Eleventh Dynasty (Shaw & Jameson 1993) (Fig. 130).

If we consider the engagement of the Western Settlement in quarrying activities as a possible scenario (below 3.6.4), we can recognise a pattern in the evolution of dwellings'type at Widan el-Faras–Qasr es-Sagha and Wadi el-Hudi: scattered shelters were later replaced by more elaborate constructions with an organised layout. Conversely, the Middle Kingdom dwellings at the travertine quarries of Hatnub and at the galena mines of Gebel el-Zeit resemble the shelters of Umm es-Sawan, as they are dispersed drystone huts (Shaw 1994, 111–114). According to Shaw, the Middle Kingdom dwellings characterised by a high degree of planning and fortification were affected by their isolated location or their placement at the edge of Egypt, next to hostile frontiers. He suggested that the Old Kingdom complex (settlements and dam/wall) at the turquoise mines of Wadi Maghara, and the Eleventh Dynasty hill-top settlement of Wadi el-Hudi were part of a defensive strategy (Shaw

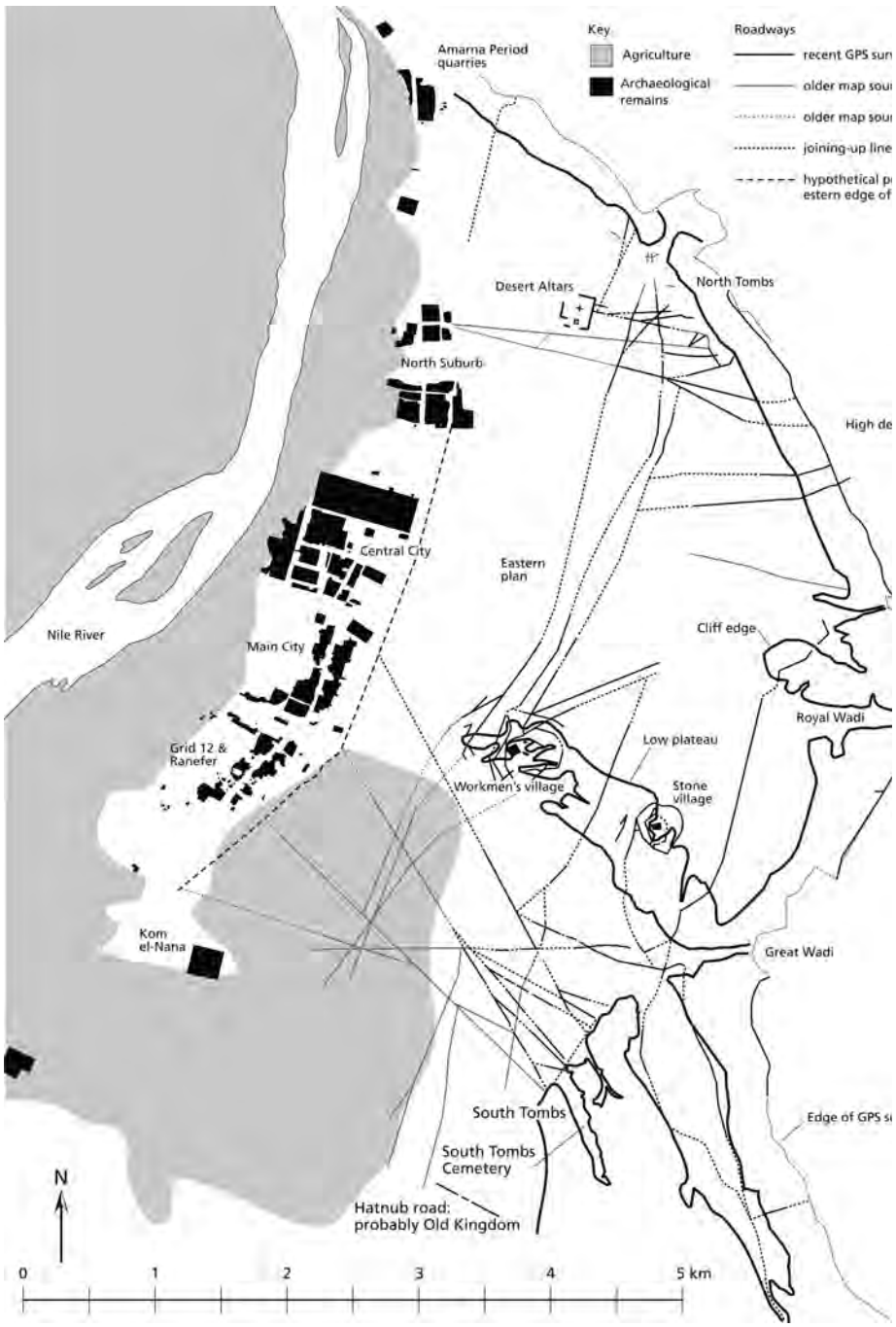


Fig. 129 - The Amarna area. On the left the main city. On the right, the Workmen's Village, and beyond it the Stone Village (drawing © G. Maserati. From Stevens 2011).

1994; 2010, 130). These concentrated dwellings were "adaptations of the conventional quarrying or mining settlement to more dangerous circumstances" (Shaw 2010, 131). A different case is represented by the New Kingdom craftsmen's village of Deir el-Medina where the planned settlement coexisted with a detached cluster of huts located near the royal tombs where the craftsmen worked (Fig. 98). The village was the headquarters for the families involved in the long-lasting project, while the huts were temporary habitations located near the workplace.

The amethyst mines of Wadi el-Hudi were located near the First Cataract area, the southern border of Egypt until the beginning of the Twelfth Dynasty (1.5). Shaw (2010, 131–132) has suggested that the Egyptian military approach to the exploitation of mines of the Second Cataract forts influenced the approach to mineral procurement in other areas, including Wadi el-Hudi. Thus, he interpreted the Wadi el-Hudi Fort as a result of "local adaptation" (Shaw 2010, 131) to a frontier location and evidence of that military approach. I agree with Shaw's reasoning that the proxi-

mity of Wadi el-Hudi to Lower Nubia may have played a role in the application of the military style. He declares: "quarry workers were housed like colonists in a quasi-permanent settlement and amethysts were procured in a more military context" (Shaw 2010, 132). Then he moves further comprising Qasr es-Sagha in his argument; he defines the Western Settlement as a "quarrying settlement", explaining the barracks-like arrangement as a result of the same military approach to mineral exploitation (Shaw 1994, 116–117; 2010, 132). As discussed in 3.3.3, the barracks-like style of the Qasr es-Sagha Western Settlement seems indeed to suggest a military mark in the organisation of the workers, for its comparison with the barracks for soldiers of the Second Cataract forts and the 'police quarter' of the New Kingdom city of Amarna. An association between settlement layout and the 'quarry site' factor may thus be proposed. The choice of a mud-brick settlement rather than a drystone fort may have depended on the different 'profile' and scale of exploitation: stone quarries on the one hand, mines of precious mineral on the other hand (3.3.3 p. 120). This difference may have also influenced the 'profiles' of the workers needed: diverse status, skill degree, and number of individuals. The Wadi el-Hudi fort accommodated a small group of professionals engaged in the procurement of precious amethyst. On the other hand, the Western Settlement likely accommodated a larger group of menial workers engaged in hard tasks, such as stone hauling (see below).

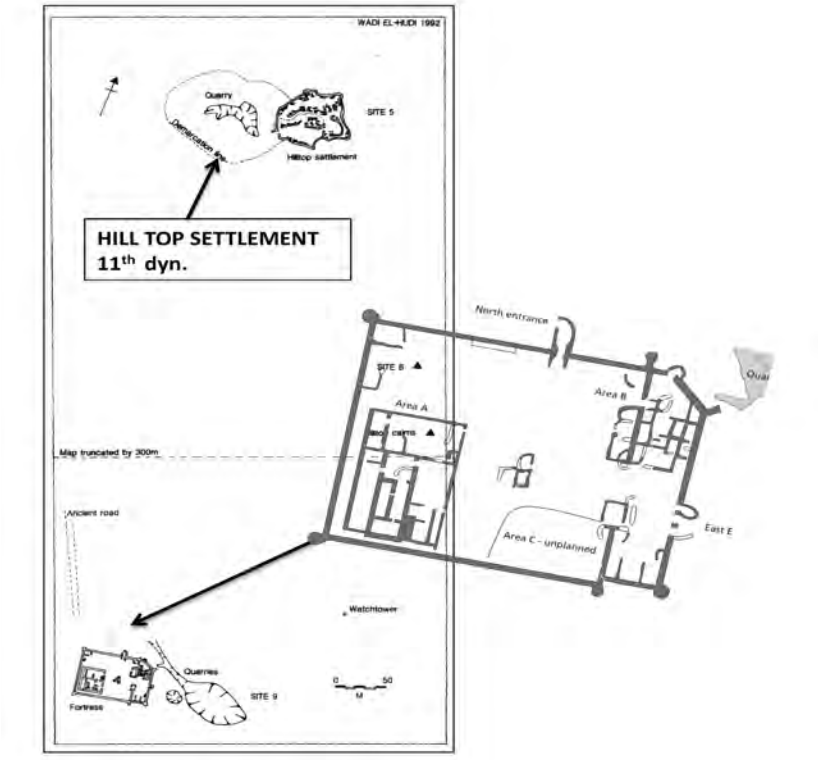


Fig. 130 - The hill-top settlement and the later fort at Wadi el-Hudi (adapted from Moeller 2009).

THE SMALL-SCALE HOUSES OF TELL EL-DAB'A

The layouts of the earlier phases e/3 and e/2 of Tell el-Dab'a present features of uniformity and regularity like the Western Settlement of Qasr es-Sagha. Both compounds were planned following a constant template: housing-units identical in size and shape were arranged back to back and side by side on parallel rows in an area delimited by an enclosure wall. When compared with the Western Settlement, the contrast in size, shape and internal organisation of spaces of the houses of Tell el-Dab'a is strikingly clear (Figs. 74 and 106). The early phases of Tell el-Dab'a closely resemble the organisation of the small-scale houses of Lahun and the units of the *Workmen's Village* of Amarna (Figs. 115 and 116). It is important to stress that Tell el-Dab'a is earlier than Lahun. The first was founded at the beginning of the Twelfth Dynasty, while the second belongs to the mid Twelfth Dynasty. Therefore, the small-scale houses model was applied for the first time at Tell el-Dab'a.

3.6.2 – Residents of workers' settlements

The barracks-like style of the Western Settlement can mark a specific social profile and gender of its population. This style, combined with other architectural features, finds, and faunal remains, suggests that the residents were a homogeneous group of low-status workers. In agreement with Moeller (2009, 204) I suggest that the occupation of the site may have been only temporary and contingent on the timespan of the project in which the population was involved. The gender restriction to men suggested by the barracks-like style applied to military structures might be substantiated by the material culture. The female

presence at both Eastern and Western settlements is doubtful because any object from the site could be equally associated with men or women. The only certain presence of women in the area are the human remains from the cemetery at the feet of the Gebel Qatrani cliff. However, as discussed, several features argue a connection with the Qasr es-Sagha settlements.

As at the Western Settlement, social uniformity and low status population are also suggested for Tell el-Dab'a e/3. The main indicators are the small size of the units and rigid uniformity of layout, along with the type of finds and general low quality diet. In contrast with Qasr es-Sagha, the differentiation of spaces and internal variety of the units suggest a division of activities and a gender-balanced aspect. Compared with the barracks of the Western Settlement, the small-scale houses of Tell el-Dab'a were more likely to have accommodated a population of mixed sexes. The tools employed in agriculture, the most represented among the finds, suggest a prevalently male oriented activity, which however does not exclude female assistance. The attestation of weaving and sewing *in loco* may provide the clearest evidence for the presence of women. Pottery sherds of *Tell el-Yahudiya ware* were probably results from trade. This evidence may suggest that 'Asiatics' were not present within the population, pointing to an exclusive Egyptian origin of the inhabitants. However in the absence of further evidence, the presence of 'Asiatics' cannot be surely excluded.

3.6.3 – Comparison with Industrial Sites

The industrial centres (3.5) were seats of industries of specific classes of items. The workers were specialised craftsmen whose base of subsistence was not farming. Common characteristics of such sites are: most of the finds are working tools; valuable objects such as scarabs and seal impressions are attested as well as daily use items; a social differentiation is usually present; the units usually include a private area and storage installations.

The basic similarity between the industrial centres and the settlements of Qasr es-Sagha and Tell el-Dab'a is that both types accommodated people engaged in a specific primary activity. A difference is that both Qasr es-Sagha and Tell el-Dab'a apparently lack in social differentiation. Additionally in Qasr es-Sagha and Tell el-Dab'a phase e/3 storage installations are lacking. The last phase e/1 of Tell el-Dab'a may instead be compared to an industrial centre, in spite of the absence of evidence for a specialised industry.

The industrial sites are not planned with a regular layout and are not arranged in identical houses, the main architectural feature of the Western Settlement of Qasr es-Sagha and Tell el-Dab'a. The exception is Ezbet Rushdi (3.5.1). Its internal organisation with housing-units arranged two by two, back to back in separated blocks and parallel rows resembles the Western Settlement of Qasr es-Sagha, Tell el-Dab'a, and Lahun's small-scale houses (Plate 14). The only difference is that the houses of the three aforementioned settlements are also placed side by side.

Other similarities between Ezbet Rushdi and Tell el-Dab'a are: a development of the layout from an initial stage of rigid organisation system to individual initiative; pig rearing; and the absence of a residential area for the elite. As for Al-Shaykh Said, Tell el-Dab'a revealed a large consumption of ovine/caprine animals rather than cattle and very low quantity of wild taxa, which are usually suggestive of a provisioned centre.

According to Bagh (2002, 41) the fragment of the ox figurine discovered at Abu Ghalib (3.5.1) is similar to a piece from Tell el-Dab'a. Animal figurines are a very small percentage of the finds yielded at the latter (3.4.2). However interestingly in both cases, Tell el-Dab'a and Abu Ghalib, the figurines come from domestic space rather than from religious contexts, as usually occurs (3.5.1). I would exclude the toys hypothesis for Tell el-Dab'a and consider these figurines from a domestic context as a result of a form of household religion, namely proceedings of a religious nature which took place inside the houses, aiming to "ensure family welfare" (Mota 2012, 33). The animal figurines retrieved from Tell el-Dab'a represent domestic mammals (ox, ox/sheep), with the exception of the hippo. This may suggest that the animal figurines were utilised in rituals to assure protection and to propitiate farming. An example may be the pottery cobra figurines of the *Stone Village* of Amarna (3.5.3). They had a prominent role in magic spells against night terrors (Ritner 1990, 25), and could be used as "amulets to protect grain supplies against rodents" (Stevens 2012, 445), due to the association of the cobra with the goddess Renenutet, protector of the harvest (Tosi 2004).

	OK	FIP	12th dyn	13th dyn	SIP	ROMAN TIMES
WIDAN EL-FARAS QUARRIES	✔ *pottery and shelters*					✔ *sherds*
CEMETERY	✔	✔	✔			
TEMPLE			✔ *Senwosret II/ III?*			
WESTERN SETTLEMENT			✔ *Senwosret II/ III*	✔	✔	
EASTERN SETTLEMENT			✔ *Senwosret II/ III*	✔	✔	

Table 32 - The chronology of the main structures of the Qasr es-Sagha area.

The Eastern Settlement of Qasr es-Sagha is closely comparable to an industrial centre. Like the Old Kingdom Al-Shaykh Said it may have housed skilled craftsmen involved in carving raw material extracted from the close quarries: basalt and limestone at the Eastern Settlement, alabaster at Al-Shaykh Said. The Eastern Settlement might also have included a workshop area for the production of crescent drill tools (above).

The Eastern and Western Settlements are located at a distance of 300m from each other. A parallel may be the New Kingdom *Workmen's Village* (3.2.2) and *Stone Village* of Amarna (3.5.3). The architecture of the *Stone Village* was less informal than the *Workmen's Village*, and its population less skilled. Since the Qasr es-Sagha Eastern Settlement survived only fragmentarily, nothing can be said about its architecture. Nevertheless, its workshop area can be paralleled with the industrial use (production of hammer stones) of the *Stone Village*. Similarly, the Qasr es-Sagha Western Settlement can be compared to the *Workmen's Village* because both lack workshops and are laid out according to a regular plan. With regards to the 'skill degree' however, we have a change of direction as the Eastern Settlement can be compared to the *Workmen's Village*, the Western Settlement to the *Stone Village*. In both cases, Qasr es-Sagha and Amarna, there are two contemporary settlements separated from each other, with apparently different roles. The parallel with Amarna may support my hypothesis that the inhabitants of the Qasr es-Sagha settlements were characterised by a different degree of skill.

3.6.4 - Purpose of the site

The primary consideration of the purpose of the Qasr es-Sagha complex is the doubtful relationship between the settlements and the other two structures of the area: the cemetery and the temple. This uncertainty had been already put forward by Harrell and Bown concerning the link among the settlements, the temple and the Widan el-Faras quarries. They state that the geographical proximity of the quarry and these structures "seems to invite speculation about a common age for all these sites". However, according to them, this association is probably purely "coincidental" and "results from a geological circumstance that was favorable to both the quarry and the temple" (Harrell & Bown 1995, 90). As Table 32 shows, the settlements and the temple seem to be the only contemporary structures of the area, although the temple may not have been originally related to the settlements (3.3.3). The lack of further evidence from the area cannot clarify the issue.

Among the proposed hypotheses (Table 33), the 'quarry site' is the most plausible. The limitations li-

1	Quarry site - WS: stone haulers - ES: specialised craftsmen
2	ES: industrial area (crescent drills production, and rough-hewing of basalt blocks), specialised craftsmen WS: menial workers employed in wide range of tasks outside the compound (support of ES, temple construction?, stone hauling, road maintenance, limestone quarries).
3	WS: dormitory for people who worked at the industrial area of the ES.

Table 33 - Hypotheses for the purpose of the MK complex of Qasr es-Sagha.

'QUARRY SITE' HYPOTHESIS	
ADVANTAGES	**LIMITATIONS**
1 quarries landmark of the area	**1** absence of MK pottery sherds and MK shelters at extraction site
2 MK pottery at quay (end of road towards the quarries)	**2** scarce use of basalt in the MK
3 rough-hewed basalt statuettes and other items from ES	
4 high average maximum amount of people accommodated in the WS	

Table 34 - Advantages and limitations of the 'quarry site' hypothesis.

sted in Table 34 discourage from thinking that the population of the Middle Kingdom site was involved in the extraction of material from the quarry, which was the first stage of the quarrying activity. However, the high number of people who could be housed inside the Western Settlement seems to point to menial, hard work requiring a large workforce.

The finds from the compounds are extremely different: personal belongings, everyday equipment, and bread moulds from the Western one; and working tools and initially worked objects from the Eastern one (Fig. 131). A different degree of skill between the two settlements has also been proposed on the basis of the comparison with the two villages of Amarna (above). The evidence from the Eastern Settlement strongly suggests that tasks related to the last stages of the quarrying process occurred there. Therefore it likely accommodated craftsmen involved in rough-hewing and shaping raw material into final items to facilitate transportation by water. I cannot even exclude that the

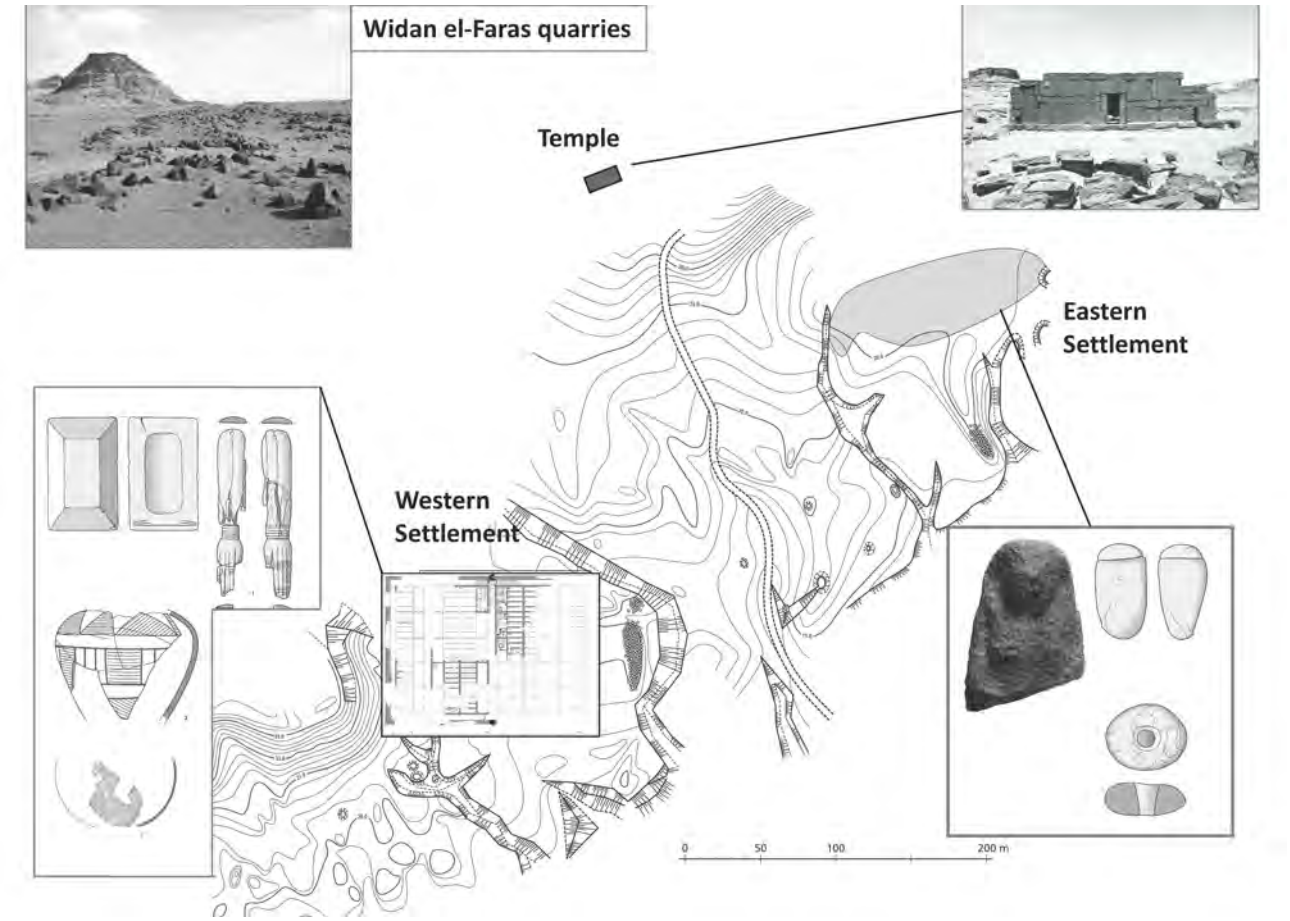


Fig. 131 - Summary of the main structures and main finds from the Qasr es-Sagha area.

crescent drills discovered in the Eastern Settlement area were produced *in situ,* which suggests the presence of a workshop for tool making.

On the basis of the overall examinations of the data I propose the following hypothesis. I agree with Bloxam and Storemyr's suggestion that the Old Kingdom *quarrymen's camp* at the entrance of Widan el-Faras was a deposit of basalt blocks, rather than a temporary settlement (3.3.1). I think that its organisation in circular depressions, which is very similar to the arrangement of the deposit at the quay, can support that interpretation. In theory, during the Middle Kingdom, two deposits of extracted material could be available for use: one near the quarry, the other at Qasr es-Sagha very close to the settlements. I propose that the blocks of basalt worked by the population of the Eastern Settlement could be material extracted from Widan el-Faras earlier during the Old Kingdom and left *in situ*. This may explain the absence of Middle Kingdom evidence of occupation at the quarries. However, it raises the question of the role held by the Western Settlement. An involvement of its low status homogeneous population in stone hauling from the deposit at the feet of the quarry through the road to Qasr es-Sagha may be a plausible solution.

The lack of storage facilities and the ephemeral aspect of the architecture of the Western Settlement provide the main evidence for the temporary nature of the settlements. The fishing net sinker from the Eastern Settlement is the only evidence that the population of the site was involved in procurement practices to a small extent. It seems likely that the site received the most of its supplies from a different centre following the example of the *Gallery Complex* of Giza. The bones of the winter visitor *Anser domesticus* suggest human presence from autumn to late spring. The bones of large *Tilapia* may also suggest the capture in early autumn. Considering the 'quarry site' hypothesis, an occupation during the cooler months from autumn to spring is suggested for stone hauling and the crafts *in loco.* An occupation in the summertime cannot be supported as a great percentage of faunal remains from the site are still waiting to be analysed. The same doubt was cast about the quarry site of Al-Shaykh Said where the large percentage of perch bones versus the small percentage of catfish can either

HYPOTHETICAL PURPOSE OF MK TELL EL-DABA	ADVANTAGES	LIMITATIONS
1 attempt at colonisation	procurement practices (farming, pig rearing)	
2 construction project (fortifications?)		intense farming and procurement practices - absence of other buildings nearby
3 production site in support of other settlements (goods sent elsewhere) like OK Kom el-Hisn	intense farming (agriculture, pig rearing)	absence of evidence

Table 35 - Main hypotheses for the purpose of Tell el-Dab'a, with its advantages and weak points.

mark an abandonment of the site during the summer, or elite consumption (3.5.2).

The engagement of the population of Tell el-Dab'a in construction projects in the surrounding area lacks evidence and contrasts with the intense engagement in procurement practices. Similarly, the role of the settlement as a production site in support of another centre lacks evidence (Table 35). The most plausible hypothesis is Czerny's 'colonisation', excluding his suggested employment of people in border defence which cannot be substantiated. This hypothesis fits well with the overall evidence from the site, providing the reason for the differences in storage methods, pig rearing and farming.

I interpret the passage from the initial rigid organisation of spaces and lack of storage installations to the later rearrangement of settlement layout and addition of *silos* and stores, as a development towards a more permanent occupation and acquisition of self sufficiency. We can imagine a gradual process with progressive acquisition of independency. The central authority may have regularly supplied the population during the first stage only (which lasted 2-3 years). Then afterwards the inhabitants became more and more independent, rearing pigs, engaging in procurement practices at a higher degree, and enlarging houses with the inclusion of storage installations. The need to be supplied by the state may have gradually decreased as soon as the integration of the population into the new settling increased. The support of the central authority was probably inversely proportional to the rate of adaptation to the circumstances.

A similar development with gradual adaptations of a plan to increase personal initiative and self-sufficiency has been noted for Ezbet Rushdi (3.6.3). This compound was founded just after the definitive abandonment of Tell el-Dab'a. On the basis of the similarities between the sites (above) I agree with Moeller (2016, 261) suggesting that the settlement of Ezbet Rushdi was a new attempt to colonise the same area.

The architectural features inside the Western Settlement of Qasr es-Sagha and phase e/3 of Tell el-Dab'a may point to a limited freedom and a certain control exercised on the population. The street which encircles the walls from inside, considered a military feature in the forts in Nubia and at Wadi el-Hudi, might have aimed not only to deal with the isolated location, but also to supervise the movement of the workers.

4. DYNAMICS OF TEXTUAL AND ARCHAEOLOGICAL DATA

4.1 - HISTORY AND ARCHAEOLOGY

The relationship between the disciplines of *history* and *archaeology* in the ancient world is a subject of debate. *History* can be defined as the discipline that "studies the past through written or oral sources whereas *archaeology* has exactly the same subject but relies on material remains" (Dialismas 2004, 66). On the basis of this premise *archaeology* deals with a wider span of human history: writing only begins to emerge in the fourth millennium BC. As a consequence prehistory is the "domain solely of archaeologists" (Sauer 2004, 20) as is any social context detached from verbal sources.

In regards to the interpretation of the remaining human history, there has always been the tendency among scholars to pay attention to one type of evidence at the expense of another. As a result, one discipline is often considered less important and subordinate to the other. As Ian Morris states "[those] who rely mainly on texts and those who rely mainly on archaeological evidence often act as if they were two sides in a competition, and one day an impartial observer will judge whose evidence is the best and who wins the game" (Morris 1992, 200). For example, New Archaeology considers the contribution of texts irrelevant when compared with the contribution provided by archaeology, and physical and natural sciences (Halsall 1997, 818). On the other hand, historians often use archaeological evidence "filling in the gaps" (Halsall 1997, 819) of the written record, and to 'prove' history, namely to confirm the results derived from an examination of the texts. In certain instances artefacts are considered as ancillary material that can help with inquiring into specific topics originated from textual evidence. In all these cases, archaeology is relegated to the status of "handmaiden of history" (Hume 1964, 214).

Some scholars, such as Ian Hodder (1991) build a wall between archaeology and history viewing them as independent disciplines, and asserting that the best outcome can stem from a division of the two fields. Colin Renfrew and Paul Bahn claim "archaeologists study past societies primarily through their material remains – the buildings, tools, and other artefacts that constitute what is known as the *material culture* left over from former societies" (Renfrew & Bahn 1996, 11). Such a definition effectively excludes the use of textual evidence and limits the reconstruction of the past and the interpretation of ancient societies to the examination of one type of evidence. As Anders Andrén (1998) states, the core of the issue is how artefacts and texts are considered. They can be regarded as different *categories* or as similar *objects*. In the first case, any convergence and comparison are excluded. In the second case, texts are considered objects created by past cultures with materials, in the same way as artefacts. Therefore, as part of the same category, texts and artefacts can establish a dialogue. Another possibility is to see both as *cultural expressions*, which raises the debate "are texts 'better' than artefacts at expressing certain phenomena, or vice versa?" (Andrén 1998, 148).

According to John Moreland (2001, 30–31) texts and artefacts can be equally used to answer the same questions, as they are both "products of human creativity". A similar view comes from other scholars such as Stephen Driscoll (1988), Guy Halsall (1997) and Boris Rankov (2004) who stress the importance of the use and combination of all the available data to achieve a complete and accurate story of past literate societies.

A few main collections of studies were dedicated to discuss the issue. The first, which focuses on medieval archaeology, was published by Driscoll and Margaret Nieke in 1988. The authors try to overcome the tendency of medieval archaeologists to consider texts as primary source and different material as supplementary evidence.

Another collection of studies, that focuses on the ancient world (in particular Greece and Rome) was edited by Eberhard Sauer in 2004. In this publication specialists from different fields discuss the issue through specific examples aiming to encourage interdisciplinary studies. As Halsall (1997, 823), Sauer (2004, 25, 31, 33) and Alkis Dialismas (2004) point out ar-

chaeology and history inquire into the past by means of different types of sources and different methods, but move through the same fields of investigation aiming to a "comprehensive study of the past" (Dialismas 2004, 66). Each discipline has its own strong and weak points. The selective choice of one type of data is not reliable, because it may lead to the wrong conclusions. The cooperation between the disciplines and the integration of all the available data are thus necessary. The multidisciplinary project *Olympias* directed by Rankov (2004, 49–61) attempted to achieve that result. Through independent methodologies, specialists of different disciplines such as epigraphers, architects, nautical archaeologists, shipbuilders, physicists, and historians reconstructed the Greek warship *trieres*.

However, the integration of textual and archaeological evidence is not always possible. As already introduced, some periods of early human history lack written records. The Late Bronze Age and Early Iron Age Aegean are two examples, because the only written record available are catalogues of *Linear B* tablets whose contribution to history is very scant as they are "restricted to a small number of administrative centres and palaces" (Dialismas 2004, 62). Moreover, scholars who aim at combining textual and archaeological evidence need to be prepared for potential contradictory results, as both *archaeology* and *history* rely on fragmentary evidence. As Dialismas (2004, 68–70) suggests, the best solution could be to examine textual evidence and material culture independently of each other in order to avoid as much as possible that the first influences the second and vice versa. Subsequently, the conclusions achieved through the separate studies can be evaluated, compared and merged together to reach a final clearer picture. Moreover, this approach can encourage the researchers to raise new questions stemming from separate results, such as why these are divergent or why specific evidence covers selective subjects. As Halsall stresses, these operations allow for a discussion of the outcomes at a "higher level" (Halsall 1997, 823).

THE DEBATE IN EGYPTOLOGY

In the discipline of Egyptology there has been a tendency to give priority to textual evidence, relegating archaeology to a supporting role (Kemp 1984b; Redford 1979; 2008; Smith 2010). For instance, in his investigation of the Buhen Fort, Emery used archaeological evidence to confirm the outcome reached through the analysis of textual sources (Smith 2010, 169). As indicated by Smith, this tendency has its origin in the amount of written record available for the Egyptian civilisation, an aspect shared with other cultures such as Greek and Roman. Eyre (2013, 3) observes that "Egyptian evidence like that from Sumer, allows study of the written text as document at a very early stage of writing."

From the late nineteenth century, archaeology started to come out of that 'shadow', using Kemp's idiom, where it had been imprisoned for a long time (Kemp 1984b; Smith 2010; Weeks 2008). At this time, Petrie started using archaeological evidence to illustrate the past of sites and periods characterised by poor textual sources (*e.g.* the Intermediate Periods). Petrie's interest in objects of daily use, such as pottery and work tools, represents a fundamental step as these objects highlighted the weak points in the synchrony of the artefacts' development and political changes. For the first time it became necessary to integrate the results from material culture and settlement archaeology with the history reconstructed through texts. Pottery recording conducted by Petrie and later Reisner demonstrated that material culture, in specific case vessel typologies, can contribute to the understanding of the different aspects of a community such as trade, economy, diet and technology (Weeks 2008, 12–13).

However the integration of texts and archaeology relies on available data. Some settlements did not yield textual evidence and at other sites, where the textual evidence is dominant, specific information gained from the documents cannot be substantiated by archaeological evidence. In these cases, comparison with the contemporary data from different sites may be helpful. The workmen's villages of Deir el-Medina and Amarna are two main examples of the use of one type of evidence as dominant source.

On the one hand, the Ramesside Deir el-Medina yielded a great amount of papyri and ostraca used by the inhabitants to record accounts and economic transactions. This large *corpus* allows for a reconstruction of the daily life and social aspects of the community. The abundance of textual data has biased most of the studies and publications on Deir el-Medina (*e.g.* Černy 1973; Janssen *et al*. 2003; Lesko 1994). The existence of *smdt*, low-status people who provided the community with a wide range of goods and ser-

vices, is attested only in the written record. Among them there were fishermen, gardeners, woodcutters, water-carriers and other workers (Grajetzki 2010, 186; Janssen *et al*. 2003; Leospo & Tosi 1998). Potters were among them. The textual record sheds light on the potters' organisation and delivery process, but does not inform about the inter-relation of workshops and their location. The archaeological evidence from the compound cannot provide any contribution to the issue as it is too ambiguous (Jansen *et al*. 2003, 37–38). As a result, scholars have attempted to fill those gaps by examining parallel evidence of pottery industries at the city of Amarna. The sites are not contemporary but chronologically close to each other: the city of Amarna can be placed in between the two phases of occupation of Deir el-Medina.

On the other hand, the *Workmen's Village* of Amarna did not yield any type of written record. Daily life and social relationships within the village have been reconstructed on the basis of the artefacts, architectural features and organic material. For instance, Delwen Samuel (1999) investigated social interactions on the basis of bread-making.

Aikaterini Koltsida (2007a) integrates an archaeological analysis of the city of Amarna and its *Workmen's Village* and Deir el-Medina with information gained from textual sources. The examination of the available archaeological evidence from the sites is followed by a paragraph 'Textual References' where the author collects clues for the use and function of the internal spaces of the houses using the written sources. For example, sections of letters from Deir el-Medina and the literary texts 'Tale of the two brothers' and 'Stories of Setne Khamwas' are combined with archaeology to identify activities performed in the living room.

Important insights into people's lives are revealed through mortuary archaeology. I agree only to some extent with Smith's conclusions concerning the funerary practice at the New Kingdom Tombos (Smith 2010, 177–182). He reports two main examples from this cemetery. The first is a child buried upside down with an amulet necklace: "while the burial position provides interesting data about quality control in embalming, the amulet necklace offers a touching insight into grief and piety" (Smith 2010, 179). In the second example a woman was buried in a tomb in which all the features seem characteristic of Nubian rather than Egyptian burials of the time, with the exception of a single amulet in the form of the Egyptian deity Bes. According to Smith, this object may suggest that the Nubian was integrated by marriage into the Egyptian community. This burial was robbed in antiquity and the evidence suggests that the body was robbed before the final stages of the wrapping process were accomplished. On the basis of such evidence, scholars concluded that the crime probably "was committed by the burial party, perhaps part of the families involved" (Smith 2010, 181).

Smith uses these examples to assert that the "archaeological context reveals as much about individuals as any text" and that the burial of the child "provides a personal narrative just as powerful as any text from Deir el-Medina" (Smith 2010, 180). Since his interpretation introduces significant assumptions (*e.g.* on kinship), I would not consider the 'power' of the burials identical to the 'power' of any "text from Deir el-Medina." Of course, both archaeological and textual evidence provide important hints on the life and habits of the deceased. However, as different types of evidence, they provide information from different angles and have their own limitations. For example, as Stephan Seidlmayer (2007, 351–352) points out, mortuary archaeology is not able to say anything about the occupation of the individual. As he shows very clearly with examples from the Middle Kingdom cemeteries of Beni Hasan, we cannot identify the profession of the deceased by examining the objects deposited inside his tomb, because the same type of assemblage can be used for a physician and for a security official (Seidlmayer 2007, 354). In such an instance, the textual evidence provided by titles and family connections represents the most useful source to identify someone's profession and to clarify his social position (Seidlmayer 2007, 233 ff.). On the other hand, the disturbed burial of the Nubian woman at Tombos provides evidence that the crime could be committed not only by professional thieves, as the Tomb Robbery Papyri (Eyre 2013, 307–308) attest, but also by others, including even family members.

However, both Smith and Seidlmayer agree that an integration of all the available types of evidence is needed in order to avoid a biased view which could convey misleading results (Seidlmayer 2007, 352; Smith 2010, 186). An example of this need is well represented by the case of a singular structure cleared by Donald Redford at East Karnak. This structure with a non communicating room was first interpreted as a storehouse. However its domestic context chal-

lenged the interpretation. The mystery was solved by demotic texts which revealed that the structure was a casemate-like foundation to support the upper levels of a building (Redford 2008, 27).

Today it is common practice to employ specialists in bigger projects. Two prominent examples are the Giza Plateau Mapping Project dedicated to the excavation of Heit el-Ghurab (3.2.1) and the Theban Mapping Project that investigates tomb KV 5 in the Valley of the Kings. More than thirty specialists in different fields work on these projects (Weeks 2008, 15–16). Among them there are archaeozoologists, hydrologists, ceramic specialists, architects, conservators, forensic anthropologists, philologists and epigraphers. As for the *Olympias* project (above), the collaboration among experts in different disciplines has the potential to facilitate the integration of all types of data yielded at the site. However this is not always achieved, due to a tendency towards a descriptive juxtaposition of evidence rather than a synthesis of the results.

4.2 - TOWARDS THE DIALOGUE BETWEEN TEXTUAL AND ARCHAEOLOGICAL EVIDENCE

This section and the following (4.3) will deal with the combination of the results obtained through the separate examination of the written sources (Chapter 2) and the archaeological record (Chapter 3). In line with Dialismas and Halsall approaches (4.1 above), the different types of evidence will be compared highlighting their strenghts and limitations. As I have mentioned in the introduction (1.3 pp. 3-4), and in line with Smith and Seidlmayer – among the others – (see above), I consider textual and archaeological evidence equally important. In agreement with Moreland (see above), I consider both the texts and material culture as a reflection and result of thoughts and choices. As such, both can be equally used to address to the same questions. The variable is the proportion of the textual contribution against the contribution of the categories of archaeological evidence. Consequently, the aspect that is liable to change is the degree of accuracy and reliability of the data, which depends on many factors such as the preservation level of evidence, the density of written coverage and the amount of archaeological finds. For instance, the Lahun and Reisner papyri are the primary source for the identification of different categories of workers, as they provide labels for each group. Conversely, animal remains from the sites and specific architectural features are the primary source of evidence for the dietary habits and procurement practices. In other instances one type of evidence may be more reliable than the other. For example, the papyri provide clearer evidence of gender aspects than the archaeological material.The combination of written sources and archaeological evidence will be finally tested in chapter 5.

*

4.2.1 - Evaluation of the data used in the present study

Lahun has the potential for the most accurate reconstruction of labour organisation through the combination of the papyri with architectural features (*e.g.* small-scale houses) and finds from the same site. However, the exact location of finds was only accurately recorded for a few select objects (Gallorini 1998). This hinders the possibility to make associations within the evidence preventing the reconstruction of coherent find contexts.

In contrast, Qasr es-Sagha and Tell el-Dab'a have not yielded any written evidence, except for pottery marking. The lack of written records may stem from several factors. First, it may be due to the absence of literate individuals at a site. It has been inferred that at Deir el-Medina 40% of the population was literate (Lehner 2010, 95). The social differentiation within the settlement may play a central role in this discussion. The workers living at Deir el-Medina were not low status individuals. Janssen (1975, 536 cited by Grajetzki 2010, 186) who divided the inhabitants of the village on the basis of textual evidence, defines the specialised craftsmen as *middle class* (1.4) and chiefs and scribes as *upper class*. The only low-status people recorded in the documents from the village are the *smdt* (above) who, however, "did not live in a single community but were dispersed throughout the city of Western Thebes" (Stevens 2012, 434). Consequently, they cannot be considered as part of the population of the village. In contrast, the evidence from Qasr es-Sagha and Tell el-Dab'a suggests that the inhabitants were a homogeneous group of low-status people, probably not literate. The only inscribed material found at Qasr es-Sagha is a limestone fragment from the temple (3.3.3). However, the association between

the settlements and the temple is not certain (3.6.4).

Additionally Kemp (1984b, 22) believes that ostraca were used in daily life no earlier than in the post-Amarna community of Deir el-Medina. We should also consider that Lahun was an administrative centre where small-scale houses for workers, households, and low status individuals were joined by palaces for the mayor and high ranking officials. Written communications were needed, for example, for administrative purposes and to regulate cult activities.

Due to the absence of texts at Qasr es-Sagha and Tell el-Dab'a, settlement archaeology is the only 'instrument' available to draw the profile of these sites and their population. The case of the later *Workmen's Village* of Amarna (4.1) is a good parallel. Tell el-Dab'a was only partially cleared and the published list of faunal remains includes incomplete data. Nevertheless, the sample provides a plausible general view of the diet of the inhabitants, along with essential hints to their status and the domestic economy of the settlement. The most challenging has proven to be the interpretation of the role of the settlement (3.4.3; 3.6.4). The poor preservation of the Qasr es-Sagha compounds, and the lack of further analysis of the artefacts and the organic material, have limited the interpretation of the temporality of site habitation and the identification of specific aspects of the population's profile (*i.e.* gender and ethnicity).

4.2.2 - Search for individuals

The textual evidence from Lahun and the material culture from Qasr es-Sagha and Tell el-Dab'a provide insights into the profile of specific categories of workers and human activity. The profile of the workers will be addressed by considering gender, activity, status, ethnicity, and provenance. The discussion of human activity will deal with diet, procurement and production, and religion.

*

The written evidence from Lahun has revealed the existence of obligations, maybe *per capita* duties, denoted by the word *ḥȝw*. According to my interpretation, the workers *ḥsbw* and *mnyw* corresponded to those recruited to perform that obligation (2.5.1). The recruitment of people who responded to the calls for specific projects, such as work at the building sites, likely coexisted with seasonal calls for quarrying and tasks in fields. Those registered for the assignments were local heads of household belonging to a 'middle class' who in most instances avoided the duty by sending someone from among the household (dependants or relatives) to perform it. Specific 'substitutes', *ỉwȝw*, were appointed in case of negligence.

THE PROFILE OF THE WORKERS

GENDER

The female presence is ambiguous in the archaeological evidence at Qasr es-Sagha. None of the objects discovered at the site (clappers, jewellery) are unequivocally gendered. The barracks-style layout of the Western Settlement, the workshop area of the Eastern Settlement, and the context of the site with the Widan el-Faras quarries suggest a prevalence of men. Conversely, the layout of the houses of Tell el-Dab'a and the evidence of weaving attested by spinning bowls, stone looms, a copper needle and a bone point seem to indicate that women lived at the site. As mentioned, spinning was performed by both women and men while weaving during the Middle Kingdom was a female oriented task (2.3.1 M, 3.3.3 p. 129). Middle Kingdom iconographic evidence (*e.g.* Tomb of Khnumhotep, Beni Hasan: Newberry 1893; Tomb of Thuthotep, Deir el-Bersheh, Newberry 1895) and wood models of weaving workshops (*e.g.* model from the Tomb of Meketre: Wilkinson 1955, 29–33) show a predominance of women in weaving manufacturing and management. However, it needs to be stressed that these types of visual representation were idealised and stereotyped (2.1). Nevertheless, texts may provide supporting evidence for Middle Kingdom weaving as a primary female task. Aside from the texts of 2.3.1 M and 2.3.1 N, the list of people moved as a property transfer recoderd in the *Insert C* of P. Brooklyn 35.1446 (2.4.2) includes twenty individuals identified as weavers and warpers of clothes. They are all women. Additional evidence comes from the Hekanakhte papyri which attest that the person in charge of the textile workshop of the estate was a woman (Menu 1970).

The written record provides the clearest evidence of female presence among the workers. The determinatives added at the end of words identify the gender

of the individuals. Women within households were the preferred choice as 'substitutes' *ỉwʒyt*. Moreover, women are attested in labour demands and different operations associated with the *ḫnrt* (2.3.1 I, J; 2.4.1 A; 2.5.2). In contrast, women are never attested in the namelists of people that were organised in divisions of ten, the basic work unit (below 4.2.5). Additionally only one woman is attested among the defaulters listed in the register of the *ḫnrt wr*. This may suggest that the workers directly involved in most of the tasks were men. Speculatively, women were a small percentage of the entire amount of registered workers, and instead of being involved in the main task of the project, they performed ancillary works in support of the overall workforce.

STATUS

The written record and the archaeological evidence from Qasr es-Sagha and Tell el-Dab'a are in agreement concerning the low status of most workers. The written record attests that the workforce included primairly low status household members sent as replacement. However, heads of households also could appear in the same namelists beside dependants (2.3.1 A).

Architectural features, type and size of dwellings, daily use objects, and general low quality diet from both Qasr es-Sagha and Tell e-Daba are suggestive of a homogeneous population of low status, lacking social differentiation. The craftsmen who lived in the Eastern Settlement probably belonged to a social stratum of society slightly higher than the population of the Western Settlement; however, the material culture retrieved from within the compound does not support this hypothesis. The presence of supervisors inside the Western Settlement and Tell el-Dab'a is expected for the organisation of workers and daily tasks (below 4.2.5). However, luxury items, which are usually a clear sign of wealthy individuals, were not discovered at the sites, and faunal remains do not reveal a high status diet. Buildings for supervisors, along with their material culture and faunal remains, may have been located outside the excavation trenches.

ETHNICITY

Textual sources attest that those requested to perform the labour obligation could be of Asiatic origin (Tables 6 and 13, 2.3.1 J), whereas the archaeological evidence is ambiguous. The items of Levantine origin, namely an amethyst scarab and *Tell el-Yahudiya ware*, yielded at Qasr es-Sagha are not conclusive pieces of evidence because they may have been the result of trade; this applies also to *Pan-Grave pottery* discovered at the site. However, as regards the purpose of Qasr es-Sagha, I concluded that the hypothesis 'quarry site' is at present the most plausible (3.6.4) and I suggested that the population of the Western Settlement could be engaged in stone hauling. Therefore, the inhabitants of the Western Settlement might have been the *ḥsbw ỉthw ỉnrw* ('counted stone haulers') of the texts. This identification is also compatible with the other hypotheses (3.6.4, Table 33), as *ḥsbw* in general and *ỉthw ỉnrw* in particular could be involved in 'hauling' or carrying a wide range of material (*e.g.* clay for brick-making, wood) and in several other menial tasks requiring a large number of people. Additionally, the temporary nature of the settlement and social homogeneity support the presence of workers whose profile coincided with the 'counted men' of the papyri. Consequenly, due to the 'Asiatic' origin of some *ḥsbw,* I cannot exclude 'Asiatic' presence at Qasr es-Sagha. Quarrymen *ỉkyw*, who were the professionals assigned to rough-hew and shape raw material into finished items (Kóthay 2007), could be instead the skilled residents of the Eastern Settlement.

Architectural features, crafts and hypothesis 'colonisation' may suggest that also the population of Tell el-Dab'a included a large group of 'counted men' (3.6.4, below 4.2.5). Non Egyptian items are extremely rare (fragments of *Tell el-Yahudiya ware* interpreted as a result of trade with the Near East). Nevertheless, there is no sufficient evidence to exclude 'Asiatics' within the workforce.

PROVENANCE AND TOPONYMS

The material culture from Qasr es-Sagha and Tell el-Dab'a cannot provide any information about the origin of their residents. They were likely artificial communities that included people gathered from different villages of each region, the Faiyum area for Qasr es-Sagha, and the East Delta for Tell el-Dab'a.

The written sources instead associate the labourers with the two main toponyms of the area: Sekhem-senwosret and Hetep-senwosret. These people probably lived in the smallest units of the eastern quarter of

the town (Hetep-senwosret) and in the northern part of the western quarter, which was the domestic area of Sekhem-senwosret (2.2.1). Other workers were probably recruited from nearby villages (2.3.2 H) like those listed in the Old Kingdom Gebelein Papyri (2.1).

HUMAN ACTIVITIES

DIET, PROCUREMENT AND PRODUCTION

With the lack or low coverage of written evidence, other daily life aspects, such as dietary habits and the degree of self-sustenance, can be reconstructed through other archaeological evidence. Faunal remains and architectural features shed light on two different profiles of the communities who inhabited Qasr es-Sagha and Tell el-Dab'a.

The absence of grindstones, querns, storage installations, agricultural tools, and animal pens at Qasr es-Sagha are suggestive of a consumption site. Only fish was probably procured locally. The remaining food, including wheat and flax fibre, was likely supplied as a final product. Conversely the large percentage of sickle blades, evidence of pig rearing, *silos* and storehouses, and grindstones from Tell el-Dab'a mark an intense engagement in farming and other acquisition practices. Due to the absence of storage installations for long-term occupation in phase e/3, I have suggested a gradual achievement of self-sufficiency. The site may have been provisioned by the state only during the first phase of occupation. These differences between the sites were likely closely related to the different purposes of the settlements.

The faunal remains from these sites suggest a generally low quality diet, including catfish (mostly *Clarias* at Tell el-Dab'a) and *Tilapia* (at Qasr es-Sagha) and sheep/goats meat. Fish in particular seem to have been largely consumed: as the pie chart of figure 108 reveals, the percentage of fish bones from Tell el-Dab'a equates the percentage of the entire amount of domestic mammal remains (including cattle, sheep/goats, and pig). Fish likely held an important role in the dietary habits of the 'counted men' of Lahun too, in addition to daily supplies of barley and emmer (*e.g.* UC 32194 and UC 32190). However, the evidence yielded at Lahun attests that intensive fishing was part of the cultural environment of the area. Some UCL accounts, for example, record large quantities of caught and gutted fish: 500 fish according to UC 32205 (2.3.1 B), 2000 fish according to UC 32097B, and 1000 according to UC 32142B (Collier & Quirke 2006, 152–3, 172–3; Szpakowska 2008, 96–98). Additionally, most of the textiles discovered at Lahun were identified as fishing nets (Cartwright *et al* 1998; Szpakowska 2008, 98).

RELIGION

Cult installations in the immediate surroundings of Tell el-Dab'a are absent. However, a practice of household religion may be supported by fragments of animal figurines. The ox and ox/sheep likely aimed to propitiate divine forces related to farming (3.6.3). These figurines might provide indirect evidence that not only pigs, but also cattle and sheep were raised *in situ*. This may be linked to the last stages of human occupation which show signs of a more permanent nature (below 4.2.7). Similar clay figurines of pigs and unidentified quadrupeds were discovered also at Lahun (Quirke 1998c; Szpakowska 2008, 126).

Qasr es-Sagha did not yield similar objects. However the clappers might attest that rituals occurred in the domestic context of the Western Settlement. The presence of the temple might support religious practices, provided that it was associated with the settlements and in use during their phases of habitation (3.6.4).

4.2.3 - Management of temporary labour

ARCHAEOLOGICAL EVIDENCE

At present, the correlation between textual and architectural evidence for either *ḫnrt wr* or *ḫꜣ n dd rmṯ* is unfeasible. Archaeological traces of either department have yet to be discovered, or recognised, on the ground. Moreover, we cannot exclude the possibility that neither *ḫnrt wr* nor *ḫꜣ n dd rmṯ* were associated with buildings (p. 70). Therefore, the managerial aspects of labour can be reconstructed through textual sources only.

A *ḫnrt* might have instead coincided with a 'camp' that temporarily accommodated the defaulters or their *ḫr*. If *ḫnrtw* adjoined the forts of the Second Cataract Area, they probably served as a source of labour for

the menial tasks in small-scale quarrying and mining works, and other activities such as brick-making and work in fields (pp. 70-2). A *ḫnrt* could have had the aspect of an ephemeral camp, highly supervised with an internal arrangement of the spaces exclusively aimed to be used as a dormitory. The internal arrangement of the spaces of the Western Settlement of Qasr es-Sagha might provide an example. The *ḫnrt* cannot be defined as a work-camp, since there is no sure evidence that some kind of work was conducted inside it.

TEXTUAL EVIDENCE

The vizier, the highest office of the country, was the head of the departments and the sender of directives addressed to both *ḫnrt wr* and *ḫꜣ n dd rmṯ* (2.5.2). *Insert C* of P. Brooklyn 35.1446 attests that the vizier acted as an intermediary between the bureau of fields and the *ḫꜣ n dd rmṯ*. He receives a labour demand from an 'overseer of fields' and orders the *ḫꜣ n dd rmṯ* to release workers (2.4.2).

Supposedly it was the *ḫꜣ n dd rmṯ* that managed the calls and recruitments of people for projects and seasonal tasks; as such the lists of people for labour may have been made by the *ḫꜣ n dd rmṯ*, possibly on the basis of the *wpwt* lists (2.5.1). However that is not fully clear. Line 58 entry *d* of the register of the *ḫnrt wr* states that a fugitive has been given to the *ḫꜣ n dd rmṯ*, rather than brought to the *ḫnrt n sḏm*/Residence for investigation (2.4.1 D, E, F; 2.5.2). The reason for different procedures is by no means clear and might have depended on individual cases or different type/degree of offence. It is also possible that the entry of the register recorded only the final stage of the process without mention of the investigation for the transgression committed. However, it seems that the *ḫꜣ n dd rmṯ* could be also involved in a later redistribution of people. This phase of the labour process is the most obscure. The scant material on the *ḫꜣ n dd rmṯ* and the fragmentary nature of the 'register of fugitives' do not allow for further hypotheses. According to other sources focussing on property transfers, the *ḫꜣ n dd rmṯ* was involved in transfers of household members – usually Asiatic dependants – for labour (2.4.2). Despite the presence of references to the *ḫꜣ n dd rmṯ* on the register of the *ḫnrt wr*, it is worth noting that the officials of the *ḫꜣ n dd rmṯ* never appear on monuments (funerary stelae and rock inscriptions) with the officials of the *ḫnrt wr* (2.4.1).

The *ḫnrt wr* held a central role as a means to guarantee the fulfilment of tasks. It supervised temporary labour identifying the defaulters, and likely managed the system of substitutions. The entity *ḫnrt* was probably in charge of that care at the local level. The Hayes and Quirke hypothesis of a web of operative local structures with the *ḫnrt wr* as the central seat seems to be plausible (p. 65). The official at the head of the *ḫnrt*, at least during the Thirteenth Dynasty, was the 'royal sealer, overseer of the *ḫnrt*' (p. 66). He was probably the coordinator between the local *ḫnrtw* and the central bureau *ḫnrt wr*.

The association in the Lahun Papyri of *ḫnrt* with *ỉwʒw* only, may be influenced by the context, as the act of *ỉwʒ* was the consequence of labour defaults which the institution *ḫnrt wr* dealt with (2.3.1 I, J). The attestations of *ḫnrt* in the papyri were probably limited to specific communications related to intermediate stages of the labour process. The 'doorkeeper of the *ḫnrt*' was possibly the responsible for supplies and may have held the role of messenger as did the 'doorkeeper' in the later Deir el-Medina (Junge 2005, 301). He was likely the intermediary with the local administration concerning the logistical issues surrounding the people under the responsibility of the *ḫnrt*. His collaboration with the *ḳnbty n w* 'district councillor' about a defaulter (2.4.1 D) may support the inference. As the official in charge of the state of the 'rural' territory *w,* the 'district councillor' was probably the superintendent responsible for the economic matters encompassing the lands of the larger territory *spʒt***.** The security aspect of his role may suggest that he ensured execution of all the operations performed within the *w* territory. His collaboration with the *ḫnrt* is also substantiated by *Insert A* of P. Brooklyn 35.1446 *recto* (2.4.1 A) where a 'district councillor' appears in a communication concerning defaulters.

The 'master of *tm*' (2.4.1 I, J; Table 22) might have been a security official at disposal of the *ḫnrt wr*, who worked as intermediary between the security officials of different fields and the local *ḫnrt* (Di Teodoro 2018). The officials concerned may have been for example the *ỉmy-ḫt sʒw-prw* (2.4.1 I, J) for estates and the *sḫm-ꜥ* 'powerful of arm' for building sites (Table 22 and see below). The security office that appears most frequently and with all categories of workers is the *šmsw*, 'guard' (Plates IV and V in Appendix). This reflects the evidence provided by the monuments with occurrences of the officials of *ḫnrt* and *ḫnrt wr* (Table 22, Fig. 49). For example, he is the official appointed

to bring the "completed account covering the *ḥsbw*" (2.3.2 E), and the deliverer of the communication about the movement of five workers for *hȝw* (2.3.1 E). In line with those security assignments, was likely the role of the *šmsw* Ita assigned to *hȝw* in 2.3.1 B. Then in UC 32190 C a *šmsw* is the first official to arrive at a workplace where forces of *mnyw* are gathered for an activity which is about to begin: a division of plots (2.3.2 L). The text records that there are supplies for him for twenty days: he was probably supposed to remain at the site during the entire duration of the task. Maybe the *šmsw* was designated to guarantee the successful management of specific operations of the labour process concerning temporary workers. He might have acted as the official responsible for the logistics, possibly sharing this role with the *ỉmy sȝ* 'bodyguard' (2.3.1 J). We can expect also that security officials were appointed to fetch those who avoided the obligations and fled from the *ḫnrt* (building or authority) and from the workplace. UC 32209 reveals that a *ḥm(w)-nsw* is consigned to the *ḫnrt,* but does not provide details about who caught him (2.4.1 E).

In the Lahun Papyri, the relations between the *ỉmy-r mrt* 'overseer of *mrt*' and the *ỉmy-r pr n ḥtpw-nṯr* 'estate overseer of the god's offerings' may be due to the employment of 'substitutes' *ỉwȝyt* in stages of the production of goods for the temple cult (2.5.1). In UC 32119A the *ỉmy-r w* 'overseer of the district' receives a request to provide a 'substitute'. This official, too, was linked to production, probably responsible for the security of the provisioning area (Quirke 2004, 108).

Associations between the staff of *ḫnrt wr* and officials responsible for the work at construction and quarry sites match the employment of 'counted men' as stone haulers. However, there is a discrepancy between the sources of *ḫnrt wr* and the Lahun Papyri about the associations with the types of activities. As the charts (Figs. 50–52) show, the staff of the *ḫnrt wr* collaborated the most with officials from the 'bureau of fields' and the estates, in particular with the 'estate overseer' and the 'scribe of fields-register' (Table 23). In the pie chart showing the total number of officials grouped under the category 'labour organisation' (Fig. 52 right), those from the 'bureau of fields' and estate are 59% (42% estate + 17% fields bureau) against 17% of those working at construction and quarrying sites. The employment of temporary workers in fields is supported also by P. Brooklyn 35.1446 where six men are recorded as attached to *ḫbsw* lands and another twenty-four as under the charge of a 'scribe of fields' (Table 31). Additionally, some defaulters of the same register are identified as *ỉḫwty* "farmer". In contrast, the percentage of 'counted men' attached to lands in the Lahun Papyri seems to be lower than the percentage of those engaged as stone haulers in construction/quarrying activities (Table 28). This result may be ascribed to the specific local circumstances to which the Lahun Papyri refer. In the reign of Amenemhat III part of the work at Hawara seems to have been organised from Hetep-senwosret (Grajetzki 2006, 116). For this reason stone hauling might have been an important business for which locals were recruited.

4.2.4 - Work chain from recruitment to completion of tasks

ARCHAEOLOGICAL EVIDENCE OF THE PROCEDURE

The tasks to attendance call, recruitment, checking of attendance and replacement of absentees or defaulters did not leave any trace on the ground. Preliminary stages and in between operations are revealed by texts only. Through material culture we can only assume the beginning and the end of a project and its temporality.

TEXTUAL EVIDENCE OF THE PROCEDURE

We can distinguish between central, regional and local levels of authority, as well as local and state/royal projects. The Lahun Papyri reveal the *modus operandi* of the system for the organisation of temporary labour at the local level. Therefore, most tasks performed by the workers were likely activities carried out within the town-district of Hetep-senwosret, under the administration of the local *ḥȝty-ʿ* 'mayor'. The work at Hawara seems to have been the only project of kingship managed by the town.

*

CENTRAL ADMINISTRATION

The stages of the procedure at the national level are difficult to reconstruct, in particular when dealing with the less well documented bureau *ḫ3 n dd rmṯ*. Speculatively the *ḫ3 n dd rmṯ* had a preeminent role at the first stages of the recruitment process (4.2.3). Much clearer is the role of the *ḫnrt wr*. Once the task was assigned and the period of compulsory service had been undertaken, presumably the *ḫnrt wr* started to monitor the workers and its scribes recorded the acts of negligence.

LOCAL LEVEL

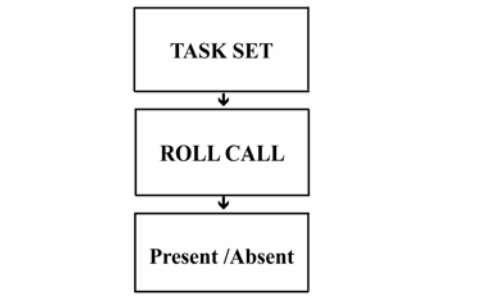


Fig. 132 - Diagram of possible work chain with first stages of summons and roll-call.

After a pristine 'registration list' of those needed to meet the labour obligations, a new list was most likely compiled and updated at the time of the first gathering of workers. On the the day of the roll-call, black ink check-marks would be used to identify those present and red ink check-marks to identify the absentees (Table 27, 2.5.1; Figs. 132–3; Plate 3, first column on the right: black dots in lines 9, 10, 11, and red dots in lines 5, 8, 12; Plate 4, first column on the right: black dots in lines 1–3 and 6–8, and red dots in lines 4 and 5). Once counted and enrolled to the task, individuals became *ḫsbw* 'counted men' who were now ready to begin their period of compulsory service for the state. The roll-call was done by the official *ḫsb rmṯ* 'accountant of people'.

Some of these lists have a clear reference of the type of task to which the individuals had been assigned (*e.g.* 2.3.2 H, M). UC 32168 shows that the procedure occurred inside a specific bureau. Due to interpretative issues, this bureau can be identified as either the 'bureau of the *spȝt*' of Hetep-senwosret or the 'bureau of the vizier' of the *spȝt* of Hetep-senwosret (2.3.2 G). The precise identity of *spȝt* is an open question, but available evidence suggests a territory comprising one or more towns and the surrounding rural territories *ww* (2.4.1 D).

The creation of these lists of people and rations can be seen as the main instrument for the organisation of workers and labour (Ezzamel 2004; Kadish 1996; Kemp 2006, 163 ff.). The individuals gathered for labour in the Lahun and Reisner Papyri are recorded on documents introduced by the expression *ỉmy rn.f rmṯ* "namelist of people". This expression can be used in association with different groups. For example, in P. Berlin 10037 this expression refers to a group of men who are inside the office of cadastral (Luft 2006, 75–81). In other cases it refers to pools of members of the temple *phyle* system (*e.g.* P. Berlin 10246), *ḫntyw-š* 'lands managers' on duty during specific months (2.3.1 E), or *mrt* people (*e.g.* P. Berlin 10048: 2.3.1 J). Most documents like these were for immediate action and then they were subsequently archived (Eyre 2013, 8).

In the Lahun and Reisner papyri the heading *ỉmy rn.f rmṯ* could be followed by the collective term that identifies the category of people, such as *ỉmy rn.f rmṯ mnyw* "namelist of *mnyw*" (2.3.2 H). In the Lahun Papyri, this information could be followed in turn by a toponym to which the group of people are associated, namely Hetep-senwosret or Sekhem-senwosret (*e.g.* 2.3.1 A). The last information of the heading relates



Fig. 133 - P. Berlin 10021. The grey arrows highlight the original red-ink marks.

to the purpose or reason of the lists. This can be the general definition of the obligation, which probably refers to the first stage of the registration (2.5.1, Table 27), such as in P. Berlin 10104: "namelists of people of Sekhem-senwosret true-of-voice who are for *ḥȝw*" (2.3.1 A). Other lists refer to specific tasks, such as UC 32182: "namelist of *mnyw* given as stipulated to Hetep-senwosret […] for a work at Ankh-Amenemhat-living-forever-in eternity" (2.3.2 H). These documents are probably the final recruitment lists (2.5.1, Table 27).

Neither the written record nor archaeological evidence can give insight into the stage immediately after roll-call. Presumably, those present were dispatched to the assigned place to accomplish their duties. Once the period of service was completed there occurred a particular action: the annulment of the obligation from the head of the household. This is revealed by the presence of affirmative sentences including the core verb *dr* "to remove" and the noun *sḏbw* "obstacles" (Fig. 134 right). The list of absentees brought to Hetep-senwosret in P. Berlin 10073 (2.3.2 M) seems to refer to an initial stage of the labour process. Seemingly, the *mnyw* absentees did not appear on the day of the roll-call, so never started the period of compul-

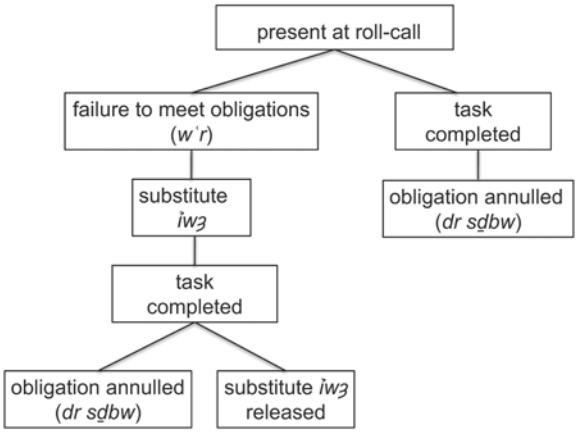


Fig. 134 - Diagram of the work chain for those who passed the roll-call.

sory service. Such offence thus needed to be reported to the authorities. These absentees could be the *tšw* of the 'register of fugitives' of the *ḫnrt wr*, while those who abandoned the workplace could be the *wʿrw* (see below).

The papyri do not provide evidence if the defaulters were recorded in the register of the *ḫnrt wr* at this stage or later on. However, the *Duties of the Vizier* (2.4.1 B) attest that the names of those who committed the offence were added to the 'roll of transgressors' which I have identified with the register of the *ḫnrt wr* of P. Brooklyn 35.1446 following Hayes (p. 64). When the same offence was committed a second time, then the roll was updated with a detailed summary of the case.

The next step of the process consisted of finding 'substitutes' *ỉwȝw* to replace the defaulters (Fig. 135). This stage includes all the communications among the officials characterised by the presence of the expression *nhw n ḥȝw* "deficit of state labour" and the correlated negative sentence with the verb *gm* "to find" (2.5.1). Individuals were thus taken from the

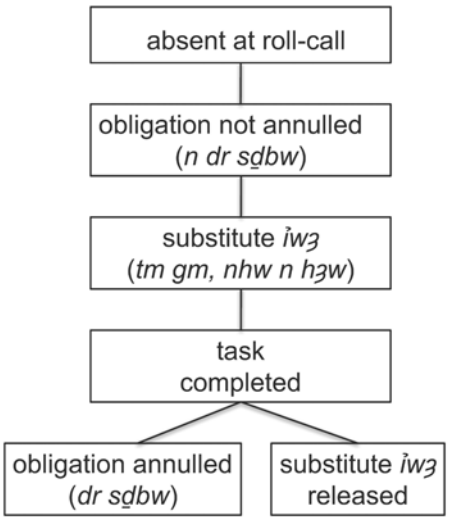


Fig. 135 - Diagram of the work chain for those who did not pass the roll-call.

household of those responsible for the offence. Once the period of compulsory service had been completed – either by *ỉwȝw* or the defaulters forced to return? (2.5.1 p. 87) – the obligation was removed (*dr sḏbw*) from the person first registered to the service, and the *ỉwȝw* were released from the duty and the commitment (*sfḫ*).

Neither the presence of the person at the time of the roll-call, nor the substitution by *ỉwȝw* guaranteed the completion of the period of *ḥȝw* (Fig. 134 left). Sometimes those enrolled could flee from the workplace, as the 'register of fugitives' of the *ḫnrt wr* reveals identifying such offence with the word *wʿr*. Senwosret of P. Berlin 10065, the *ỉwȝyt* of P. Berlin 10067, and the *ḫm(w)-nsw* of UC 32209 may be three examples (2.3.1 D, I; 2.4.1 E; 2.5.2). In such instances the culprits hid themselves from the *ḫnrt wr* authority. As a result 'substitutes' *ỉwȝw* were provided to solve

the situation. The following steps, as in the aforementioned istances, included completion of the period of compulsory service, annulment of the obligation, and discharge of the 'substitute' (Figs. 134 and 135).

4.2.5 - The organisation of workforce on site

ARCHAEOLOGICAL EVIDENCE

The Western Settlement of Qasr es-Sagha and the early phase e/3 of Tell el-Dab'a are two different types of settlements, namely barracks and small-scale houses (Fig. 136) (3.6.1). The application of different models may have been dictated by three interdependent factors: the diverse purpose of the settlements, the temporality of the settlements, and the presence or not of both men and women.

Typical features of these planned settlements include an enclosure wall and parallel blocks of units of identical size, sharing the same internal organisation of space. In both models the blocks include two rows of housing units and are encircled by narrow streets. The major differences are the shape, size, and internal organisation of the dwellings. The Western Settlement includes houses covering an area of ca. 170m^2 with an internal arrangement of five identical long parallel rooms, used as dormitories, and a perpendicular courtyard, where people prepared and consumed food.

The organisation of both settlements provides insights into the size of the workforce. As discussed in 3.3.3 (p. 109), Kemp and Moeller have proposed alternative reconstructions to Śliwa's estimation of the population size for each housing unit of the Western Settlement. The estimated population size of the Roman military barracks of Abu Sh'ar (Eastern Delta, Third–Fourth c. AD) may support Śliwa assumption. It has been suggested that each room of 3m x 3m accommodated three men (Sidebotham *et al.* 2008, 241, pl. 10.3). Considering the room size of Qasr es-Sagha, ca. 8m x 2.10m, it can be estimated that there would have been eight men in each room. However Lehner (2004, 11) has demonstrated that about forty people of his excavation crew could "comfortably stretch out" inside the columnade of *Gallery Set* III.4 of the *Gallery Complex* at Heit el-Ghurab. Therefore he suggested that forty may have been the physical maximum amount of workers accommodated in that gallery during the Old Kingdom. The columnade of *Gallery Set* III.4, 17.5m long, is divided in two specular identical spaces measuring 17.5m x 2.5m each (*AERA* 2012, 14–15). Following Lehner experiment, each long space may have accommodated about twenty people, which means that one individual could sleep in a space of about 88cm x 2.5m. Since the lenght of the Qasr es-Sagha rooms is around 8m, the number of people in each room might even have been up to ten, each individual sleeping in a space of 80cm x 2.10m (Fig. 137).

The 'counted men' stone haulers were usually organised in small division units of ten (see below p. 161). Consequently, we could hypothetically assign

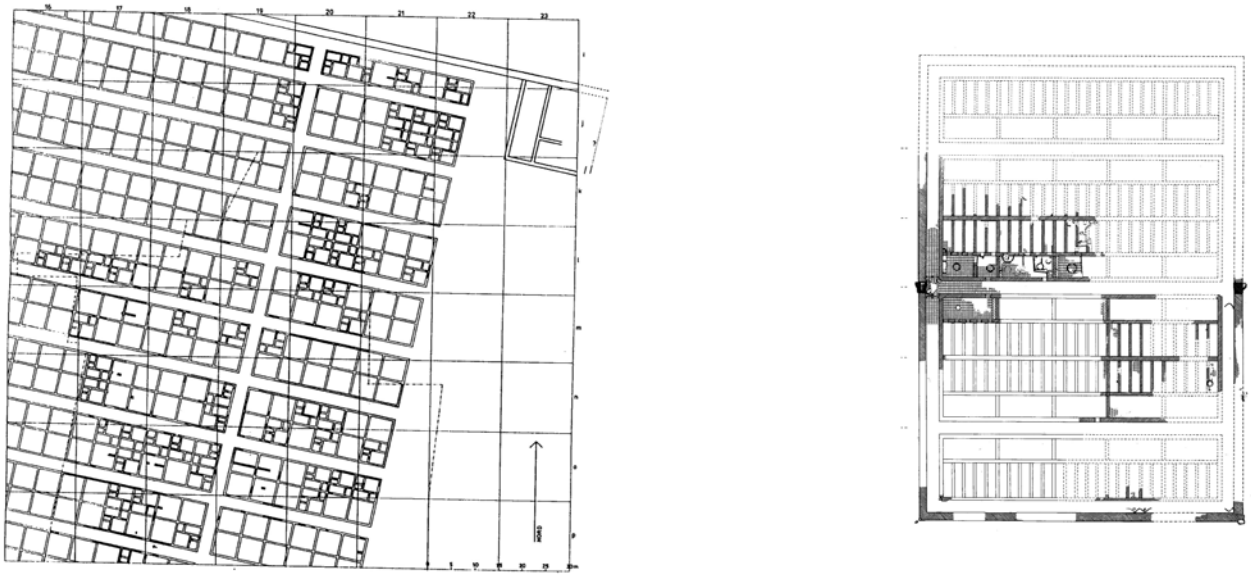


Fig. 136 - Tell el-Dab'a e/3 and the Western Settlement of Qasr es-Sagha in scale 1:1000 (drawing: F. Silva).

a division of ten men to each room. Since each unit has five rooms, one housing unit may have accommodated around fifty people. This results in 250 people in each row, and an average of 500 people in each of the two central blocks. Taking into account also Śliwa's reconstruction, the settlement would have been capable of accommodating up to a maximum of 1200-1500 people at the peaks of its activity. Noticeably, ten people at a time was the maximum accommodation potential of the extraction sites at the basalt quarry of Widan el-Faras during the previous phase of occupation of the area (Bloxam & Storemyr 2002, 35). As previously mentioned (2.1), quarrying groups were usually organised following a naval system with crews divided into two gangs (2.1). In figure 138 I offer a hypothetical reconstruction of the Western Settlement layout. Each row of units might have corresponded to one gang and each block to one crew, for a total of at least two crews. Thus possibly each housing unit of 40-50 people corresponded to a team of workers. Interestingly, forty is also the number of soldiers of a military platoon (Bard & Fattovich 2007; Manzo 2010, 163). This would match the military style associated with the barracks-like layout of the settlement.

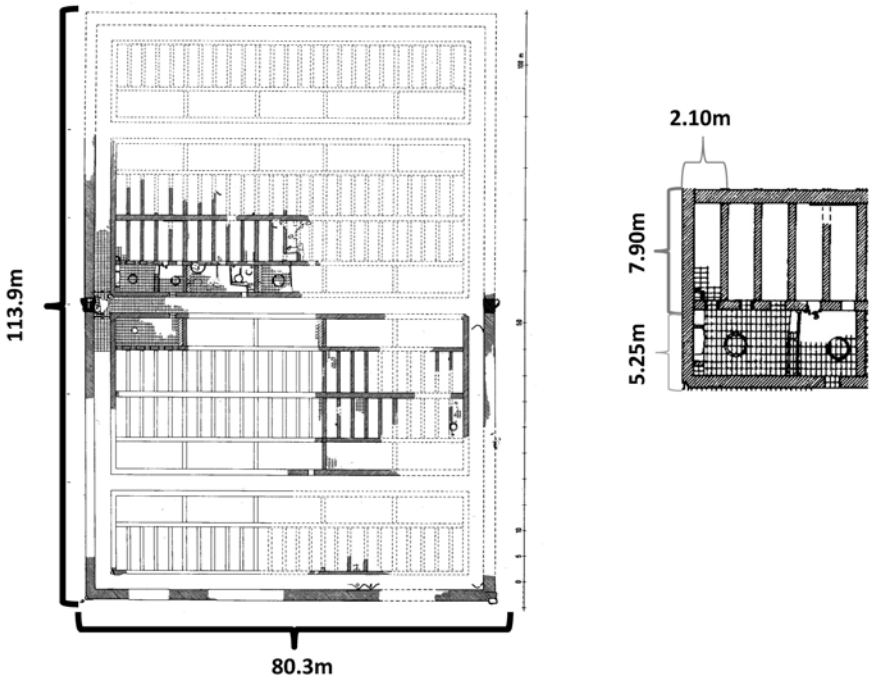


Fig. 137 - Layout of the WS of Qasr es-Sagha and the plan of one of its houses.

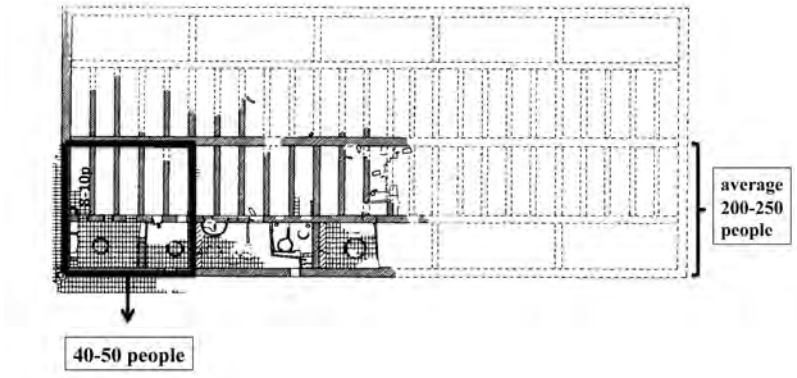


Fig. 138 - Hypothetical organisation of the Western Settlement according to the standard OK division of the members of expeditions in crews, gangs, and phyles.

The different profiles of the Western and Eastern settlements may be reflected in the later 'twin villages' of Amarna : different degrees of skill, roles, and functional differentiation (3.6.3). While the Western Settlement may have housed *ḥsbw* stone haulers, the Eastern Settlement would be for specialised craftsmen *ỉkyw*. Even if the scarce use of basalt in the Middle Kingdom challenges the hypothesis that Qasr es-Sagha was a 'quarry site' (Fig. 69; p. 119; 3.6.4), the hypothetical organisation of people within the Western Settlement and its high average capacity support it best, since several workers were needed to drag heavy blocks of basalt. Apparently, a group of eighteen people was required to move one 'ordinary' granite block (Eyre 1987a, 12), and 20-40 to drag heavier blocks of basalt (Harrel & Bown 1995, 82).

We can even consider the possibility that the state could have initially commissioned a planned settlement for the procurement of basalt for a large-scale project which, for undisclosed reasons, was annulled or at a certain point interrupted. If this is the case, menial workers and craftsmen

probably kept being sent to the site in smaller numbers to respond to minor demands. This could explain the contrast between the high capacity of the settlement layout and the scarse use of basalt, and the absence of Middle Kingdom evidence at the extraction site. As proposed, the workers could have been engaged in dragging blocks of material extracted at earlier times and left *in situ* in the deposit areas (3.6.4).

The barracks-like style model may be directly associated with the proxy factors 'quarrying site' and 'military style' (3.6.1). The latter, aside from its possible interrelationship with a specific approach to mineral exploitation, is also suggested by a similar organisation of contemporary and later structures with military/security purpose (3.3.3, p. 110). The same combination, joined by a naval system with the recurring numbers 40-50 may be revealed by the Egyptian organisation of mineral procurement along the Red-Sea coast (3.2.1).

The port sites of Mersa Gawasis (Old–New Kingdom), Ayn Soukhna and Wadi el-Jarf (Old–Middle Kingdom) housed maritime expeditions whose ultimate objective was mining activity. These sites share a singular type of structure: rock-cut galleries interpreted as an adaptation to a different environment of the more formal pattern of the galleries of Heit el-Ghurab (Manzo 2010, 166–168) (Figs. 63, 64, 139, and Plate 15). On the basis of the finds, it seems that the Red Sea galleries served as living quarters for boat crew members (professionals and labourers) and as a storage area for boats and the boat's equipment during the inactive intervals between one expedition and the next (Manzo 2010, 165; Tallet 2012, 152; Fig. 65). Andrea Manzo argues that the outline of the rock-cut galleries of Ayn Soukhna and Mersa Gawasis recalls the internal organisation of the units of the Western Settlement of Qasr es-Sagha (Manzo 2010, 165–166).

As the images show (Fig. 139 and Plate 15), at the port sites parallel rock-cut galleries end in a common space like antechamber which is perpendicular to the galleries. These spaces can be compared to the Western Settlement long rooms and the perpendicular courtyards. At all sites, Qasr es-Sagha, Ayn Soukhna and Mersa Gawasis, the open space was used for domestic activities such as food preparation and consumption. I disagree with Manzo's suggestion that the antechambers of the Heit el-Ghurab galleries provide additional parallels. In this case those areas were part of the internal arrangement of each long structure rather than a 'unifying space' for a group of galleries. It has also been inferred that each rock-cut gallery of the Levantine port sites could accommodate 40-50 people, which corresponded to one team of the boat crew (Manzo 2010, 168). Evidently, at the Red-Sea Ports 40-50 people was the capacity of each gallery, while at Qasr es-Sagha it might be the capacity of the entire housing unit.

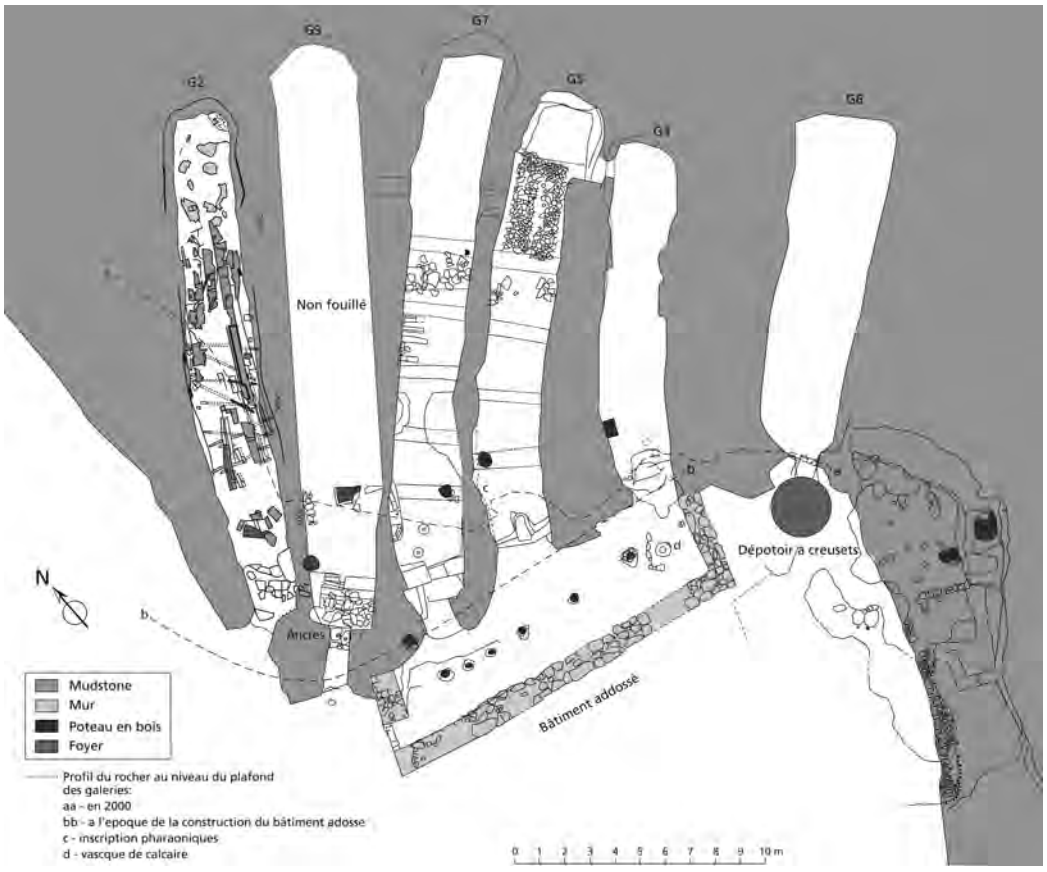


Fig. 139 - Plan of the galleries of Ayn Soukhna (drawing © G. Maserati. From Abd el-Raziq et al. 2011).

Beside the rock-cut galleries, common structures present at all the sites were shelters, and ovens and kilns for bread and pottery production. At Mersa Gawasis, ceremonial mounds were discovered (Manzo 2010, 158–162), reflecting the frequent presence of religious instalments at quarry sites to meet the cultic needs of people temporarily settling in desert locations far from the Nile Valley (3.3.3, pp. 116-7). Moreover, at Ayn Soukhna and Mersa Gawasis, there were also workshops for *in situ* processing of copper and the production of limestone tools and anchors (Abdel el-Raziq *et al*. 2011; Manzo 2010, 166). If we consider the overall Middle Kingdom site of Qasr es-Sagha, we have a planned settlement with units provided with long rooms, a workshop area for craftsmen engaged in rough-hewing and possibly in the production of crescent drill tools, bread-making, and a cult installation (despite its doubtful date and link with the complex). There are several similarities between the arrangement of the Middle Kingdom structures of Qasr es-Sagha and those at the Red Sea ports (Table 36). A weak point in Manzo's and Lehner's association may be the prevalent use of the Red Sea galleries as a storage area. Additionally, the size and shape of the Red Sea galleries may have been dictated mainly by the size of the ships. A more convincing model may be the application of a similar system to the organisation of uniform large gangs of temporary workers gathered for construction/quarrying (or mining) tasks, probably gender restricted to men. However it is important to stress that each boat crew of the Red Sea ports included not only menial workers but also specialised craftsmen and officials who were all accommodated in the same type of units.

The houses of Tell el-Dab'a phase e/3 cover an area of ca. 27m^2 with one or two out of three rooms intended as dormitory grouped around a courtyard for food preparation and consumption (3.4.2). On the basis of the Czerny's inference that the entire complex included around 700 units –twice the number of those preserved (Czerny pers. comm. to I. Forstner-Müller 2010b, 105) – and considering two individuals per unit, the settlement was inhabited by approximately 1400 individuals. This amount is similar to the average capacity of the Western Settlement of Qasr es-Sagha.

Tell el-Dab'a e/3 resembles the family-dwelling type (Fig. 140; 3.4.3) and may have been part of a

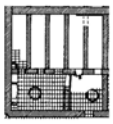
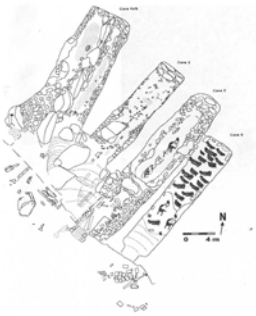
	QASR ES-SAGHA (MK)	MERSA GAWASIS (OK-NK)
FUNCTION	quarry	mine
LAYOUT	barracks-like settlement - houses with 5 long rooms + perpendicular open space 	galleries + perpendicular open space 
INDUSTRIAL AREA	workshops (basalt items, crescent drill tools)	workshops (limestone tools, anchors)
AREA FOR LOADING SHIPS	quay	embayment
CULT INSTALLATIONS	temple?	ceremonial mounds

Table 36 - Comparison between the Qasr es-Sagha complex and the Red Sea Portsite of Mersa Gawasis. The question mark after 'temple' under 'Qasr es-Sagha' is due to the uncertain date and association of this building with the remaining structures of the area (drawing of the Mersa Gawasis plan © G. Maserati).

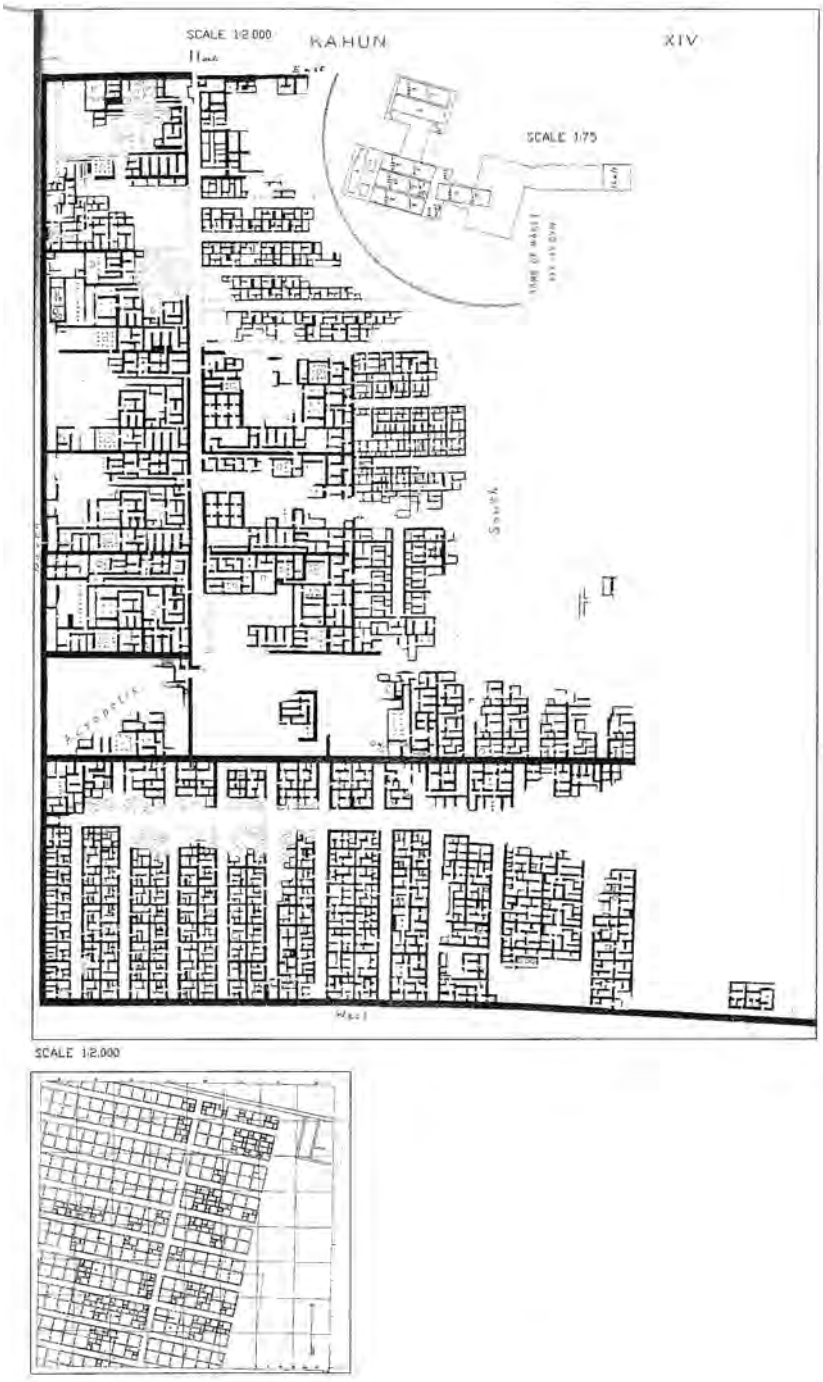


Fig. 140 - The 'family-dwelling' type of the units at Lahun (Kahun) and Tell el-Dab'a e/3. The plans are in scale 1:2.000.

first attempt to colonise the area (3.6.4). The Middle Egyptian term *ḥm(w)-nsw* 'king's slaves' designated the stratum of the population which formed the main support of the Egyptian socio-economic system (2.3.1 J). Berlev (1987, 156–157), discussing the first stage of conquest of Lower Nubia in the years 9–16 of Senwosret I, describes what he calls the "social experiment in Nubia", namely the subsequent phase of incorporation of the new area into the pharaonic economy. Such an operation, which corresponded to a colonisation, could be achieved through the transfer of people of that basic social stratum from Egypt to Nubia. According to Berlev (1987, 156), since the Nubian environment was not suitable for "large-scale farming", the mass of *ḥm(w)-nsw* would have been engaged in mining activities. The products of such labour (precious minerals) were then delivered to Egypt in the form of a fixed quota following the same procedure applied to farming produce (Berlev 1987, 154 and 156).

Berlev's model might also apply to Tell el-Dab'a which is the earliest phase of occupation of the entire area. Different from Lower Nubia, the environment of the Eastern Delta, where the settlement was founded, provided appropriate conditions for intensive farming. The first inhabitants settled there might have been 'counted men' and 'counted women' relocated to exploit the agricultural land. Architectural features and material culture suggest that the population of Tell el-Dab'a and the Western Settlement of Qasr es-Sagha were socially similar (3.3.2; 3.4.2). It is not fully clear why only some blocks of units of Tell el-Dab'a included twelve units. Since the settlement has been partly excavated it is impossible to recognise a specific pattern in the layout organisation.

The higher status and managerial roles of the supervisors and security officials suggest that they were housed in larger buildings partially isolated from the blocks of uniform workmen's dwellings, and placed in a strategic position. The isolated corner building of Tell el-Dab'a, the only structure that sharply differs in size from the remaining houses, may be a possible candidate (3.4.3). A similar building is expected within the Qasr es-Sagha Western Settlement, possibly in the eastern sector of the compound which is the most poorly preserved.

TEXTUAL EVIDENCE

SUPERVISORS OF WORK AND DIVISION UNITS

The written record attests that the officials *ḫrp* 'director', *sš* 'scribe', and *ṯsw* 'commander', were in charge of 'counted men' at building and quarrying sites (*e.g.* 2.3.1 A, 2.3.2 G). The *ḫrp* was the organiser of the work (Fig. 36: first word of line 8). One document reveals that two 'directors' could be engaged at a site at the same time (2.3.2 E). In these cases, each director presumably supervised only a part of the workforce. It is possible that the presence of more 'directors' was directly proportional to the number of workers involved, and consequently to the type of project (*e.g.* state, regional or local). The 'scribe' recorded in the papyri just after *ḫrp* was probably the responsible for keeping records of all the operations and events, working as an assistant of the *ḫrp.* According to the Lahun Papyri, each team under a *ḫrp* included more *ṯsw* 'commanders' at the head of gangs of nine. For example in UC 32170 *recto* the namelists of workers are grouped in two divisions of perhaps ten, each under the charge of two 'commanders'. The title 'commander' is written in red-ink on the second column from the right at the beginning of lines 2 and 12 (Plate 3). The 'commander' was the tenth individual of the group. UC 32170 reveals that the 'commanders', in the same way as the workers, could replace their masters in the duty (2.3.2 O). In this document the senders of 'commanders' are minor officials of the religious sector (Table 15). This means that 'commanders' could belong to the same social strata of the workers and were not necessarily people of a higher social status. A parallel is provided by the register of P. Brooklyn 35.1446 where, besides the role of farmer some defaulters are identified as *wrš* "guard" according to Quirke (1990, 132) or *wr* "chef d'equipe", namely supervisors, according to Menu (1981). It seems clear that some individuals selected from the group of those assigned to the compulsory service could be appointed as people in charge of groups of ordinary workers. P. Brooklyn 35.1446 and the Lahun Papyri attest that this differentiation occurred in either agricultural or construction activities. However it is by no means clear whether the *wrš*/*wr* of the register of the *ḫnrt wr* replaced the *ṯsw* of the Lahun Papyri when dealing with employment in fields. This could be challenged by the presence of a *ṯsw* in P. Berlin 10104 which might refer to the assignement of people to agricultural tasks (2.3.1 A, p. 41).

The presence of fifty people on the namelist of P. Berlin 10104 suggests the presence of more than one 'commander'. Considering that one 'commander' was in charge of ten individuals, the ideal number of 'commanders' for fifty people should have been five. However, this remains a speculation due to missing parts of the beginning of most lines of the document (where the designations should have been).

A similar organisation of being divided into halves at building sites is applied to specialised workers (Kóthay 2007). For example, the *ḫrtyw-nṯr* 'necropolis workers' were grouped under the *ỉmy-r mšʿ n ḫrtyw-nṯr* 'overseer of the force of necropolis workers', while the *ỉmy-r gs ḫrtyw-nṯr*, the second in command, administered half (*gs*) of the force (*e.g.* MK stela Leiden 50: Boeser 1909-10). A later example comes from the craftsmen village of Deir el-Medina where the main work unit is called *tȝ ỉst* 'the gang'. This was divided into two sections, right side and left side, each under a director of works (*ʿȝ n ỉst*), a deputy (*ỉdnw*) and a scribe (*sš*). Besides two 'doorkeepers', the other minor officials assigned to the gang were part of a police unit, the *mḏȝy,* in charge of the security of the building site (Junge 2005, 298–302). Such organisation of the workforce being divided into halves followed the naval system where the gangs corresponded to different parts of a boat (Aston *et al*. 2000, 18). Each gang included more divisions. This was apparently the same system applied at quarry sites and at Giza during the Old Kingdom (2.1). It has been inferred that ten people was the smallest unit of labour (Eyre 1987a, 12; Roth 1991, 121).

The Lahun Papyri suggest that *ỉwȝw* could be further divided into smaller divisions of five probably under the official *ỉmy-r dỉwt* 'overseer of five' (Ward 1982, no. 420, 53). The latter is the addressee of a complaint about a case of replacement in account UC 32118E (Collier & Quirke 2002, 40–41). The presence of five individuals for *hȝw* in P. Berlin 10081C might suggest that this extra division could involve all temporary workers (2.3.1 E). However, this cannot be adequately substantiated as it results from indirect deductions based on two documents only. Additionally, it contrasts with all the other instances of gangs of ten. Moreover, role and rank of the *ỉmy-r dỉwt* are unclear. Speculatively the application of such sub-di-

vision was restricted to specific labour instances.

There is no evidence that the Old Kingdom *phyle* system was still in use during the Middle Kingdom. Such arrangement is only attested at Giza for the pyramid builders (2.1). However, the Lahun Papyri reveal that in the passage from the Old to Middle Kingdom the amount of ten men as a basic work unit remained constant. In the Third Intermediate Period, crews of *shabtis* were also divided into groups of ten, each under the supervision of an overseer (Miniaci 2104, 268; van Oostenrijk 2011; Schneider 1977, 320 ff.). As discussed, the 'obstacle clause' of the *shabtis* formula was part of the vocabulary used in specific operation of the labour process: the annulment of the labour obligation (2.3.1 D; 4.2.4).

P. Berlin 10081C suggests that two out of five individuals for *hȝw* were expected to be given to a *phyle* for one month (2.3.1 E). A *phyle* division system is attested for 'counted men' in P. Berlin 10095 (unpublished, brief summary of content in Kaplony-Heckel 1971, 44–45 no. 81): 6 *ḥsbw* "*m sȝ ȝbd [pn]*" "in/from the *phyle* of this month". These papyri reveal that a *phyle* system existed beside the organisation in division units of ten under the three officials *ḫrp*, *sš,* and *ṯsw*. Maybe the different organisation of the same group of workers depended on the type of activity. According to Kóthay, during the Middle Kingdom specialised craftsmen who were usually divided into *wʿrwt* sections, sometimes could also be organised into *phyles*. Similarly, rock inscription from Sinai attest that 'necropolis workers', who were usually divided into *phyles*, could be organised into *wʿrwt* (Kóthay 2007, 149–150). Kóthay has suggested that the reason for the organisation into *phyles* lies in a connection with cult and ritual because the *phyle* system was closely associated with the religious sector. For example, sculptors who worked in tombs were implicitly involved in funerary rituals. As Kóthay infers, this example may be equally applicable to 'necropolis workers' and quarrymen who extracted material to be turned into statues or monuments offered to the gods. Although the aforementioned categories of workers are specialised craftsmen, it is possible that *ḥsbw,* too, were arranged in *phyles* when engaged in tasks associated with cult activity or the temple sphere. These could include, for example, the production of linen, used in cult rituals, and the work inside the 'provisioning area of the god's offerings' of Sekhem-senwosret, attested for female 'substitutes' (2.3.1 M, N) and *ḥsbw* respectively (2.3.2 J) (Table 28).

A similar arrangement in small divisions and the same supervisor titles *ḫrp* 'director', *sš* 'scribe', and *ṯsw* 'commander' are attested in the Reisner Papyri for those working in support of the specialised craftsmen at the building sites of This and Koptos (2.3.2). However, in these texts the number of individuals included in each division, called *ṯst* "crew", varied from 8 to 22. The different size of the divisions may have depended on the type of tasks (Ezzamel 2004). As Eyre stresses, for the size of the division units "there is no reason to suppose that the numbers were constant, not varying from project to project" (Eyre 1987a, 12).

A comparable organisation of workers is attested in the Ur III Girsu archives (Near East, MBA 2112–2004 BC, contemporary with the Egyptian FIP) for hired people engaged in collective obligatory labour. The activities spanned from irrigation works to agricultural tasks (*e.g.* sowing and harvesting), excluding specialised work (Maekawa 1987, 62–67). These workers were arranged into ten gangs of ten people each, under an official. Four out of ten gangs were comprised of "men in gangs who are engaged in their service". The remaining six units included "men in gangs who are waiting for their service". The Akkadian noun *erin*$_2$ translated as "men in gangs" means "workers" and "soldiers". People were mobilised for "regular corvée labour five (or six) months in a year" (Maekawa 1987, 65) and the groups were in service in alternate months.

The officials *ḫrp*, *sš* and *ṯsw* as a triple level of organisation seem exclusively associated with short-term activities performed by temporary workers subject to compulsory labour. In contrast, specialised quarrymen *ỉkyw* and 'necropolis workers' were in several instances under the charge of 'overseers' (Kóthay 2007, 138; Quirke 2004, 81). A *ṯsw* is attested also in one rock inscription from the amethyst mines of Wadi el-Hudi (no. 30, Seyfried 1981), suggesting his role as 'commander' of a group of 'counted men' working at the mines.

SECURITY ON SITE AND MILITARY FEATURES

One security official on site may have been the *sḫm-ʿ* 'one with powerful arm', who is attested on monuments as colleague of officials of *ḫnrt wr* and *ḫnrt*, and appears as office held by a *sš n ḫnrt wr* himself (Table 22 and above 4.2.3). As far as military features are concerned, during the late Middle Kingdom,

'commanders' *ṯsw* are found in charge of fortress garrisons in Lower Nubia (Chevereau 1991, 62; Quirke 2004, 83, 102). We know that military patrols worked following a rotating service, and a changing in command system was applied. Consequently, 'commanders' remained in service for short times only (Quirke 2004, 102).

The connection between the military field and labour organisation represented by the double meaning and function of the *ṯsw* can be supported by other aspects. First, the derivation from the same root *pḫr* of the nouns *pḫrt* "frontier patrol" and *pḫr*, the storehouse associated with the labour obligation and its *ḥsbw* (2.3.1, 2.3.2 I). Additionally, the term *snhy* designating the recruitment list of workers in the Lahun Papyri will be used during the New Kingdom for military conscription (Eyre 2013, 204–208). *Snhy* lists/census of recruits and soldiers were compiled by the 'scribe of recruits' and the 'army scribe' who carried out a "visual inspection of everybody" (Eyre 2013, 205). In the New Kingdom, too, the word had a dual use in the military and labour fields as it could refer to the assignment of people to quarry and building projects (Eyre 2013, 206).

4.2.6. - Temporary camps for workers as expected from textual evidence

We can assume that the crews of workers employed at construction sites at Hawara and This and Koptos in support of specialised teams were housed in temporary accommodations *in situ*. Account UC 32182 informs us that, for one project or task, work at Hawara lasted two months (2.3.2 H). Since Hawara is located at a distance of 10 km from Lahun (Hetep-senwosret), the workers were probably accommodated at the building site. 'Temporary camps' are conjectured, for instance, for the workforce (mostly unskilled hired workers) who built the fortifications of Timnah (Near East, MBA) (Burke 2008; Mazar 1997).

At Koptos, This and Hawara the employment of the workers in construction would have limited procurement practices. Besides, the low status of most workers suggests uniform dwellings with a simple organisation of internal spaces aimed to meet basic needs (sleep and eat). On the basis of the compulsory nature of the duties, attestations of defaulters, and disciplinary actions under the responsibility of the *ḫnrt wr,* a system to supervise the workers is expected. A different building for the director of the work, *ḫrp* is expected also. Therefore the most likely scenario is an ephemeral settlement on a regular basis provisioned by a different site.

Mud-brick-making, attested in the Reisner Papyri (2.3.2) and in documents from Lahun (*e.g.* UC 32190), may be considered part of the cultural environment of these areas. Thus mud-brick might have been the material used to build temporary dwellings. We may also hypothesise the existence of two camps, one for the mass of unskilled 'counted men', the other for the professional craftsmen.

Despite the association of *ḥsbw* (and *mnyw*) with the smallest units of Lahun, the small-scale houses model of Lahun and Tell el-Dab'a marked a more permanent occupation (below 4.2.7). This may discourage us from assigning that type of housing unit model to the category of camp. Barracks may be most suitable to house a large uniform crew of temporary workers, predominantly men. The size of the hypothetical temporary compounds may have varied depending on the type of project (small-scale and local or state and large-scale), and the number of workers involved.

4.2.7 - Temporality in labour

ARCHAEOLOGICAL EVIDENCE

The different temporality of occupation of the sites is directly affected by their different purpose. The overall evidence from the Western Settlement of Qasr es-Sagha is suggestive of short-term and seasonal occupation. Despite the incomplete analysis of faunal remains, the available evidence suggests that the Western and Eastern settlements operated during the cooler months, in particular from October to April. Perhaps the mass of menial workers performed the hardest tasks over the winter on a shift basis. Then, after a brief abandonment phase (May and June?), new shifts might have been sent to the site at the beginning of the flood to load ships with materials. However this last stage is only conjectured, as fish assemblages that could mark an early summer habitation are missing (pp. 122-3; 3.6.4).

The case of Tell el-Dab'a is different. The lifetime of the settlement has been estimated between 50 and 100 years (3.4.2). This timespan includes three

phases of occupation separated by periods of abandonment. Only the first phase e/3 has been assigned a specific duration equal to 2-3 years. Otherwise, this site reveals a more permanent nature. Moreover, on the basis of the overall evidence, I have proposed a gradual development to self-sufficiency (3.6.4). I also propose differences in the timing of site occupation from stage e/3 to e/1. Speculatively, at the beginning of the project most of the 'workforce' was recruited and employed on a seasonal or shift basis. During the first phase, the site may have been abandoned just before the fields were flooded. A higher percentage of catfish *Clarias* may have belonged to this first occupation stage as low quality fish which was supplied to the low status population. Subsequently, the same fish could have instead marked the human presence in early summer. However, this reconstruction is highly speculative, since the faunal remains from the site were analysed without distinguishing the phases of occupation. As for the prevalence of perch at the industrial site Al-Shayk Sayd (3.5.2), it is difficult to ascertain whether and to what extent the large amount of catfish *Clarias* marks a specific time of site occupation. The association between pig remains and the last permanent and more self sufficient phases is possible.

TEXTUAL EVIDENCE

Texts provide clear evidence for the temporality of labour organisation, which can be deduced from the context and etymology of words. Examples are the length of activities spanning from 1 to 4 months in a row, recruitment and subsequent freeing of female 'substitutes', the etymology of *hꜣw* that points to actions affected by time, and the nuance of periodicity implied by the noun of the *pḫrw* stores (2.3.1). Additionally, the placement of events in the right date of the solar year has revealed patterns of seasonality.

The combination of solar date and context suggests that the labour obligation comprised a wide range of activities from work in fields, stone hauling at building and quarry sites, tasks related to religious feasts, activities inside stores, and textile manufacturing. On the basis of the final outcome of the textual analysis resulting in the presumable identification of *ḥsbw* with people for *hꜣw*, and *mnyw* as a subgroup of *ḥsbw* (2.5.1), I have combined the entire evidence in one explanatory chart (Fig. 141). 'Substitutes' *ỉwꜣw* are kept as a separate group due to the singularity of their act of replacement and the dominance of feminine gender.

The papyri mentioning the recruitments of 'counted men' for stone hauling are equally distributed in summer and autumn, and winter and spring (Table 37). The recruitment during the flood may have facilitated the transportation of blocks – extracted during the cooler months – from the quarries to their destination (Table 38). Those recruitments occurring in October and November may have also aimed at quarrying activities (first stages of the process). This suggestion could be valid also for those recruitments for hauling stones over winter and spring, with the exception of the works at the pyramid of Hawara (Table 39). The interpretation of the Lahun data matches the solar dates for stone hauling from quarries to the river banks recorded on rock inscriptions at quarry sites (pp. 51-2).

The seasonal pattern of 'counted men' for stone hauling reveals that temporary workers were summoned for building projects not only over the summer, time of 'work crisis' in the fields, but also during the harvest season. The calls for construction tasks was continuous over the year. The peaks likely referred to state or longer term building projects. We can imagine the existence of two parallel 'call systems': on the one hand seasonal recruitments of workers for a wide range of short-term tasks (*e.g.* canal maintenance) or quarrying, on the other hand *ad hoc* periodical recruitments of rotating gangs over the life span of long-term projects. As mentioned above (4.2.3), the prevalent employment in fields recorded in P. Brooklyn 35.1446 and attested by links between the *ḫnrt wr* staff and officials from different branches of the administration, suggests that the word *hꜣw* did not imply a direct association to one type of activity in particular. Probably the higher percentage of one type of task rather than others was determined by the present needs of the specific area. It is possible that work in fields was the most common type of task performed by compulsory workers, but not in the Lahun area during the late Twelfth Dynasty. The evidence suggests that even the *ṯsw*, 'commanders', were enrolled on a temporary basis only, and were subject to periodical shifts similarly to the teams of workers. Accordingly, seasonal patterns in labour organisation would affect not only enlisted workers, but also their on site supervisors.

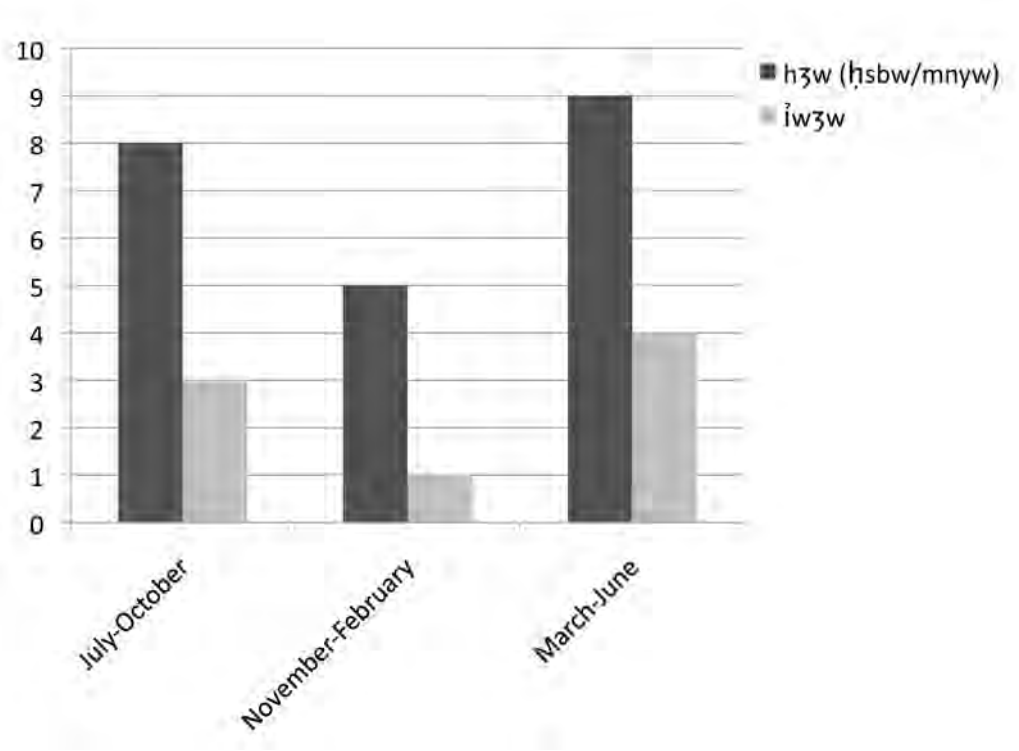


Fig. 141 - Placement of attestations of temporary workers at precise points of the agricultural cycle.

NUMBER OF ATTESTATIONS	MONTHS
6	**August–November** (2.3.2 A, B, C, D, E, PB 10024A)
5	**mid-January–June** (harvest time) (PB 10102, UC 32275, 2.3.2 G, H, K)
1	**undated** (2.3.2 I)

Table 37 - Temporality of tasks performed by stone haulers.

NUMBER OF ATTESTATIONS	MONTHS
3	**August** (2.3.2 A, B, C)
2	**October** quarrying (2.3.2 D, E)
1	**November** quarrying? (PB 10024A)

Table 38 - Summer and autumn recruitments of stone haulers (August–November).

NUMBER OF ATTESTATIONS	MONTHS
1	**January-February or February-March** (2.3.2 J)
1	**mid-January–mid-March** (PB 10102)
1	**March and April** (maybe first days of March–first days of May) (2.3.2 G)
1	**mid-April–mid-June** *kꜣt* at Hawara (2.3.2 H)
1	**season harvest** roughly from mid-March to June (UC 32275)

Table 39 - Winter and spring recruitments of stone haulers (mid-January–June).

4.2.8 - Degree of compulsion and authoritarianism

After the royal authority had declined at the end of the Old Kingdom, in the Twelfth Dynasty control and order in Egypt was restored (1.5). Near the Semna Fort at the new southern border of Egypt, Senwosret III issued the erection of a stela. With this formal act, he declared the new established *limes* of the country as the furthermost limit of the ordered world beyond which only the chaos rules (Assmann 2002, 151–153; Ciampini 2005, 206–7; Tallet 2005, 48).

An ordered state is reflected in the Middle Kingdom literature, such as in the *Satire of Trade* where "the chaos of the tradesmen's lives is arranged into a sequence of scenes which is contrasted with the order of the scribe's profession" (Parkinson 2008, 58). This strong tendency to order structured every aspect of life. It is coupled with an intense aptitude to scrutiny and supervision to regulate economic strategies. Examples are: the accuracy to determine rations of supplies, and in the arithmetical procedures applied to the daily routine of temple staff (*e.g.* inspections and control of duty rosters). Such scrutiny is attested in the written record since the Old Kingdom (*e.g.* the Abusir Papyri: Kemp 2006, 166–171). However, some scholars, Kemp in particular, assert that during the Middle Kingdom the degree of supervision and control over the population increased considerably (Kemp 2006, 243–244). As a result, these researchers consider the Middle Kingdom a prescriptive society. Moreover, signs of this bureaucratic tendency are recognised in a strict organisation of settlement layout (*e.g.* Helck 1963; Kemp 2006; Parkinson 1991; Shaw 2000).

According to Kemp (2006, 213), this concept would be declared in the rigid pattern shown by sites of new foundation, such as the town of Lahun. He stresses that those who planned and built the town respected a grid-iron plan more accurately and rigorously than it had been done in the past at the *Gallery Complex* of Heit el-Ghurab. Kemp considers Lahun a model community where people were divided in two main groups: "owners of very big and owners of very small houses" (Kemp 2006, 217), namely large residences for the elite and small-scale houses for the rest of the population. This aspect has been interpreted as a reflection of the authoritarian nature of the Middle Kingdom and its very structured view of society (Ezzamel 2004; Grajetzki 2006 141–142; Kemp 2006, 151, 217). However, the houses of Lahun cannot be divided strictly in two groups, palaces and small houses (2.2.1). The range of different unit sizes suggests

variability of social status among the residents. The evidence seems to diverge from the idea of the application of a rigid system and does not fully reveal the attention to express order, which Kemp and others recognise as a singular feature of the Middle Kingdom. As a result, Lahun may not be considered such a classic example of the Middle Kingdom "application of bureaucracy to community creation" (Kemp 2006, 221). Moreover, the layout of the Old Kingdom Heit el-Ghurab shows a higher bureaucratic tendency. A wall isolates the barracks for the pyramid builders from the other main functional areas. In particular, the workers were separated by the wealthiest who lived in the Western Town (3.2.1). As Kemp himself claims "bureaucracy begins by imposing order on defined areas of activity" (Kemp 2006, 210). Heit el-Ghurab is a good example of the Old Kingdom. Therefore the bureaucratic tendency is not distinctive for the Middle Kingdom but originates in an earlier period of centralised control.

Other scholars have drawn alternative conclusions. Callender (2000, 182–183) and Grimal (1996) propose an image more permeated by philanthropy. They consider the Middle Kingdom a *golden age* that flourished in different fields: from the state administration to the economy, religion, literature, and art. According to Callender, a stronger control over individuals was a sign of the acquisition of a higher importance of the human being, whatever his position in society was. Richards (2005, 9–10) concludes from the rich funerary equipment found in lower status burials of the Middle Kingdom at Abydos, that economic freedom existed in this period. In contrast Grajetzki recalls the communist states of eastern Europe of the Twentieth century, asserting that "even in highly prescriptive states there was a wide spread of property and wealth" (Grajetzki 2006, 188 note 9).

Both textual and archaeological evidence can contribute to the reconstruction of the work conditions of the labourers. The combination of the Lahun documents and P. Brooklyn 35.1446 has revealed the existence of an organised network of inspection and control exercised on temporary workers. In addition, 31% of the officials attested on monuments as family members or colleagues of the officials of the *ḫnrt wr* belong to the security and military field (Figs. 49 and 51, Table 22). Kadish (1996) and Ezzamel (2004, 507) have suggested that even the namelists of labourers can be considered a tool of social control as they allowed the authorities to track movements of workers spatially and temporally. Such control was aimed to guarantee execution and accomplishment of duties. The state had planned a method to assure continuity of productivity by means of substitutions and punishments for the defaulters. High rates of absenteeism could threaten or delay the completion of the projects. Whenever those registered for the labour obligation or their *ỉwʒw* avoided duties, the state remained in deficit of labour. Only a strict vigilance could guarantee productivity.

The comparison between texts and archaeological evidence seems to suggest that the control exercised on the population revealed by the papyri was more tight. All the activities performed at the sites required coordination, from the stone hauling (or different menial tasks) of Qasr es-Sagha to the farming of Tell el-Dab'a. As Kadish (1996, 439) stresses, "work and workers needed to be organised so as to achieve a desired level of production and delivery of goods and services". A high level of order and organisation ran thus parallel to an efficient control. Supervisors were needed so as to maintain discipline among workers and to assure the completion of daily assignments. Besides, patrolling of streets might have been an effective method to keep under control a large population tracking the movements of groups of workers in and out of the settlements. Similar methods had been already used during the Old Kingdom to monitor the pyramid builders within the *Gallery Complex* of Heith el-Ghurab (3.2.1). Consequently, they would not be singular features of the Middle Kingdom. However, regarding Qasr es-Sagha and Tell el-Dab'a, it is hard to establish how severe the control exercised by means of architectural features actually was (3.6.4).

We need also to take into consideration that there are not bodies of administrative documents comparable to the Lahun and Reisner Papyri, and P. Brooklyn 35.1446 for the Old and the New Kingdoms. Moreover, the New Kingdom ostraca from Deir el-Bahari recording construction works have not been fully investigated (2.1). Consequently we cannot exclude that similar strategies to control the population existed also during those times.

4.3 - CONCLUSIONS

The archaeological evidence from Qasr es-Sagha and Tell el-Dab'a suggests the existence of settlements built exclusively to house workers engaged in nearby

activities. This practice began during the Old Kingdom and will recur later, during the New Kingdom (workmen's villages of Amarna and Deir el-Medina). The best Old Kingdom example is the *Gallery Complex*. However, Old Kingdom smaller and less formal compounds and clusters of barracks for workers have been recognised also attached to the tomb of Queen Khentkawes (Kemp 2006, 206–7) near the Menkaura pyramid, at Dahshur near the Valley Temple of Snofru, and at Wadi el-Garawi where the workforce was engaged in the construction of a dam (Bussmann 2004).

The concentration of people in a planned compound close to the place where they worked is comparable to the byzantine *epoikia* owned and managed by the Apion family (Fifth–Seventh century). The *epoikia* were small private "estate labour settlements" (Sarris 2004, 64) located near Oxyrhynchus. They housed labourers engaged in fields in the surrounding area. As Jairus Banaji observes, the *epoikia* were "unlike villages" as they were built with the sole purpose to accommodate labourers (Banaji 1999, 206). The standard model comprised 100 rooms aimed to meet the basic needs of the workers (eating and sleeping). The purpose of such arrangements was to enhance and facilitate discipline, control and supervision (Banaji 1999, 207–212).

As discussed above, architectural features of the Western Settlement of Qasr es-Sagha and Tell el-Dab'a might suggest a certain degree of control enabling the officials in charge of the compounds to maintain order and organisation, and to track movements of people (4.2.8). The isolation of workers by means of walled enclosures may be interpreted as a means to socially 'segregate' them and/or to identify them as a homogeneous group of people engaged in specific state projects (3.3.3). The maintenance of order and organisation increasing the supervision of a large and socially uniform 'community' of workers might be considered additional reasons which triggered the foundation of purpose-built settlements.

The concept of isolation is also implied in the word *izba* (Alleaume 1999, 331) that, in the Nineteenth century, denoted isolated Egyptian temporary encampments for seasonal workers who worked far from their villages. Land labourers of large estates were accommodated inside mud units concentrated around the house of the owner (Gerber 1987, 102–103). Their work was supervised by an overseer, and they were tightly controlled (Owen 1993, 146–7).

The purpose to enhance order and control over the population through the repetition of habitation modules is also evident in the village of Kafr al-Zayat, Delta, built in 1846. In the same period, the French government applied the same model in Algeria. These villages were laid out following a rigid standard scheme that included blocks of houses placed back to back on parallel rows (Fig. 142). Each house included a courtyard (C in the image) where animals were kept, and a covered domestic space (B in the image) including two rooms (on two floors) (Mitchell 1991, 44–48). Buildings for the village head and a guard were placed at strategic points (E and G in the image). As the image shows, the arrangement of the houses may recall the Western Settlement of Qasr es-Sagha. The French government aimed to establish control assuring a strict surveillance over the Algerian population during the process of colonialism.

Additionally the presence of two closely built settlements related to each other, with different roles, and inhabited by a population with a different degree of skill seems to have reoccurred throughout dynastic times. Qasr es-Sagha may be the example for the Middle Kingdom, while Amarna for the New Kingdom (*Workmen Village* and *Stone Village*). An earlier example may be Heit el-Ghurab, where the Eastern Town seems to have worked as support site for the *Gallery Complex* (3.2.1). Through textual analysis I

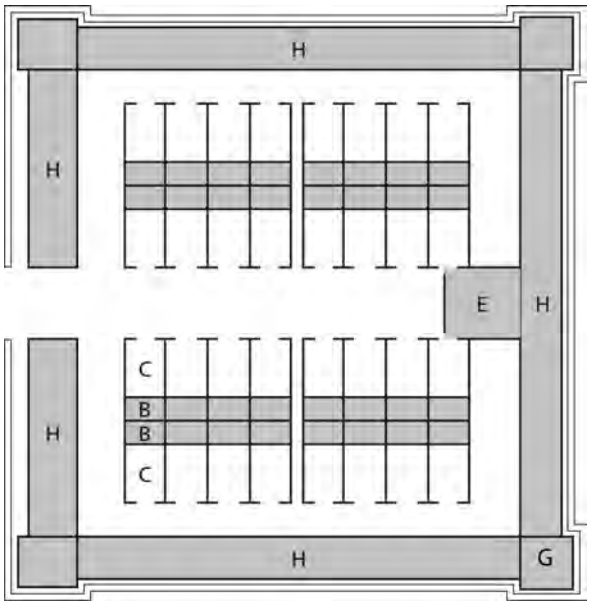


Fig. 142 - Standard plan of villages, Algeria (drawing © G. Maserati. From Mitchell 1991).

conjectured a similar organisation with two ephemeral settlements also at This and Koptos, and Hawara (4.2.6).

I recognise two types of connection between the 'twin settlements'. The first includes menial or less skilled workers in one compound and professionals in the other (Table 40). This seems to be the case of Qasr es-Sagha and, speculatively, of Hawara, This and Koptos. The population of these settlements likely belonged to different social strata. The second connection includes an ancillary settlement which supported the main one, which was involved in more complex tasks, providing a wide range of services (*e.g.* production of clothes and tools and procession of raw food) (Table 41). This seems to be the case of Amarna and Heit el-Ghurab. *ḫnrtw* too might have held, in specific instances, or possibly at the beginning of the Twelfth Dynasty only, a similar role as supporting structure for labour and goods.

Both the Western Settlement of Qasr es-Sagha and Tell el-Dab'a can be characterised by an 'atypical sociology' as they exclusively differ from 'normal' settlements due to the absence of an internal social differentiation. Both the Western Settlement of Qasr es-Sagha and Tell el-Dab'a reveal a high degree of social engineering, which implied the intervention of the state. Despite the difficulties in identifying the role of these sites, the two housing-unit models seem to mark different purposes, temporality of occupation and gender of their residents. On the one hand, the barracks probably reflect the military style associated with construction/quarrying tasks, seasonal/short term occupation, and large and socially uniform group of workers, mostly men. I think that settlement layout was not affected by the duration of the project but rather by the seasonality or periodical rotating shift of the teams of workers. The nature of the Western Settlement as consumption site provisioned by a central authority likely depended on its seasonal occupation and main activity performed by its inhabitants, which did not enable them to engage in procurement daily tasks (fishing only was likely practised) (3.6.4). On the other hand, the small-scale houses of Tell el-Dab'a marked a more permanent settlement which seems to have progressively reached a status of self-sufficiency, and was likely inhabited by a mixed population of men and women engaged in acquisition daily practices. Probably they did not engage in building projects (3.6.4).

DATE	LESS SKILLED/MENIAL WORKERS	PROFESSIONALS
MK	WESTERN SETTLEMENT *QASR ES-SGAHA*	EASTERN SETTLEMENT *QASR ES-SAGHA*
MK	HYPOTHETICAL COMPOUND FOR MENIAL "COUNTED MEN" *HAWARA*	HYPOTHETICAL COMPOUND FOR SPECIALISED CRAFTSMEN *HAWARA*
MK	HYPOTHETICAL COMPOUND FOR MENIAL "COUNTED MEN" + *ḫnrt* *THIS AND KOPTOS*	HYPOTHETICAL COMPOUND FOR SPECIALISED CRAFTSMEN *THIS AND KOPTOS*

Table 40 - 'Twin settlements' inhabited by a population with different skill level.

DATE	MAIN SETTLEMENT	SUPPORT SETTLEMENT/ STRUCTURE
OK	GALLERY COMPLEX *HEIT EL-GHURAB*	EASTERN TOWN *HEIT EL-GHURAB*
MK	ASKUT FORT?	*ḫnrt?*
MK	MIRGISSA FORT?	*ḫnrt?*
NK	WORKMEN VILLAGE *AMARNA*	STONE VILLAGE *AMARNA*

Table 41 - 'Twin settlements': a main settlement and its 'ancillary' or support-settlement/structure.

The Middle Kingdom military style of managing homogeneous crews of temporary workers, which is also suggested by the terminology used in some documents, may be seen as the precursor of the New Kingdom typical practice to recruit labourers from the army for state building projects (2.1). The combination of the written sources with the archaeological evidence from the sites has led me to identify the

residents of the Western Settlement of Qasr es-Sagha and Tell el-Dab'a with the mass of 'counted men' recorded in the Reisner Papyri and in the records from Lahun. The combination of the Lahun documents and P. Brooklyn 35.1446 has enabled me to propose a credible work chain from the recruitment to the completion of the task and the annulment of the obligation.

The provenance from the Theban area of the defaulters listed in P. Brooklyn 35.1446, and the same terminology used to denote temporary workers from the Faiyum (Lahun), to the southern This and Koptos (crews of *ḥsbw* and *mnyw*), to the First Cataract area at Elephantine (*ỉwʒyt* employed in textile production) attest to the application of the same procedures for the organisation of temporary compulsory labour in different parts of the country. Additional evidence from other sites is lacking due to absence of preserved contemporary administrative written sources comparable to the Lahun Papyri and the Reisner Papyri.

The labels given to the workers, *ḥsbw, mnyw* and *ỉwʒw*, are not the words used by these people to identify themselves. Such terminology reflects the view of the 'elite' (1.4). For administrative purposes, the uniform mass of compulsory workers were collectively recognised as 'counted men'. This word refers to the general condition of these individuals without any reference to the type of work they were recruited to perform. The general label *ỉwʒw* works in a similar way. These words belong to the language of the administration. The papyri present voice and view of the ruling class, the administrative and executive branch of society. The type of document plays a key role in that issue as they are business texts and letters between high ranking officials. In one case only, we 'hear' the voice of a worker: P. Berlin 10023A, the 'doorkeeper' Imeny complains of having been taken by mistake to replace his son registered for *hʒw* (2.3.1 G).

The Lahun Papyri and the purpose-built settlements of Qasr es-Sagha and Tell el-Dab'a are exceptionally important sources, as they attest to social groups who are generally absent from different types of sources, and otherwise hard to identify in the archaeological record. In a few tomb paintings there are individuals represented in an "uncanonical way" (Grajetzki 2010, 189). They are 'Asiatics' and Beja herdsmen, pastoral nomads of the Eastern Desert (Barnard 2009, 21–22), recognisable by their exceptional slimness, a wooden stick in their hand, and sometimes beard and disordered hairs (Figs. 143 and 144) (*e.g.* stela NY MMA 57.95: Fischer 1960; tomb of Meir II: Blackman 1914–53). That was how the 'others' and the 'different' were represented. Although 'Asiatics' were considered as equal to low status Egyptians (2.3.1 A), there is no evidence that the lowest classes of Egyptian society could be represented in a similar way (with the exceptions of specific ethnic features such as a beard and disordered hair).



Fig. 143 - Drawing of a Beja man from the Tomb of Meir II (drawing © G. Maserati. From Blackman 1914–1953).

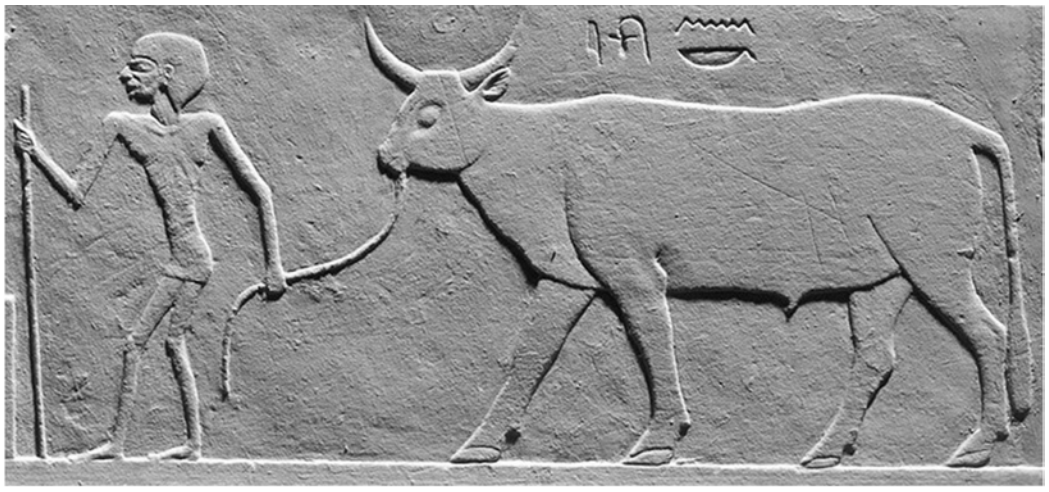


Fig. 144 - A man likely identifiable with a Beja man from the stela of Intef (Courtesy of the Metropolitan Museum, New York; Harris Brisbane Dick Fund, 1957, acc.no.57.95).

The presence

of women and their roles in labour organisation are unclear. The only reliable archaeological evidence is related to textile production (4.2.2). This craft is usually associated with the female 'substitutes' *ỉwʒyt*. The main difference between evidence of textile production from texts and material culture is that it was a compulsory duty for *ỉwʒyt*, while at Tell el-Dab'a a domestic craft.

The *ỉwʒyt* is the only category of female workers attested in the written records. Surely, women were recruited for temporary labour, as P. Berlin 10021 attests (2.3.1 J), but they are not listed within the gangs of ten recorded in the Lahun accounts. Information concerning the officials in charge of female workers is also lacking. Moreover, in contrast to *ḥsbw* and *mnyw*, women *ỉwʒyt* are never identified by their main profession. Only the woman sent from the *ḫnrt* in P. Berlin 10021 is identified as 'singer', but the text does not recognise her as *ỉwʒyt*. The hypothetical 'use' of *ỉwʒw* as hostages (see 2.5.1 p. 87) may provide an explanation to the latter issue. If we accept the possibility that the 'status' as hostages was *ỉwʒw*'s primary role in the *hʒw labour system,* 'hostages' was their main identification mark. Thus there was no need to specify what their original profession was.

The high percentage of attestations of *ḫnrt wr* from the second half of the Twelfth to mid-Thirteenth dynasty may be related to the process of centralisation and reorganisation of the government which reached its peak under Senwosret III and included the creation of new positions in the administration (1.5). Both *ḫnrt wr* and *ḫʒ n dd rmṯ* were likely among the main innovations of this process of reorganisation of the administration system. This was first conjectured by Quirke regarding the *ḫnrt wr*: he suspected the existence of a connection with the "general social and cultural overhaul accompanying the Nubian conquest of Senusret III" (Quirke 1988, 90). The inclusion of the *ḫʒ n dd rmṯ* among the *wʿrwt,* the principal units of the administration of the late Middle Kingdom (1.5) may substantiate this hypothesis. These two departments, directly administered by the vizier, were the main entities of an organised system for the management and care of temporary duties. They assured a constant flow of labour and contributed to keep absenteeism under control. The gap between the texts and other archaeological evidence regarding the mangerial aspects of work organisation (4.2.3) has limited the reconstruction of administrative procedures to the written sources.

5. CONCLUSIONS

In the following sections I will summarise the main outcomes of the present study. The first sub-chapters (5.1 and 5.2) will outline the principal contributions provided by the analysis of the written sources and the archaeological record separately. Then the results stemmed from the comparison of the different types of evidence (4.2, 4.3) will be tested and reviewed in order to identify patterns of outcome, and evaluate the possibility of drawing a final consistent picture of labour organisation during the Middle Kingdom.

5.1 - THE TEXTUAL RECORDS: FINAL REMARKS

The study of two sets of related terms used in the Lahun and Reisner papyri (2.3.1, 2.3.2), allowed a qualified conclusion on the vocabulary and practice of labour organisation (2.5) providing important insights into Middle Kingdom society. The main result is a sharper definition of social strata on the basis of the obligation *hȝw*. According to my interpretation, this word denoted the general obligation, covering the entire range of temporary compulsory labour. It was required from a local 'middle stratum', comprising those who could avoid manual labour by sending someone else from the household to meet the duty (*e.g.* work lists of 2.3.1 A, 2.3.2 O, P; 2.5.1). The rise of a 'middle class' during the Middle Kingdom had been indirectly speculated by Hayes (1971) on the basis of numerous private statuettes and funerary stelae dedicated at Abydos. Afterwards, the existence of a middle social stratum was suggested by Quirke (1991a) in his study of the expression 'men of town X' attested in the Lahun Papyri (2.3.1 A), and subsequently postulated by Richards on the basis of tomb equipment (1997; 2005). In her examination of the Middle Kingdom cemeteries of Haraga, Riqqa and Abydos Richards noticed that, between elaborated tombs of the elite and poorer graves, there were some burials which did not belong to high-status people but contained semiprecious or precious goods, which she saw as a mark of "several levels of wealth" (Richards 2005, 175).

My study of the textual sources provides additional evidence which substantiates the existence of middle socioeconomic *strata.* It is evident that, aside from the elite and the ruling class, a wider range of people who did not belong to the lower stratum of the population had some access to resources. This status enabled them to maintain households which included not only family members, but also low status dependants. This 'middle class' seems to have comprised, in particular, minor officials of the religious sector and civil administration, and titleless 'men of town X'.

My research has also confirmed what had been previously suggested: that people identified by their 'modest' profession could, in some instances, be included in this same socioeconomic group (2.5.1). Professions like brewer and butcher can mark socially modest people who were the dependants of officials. Sometimes, however, the same 'modest' professions could be held by individuals who were dependants of higher ranking officials (2.3.2 N, O, P). Consequently, these people could in turn have their own dependants. It is clear then that the association between professions and classes was not fixed, but flexible.

This social complexity contrasts with the common idea of the Middle Kingdom as an extremely structured society. Therefore, my research challenges the related view of a highly prescriptive state. A flaw in such an approach to the Middle Kingdom has been revealed by my comparison between textual sources and material culture: the level of control attested at the settlements of Qasr es-Sagha and Tell el-Dab'a does not seem as tight as that suggested by the papyri (4.2.8). Signs of authoritarianism are evident, but the idea that this was distinctive of the Middle Kingdom is questionable. The present work thus adds to the debate about the 'prescriptive nature' of the Middle Kingdom, showing that broader syntheses and conclusions can be challenged and need to be tested further.

Another result of my research is the proposed identification of the individuals who performed the *hȝw* obligation with those identified by the collective noun *ḥsbw* 'counted men'. According to my interpretation, this was the label given to the people for *hȝw*

once they were enrolled in the task. As mentioned above, most of them were dependants of the person registered for the obligation, what I have called 'first level' replacements (2.5.1).

The combination of the evidence from the papyri and the epigraphic material referring to the departments for the management of labour has enabled me to propose a tentative reconstruction of the work chain from recruitment to replacement of defaulters, through the completion of a period of compulsory service, to the annulment of the obligation and discharge of *ỉwʒw* (4.2.4). According to my interpretation, specific 'substitutes', indicated by the technical word *ỉwʒw*, were provided when the 'regular' workers failed to meet the duty. I conjecture that the engagement of 'first level replacements' was a common practice, whereas the act of *ỉwʒ* was the consequence of labour defaults (2.5.1). The study of the texts referring to the system of substitutions has revealed that most *ỉwʒw* were women (twelve out of fifteen: 2.3.1 H) and that two out of the six attestations of female 'substitutes' refer to textile production (2.3.1 M, N). To these sources, I added the reference to linen of UC 32132 *verso*, as the context of the *recto* may suggest that a woman identified as "daughter of" was an *ỉwʒyt* (2.3.1 H, N). The reference to textile manufacture may indicate a differentiation of tasks for female 'substitutes'. Additionally, the prevalence of female 'substitutes' contrasts with the exclusively masculine gender of the 'first level' replacements which matches the masculine gender of the defaulters listed in the register of the *ḫnrt wr* (*e.g.* 2.3.1 A, D, E; 2.3.2 O). Women do not appear in recruitment nor attendance lists (4.3), but were the preferred choice in case male workers sent to perform the obligation failed in their duty. *ỉwʒw* were supposed to be the guarantors of the completion of the *hʒw* obligation. The link with the demotic term for "pledge" supports this concept, and perhaps highlights the coercive aspect of the obligation by suggesting that *ỉwʒw* were not just replacements of transgressors but also living pledges (2.5.1 p. 87).

Administrative records shared the same technical terminology used in afterlife writing, marking a parallel 'set of rules' between real life and the underworld: the obstacle clause *dr sḏbw* of the *shabti* statuettes is used in labour contexts to denote whether or not workers met their duties (2.3.1 D). Once the assignment was completed, the heads of household were released from the obligation.

The reconstruction of the temporal framework in combination with the context of the recruitments have enabled me to define the temporality of work organisation (4.2.7). Interestingly, building works were not limited to summer, but were undertaken also in spring (Tabs. 37–39), one of the periods which required the most farmers. The range of activities performed by compulsory workers spanned from seasonal quarrying and farming to work inside stores, and a series of ancillary services and menial tasks such as removal of woods from fields and preparation of clay for brick-making. 'Counted men' were preferably employed in stone hauling (2.5.1, Tabs. 28, 29). I believe that the contrast with the prevalent employment in fields for the defaulters recorded in P. Brooklyn 35.1446 may have depended on different local needs (4.2.7). Seemingly, most compulsory labour in the Lahun area under Senwosret III and in particular Amenemhat III related to construction tasks.

Apart from a common paleographical link and a general reference to temporary labour, it is not clear whether the Old Kingdom *hʒ(w)* and the New Kingdom *hʒy(t)* corresponded to the Middle Kingdom *hʒw*. Both the New Kingdom and Old Kingdom services seem to have included labour in fields and at construction sites (2.1, 2.3.1). However the Middle Kingdom *hʒw* is clearly embedded in a 'system' managed by the institution *ḫnrt wr* and the bureau *ḫʒ n dd rmṯ,* two entities which are neither attested in earlier nor later sources, and whose existence may have been the 'result' of particular social and historical contexts.

The examination of all the available written sources referring to the institution *ḫnrt wr* and the bureau *ḫʒ n dd rmṯ,* for the first time collected and analysed together, has allowed a more detailed reconstruction of the managerial aspect of labour (4.2.3). In particular, the central role of the *ḫnrt wr* as the institution which monitored the working population, and identified any negligence, is very clear. On the basis of combined information from P. Brooklyn 35.1446 and the Lahun Papyri I proposed that the *wʿrw* "fugitives" and *tšw* "absentees" recorded in the first document were the defaulters of labour obligations who were replaced by *ỉwʒw* in the second body of texts.

The survey of titles from monuments revealed a complex web of correlations among offices with responsibilities for labour organisation at different levels (pp. 73-82). A security aspect, especially linked to economic affairs, appears as a major concern for the

management of temporary compulsory labour at its highest (and central) level.

A fertile area for further research would be the identification of corresponding departments or representatives for labour management before and after the Middle Kingdom. A hypothesis proposed by Moreno García is also worthy of further investigation. He observed functional and economic similarities between the *ḫnrt* and the *ḥwt*, as structures for the organisation of productive activities and mobility of labour and products (Moreno García 1999, 145–147). *Ḥwwt* were centres that administered villages and agricultural domains. They disappear at the end of the Eleventh Dynasty, just as the *ḫnrt* emerges. The *ḥwt ꜥꜣt* "the great *ḥwt*" was the main centre for the management of larger territories, including several villages and agricultural domains, in those areas where "la couronne avait intérêt à affirmer sa présence et à développer les ressources locales" (Moreno García 1998a, 53).

Textual reference to both *ḫnrt wr* and *ḫꜣ n dd rmṯ* is confined to a precise time spanning from the mid Twelfth Dynasty to the end of the Second Intermediate Period. As hypothesised (4.3), they may have resulted from the development of a new administration system which culminated at the time of Senwosret III. The sudden visibility of these departments in a wide range of textual sources may depend on two interrelated factors. We must consider the possibility that the process of centralisation – the main aspect of the reorganisation of the administration – required the foundation of central departments for the management of labour that did not previously exist. Possibly, therefore, the Middle Kingdom *ḫnrt wr* and *ḫꜣ n dd rmṯ* were the earliest examples of departments of this kind. Again, it is possible that the establishment of central entities that supplied and supervised labour through local branches was intended as a method to reduce local autonomies. In turn, each branch applied a system of rules in their own area of intervention. During the New Kingdom the temples acquired powers and concentrated in their 'hands' multiple managerial functions. Selected tasks, previously executed by the *ḫꜣ n dd rmṯ* and *ḫnrt wr* or under their responsibility, could have been disengaged from these central departments and transferred to temples, or delegated to other officials.

An interesting result of the discussion about the officials involved in the supervision of workers on site is the identification of the social status of 'commanders' *ṯsw* with that of the ordinary workers recruited to perform the tasks (4.2.5). The 'commander' and the members of the gang shared the same position despite the role of the former as supervisor: the 'commander' was one of the workers registered to perform the obligation. This means that 'commanders', like the workers, could also fail to meet their duty and become defaulters. The register of the *ḫnrt wr* seems to support this assumption, as individuals appointed as persons in charge are listed among defaulters (p. 61). Speculatively, *wršw/wrw* was the title given to supervisors of gangs of workers engaged in agricultural tasks, while *ṯsw* was applied to those responsible for gangs in construction and quarrying works.

The work on the unpublished papyri has played a central role in the reconstruction of the main aspects and social position of the strata of the population liable to conscription. For instance P. Berlin 10080 has proven to be crucial for the identification of *mnyw* as members of a sub-group of the larger body identified with the collective term '*ḥsbw*' (2.5.2). Additionally this papyrus is the sole attestation hitherto known of *ḥsbw* employed inside the 'provisioning area of the god's offerings' of Sekhem-senwosret, which substantiates the information provided by the Karnak stela regarding work done inside the same production area (albeit in Upper Egypt) as *hꜣw* service (2.3.1). The previous evidence covered employment only in construction and quarrying work. Additionally, P. Berlin 10104 (2.3.1 A, D) has provided basic insights into the core frame of the obligation *hꜣw*, as it preserves the most complete namelists of people for whom the relation to that duty is stated clearly. The unpublished data set has also played a pivotal part in the achievement of an accurate reconstruction of seasonal patterns in the frame of temporary labour.

5.2 - THE ARCHAEOLOGICAL RECORDS: FINAL REMARKS

A main outcome in this regard is the identification of a continuity in the application of specific strategies in the organisation of the workforce on site from the Old Kingdom to later periods. First, the gathering of a homogeneous group of workers into planned compounds located near the workplace seems to have been a recurrent procedure. Such a 'trend' is attested from the Old Kingdom (*Gallery Complex*) to the New Kingdom (villages of Amarna and Deir el-Medina),

passing through the Middle Kingdom Tell el-Dab'a and Qasr es-Sagha, and reaching later times with the Byzantine *epoikia* and the nineteenth century *izba* (4.3). Another recurrent aspect of workers' settlements in pharaonic times was the existence of 'twin settlements'. They were built close to one another and characterised by differences in the skill level and social status of their inhabitants (specialised craftsmen and menial workers) or roles (main settlement and 'ancillary' support settlement). The settlements of Qasr es-Sagha can be included in the first group along with hypothetical compounds at the building sites of Hawara, This and Koptos, while the functional areas of Heit el-Ghurab and the villages of Amarna belong in the second group (4.3; Tabs. 40 and 41).

A key outcome of the present study is the identification of two different housing-unit models for Middle Kingdom workers' settlements: the barracks-like style of Qasr es-Sagha and the small-scale houses of Tell el-Dab'a e/3 (3.6.1). According to my interpretation, the choice of one or other model depended on temporality of use, the primary function of the site, and gender differentiation of the residents. It is not clear whether one of these factors held a central role compared with the others. Qasr es-Sagha exhibits the following correlated features: the military profile and the barracks-like style of the layout; the seasonal occupation of the site, probably on a shift basis; quarrying activity (and maybe other construction tasks); and possible gender restriction to men. At Tell el-Dab'a the correlated factors are: primary function diverse from construction; more permanent use of the site; and a mixed population of men and women. Additionally, the internal organisation of Tell el-Dab'a reveals the first application of a pattern which will appear slightly later at Lahun, at the Western Settlement of Qasr es-Sagha, and at the industrial compound of Ezbet Rushdi: separate blocks of houses, each comprising two rows of units placed back to back. In Lahun, Qasr es-Sagha and Tell el-Dab'a, the units are also built side by side (Plate 14).

The combination, for the first time, of all types of evidence from the sites (1.3) – landscape, architectural features, faunal and flora remains, and artefacts – and the comparison with assemblages and labour strategies of earlier and later workmen's settlements, have provided a comprehensive picture of the sites. The interpretations of previous scholars have been reconsidered, integrated or questioned.

The examination of the material culture from the Western Settlement of Qasr es-Sagha and Tell el-Dab'a e/3 suggests that the inhabitants were assigned to a main task that was executed outside the enclosure walls, like the earlier *Gallery Complex* of Heit el-Ghurab and the later villages of Amarna and Deir el-Medina (4.3). This is the basic feature which distinguishes these settlements from the industrial sites, where crafts were performed within the walls (3.5).

The discovery of many tools suggests that the Eastern Settlement of Qasr es-Sagha accommodated craftsmen who rough-hewed basalt and limestone blocks extracted from quarries. I have proposed that they also produced the crescent drills discovered at the site (3.3.3, 3.6.4). The identification of the function of the Western Settlement has proven difficult, due to the lack of implements. Employment in quarrying tasks is the most likely activity, in line with the interpretation of previous scholars such as Śliwa (*e.g.* 1992a; 1992c; 2005), Kemp (2006, 227) and Shaw (2010). However, the lack of Middle Kingdom evidence at the basalt quarries has led me to propose that the population of the Western Settlement was not involved in the extraction of the blocks. The large work crew may have engaged in stone dragging from earlier deposits of material. I thus suggested that these workers coincided with the *ḥsbw* stone haulers of the Lahun and Resiner papyri (4.2.5).

My discussion of the cemetery and the temple has cast doubts on their association with the settlements, in disagreement with previous interpretations which had tended to include all these structures into the same complex (*e.g.* Moeller 2016 and Śliwa 1992c) (3.3.3). Several elements such as date of the burials, social differentiation reflected in tomb equipment, and the presence of an upper series of rock-cut tombs for wealthier individuals, suggest that the deceased were not the residents of the Middle Kingdom settlements. This raises several questions: what is the identity of the people buried in the cemetery? Were the Middle Kingdom settlements, and possibly the temple, part of a wider urban complex also in use at earlier times? These questions may be addressed through a wider archaeological survey. The application of satellite remote sensing may turn out to be very useful in detecting unearthed structures in the area (Corrie 2011; Parcak 2004). Additionally, the funerary equipment from the pits could be relocated and recorded more fully. As regards human remains from these burials, they were only analysed to a certain extent at the time

of their discovery in the 1930s (p. 141). Thus, these remains might be worthy of further analysis, if their state of preservation allows this. The equipment in the series of upper rock-cut tombs has never been examined, nor have the skeletons of its owners. In this case, further study and analysis of the bones may help the understanding of this complex cultural environment. Through isotope analysis of the bones we could identify diet. This, combined with the verification of activity related marks, could also suggest the social status of the deceased.

In contrast to the Western Settlement of Qasr es-Sagha, Tell el-Dab'a e/3 was not included in a complex of different buildings; it was the earliest and only structure built in that area of the Eastern Delta (3.4.1). The evidence pointing to agricultural activities only, and the absence of any other contemporary structure nearby, did not facilitate the identification of the role of the site. During my discussion of different hypotheses, I considered Czerny's suggestion that the settlement could be an 'attempt at colonisation' to be the most plausible (3.6.4, 4.2.5). To this hypothesis I applied the Berlev model for the Egyptian integration of newly conquered areas in Nubia at the beginning of the Twelfth Dynasty. According to Berlev's 'social experiment', a large group of low status *ḥm(w)-nsw* was moved to Nubia to establish there the basic social stratum of Egyptian society, the first step of the process of colonisation. This original contribution may thus support Czerny's suggestion.

The examination of faunal remains, for the first time discussed and compared with samples from earlier and later workers' settlements and industrial sites, has proven useful for inquiring into the temporality of labour (4.2.7), despite limitations arising from incomplete analysis of data (3.3.2). Additionally, the integration with other types of finds has revealed differences in the degree of self sufficiency. The evidence from Qasr es-Sagha is suggestive of human occupation over the cooler months, in particular from October to April, which matches the seasonality of quarrying activities. An occupation during the summer is open to question. Further analysis of the organic material might enrich knowledge of dietary habits, giving new insights into the areas of human activities on the site. Evidence for summer site occupation might constitute an assemblage of large *Clarias*, small young *Tilapia* and eels, as the fish samples from Wadi Kubbaniya suggest (p. 132).

Qasr es-Sagha was probably a consumption site which received regular provisions, aside from fish which was likely locally procured (3.3.3). The identification of the centre which sustained the population requires further investigation. On the other hand, the high percentage of pig bones in the Tell el-Dab'a sample, combined with clear evidence of agricultural activities, suggests intense farming and procurement practices. The rearing of pigs, combined with progressive changes in the architecture of the settlement and the internal arrangement of spaces, and then a later introduction of storage facilities, led me to propose a gradual development towards self-sufficiency (3.4.3, 3.6.4). This may fit the 'attempt at colonisation' hypothesis and finds a parallel in the development of the industrial site of Ezbet Rushdi (3.6.3).

At the Old Kingdom site of Heit el-Ghurab the galleries for pyramid builders formed a part of a broader functional area (*e.g.* bakeries and RAB). Conversely, Tell el-Dab'a e/3 and the Western Settlement of Qasr es-Sagha were isolated communities. As I stressed, the factor 'isolation' will characterise the later *epoikia* and *izba* (4.3). I suggest that the creation of this type of dwelling for workmen may have been related to the following concomitant factors: the intention to socially isolate the workers and mark them as performers of a specific activity, and an effort to increase supervision and productivity.

5.3 - CHRONOLOGICAL DISCREPANCIES AMONG THE SOURCES

The question of chronological discrepancies may challenge the reconstruction of a sole coherent scenario for Middle Kingdom labour organisation. As Table 42 shows, a first diachronic relation concerns the two main bodies of administrative texts: the Reisner and Lahun papyri. However, the attestation of the same groups of workers *ḥsbw* and *mnyw* in both text *corpora* may suggest continuity in the system of collective labour during the entire Twelfth Dynasty. The attestation of *ḥsbw* in rock inscriptions from the Wadi Hammamat dating to the first half of the Twelfth Dynasty supports the observation (Plate I in appenddix). Additional proof of continuity is the prevalent employment of *ḥsbw* and *mnyw* in building activities. In contrast, the 'substitutes' *ỉwʒw* are not attested in the record earlier than the Lahun Papyri. The only doubtful instance is the dish from Elephantine with

attestation of *ỉwʒyt*, which could be slightly earlier (2.3.1 M). The absence of attestations of *ỉwʒw* could be due to the lack of comparable earlier texts besides the Reisner Papyri.

Another chronological problem regards the bureau *ḫʒ n dd rmṯ* and the institution *ḫnrt wr,* as their roles are associated with reform of the Egyptian administration during the late Twelfth Dynasty (1.5, 4.3). Sources of the First Intermediate Period that mention the *ḫnrt* belong to a military context. In contrast, in the course of the Twelfth Dynasty the term appears increasingly in labour contexts (2.4.1). The *ḫnrt* attested in the Reisner Papyri is already associated with labour organisation, but it is uncertain whether it had already developed the functions of the late MK *ḫnrt* (2.5.2).

As shown in the table below, the settlements for workers at Qasr es-Sagha and Tell el-Dab'a were in use at different times. Only the first is synchronised with the Lahun Papyri and the span of activity of *ḫʒ n dd rmṯ* and *ḫnrt wr*. The earlier chronology of Tell el-Dab'a does not exclude, though, the identification of its population with *ḥsbw*, as the word is attested throughout the Twelfth Dynasty. Similarly, the supervision of the workplace by the officials *ḫrp*, sš and *ṯsw* is confirmed for the entire Twelfth Dynasty, as they appear in that role in both the Reisner Papyri and Lahun Papyri. Some doubts arise over the managerial aspect of temporary labour at the beginning of the Twelfth Dynasty, before and in the transition phase to the new structure of the government (1.5). It is not clear whether the *ḫnrt ʿʒ*, attested only on stela BM 828 (reign of Amenemhat II), already held the same roles of the later *ḫnrt wr* (2.4.1, Table 16). Furthermore, in the late MK some titles were created *ex novo* (1.5). In sum, it remains uncertain how far the administrative procedures of late Twelfth and Thirteenth Dynasty (*e.g.* interrelations among offices and their functions in connection with the *ḫnrt wr* 2.4.1, 4.2.3) can be applied to the beginning of the Twelfth Dynasty.

<table>
<tr><th></th><th>11th dyn.</th><th>early 12th dyn.</th><th>late 12th dyn. onwards</th></tr>
<tr><td rowspan="2">TEXTUAL SOURCES FOR WORKERS</td><td rowspan="2"></td><td rowspan="2">Reisner Papyri I-IV
(Senwosret I)</td><td>Lahun Papyri, Berlin and UCL assemblages
(Senwosret III-Amenemhat IV)</td></tr>
<tr><td>P. Brooklyn 35.1446</td></tr>
<tr><td>SETTLEMENTS FOR WORKERS</td><td></td><td>Tell el-Daba
(Amenemhat I)</td><td>WS and ES Qasr es-Sagha
(Senwosret III–13th dyn.)</td></tr>
<tr><td rowspan="2">MANAGEMENT</td><td rowspan="2">ḫnrt
(fort, military nuance)</td><td rowspan="2">ḫnrt
(uncertain role, passage from military to labour context)</td><td>ḫnrt wr
(labour organisation)</td></tr>
<tr><td>ḫʒ n dd rmṯ
(labour organisation)</td></tr>
</table>

Table 42 - Comparative chronology of different types of evidence and timespan of the bureau ḫ3 n dd rmṯ *and the institution* ḫnrt wr.

5.4 - COMBINATION OF THE SOURCES: TESTING THE CONVERGENCE

It is difficult to ascertain the extent to which information from the written record and the architecture and material culture from different sites can be integrated into a consistent story. However, detailed examination of the overall evidence for labour organisation generated four broad patterns of outcomes (Table 43): (1) different categories of evidence – texts, artefacts and architectural features – merge and can be compared to provide similar results; (2) the comparison reveals different results; (3) the categories of evidence are complementary; (4) the comparison is impracticable and the outcomes must remain on parallel levels, as one category of evidence deals with aspects not covered by the other categories.

5.4.1 - Convergent results

The evidence seems to converge in revealing that a large homogeneous group of people were at the state's disposal to perform projects requiring collective unskilled labour. Plausibly a large mass of *ḥsbw* workers, mostly low status dependants, formed a uniform population. The presence of a few minor officials within a larger group of low status individuals would probably not have left any trace on the ground. The general low status and homogeneity of the enrolled is confirmed by layout, material culture and dietary habits from both Western Settlement of Qasr es-Sagha and Tell el-Dab'a.

Combining information from the Reisner Papyri with the evidence from Qasr es-Sagha (provided that its inhabitants were *ḥsbw*), we can observe that the unskilled mass of *ḥsbw* engaged in menial tasks in support of professional craftsmen. A similar relation plausibly existed at the building site of Hawara, where divisions of 'counted men' were involved in construction activities likely at the pyramid complex of Amenemhat III (4.2.6).

Combined analysis of the Lahun Papyri, rock inscriptions from quarry sites, and the available evidence of faunal remains from Qasr es-Sagha, shows that quarrying activity (stone hauling and rough-hewing of material in on-site workshops) occurred between October–April. The texts demonstrate that the exact length of the activities assigned to each team ranged from two to four months in a row.

The evidence converges further in suggesting a mutual correlation between military sphere and labour organisation, typical of the New Kingdom (2.1). Specific terminology of the papyri merges with the military organisation of the barracks-like Western Settlement of Qasr es-Sagha. This is compatible with the reconstruction of the internal organisation of the Western Settlement into crews, gangs and *phyles* based on the administrative decimal model and the naval system. At its peak the workforce comprised at least two crews, each of 400-500 people, each corresponding to a separate block of houses, while one gang of workers might have included 40-50 people, which corresponds to a soldier platoon. The papyri may support the assumption that temporary rotating teams included up to fifty people, divided into up to five small divisions of ten (*e.g.* 2.3.1. A, 2.3.2 O).

5.4.2 - Different results

In the Reisner and Lahun papyri, the overall workforce was under the responsibility of the *ḫrp* 'director' of works, assisted by a *sš* 'scribe', while a *ṯsw* 'commander' supervised each division of nine or ten men. In contrast with the office *ḫrp* 'director', the office 'commander' was held by a person whose status and profile is identical with those of the workers of the divisions. Like the workers, the 'commanders' could be the replacements of minor officials. *ḫrp, sš* and *ṯsw* were the officials responsible for the workforce at a lower skill level. The teams under their supervision engaged in short-term activities following a seasonal pattern and/or rotating service. It is reasonable to imagine that such a triple level of organisation occurred also at Qasr es-Sagha and Tell el-Dab'a. The *imy-r ḫnwty ḫrp skw* 'internal overseer and director of works' (2.3.2 E) could be the highest official in charge of labour at Qasr es-Sagha. The organisation of state projects differed from the management of local small-scale tasks, due to the higher number of workers involved. Moreover, if the Western Settlement was a quarry site, the members of the expedition would have included a few security/military officials (as rock inscriptions from quarry sites confirm). However, in this regard, the textual evidence from Lahun and the material culture from Qasr es-Sagha and Tell el-Dab'a cannot be fully combined. A social differentiation within the compounds is not visible.

Neither diet nor reconstruction of settlement layout reveal clear evidence for the presence of officials. On the one hand, the finds and the analysis of faunal remains from the sites have revealed a population of low status individuals (3.4.3). On the other hand, the existence of a corner-building where officials were accommodated can be speculated on the basis of comparison with the later *Workmen's Village* of Amarna. Such a structure has been recognised at Tell el-Dab'a, but its use is uncertain (3.4.2, 3.4.3). Possibly, officials supervising workers were accommodated either at the site, in a sector not preserved, or in an adjacent less permanent camp.

The inquiry into the degree of control over temporary workers, and the broader issue of the authoritarianism of Middle Kingdom society, revealed different but not divergent results (5.1.1). At the Egyptian forts in Nubia and at Heit el-Ghurab, the street encircling the walls from inside is combined with other architectural features suggesting a military function and social control (3.2.1; 3.3.3). At Heit el-Ghurab these features were for example gate-houses located at key points and bed platforms for the guards. These structures, as well as military equipment, are lacking at Qasr es-Sagha and Tell el-Dab'a. We can hypothesise the existence of a certain degree of supervision, possibly exercised by patrolling internal streets, but the evidence from the sites does not suffice to confirm that the population was strictly watched. However, later parallels from byzantine Egypt and Eighteenth century A.D. structures in Egypt and Algeria – despite the great time gap – may be suggestive of the application of similar strategies and architectural features to enhance order, control, discipline and productivity (4.3). On the other hand, the combination of most textual sources, namely the Lahun documents, P. Brooklyn 35.1446, and the monuments dedicated to the officials of the *ḫnrt wr* and their colleagues, has revealed severe control and unquestionably hard working (and living) conditions.

5.4.3 - Complementary evidence: integration of data

The material culture from the Western Settlement of Qasr es-Sagha might suggest an Asiatic presence at the site, but cannot support it (4.2.2). However, the proposed identification of its population with *ḥsbw* stone haulers can be combined with the clear textual evidence of 'Asiatics' among *ḥsbw*, matching the mixed ethnicity of the workforce at quarry sites as recorded by rock inscriptions (2.3.1 A). Therefore, the sherds of *Tell el-Yahudiya ware* discovered inside the Western Settlement might be ethnic markers.

The faunal remains from the settlements held a central role in identifying dietary habits. The evidence reveals a generally low status diet including catfish, and ovine or caprine meat (high quality cattle and perch are less represented). Fish in particular were consumed in large quantities (p. 151). On the basis of this information, and the identification of the workers mentioned in the papyri with the population of Qasr es-Sagha and Tell el-Dab'a, we may assign this type of diet to *ḥsbw*.

5.4.4 - The impossible dialogue?

The architectural features of the Western Settlement of Qasr es-Sagha and Tell el-Dab'a may reveal that the 'counted men', when engaged in state projects, could be accommodated in settlements laid out according to (at least) two different models (5.2 above). In this case, the evidence from the sites deals with aspects which are not covered by texts: the papyri do not specify the type of accommodation reserved to the workers when they were gathered at building and quarrying sites. The small-scale houses of Tell el-Dab'a e/3 can be considered the precursor of the internal arrangement of part of the town of Lahun (2.2.1). The association of *ḥsbw* with those smallest houses of Lahun may thus be substantiated.

The clay figurines of mammals discovered at Tell el-Dab'a, which are comparable to similar items from domestic contexts in the contemporary industrial area of Abu Ghalib and Lahun, suggest that the workers practiced a form of household religion. This is an exclusive contribution by the material evidence from the sites, which could be added to the profile of *ḥsbw* as reconstructed through the written sources. Another exclusive contribution by the finds from the sites relates to the degree of independence and state support. The stage of recruitment of workers and the management of labour at central and higher levels are instead the sole domain of the written record (4.2.3, 4.2.4).

PATTERNS OF OUTCOMES	KEY POINTS
CONVERGENT RESULTS	•Large homogeneous group of "counted men" at state disposal for collective labour •"counted men" employed in menial tasks in support of craftsmen (QeS, This and Koptos, Hawara) •quarrying activity in October–April •mutual correlation between labour and military sphere
DIFFERENT RESULTS	•social differentiation (workers and officials) in *textual sources* only •different degrees of control and supervision of labour
COMPLEMENTARY EVIDENCE: INTEGRATION OF DATA	•Asiatics among "counted men" → specific items from QeS may be ethnic markers •Type of diet for "counted men": catfish and ovine meat
THE IMPOSSIBLE DIALOGUE?	•*Architectural features* from QeS and TeD attest to two models of settlements for workers. No information about type of accommodation in *textual sources* •Household religion attested in *material culture* from QeS and TeD. No information in *textual sources* •Degree of independence and state support attested in *material culture* from QeS and TeD. No information in *textual sources* •Stages from recruitment to completion of task and management of labour: sole domain of *textual sources*

Table 43 - Summary of key points for each broad pattern of outcome stemmed from the comparison of different types of evidence.

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This book investigated labour organisation during the Middle Kingdom looking at the lower ranks of administration, and tested the convergence of multiple categories of evidence. The discussion has required careful consideration of the limitations arising from the fragmentary nature of the papyri and the omission of details on the one hand, and the small amount of finds, poor preservation of architecture and the incomplete collection of evidence on the other. The combination of different categories of evidence has revealed that we cannot have a clear understanding of labour organisation – and more broadly of historical processes – on the basis of one type of evidence only. Moreover, this study reveals that this combination can generate many broader patterns of outcome below the rigid boundaries of 'can be/cannot be compared'. The result is a more balanced approach to the nature of the Middle Kingdom, commonly described as either authoritarian or as the golden age of Pharaonic culture.

APPENDIX

Plate I: Dated textual sources mentioning workers (Lahun Papyri, P. Brooklyn 35.1446, rock inscriptions from Wadi Hammamat, and Elephantine dish).

SOURCE	KING	REGN. YEAR	CIVIL DATE (SEASON, MONTH, DAY)	DATE IN JULIAN CALENDAR	SENDER AND ADDRESSEE
PB 10004	Amenemhat III	21	Shemu - m 2 - day 9 and 12	August-September	
PB 10010	Senwosret III ?	15	Shemu - m 1–2	mid-August – 1 half of September	
PB 10016 (2.3.1 K)	coregency Sen III-Amen III	18	Shemu - m 2 - day 13	I half September	*ḫ3ty-ʿ imy-r ḥwt nṯr* Senwosret to *sš ḥwt nṯr* Horemsaef
PB 10019 (2.3.1 H)	Senwosret III				*ḫ3ty- imy-r ḥwt nṯr* Nebkawra
PB 10022 (Cairo Jd'E 71583)			Peret - m 3 - day 11	mid June	
PB 10023A (2.3.1 G)	coregency Sen III-Amen III	11	Shemu? - m 1	August	*ḫ3ty- imy-r ḥwt nṯr* Senwosret to *sš ḥwt nṯr* Horemsaef
PB 10024A			Shemu - m 4	roughly November	
PB 10030A (2.3.1 N)	Amenemhat III	38	Peret - m 4 - day 6	mid June	
PB 10032	Amenemhat III		Peret - m 4	July	*ḫ3ty- imy-r ḥwt nṯr* Senwosret to *imy-r pr* Horemsaef
PB 10033	coregency Sen III-Amen III	15	Akhet - m 3 - day 10	January-beginning February	*ḫ3ty- imy-r ḥwt nṯr* Senwosret to *sš ḥwt nṯr* Horemsaef
PB 10038C	Amenemhat III	37	Peret - m 4	June-July	
PB 10043 (2.3.1 L)	coregency Sen III-Amen III?			March? (Sokar feast)	
PB 10065 (2.3.1 D)	Amenmhat III	24 –38			*ḫ3ty-ʿ imy-r ḥwt nṯr* Senwosret's son Kakheperraseneb to *imy-r pr* Horemsaef
PB 10073 (2.3.2 M)	Amenemhat III	19			
PB 10080 (2.3.2 J)	Amenemhat III	23	Akhet - m 3 (or 4?)	January-Febr/ Febr-March	
PB 10081C (2.3.1 E)	Amenemhat III	27	Akhet - m 3 - day 12	end of February	*imy-r pr* Horemsaef

PB 10082	coregency Sen III-Amen III	15	Akhet - m 3	January-February	*ḥ3ty- imy-r ḥwt nṯr* Senwosret to *sš ḥwt nṯr* Horemsaef
PB 10090	coregency Sen III-Amen III?	3	Shemu - m 3	October	
PB 10095	Senwosret III	14? (Luft 1998, 20)			
PB 10098	coregency Sen III-Amen III?	1	Shemu - m 1 - day 18	mid August	
PB 10102	Amenmhat III	37	Shemu - m1 and Akhet - m 2-3	August and from mid-January to mid-March	
PB 10104 (2.3.1 A)	coregency Sen III-Amen III	12	Peret - m 1 - day 6	end of March - beginning April	
PB 10216			Shemu (maybe m 4)+ Akhet (maybe month 1) day 2	roughly October–December	
PB 10217B			Shemu - day 5	flood season roughly August – mid-November	
PB 10220	Senwosret III	8	Akhet - m 3 - day 13	mid February	*ḥ3ty-ʿ imy-r ḥwt nṯr* Nebkawra
PB 10242A			Shemu - day 24	flood season roughly August – mid-November	
PB 10244			Shemu - m 1 + 3	flood season roughly mid-July–mid-November	
PB 10412D	Senwosret III	11	Akhet - day 20	sowing season roughly December – March	
UC 32132 recto	Amenemhat III	23	Peret - day 17 - m 2	mid-May	
UC 32132 verso	Amenemhat III	21	Akhet - m 4	early March	

UC 32133	Amenemhat IV	7	Shemu	flood season roughly mid-July – November	
UC 32139A			Akhet - m 4 - day 18	March?	
UC 32151B	Amenemhat III	24	Shemu - m 2	September	
UC 32167	Amenemhat III	29	Akhet - day 7 - m 3	end January-February	
UC 32168 (2.3.2 G)	Amenemhat III	45	Akhet - m 4 + Peret - m 1	March + April (2 months task)	
UC 32174 (2.3.2 A)	Amenemhat III	43	Shemu - m 1 - day 30	mid August	
UC 32178 (2.3.2 F)	Amenemhat III	43	Shemu - m 3 - days 10 and 11	end of September	
UC 32182 (2.3.2 H)	Amenemhat III	43	Peret - m 2 - day 1 + m 3	mid April to mid June (2 months task)	
UC 32186 (2.3.2 K)	Amenemhat III	26 (with ref. to earlier year 33)	Shemu - m 4 - day 10	end of October-first days of November	
UC 32190 (2.3.2 L-N)	Amenemhat III	34	Shemu - m 1 - day 23 + Peret - m 4 and Shemu - m 1–3	mid August + from July to October (4 month task)	
UC 32194 (2.3.2 D)	Amenemhat IV?	2	Shemu - m 3 - day 22	first half October	
UC 32198	Amenemhat III?		Akhet - m 2	roughly January	
UC 32201 (2.3.2 E)	Amenemhat IV?	2	Shemu - m 4 - day 5	end of October	
UC 32205	Amenemhat IV	6	Peret - m 1 - day 2	mid-March	
UC 32272B (2.3.2 B)	Amenemhat III	23	Shemu - m 2 - day 8	end of August	
UC 32275			Peret - day 11	harvest season roughly mid March–mid-July	
UC 32352 (2.3.2 C)			Shemu - m 1 - day 14	August	

Elephantine dish (2.3.1 M)	late MK		Peret - m 3	harvest season roughly June	
P. Brooklyn 351446 - insert C (2.4.1 A)	early 13th dyn		Peret - m 3	June	
rock inscr. G61 Wadi Hammamat	Senwosret I	38	Akhet - m 3 - day 25	March	
rock inscr. CM87 Wadi Hammamat	Senwosret I	38	Akhet - m 4 - day 4	March	
rock inscr. CM104	Senwosret II			January	

Plate II: Textual sources with attestations of the word *ḫnrt*.

late 11th - early 12th dyn.	12th dyn.	13th dyn.	> 13th dyn.
graffiti: Graffito Hatnub 16 Anthes 1928 Graffito Hatnub 20 Anthes 1928 Graffiti Hatnub 23-25 Anthes 1928 **papyri:** Reisner I-IV Simpson 1963, 1965, 1969, 1986 (Senwosret I-Amenmhat II) **rock inscriptions:** Khor el-Aqiba 21 Lopez 1966 Nag el-Girgawi Zaba 1974 (Amenem. I-Sen. I) **coffins:** CG 28040 (Lacau 1904) **stelae:** MMA 57.95 Fischer 1960 (Montuhotep II) **tomb paintings:** Deir el-Bersheh Griffith et al 1895 (Amenem. II - Sen. III)	**papyri:** Berlin 10021 Luft 2006 Berlin 10026 Luft 1992a Berlin 10059 Unpublished Berlin 10067 Unpublished Berlin 10090 Unpublished Berlin 10216 Unpublished Berlin 10242A Unpublished Berlin 10303 Unpublished Berlin 10412D Unpublished **rock inscriptions:** Kumma 116 Dunham-Janssen 1960 (Amenemhat III) **sealings:** Jerusalem pvt. coll. Ben-Tor 1989 (60, no.5) Hannover 1976.88 Martin 1979 (no.8) **statues:** Walters 22.166 Steindorff 1946 **stelae:** Louvre C6 Gayet 1886	**offering tables:** Cairo CG 23027 Kamal 1909 **sealings:** Martin no. 449 Martin 1971 Martin no. 526-8 Martin 1971 Martin no. 1385 Martin 1971 Martin no. 1499 Martin 1971 Martin no. 1603-5 Martin 1971 **statues:** Aswan 1343 Habachi 1985 **stelae:** British Museum EA 1348 Budge 1911 Cairo CG 20724 Lange & Schäfer 1902 Stela Sinopoli Egi 06 Roccati 2003 (Kendjer-Neferhotep I) Vienna ÄS 91 Hein & Satzinger 1989; Marée 2010 (13th dyn. according to the latter; 17th dyn. according to Hein & Satzinger) Vienna ÄS 5897 Hein & Satzinger 1989	**sealings:** Martin no. 448 Martin 1971

Plate III: Textual sources with attestations of the expression *ḫnrt wr*. The sources record the title 'scribe of the *ḫnrt wr*' except from BM EA 250, and Jerusalem 76.31.4502 dedicated to *ṯzw (n sš) n ḫnrt wr* 'assistant-scribes', and Tell el-Daba 9411T that presents the title *ỉmy-r ḫnrt wr*.

late 12th dynasty/early 13th dynasty	13th dynasty	> 13th dynasty
papyri:	**chapels:**	**stelae:**
Berlin 10381A Unpublished	Berlin 1624 Müller 1913	Cairo CG 20322 Lange & Schäfer 1902 (maybe 17th dyn.)
Brooklyn 35.1446 Hayes 1955	**funerary equipment:**	Cairo CG 20360 Lange & Schäfer 1902
UC 32109E Collier & Quirke 2004	Headrest *JE 6143* Miniaci & Quirke 2009	Karnak Lacau 1949 (17th dyn.)
rock inscriptions:	Wood walking stick *JE 6157* Miniaci & Quirke 2009	stela of Saimen Trento von Bissing 1902/3
Aswan no.86 Petrie 1887	**papyri:**	
Aswan no.125 Petrie 1887	Boulaq 18 Griffith 1981 (Sobekhotep II)	
Aswan no.287 Petrie 1887	Brooklyn 35.1446 Hayes 1955	
sealings:	**rock inscriptions:**	
Jerusalem 76.31.4502 Ben-Tor 2007 (pl. 24, 12)	Wadi el Hudi no.23 Sadek 1980 (Sobekhotep IV)	
Martin no.464 (UC11343) Martin 1971	**sealings:**	
Martin no.511 Martin 1971	Martin no.56 Martin 1979	
Martin no.652 (UC11506) Martin 1971	Tell el- Daba 9441T Marée 2012	
Martin no.658 Martin 1971	**stelae:**	
Martin no.738 Martin 1971	Aswan 1310 Habachi 1985	
Martin no.978 Martin 1971	British Museum EA 250 Budge 1911 Franke et al. 2013	
Martin no.1151 Martin 1971	Cairo CG 20056 Lange & Schäfer 1902	
Martin no.1325 (UC11357) Martin 1971	Cairo CG 20145 Lange & Schäfer 1902 (Neferhotep I-Sobekhotep IV)	
Martin no.1339 (UC11337) Martin 1971		

Martin no.1345
Martin 1971

Martin no.1399
Martin 1971

Martin no.1573
Martin 1971

Martin no.1578 (UC11456)
Martin 1971

Martin no.1645 (UC11467)
Martin 1971

Martin no.1646 (UC11468)
Martin 1971

Martin no.1647 (British Museum EA17251)
Martin 1971

Martin no.1745
Martin 1971

statues:

British Museum EA 38084

Cairo CG 410
Borchardt 1925

Kerma 98
Reisner 1923

stelae:

Berlin 1198
Müller 1913
(Amenemhat III)

British Museum EA255
Budge 1911
Franke *et al.* 2013

Cairo CG 20477
Lange & Schäfer 1902
(Amen. III)

Cairo CG 20520
Lange & Schäfer 1902

Cat. Mons. I, 42, 1
(de Morgan 1894)

Cairo CG 20562
Lange & Schäfer 1902

Cairo CG 20570
Lange & Schäfer 1902

Cairo CG 20724
Lange & Schäfer 1902

Chiddingstone EDECC:01.2882
Grajetzki 2005

Edinburgh A.1951.344
Di Teodoro 2018
(Neferhotep I-Sobekhotep IV)

Florence 2553
Bosticco 1959

Guimet C8
Moret 1909
(Neferhotep I-Sobekhotep IV)

Liverpool M13907
Sams 1839

Marseille 228
(Maspero 1890)

MMA 22.3.307
Habachi 1985
(Ibiaa)

Stela Sinopoli Egi 06
Roccati 2003
(Kendjer-Neferhotep I)

Tallinn 3
(Lieblein 1873)

Trieste 149
Dolzani 1950

Tübingen 455
Brunner-Traut & Brunner 1981

Tübingen 458
Brunner-Traut & Brunner 1981
(Nefer. I-Sobekhot. IV)

Vienna ÄS 5897
Hein & Satzinger 1989

Durham EG515 Birch 1980 Florence 2503 Bosticco 1959 Stela of It Simpson 1974 (from Amenemhat III) Louvre C 289 (Ledrain 1879) Marseille 226 (Maspero 1890) Tübingen 462 Brunner-Traut & Brunner 1981 Vienna ÄS 136 Hein & Satzinger 1989 (from Senwosret III)		

Plate IV: Officials involved in the management of temporary workers recorded in the documents from Lahun.

	ḥ3w	*ỉw3w*	*ḫsbw*	*mnyw*
ỉmy-r w		UC32119		
ỉmy-r pr		PB10030	UC32201	PB10073
ỉmy-r pr n ḥtpw- nṯr		PB10016 PB10019 PB10043		
ỉmy-r mrt		PB10019? PB10021? PB10030		
ỉmy-r diwt 5		UC32118E		
rwḏw		PB10043		
ḫsb-rmṯ				UC32168
ḫrp, sš, ṯsw	PB10104 (only *ṯsw*)		UC32174 UC32201 (only *ḫrp*)	UC32168 (only *ḫrp*) UC32182
s3w	PB10065?	PB10082 PB10098?		
šmsw	UC32205 PB10081C	PB10082	UC32201	UC32190
ḳnbty n w		PB10067		
tp n rmṯ	UC32198			

Plate V: Classification of the officials listed in Plate IV.

ESTATE SUPERVISION	***ỉmy-r pr*** 'estate overseer'
ECONOMIC DIMENSION	***ỉmy-r pr n ḥtpw- nṯr*** 'estate overseer of god's offerings' ***rwḏw?*** 'inspector'
SUPERVISION OF WORKERS ON SITE	***ỉmy-r mš*** 'overseer of the army/force' ***ỉmy-r mrt*** 'overseer of *mrt* people' ***ỉmy-r ḏỉwt* 5** 'overseer of a group of five' ***(imy-r pr?) ḥsb-rmṯ*** '(estate overseer?) accountant of people' ***ḫrp, sš, ṯsw*** 'director', 'scribe', 'commander' ***tp n rmṯ*** 'head of people'
SECURITY	***ỉmy-r w*** 'district overseer' ***ḳnbty n w*** 'district councillor' ***rwḏw*** 'inspector' ***sʒw?*** 'guard' ***šmsw*** 'follower/guard'

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Colour Plates

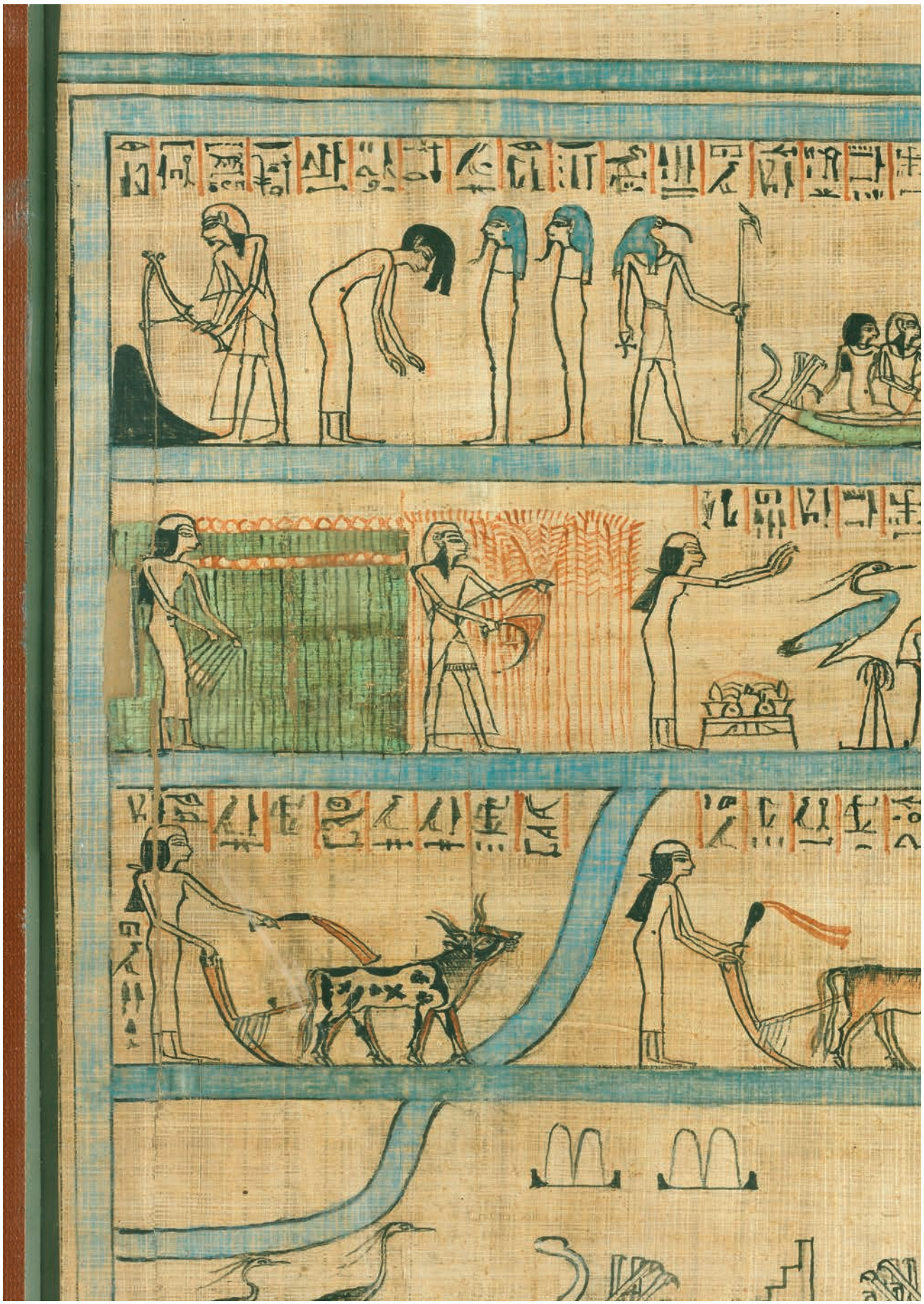


Plate 1 - Vignette 110, Book of The Dead of Anhay. Second register from the top: woman pulling stalks of flax (© The Trustees of the British Museum, acc.no. EA10472.5)



Plate 2 - UC 32182 (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL)



Plate 3 - UC 32170 *recto* (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL)

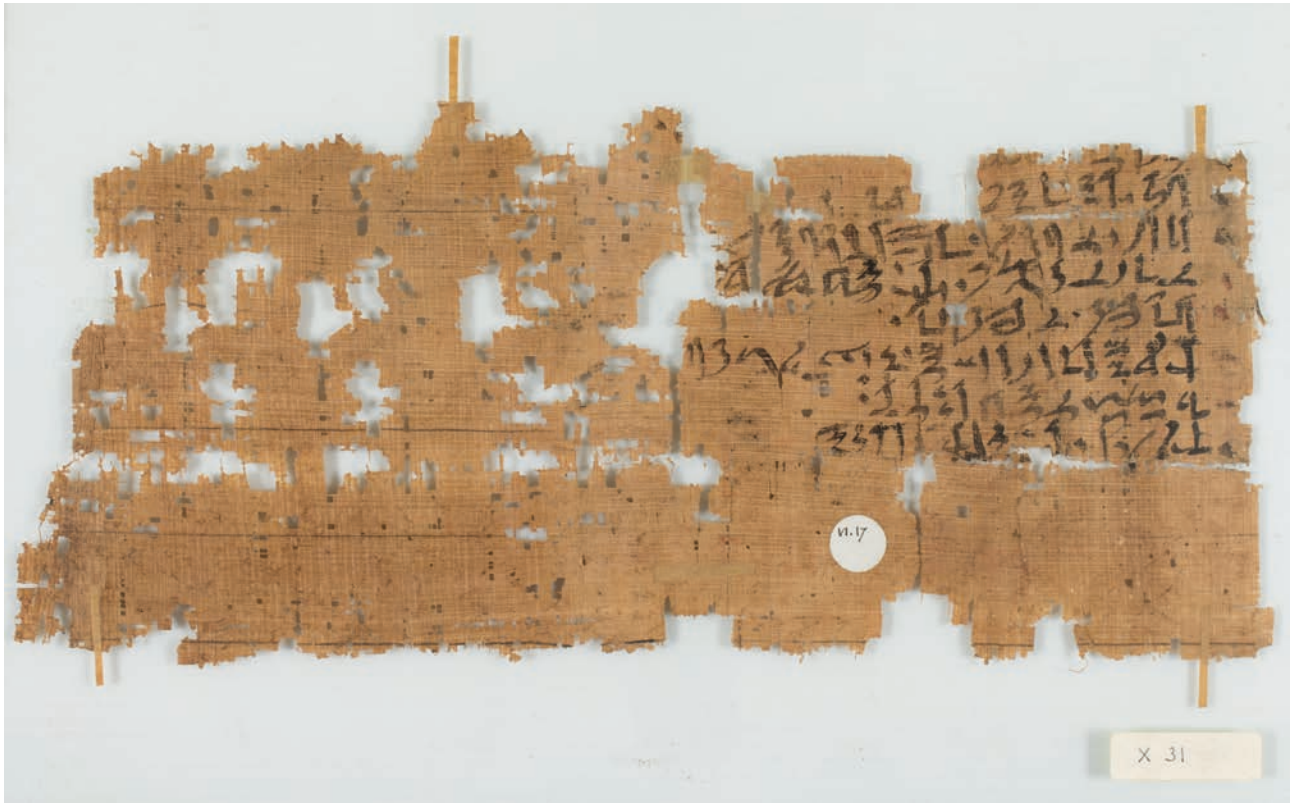


Plate 4 - UC 32121 (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL)

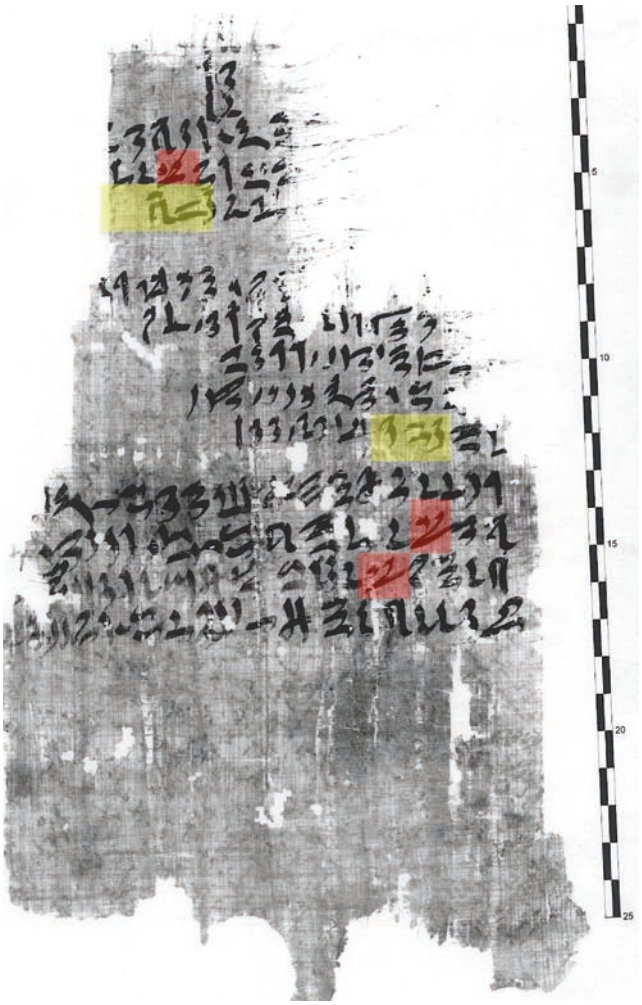


Plate 5 - P. Berlin 10026 (© Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, SPK. Photograph: Margarete Büsing). Highlighted are the different hieratic drawings of *ḫnrt,* and *p3*



Plate 6 - The *quarrymen's camp* (Courtesy of P. Storemyr)



Plate 7 - Preserved segment of the road towards the western quarry of Widan el-Faras (Courtesy of P. Storemyr)



Plate 8 - Middle Kingdom necklace composed of amethyst beads and an uninscribed amethyst scarab (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL, acc. no. UC25984)



Plate 9 - Clappers. Unprovenanced. Middle Kingdom (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL, acc. no. UC 30352a-b)



Plate 10 - The temple, Qasr es-Sagha (Courtesy of the German Archaeological Institute, Cairo)



Plate 11 - The temple of Qasr es-Sagha: the internal division in chapels (Courtesy of the German Archaeological Institute, Cairo. Photograph by D. Johannes)



Plate 12 - Clay spinning bowl of unknown provenance dated to the Middle Kingdom, contemporary to the spinning bowls from Tell el-Dab'a (Courtesy of the Petrie Museum of Egyptian Archaeology, UCL, acc.no. UC66397)



Plate 13 - Ruins of the Stone Village, Amarna (Courtesy of the Amarna Project)

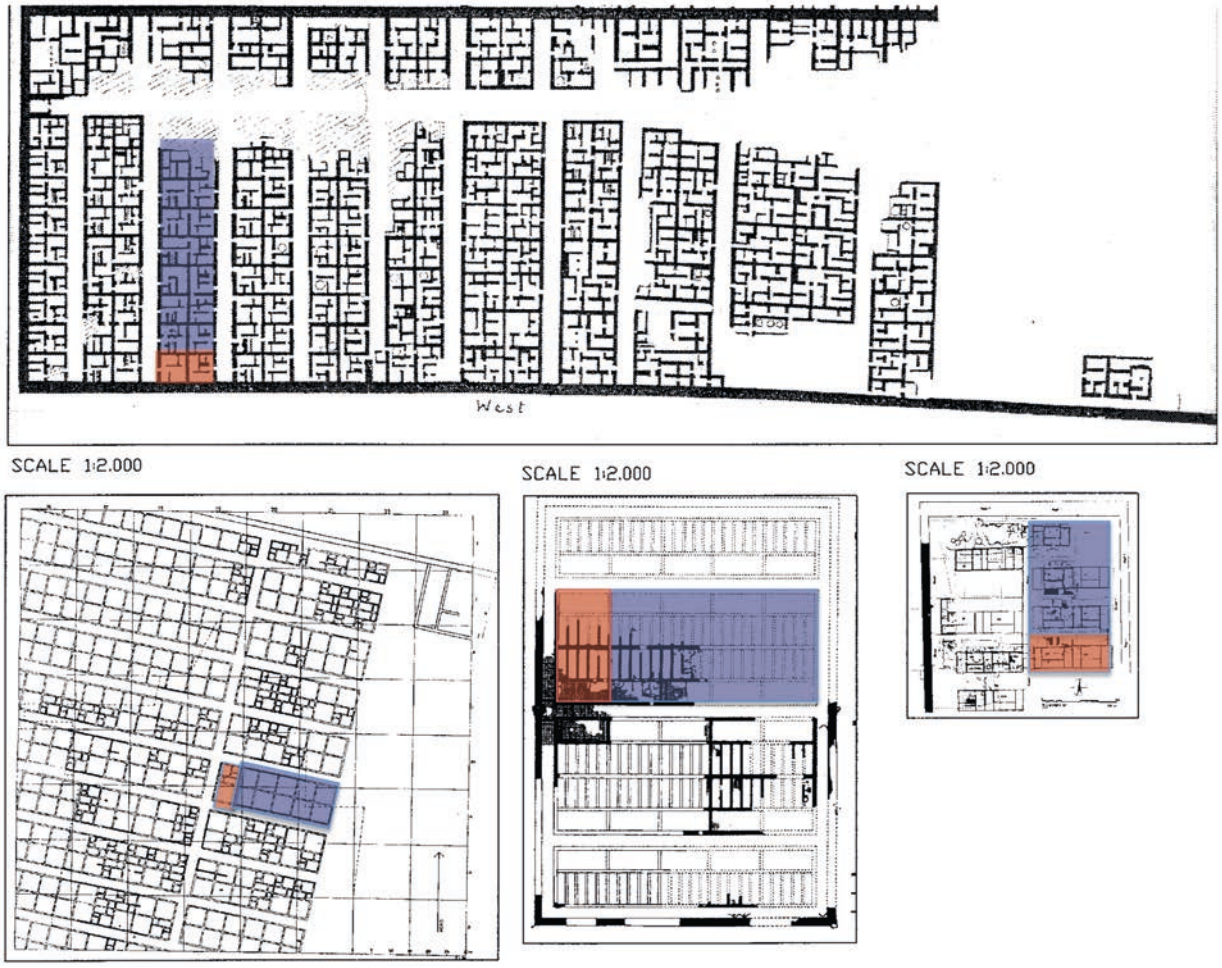


Plate 14 - Comparison between the layout of the the western quarter of Lahun, Tell el-Dab'a e/3, WS of Qasr es-Sagha, and the industrial settlement of Ezbet Rushdi, in scale 1:2000



Plate 15 - The rock-cut galleries of Ayn Soukhna. In the foreground the activity area (Courtesy of the Ayn Soukhna Archaeological Mission)