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ABBREVIATIONS USED IN THIS JOURNAL

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<th>Abbreviation</th>
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<tr>
<td>AJSL</td>
<td>American Journal of Semitic Languages.</td>
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<tr>
<td>AR</td>
<td>Ancient Records.</td>
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<tr>
<td>ArOr</td>
<td>Archiv Orientalis.</td>
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<tr>
<td>ASAE</td>
<td>Annales du Service des Antiquités d’Égypte.</td>
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<tr>
<td>ASN</td>
<td>Archaeological Survey of Nubia.</td>
</tr>
<tr>
<td>BiOr</td>
<td>Bibliotheca Orientalis.</td>
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<tr>
<td>CdE</td>
<td>Chronique d’Égypte.</td>
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<tr>
<td>CT</td>
<td>Coffin Texts.</td>
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<tr>
<td>JEAA</td>
<td>Journal of Egyptian Archaeology.</td>
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<tr>
<td>LAAA</td>
<td>Liverpool Annals of Archaeology and Anthropology.</td>
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<tr>
<td>LD</td>
<td>Lepsius : Denkmäler aus Ägypten und Äthiopen.</td>
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<tr>
<td>MDIAK</td>
<td>Mitteilungen des Deutschen Instituts für ägyptische Altertumskunde.</td>
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<tr>
<td>MFAB</td>
<td>Museum of Fine Arts, Boston.</td>
</tr>
<tr>
<td>MIO</td>
<td>Mitteilungen des Instituts für Orientforschung.</td>
</tr>
<tr>
<td>MMAB</td>
<td>Metropolitan Museum of Art Bulletin.</td>
</tr>
<tr>
<td>OLZ</td>
<td>Orientalistische Literaturzeitung.</td>
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<tr>
<td>PM</td>
<td>Porter and Moss: Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings.</td>
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<tr>
<td>PN</td>
<td>Ranke : Die Ägyptischen Personennamen.</td>
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<td>R. d'Eg.</td>
<td>Revue d’Égyptologie.</td>
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<tr>
<td>RSE</td>
<td>Rassegna di Studi Etiopici.</td>
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<td>SASOP</td>
<td>Sudan Antiquities Service Occasional Papers.</td>
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<td>TSBA</td>
<td>Transactions of the Society of Biblical Archaeology.</td>
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<tr>
<td>Uf</td>
<td>Uganda Journal.</td>
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<tr>
<td>Urk</td>
<td>Urkunden des Ägyptischen Altertums.</td>
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<tr>
<td>Wb</td>
<td>Wörterbuch des Ägyptischen Sprache.</td>
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<tr>
<td>WZKM</td>
<td>Wiener Zeitschrift für die Kunde des Morgenlandes.</td>
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<tr>
<td>ZAS</td>
<td>Zeitschrift für Ägyptische Sprache.</td>
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The Editor is not responsible for the opinions expressed by contributors.
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Editorial Notes

SINCE the publication of KUSH VIII, the post of Commissioner for Archaeology has been sudanized and, as I have become the Commissioner, it is my lot to take over the editorship of KUSH. My predecessor, Dr Vercoutter, has now taken the Chair of Egyptology at the University of Lille, where we wish him every success. Thanks to him, KUSH has increased in size, scholarship, and circulation, and we are most grateful for all that he has done to bring it up to its present standard. We will endeavour, with the help of those scholars who are working in our field, to carry on the task and maintain this high standard.

* * *

The Nubian Campaign is now in full swing. During the winter 1960–61 a good beginning has been made. The previous Editor listed in KUSH VII a number of archaeological sites which are in danger of inundation, and among them he included fourteen which are in immediate danger and should be excavated as soon as possible. Excavation has already begun at the following five sites: Faras West by the Polish Centre of Mediterranean Archaeology (University of Warsaw) and the National Museum in Warsaw, under the leadership of Professor Michalowski; Aksha by the French Committee for Archaeological Excavations, the National University of La Plata, and the National Council for Scientific and Technical Research of the Argentine Republic, under the joint leadership of Professor Vercoutter and Professor Rosenvasser; Argin by the Spanish Committee for Co-operation with Unesco, under the leadership of Professor Blanco y Caro; Buhene by the Egypt Exploration Society, under the leadership of Professor Emery; and the cemeteries of Debeira East by the Scandinavian Joint Expedition, under the leadership of Professor Meinander. In addition, two exploration parties were working one on each bank of the Nile. The Antiquities Service, with the help of the three experts, under the leadership of Dr W. Y. Adams, who were kindly loaned to us by Unesco, started from Faras West and covered an area on the West Bank up to the boundaries of the Buhene concession in the south. Meanwhile the Scandinavian Joint Expedition, which was granted a licence to explore the East Bank from Faras in the north up to Gemai in the south, had, by the end of the
season, reached Dabarosa near the town of Wadi Halfa. Belgium too has given valuable assistance by loaning the Antiquities Service, for several weeks, the services of two most able epigraphists, Dr de Wit and Dr Mertens, who worked at Semna (see their preliminary report, pp. 180-1 below), and two very capable photogrammetrists, Dr Verneir and Mr Bellens, who made a complete photographic record of the Hatshepsut Temple at Buhén.

The preliminary reports of all these expeditions will, we hope, appear in KUSH X.

The Egypt Exploration Society was also so kind as to employ Dr Caminos to work on the inscriptions in the temple at Buhén. He did an excellent job and by the end of the season, had finished his epigraphic work which the Egypt Exploration Society has kindly offered to publish in a separate volume.

Meanwhile the work is gaining impetus and several more missions will be at work in the endangered area during the coming season in addition to all those mentioned above. The Oriental Institute of Chicago, under the leadership of Professor Seele, will start the excavation of the fortress, churches and cemeteries of Serra East; Ghana University will send an expedition under the leadership of Professor Shinnie to excavate the sites at Deheira West; the University of Columbia will undertake a prehistoric survey of the endangered area; the Egypt Exploration Society, under the leadership of Professor Emery, having more or less finished excavating the site of Buhén will turn its attention next season to Meinarti, and the Franco-Argentine mission, which has virtually completed the excavation of the Aksha temple will now undertake that part of the Middle Kingdom fort of Migrissa which was left unexcavated by the Harvard Boston Expedition in 1931. The Diary of the earlier mission is published below (pp. 87-179).

The excavation and survey work in the endangered area is thus very well in hand, but we must not forget the question of the removal of temples. These were at first thought to be four, namely Aksha, Buhén, Semna and Kumma, but the Franco-Argentine excavations have revealed that the sandstone of Aksha Temple, especially at the lower levels, has decayed so much that it will be impossible to remove more than a few blocks, so we are left with only three. The actual removal of these has not, of course, yet been executed, though the preliminary work—collation of inscriptions and photogrammetric photography—has already begun, as stated above. We are now looking forward to see what material help will be forthcoming through Unesco, and we also hope that some of the Member States will extend their helping hand and offer to remove our temples to safety for the love of science, as we have, unfortunately, no counterparts to offer for this particular operation.

We are aware that we have a formidable task to perform and time is short, and the Sudan Antiquities Service will welcome most gratefully any offers of assistance for the rescue of our antiquities.

Thabit Hassan Thabit
Archaeological Survey of Sudanese Nubia

INTRODUCTION

BETWEEN January and May, 1960, the Sudan Antiquities Service undertook a series of archaeological surveys and test excavations in the omnia of Faras, on the west bank of the Nile immediately south of the Egyptian frontier. This work was carried out with the aid of technical personnel generously provided by Unesco (the United Nations Educational, Scientific, and Cultural Organization), and formed part of a continuing programme, begun in 1955, to investigate all of the archaeological monuments of Sudanese Nubia which are destined to be inundated when the High Dam is completed at Aswan. Results of the 1960 excavations are reported in two of the papers that follow.

The Sudan Antiquities Service first became concerned for the threatened sites of Nubia when the building of the High Dam was initially proposed in 1955.1 A preliminary survey of both banks of the Nile between the Egyptian frontier and the Second Cataract was carried out in 1955 and 1956 by Professor Jean Vercoutter, then Commissioner for Archaeology, and Sayed T. H. Thabit, then Senior Inspector of Antiquities. This work resulted in the discovery of twenty-five new sites.2 It also pointed out the need for a thorough and intensive programme of exploration and excavation throughout the threatened portion of Nubia.3

As a necessary preliminary to more systematic archaeological work, an air survey between Kosha and the Egyptian frontier was carried out in 1956 and 1957 by the Sudan Survey Department.4 The Antiquities Service then asked the assistance of Unesco in supplying an expert to study and interpret the air photographs, and in October 1959, Dr William Y. Adams was sent out by Unesco on such a mission. Under his direction a new aerial survey was completed, providing photographic coverage at a larger scale than had previously been attempted.5

After the air surveys had been completed, Dr Adams’ mission was extended by Unesco to include the planning and conduct of on-the-spot archaeological survey in Nubia. Accordingly the final months of 1959 were spent in ‘programming’ the survey and devising systems for recording and processing data. A deliberate effort was made to develop systems which would later be applicable to all parts of the country, so that the records from the survey of Nubia could in

future years become the nucleus for a more general Archaeological Survey of the Sudan.

The portion of Sudanese Nubia which is scheduled for inundation lies entirely within the Wadi Halfa quadrangle (Sheet 35-1) in the series of maps of the Sudan at 1:250,000. For purposes of survey orientation and site documentation it was decided to divide this map into twenty-four equal sections, each covering 15 min. of longitude and latitude. These units are designated by the numbers from 1 to 24, reading in horizontal rows from left to right. Each 15-minute unit is subdivided into twenty-five squares of 3 minutes each, and these are designated by the letters from A through Y, again reading horizontally from left to right.

Within each 3-minute section archaeological sites are numbered in the order of discovery, beginning with 1. For all sites the discovery number is preceded first by the number of the 15-minute section, and second by the letter of the 3-minute section. The complete site number thus always comprises three elements, as 24–E–7 and 6–B–22. These numbers are the basic means of identifying and designating sites in all the records of the survey of Sudanese Nubia. They appear on the accompanying map (FIG. 1) and in two of the papers which follow.

After the completion of preliminary arrangements, field work in Nubia was resumed by the Sudan Antiquities Service toward the end of January 1960. For the first season's campaign it was decided to carry out a programme of limited test excavation designed to supplement the preliminary survey of 1955–56, leaving large-scale excavation for the future and for foreign expeditions which might wish to participate in the Unesco-sponsored Campaign to Save the Monuments of Nubia. The west bank of the Nile was selected for first attention, and it was decided to begin operations at the Egyptian frontier and work southward, thus tackling the most immediately threatened sites first. Consequently the initial field camp was established in the omdia of Faras West—the northernmost village in the Sudan. Notwithstanding the extensive work in this region by Griffith and Mileham in the early years of the present century, the survey of 1956 had made it clear that a great deal remained to be done at Faras.

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6 Since map sheets in the 1:250,000 series are available for all of the Sudan, it follows that the same system of numbering can be adopted throughout the country by prefixing to the site number the name of the appropriate 1:250,000 map sheet: e.g. Wadi Halfa 24–E–7, Kosha 6–B–22, etc.


8 Later in 1960 the survey of the east bank of the Nile between Faras and the Second Cataract was begun by the Joint Scandinavian Archaeological Mission to the Sudan. The work of the Sudan Antiquities Service will thus remain confined to the west bank.


10 Churches in Lower Nubia, pp. 22–36.

ARCHAEOLOGICAL SURVEY OF SUDANESE NUBIA

Despite the intention of the field workers to limit the scope of excavations, the enormous accumulation of drifted sand throughout the Faras region made necessary a great deal more digging than had been anticipated. Moreover, even a cursory examination of the area made it plain that the volume of work remaining to be done had been greatly underestimated. Many of the sites previously examined by Griffith merited further investigation, and in addition twenty wholly new sites were found in the immediate vicinity.\textsuperscript{12} In the end the entire campaign was devoted to investigations at Faras, and a single field camp served throughout. Even so, the Antiquities Service party was quite unprepared to tackle several of the larger unexcavated sites, and these were reserved for full-scale expeditions. The Polish Centre of Mediterranean Archaeology (University of Warsaw) has subsequently begun excavation of the kom or ‘Citadel’ which is one of the outstanding archaeological features of Faras.

The season’s major effort was concentrated on the so-called ‘Coptic Potteries’, a site whose excavation was begun half a century earlier by Griffith.\textsuperscript{13} Lesser excavations were carried on at twenty-two other sites. A tabulation of all of the sites investigated appears below, and the results of the season’s work are set forth in the two papers that follow.

The 1960 field work was initially under the direction of Professor Vercoutter and Dr Adams. Mr L. P. Kirwan of the Royal Geographical Society also contributed his services during the first two weeks of the survey. Later in the season Professor Vercoutter was forced to return to Khartoum by the pressure of his duties as Commissioner for Archaeology, and was not able to take further direct part in the work. In March and April the field staff was enlarged by the addition, respectively, of Mr G. J. Verwers and Mr H. -Å. Nordström, two other archaeologists provided through the courtesy of Unesco. The field work in 1960 was thus concluded by an all-Unesco team. Messrs Nordström and Verwers carried on the exploration afield while Dr Adams concluded the excavation of the Potteries. The working crew throughout the season consisted of nine Quftis and about forty local labourers.

\textbf{Fig. 1} shows the sites which were investigated in 1960, and which are described in the following pages.\textsuperscript{14} Also shown are the various sites previously reported by Griffith,\textsuperscript{15} all of which have been revisited and have now been incorporated in the Sudan Antiquities Service number system. The following tabulation gives a résumé of the known archaeological sites of Faras West.

\textit{W.Y.A.}

\textsuperscript{12} See \textit{Table of Archaeological Sites at Faras West}, p. 10, below.
\textsuperscript{13} \textit{LAAA}, \textit{xiii}, pp. 63-5.
\textsuperscript{14} In \textbf{Fig. 1} the site numbers are abbreviated for the sake of convenience. The map shows a small portion of 15-minute section 24, including parts of 3-minute section D, E, I, and J as indicated. In each section only the sequence numbers of the sites have been entered. The sites within section E numbered 1, 2, 3, etc. should be read as 24-E-1, 24-E-2, 24-E-3, and so on. The same holds for the other 3-minute sections. The map was prepared by Mr H. -Å. Nordström.\textsuperscript{15} Op. cit.
### TABLE OF ARCHAEOLOGICAL SITES AT FARAS WEST

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<th>Name</th>
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<td>New Kingdom graves</td>
<td>Excavated 1960(^{16})</td>
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<tr>
<td>24-E-1</td>
<td>A-Group cemetery</td>
<td>Excavated by Griffith(^{17})</td>
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<tr>
<td>24-E-2</td>
<td>A-Group and/or C-Group site</td>
<td>Reported by Griffith,(^{17}) Excavated 1960(^{18})</td>
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<td>C-Group cemetery</td>
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<td>C-Group site</td>
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<td>C-Group graves</td>
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<td>Middle Kingdom fort</td>
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<td>Rameses temple</td>
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<td>Thutmose temple</td>
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<td>Nabiniffi Church</td>
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<td>Christian tombs</td>
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<td>24-E-28</td>
<td>Western cemeteries</td>
<td>Excavated by Griffith(^{17}) and 1960(^{18})</td>
</tr>
<tr>
<td>24-E-29</td>
<td>Christian tombs</td>
<td>Partly excavated 1960</td>
</tr>
<tr>
<td>24-E-30</td>
<td>X-Group/Christian houses</td>
<td>Excavated 1960(^{16})</td>
</tr>
<tr>
<td>24-E-31</td>
<td>Meroitic baths?</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-E-32</td>
<td>Unidentified graves</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-E-33</td>
<td>Unidentified graves</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-E-34</td>
<td>Unidentified graves</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-I-2</td>
<td>Rock tomb</td>
<td>Reported by Vercoutter(^{21})</td>
</tr>
<tr>
<td>24-I-4</td>
<td>Unidentified graves</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-I-5</td>
<td>Unidentified graves</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-I-6</td>
<td>A-Group cemetery</td>
<td>Excavated 1960(^{16})</td>
</tr>
<tr>
<td>24-I-7</td>
<td>(=24-D-1)</td>
<td></td>
</tr>
<tr>
<td>24-I-8</td>
<td>Unidentified graves</td>
<td>Excavated 1960(^{18})</td>
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<tr>
<td>24-I-9</td>
<td>Rock cut pit</td>
<td>Recorded 1960(^{18})</td>
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<tr>
<td>24-I-10</td>
<td>New Kingdom graves</td>
<td>Excavated 1960(^{18})</td>
</tr>
<tr>
<td>24-I-11</td>
<td>New Kingdom graves</td>
<td>Excavated 1960(^{18})</td>
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<td>24-I-12</td>
<td>New Kingdom graves</td>
<td>Excavated 1960(^{18})</td>
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<tr>
<td>24-I-13</td>
<td>New Kingdom graves</td>
<td>Excavated 1960(^{18})</td>
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<tr>
<td>24-I-14</td>
<td>Stone structures</td>
<td>Recorded 1960(^{18})</td>
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<tr>
<td>24-I-15</td>
<td>Rock engravings</td>
<td>Recorded 1960(^{18})</td>
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<tr>
<td>24-I-18</td>
<td>X-Group/Christian houses</td>
<td>Excavated 1960–61(^{18})</td>
</tr>
<tr>
<td>24-I-26</td>
<td>Cemetery</td>
<td>Excavated 1960–61(^{18})</td>
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</tbody>
</table>

\(^{19}\) Now under excavation by Polish Centre of Mediterranean Archaeology.  
The Aerial Survey of Sudanese Nubia

by William Y. Adams and P. E. T. Allen

The Sudan Antiquities Service inaugurated its archaeological survey programme in Nubia with a complete aerial survey of the region to be flooded by the Aswan High Dam. The work of aerial photography was carried out by the Survey Department of the Sudan Government with aid of funds and technical assistance provided by UNESCO. The aerial survey occupied most of the months of November and December 1959.

The aircraft employed was a twin-engine De Havilland Dove specially fitted out for photographic work. Photos were taken with a Wild Aviogon camera mounting a 11.5-cm. (4½-in.) wide-angle lens. Use of this relatively short lens cone enabled the aircraft to fly at a low elevation—beneath a layer of suspended dust which would have impeded photography.

The principle of aerial photography is in many respects similar to that of cinema photography, save that the camera rather than the subject moves. Individual photographs are taken at regular intervals as the aircraft follows a pre-arranged flight line. In most cases the camera interval is adjusted to produce an overlap of 60 per cent between each pair of successive photos in the strip. This practice allows the photographs to be mounted in pairs for stereoscopic viewing, which greatly accentuates the normal depth perception afforded by binocular vision. For maximum effectiveness photography is carried out in the early forenoon, when strong shadows accentuate the features of the terrain.

Photographic coverage of a wide area is achieved by flying a succession of parallel lines so as to produce overlapping photo strips. An overlap of 30 per cent between strips is usually desirable. When all photography has been completed the individual prints can be mounted either in strips or in a full mosaic which becomes in effect a single large photograph of the entire region surveyed.¹

The aerial survey of Sudanese Nubia involved three separate photographic operations:

1. Complete photographic coverage of the portion of the Sudan to be flooded, at a contact scale of 1 : 15,000 (see FIG. 1).

¹ For more general information on aerial photography and its application to archaeological problems the reader is referred to Crawford and Keiller, Wessex from the Air, pp. 3–7, and Miller, ‘Uses of Aerial Photographs in Archaeological Field Work’, American Antiquity, 23, pp. 46–62. Each of these works contains an extensive bibliography for further reference.
KUSH

(2) Complete photographic coverage of the region between the Second Cataract of the Nile and the Egyptian frontier, at a contact scale of 1:7,500 (see FIG. 1).

(3) Low-level photography (scale 1:3,000 or less) of selected known archaeological sites. In addition, some experimental photography with infra-red film was undertaken.

From an archaeological standpoint, each of the three photographic operations served a distinct purpose and was a necessary preliminary to the commencement of on-the-ground archaeological survey. The photographs at a scale of 1:15,000, covering the whole region to be flooded, were taken chiefly in order to prepare maps for use in the field. Up to the present time adequate topographic maps have not been available for the region south of the Second Cataract; they will be essential to a thorough archaeological survey of the region.

The photographs at 1:7,500 were taken as a direct adjunct to on-the-ground archaeological survey. In some cases they show obvious archaeological remains (e.g. PLATE 1, a), including some whose presence was previously unsuspected. More frequently they reveal uncertain but suggestive outlines which must be checked on the spot, or areas deserving of specially close attention in the course of ground survey.

Photographic coverage at 1:7,500 was confined to the region from the Second Cataract northward to the Egyptian frontier partly because a very high percentage of the known archaeological sites of Sudanese Nubia are concentrated in this area and partly because it is the area most immediately threatened with inundation.

Low-level, large-scale photographs of known sites (e.g. PLATE 1, b) are of great value both for accurate mapping of excavations and for planning further excavation. Special photographs were taken on several occasions in the course of the excavations at Buhen conducted by Professor Emery,2 and also of the excavations at Faras.3 Other large-scale photos were taken of several unexcavated or partially excavated sites.4

For effective use in the field all of the aerial photos of Sudanese Nubia have been catalogued, and their locations plotted both on a master map and a photo mosaic. This is done by entering on the map and mosaic a line joining the centres of all the photographs in each strip, thereby in effect recording the flight line of the aircraft when the photos were taken. Along the line, the centre point of every tenth photograph is marked and the catalogue number indicated. Photos are grouped and stored by flight strips, in which each individual photo is numbered consecutively.

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2 See pp. 81–6, below.
3 pp. 15–43, below.
4 For additional air photographs of sites in Sudanese Nubia see KUSH III, PLATES XIII and XIV, and SNR, XXXVIII, pls. 6–11.
a. UNEXCAVATED CEMETERY AT ARGIN

b. CLOSE-UP OF EXCAVATIONS AT BUHEN
Fig. 1. AERIAL PHOTOGRAPHIC COVERAGE OF SUDANESE NUBIA
KUSH

When a ground survey is contemplated in any given area, the field archaeologist first ascertains from the master map or mosaic the numbers of the aerial photographs covering that area. These are then taken from the permanent file and put into a packet for use in the field. Before setting forth, however, the archaeologist will examine the photos carefully with a stereoscope, marking on them with a grease pencil the locations of any features or areas which seem to require specific attention. He may also note landmarks which will enable him to locate the features in question, and, if the terrain is rough, suitable routes of access.

Once in the field it is of course necessary for the archaeologist to keep track of his position on the photographs. This is best done by entering the line or lines of his travels with a pencil line as he goes.

When archaeological remains are discovered, their location is recorded by making a pin hole through the aerial photograph at the appropriate point. On the back side of the photo a circle is drawn around the hole and the appropriate site number or other designation entered beside it, by which reference may be made to the field notes. In this way site locations are quickly and permanently recorded without defacing the photographs. By holding any photo to the light it is possible to ascertain at a glance the locations of all the sites recorded upon it.

In the evening, or after return to headquarters, the archaeologist transfers from the aerial photographs to the master site survey map the locations of all the sites recorded. The photos are then returned to their proper places in the permanent file where they are ready for reference at any time. A site register book giving the numbers of all of the aerial photos upon which each site appears is kept in conjunction with the photo file.

The relatively brief period devoted to the aerial photography of Sudanese Nubia in 1959 proved of inestimable value in programming and carrying out the ground survey in the first half of 1960, and it is confidently expected that field work in future seasons will benefit equally from this essential preliminary operation.
Trial Excavations in the Faras Region

by G. J. Verwers

I. A-Group Cemetery (24-I-6)

Just west of the range of dunes which today marks a former bed of the Nile, and somewhat south of the village of Faras, a group of about ten graves was discovered, lying in a rather sandy alluvial layer of grey yellow colour. The state of preservation of this cemetery was bad, due to wind erosion and probably also to its situation just opposite a big wadi which, though it carries water very seldom, in the long course of time may have caused damage to the burials.

As most of the graves were lying only a few centimetres below the present surface level it was not possible to determine their original shapes. The position of the pottery, however, indicates a rather wide oval or rectangular pit.

Burials

Forty per cent of the skeletons were lying on the left side and 60 per cent on the right side, with legs contracted and hands near the face. Orientation of the heads varied between west and south-south-east with the exception of 20c which was east-north-east.

Grave Contents

20a. Between lower arms lay a fragment of a quartz palette. Round about a number of sherds were found belonging to the well-known highly polished pots, inside black and outside red with a black rim (RP.BM). Also pieces of ostrich-eggshell occurred.

20b. West of the head of this very decayed skeleton an RP.BM bowl was placed (diameter, 22 cm.; height, 11 cm.). It had a milled rim.

20c. Three jars, placed in a line north-west/south-east, were found at a distance of about 50 cm. south-west of the head of a nicely preserved skeleton (Plate II, a). They were all of the same brick-red/orange colour, probably white-washed and made of sandy clay. The two big jars were covered by

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1 Angle between upper legs and spinal column was 90° or less.
2 At Faras the Nile flows north-east/south-west.
3 e.g. Reisner, ASN, 1907-8, pl. 63c.
4 Red-polished black-mouthed ware; cf. ASN, 1908-9, p. 10.
5 For the shape cf. Griffith, LAAA, viii, pl. iii, types 1, 2 and 7.
KUSH

shallow RP.BM bowls placed upside-down over the mouth. The south-eastern jar also had an RP.BM bowl which was partly brown in colour.6

20f. Burial of a child. One of the legs was broken and pointed forward. In front of the body there were a small irregular RP.BM bowl (diameter, 10 cm.; height, 4.5 cm.) and a bigger oval boat-shaped RP.BM bowl with a milled rim (diameter, 22.8 and 20.8 cm.; height, 8.5 and 10 cm.). The latter contained a similar shaped, but smaller, black bowl (diameter, 10 cm.; height, 6 cm.) (PLATE II, b). Near the pelvis were a great number of flat ostrich-eggshell beads.

20g. Skeletons of two children, buried one behind the other. No finds.

20h. Some small pieces of copper occurred near the hands of a child burial. West and south of it were placed two RP.BM bowls7 and one black polished bowl.8

20i. Besides an incomplete skeleton this grave contained a slender, greyish, wheel-made jar,9 probably originally closed by a pot of red ware of which only a few sherds remained. There was also a rim sherd from a similar jar, but of an orange colour.

20j. A brick-red/orange jar was found together with a bowl, red-polished inside and out,10 in a grave in which no skeleton remained.

Among the surface finds were some sherds of polished ware, red inside and out; a rim sherd of black polished ware, which by grinding the fractures had been reshaped into a small dish; a few rim sherds of very thin red unpolished ware with patterns made by comb impressions;11 a shallow pottery dish partly red-brown and partly black in colour having a great number of holes in its bottom12 (diameter, 14 cm.; height, 3.2 cm.).

Conclusions

As to the dating of these graves it must be realized that the number of finds is too small to make any definite statement. Nevertheless the resemblance to the cemetery which was excavated by Griffith seems obvious. That the orientation of the burials is the same in both is naturally due to the same 'local South', but, in addition, there is the resemblance in shape, material and fabrication of the pottery (red polished, black mouthed with milled rims,13 Egyptian jars, etc.). We would therefore suggest the Protodynastic period as the possible time when this cemetery was in use.

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6 Idem, type 63 with a pointed base.
7 Idem, type 29 and 58, but softer profile.
8 Idem, type 54, with pointed base.
9 Idem, type 3.
10 Idem, type 15, flat base.
11 Idem, pl. v, 9; also Steindorff, Aniba, I, pl. 77, 3.
12 Steindorff, Aniba, I, pl. 77, 12 and 13.
13 Griffith, LAAA, VIII, p. 8.
II. C-Group Settlement (24–E–2)

In his reports on the Oxford Excavations at Faras, Griffith mentions the existence of occupation remains along the former Nile channel just below (east of) the C-Group Cemetery. Surface finds indicated a Protodynastic date.

In 1946 this site was visited by Arkell who 'found unmistakable indications of a C-Group settlement . . . marked by rings of stones which no doubt were placed round circular grass huts.'

Dr Vercoutert investigated this place in 1955.

These promising reports together with our own observations led to the excavation of an area of 30×25 m. A test-pit showed (1) a dark coloured occupation layer of sand and clay (Layer 1) mixed with much charcoal, bone, stone and sherds at about 50 cm., resting on an undisturbed alluvial deposit and covered by (2) a layer of light grey sand and clay (Layer 2), also containing some sherds and particles of charcoal, and in turn covered by blown sand of varying thickness. In the eastern part of the excavated area the occupation layer was buried beneath a thick deposit of almost solid white ash.

The removal of the surface sand revealed a rather complicated system of excavations in these different layers. The remains of two dwellings seemed to be traceable—pits dug straight into the deposits, with fragments of low mud walls in places (FIG. 1). Below a heavy fill of blown sand followed a layer of clayish sand with charcoal, sherds, bone, worked stone and numerous pieces of mud, while the undisturbed alluvial deposits were used as 'floors'.

As these dwellings had been dug through the old occupation Layer 1, they were necessarily of later date and might contain different remains. Therefore material from inside the houses was carefully kept separate from that obtained by removing the 'undisturbed' layers outside. The finds were almost exclusively rather badly preserved sherds and some chipped stone. The latter did not show any difference. All sherds were classified and statistically compared, but with the same result—no difference.

For this, two explanations are possible: either the second occupation, although undoubtedly later than the first, was nevertheless of the same cultural period—this would be an easy way to account for the similarity of the finds; or the second stage is of much later date, in which case the sherds and stones probably fell into the houses from their walls.

The complete absence (with the exception just described) of material from other periods gives evidence for the first hypothesis as does the circular sandstone construction, which seems comparable with the C-Group corn bins from

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Aniba\(^{15}\) and Wadi el Arab,\(^{16}\) and is here built in close connection with House II on the surface of Layer 2 outside the dwelling. There is further evidence in the small round pits (diameter, 50 cm.; height, 20 cm.) lined with mud. One was excavated at the top of Layer 2, and a second one lay 40 cm. below the modern surface (on top of the occupation layer) and was visible in the west wall of House II. They were similar, but of different periods.

However, as no stronger proof for the dating of the second stage is available, we will confine ourselves to a brief description of the finds.

**Pottery**

Unfortunately only sherds were found, so that the shapes of the pots cannot be deduced. The decoration on some of the sherds closely resembles those reproduced in Steindorff’s *Aniba*, vol. 1, plate 91–3.

1. Red polished ware, black inside, with black rim (RP.BM); about 14 per cent (of all sherds) undecorated, ± 2 per cent decorated with incised patterns, among which triangles frequently occur. In a few cases the figures were filled with white paste. There are also impressions of palm fibres (mostly in triangles).
2. Red ware, polished on both sides: 4 per cent of total.
3. Black polished ware, both decorated (and white filled) and undecorated: very scarce.
4. Rather thin ware, mostly of a yellow-brown colour, sometimes reddish; rough surface; coarse clay heavily tempered with straw; if decorated, only along the rims with triangles; bowls and pots (Steindorff’s Nubische ware): 15–20 per cent.
5. Similar ware, but thicker, darker coloured and black inside: more frequently decorated with triangles; mostly bowls: ± 40 per cent.

Of the remaining sherds mention must be made of about 3–4 per cent of yellowish wheel-made, well-baked ware (Keneh ware). On the other hand, in the lowest filling of House II there was over 30 per cent of this ware. A few spouts were also found.\(^{17}\)

The other finds, of which a selection is shown in **PLATE II, c**, included clay figurines, both of women and cows,\(^{18}\) a clay seal(?), a great number of clay bottle-stoppers(?), a few flint implements, a mushroom-shaped earstud,\(^{19}\) some small black stone beads, pieces of haematite the surface of which had been worn down by grinding, some pierced pottery discs, two small flat axe-like objects, four oval palettes of sandstone with scratches on parts of the rim, and finally

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\(^{15}\) Steindorff, *Aniba*, I, p. 211.


\(^{17}\) Cf. Steindorff, *Aniba*, I, pl. 94.

\(^{18}\) Idem.

\(^{19}\) Cf. Griffith, *LAAA*, VIII, pl. 12, 6.
a copper (or bronze) needle, a heel-shaped and a key-hole-shaped piece of copper and a piece of charcoal and ash mixed with copper. These three metal finds all came from the lower parts of the heavy layer of white ash on the eastern side of the excavation.

It remains to be mentioned that the north side of House II had been raised by building a wall two mud bricks high on the surface. The bricks measured $27 \times 13 \times 7$ cm.

III. Late C-Group Cemetery (24-E-5)

On the gravel plateau, about 1 km. north-east of the C-Group cemetery excavated by Griffith, a group of graves was discovered situated in very coarse grey sand and gravel with a thin top layer of yellow sand. It included three types:

![Diagram of Grave 14e]

**Fig. 2. Grave 14e**

A. Rectangular graves with mud-brick walls and a vaulted roof of the same material.

B. Rectangular graves with mud-brick walls, wider than type A and without roof.

C. Shallow pits excavated in the grey sand.

The graves belonging to types A and C were scattered indiscriminately over an area about $25 \times 25$ m. and type B lay to the north-east of them.

A. Four graves of this type were found: 14a, b, e and j, of which e is illustrated (Fig. 2).\(^{20}\) The heavier construction of the south wall is probably

\(^{20}\) Dimensions of grave 14e: horizontal (inside) $220 \times 75$ cm., vertical 60 cm. (top of walls) and 100 cm. (top of roof). Thickness of walls, 20 cm. with the exception of the South wall which is 32 cm. thick while its height and width are respectively 100 cm. and 115 cm.
due to the way the roof was built, as the leaning vault needs a strong support. These graves were built inside a pit dug out of the grey sand. Their orientation is north(north)east/south(south)west, i.e. ‘local South’.

Contents

All four graves had been thoroughly robbed through holes in the roofs. For that reason, of the burials nothing but a few scattered bones were found. Grave b contained the limb of quite a big mammal which has not yet been identified.

2. Bowl with base, covering i. Wheel-made of red-painted brown ware. Some incised rings under the rim. Height, 9 cm.22
3. Black polished bowl with incised patterns. Diameter, 10.5 cm.; height, 8 cm.
4. A pottery kohl-pot(?). Height, 3.5 cm.

14b: 1. Jar, red-painted, brown, straw-tempered ware, wheel-made. Thickened rim afterwards re-shaped almost into a square. Height, 20 cm.23

14c: No finds.

14j: Bottom sherd on which were some pieces of yellow pigment.

B. The rectangular graves belonging to this type differ from those described under A in dimensions as well as in the absence of a vaulted roof, for which reason all the four walls are of equal thickness. The average dimensions of 14d, h, k and l are 260×150 cm. horizontal, and 50–60 cm. vertical. The orientation of this group is the same as the former, with the exception of grave h (north-west/south-east).

Contents

14d: No finds.

14h: Rim sherd of a wheel-made bowl, red-painted over brown ware; very similar to bowl f(2).

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23 Cf. Petrie, Diospolis Parva, pl. xxxix, 74 (xii-th–xiv-th Dynasties). Junker, Toschke, pl. xxi, 327, 324–6. Late C-Group. MacIver, Buhen, pl. 46, S xiii (together with scarab of Tutankhamen, Late xvi-th Dynasty).
KUSH

14k: Contained two human skeletons, on their backs with heads to the north-north-east. Near the chest of the western burial a large number of green, blue and white faience beads were found together with some pieces of yellow pigment. At the left foot was a slender polished (whet?) stone with a hole in one end. The eastern skeleton had four bone beads, long and oval in shape, close to its pelvis.

14l: No finds.

C. When removing the surface layer of yellow sand these graves became visible as lighter coloured spots in the grey sand. Of the burials nothing but a few bones were traceable.

Besides some sherds of red-polished ware with black rim, in only two cases was pottery found:

14f: 1. Jar comparable in shape and ware with 14b.
2. Bowl, although more roughly made than 14a, very similar to it in shape.

14g: Black polished bowl, incised patterns. Diameter, 9 cm.; height, 8 cm.

Summary

The scarcity of graves and consequently of finds makes a comparison of this cemetery with the results of previous excavations both difficult and dangerous. It is therefore advisable to consider the references given chiefly as complementary to the descriptions above.

Graves

As to the graves, those with mud-brick vaulted roofs are known from Firth\(^{24}\) and Junker\(^{26}\) who both found this type but always in connection with (C-Group) stone circles. Although some stones occurred in the neighbourhood of our graves it seems highly improbable that they belonged to such a construction. Both authors place this type in the Late C-Group period.

Reisner\(^{26}\) and Junker\(^{27}\) described graves similar to our type B. In El Kubanieh-Nord sandstone slabs were used as covers. Their datings differ, being respectively New Kingdom and Late C-Group.

The dubious graves of type C suggest a comparison with the ‘Pan-graves’. Lack of material, however, makes this impossible.

\(^{24}\) Firth, *ASN*, 1909–10, Cem. 101: 1–111 (pp. 112 ff).
\(^{26}\) Junker, *Toschke, El Kubanieh-Nord*.
\(^{26}\) Reisner, *ASN*, 1907–8, Cem. 30: 17–45 (pp. 197 f).
Pottery

There seems to be a close relationship between the pottery found in the different graves (a. i—b. i—f. i; a. 2—h—f. 2). This, together with the way in which the different types of graves are found side by side (with the exception of type B) seems to indicate that they are contemporaneous. The references given with the description of the pottery suggest a Late C-Group date. As the grave types also point in this direction, we are inclined to agree with this dating.

IV. Unidentified Graves (24-E-32, 33)

About 50 metres north of the Late C-Group cemetery a few graves were discovered, dug out of a firm clayish layer. Their shape was round with diameters varying between 40 and 100 cm. One contained some hair, another the complete skeletons of a sheep and a lamb. A third grave differed in shape as it was rectangular with a side-chamber. No pottery remains were found in any of the graves.

V. A Second Group of Unidentified Graves (24-E-34)

Some 35 round or oval pits with diameters between 70 and 200 cm. were found to have been dug in a strong layer of fine sandy clay 100 metres north of Griffith’s C-Group cemetery. Except for two jars\(^{28}\) of a dull yellow-brown and reddish colour, hand-made of coarse clay tempered with plenty of straw (FIG. 3), and the contracted legs of a human skeleton, lying on the right side, head originally ± south-west, the graves contained only a few sherds of red-painted ware and red polished ware with a black rim. A piece of haematite was also found.

VI. New Kingdom Graves

(24-D-1; 24-E-12, 13; 24-I-10, 11, 12, 13)

A prominent feature in the scenery around Faras is the low sandstone scarp which separates the Nile Valley, in the wider sense, from the desert plateau. Although at some places it is one scarp, it mostly consists of a few steps rising together to an average height of 10 metres. The deterioration of the rocks has led to the accumulation of boulders and sand. Herein about 40 graves were found.

Probably due to differences in natural conditions the graves were often grouped together in the most suitable places. They extended southwards from a point near the C-Group cemetery for approximately 2 km. As the graves and their contents in this area were similar, they will be described all together.

\(^{28}\) Together in one pit.
Graves

The graves were irregular pits, dug into the sand for some 50 cm. and lined with sandstone slabs (Plate IV, a). The average dimensions were $\pm 175 \times 75$ cm. Wherever possible they were placed against a rock cliff which served as one wall (Fig. 4). If the sand layer was thin the body was placed on the bare rock, otherwise it rested on the sand. Grave 25bii was still partly closed by a slab; this was, however, the only example of a covering. North–south seemed to be the preferred orientation, but had sometimes to be abandoned because of the irregular course of the sandstone scarp.

Burials

Again due to wind erosion, in many of the graves only a part of the skeleton or a few bones were found. The burials were lying on their backs, legs stretched out, arms to their sides, the hands on or beside the pelvis. The child buried in grave 24g, however, was lying on its right side and its legs were slightly contracted.

Pottery

Although a few graves were completely empty, most contained one or more pieces of pottery. Their position in the grave was often close to the head or feet, but many exceptions occurred. In a few cases pots were found under the skeleton. As most types were of well-baked ware their state of preservation was good.

Type I. Reddish-brown ware with red slip; polished outside, but sometimes only on the upper part of the inside. The sandy clay is tempered with straw. Wheel- or hand-made. Characteristic are the vertical stripes on the outside of this ware (caused by polishing ?).
a. A-GROUP CEMETERY, GRAVE 20 e
b. A-GROUP CEMETERY, GRAVE 20 f
c. MISCELLANEOUS, C-GROUP SETTLEMENT
a. LATE C-GROUP CEMETERY, FINDS FROM GRAVE 14 a
b. REMAINS OF HOUSE, CHRISTIAN PERIOD
PLATE V

a. POTTERY TYPE III  
b. POT FROM GRAVE 17 b  
c. FAIENCE FIGURINES  
d. SCARABS  
e. SCARABS  

(NEW KINGDOM)
Type II. Yellowish-brown ware, with painted red band along the rim (inside and out). Unburnished surface. The coarse and sandy clay is tempered with straw. Hand-made. (See PLATE IV, d, and FIG. 6).  

Nine examples.

Type III. Thin ware with colours varying between yellow, grey, green and sometimes reddish; often covered with a thin white slip. This type includes very divergent shapes (see PLATE V, a) all of which are wheel-made of fine clay with some sand and very well baked.  

Twelve examples.

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29 Cf. Woolley and Maclver, Buhé, pl. 47, S xxvii, xviii Dynasty or later.

30 Cf., idem, p. 132, light mud coloured ware with red band along the rim, xviii Dynasty also xixth and xxth, e.g. S xxviii. Also Griffith, LAA, x, pl. xxxiii, 1–4 (Sanam).

31 Cf. Steindorff, Aniba, ii, pl. 87, 49(4) and (5), xixth Dynasty.
KUSH

Type IV. Pilgrim bottles of hard, thin greyish ware, sometimes light brown. One example had painted circles on its surface (PLATE IV, e). Three examples.

The following types occurred only once:

PLATE V, b. Irregular red, brown and black coloured pot. Outside polished. Roughly hand-made of coarse clay with sand and straw.

FIG. 7. Tall jar of red-painted ware, wheel-made of clay which was tempered with straw.

Small bottle, grey white slip over yellow grey ware. Wheel-made. (Alabaster imitation?) Dish of pale brick-red colour, wheel-made, smooth surface. In grave 17c part of a cylinder of very rough reddish pottery was found (PLATE IV, b).

As the types described occurred in all possible combinations there is no need to list the pottery contents of each grave individually.

Beads

A great number of beads were found, including a variety of shapes. Faience: blue, green, brown and black small discs; blue-green cylinders; blue carinated discs; white barrel-shaped beads with green tops. Ostrich-eggshell: small discs. Stone: natrolite, long oval beads; carnelian, barrel-shaped; long oval beads (blue). Some cowrie shells also occurred.

Figurines and Scarabs

A few figurines of blue and green faience (PLATE V, c) and three scarabs were discovered. The latter, although they are not connected with any particular king, can be dated to the end of the xviiiith and perhaps the xixth Dynasty.

PLATE V, d, e: 1. Grave 17c, together with Types II, IV and rough cylinder.
2. Grave 25bii, also Type II, bottle (FIG. 7), blue faience carinated beads.
3. Grave 27c, with figurine, which was of same colour and fabrication, cowrie shells, natrolite bead (barrel-shaped).

Conclusion

From the work of Griffith and others it is known that during the New Kingdom, Faras continued to be an important Egyptian settlement. Remains

32 Cf., idem, pl. 85, 44b, xviith, xviiiith and xixth Dynasties.
33 Cf. Petrie, Diospolis Parva, pl. xxxiv, 70 and xxxvi, 136, xixth–xviiith Dynasties. Cf. also Steindorff, Aniba, ii, pl. 76, 22(1), Hyksos—xixth Dynasty.
34 We express our thanks to Dr Vercoutter who kindly examined these objects.
of three sanctuaries built by rulers of the xviii\textsuperscript{th} and xix\textsuperscript{th} Dynasties are recorded. The Egyptian inhabitants of this area left their traces in the four rock-cut tombs at the edge of the Western desert,\textsuperscript{35} but up till now nothing has been mentioned about the existence of a local population. That the vast and fertile flood plain south of modern Faras, which had attracted farmers since the Predynastic period, should now suddenly have become deserted seems improbable. The graves described above support this hypothesis.

Of the grave goods, the pottery indicates a period covering the xviii\textsuperscript{th}, xix\textsuperscript{th} and xx\textsuperscript{th} Dynasties, while the scarabs more accurately point to the end of the xviii\textsuperscript{th} and perhaps the xix\textsuperscript{th} Dynasty, at which time two of the three temples in Faras were built.

As to their construction, the graves described here represent a common type which is found all over the world. In Nubia they are known from Garstang’s investigations (New Kingdom)\textsuperscript{36} and more particularly from Junker (e.g. Ermenne, El Kubanienh-Nord). The latter dated them to the Late C-Group period and the New Kingdom, considering them to be a late development in the Nubian culture which continued in existence during the Egyptian domination. Evidence for this is given \textit{inter alia} by the occurrence of typical C-Group pottery among the grave goods of Egyptian origin and/or influence.

In Faras this type of grave occurs for the first time during the xviii\textsuperscript{th} and xix\textsuperscript{th} Dynasties. Among their contents no C-Group pottery was found. Whether these facts indicate an immigration of population, the acceptance of a foreign tradition, or a local development is difficult to determine. The absence of any connection between Late C-Group and New Kingdom remains in Faras might point to the first supposition.

The poverty of the graves and goods, especially in comparison with the Egyptian rock-cut tombs in Faras leads one to ascribe these remains to the local rural population.\textsuperscript{37} Significant in this respect is the location of the graves—they occur only around the flood plain, i.e. around the cultivated plots.

As so often happens in archaeology these remains offer only a snapshot of the occupation in this area during part of the New Kingdom period. The further developments of this population are still left in the dark.


The remains of the X-Group/Christian period which were investigated during this survey include some ten rock-cut tombs, three houses, a few rock carvings, and the Potteries reported elsewhere in this journal.

\textsuperscript{35} Griffith, \textit{LAAA}, viii, p. 94.
\textsuperscript{36} Garstang, \textit{ASAE}, viii, p. 139.
\textsuperscript{37} Observe also the difference between this cemetery and that of the mercenaries in Buhen. Both are contemporaneous.
Graves: Griffith, in his report about the Christian cemeteries in Faras mentions the existence of rock-cut tombs in the northernmost cemetery. It proved, however, that this type also occurred in the southern cemeteries. Over twenty graves were discovered of which about ten were excavated. Most of them contained undisturbed human skeletons varying in number from one to eight. The orientation was always north(north)west/south(south)east.

Two graves belonged to a type comparable with Reisner’s Christian Type VIII (ASN, 1907/8). In one the covering sandstone slabs were still in situ.

The other graves were rather similar to the type described by Griffith from Cemetery 8, with this difference, that the entrance pit gave access to two rooms instead of one, which were always orientated north(north)west/south(south)east.

Houses: The houses from this period were, as Griffith had already indicated, built along the former western channel of the Nile, and especially south of the two churches. A low sandstone edge sometimes facilitated the construction by being usable as a back wall. The other walls were placed against this edge. They were built in a very similar manner to that described by Woolley (Buhen) for the ‘Romano-Nubian’ houses—sandstone pieces placed in ‘herringbone fashion’, i.e. set on edge and sloped in opposite directions in alternate courses (Plate III, b).

Rock carvings: On some protruding rocks of the sandstone edge, 2 km. west-south-west of the Field Headquarters, was a small group of rock carvings. Some of them are reproduced in Fig. 8. They resemble those from Jebel Nakharu and some of Winkler’s group of the Greco-Roman-Coptic period.

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38 Crawford, Castles and Churches in the Middle Nile Region, pls. x, xi.
39 Winkler, Rock drawings in Southern Upper Egypt, 1, p. 12.
The Christian Potteries at Faras

by William Y. Adams

The most extensive excavation undertaken at Faras West in 1960 was that of the so-called ‘Coptic Potteries’ (site 24–E–21), situated close to the west bank of the Nile and within a stone’s throw of the Egyptian frontier (see fig. 1 facing p. 8). This mud-brick structure was first noted by Mileham,¹ and was partially excavated by Griffith² in 1911–12. It was later visited and described briefly by Dunbar,³ and again by Monneret de Villard.⁴ The most prominent feature of the site is a line of five great circular kilns, lying to the east of the main buildings, and an enormous quantity of ceramic refuse.

At the time of our initial visit, in January 1960, nothing could be seen of the Potteries save the tops of four circular kilns of fired brick—the same kilns shown in Griffith’s original plan.⁵ The remainder of the site was entirely re-buried under drifting sand which had accumulated in a high dune at this point. Scattered over the surface was a great quantity and variety of potsherds of Christian date, including both utility and fine painted wares, and fragments of slag detached from the interior walls of the kilns (cf. Plate VI, b). Our attention was drawn both by the slag—attesting to tremendously high firing temperatures—and by the quantities of obviously unexcavated ash remaining in the kilns. We therefore undertook a brief test excavation, chiefly in hopes of learning some details of the manufacture of the distinctive, highly decorated pottery which is characteristic of Upper Nubia in the Christian period.⁶

Whereas Griffith was concerned primarily with the western portion of the site, and only incidentally with the kilns, we began our investigations in and around the latter. We became aware almost at once of a quantity of material and complexity of stratification (cf. Plate IX, a) which were entirely unexpected, and soon found it necessary to enlarge the scope of our operations. As work progressed we were able to identify, instead of the three periods of occupation postulated by Griffith,⁷ at least six distinct stratigraphic levels, the lowest of which was encountered at a depth of over 4 m. below the pre-excavation

¹ Mileham, Churches in Lower Nubia, p. 25.
³ Dunbar, ‘Betwixt Egypt and Nubia’, Ancient Egypt, 14, p. 112.
⁴ Monneret de Villard, La Nubia Medioevale, 1–2, p. 193, pl. 81.
⁵ Griffith, loc. cit., pl. 42.
⁷ Griffith, loc. cit., p. 63.
ARCHAEOLOGICAL SURVEY OF SUDANESE NUBIA

surface (see Fig. 2). We found also that many of the rooms shown in Griffith’s plan had not been excavated to the lower floor levels. Eventually we re-excavated eight of the rooms mapped by Griffith as well as an area of about equal size lying to the east (Fig. 1). The investigation of the Potteries thus became by degrees a major archaeological project, and continued from the middle of February to the middle of May 1960.

The excavation yielded invaluable information in four respects. First, it allowed us to study the architectural history of the buildings themselves. Second, it brought to light the great circular kilns (Fig. 3 and Plate VII) which were at the time of excavation unique in Egyptian archaeology. Third, it produced a mass of pottery-making equipment, raw materials, and ceramic specimens in all stages of manufacture (cf. Plate VIII) which should permit an exhaustive analysis of the technology of Christian pottery manufacture. Finally, it yielded great quantities of the finished ceramic product—particularly the fine and elaborately painted ware of Christian Nubia which has variously been called ‘Faras Ware’ and ‘Dongola Ware’, and whose origin remains something of a mystery. Although nearly all of this material is fragmentary, there are a large number of restorable vessels, and the overall quantity should be sufficient to permit a more detailed stylistic analysis than has heretofore been possible. Moreover, the clear-cut stratification of both structures and refuse deposits offers an opportunity to recognize developmental sequences in the pottery.

In addition to these finds the Potteries yielded a number of inscriptions, in Coptic and also perhaps in Old Nubian and early Arabic, which may be of interest when deciphered.

THE BUILDINGS AND THEIR DEVELOPMENT

The Potteries, as revealed by our excavations and those of Griffith, consist of a block of about 25 contiguous mud-brick rooms, forming almost a solid rectangle (Fig. 1). The bulk of these structures date from the second period of occupation at the site. They are typical Christian structures, mostly small, made from unfired bricks about 30 cm. long, and having vaulted ceilings except for one room (Room 6, Fig. 1) which supported a dome. There is, however,

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8 Ibid., pl. 42.
9 The excavations and site plan were in actual fact the work of C. L. Woolley, who was Griffith’s assistant at Faras.
10 See also Griffith, loc. cit., p. 65.
11 Arkell, A Christian Church and Monastery at Ain Farah, Darfur, Kush VII, p. 115.
14 For general descriptions of Christian Nubian architecture see Mileham, loc. cit., pp. 7-13; Clarke, Christian Antiquities in the Nile Valley, pp. 16-33; and Monneret de Villard, La Nubie Médiévale, 3-4.
at least one very large room (Room 10), 10 m. long, which Griffith believed to have been a chapel.\textsuperscript{15} Near the centre of the site an L-shaped flight of steps (Room 12) led to an upper floor or, more probably, some sort of belfry.

To the east of the rooms was the line of great circular kilns, built from the fourth to the sixth periods of occupation, and around these as well as within the rooms are various smaller kilns, bins, and fireplaces (FIG. 1, b and PLATE VIII, b). The architectural history of the Potteries may be sketched very briefly as follows :

\textit{First Period.} The original structure was apparently some sort of unroofed mud-brick compound lying slightly to the east of all the later buildings. It was built directly upon Nile alluvium at a level not much above the present high-water level in the river.

\textit{Second Period.} The bulk of the structure dates from this period, including the great chapel (Room 10) and the adjoining rooms. They are floored on an accumulation of over 1 m. of soft sand, containing some sherds, overlying the preceding level.

\textit{Third Period} (see FIG. 1, a). A line of rooms was added to the east side of the building, and floor levels were raised 25 cm. throughout most of the site. The earliest pottery-making equipment is seen at this period: two very small circular kilns in Room 7, and clay mixing basins in the adjoining rooms.

At the end of the third period the Potteries were severely damaged either by a Nile flood or, more probably, a prolonged rainstorm. Most of the walls were reduced to a height of 1 m. or less, and a thick layer of mud, perhaps chiefly dissolved brick, was deposited more or less uniformly throughout the site. Only a few rooms at the centre of the building remained intact, perhaps because they were protected by a second storey.

\textit{Fourth Period.} After the catastrophe the rooms at the east side of the building were abandoned, and the first two of the great kilns (Kilns 3 and 4) were built upon their ruins. Elsewhere most of the rooms were restored, having for their new floors the thick layer of mud which had been laid down over the earlier levels. Pottery-making apparatus, including both kilns and clay mixing basins and trays (PLATE VIII, b), was installed in several rooms.

\textit{Fifth Period.} This was probably the period when the Potteries went into mass production, and became purely and exclusively a factory. Two more great kilns (Kilns 1 and 2) were constructed, and pottery-making equipment was installed in every part of the building. However, it seems probable that some of the most westerly rooms were abandoned to the encroaching sand.

Throughout the fifth period, and from then onwards, it is clear that the inhabitants of the Potteries faced a constant battle with the accumulation of refuse from their manufacturing activities. Each time the furnaces were cleaned

\textsuperscript{15} Griffith, loc. cit., p. 64.
ARCHAEOLOGICAL SURVEY OF SUDANESE NUBIA

a layer of ash and sherds from 5 to 15 cm. thick was laid down around the eastern part of the site. These deposits ultimately reached a height of nearly 3 m., involving some 50 separate layers (PLATE IX, a). As they grew, the stokehole apertures through which the furnaces were fed and cleaned had to be heightened again and again, and the stairways leading to the old room levels to the west (see FIG. 2) became progressively longer and steeper. In the end, Kiln 3 was entirely engulfed in ash and refuse,¹⁶ and the others had to be drastically modified.

Sixth Period (see FIG. 1, b). The final period saw the abandonment of all but perhaps two of the old rooms to the west of the kilns. Several of them were filled with from 2 to 3 m. of trash, and entirely new rooms (Rooms 28–30) were built upon these deposits. Kiln 3 was entirely abandoned and filled with refuse. The remaining kilns were nearly doubled in height, so that what had been their upper or firing chambers now became their lower or furnace chambers (see FIG. 3, c), while the original furnace chambers were entirely filled with dense ash. The last and largest of the great kilns (Kiln 5) was built at this time. New outdoor workshop areas were developed around the kilns, at a level over 4 m. above the earliest underlying remains (FIG. 2).

Griffith's surmise¹⁷ that the structure was originally a monastery is probably correct. No pottery-making features of any kind were found prior to the third period of occupation, and large-scale manufacture certainly did not begin until after the flood or storm. Even then pottery making may have remained for a time a side-line of the monks who inhabited the place. Nonetheless it is certain that by the time of its abandonment the site had become a secular institution devoted exclusively to wholesale ceramic manufacture.

THE KILNS

The most outstanding feature of the Pottery was, of course, the row of great circular kilns lying to the east of the buildings (FIG. 1, b and PLATE VII). It was our good fortune in finding one of these (Kiln 3) buried under refuse and thus preserved intact which was largely responsible for the more general investigation of the site. It has enabled us to reconstruct the design of the remaining four kilns, all of which were found in more or less dilapidated condition.

All of the great kilns were cylindrical in shape, made of mud brick, and consisted of a closed lower furnace chamber and an open upper chamber in which the pottery was fired (FIG. 3). The lower portion of the furnace chamber was dug below the ground, having sloping sides and a flat bottom, and was faced with thin, flat brick. The upper part of the furnace chamber was a sort

¹⁶ Thus accounting for the fact that it does not appear on Griffith's plan (loc. cit.; pl. 42).
¹⁷ Griffith, loc. cit., p. 64.
Fig. 1, a. PLAN OF THE POTTERIES AT THE THIRD PERIOD OF OCCUPATION
Fig. 1, b. PLAN OF THE POTTERIES AT THE SIXTH (FINAL) PERIOD OF OCCUPATION
KUSH

a. Section on A-A'

b. Section on B-B'

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Occupation level of first period

Structures and levels of second period

Structures and levels of third period

Structures and levels of fourth period

K Kiln

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Structures and levels of fifth period

Structures and levels of sixth period

Structures shown in Griffith's plan; not excavated in 1960

Numbers refer to accompanying text

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Fig. 2. STRATIGRAPHIC SECTIONS ON THE POTTERIES

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of perforated brick dome formed by four arches or 'ribs', which supported the floor of the overlying firing chamber. The furnace was fired and cleaned through a narrow stoke-hole which passed between two of the ribs, and had a built-up aperture outside the kiln.

The dome structure and the overlying firing chamber were enclosed within a high circular wall of mud brick which rested upon the outside ground surface. After this had been built the floor of the firing chamber was levelled by the addition of spalls and mortar to the top of the arches. A series of from 20 to 30 small round holes was made in the floor, passing between the ribs of the dome, to carry smoke and hot air up from the furnace chamber. In the two original kilns (Kilns 3 and 4) the circular enclosing wall was reinforced by two heavy buttresses (PLATE VII).

Contrary to expectation, and to Griffith's conjecture, all evidence indicates that the firing chambers were never roofed in any manner, but were simply open to the sky at the top (FIG. 3). Firing was thus carried on in a completely uncontrolled atmosphere.

Various other types of kilns were in use at different times during the occupation of the Potteries. The earliest examples are two very small structures built into the floor of Room 7 during the third period of occupation. Their furnace chambers are cylindrical shells of coarse pottery about 30 cm. in diameter which were buried in the ground. They were divided off from the upper chamber by a grating formed by thin bricks set on edge. These are the only firing apparatus dating from before the catastrophe which engulfed the site at the end of the third period.

After the flood or storm, kilns of varying size and design were in use in different parts of the Potteries. The great kilns had built against them, on the outside, whole constellations of subsidiary structures (visible in PLATE VI, b) designed to capture and utilize some of the heat transmitted through the kiln walls during the firing process. Several rooms also had kilns or fireplaces in them. Both Room 18 and Room 25 had kilns built directly into their walls (PLATE VIII, b) at a late period. One of the high-level rooms of the last period of occupation had in one corner a rectangular kiln 1 m. square, whose furnace chamber extended far below the room floor. The upper features of the structure had been destroyed and could not be reconstructed.

Apparently not all of the smaller kilns had separate furnace and firing chambers. Fragments of heavy ceramic slabs and trays were found in close association with many of the kilns, and it is surmised that unfired small vessels, resting upon these, were inserted directly into the hot coals of the smaller kilns.

Pottery-making Equipment and Procedures

Excavation of the Potteries yielded a mass of raw materials and equipment used in ceramic manufacture. Pottery was found in every stage of completion

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18 Ibid., p. 65.
Fig. 3. PROJECTION, PLAN AND SECTION OF KILN 3
beginning with lumps of raw clay and ending with the finished product. Intermediate stages included masses of clay which had been ground and mixed but not moulded, heavy moulded discs of clay ready for the wheel, fully formed vessels not yet scraped or slipped, vessels dried and slipped but not decorated, and finally vessels which were all ready for the kiln. These collections are of enormous value in enabling us to determine with certainty some of the types of pottery which were actually made at the Faras kilns. (Some of the pottery found at the site, particularly at the lowest levels, was presumably made elsewhere and received in trade.)

Raw materials, in addition to masses of clay, included deposits of ground pigment and slip material found adhering to the sides of numerous broken pottery containers. Several lumps of raw haematite were found, and there may be other mineral pigments present in the collections as well. Very large quantities of animal bone, particularly of camels and cattle, were found in the pottery-making rooms, and it seems probable that much of this material was destined for use as temper. A large concentrated mass of pulverized bone was found in Room 18. In another part of the Potteries a quantity of highly mineralized bone was found in a small hearth, while a pile of normal bones rested beside it. Also found were a considerable number of horns of cattle, and one of a gazelle, the use of which has not been determined.

Another common but mysterious find is a dark, pitch-like substance. It was frequently melted down in large jars, and is found collected in solidified pools in the bottoms of them. Its repeated occurrence in the site makes its use in pottery-making almost certain.

Clays or pigments were ground on granite querns, using either a small spherical stone pestle or a larger flat hand-stone. Clay and water were mixed to a working consistency in heavy ceramic basins, some round and some oval, which were found set into the floors of a number of rooms (Plate VIII, b). After shaping, pots were scraped with a small sherd scraper. They were then set out to dry in low, open bins built of mud brick (Plate VIII, a). Some of these were built against the outsides of the large kilns, and were designed to take advantage of the heat of their walls when in use. After drying the pots were slipped and often polished with a small, smooth pebble.

Conspicuously absent from the extensive assemblage of pottery-making equipment is the potter’s wheel. The fine Christian wares of Faras are clearly wheel-made, but the instrument itself could not be found. The wheels were presumably made of wood and have perhaps been entirely consumed by white ants—the normal fate of all vegetal remains in Nubia. A second possibility is that the wheels were considered too valuable to be abandoned with the site. A number of small flat pieces of marble having conical or hemispheric depressions were found, and these may well be the bases upon which wheels were turned.

At the time of writing the bulk of the collections from the Faras Potteries remains to be studied. It is not, therefore, possible to give more than a very
generalized outline of the pottery-making process. It is our hope eventually
to make a complete qualitative analysis of all of the materials recovered, and
to fire and/or re-fire selected vessels at various temperatures and in different
atmospheres. These experiments, coupled with our knowledge about the
structure of the kilns, should permit us to formulate a full technological des-
cription of Christian pottery-making as practised at Faras.

THE FINISHED PRODUCT

The quantity of ceramic refuse which accumulated around the Faras kilns
over the years reached staggering proportions (Plate IX, a). In our own excava-
tions we handled at least 50,000 sherds, of which about half were initially saved
for study. A complete sifting of all the refuse at the site, including the portions
excavated by Griffith, would certainly have produced ten times that number.
In some parts of the refuse there were beds up to 40 cm. thick consisting almost
exclusively of sherds.

This great volume of material does not seem to be matched by a comparable
variety; on the contrary, it is likely that the output of the Faras kilns was
always somewhat specialized. The great bulk of the pottery appears on super-
ficial examination to fall into four major groups:

‘Dongola’ fine ware. This is the light-slipped, very fine ware, consisting
chiefly of saucers and small bowls, which is considered the diagnostic ware of
Christian Nubia.\(^{19}\) It is closely comparable to the Class I ware of Ghazali,\(^{20}\)
and in part to the Class I ware of Soba.\(^{21}\) It is found largely in the upper
levels of the Pottery and particularly at the last period of occupation. More
than two dozen very fine white saucers were all ready for the kiln when the
site was abandoned.

‘Dongola’ heavy ware. Made up of slipped and painted vessels of larger
size and with rather thick walls and soft paste. It is comparable to Class II
at Ghazali.\(^{22}\) Most of the vessels are ‘serving bowls’ of various shapes, and
have moulded ring bases. The slip is more often yellow to orange than cream.
This ware is common in the later periods of occupation but not at the final
period.

Red slipped ware. This is the principal fine ware of the first three periods
at the Pottery; it is extremely rare at the later periods. It is probably the
same as the Class III of Ghazali,\(^{23}\) and perhaps also of Class 3 of Soba.\(^{24}\) The
vessels are generally small and have a deep red slip. They are frequently
polished but rarely have any painted decoration. A few of the shapes
are repeated in the ‘Dongola’ wares, while others appear unique to this ware.

\(^{19}\) Cf., Shinnie and Chittick, loc. cit., p. 28.  \(^{20}\) Ibid., pp. 30–1.
\(^{21}\) Shinnie, loc. cit., pp. 29, 35.  \(^{22}\) Shinnie and Chittick, loc. cit., p. 31.
\(^{23}\) Ibid., p. 31.  \(^{24}\) Shinnie, loc. cit., p. 42.
a. GENERAL VIEW OF THE POTTERIES AFTER EXCAVATION

b. KILNS 1 (Right), 2 (Centre), and 3 (Left)
PLATE VII

a. KILN 3 AFTER DISMANTLING OF KILNS 4 AND 5

b. KILN 4 SHOWING LATE PERIOD REINFORCEMENTS
a. Unfired pottery in drying bin, room 31

b. Mixing basins and small kiln in room 18
a. STRATIFIED REFUSE DEPOSITS EAST OF THE KILNS

b. REMOVING ASH FROM KILN 4 DURING EXCAVATION
Utility wares. The vessels are principally of a coarse red ware, similar to the Class IX of Ghazali.²⁵ Probably over 75 per cent of the specimens are amphorae, whose manufacture was undoubtedly a speciality of the Faras Potteries.²⁶ Over 2,500 unfired fragments of amphorae were found in one room of the site. Other miscellaneous vessel types include large wide-mouthed jars, coarse hand-made globular cooking pots, and small pottery lamps.

The ceramic collections, like the other collections from the Potteries, remain to be studied in detail. We hope ultimately to make a thorough typological and stylistic analysis of the material, and to formulate appropriate type and ware description. Moreover, it is our hope that the clearly-marked stratification of the deposits will enable us to establish chronological sequences which may be of future value in dating other Christian remains.

Inscriptions

The Faras Potteries have produced a variety of inscriptions which may prove to be of historical interest when deciphered. Griffith’s excavation of 50 years ago revealed the painted band in Room 10, bearing the Latin palindrome (mis-spelled and rendered in Coptic letters) sator arepo tenet opera rotas.²⁷ The same inscription, in the same form, was found in the Anchorite’s Grotto in the western desert, some 3 km. from the Potteries.²⁸ We re-excavated the same room but were unable to recognize more than a few traces of this inscription.

Our excavations yielded several inscriptions of a different sort. One is a small Coptic mortuary stela, which was afterwards used as a base for a door-hinge. There were four ostraka of considerable size, of which one is in Coptic or Old Nubian and three are apparently in ancient Arabic. All of this material remains to be analysed at the present time.

Miscellaneous Finds

Random finds which may prove of interest include fragments of fabric, fibre, and leather; crude unfired clay figurines of animals; clay jar stoppers; and about a dozen pieces of glass. The only metal found in the entire site is a small bronze pin.

²⁵ Shinnie and Chittick, loc. cit., p. 32.
²⁶ Faras may have been the source of some of the specimens found at Ghazali, which the excavators believed to have been imported from Egypt. See Shinnie and Chittick, loc. cit., p. 35.
²⁷ Griffith, loc. cit., p. 64, pl. 41–2. The actual form is σατωρ ἀρετῶ τε ἔως ὡτ ζεπα ποτας. See Griffith, LAAA, xiv, pl. 71, fig. 28, lines 18–22.
²⁸ Griffith, LAAA, xiv, pp. 83, 89, pls. 65, 71.
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HISTORICAL POSITION OF THE POTTERIES

Christianity held sway in Nubia for over eight centuries (roughly A.D. 550–1350), and at some time during that period Faras reached its zenith of importance—first as the capital of the independent kingdom of Nobatia and later, apparently, as the provincial capital of Maris. Undoubtedly, the building and use of the Potteries belongs somewhere in this climactic phase of the history of the community.

Unfortunately, there is at present nothing to give a certain date for the building or to indicate the length of occupation. Pending the reading of the tablets and ostraka, the best clue to the age of the site is given by the Coptic inscription found in Room 10: *sator arepo tenet opera rotas*. It has already been noted that the same motto was found in the Anchorite’s Grotto at Faras. In the latter instance it formed part of a longer text which has been dated to the year A.D. 739. The occurrence of this rather unusual palindrome, in the same mis-spelled form, in two neighbouring sites carries a strong suggestion of contemporaneity between the two.

Griffith believed the inscription at the Potteries to belong to the earliest period, but our investigations indicate that it was applied to a coat of plaster dating from the fourth period, or immediately after the catastrophe which largely destroyed the site. We have therefore a single possible fixed point somewhere in the middle of the history of the kilns.

An equally important question, and one that is unlikely of final solution, is the length of occupation of the Potteries. If the kilns were in regular and frequent use it would not necessarily require a long period of time for the accumulation of refuse even as deep as that found to the east of the site (Plate IX, a). On the other hand the duration of the hiatuses between the different periods of occupation, if any, remains a completely unknown factor. In the long run, the best chance for dating the Potteries probably rests upon a thorough stratigraphic analysis of the ceramic remains, and close comparisons with related pottery from both neighbouring and more distant regions.

Although the Faras kilns were the first pottery-making site to be excavated in Nubia, they were by no means the only source of the distinctive ‘Dongola ware’. When the archaeological survey of Sudanese Nubia was resumed in

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33 Ibid., p. 83.
34 Griffith, *JAAA*, xiii, p. 64.

42
the latter half of 1960, a large number of other pottery-making sites were found along both banks of the Nile between Faras and Semna. In fact, it appears that every major Christian population centre had its own ceramic industry. Moreover, minor but consistent differences can be observed in the assemblage of Christian decorated pottery from different parts of the Nile Valley. It is for this reason that we have rejected the suggested generic name ‘Faras ware’ for the fine Christian pottery, and have retained for the moment Shinnie’s ‘Dongola ware’.

In one respect, the Potteries shed a unique light upon the late centuries at Christian Faras. It is clear that almost from the beginning the inhabitants of the site were fighting a constant and losing battle with the encroachment of sand from the north-west. While the earliest structures rested directly upon Nile alluvium, those of the second period were already underlain by more than a metre of drifted sand. With each succeeding period the sand drifted higher against the walls and over the floors, probably causing the abandonment of one room after another along the northern and western edges of the building. Finally, at the last period, all but two of the old rooms were abandoned, and new working levels were established on top of an accumulation of over 4 m. of sand and occupation refuse.

The migration of the dunes, which is still going on in modern Faras, can almost certainly be attributed to the drying up of the western overflow channel of the Nile which for centuries was the principal source of the community’s prosperity. This channel not only protected the settlements from encroaching sand; it must also have provided, at the low Nile, many thousands of acres of additional arable land, making Faras one of the richest agricultural regions in this part of the Nile Valley. Undoubtedly, the final drying up of the western channel was the principal reason for the eclipse of the community in recent centuries. The Potteries may, therefore, reflect in microcosm the history of the decline of Christian Faras, which has dwindled from a thriving settlement and provincial capital to a straggling village half buried under mountains of sand.

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36 Arkell, Kush VII, p. 115.
37 Shinnie, loc. cit., p. 28.
38 Mileham, loc. cit., p. 22; Griffith, LAAA, xiii, p. 54; Monneret de Villard, loc. cit., i–2, p. 188.
39 For descriptions of modern Faras see Griffith, LAAA, viii, pp. 1–2; and Dunbar, loc. cit., pp. 114–15.
The Nubian Mercenaries of Gebelein during
the First Intermediate Period
by Henry George Fischer

The stela Berlin 24032, whose presentation is the principal object of this
paper, contains a brief but highly interesting biography concluding with a
mention of the Nubian mercenaries attached to the owner's native city,
situated near the modern Gebelein.¹ His allusion to the Gebelein mercenaries
points up a fact that has not received much, if any, notice—that the Nubians in
this district of Upper Egypt are frequently represented on their own stelae
during the First Intermediate Period. The evidence of Berlin 24032 and five
other Gebelein stelae indicates that they lived and were buried near the Egyptian
community which they served and that they were buried in the Egyptian manner,
although retaining their identity as Nubians to the last.

1. Description, provenance and date of Berlin 24032.

The stela, illustrated in Plate X, is roughly square in format, the right side
sloping in toward the top; it measures 46 cm. in height and 49.5 cm. in maximum
breadth. Its material is limestone. The surface is well-preserved for the most
part; within the outer border only a small area at the lower right has been
obliterated. Although there is no record of the provenance, the style of the
reliefs and the forms of the hieroglyphs unmistakably point to the vicinity of
Gebelein.² Two stelae of closely similar style are known to have come from this

¹ Formerly in the Hearst Collection: item 14 in Sotheby & Co. sales catalogue of
11 July 1939, p. 5. I am very much obliged to Professor Siegfried Morenz for supplying
me with a photograph of the stela, and for giving me his permission to make use of it in
this article. I should also like to express thanks to Dr William S. Smith for allowing
me to publish Boston MFA 03.1848, to Professor Ernesto Scamuzzi for authorizing the
reproduction of Turin Suppl. 1273 and 1270, and to Dr Adolf Klasens for permission to
include Leiden F 1938/1.6 and 1947/9.1.

² Some of the most characteristic forms of hieroglyphs in the Gebelein inscriptions
are presented below in the Excursus (with Fig. 11). Throughout the following pages the
name Gebelein is used for the sake of convenience to refer to the region on the west bank
between Gebelein itself and Rizaqat, about 10 km. downstream. In defence of this
procedure it should be pointed out that the stelae listed in the following note which are
said to have come from Gebelein or Rizaqat are uniform in style; and that the palaeo-
ographical features which distinguish this group of stelae are also found in the tomb of
*nhty. fy at Mo'alla, across the river from Gebelein. One of the stelae attributed to Rizaqat
(Cairo 20001) repeatedly refers to 'lw-m-ltrw as the native city of the deceased, a fact that
bears out Gardiner's final conclusions in Onomastica, II, p. 275*, concerning the location
of the latter; cf. also note 80 below. This stela and BM 1671 mention Thebes as the
local capital ('I was a strong pillar in Thebes', 'I was one who was noble in Thebes'),
and I believe these epithets, if rightly translated thus, refer to the city as the capital of
the local Fourth nome rather than as the capital of a federation of nomes. But it is also
possible that they do not refer to the city of Thebes but to the 'Theban nome', (cf.
*fNES, 19, p. 262). A further indication that the Gebelein region belonged to Upper
Egyptian nome 4, and not nome 3 (as Vandier states in Mo'alla, p. 38), is provided by

[footnote continued on opposite page]
region—Cairo Cat. 20001 and Turin Suppl. 1270—and there are several other stelae of unrecorded provenance which can be attributed to Gebelein on the basis of numerous features which they have in common with these two. The

footnote continued from previous page

BM 1671 where the deceased asserts 'I gave oil to the nome of El Kab, after my city was satisfied'; if the speaker had meant to say that this was his own nome, I think he would have phrased the statement differently.

3 Besides Berlin 24032, whose provenance has already been recognized by Clère, R. d'Ég., 7, p. 26, n. 1 (and cf. p. 32), the Gebelein stelae of distinctive style are:

(1) Cairo Cat. 20001. Lange-Schäfer, Grab- u. Denksteine des Mittlere Reichs (where the Journal d'Entrée is said to give Rizaqat as the provenance); Vandier, Mélanges Maspero, Orient Ancien, 1, pp. 137 ff. (where the provenance is somewhat less accurately said to be Gebelein).

(2) Turin Suppl. 1270. PLATE XIII, a in the present article. Vandier, C. d'Ég., 17 (no. 35), p. 22 (8), and fig. 8 (here the number of the stela is given incorrectly, as Dr Scamuzzi informs me). This and the following six stelae derive from the Turin Museum's excavations at Gebelein. See Porter-Moss, Bibliography, v, p. 162.

(3) Turin Suppl. 1277. Loc. cit. and fig. 7.

(4) Turin 13115. Vandier, loc. cit. and fig. 9.

(5) Turin 13114. Loc. cit. and fig. 10; Farina, RSE, 3, 1943, pp. 139 ff. and fig. 1.


(7) Turin Suppl. 1271 (unpublished).

(8) Turin Suppl. 1273. PLATE XII, a in the present article.

(9) BM 1671. Polotsky, JEA, 16, pp. 194 ff. and pl. 29. (Vandier, loc. cit., rightly identifies the provenance as Gebelein.)

(10) University of California, Cat. 6-19011. PLATE XII, b, reproduced from Lutz, Stèles, no. 47, pl. 24. (Dunham, Naga-ed-Dér Stelae, pp. 62-3, rightly suggests that the provenance is Gebelein.)

(11) M. IA, 1848. PLATE XI and Fig. 3. (The provenance is recorded as Rizaqat.)

(12) Allen, JEA, 38, pp. 55 ff. Stela formerly in the collection of G. Michaelidis, Cairo (this is like nos. 1 and 9 above).

(13) Leiden Rijksmuseum van Oudheden F 1938/1.6. PLATE XIII, b and Fig. 4 in the present article. Bulletin van de Vereeniging tot Bevordering der Kennis van de Antieke Beschaving, 9/2, Dec. 1934, pp. 7-8 and Fig. 6. (The provenance of this stela and the following is evident from their similarity to nos. 1-8 and 11 above.)

(14) Cairo Cat. 1622. (A sketch of this appears in MDAIK, 4, p. 189, fig. 12.) The stela shows a number of xth Dynasty features, and is probably a little later than most of the others listed here.

(15) Cairo Cat. 1511.

(16) Cairo Cat. 1654. (In Borchardt's unpublished MS. of the second volume of his Denkmäler des Alten Reichs the provenance is said to be Abydos, but the details of the hieroglyphs and the reliefs leave no doubt that the stela originates from Gebelein or Rizaqat.)

Two other Gebelein stelae that bear less similarity to this group, Turin Suppl. 1262 and 1276, are mentioned below in note 15.

A stela published in Spiegelberg-Pörtner, Aeg. Grabst. u. Denkst., 1, no. 14 (Strassburg, 344), might also be mentioned here, because the Luxor dealer from whom it was bought said that it came from Rizaqat. The provenance seems rather to be north of Thebes, however; compare the stelae from Naqada published by Vandier, C. d'Ég. 17 (no. 35), p. 22 and figs. 1-5. Some other inscriptions attributed to the Gebelein area are said to be xth Dynasty (Porter-Moss, v, 164: Cairo Cat. 20711, 20764-5), but actually belong to the following dynasty.

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date is not much earlier than the xith Dynasty, more or less contemporaneous with the Mo'alla inscriptions, as Vandier has pointed out in comparing the latter with Gebelein stelae Cairo Cat. 20001 and British Museum 1671 (Mo'alla, pp. 38 f.).

The four figures represented on the stela are carved in sunk relief, the inner details appearing in bold raised relief within the outline of the figures. Dominating the scene, with staff in one hand and sceptre in the other, is the owner ' the Sole Companion Kd.s ' . He wears a projecting kilt and a leopard skin which is tied close around his back by the same belt that secures his kilt. A broad collar is placed around his neck and he has a shoulder-length wig with its locks arranged in vertical rows; it may be noted that he is beardless. Behind Kd.s (or rather, beside him) is 'his mother, his beloved, 'Ibb', who embraces her son; the curious manner in which her arm is folded over his shoulder, like a piece of paper, is characteristic of the Gebelein stelae, but is occasionally seen in contemporary stelae from other sites. She wears a long sleeveless dress and a broad collar. Her wig is longer than that of the man beside her, and consists of straight strands. As in the case of the other Gebelein stelae, the dress lacks the usual shoulder straps, and it seems certain that this detail was not added in paint. The incomplete rendering of the collar is less usual. A conspicuous point of similarity between this and the other stelae of Gebelein is the thickness of the lower part of the woman's body.

Before the owner, and holding his staff, is the much smaller figure of 'his son 'Iti'; he has shoulder-length hair and a broad collar, and wears a śn̄dy.t-kilt with a very small projecting tab. The frequent use of this type of kilt in the region of Gebelein and Mo'alla will be discussed further in section 5 below (and footnote 52). At the upper left, 'the butler Rhwy', wearing a short kilt and broad collar, his head close-cropped, extends one hand to present a large bowl to the face of the owner, the other hand being empty. J. J. Clère (R. d'Ég., 7, pp. 24–6) has noted that the butler presenting the bowl, a motif characteristic of the Intermediate Period, is represented in this attitude throughout the southernmost nomes, at Gebelein, Thebes and Dendera, but not at Naga ed-Deir or Hāgārsa, a little farther to the north.

Of the foregoing personal names, Rhwy, 'Ibb and 'Iti are all well-known during the First Intermediate Period; 'Iti also occurs in the main inscription as

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4 Like the contemporary stelae of Naga ed-Deir and Dendera, the Intermediate Period stelae of Gebelein are not consistent about this detail; a beard is sometimes indicated, as in nos. 11 and 12 in note 3.
5 e.g. Dunham, Naga-ed-Dér Stelae, nos. 12, 15, 56, 79.
6 See the corresponding detail in the stelae illustrated PLATES XI and XII, where the paint is relatively well-preserved; similarly the stela Cairo Cat. 1654, the Mo'alla coffin 28116 (Lacau, Sarc. antér., pl. 6), and the painted tomb of 'Ibb (e.g. W. S. Smith, Art and Architecture, pl. 58a).
7 For Rhwy, see Ranke, PN, 1, 225.18; for 'Ibb, PN, 1, 21.6; for 'Iti, PN, 1, 30.2.
the name of the father and it appears again in two other Gebelein stelae, Cairo Cat. 20001 and Turin 13114 (see further below in section 3).

The name *Kd.š* on the other hand, is unusual; it is probably related to the very common *PN, i, 179.9*. In Junker, *Giza*, vii, fig. 50, \[\text{image}\] and \[\text{image}\] occur as a variant writing of the latter, or as a hypochoristicon; see also \[\text{image}\] in Sotheby Catalogue, 11 July, 1939, no. 14. Junker in a subsequent volume (xii, pp. 109 ff.) suggests that this name and others of the same pattern may well be verb + *n.š*, i.e. *Kd.n.š* rather than *Ny-šw-kd*.

2. *Inscription: translation and commentary*

Above the scene there are two lines of hieroglyphs, continued by three and a half columns to the right (*fig. 1*). These are numbered 1–6 in the following translation, while references to the commentary are identified by letters.
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(1) An offering which the king (a) gives, and Anubis, Who is on his Mountain, 'Imywt : (namely) funerary offerings to the revered Kd.s. (2) who says (b) : ' I was an excellent commoner who acted with his strong arm (c) , one who was the foremost of all his recruits (d) . I acquired oxen and goats. (3) I acquired granaries (e) of Upper Egyptian wheat. I acquired title to a [great(?)] f[ield] (f) . (4) I made a boat of 30 (cubits) (g) and a small boat which transported him who had no boat in the season of inundation (h) . I acquired it in (5) the house (i) of my father 'Iti (but) it was my mother 'Ibb who did it for me (j) . I surpassed this town in its entirety (k) (6) in swiftness (l) (both) its Nubians and its Upper Egyptians (m).

(a) The arrangement of htp-di-nšwt, with the t moved toward ū rather than being centred above - , is found on most of the contemporary Gebelien stelae and on a large and homogeneous group of Dendera stelae of the late Intermediate Period. A few other cases are known from Dendera during the xith Dynasty. The same arrangement is also frequent at Naga ed-Deir. 8

(b) Gardiner, Gram., § 450 thinks this use of ãd may be ñdm.f with ellipse of the subject . This explanation is precluded for the similar use of ãd at the beginning of letters, where Gardiner is inclined to think that ãd/ãd.t is a participle. The latter explanation also seems likely in the case of the ãd introducing biographies, although I know of no feminine occurrence that would confirm or disprove this opinion.

(c) This phrase, one of the most recurrent statements in the Intermediate Period biographies, is found in Gebelien stelae BM 1671 and Cairo Cat. 20001. Polotsky has collected examples in Zu den Inschriften der 11 Dyn. (Untersuchungen, 11, § 73). The essential meaning of hpt , literally 'foreleg', encompasses physical energy and initiative and as such it is contrasted with speech : ' I was an excellent commoner who spoke with his (own) mouth and who acted with his (own) strong arm' (BM 1671); ' I was an excellent commoner, one who acted with his strong arm, one who was excellent of counsel (nd.t-r) in the council of This ' (Univ. Mus. Phila., Museum Bulletin, 13, no. 3, pl. 7, and 15, nos. 2-3, fig. 18); and even more clearly ñdš , literally 'small one', like various terms for 'youth' and 'recruit', often appears in this context:

8 Examples of the homogeneous Dendera group are: Petrie, Denderah, pl. 11b (bottom left and bottom right), pl. 11c (right, second from top). For xith-Dynasty examples from Dendera, see ibid., pl. 11 (bottom left, and right, second from top). For the Naga-ed-Deir examples, see Dunham, ibid., nos. 5, 9, 11, 14, 15, 40, 60, 63, etc.

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'excellent in battle' (r-ḥt, r-ʾḥt), Polotsky, ibid., § 59, b and Dunham, Nagada-Dér Stelae, no. 78; 'of hand to hand combat' (ḥwi n ḫr), Janssen, Trad. Autobiogr., 1, pt. iv Ad. See also Anthes' comments on ḥḏ kn, etc., Hatnub, p. 37.

(d) For the epithet ḥḏt ḏm.w.f cf. the statement 'I acted as foremost of the recruits' (Dendera stela, late Intermediate Period, Univ. Mus. Phila., 29–66–693); 'I was foremost of the recruits' (Naga ed-Deir stela, Cairo J. d'E. 55605). In the Dendera inscription the speaker elaborates on his military leadership, although he claims no further title of command; in the case of the Naga ed-Deir stela the speaker is an 'overseer of the army'. Other epithets beginning with ḥḏt are not uncommon at the end of the Intermediate Period; e.g. ḥḏt ṛmt 'foremost of men' Cairo Cat. 20543 (10); Vandier, Mo'alla, 171 (1, β, 2; and note other variations quoted on the same page).

Fig. 2

(e) The sign for 'granary' closely resembles representations of granaries in the contemporary tomb of 'nḥty.fy, across the river from Gebelein (Vandier, Mo'alla, fig. 55, p. 115) as well as unpublished wooden models from the same site, shown in fig. 2 (Cairo J. d'E. 52085–86); cf. also the representation on the coffin of K3wi.t, Naville, Deir el-Bahari, Dyn XI, 1, pl. 20. To judge from the Mo'alla models, the hieroglyph represents a domed storage bin rather like the Old Kingdom type called mḥr/mḥr, except for the absence of a knoblike projection at the top.9

(f) Cf. the following:

'I "sealed" (acquired title to) a field of 23 arouras' (Cairo Cat. 20805, provenance Dendera).

'I bought twenty head of people and the "sealing" of (title to) a large field' (Petrie, Qurna, pl. 10; Clère-Vandier, Textes, no. 7).

9 For mḥr/mḥr, see MIO, 7, p. 308, n. 18.
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In the present case there is space for 5.t within the lacuna, but hardly enough for a measure of land. Old Kingdom legal phraseology uses the verb htm with the addition of r htm.t in the sense of legally conveying something to (n) someone in a sealed document (see Grdseloff, ASAE, 51, pp. 155–6). A set of regulations for a funerary estate in a fragment found at Lisht (Metropolitan Museum excavations, unpublished) has:

\[
\begin{align*}
[ir \ h \ m-k3 \ nb] & \quad \{ \text{htmty.sh (object) r htm.t \ldots n (persons)} \\
rdiwty.sh (object) m \ imy.t-pr \ldots n (persons) & \quad \{ \text{who will seal (something) by seal \ldots to (someone)} \\
\} & \quad \{ \text{who will give (something) as a deed \ldots to (someone)} \\
\} \quad \text{[As for any funerary priest]}
\end{align*}
\]

while a similar document, Urk., i, 12, 9 has:

\[
\begin{align*}
n \ rdi.n.i \ shm \ h \ m-k3 \ nb \ d.t \ (i) & \quad \{ \text{m rdi.t (object) r isw n (persons)} \\
m \ rdi.t m \ imy.t-pr n (persons) & \quad \{ \text{to sell (something) to (someone)} \\
\} & \quad \{ \text{to give as a deed to (someone)} \\
\} \quad \text{I do not empower any funerary priest of my estate}
\end{align*}
\]

That htm r htm.t n is the equivalent of rdi r isw n ‘sell to’ is also seen from a case where htm r htm.t (without n) amplifies the analogous ini r isw ‘purchase’ (Urk., i, 157.13 and 158.4). The two aspects of htm in the sense of ‘transfer legally’, namely ‘acquire’ and (with n) ‘make over’, are paralleled by iri and iri n; see footnote 11 below.

(g) On the meaning of numbers attached to boats see Clère, Archiv für Aegypt. Arch., i, pp. 83–4. In our case the figure 30 presumably means ‘30 cubits’. Compared to the boats which contemporary Gebelein officials boast of, this length is modest; that of the general Dmi measures 50 cubits (Allen, AJSL, 38, p. 56); ‘Iti built one of 50 cubits (see Vandier, Mel. Masp., i, p. 140) and another of 30 cubits (Cairo Cat. 20001); Hk3-ib built one of 40 cubits and another of unspecified length (BM 1671).
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(h) This sentence is paralleled in the stela of the aforementioned Ḥḥq-ib:

Polotsky (JEA, 16, p. 194) translates the latter ‘I made a ship of 40 (cubits) and (?) a bark for transporting cattle and for ferrying him who had no boat in the season of inundation’, taking ḫ as a verb ‘of suspicious appearance’, meaning ‘to transport cattle across the river’. The absence of an r in the present case throws further doubt on this solution; here ḫr.t seems to be a feminine participle, agreeing with ḫr.t šr.t, rather than an infinitive. In other words ḫr may be a plural noun qualifying ḫr.t, with ḫr.t ṣmm paralleling ḫr.t šr.t. It is also possible, of course, that in our case the preposition ḫ was omitted by oversight, and should be emended.

(i) Enough is preserved of the first word, ird, to make the reading certain. This detail was kindly collated by Dr Morenz. The meaning of ḫnwr is fairly certainly the same as in the following epithet:

This is translated by Anthes ‘Bekannter des Königs während er (noch?) im Zelte seines Vaters ist . . .’ (Hatnub, Gr. 16.2, p. 36). Cf. also Pap. Berlin 9010: ‘His wife, his children and everything in his house’ (Sethe, ZAS, 61, p. 71). M ḫnwr might also be interpreted less literally as a compound preposition (cf. Wb., 111, pp. 370–2) meaning ‘with’.

(j) In this sentence a feminine t is to be understood after ird. It is theoretically possible, but I think improbable, that ‘did it’ means ‘made the stela’. Although the first person singular is similarly used instead of the more usual third person singular in Boeser, Beschreibung äg. Slg. Leiden, 11, pl. 10, and Cairo Cat. 20016–17 ‘It is my father who made this (stela) for me’ (Cairo Cat. 20017); ‘It is my son who caused my name to live on this stela’ (Leiden), this kind of statement is expressed differently on the three Gebelein stelae that most resemble the one in Berlin (AJS, 38, p. 56; BM 1671; Cairo Cat. 20001), where the name of the donor is introduced by the words ‘that which his son made for him’. And these three stelae, as is usually the case (so too in Cairo Cat. 20016–17, mentioned above), place such a statement at the end of the inscription, not in the midst of it. I therefore conclude that ‘did it’ does not in the present case mean ‘made the stela’, but refers to the accumulation of property that
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*Kd.* boasts of;\(^\text{10}\) in other words, what *Kd.* did in his father's house and what his mother did for him refer to the same thing. The sense of the passage in question is evidently that *Kd.* acquired his property while he was still in the house of his father, but that it was his mother, rather than his father, who gave him the property or the means to acquire it.\(^\text{11}\)

(k) For the use of the direct object after *swj.n.i* and the use of the preposition *m* to introduce that in which the city was surpassed, compare BM 1671, line 2:  

\[ \text{I surpassed every equal in this city in riches of every kind}. \]

The direct object is similarly used after *swj* at Dendera (pl. 15, left, line 19, in Petrie's publication) and Mo'alla; see Mo'alla, p. 188, note (d).

(l) *Sin.t* is a feminine infinitive, conforming to the usual pattern for causatives of biliteral verbs.\(^\text{12}\) Swiftness is linked with military prowess in other inscriptions of the time; compare the boast of a contemporary soldier named *Fgw*, whose stela apparently comes from Naqada:

\[ \text{I was the bravest of the brave, the fleetest of the fleet}. \]

(Spiegelberg-Pörtner, Äg. Grabst., I, no. 14). The combination of *kn.w* and *śin.w* in turn recalls the *nht.w* and *śin.w*, literally 'the strong' and 'the fleet', of the Exegagation Texts (Seth, Die Achtung feindlicher Fürsten, 41, 58, 59). And it will be recalled that *Kd.* is not only swift but likewise 'one who accomplishes with his (strong) arm' as 'the foremost of his troops'.

(m) The further evidence for a colony of Nubians at Gebelein will be dealt with in section 4 below. The interpretation of *Śm'y* as 'Upper Egyptian' involves some obvious difficulties, apart from the fact that the adjective *Śm'y* (Wb., IV, p. 476) is not, to my knowledge, applied to groups of people elsewhere.

\(^{10}\) An apparently close parallel which likewise follows upon a statement boasting of wealth, is to be found in the contemporary stela shown in Hayes, Scepter, I, p. 140, fig. 82 (Met. Mus. 12.183.8)  

\[ \text{It was my power(?)} which accomplished it for me'. \]

\(^{11}\) It is not certain how literally the verb *iri* is to be interpreted. Just as *iri* can mean 'do' or 'acquire' (cf. the English idiom 'make money'), *iri n* can mean 'do (something) for (someone)' or 'make (something) over to (someone)'. See, for example, Urk., I, 12, lines 1–2, where a tomb owner speaks of the property which he has given his funerary priests in return for their services:  

\[ \text{which I made over to them to perform the funerary offerings for me therefrom}'. \]

*Iri n* similarly appears in Urk., I, 25, lines 4–5:  

\[ \text{It is the majesty of Mycerinus who made over two arousas of fields to these *hm-ntr* priests}'. \]

\(^{12}\) For *śin* as a causative, cf. Edel, Altäg. Grammatik, § 144.
but these difficulties do not seem insurmountable. The most troublesome point is the use of a completely phonetic writing instead of the ideogram for Upper Egypt. Two cases of such writings in the Old and Middle Kingdom have been quoted for the verb šm‘ ‘to sing’, which is usually written with the Upper Egyptian sign, but in only one of these cases is the sign Ē completely omitted.\(^{13}\)

At first sight, the determinative of Šm‘y resembles the corresponding determinative of Nhšy in that it seems to bear a feather, and this detail would speak against its being an Egyptian.\(^{14}\) The horizontal trace at the back of the head is not set at the proper angle, however, and on closer examination it appears to be nothing more than an accidental scratch. If the translation offered here is correct, ‘its Nubians and its Upper Egyptians’ would refer to two bodies of militia, as represented in the well-known wooden figurines of soldiers from a contemporary tomb at Assiut (Cairo Cat. 257 and 258; see n. 51 below). Individuals of both such groups are represented on the Gebelein stelae, although only one member of the Upper Egyptian rank and file is portrayed as such on a stela of his own (Turin Suppl. 1277),\(^{15}\) as opposed to the five of Nubian ownership which will be discussed presently. In other cases, however, Upper Egyptian soldiers are to be seen on the stela of a sister (Turin Suppl. 1260; as donor) or a father (BM 1671). And we have the stelae of two Egyptian generals at Gebelein, ‘Iti’ (Turin 13114) and Dmī (\textit{AJSL}, 38, p. 56) who probably commanded the two groups conjointly; such a joint command is particularly likely in the case of the latter, who ‘enslaved Wȝw.t for every overlord who arose in this nome’. Kds, on the other hand, may have exercised a more limited command, within the ranks of his fellow townsmen.

\(^{13}\) \textit{Wb.}, iv, 478, Belegst. 7: Newberry, \textit{Beni Hasan}, ii, pls. 7, 13 (purely phonetic); Davies, \textit{Deir el Gebrāwī}, ii, pl. 7 (with Ē at end of word).

\(^{14}\) It is true that the ‘soldier sign’ (mš) virtually always wears a feather, regardless of whether Egyptian or foreign troops are involved. But the writings Ē Ē Ē Ē, Ē Ē Ē Ē, Ē Ē Ē Ē, referring to the partly Egyptian army of Wnī (\textit{Urk.}, i, 101,10; 103,7) follow the feathered bowmen with a filleted Egyptian, armed or otherwise. Neither Nubians nor Upper Egyptian soldiers ordinarily show the feather in representations of the First Intermediate Period, but this detail is to be seen in the case of the Assuan Nubians (\textit{fig. 6}, below) and it appears in the determinative of Nhšy.w at Dendera (\textit{plate xv}, b) and of Wȝw.sīy.w Ē Ē Ē Ē Ē Ē Ē Ē in the stela of Dmī (note 3, no. 12). According to the well-known relief from Gebelein representing Mentuhotep subduing his foes of various nationality (von Bissing, \textit{Denkmäler}, pl. 33a, a), the Libyans and Asiaties wear the feather, while the Nubians and Egyptians do not, but I suspect that the labels for the otherwise similar representations of the Nubians and Asiaties have been transposed.

\(^{15}\) Turin Suppl. 1262 (\textit{Hj}) and 1276 (\textit{Hwsw}) also represent Egyptian bowmen, but the style of these crude stelae (including the forms of the hieroglyphs) dissociates them from the group listed above in note 3; they are probably later than any in this list, with the possible exception of item 14 (Cairo Cat. 1622).
3. The family of Kdš

The prominence which the biography of Kdš gives to his mother is also reflected in the scene representing him with his family, where she usurps the place, and attitude, that would be expected for the wife he must have had. The existence of this wife can be surmised from the presence of 'his son 'Iti', whose name characteristically derives from the name of his grandfather, the father of Kdš. For the mother to be given such prominence is highly unusual in a stela prior to the xith Dynasty. The only parallels I know of are a small Gebelein stela belonging to a certain 'Ini, seen in a Cairo antiquities shop, and the fragment shown in Petrie, Dendereh, pl. 11B (bottom left); in the second case the stela is very incompletely preserved and it is possible that the man's wife may have appeared behind his mother.

While the statement of Kdš concerning his mother's help is exceptional, there is ample evidence from the Intermediate Period, and as far back as the beginning of the IVth Dynasty, to show that non-royal women sometimes possessed considerable property of their own and could dispose of it as they wished. In the oldest known biography, Mtn says that his mother made a deed (imy.t-pr) : (Urk., I, 2.10). In another Old Kingdom biography the deceased emphasizes the maternal relationship in the statement 'I am her eldest son, her heir'. (Urk., I, 164). In the Intermediate Period, as noted above, a man's boast of his wealth sometimes concluded with a statement that this property was not his parents', and here the mother is specifically mentioned as well as the father: 'I gave Upper Egyptian grain to the hungry, but not from the property of my father and my mother' (Clère-Vandier, Textes, no. 12). For the xith Dynasty one may quote the following:

'The people of my father Mntw-htp were children of the house and the property of his father and the property of his mother, and my people are likewise the property of my father and the property of my mother and my own property, which I acquired by my (own) arm'. (BM 1628, Hieroglyphic Texts, v, pl. 1).

16 Assuming that  means 'his mother Nb-šn.t'; note that a suffix ending is similarly omitted after ms.w in the following line. Possibly this is the common masculine name Nb-šn (PN, I, 186.13) with a feminine .t added (cf. PN, II, 5, MIO, 7, p. 301, n. 5, and Junker, Giza, xii, p. 110, right, n. 1). It seems highly doubtful that the initial element mw.t is part of the name, as interpreted in the index of Berlin Inschr., ii, p. 624). Ranke apparently does not offer a reading in either volume of PN.
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From the xiith Dynasty there is the evidence of Pap. Kahun I.1, a will which leaves property to a woman and entitles her to bestow it on 'whichever she likes of her children that she has born to me' (Griffith, Kahun Papyri, p. 32 and pl. 12).

What makes the present case more interesting than the above examples is the fact that Kd.š was helped by his mother while he was 'in the house of his father'. The last phrase does not necessarily imply that his father was still living when this help was supplied, and the situation may be the same as that foreseen by Pap. Kahun I.1. It seems more likely, however, that Kd.š means to say that he was actually with his father when the help was given. In this case the situation may be that his father's property was earmarked for some other son, or children, by a different wife, leaving the mother of Kd.š to protect the interests of the children she bore him, and to raise her son from 'the back of his father's house' as two contemporary biographies of Naga-ed-Deir express it (Dunham, Naga-ed-Dér Stelae, nos. 69, 78).

Although there is reason to think that polygamy was at least occasionally practised by well-to-do Upper Egyptians during the First Intermediate Period, one need not assume that the mother of Kd.š was a subordinate wife. The situation would be equally well explained by assuming that a previous wife had died leaving a son who had the chief or sole claim to his father's inheritance.

The foregoing considerations would make it possible that the 'Ittī of the Gebelein stela Cairo Cat. 20001, whose 'eldest son' and wife are other than

17 One of the most convincing cases is found in Petrie, Athribis, pl. 7, where the north wall of the tomb of Mry shows six wives. Only one of the six is given the place of honour beside the owner, but all are called ḫm.t.f., and near the lesser wives there are ten children whose relationship to one or another of the wives is explicitly stated. Another probable case of polygamy, at the end of the xiith Dynasty, appears in Hammamat inscription no. 1: a man named Ṣ'nh says:

I came forth to this mountainland as a man of 60 years and 70 children (they) being born to one man (wity); I dedicated all my progeny to Nb-tf.wy-Rc, living forever. Less certain evidence is provided by the First Intermediate Period stelae from Dendera: 'Ittī (Cairo J. d'E. 46049) has three wives; Nwī (Cairo Cat. 20805) has two wives; and Mrī (Petrie, Denderah, pls. 8, left bottom, 8a, left top) also has at least two. The evidence for polygamy among non-royal persons in the Old Kingdom is inconclusive. In Hassan, Giza, vi, pt. 3, pl. 40 (b) and fig. 83, p. 105, two wives are mentioned for the same man, and the several cases of persons who have two 'eldest sons' likewise suggest that these persons had at least two wives (cf. Junker, Giza, ii, p. 35; Grdseloff, ASAE, 39, pp. 391–2; Nims, JAOSS, 58, p. 646, n. 43). But there is no reason to think that they were married to both wives simultaneously. Polygamy was probably restricted to the king prior to the end of the Old Kingdom, and is to be regarded as one of the royal practices that became 'democratized' during the First Intermediate Period. One might compare the case of the mid-xiith Dynasty nomarch Wh-khtp (reign of Sesostiris III), whose tomb displays several usurpations of kingly prerogatives, and who possessed five wives and seven concubines (Blackman, Rock Tombs of Meir, i, pp. 12–13; vi, p. 13– etc.; statue Cairo Cat. 459).
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Ka.d.š and his mother, is nonetheless the 'Iti whom Ka.d.š names as his father. There is nothing in favour of this identification beyond the one name and a close stylistic similarity between the stelae of 'Iti and Ka.d.š; and on these grounds Cairo Cat. 20001 could equally well belong to the son of Ka.d.š. But the son of Ka.d.š is more probably to be found in the somewhat less similar stela of an 'Iti in Turin (Inv. 13114), who, like Ka.d.š, commanded military troops; at all events this 'Iti cannot very well have been Ka.d.š' father since, as Farina notes, he does not seem to have had any sons of his own. 18

4. The Gebelein stelae belonging to Nubians

At least five stelae from the Gebelein area name and portray the Nubians to whom Ka.d.š refers in the final statement of his biography. They are sometimes differentiated from the Egyptians by their darker colour, but are more easily recognized by their bushy hair and by a sash and pendant piece of distinctive pattern, that makes its first appearance in this series of stelae and in contemporaneous tombs at Assuan and Mo'alla; in some cases they are even more explicitly identified as Nubians by the epithet Nhšy. An example in the Museum of Fine Arts, Boston, will be presented here most fully because it is unpublished 18a and because it is the most interesting of the series from the standpoint of its representations and its excellent state of preservation.

The stela MFA 03.1848 (PLATE XI), measures 37 cm. in height by 45 cm. in breadth. It was acquired by purchase and is said to have come from Rizaqat, an attribution which there is no reason to doubt, since the same provenance has been given to another stela similarly bearing all the earmarks of the Gebelein area and associated with the city of 'Iw-m-itrw—Cairo 20001. The inscription and figures are cut in sunk relief and are painted black, red, dark red, yellow and white, as indicated in FIG. 3. On the left stands the owner of the stela with his wife beside him. He has a short beard (painted only) and the short but full hair that is typical of the Nubians, this being edged with painted dots to give it a kinky appearance. 19 A sash around his waist is tied at the back, and a long narrow piece of cloth hangs down from the upper edge of this sash in front, extending below his short kilt as far as the knees. Around his neck is a broad collar. He holds his bow upright before him with one hand, steadying it at the top with the other, which also grasps a sheaf of arrows. The inscription before his face identifies him as 'the Nubian Nntw(?)'. 20 Behind him, i.e. beside him, with one arm about his waist, is 'his wife, his beloved, Šḥ(j.t)-Hr

18 RSE, 3, p. 143.
18a An illustration of the stela has since appeared, however, in the fourth edition of W. S. Smith, Ancient Egypt, fig. 47, p. 83.
19 Cf. the wavy line painted around the contour of the head on the stela Cairo Cat. 20343 (Lange-Schäfer, Grab- und Denksteine, IV, pls. 25 and 63 [61]).
20 See note 20 on opposite page.
The difficulty lies in the initial sign \( \text{符号} \), which appears in both occurrences of the name and therefore cannot be explained as the result of the sculptor’s carelessness. It does not seem likely that this is the equivalent of \( \text{符号} \), which appears at the head of the inscription in its usual form, nor can it very well be \( \text{符号} \), which closely resembles \( \text{符号} \) during the Intermediate Period, although Clère has recognized an occurrence of \( \text{符号} \) in a name written \( \text{符号} \) (Misc. Gregoriana, p. 457). In his discussion of this name Clère points out that ‘\( \text{符号} \) a presque toujours à la \( \text{符号} \) Periode Intermédiaire la forme \( \text{符号} \)’, but that form seems limited to the area embraced by Dendera, Naqada and Thebes. In the Mo’alla inscriptions, which generally use the same forms that appear in the Gebelein stelae, the normal \( \text{符号} \) is found, as also in Cairo Cat. 1651 (item 15 in note 3 above).
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She has long hair, or a long wig, and a long tight-fitting dress. Before the couple, and facing them, stands 'his son Ḥšb-kš.i', who is attired like his father, but has shorter hair, through which a black pin (painted only) appears to be thrust. The pendant part of his sash is painted to represent a fringe, or possibly fur. At his side is a woman named 'Intf-Ww(?), a daughter or servant, who wears a collar and skirt, the upper torso being left uncovered in the Nubian style; like Nnw, she has kinky hair, indicated by an edging of painted dots. Two dogs are shown at the right, one seated beside the other in such a way as to suggest perspective, but this arrangement is undoubtedly imposed by the limitations of the available space. In a second register, above the woman and the dogs, 'the butler Gnw', presents a bowl with the words 'for thy ky'; a reserve supply of beer, which contemporary stelae more usually place in the butler's other hand, stands near him upon a table. The appearance of the butler in a definite register, with a table placed on the same baseline, is a relatively late development in stelae of the Intermediate Period; before the xiith Dynasty the figure offering beer is usually very small and 'floats' in isolation before the face of the recipient.

An interesting feature of the Boston stela is the way the pigmentation of the skin is differentiated in the three men and the two women. The owner and his son are both a darker red than the Egyptian butler, who is distinguished from

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21 The hieratic form of  also occurs on a Naga ed-Deir stela of the Intermediate Period: Lutz, Steles, no. 22. For the name, see Ranke, PN, 1, 319.5.
22 'My kš is recognized(?). The name is not attested elsewhere, to my knowledge.
23 However this label is to be interpreted, it at least seems certain that the third sign is f; the head of the viper is frequently detached from the body in the Gebelein inscriptions, and in this case the body is apparently omitted because of insufficient space. The name 'Int-It.j is attested for women in the Middle Kingdom (Ranke, PN, 1, 34.1), but no 'Int-It.j-w is known, nor does it seem likely that an ending -ww was ever appended to names (cf., ibid., 11, 129 ff.). But Ww occurs as a name in its own right, although only for men at this early a date (ibid., 1, 77.5, 6; cf. 11, 273.24). It therefore seems probable that the woman in question is given a 'double name'(cf. ibid., 11, 8; another example in MMAB, 7, p. 96).
24 The long low-waisted skirt and exposed torso also occurs in Middle Kingdom representations of Libyan women (Newberry, Beni Hasan, 1, pls. 45, 47), and in the New Kingdom this style of clothing is again attested for Nubians (e.g. Davies-Gardiner, Tomb of Huy, pls. 23, 30) as well as the women of Punt (Naville, Deir el-Bahari, pl. 71). Possibly another example is to be recognized in Naville, Deir el-Bahari, Dyn. XI, 1, pl. 14 (f); a clear example may be seen in the wooden figurines of Nubian girls from the same site (Winlock, Excavations at Deir el Bahri, pl. 34).
25 'The Gnw-bird'; not known elsewhere as a personal name.
26 This point is made in my dissertation Denderah in the Old Kingdom and its Aftermath, University Microfilms, 1955, p. 104. Cf. in particular Petrie, Denderah, pl. 11, bottom left, where the table and jar also recur.
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these not only by his lighter colour but also by his short hair and projecting kilt.\textsuperscript{27} The skin of the small Nubian woman has the customary yellow hue that is given to Egyptian females, and the owner's wife is precisely the same colour. Since the wife also has the usual Egyptian style of hair and clothing, it seems altogether possible that she is, in fact a native Egyptian, but this point is by no means certain, for a dark skinned woman of otherwise identical appearance is shown on the stela in California, to be mentioned presently.

The brief inscription at the top and right side, which is almost the same in all five of the Gebelein stelae of Nubians, contains nothing more than the usual formulae: 'An offering which the king gives, and Anubis, Who is on His Mountain, ‘Imywt, Lord of the Sacred Land, in all his places good and pure; funerary offerings to the revered Nnw(?). Note that the name Nnw in this case is not preceded by the epithet 'Nubian'. Otherwise only the writing \textsuperscript{28} for nfr.t need be remarked.

A second stela belonging to a Nubian, Leiden F 1938/1.6, has been published by von Bissing,\textsuperscript{28} but neither his photograph nor his description enables one to make out the names and other details. A clearer photograph is therefore reproduced here (PLATE XIII, b), as well as a facsimile made from the original (FIG. 4), with traces of colour indicated by the letters R (red) and BK (black). The owner is called ‘\textit{Ini-ihr}, the second half of this being an epithet which, as is seen from other cases, might sometimes be added to and sometimes omitted from the name of an individual.\textsuperscript{29} Note that the offering formula contains no second mention of the name; the left-hand column ends with \textit{im3hy}.\textsuperscript{30} The

\textsuperscript{27} Relatively subtle differences in the pigmentation of human skin are observed in other representations of the First Intermediate Period and the xth Dynasty. Caroline Nestman Peck, \textit{Some Decorated Tombs of the First Intermediate Period at Naqa ed-Der}, University Microfilms, 1959, p. 45, n. 6, states that the east wall of tomb N248 shows the owner 'chocolate red' while the ploughmen whom he watches are 'chocolate'—presumably darkened during their work in the sun'. The personal attendants of the owner again have chocolate-red skin as he does (p. 48, n. 3). Similarly Winlock, describing the well-known xth-Dynasty tomb model representing the inspection of cattle, notes that the officials have a light yellow complexion, while the cattlemen are 'burned a deep rich brown' (\textit{Models . . . from the Tomb of Meket-R\textae}, pp. 20–1).

\textsuperscript{28} See item 13 in note 3. Formerly Scheurleer Collection 656. Height c. 23 cm.; width c. 33 cm. (as seen within frame).

\textsuperscript{29} A case in point is \textit{Mrri/Mrrikr}, Petrie, \textit{Dendereh}, pl. 8b. For \textit{ihr} and \textit{ihr m3\textae-hr}, see further Polotsky, \textit{Inscriten der 11. Dyn.}, § 81. For the name ‘\textit{Ini}, see Ranke, \textit{PN}, i, 36.13. The name \textit{\textsuperscript{\textmu}\textmu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textnu\textn
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Nubian is nearly identical in all particulars to his counterpart in the stela previously described. The woman beside him, 'His wife, his beloved, Bndit.'\textsuperscript{31} again resembles an Egyptian both in dress and (apparently) colour.\textsuperscript{32}

The third stela illustrated here, Turin Suppl. 1273 (PLATE XII, a), derives from Schiaparelli's excavations at Gebelein. It has not been published previously. The Nubian and his wife are represented much as in the foregoing cases, but the composition is varied by the introduction of a recumbent dog in the lower register.\textsuperscript{33} Since the details of the inscription are unclear in the photograph, it may be pointed out that this is identical, sign for sign, with that of the Leiden stela except that \textsuperscript{34} is omitted; it concludes by addressing funerary offerings to \textsuperscript{34} 'the revered \textit{Wth(?)-ikr}'.

The remaining two stelae of Nubians from the Gebelein district have both been illustrated by Vandier in his article 'Quelques stèles de soldats', C. d'E, 17 (no. 35), figs. 8, 14. One of them Turin Suppl. 1270 (PLATE XIII, a), represents an entire family of Nubians.\textsuperscript{35} In this case the owner, his bushy hair bound with a fillet, wears a crossband as well as the customary sash. He is called the \textsuperscript{36} \textit{Nhşy} \textsuperscript{36} \textsuperscript{37} and his wife, who has a long dress, broad collar and long hair (or wig) like a native Egyptian is nonetheless called \textsuperscript{37} 'the Nubian woman'.\textsuperscript{37} The butler \textit{Htp}, who offers a cup with the words 'to thy ka', has the short hair and knee-length kilt of an Egyptian. Each of the other four male figures resembles the owner of the stela, with bushy hair and pendant sash, and holding a bow and arrows. All are called 'his brother', and their names are \textsuperscript{38} \textsuperscript{38} \textsuperscript{39} \textsuperscript{40} The fifth and last stela, in the Egyptian

\textsuperscript{31} Cf. \textit{Bndy.t}, Ranke, \textit{PN}, 1, 97.25.
\textsuperscript{32} If she had been painted red, it seems likely that some traces of pigment would have remained, as on the legs and bow of her husband.
\textsuperscript{33} Cf. an xith-Dynasty example of this motif in \textit{Artibus Asiae}, 22, p. 247, n. 5, where other cases are cited. The most similar example occurs on the early xith-Dynasty stela published by Anthes in \textit{ZAS}, 65, pl. 7.
\textsuperscript{34} To judge from the arrangement of the signs, it would seem that the \textit{w} belongs to the name rather than to the preceding \textit{imj(hw)}. I do not know of a parallel for \textit{Wth}. If the sign \textsuperscript{34} \textsuperscript{34} is read correctly, as it seems to be, it is noteworthy that it lacks the diacritical tick (\textsuperscript{34}); see \textit{jNES}, 19, p. 264, comment (j).
\textsuperscript{35} Professor Vandier kindly copied the names on the stela for me during a visit to Turin, and I myself was subsequently able to collate these.
\textsuperscript{36} Cf. \textit{Tnni}, Ranke, \textit{PN}, 1, 392.4; \textit{Tnn}, ibid., \textit{II}, 331.17.
\textsuperscript{37} Ranke, \textit{PN}, 1, 209.4, gives only the masculine name \textit{Nhşy}.
\textsuperscript{38} Various names containing the verb \textit{tst} are attested (\textit{PN}, 1, 394.16; 431.17–18; \textit{II}, 331.24–25) but I find no parallel for \textit{Tsn} or \textit{Tstn}.
\textsuperscript{39} Cf. \textit{PN}, 1, 269.5–6.
\textsuperscript{40} Unknown elsewhere.
collection of the University of California, Cat. 6–19911 (Plate xii, b) represents the Nḥṣy 'Intf and his wife $\subseteq S.t-nb.t(?).$ The costume of each is nearly the same as in the preceding examples, but in this case the skin of both of them is coloured red. Unlike the Boston stela, this colour is lighter than the red that appears in some of the hieroglyphs. But if the use of red in the hieroglyphs emphasizes that the Nubian 'Intf has the colour which is normally attributed to an Egyptian male, the appearance of yellow in the hieroglyphs conversely indicates that this, the usual hue of Egyptian women, was deliberately replaced by red in order to make the wife darker than usual. It therefore seems certain that she is a Nubian, despite her coiffure and attire, as in the case of the Nḥṣy.t of Turin Suppl. 1270.\[42\] Special mention must also be made of another Gebelein stela which is difficult to classify; Turin 13115; Vandier, ibid., fig. 9. This belongs to a group of four men, all of whom have the characteristic bushy hair of the Nubians. But the two on the right, who carry bow and arrows, wear a kilt that is somewhat—but not entirely—like the šndy.t worn by Egyptian soldiers of the same period and locality, and the two on the left have a projecting kilt of completely Egyptian style. The epithet 'Nubian' does not appear before any of the accompanying names. To judge from the published photograph, it would seem that an apparent contrast in the colour of the men is to be attributed to the accidental loss or preservation of paint on one or another of the figures.

5. The costume of the Nubians

It has been pointed out that the costume worn by the Nubians on the Gebelein stelae makes its first appearance in these stelae and in the tombs of Št-h2 and 'nhṭy.fy, at Assuan and Mo'alla respectively, which likewise belong to the Intermediate Period. Earlier representations of Nubians, dating to the vth Dynasty, show a short kilt with a very small tab or loop at the belt. At least one of these is given skin of brownish-yellow hue and nearly all have the style of hair that is worn by many of the Puntites in Hatshepsut's Deir el Bahri reliefs, with long curls dangling at the back.\[43\] In a Dendera tomb which belongs to the very end of the Old Kingdom, i.e. the viiith Dynasty, the determinative in the word Nḥṣy (Plate xv, b) shows an archer who has a feather on his

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\[41\] Dunham, Naga-ed-Dér Stelae, p. 63, reads S-nbt.t with a query. Ranke does not appear to mention the name.

\[42\] Lutz, Steles, p. 19 (no. 47) notes the same colour was used for both individuals, and this point has kindly been confirmed for me by Dr Klaus Baer, who adds that 'the man's staff, on the other hand, is painted the same dark red used in the hieroglyphs.' Dr Baer also observed the use of yellow in the inscription.

\[43\] The vth-Dynasty examples are: Borchardt, Grabd. Šaḫju-re', ii, pl. 5; Junker, Giza, ii, fig. 28 (=LD, ii, 23; this example has the 'braungelbe' colour of skin, as noted by Lepsius. Textband, 1, p. 64); Giza, iii, fig. 27. For the xviiith-Dynasty Puntites, see Naville, Deir el Bahari, pls. 69, 70, 76, and Davies, The Tomb of Rekh-mi-Rē, pl. 17.
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head and wears an animal skin which probably hangs from the waist as in many representations of Nubians in the New Kingdom (Fig. 8, g-i).\textsuperscript{44} Within the Intermediate Period at least one other type of clothing is attested for a Nubian at Gebelein itself. A black figure in the tomb paintings of ‘\textit{Iti}, now in Turin, has a narrow collar and strings of large beads arranged crosswise upon his chest, and his kilt is of a short open type that apparently lacks a sash. According to Farina, a white head covering descends to a point at the neck. This individual represents a subjugated prisoner and perhaps belongs to a district other than the homeland of the Gebelein mercenaries.\textsuperscript{45}

The most interesting representations of the Nubian bowmen who wear the new costume are those that occur on the east wall of Št-šy’s tomb at Assuan. Mr Labib Habachi, who discovered and excavated the tomb, has kindly allowed me to reproduce the painted warrior which is shown in Fig. 5, and has also given me assistance in tracing it. The figure is one of several black-skinned bowmen, almost identically clad, who are engaged in combat. This one clutches an arrow which is apparently lodged in his side; the same detail is recognizable in the traces of a similar scene on the east wall, north half, of ‘\textit{nhty.fy}’s tomb at Mo’allā.\textsuperscript{46} A spear passes between his legs. His costume consists of a short red kilt and green sash of the type described previously, a green shoulder strap attached to a white horizontal band, a white fillet around the hair and a green feather projecting from it. The clothing of the other soldiers is similar, though varying in colour. Above the register containing the hunting scene a Nubian bowman brings up the rear of a line of cattle and donkeys and in the topmost register a Nubian, with bow in hand, surveys a herd of gazelles; in addition to being warriors, then, the Assuan Nubians functioned as herdsmen and hunters.

It is again in the role of herdsmen that black-skinned Nubian bowmen are most clearly seen in the tomb of ‘\textit{nhty.fy} at Mo’allā, across the river from Gebelein, the battle scene in which they are likewise represented being almost completely destroyed. A newly-made tracing of one of these herdsmen, Fig. 6, shows much the same costume as the Assuan Nubians wear, but the details of

\textsuperscript{44} Detail of Metropolitan Museum 98.4.3c (=Petrie, \textit{Denderah}, pl. 8c, right side, 5th from bottom). This occurs in the phrase \textit{nhty.w nw ḫšt.t}, which has been rendered ‘Nubians of the desert’ in my dissertation \textit{Denderah}, etc., pp. 273, 277, with reference to Janssen, \textit{Trad. Eg. Autobiogr.}, 11, p. 98 and n. 109, and again in \textit{JNES}, 16, p. 227; cf. also Posener, \textit{ZAS}, 83, p. 47, n. 3. It is perhaps unwise to build too much on this translation, since there is no certainty that the phrase is complete, but it seems possible that a specific group of Nubians is named and depicted. Assuming that the translation is correct, it would be tempting to regard the costume as that of the \textit{Mdjy} people, but I do not know of any evidence (in the New Kingdom scenes representing skin-clad Nubians, for example) which would confirm this idea.

\textsuperscript{45} Farina, \textit{RSE}, 3, p. 144 and fig. 3. In another scene (p. 145 and fig. 5) a Nubian prisoner is completely nude.

\textsuperscript{46} Vandier, \textit{Mo’allā}, fig. 63. The black mass at the end of the arrow belongs to the hand; in examining the original I could see a clear trace of the thumb projecting downwards.
PLATE XIII

a. TURIN SUPPL. 1270

b. LEIDEN F 1938/1.6
a. ASSIUT NUBIAN WARRIORS; CAIRO CAT. 257

b. FRAGMENT FROM CAUSEWAY OF SESOSTRIS I, LISHT

c. FROM CAUSEWAY OF SESOSTRIS III, DAHSHUR: CAIRO J. d'E. 51978
a. DETAIL OF BERSHA COFFIN, CAIRO CAT. 28083

b. NUBIAN IN DENDERA INSCRIPTION: METROPOLITAN MUSEUM 98.4.3 C

c. LEIDEN F 1947/9.1
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the hair are different, the fillet and feather are lacking and the pendant part of the red sash is apparently shorter; the shoulder strap and horizontal band are white.

Fig. 6

The drawing in Vandier’s publication errs in confusing part of the bunch of arrows with the sash, so that the latter appears to be doubled under itself and tucked into an inexplicable transverse fold in the kilt; in the case of a second
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Nubian herdsman the publication again shows less of the sash than is actually visible, as well as omitting part of the bow.47

The single shoulder strap and high waistband which are worn by the Nubians at Assuan and Mo‘alla, as well as by one of the Gebelein Nubians (Turin Suppl. 1270), likewise appear on the Egyptian soldiers at Mo‘alla. They probably go back to the simple garment occasionally seen in Old Kingdom representations of field workers, which consists of one diagonal shoulder strap or two crossed straps, the ends secured by a high waistband in either case,48 and this part of the Nubian costume may equally well be related to the double crossband and high waistband of the Middle Kingdom soldiers as represented in the Deir el Bahri temple and in the tombs at Beni Hasan and Bersha.49 It seems doubtful that the single strap of the First Intermediate Period is rather to be considered as a distinctively Nubian feature that reappears in the New Kingdom representations of the southerners, particularly since the high waistband is lacking in these later representations.50

The most familiar example of the kilt and sash described in the foregoing paragraphs appears in the set of wooden figurines from the First Intermediate Period tomb of Mšḥt at Assiut, representing a troop of Nubian archers and a troop of Egyptian spearmen.51 As in the Boston stela, the Nubians are painted a darker red than the Egyptians, and some have a slender green necklace. The hair of both groups is bound with a fillet and is more or less Nubian in style. A separate piece of wood is affixed to the front of the Nubians’ short kilt, standing out from the surface to give the effect of being looped over the belt. In the lower part of the longer Egyptian kilt a small tab is inserted flush with the surface, so that it appears to emerge between the two overlapping folds. This form of the šndy.t kilt, with a tab that widens toward the end, instead of tapering is fairly frequently seen on Egyptians in the Gebelein stelae and very frequently in the tomb of ‘nhjty.fy at Mo‘alla, where Egyptian soldiers and labourers wear

47 Vandier, Mo‘alla, pl. 26 (and pp. 57–8).
48 For the single strap, see Steindorff, Grab des Ti, pls. 118, 122, 125; Wreszinski, Atlas, III, pl. 51 (left, above centre); cf. also Davies, Deir el Gebrāwī, II, pls. 4, 5, 9. For the double strap, see Boeser et al., Beschreibung, äg. Slg. Leiden, I, pls. 12, 21.
49 In other words, the evidence for the single shoulder strap on the Nubians at Assuan, Mo‘alla and Gebelein seems to overcome Säve-Söderbergh’s objection to identifying any of the crossbanded soldiers as Nubians; see his comments on the subject in Ägypten u. Nubien, p. 53, n. 1.
50 Examples in Wreszinski, Atlas, II, pl. 3.
51 Cairo Cat. 257 (Nubians) and 258 (Egyptians). These statuettes have been illustrated very frequently: see Porter-Moss, iv, 265. Colour reproductions of both groups have recently appeared in Posener-Sauneron-Yoyotte, Dictionnaire de la civilisation égyptienne, pp. 20–1; here the darkness of the Nubians is unduly exaggerated however.
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It, as do *nḥty.fy himself and his son. Even at the very end of the Old Kingdom the šndy.t, formerly a royal garment, was virtually limited to stereotyped representations of the tomb owner hunting, bowing and fishing. But in the period preceding the xth Dynasty the use of this costume was apparently greatly extended, replacing the Old Kingdom worker’s attire—a belt with three pendant strips.

The šndy.t kilt and the sash with a pendant piece in front also appear to differentiate Egyptians and Nubians in the earlier battle scenes at Beni Hasan, although there is a considerable variation in the costumes of these warriors; some of the Egyptians, for example, wear a simple short kilt instead of the šndy.t (Newberry, Beni Hasan, ii, pls. 5, 15). The šndy.t kilt is also worn by Beni Hasan warriors at a slightly later date, in the reign of Amenemhet I (ibid., i, pl. 47).

The evidence reviewed here leaves some doubt whether what I have, for the sake of convenience, termed the pendant part of the sash is or is not an integral part of the latter. In the first place, the two ends of the sash are tied at the back. Secondly, the Assiut figurines indicate that the pendant piece emerges from and falls over the sash, and the same appears true of all the other examples. These two circumstances in themselves would permit one to think that the pendant piece is simply a loop in the sash, as shown (from the rear) in FIG. 7.

Fig. 7

52 This form occurs as early as the vth Dynasty: Oriental Institute, Chicago, Mastaba of Mereruka, pl. 15; H. Petrie and M. Murray, Seven Memphite Tomb Chapels, pl. 6; Davies, Deir El Gebræw, i, pls. 3, 5; ii, pl. 5; Blackman, Meir, iv, pls. 7, 17; Petrie, Deshasheh, pl. 24; de Morgan et al., Cat. Mons., i, 146. Its use at Gebelein may be summarized as follows: Stelae BM 1671 (son holding arrows), Cairo Cat. 1651 (sons with staves); Turin Suppl. 1262 and 1277 (warriors); Berlin 24032 (son); Turin 13114 (servant); the last of these comes from the painted tomb of *Iš, which contains further examples (the owner, butcher’s assistant, offering bearer, man driving donkeys). For examples from Mo‘alla, see the coffin Cairo Cat. 28116 (Lacau, Sarc. antér., pl. 6: butcher’s assistants) and Vandier, Mo‘alla, pls. 39, 40 (owner), pl. 35, figs. 5, 63 (soldiers), fig. 29 (hunter), pl. 43, fig. 57 (men carrying grain), pl. 28, fig. 15 (men bearing offerings), fig. 48 (man driving donkey), pls. 28, 39 (cooks), pls. 29, 31 (carpenters). At other places the šndy.t kilt is less conspicuous during the First Intermediate Period: it is worn by the deceased on two Dendera stelae: Fitzwilliam Museum, Cambridge, 6–1950 and Univ. Mus., Phila., 29–66–683; and a servant wears it on a Theban stela, Cairo Cat. 20011. Three further examples are of unknown provenance: MFA, 04.1851 (owner), Florence 7588 (Vandier, Manuel d’archéologie égyptienne, ii, pt. i, fig. 290: owner), and BM, 647, inaccurately reproduced in Hier. Texts, i, pl. 28 (owner, with bow and arrows); the third probably comes from Thebes, being comparable to the stela in Hayes, Scepter of Egypt, i, fig. 183, p. 280.
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Other considerations, however, suggest that this piece is separate: in the case of the Assiut figurines the bottom is often decidedly curved inwards and is sometimes edged with a border; on the Gebelein stela in California the bottom has protruding corners; on the Gebelein stela in Boston there is a fringe around the edge.

If the pendant piece is separate, as it seems to be, its function may be essentially the same as the codpiece which is so clearly illustrated in the hunting scene in the early xith Dynasty tomb of Šnbi at Meir (fig. 8, a)⁵³ in this case, the end tucked into the belt would terminate in a phallic sheath.

In examining the last possibility I shall follow Blackman in referring to the Meir type of codpiece as a sporran, since the term well suits its baglike appearance, as well as the tassels or knobs that are sometimes attached to it. Wreszinski and W. Hölscher explain its appearance at Meir by assuming that the wearer was of Libyan origin,⁵⁴ but the older view seems preferable that the sporran, whatever its origin, was part of a costume that was sometimes adopted by the Egyptians for hunting during the Middle Kingdom. For Šnbi’s costume is reduplicated in a contemporary hunting scene at Beni Hasan (Newberry’s publication, 1, pl. 13), and later in the Middle Kingdom a sporran continues to be worn for the same purpose not only at Meir itself, but also at Beni Hasan (fig. 8, d) and El Kab (fig. 8, f). These examples will be taken up presently.

The earliest of the sporran-like codpieces seems to appear in the xith Dynasty temple at Deir el Bahri, as shown in fig. 9. I now feel less certain that this fragment of painted relief represents a Nubian, as I stated in Yale University Art Gallery Bulletin, 24, no. 2, pp. 33 ff. The four red stripes across the waist probably indicate a band wrapped several times around the body, as in the costume of Šnbi at Meir, rather than the simpler sash of the First Intermediate Period. And the contour of the lower edge of the pendant piece is also reminiscent of Šnbi’s type of sporran. Neither the features nor the colour of the Deir el Bahri archer seem particularly negroid; the body is heavily outlined in red, and the traces of black which I detected within this outline do not seem conclusive. But if the archer is not a Nubian, he is not a Libyan either, for other fragments of relief from Mentuhotep’s temple at Deir el Bahri represent the Libyans quite differently, with their distinctive long locks of hair and the characteristic

⁵³ Blackman, Meir, 1, pls. 6–7 and fig. 7 on p. 31. Both Šnbi and his attendant wear it, whereas in the tomb of Šnbi’s son Wh-hotp, it appears in the costume of the attendant only, while the owner wears the ḫndj.kt (ibid., 11, pl. 8).

⁵⁴ Wreszinski, OLZ, 35, p. 521, where he describes Šnbi’s sporran ‘Die Phallustasche der Thn’ and Atlas, 11, 50a, n. 3, where he more cautiously calls it ‘eine ganz sonderbare Form’ of the Phallustasche. W. Hölscher, Libyen und Ägypten, p. 27, agrees with Wreszinski and elaborates on his view. It is significant that Oric Bates, who discusses the phallic sheath in pp. 122–6 of his Eastern Libyans, makes no mention of the Meir codpiece and apparently considered it irrelevant to his topic.
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vertical strand of beads suspended from the neck. All in all, it seems quite possible that the soldier under consideration is an Egyptian.

A fragment of relief from the pyramid causeway of Sesostri I at Lisht shows a sporran terminating in two long appendages with knobs or tassels at the ends, both of which have been caught up and tucked through the belt so as to keep them out of the way (Fig. 10, a, Plate XIV, b). The wearer, a quiver slung across his back, appears to be grappling with (or assisting?) another of darker

55 Naville, Deir el-Bahari, Dyn. XI, iii, pl. 13.
56 The question is made more difficult by the fact that the historical scenes in the Deir el Bahri temple reliefs do not continue the local tradition of style and iconography but attempt to return to the classical Memphite tradition. It may be added that Winlock’s The Slain Soldiers of Neb-hepet-re Mentu-hotpe provides virtually no evidence for the clothing worn by Egyptian soldiers of the time, since all the bodies were stripped of clothing before being wrapped in linen (p. 22).
57 The two fragments shown in fig. 10 were discovered during the 1912–13 season of the Metropolitan Museum’s Egyptian Expedition. Tracings were made of both of them, but they were not accessioned and were eventually disposed of.
58 The Old Kingdom codpiece worn by workers, which consists of three short pendant strips (without a phallic sheath), is frequently caught up under the belt in the same way; e.g. Steindorff, Grab des Ti, pl. 71.
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hue who wears a distinctive wristband that is unlike his own. The same wristband reappears on a second fragment (fig. 10, b), where the individual wearing it is definitely seen to be a Libyan, for the characteristic vertical strand of beads is visible between his crossed shoulder straps, and the shoulder straps are of the simple type which the Libyans usually wear, lacking the horizontal waist band that appears below the shoulder strap(s) of the man with the sporran.\(^{59}\) There is therefore good reason for thinking that the wearer of the sporran in the Lisht relief is not a Libyan, whatever else he may be. The difference in the colour of the superimposed figures is evidently to be explained as an artistic device which was frequently employed to set one figure off from another.\(^{60}\)

In two tombs at Beni Hasan dating to the reigns of Amenemhet I and Sesostris I, hunting and battle scenes show soldiers wearing sporrans that generally resemble those of Šnbi of Meir (Newberry, _Beni Hasan_, 1, pls. 13, 14, 16, 47), but there is a single example of the sporran with two long appendages (only one of which is visible, ibid., pl. 16). Long appendages of the same kind are to be seen in the hunting costume of the tomb owner in Blackman’s _Rock Tombs of Meir_, vi, pl. 9. The well-known scene representing troops dragging a colossus in the tomb of Dhwty-hip at Bershah, dating to the reign of Sesostris III, shows similar appendages on the baglike sporrans of many of the soldiers;\(^{61}\) and these appendages have the appearance of long tasseled cords (fig. 8, b). The Bershah sporrans are decorated with a coloured pattern that recalls that of the pendant pieces worn by the xith Dynasty wooden soldiers from Assiut, but here the pattern is composed of spots instead of lozenges, and is much less regular;\(^{62}\) this bag-like sporran with irregular spotted decoration reappears in the _mꜣt⁻_-hieroglyph on a contemporary Bershah coffin (plate xv, a).\(^{63}\)

From the reign of Sesostris III there is also the fragmentary representation of archers shown in plate xiv, c, which belonged to the reliefs along the causeway

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\(^{59}\) Wreszinski, _Atlas_, ii, 50a, n. 13, points out that the Libyan cross-straps lack the horizontal band below them and W. Hölscher, _Libyer und Ägypter_, p. 29, n. 6, reaffirms this point.

\(^{60}\) See C. R. Williams, _Decoration of the Tomb of Per-nēb_, p. 44.

\(^{61}\) Newberry, _El Bersheh_, i, pl. 15. Top and Middle registers; these are the young warriors (_dȝmjw n ḫʒtyw_) of the Hare nome, as distinguished from the _wḏb_-priests and the youths (_dȝmjw_) of the east and west of the Hare Nome, none of whom wears the sporran.

\(^{62}\) Ibid., p. 21: ‘its colour may be green, brown, or white, generally marked with paler spots’.

\(^{63}\) Cairo Cat. 28083; right end of front interior. The left end is shown in Lacau, _Sarc. antér.,_ pl. 24. The colour may be seen from the copy of the hieroglyph by Nina Davies, _Ancient Egyptian Paintings_, pl. 6; the principal colour of the sporran seems dark blue, however, rather than black; the spots are light blue or white. Another example of the _mꜣt⁻_ sign from the same coffin (back interior) is similar for the most part, but curiously shows a tie at the front of the belt, where the sporran is fastened, with the two loose ends of the tie hanging straight downward.
of the king's pyramid at Dahshur. These bushy-haired warriors wear sporran
that are probably identical to those represented in the earlier fragment of relief
from the pyramid causeway at Lisht, except that the pairs of long appendages
dangle freely instead of being tucked under the belt (FIG. 8, c). Here, as at
Lisht, these appendages seem to be of a piece with the sporran itself, rather than
cords attached separately, as at Bershah.

The representations of the sporran tend to assume a simple bag-like form,
with rounded bottom, from the mid-xiith Dynasty onward. A notable of Beni
Hasan wears this type of sporran for hunting, combined with a kilt that is very
like his everyday attire (FIG. 8, d, e); the same form is found at Bershah, as we
have already observed, and it appears in the xiiith Dynasty tomb of Shk-nht at
El Kab, who again wears the sporran as part of his hunting costume (FIG. 8, f).

But a long sporran rather like the early examples at Meir is again found on two
xiiith-Dynasty stelae of soldiers armed with bow and arrows, one of which is
illustrated in PLATE XV, c.

Something rather like the Middle Kingdom sporran reappears in New
Kingdom representations of Nubian warriors as depicted from the reign of
Horemheb onward (FIG. 8, h, i). But the resemblance becomes less striking
if one compares an Amarna example of what is apparently the same thing (FIG.
8, g); here as in the other cases the codpiece is worn in conjunction with a skin
which is hung from the waist, covering the hips and buttocks. If there is some

64 Cairo Museum, J. d'E. 51978. Published by the excavator, Jéquier, in his Dous
ans de fouilles dans la nécropole memphite, fig. 39, p. 136, where they are called 'troupes
d'archers nubiens'.

65 Newberry, Beni Hasan, 1, pl. 30. His sons, who also participate in the hunt,
wear a similar costume.

66 J. J. Tylor, The Tomb of Sebeknekh, pl. 10. In the accompanying description it is
noted that 'a dark coloured bag hangs suspended from the waist'.

67 The one shown here is in Leiden, Rijksmuseum van Oudheden F 1947/9.1. Dr
Adolf Klasens has kindly provided the following details. Although the names have
disappeared the funerary formula is sufficiently legible to show that the later arrangement
of htp-di-nswt is present (see Smither, JEA, 25, pp. 34-7). Only two colours are
preserved—red and black. The man's hair is black, as is his sporran; the curved edge
of the kilt is also indicated by a black line. Both skin and kilt are painted red; the
bow is red, and the arrows are red and black. His wife has black hair and a red and black
bracelet. The other stela, which is very similar to this one, is in the Berlin Museum
(no. 22709), and has been published by Vandier in C. d'E., 17 (no. 35), pp. 28 f. and fig. 13.
It is said to belong to the Second Intermediate Period, and this late a date is borne out
by the arrangement of the htp-di-nswt formula, as in the preceding examples, and by
the general style.

68 Drawn from photographs in Wreszinski's Atlas, 11: (h) is ibid., pl. 181 (Abu
Simbel); (i) is ibid., pls. 167-8 (Beit el Wali). An example from the reign of Horemheb
is shown ibid., pl. 162 (Silisila).

69 FIG. 8, g is ibid., pl. 3(4). In another Amarna scene, ibid., pl. 13, a skin-clad
Nubian has a codpiece which is composed of two or more long knobbed or tasselled
pieces.
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doubt about this recurrence of the sporran in the New Kingdom, there can, on the other hand, be no question that the sash and pendant piece survive in much the same form that appeared in the First Intermediate Period, and in the New Kingdom these continue to be worn with a very short kilt. 70

Although the Nubian pendant piece of the First Intermediate Period has thus far been carefully distinguished from the Middle Kingdom sporran, so as not to prejudice the discussion, it may be seen that each of these types of codpieces shows several variations, some of which closely resemble examples of the other type. One would, in fact, not hesitate to conclude that the two types are themselves only variations of the same thing if it could be proved that any of the Middle Kingdom soldiers who wear them are definitely Nubians. Some or all of them are, on the contrary, probably to be identified as Egyptians, and we have observed that important Egyptian officials of the period wore the sporran for hunting. But it seems likely, in view of the feather that sometimes appears on the head of the soldiers or hunters (at Meir and Bersha), that the costume has been influenced by the foreign peoples of the western or southern regions. The fact that the sporran conceals a phallic sheath has led Wreszinski to attribute it to the Libyans, but no Libyans can be recognized among those who wear it, and it is unlike the traditional form of their sheath as this continues to be represented in the Middle Kingdom. 71 It therefore seems preferable to accept the alternative possibility that the Middle Kingdom Egyptians adopted or adapted the sporran from the costume of Nubian warriors, just as Egyptian desert police of later

70 For examples see ibid., pls. 3, 13, and the reference in note 73 below.
71 In the Gébelein relief of Nb-hpt-r4 Mentuhotep, Bissing Denkmäler, 33A, b, the sheath is unusually long, but quite narrow and apparently tapering; the end is not visible. For the early xith Dynasty there is a fragmentary representation in sunk relief from the pyramid of Sésostris I at Lisht, Metropolitan Museum 09.180.50, which clearly shows the traditional Libyan sheath and tail:

Later in the xith Dynasty there is the Dahshur pectoral of Sésostris III which represents a Libyan being struck down by the royal griffin; here again the sheath is narrow and tapering (De Morgan, Fouilles à Dahchour, 1894, pl. 21).
times assumed the name of the Nubian warriors called Medjay.\textsuperscript{72} Apparently the Medjay troops, despite their name, did not follow the tradition of wearing the Nubian sporran, but Nubian dress was affected by at least one New Kingdom ruler, the ‘athlete king’ Amenophis II, who was represented wearing virtually the same coiffure and the same style of codpiece that is found on the Gebelein stelae of some six hundred years earlier.\textsuperscript{73}

6. Nhšy and other ethnica accompanying personal names

The designation of Nubians as ‘the Nhšy NN’ is not confined to the Gebelein stelae, nor is Nhšy the only ethnic designation which occurs before names in the Old and Middle Kingdoms. Towards the end of the Old Kingdom in the westernmost sector of the Cheops pyramid cemetery, the lintel of one tomb is inscribed for \[\begin{array}{c}
\text{The man of Byblos, Wn fft’} \text{ and the}
\text{false door of another tomb names jn n bn ‘The man of Tpj, Snb’}.\text{\textsuperscript{74}}
\end{array}\]
Not far from these natives of Lebanon and another foreign land to the west or east of the Nile Valley, Junker’s sector of the same cemetery has yielded three names preceded by the epithet Nhšy: \[\begin{array}{c}
\text{‘The Nubian, the attendant}
Mrt’; \text{ ‘The Nubian, the sealer Snb’ (Junker, Giza, III, fig. 27) ;}
\text{ ‘The Nubian Hr tši’ (ibid., II, fig. 28 and pl. 16, b). All three}
\end{array}\]
individuals appear as bearers of offerings in vth-Dynasty mastaba chapels, and their modest titles doubtless refer to functions in the tomb owner’s household. Their distinctive costumes and style of hair have been mentioned at the outset of the preceding section.

A much less certain mention of a Nubian occurs in two Naga ed-Deir stelae of the Intermediate Period: In one case the owner of a stela is named as \[\begin{array}{c}
\text{ and in the second case the son of the owner of a stela is} \text{ 75}
\end{array}\]
Possibly the same individual is involved. Perhaps Nhš(y) after the name Nfr in this case is rather a descriptive epithet than an ethnic, to be compared with other terminal epithets such as -nḥt ‘strong’, -ikr ‘excellent’, -km ‘black’, -hry-lb ‘the middle one’, and so on. In other words it may simply have been some point of resemblance to a Nubian that earned Nfr the epithet Nhšy. If he was a Nubian, or resembled one, it must be said that Nfr-nḥš-i is represented no differently from the other occupants of the Thinite cemeteries.

\textsuperscript{72} For the Nubian antecedents of these troops in the Middle Kingdom see Posener, \textit{ZAS}, 83, pp. 40–2. As Gardiner points out, \textit{Onomastica}, 1, 82*, the term Medjay had become an occupational designation at least as early as the xiiiith Dynasty.
\textsuperscript{73} Davies, \textit{Tomb of Ken-Amün}, pls. 16, 17. See also Aldred, \textit{MMAB}, 15, pp. 142–3, who discusses the vogue of the ‘Nubian haircut’ in the New Kingdom.
\textsuperscript{74} Both cases are discussed in \textit{jNES}, 18, pp. 264–5.
\textsuperscript{75} Lutz, \textit{Steles}, no. 34; Dunham, \textit{Naga ed-Dér Stelae}, no. 59.
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In the xith Dynasty two black women of the Nubian land of Mḏj are included among the servants of the ‘royal wife’ ḫy.t on her sarcophagus from the Deir el Bahri temple: one is called Mḏj.t Fḏtyt and the other Mḏj.t Mkhnt.\(^76\) Like three other minor wives of Nebhepetre Mentuhotep, ḫy.t herself was probably a Nubian, although she is not explicitly said to be so.\(^77\) Other Middle Kingdom Nubians are ḫy.t-nn ‘The Nubian (woman) ṇḥ.t-nn’, who is represented in her native attire on her tomb stela from Dahshur,\(^78\) and, less certainly, ḫy.t ‘The Nubian Nfr’, whose stela from Abydos is certainly later than the almost identically named person from nearby Naga ed-Deir.\(^79\)

Finally, since so many individuals are identified as foreigners on Gebelein stelae just before the Middle Kingdom, it is of interest to note that a native of the same region at the end of the Middle Kingdom is identified as ḫy.t ‘the man of ‘Īw-m-irw, Nfr-hpt’.\(^80\)

7. The Nubian colony: summary and conclusions

Our material is by no means the earliest evidence for the existence of a colony of Nubians in Egypt. That distinction is probably to be given to the Nhšyw htp.w ‘peaceful Nubians’ who are repeatedly mentioned in the decree of Pepy I concerning the pyramids of Sneferu at Dahshur and who were presumably quartered in the neighbourhood of Memphis.\(^81\) Furthermore we know that during the later half of the Old Kingdom Nubians were employed by the Egyptians for domestic service, as described in the preceding section, and in the army, as attested by the well-known description of the force raised by Wnḥ of Abydos (Urk., I, p. 101) and by the titulary of a ḫy.t ‘inspector of

\(^76\) For the texts, see Clère-Vandier, Textes, p. 28. The scene is illustrated in Winlock’s Excavations at Deir el Bahri, pl. 10. Grdseloff, BiOr, 5, p. 161, suggests that the word mḥnt.t of CT, II, p. 183, is to be recognized in the second name, but the initial group in this name is clearly ḫy.t, i.e. mk.

\(^77\) Three of them are represented with dark skin—Ḫy.t, Kmst and Sḏḥ (the last in Naville, Deir el Bahari Dyn. XI, I, pls. 12, 13). Dr Douglas Derry considered that ‘Nubian blood had probably flowed through the veins of...’ Ashayet and Henhenit’ (Winlock, ibid., p. 130; cf. Rise and Fall of the Middle Kingdom, p. 27).

\(^78\) Cairo Cat. 1481: Borchardt, Denkmäler des A.R., and de Morgan, Fouilles à Dahchour, 1894, pp. 38 f. Although no colour is recorded in either publication, the woman’s bushy hair and her skirt, which begins no higher than the waist, seem sufficient to show that she was represented as a southerner.

\(^79\) Cairo Cat. 20295.

\(^80\) Cairo Cat. 20642. Lange and Schäfer, Grab- u. Denksteinen des M.R., II, 279, note that the Journal d’Entrée gives the provenance as ‘Upper Egypt’, but that ‘Rizaqat’ is written in pencil on the base.

\(^81\) Sethe, Urk., I, pp. 211–2.
THE NUBIAN MERCENARIES OF GEBELEIN

Nubian (troops) of the Great House', or perhaps simply 'inspector of Nubian (troops)', who was buried at Giza. Another title of the same kind, and attributed to the same period, is 'overseer of the troops of Nubia', which was transcribed by Quibell from a Saqqara false door.

The five stelae representing the Gebelein Nubians are nonetheless the earliest evidence of their kind, and are uniquely interesting on this account. But the chief point of interest does not lie in the fact that the Nubians had stelae of their own; nor is it surprising, in a period when 'foreigners had become people everywhere', that these mercenaries became Egyptianized to the extent that they equipped themselves with funerary stelae made by the local craftsmen, and that they frequently adopted Egyptian names. What is more remarkable is the fact that those who could afford a funerary monument had themselves represented as Nubians, both in person and in costume. To explain why they retained their ethnic identity as fully as they did, it is perhaps only necessary to point out that Gebelein was not a very great distance from their homeland; the troops of 'nhty.fy, who was buried at Mo'alla, just opposite Gebelein, were at least once combined with troops from as far south as Assuan, and his tomb paintings as well as those of the contemporary Št-k3 at Assuan represent Nubian bowmen who wear much the same costume as those at Gebelein. But apart from this consideration, it also seems likely that the Nubians enjoyed considerable prestige among the Upper Egyptians at Gebelein on account of their prowess as hunters and warriors, and accordingly would have taken some pride in showing themselves as they actually looked. In any case the stela of 'Iti, which was presented at the beginning of this article, refers to them creditably. It is less clear how we are to take the statement of the general Dmi of Gebelein who boasts of having 'enslaved Wawat for every overlord in this nome', but I think the Nubians of Gebelein were probably themselves the means of this subjection of their former homeland. An analogous situation is apparently represented on the west wall of Št-k3's tomb at Assuan, where a number of Nubian archers attack a foe which cannot be identified but is suggestively located at the southern end of the wall. In the tomb of the general 'Iti at Gebelein a black-skinned captive is shown in a

82 Hassan, Giza, vi, pt. 3, figs. 126, 130. The element pr-ḥ3, which more frequently comes before a title rather than behind it, precedes šḥd Nhšyj in all five cases where it occurs, but in every case it is theoretically possible to connect it with a preceding title, as Hassan does on p. 133.

83 Quibell, Archaic Mastabas, p. 39. The false door is not illustrated, but is described as being 'of the ordinary Saqqara 11th-Dynasty type'. It seems more probable that Sti here means 'Nubia' rather than 'Elephantinite nome'; for the former alternative see Junker, Studies to Griffith, pp. 361 f. To my knowledge, the only Old Kingdom titles which specifically refer to the first nome of Upper Egypt mention the name of the capital, Elephantine, rather than that of the province (Habachi, WZKM, 54, p. 61; Sethe, Urk., i, p. 253, line 7). The same is true of a Middle Kingdom title ss stš s n 3bw 'scribe of the army of Elephantine', Roeder, Debed bis Bab Kalabsche, ii, pl. 119c.

84 Admonitions, i, p. 9.
costume that is unlike those of the Nubian mercenaries belonging to his city. This being the case, the Gebelein Nubians may not always have been required to fight against the people of their own district.

The inscription of Dmi poses another question: What part did the Gebelein mercenaries play in Thebes’ struggle for domination, and to what extent were they involved in this struggle elsewhere? Since the overlords whom Dmi served in subjugating Wawat were Theban nomarchs, the answer to the first question would seem clear. Notwithstanding the ambiguous role of Hermonthis, the religious centre of the nome, which lay between Gebelein and Thebes, and which seems to have resisted the policies of the latter, the area south of Hermonthis apparently lent Thebes its support, for part of 'nhfty. fj’s attack against the Coptite-Theban coalition was directed against fortresses in that area. And the meagre traces of the battle scene in his tomb at Mo’alla in fact include a Nubian among the vanquished foe at the northern end of the scene.86

We are, in fact, reasonably sure that Nubians were employed as mercenaries by virtually every group that took part in the struggles preceding Egypt’s reunification,86 but there is no indication that they were anywhere so well-established as they were at Gebelein. In the vicinity of Thebes and Coptos, for example, the funerary stelae represent soldiers as frequently as the stelae from the southern end of the Theban nome, but not a single Nubian mercenary has yet been known to appear on any of them.87 If Nubian mercenaries were quartered in this area, it would seem either that the stelae made for them were indistinguishable from those of the Egyptians or, more probably, that they had no stelae of their own.

There is some indication that the tradition of particularly close contact with the southern lands, as exemplified by the stelae of Dmi and ’Iti, and by the stelae of the Nubians themselves, may have persisted at Gebelein for many generations. In an earlier volume of Kush where Jean Vercoutter discusses some late Middle

86 For this detail of the attack, see Vandier, Mo’alla, p. 198 (II, 5, 1); for the battle scene see ibid., pp. 126–8.

86 Apart from the Gebelein data, direct evidence for Nubians in the service of Thebes is limited to the Abisko graffiti of the mercenary Thmzy, some of which (and perhaps all) refer to the later part of Neb-hepet-re Mentuhotep’s reign, after his conquest of the north (Roeder, Debod bis Bab Kalabsche, pp. 103 ff. and pls. 106–8; Säve-Söderbergh, Ägypten u. Nubien, pp. 58–60; Posener, Ar. Or., 20, pp. 163–6). For Assiut, the ally of Harkleopolis, there is the testimony of the wooden statuettes of Nubian archers from the tomb of Msht (see n. 51 above). And in the independent Hare nome, the nomarch Nhry I appears to have numbered both Nubians and Asiatics among his forces (Anthes, Hatnub, Inschr. 16, lines 5–6; see also Faulkner, JEA, 30, p. 61).

87 Only two examples are definitely known to come from Thebes itself (W. C. Hayes, Scepter of Egypt, i, pp. 280, 330, to which BM 647 may perhaps be added, as suggested at the end of n. 52 above), but there are at least a half-dozen from Thebes’ ally, Coptos: see Vandier, C. d’E, 17 (no. 35), p. 22 and figs. 1–5, to which may be added the stela Strassburg 344, mentioned at the end of note 3 above.
THE NUBIAN MERCENARIES OF GEBELEIN

Kingdom stelae\(^{88}\) from Buhen and Semna, he observes that Sobek of Sumenu is prominently mentioned on some of these stelae, and concludes that this god was worshipped in Nubia;\(^{89}\) he then goes on to suggest that the worship of the god was brought to Nubia by the Egyptian inhabitants of his cult centre, in the vicinity of Rizaqat. In other words, the very region where our Nubian colony established themselves during the First Intermediate Period may, reciprocally, have become the principal source of Egyptian settlers in Nubia. And it is also possible that the local cult of Sobek was carried to Nubia by descendants of the Egyptianized Nubi ans themselves.

Excursus: Notes on the palaeography of the Gebelein region

A number of the signs in the First Intermediate Period inscriptions of Rizaqat, Gebelein and Mo‘alla assume forms which rarely or never appear in contemporaneous inscriptions at nearby places, many of which likewise possess hieroglyphic peculiarities of their own. Some of the more distinctive of the Gebelein forms are assembled in FIG. 11; the selection is confined to those examples which are to be found in at least three of a group of sources including the Mo‘alla biography of ‘nhty.fy, Berlin 24032 (PLATE X and FIG. 1) and the sixteen

\[\text{FIG. 11}\]

stelae tabulated above in note 3. To facilitate reference, I shall recapitulate the list of the sixteen stelae citing illustrations in the present article where possible: (1) Cairo Cat. 20001; (2) PLATE XIII, a; (3) Turin Suppl. 1277; (4) Turin 13115; (5) Turin 13114; (6) Turin Suppl. 1260; (7) Turin Suppl. 1271; (8) PLATE XII, a; (9) BM 1671; (10) PLATE XII, b; (11) PLATE XI and FIG. 3; (12) Allen, AJSL, 38, p. 56; (13) PLATE XIII, b and FIG. 4; (14) Cairo Cat. 1622; (15) Cairo Cat. 1651; (16) Cairo Cat. 1654. The Mo‘alla text is cited according to Vandier’s system of reference.

\(^{88}\) KUSH V, pp. 61-9. The following points seem to indicate that the stelae belong to xiii\(\text{th}\) rather than xii\(\text{th}\) Dynasty: (1) The writing of Šumnu, which Percoutter notes ibid., p. 68; (2) The late writing of htp-di-nswt on Khartoum 372A (which antedates Khartoum 11778); (3) The fact that Sesostris I appears in a theophoric name of the Second Intermediate Period (Percoutter, ibid., n. 26), which suggests (although it admittedly does not prove) that this king might have been mentioned as a god on BM 139-(489) at this late a date.

\(^{89}\) Besides the references to this god in the Buhen stela Khartoum 11778 and the Semna stela Khartoum 2647, there is also a similar reference in the Semna stela Khartoum 2648 (Dunham-Jansen, Semna-Kumma, p. 60, and in this last case the offering formula again shows the later arrangement of htp-di-nswt. Apparently still another example from Semna is to be found ibid., p. 61 (28-1-500). Note also the epithet ‘beloved of Sobek, lord of Sumenu’ in Kumma rock inscription 56 (ibid., p. 148).

(a') Variant of same. Nos. 3, 7 and 11. Not confined to the Gebelein area, as is the preceding form: v. *Urk.*, I, 287.17 and 292.6 (Coptos, reign of Pepy II); Dunham *Naga-ed-Deir Stelae*, no. 80; Petrie, *Denderah*, pl. 2a (centre).

(b, b') Negation sign [D35]. The first form occurs in no. 1 and Mo'alla, *passim*; the second occurs in nos. 12 and 15. This sign is an extreme example of the angular style that prevails in many of the inscriptions under consideration; cf. also (g).

(c) *Iw* [E9]. No. 9, Berlin 24032 and Mo'alla III 7. Nos. 1 and 15 have the normal hieroglyph. The abnormal form occurs only very rarely at other places: e.g. Petrie, *Denderah*, pl. 2a, right side, second from top. The extended foreleg is to be seen in some Old Kingdom representations of reclining cattle, as in Chicago Oriental Institute, *Mereruka*, pls. 152, 153. Cf. also von Bissing, *Re-Heiligtum II*, pl. 25 (87).

(d) The same peculiarity as applied to the goat determinative. No. 9 and Berlin 24032.

(e) Anubis on a shrine [E16]. Nos. 1, 2, 3, 4(?), 5, 8, 9, 11, 13, 14, 16 and Berlin 24032; also Steindorff, loc. cit. The added pair of tabs perhaps derives from a standard like that of Wepwawet in Louvre C 15, line x+7 (R. *d'Ec.*, I, pl. 9).

(f) Horned viper [I9]. Occurs sporadically thus in nos. 1, 2, 3, 5, 8, 10, 12, 13, 14, 16, and Mo'alla I β 1, II β 2, II α 3; cf. Polotsky, *Zu den Inschriften der 11. Dyn.*, § 33a. The head is often separated from the body.

(g) *Si* [M8]. No. 9, Berlin 24032, Mo'alla II η 2, V β 2 (sic).

(h) *T3* [N16]. Nos. 1–4, 5(?), 7–11, 13, 14, 16, Mo'alla I β 2, III 9, etc., Steindorff, ibid., pl. 19. This form also occurs on several Naga ed-Deir stelae: Dunham, ibid., nos. 5, 9, 14, 61, 63, 64, 71.

(i, i') *Hmt* [S20]. For the first variant see Mo'alla I β 4, III 9; for the second see Berlin 24032 and no. 9. This presumably derives from a current hieratic form.

(j, j') *Hbs* determinative [S28]. The first occurs in Mo'alla IV 5, V γ 2; the second is found in nos. 9 and 12. Derived from hieratic.

(k) *Mh* [V23]. Nos. 1, 9, 12, and Mo'alla IV 19, VI β 3, etc.

(l, l') *Wdpw* [W23]. The first form is found in no. 9 and Berlin 24032; cf. also the det. for *wrh* in Mo'alla IV 5. The second form occurs in nos. 2, 11, 16. The pot with handles becomes frequent in the xiith Dynasty (see Lange-Schäfer, *Grab- u. Denksteine*, III, p. 58), but is exceptional earlier: two xiith-Dynasty hieratic examples occur in Hatnub Gr. 25. For examples of the sign normally used in the xiith Dynasty (Gardiner's W22), see Clère, *R. d'Ec.*, 7, n. 1, p. 24, to which may be added Petrie, *Denderah*, pl. 14 ("Beba, son of Beba"), Cairo Cat. 20805 and Univ. Mus. Phila. 29–66–645 (the last two also from Dendera), and Clère-Vandier, *Textes*, no. 23, line 9, where the label *wdpw.f S-nht* has mistakenly been taken into the main inscription.

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a. ROCK-CUT DITCH OF THE NEW KINGDOM FORTIFICATIONS ON THE WEST SIDE OF THE GREAT SALIENT

b. ROCK-CUT CAUSEWAY ACROSS THE NEW KINGDOM DITCH
a. GENERAL VIEW OF THE MIDDLE KINGDOM RUINS DURING THE EXCAVATIONS

b. ENTRANCE TO THE WATER GATE IN THE MIDDLE KINGDOM FORT
Plate XVIII

a. General view of the north-east corner of the lower ramparts and ditch of the Middle Kingdom fortress

b. Loopholes of the lower ramparts of the Middle Kingdom fortress
a. PART OF THE NORTH WALL OF THE MIDDLE KINGDOM FORTRESS SHOWING ONE OF THE ROUND BASTIONS IN THE FOREGROUND

b. GENERAL VIEW OF PART OF THE NORTH WALL, LOWER RAMPARTS AND DITCH OF THE MIDDLE KINGDOM FORTRESS

by Walter B. Emery

The programme for the complete excavation of the Middle Kingdom fortress of Buhen was re-opened on 29 November 1959; but work was actually started eight days before this, on the area of the great salient of the New Kingdom defences which had been tested at the close of the previous season at the end of January 1959. The reason for this preliminary work, not part of our programme, was the delayed arrival of our Gufi workmen from Egypt. It was felt that to put unskilled local labour, without the guidance of skilled leadership on the delicate task of clearing the town area would be hazardous; whereas there was little risk of anything untoward happening in the employment of our unpractised local workers in the clearance of the rock-cut ditch which surrounds the salient. Moreover, it was felt that it would give them valuable preliminary training, an opportunity of which they certainly took advantage—so much so that we soon felt justified in putting the best men on to the clearance of the salient itself, with entirely satisfactory results.

As stated above, the area of the great salient was tested at the end of last season, and it was then established that the foundations of a large brickwork structure were preserved just below the flat desert surface. Even with our unskilled labour, the complete clearance of the whole area was accomplished within a few days and the results were most rewarding, for the excavations revealed the foundations of a big gatehouse, which, to judge from its size, must have been the principal entrance to the fortress in the New Kingdom. Although the walls rarely exceeded a height of 0.60 m. from the original ground level, sufficient remained to ascertain the complete plan and to reconstruct, with a measure of considerable certainty, its original appearance (Fig. 1).

Apart from the gatehouse, the lower ramparts were also revealed, together with a rock-cut causeway which spanned the dry ditch, in place of a drawbridge (Plate XVI). The causeway is situated directly opposite the entrance to the gatehouse and at a date subsequent to the building of the main structure, two small guard houses had been built on each side, forming a narrow corridor between them and checking easy access to the lower ramparts.

With the arrival of our skilled workmen, the excavation of the Middle Kingdom town was resumed at the point where we left off last season and continued on a 20-m. front along the inner side of the west wall of the fortress
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(PLATE XVII, a). The first area cleared was immediately south of the building, comprising the administrative offices and commandant's headquarters which were discovered during the work of last year. Here other rooms of the same

PROVISIONAL SKETCH PLAN
WEST GATE OF THE NEW KINGDOM FORT

building were excavated, and south of them, flanking the south side and main entrance to it, we uncovered part of an arterial road running from west to east. This road, paved with burnt clay tiles, had a stone-built open drain running
down its centre, an unexpected feature which suggests that Nubia must have had a greater rainfall during the period of the Middle Kingdom. Continuing on the 20-m. front, through a maze of domestic buildings, we found the head of another arterial road with its central drain of exactly similar design, also running from west to east. Measurements showed that these two roads divided the town area into three equal parts, and there is every indication that the

settlement was built on an entirely symmetrical plan, as shown on the provisional sketch plan shown on FIG. 2.

The clearance of the inner side of the west gate of the fortress also revealed some unexpected features. We expected to find that it opened out directly to an arterial road passing through the middle of the town, as at Kuban,* but the

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military architects who designed Buhen had realized the weakness of such a design and had made just one more obstacle to impede an attacking force. Assuming that the storming party had broken through the gateway, they would find themselves in an enclosed square with exits giving access to the town only through narrow roads on the north and sides immediately under the inner walls of the fortifications, until they could break into the town down the two arterial roads mentioned above. A curious find was made in this area: a cluster of 128 large uncut amethysts lying at a low level near the foundations of the west gateway. These stones had no other objects with them and cannot be connected with any form of foundation deposit. We can only conclude that they were either hidden or lost at the time of the building of this part of the fortifications. In the upper levels of the area around the inner side of the gate, we found a considerable quantity of fragments of inscribed masonry and other material. The inscriptions vary in quality and are all of New Kingdom date. Fragments of inscribed stonework of the Middle Kingdom were also recovered in the vicinity, but these all appear to belong to funerary stelae and were not part of monumental structures.

The south-western area of the town was disappointing, in that although well-built houses of the Middle Kingdom are still preserved, they had been overbuilt and distorted during the reoccupation of the New Kingdom. Moreover, they had suffered considerably from the fire which had engulfed this part of the fortress when it had been stormed and taken at some period subsequent to the close of the XIth Dynasty. Large dwellings, which were probably officers’ quarters, had been divided up into smaller apartments; others had apparently been used as workshops and foundries for copper working. It is perhaps significant that in the vicinity of the buildings which have in their decay been used as workshops, we found fragments of Kerma and C-group pottery, this being entirely absent in the north-west area, which in both the New Kingdom and the Middle Kingdom was occupied by the commandant’s headquarters and other official buildings. As yet it is difficult to be certain, but two alternative explanations would perhaps fit the facts as we at present know them:

1. The Nubian pottery belongs to squatters who occupied the ruined and abandoned town during the Second Intermediate Period.

2. The pottery belonged to Nubian troops of the New Kingdom garrison. In any case, it would appear probable that the owners of the Kerma and C-group pottery were the people who were engaged in the copper working, perhaps in the manufacture of weapons. Among the objects found in the vicinity of these ravaged buildings was one of considerable interest. This is a small, round-topped stela bearing a crudely-cut figure of a king wearing the white crown, holding a bow and arrows in one hand and a mace in the other. The figure, standing, is in the conventional posture, but its execution is undoubtedly native and we may hazard the guess that it is the work of a Nubian soldier or workman.
trying to copy an Egyptian model. Its date is uncertain, but it is certainly not later than New Kingdom and probably earlier. As an example of borrowed art it is certainly unique. On the completion of excavation of the whole of the inner side of the west wall of the fortress on a 20-m. front, and the discovery that the town was divided into three equal parts by the two arterial roads, it was decided to concentrate on the clearance of the northern division which included the temple of Hatshepsut. This, including the full length of the northern road, was completed by 18 January 1960.

The region between the commandant’s headquarters and the temple accommodated a series of large buildings that from their design we may judge were barracks, for they are certainly too large for magazines or store rooms. They consist, in the main, of a series of large galleries with roofing supported, in each gallery, by a single row of columns. The floors were paved with both mud brick and burnt clay tiles, and the walls were originally faced with gypsum plaster painted white. In the area immediately behind the temple we discovered a sandstone stela which would appear to have been originally set in the wall of a building. Translated, it reads:

‘Year 5, second month of Shōmu, the good god Kheperkare the son of Re, Senusret beloved of Khnūm who is in front of Khen-nofer, given life eternally’.

Obviously of a commemorative character, the stela adds to the available evidence that Senusret I was the original founder of Buhen.

Clearing round the New Kingdom temple, we confirmed the existence of a Middle Kingdom structure of considerable size below it; but nothing further can be done with safety until the late building is removed. The New Kingdom level on which the temple rests is 3½ m. above the ground level of the Middle Kingdom, so there is every reason to suppose that the earlier structure may be well preserved. Part of the area between the front of the temple of Hatshepsut and the east wall of the town was cleared and here we found a series of foundation cross-walls of Middle Kingdom date which may form part of a great stairway leading to the upper ramparts of the fortifications. However, we cannot be certain of this on the available evidence, and we must await the removal of the temple before the existence of this feature can be confirmed.

We next turned our attention to the exterior of the east wall of the fortress which has, to a large extent, been destroyed by the erosion of the Nile. In addition, the wall has been distorted by settlements of squatters who had excavated their dwellings out of the mass of brickwork. There is no evidence of the date of this very primitive settlement because of the complete absence of pottery or other objects. As stated above, we have traced the northern arterial street, with its central drain, down to a stone-built water-gate on the river’s edge (Plate XVII, b). The whole of this street, drain and water-gate were cleared, revealing that the northernmost highway leads directly to a large gate in the east wall of the town and thence to a stone-built quay in which the water-gate
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is incorporated. Although only the head of the southern arterial road has as yet been excavated, from its position in the general scheme of the town plan, it would appear probable that it, too, led to a second water-gate, fortified entrance and quay. Excavation on the river bank has shown that the town wall on this side followed the usual pattern, with projecting towers and recesses, but with no lower ramparts and ditch. In place of this feature, at the foot of the wall, between it and the river were two stone paved terraces supported by a stone built revetment.

From 18 January until the end of the season we concentrated all available labour on the exterior of the north-east corner of the fortifications; an area which had been partly investigated by Randall MacIver and Woolley in 1910. Our predecessors had cleared down to the foot of the New Kingdom walls which obscured the original structure of the fortifications. Our excavation below this level has revealed, as in the case of the west wall, the well-preserved system of Middle Kingdom defences of an even more elaborate design than those previously discovered. It has also disclosed the existence of a spur-wall, ditch and ramparts extending along the river bank. The position of the ditch on the interior side of this spur-wall shows that attack was generally expected from the direction of the desert and not from the river. The lower ramparts overlooking the ditch had a double series of the usual loopholes arranged in groups of three centring on one single shooting embrasure (PLATE XVIII, b). A new feature, not used in the eastern defences, is the employment of a fire-step which was built not only on the straight wall of the rampart, but in the round bastions which project into the ditch (PLATE XVIII, a).

Although only a third of the north wall and ditch was completely cleared, the rest of the structure was traced, and the absence of any gateway confirmed (PLATE XIX). The south wall of the fortress was also traced and here again, we can be certain that there was no gateway. More excavation will be needed before we can be absolutely certain of the general design of the Middle Kingdom fortress, but sufficient has been achieved this season to advance a tentative suggestion of the general layout which is shown on FIG. 2.

An important and interesting result of these excavations in the north-east area of the fortifications was the discovery of evidence which suggests that the walls were breached and three of the projecting towers destroyed at a period prior to its destruction and abandonment at the close of the Middle Kingdom. The destroyed towers were hastily rebuilt and on them and on the wall face of the recesses between them we found the remains of roughly daubed whitewash inscriptions. These inscriptions had been concealed by the skin walls built by the New Kingdom restorers to strengthen the fortifications when Buhen was rebuilt. They would appear to be the names of the individual gangs of workers to whom the work on each area of the wall was allocated.
Diary of the Excavation of Mirgissa Fort

14 November 1931 to 3 February 1932

By the Harvard University—Museum of Fine Arts Expedition

Recorded by NOEL F. WHEELER

Foreword

Dr Vercoutter has suggested to the writer the desirability of making available to readers of Kush this day-by-day record of the Excavations at Mirgissa for the following reasons. The examination of this important site was, unfortunately, never completed by the Expedition and only the north-east quarter of the fort was fully cleared. The construction of the Assuan High Dam within a few years is expected to render future excavation at the site impossible, so that any further work on the fort will have to be done very soon and before a full report of the Expedition’s work can be published. The writer fully concurs in Dr Vercoutter’s view and has already made available for publication in Kush viii a plan of the site (as well as plans of Uronarti and Shalfak Forts), and now is glad to release the ‘Diary’ so that, pending full publication of the work done on the three forts (Uronarti, Shalfak and Mirgissa), all readily available information on Mirgissa may be made public. It should, of course, be borne in mind that Mr Wheeler’s record was written from day to day during the course of excavation and represents theories and opinions of the moment which would not necessarily stand up without modification as the work progressed. Ideally such records should be digested, consolidated, and modified after the whole body of evidence has been evaluated, but this can only be done in a final and fully documented publication. In view of the urgency resulting from the imminent flooding of the site it seems best, therefore, to make this ‘Diary’ available in its original form. In using this Diary and the sketches accompanying it the reader will find it helpful to refer to the plans of Mirgissa Fort published in Kush viii (1960), pp. 19–21.

DOWS DUNHAM
Curator Emeritus of Egyptian Art
Museum of Fine Arts, Boston
KUSH

THE DIARY

SATURDAY, 14 NOVEMBER 1931

N. F. W[heeler] and Handrick arrived at Halfa 7.30 a.m. Found Hussein Nafadi and both cars ready at Halfa, Saman and the motor-boat at Abka (motor-boat not yet in running order).

 Called on the Governor (Mr Ingleson), District Commissioner (Mr Wallis), and the Medical Officer (Dr Maalouf). Made all necessary arrangements with the Post Office, Telegraph Office, etc. Called on the District Surveyor re site for our house at Mirgissa. Went in the old car to Abka and endeavoured to cross over to Mirgissa by one of the date-boats which are now unloading at Abka. After an hour or so in the boat, having made about one third of the distance, we came back. This route is obviously too long, and I propose ferrying the old car across the Nile at Halfa and investigating the possibilities of a road on the West Bank. At present we are located in the new Railway Hotel at Halfa, which is very comfortable and has all modern fittings: Gemai Rest House is of no use to us, as that route to Mirgissa is impracticable.

SUNDAY, 15 NOVEMBER 1931

8 a.m.—ferried the old car across at Halfa, went to Mirgissa and laid out the house site. The old Ford has clearly insufficient power for the sand here: for the new Ford, we should have a very good road. Exchanged positions of the two cars, putting the new on the West and the old on the East.

The workmen, now clear of Quarantine, were sent to Sarras and Mirgissa—20 to the former and 25 to the latter—by lorry in the first case and by camel in the second.

On Sundays the Imperial Airways Mail arrives from north and south, about 4 p.m., and lands some 15 or 20 people in the hotel for the night, leaving at dawn on Mondays.

MONDAY, 16 NOVEMBER 1931

Workmen arrived at Sarras and Mirgissa. Handrick went to Sarras in old car, and started demolition and loading on boats. Two date-boats were commissioned and sent previously to Sarras. N.F.W. took the District Surveyor in the new car to Mirgissa. The road here is the best found in Halfa Province so far: for a distance of some 8 miles or more a speed of 60 miles per hour is quite comfortable, and the whole journey of 12 miles takes about 25 minutes or less: the car also mounts the hill on which the house is to be built, some 25 or 30 m. above the river—and it will be possible to build the garage integral with our house.

In a preliminary inspection of the Fort several points are clear. Firstly, the area is very large, and walls extend to the north and down to the east much
farther than is indicated on Somers Clarke’s plan in the JEA for July 1916 (Vol. III, Part 3). Secondly, the outer north wall of the Fort is not visibly continuous as shown on his plan, and it might well have a gateway or even a northward-projecting wing immediately east of the thick wall running north from it. Thirdly, on the Outer South Wall, the only position possible for an opening is at the western extremity—at which point we propose digging first; in the Inner South Wall, there is a possible opening about the centre of the Wall. Fourthly, though Somers Clarke has only a temple in the north-west angle (marked ‘A’), there are clear indications of sandstone walls, covering a larger area than ‘A’ in the north-east angle of the Fort.

It appears possible that the wall running northwards from the Outer North Wall continues for at least 200 m.—perhaps more—along the ridge on which our house site is. There are also signs of a rubble-faced glacis (as at Semna West) outside the Fort; north of the Outer North Wall, and west of the Outer West Wall.

The rock shows on the surface in one or two places, but in the south-east angle of the Fort there appears to be deep debris, and also at the position of the Outer North Wall. The brick-work presents some interesting features, and must form the subject of a separate record later by photographs and scale elevations.

I propose building the dark-room, and a room for the house-boys, immediately east of our house—below a rock-cliff which will form the west wall of both these rooms. The garage will be on the north wall of our house. The workmen will be below the Fort, on the small sandy plain which lies between it and the river—to the south-east of the Fort and well clear of possible river-stairs, etc. (signs of which are visible).

Monday, 17 November 1931

Handrick went to Sarras. By noon the boats had left with all the gear, and the men returned to Abka by lorry and crossed to Mirgissa. N.F.W. went to Mirgissa, laid out road-marks, and started building. Fig. 1 is a rough plan of the lay-out at Mirgissa.
KUSH

Fig. 2 is the house plan.

Wednesday, 18 November 1931


![House Plan Diagram](image)

Fig. 2

Thursday, Friday, Saturday, Sunday, 19–22 November 1931

Building.

Monday, 23 November 1931

N.F.W. and Handrick to Mirgissa, 8 a.m. All walls up to door and window height, all doors and windows placed. About 9.15 we proceeded by motor-boat, with Hussein, Saman, and Mursi, to Dabenarti. The route is quite clear, but at Dabenarti there is a cataract some 100 m. north of the landing place.

Dabenarti Fort is very much denuded, and the whole area within appeared to be down to rock. We found no more than 4 potsherds in the whole area of the Fort. It certainly looks as though the area never contained interior buildings,
DIARY OF THE EXCAVATION OF MIRGISSA FORT

and was only an emergency defence area into which troops from Mirgissa could be put temporarily when the need arose.

On returning towards the motor-boat, we saw it well out from the landing-place, and drifting rapidly down stream with Hussein in it. He appears to have been moving the boat along the bank of Dabenarti without having the engine running, with Saman on shore, and got adrift somehow just before we appeared. He tried to get the engine going, but we could not hear whether he succeeded; he managed to get the boat round, meaning to go through the cataract head-on—but before the boat was much more than broadside-on to the stream he was in the cataract. The boat went down at once, and Hussein jumped or was thrown clear—as we saw him once swimming—below the cataract. After that he was not seen, and the local men say that he must inevitably have gone into a second cataract, which is only about 150 m. below the first. When last seen in the boat, Hussein had got his coat off, and was at the tiller trying to hit the rapids bows-on.

After some difficulty, we got into communication with Mirgissa by calling, and within half an hour about 20 of the local men (Nas Koki) had come to us on Dabenarti—having swum the rapids from the north on goat-skins. They had searched the shores of the islands for some couple of miles north of Dabenarti but had found nothing. Some small fragments of the woodwork from the boat were seen in the stream and, later, a part of the wooden gunwhale was retrieved and brought to us at Mirgissa. The boat, being iron, is not likely to be seen again, unless low-water uncovers it.

We eventually got a boat from Abka, by sending a messenger about 4 or 5 miles south on the west bank, and returned to Mirgissa. Leaving the locals to search, we got all our men but two or three to continuing building. All the necessary reports were made in Halfa when we returned.

TUESDAY, 24 NOVEMBER 1931

N.F.W. and Handrick at Mirgissa on building operations. Examined site of Buhen Fort and South Buhen Town, both of which cover a large area. Buhen Fort is only partly excavated, and there would appear from McIver’s Buhen that there remains much to be done. South Buhen is untouched and covers a very considerable area—the length being somewhere about ½ mile, or more.

WEDNESDAY AND THURSDAY, 25-6 NOVEMBER 1931

Building house.

FRIDAY, 27 NOVEMBER 1931

Building house. At 5 p.m. the Sheikh of the Nas Koki reported to me in Halfa the finding of Hussein’s body some 4 or 5 miles north of Dabenarti. As
the spot was not reachable by other than amphibians—such as these locals appear to be—he was properly buried there. Our men are unanimous in their appreciation of the way these locals have helped in the whole affair.

**SATURDAY, 28 NOVEMBER 1931**

Two rooms finished in house, and the workroom almost ready for roof.

**SUNDAY AND MONDAY, 29–30 NOVEMBER 1931**

Putting in the floors of rooms in house, and plastering walls inside.

**TUESDAY, 1 DECEMBER 1931**

N.F.W. and Handrick moved to Mirgissa. Completed house except extra bedroom, verandah, garage and W.C.

All the workmen occupied building dark-room.

**WEDNESDAY, 2 DECEMBER 1931**

Unpacking office material, etc., and getting house in order. Men given a day off—their first since starting work. Taking preliminary photographs of Outer South Wall of Fort, preparatory to commencing excavations tomorrow.

**THURSDAY, 3 DECEMBER 1931**

**1st Day of Work**

**Work on:** 1. Outer West Wall. **Locals:** 27 **Time:** 6.0–4.30.

2. Building. **Weather:** Fine. **Temp.:** 76° at 3 p.m.

1. **Outer West Wall.** Examining the ground about 20 m. south of the southern extremity of this wall, in order to dump on it. The ground consists here of 1 m. of wind-blown sand, deposited in five horizontal layers, some of red sand and some of grey; below which is hard decayed rock dust. Outer West Wall is entirely covered with drift-sand and surface stones, except for the northern end. This wall has taken the full force of wind and sand, and has protected the Inner West Wall to such an extent that the latter is standing to a good height throughout its length.

Fig. 3 shows a rough dimensioned plan of the Fort, with the allocated names for the various parts.

Uncovered the south-west corner of Outer West Wall. The debris south of this consists of about 2 m. of mixed drift-sand and fallen mud-bricks; sometimes in clear layers, and at others completely mixed.

The debris here, and the present profile of Outer West Wall, as also that of Outer South Wall, reveal clearly the process of disintegration of the walls. In plan view, Outer West Wall is shown in Fig. 4.

In three places a modern ‘snake’ of drift sand, clean and red, has been deposited to leeward of the wall by the prevailing northerly winds. The
KUSH

widened portions of Outer West Wall are the only remaining surface indications of the bastions.

In section the Outer West Wall is shown in FIG. 5.

![Fig. 5](image)

On the surface of the deposited drift-sand is a thin layer of small stones, from 1 cm. to 3 or 4 cm. in size, and potsherds. Under this is a mixture of drift-sand and disintegrated mud from the bricks. The small stones on the surface extend only a few metres to windward of each wall, but considerably more to leeward—as they can be wind-borne. They represent the original content of the mud-bricks of the wall, and of the intervening plaster. The latter, in surviving brickwork, has a very large content of small stone chips, and the bricks have a fair content of the same with potsherds in addition.

![Fig. 6](image)

The process appears to have been as follows:

I. Weather caused mud-bricks to fall, or to ‘run’ with rain, more to leeward than to windward. When these fell on hard ground, they disintegrated rapidly, the mud forming a wind-borne dust which was mostly dissipated in this way, leaving the stone-chips and potsherds. Drift-sand fell from time to time in small quantities, and the chips ‘floated’ to the surface. This resulted in the present condition of Outer South Wall, the profile of which is now as shown in FIG. 6.
II. When, however, the first falling of bricks was on to ground already sand-silted the process was different. The first bricks fell on sand and were more or less rapidly buried, before they could disintegrate much; so that a mixture of drift-sand and large parts of brick resulted. Occasionally a heavy fall, either of bricks by habub, or of mud by rain, made a distinct 'layer' in the drift-sand; but this also was rapidly covered, and for the most part the brick-fall was irregular. We have the present conditions at the south end of Outer West Wall to show for this, where the profile is as shown in FIG. 7.

![Diagram showing layers and materials](image)

**FIG. 7**

**FRIDAY, 4 DECEMBER 1931**

*2nd Day of Work*

**Work on:** 1. Outer West Wall. **Locals:** 28, plus **Time:** 6.30-4.45.

2 camels and 2 donkeys.

2. Building. **Weather:** Fine. **Temp.:** 76° at 3 p.m.

1. *Outer West Wall.* Clearing debris at south-west corner of this wall. Uncovered a mud floor, about 3 to 4 m. below the present top of the wall. This floor goes westwards and southwards; possibly this is the floor of the 'ditch' between Outer West Wall and West Glacis. I do not propose going farther west here, now that the south-west corner of the wall is visible. The south end of Outer West Wall is now uncovered, and is being cleared eastwards to reach the Outer South Gate—clearing the floor southwards from the wall for a distance of 2 m. only. The debris here of drift-sand, sand and bricks, sand and mud, is about 2.5 m. deep. The south end of the wall appears to be in line with the south face of Outer South Wall—which was to be expected.

*Levels.* A base for levels has been made on one of the stones of the stone-lined room in the north-west corner of the Inner Fort—on Somers Clarke's plan—and this point is 35 m. above present water level and 32 m. above modern H.W.L. of the Nile.

It would appear possible that ancient H.W.L. came over the present river bank, and to within a short distance of the foot of the Fort cliff. There is mud in the sand here which could not have arrived by other means, and the foundations (rubble) of the Dabenarti walls are clearly water-worn to a height of about 5 m. above modern H.W.L.
KUSH

I also observed at various points on the Shellal–Halfa reach, particularly at and near Kasr Ibrim, that the rock cliffs are distinctly water-worn to a height of 5 to 6 m. above modern H.W.L.; and this was very distinct for a distance of some miles. Also, the Seti (?) Stele on the cliffs just south of Kasr Ibrim—which was most probably done with the assistance of a boat—is 5 m. above modern H.W.L., meaning a river level there of not more than about 4 m. above modern H.W.L. The lowest worked remains hereabouts are the rock-cut funerary chapels at the south end of the Kasr Ibrim cliffs, which are 3 m. above modern H.W.L. By whatever amount the Assuan Dam has raised the modern H.W.L., this must be added to these heights at Kasr Ibrim to give the height of xixth Dynasty H.W.L. above modern H.W.L.

Taking into consideration that the xiiith Dynasty H.W.L. at Semna varied in a period of 40 years between 7 and 9 m. above modern H.W.L., that the cultivation level (trees) at Uronarti is 7 m. above modern H.W.L. (the River Tunnel extends 7 more m. above this), and that the cultivation level (trees) at Shalfak is about 6 m. above modern H.W.L. (about which level there is stone construction on the River Stairs, but no mud)—there seems to be a conclusion to be drawn.

That the xiiith Dynasty H.W.L. at the Semna East records—which are not strictly above the cataract, but about half-way through it—was about 8 m. above modern H.W.L. is certain; but that the H.W.L. below the cataract was much the same as today seems far less certain. Apart from the fact that a 24-foot head of water in the Semna Cataract would, hydraulically, require the complete blocking of at least 80 per cent of the modern high-water cross-section of the river—which is scarcely possible—there seems some evidence for the H.W.L. of the whole river having been 8 m. or so higher than today. The evidence of the lower ends of River Stairs at various places merely signifies a L.W.L. about 2 m. above present L.W.L., but does not concern H.W.L.; and the cessation of records at Semna after the xiiith Dynasty may well have been due to one of many reasons.

I would suggest as a possible solution that the general erosion of the river bed in 4,000 years might well be 4.5 m., and that a rise and fall of the river of 5 more m. in the xiiith Dynasty than today, would account for all the known facts—including the lower foundation level of the xixth Dynasty temples (Sebua, Abu Simbel, etc.). The approximate heights of H.W. above the modern level would then be (at Semna):

<table>
<thead>
<tr>
<th>Dynasty</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>xiiith</td>
<td>8.0 m.</td>
</tr>
<tr>
<td>xviiiith</td>
<td>7.0</td>
</tr>
<tr>
<td>xxth</td>
<td>6.40</td>
</tr>
<tr>
<td>xxvith Dynasty</td>
<td>5.20 m.</td>
</tr>
<tr>
<td>Roman</td>
<td>4.0</td>
</tr>
<tr>
<td>Modern</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The river Stair at Mirgissa, when found, should be very interesting in this connection.

2. **Building.** The dark-room is now finished, and the house-boys' room half finished. The garage has been begun.
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Saturday, 5 December 1931
3rd Day of Work

4. Building.

1. **Outer West Wall.** Uncovered south-west corner of wall, and mud floor extending westwards therefrom. Working from west to east along south end of Wall. Debris as before—depth 3.50 m.

2. **Outer South Wall.** Uncovered south face of Wall, which has buttresses against it, extending westwards under the drift-sand between the two areas of digging. Whether these extend to the western end of wall or not is not yet certain; and therefore the position of Outer South Gate, if any, is not certain.

![Diagram of Outer West and South Walls](image)

**Fig. 5**

3. **South Glacis.** At a distance of about 23 m. south of Outer South Wall, and parallel thereto, uncovered a mud-brick wall which is now called South Glacis. This appears to be the first mud-brick wall in any of these forts of which the top is still preserved. It is a low wall about 1.30 m. high, sloping on the south face, vertical on the north, and more or less a sharp edge on top. On the south side the surface drift-sand is 10 cm. deep, on small rubble debris; on the north, 50 cm. of sand on rubble.

At a distance of 11.50 m. south of South Glacis, and parallel thereto, uncovered a mud-brick wall—the details of which are not yet visible.

Clearing debris of drift-sand and mud-brick between Outer South Wall and the last-mentioned wall, working from east to west to meet the work on the south end of Outer West Wall (see Fig. 8).

4. **Building.** Dark-room finished. House-boys’ room nearly finished. Garage up about 1 m. Verandah pillars up about 1 m.
KUSH

Found in surface debris, on surface off north-east corner of Fort, a scarab from which most of the glaze is worn off the soft white stone (see FIG. 9).

Found on surface inside Inner Fort a base fragment of thin alabaster jar, flat-bottomed.

A SCARAB
FROM N.E. CORNER
OF FORT

FIG. 9

SUNDAY, 6 DECEMBER 1931
Weather: Windy. Temp.: 71° at 3 p.m.

MONDAY, 7 DECEMBER 1931
4. Building.

Day of Rest
4th Day of Work
Times: 6.30–5.0.
Temp.: 72° at 3 p.m.

1. Outer West Wall. Clearing debris of drift-sand at south end of Wall, 3.30 m. down.

2. Outer South Wall. Clearing debris of drift-sand between Outer South Wall and South Glacis. It is clear from the section of this area, as the sand is removed, that there is a ditch between these two walls, hereinafter called South Ditch. The section is as shown in FIG. 10.
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The Outer South Gate—if any—will require to have had a bridge. Depth of drift-sand already removed from South Ditch 2 m.

3. South Glacis. The North face of this is now seen to descend vertically to the gebel—which consists of hard rubble chips. This gebel is cut to form a downward continuation of the north face of the wall, but stepping down to the north. On the south face of South Glacis the gebel is at its original level.

4. Building. Garage, W.C. built nearly to full height; house-boys' room finished; commenced remainder of house and verandah.

TUESDAY, 8 DECEMBER 1931


1. South Ditch. Clearing drift-sand from ditch, between Outer South Wall and South Glacis. Depth removed 3.70 m.


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WEDNESDAY, 9 DECEMBER 1931


1. South Ditch. Clearing eastwards and westwards on upper layers of drift-sand as the cut is too deep to take in one lift. Examined the outer face of Outer South Wall, which is more or less as shown in FIG. 11.

The measurement A–B is 39 m., whereas C–D is only 33 m., showing the two ends of Outer South Wall to be unequal. The other sections have regularly repeated measurements.


THURSDAY, 10 DECEMBER 1931


2. Inner South Wall. Weather: Hot. Temp.: 75° at 3:30 p.m.

3. Building.

4. Fort Gateways.
KUSH


2. Inner South Wall. Investigated line of Inner South Wall to establish the locality of Inner South Gate. The position of this gate was found to be, as expected in the visible break in Inner South Wall, but from its position in the buttresses on the south face of this wall it would appear to be an afterthought not allowed for in the original plan of the Fort. This, however, may not be so, as the width between the two buttresses forming the south end of this door is less than the regular opening by \( \frac{1}{2} \text{ m.} \) (see FIG. 12).


4. Fort Gateways. Inner South Gate is included above under ‘Inner South Wall’. In the account of Mirgissa in *JEAO*, III, pt. 3, July 1916, the Inner South Gate was not located and hence the significance of the rock-cutting in the Inner fort was missed. It is the Main Street of the Fort where its line passes through a high knoll of rock. The account correctly located Inner North Gate, which is exactly in a line with the rock-cutting and Inner South Gate—which line is an even 22 m. from the inner face of Inner West Wall throughout its length. Inner North Gate was called a ‘narrow way’, but it is of the usual door-width, identical with Inner South Gate. The inside wall of the Wall Street does not cross the doorway as stated, but is as shown in FIG. 13. The door-posts remain as a dark black section of dust in the debris. They are of square section, about 30 cm. square.

With regard to Outer North Gate, the *JEAO* article is nearer the truth than the writers knew in placing this gate as ‘through the north wall protected by
Fig. 13

INNER WEST WALL

INNER N. WALL

INNER N. GATE [WITH DOOR POSTS]

MAIN STREET

INNER FORT

OUTER FORT NORTH

Fig. 14

OUTER W. WALL

OUTER N. GATE

OUTER N. WALL

NORTH GLACIS
the very massive bastion'. Actually the bastion referred to is the Outer North Gate and is not one thick wall, but the usual gateway as in the other forts. I called this earlier on 'North Wing' — for which now substitute 'Outer North Gate' (see FIG. 14).

The North Wing runs from outside Outer North Gate, in a north-east direction, for 150 or 200 m.

There now only remains Outer South Gate to locate or prove non-existent; and the River Stair to locate.

Friday, 11 December 1931

8th Day of Work


1. South Ditch. In clearing eastwards from west end of Outer South Wall, the entrance of Outer South Gate has been uncovered between the east face of Outer West Wall and the first buttress in the south face of Outer South Wall (see FIG. 15). Clearing drift-sand from Ditch.

![SOUTH DITCH](image)

FIG. 15

The pressure of this gate where it is accounts for the irregularity found in the measurements of Outer South Wall (see p. 99), for which reason it was expected where found.


Saturday, 12 December 1931

9th Day of Work

3. Building.

1. South Ditch. Clearing debris of mixed drift-sand and fallen mud-brickwork from the south face of Outer South Wall — to a depth of about 1.70 m. The lower level will be cleared later.

2. Khor east of East Wall. Outside the East Wall of Fort, just south of North-east Wing, is a steep gulley running down to the sandy shelf which forms the river bank. Clearing debris of drift-sand from this gulley, from one side to the other (north to south) so as to ascertain whether any River Stair or other
DIARY OF THE EXCAVATION OF MIRGISSA FORT

construction exists here. The drift-sand has a few potsherds in it and seems to have been deposited on the bare rock to a depth of about 1.50 m. Found in debris: base of sandstone jar. This area, if clear, will be used for dumping debris from within the Fort.


SUNDAY, 13 DECEMBER 1931

Weather: Hot. Temp.: 84° at 1 p.m.

N.F.W. investigated the reports of inscriptions on rocks to the north of Mirgissa, and took the opportunity of examining the whole ground for some 3 miles north of the Fort, which presents some interesting features.

The higher ground of the western desert approaches, at Mirgissa, to within 100 m. of the Nile; while to the northward its distance therefrom increases until, at 3 miles north, it is some ¼ mile from the river. The low land above the Nile bank is more or less a flat plain, with shallow Wadis crossing it from west to east, and consists almost entirely of soft sand. There are, however, two places where the nature differs from the normal.

![Diagram](image)

At a distance of about ¼ mile north of the Fort there is a tongue of hard ground running from the desert slopes on the west down almost to the river on the east. This is almost entirely occupied by what may be a denuded cemetery. The ground is covered with scattered stones, scattered bones, fragments of leather, etc. The bones are almost entirely disintegrated, but seem to be mostly animal: one jaw of horse or camel was found, and also a human jaw and other human bones. This appears as though it might be quite modern, but there is really no surface evidence to decide.

At a distance of 2 miles north of Mirgissa a long, very shallow wadi runs down to the Nile; and a line of black 'cataract' rock runs up from the river on the south side of this depression. These rocks become lower as they proceed westwards until they disappear beneath the sand about ¼ mile from the river. These rocks are very clearly water-worn to their western limit, and are at that point 6 m. odd above modern H.W.L. of the Nile.

The wind- and sand-worn rocks are easily distinguished here, as the formation is almost invariably as shown in Fig. 16.
KUSH

The water-worn rocks, however—such as the black rocks referred to above—present quite a different appearance (see FIG. 17).

There is no rock-debris between rock and drift-sand. These rocks are well-rounded by water on their southern faces, and the north face (direction of wind) is scarcely weathered at all.

![Fig. 17](image)

The ground north of the above-mentioned shallow wadi is composed of about 2 cm. thickness of drift-sand under which is a good depth of river-sand. In places the Nile-mud beneath appears as an outcrop, and in one place there is clearly visible a series of 12 levels of river-deposited mud. The surface here (from 2 1/2 to 3 miles north of Mirgissa) is crossed with thousands of 'cowrie' shells, and a few larger shells—level approximately 6 m. above modern H.W.L.

![Fig. 18](image)

Immediately above this level, at this spot, is what appears to be a small cemetery; and above this cemetery on the west rises a high mass of weatherworn sandstone. On the south face of this sandstone hill are the following inscriptions—very crudely incised in broad and irregular strokes, and weathered almost beyond hope of interpretation.

**No. 1 (FIG. 18).** About 3 miles north of Mirgissa, 1/2 mile from river, 2 m. west of No. 2, face south.

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DIARY OF THE EXCAVATION OF MIRGISSA FORT

No. 2 (FIG. 19). 2 m. east of No. 1, face south, very indistinct.

No. 3 (FIG. 20). 4 m. west of No. 1, face south.

At a distance of about 2 miles north of Mirgissa, on one of the black rocks, by the river bank and about 4 or 5 m. above modern H.W.L., are the following inscriptions—which appear to be at least as late as New Kingdom:

No. 4 (FIG. 21). Incised on igneous black rock, face east, about 20 m. west of river bank. 1 m. north of No. 5.
KUSH

No. 5 (FIG. 22). 1 m. south of No. 4, face east.

These inscriptions are all numbered in paint on the rock, and photographs and levels will follow.

Within 30 m. of Nos. 4 and 5 are several blocks of sandstone in the ground, which may be part of a building. (For Plan see FIG. 23).
DIARY OF THE EXCAVATION OF MIRGISSA FORT

MONDAY, 14 DECEMBER 1931

10th Day of Work

3. Building.

1. South Ditch. Clearing drift-sand south of Outer South Wall at west end.
2. Khor east of Fort. Clearing drift-sand across khor, to rock-level. Com- menced to clear the outer face of buttresses of East Wall, to see if they are continuous over this section, and to uncover them for survey.

Sent Mohammedani to photograph rock inscriptions 3 miles north of Mirgissa.

TUESDAY, 15 DECEMBER 1931

11th Day of Work

3. Building.

2. East Wall. Cleared a line across the khor east of this wall, and found no trace of a stairway. Commenced clearing the outer face of East Wall and its buttresses. Uncovered four buttresses—the space between nos. vi and vii being broken through the East Wall. This is a possible but very improbable River Stair entrance. Clearing south and north from this point.
3. Building. Finished third bedroom; completing verandah and mastabas for objects and photography.

WEDNESDAY, 16 DECEMBER 1931

12th Day of Work

3. Building.

1. East Wall. Uncovered, along the outer face of East Wall, eight buttresses; up to (on the north) the junction of East Wall and north-east wing there is no break in East Wall, except the small one between buttresses vi and vii which now appears less like a possible ‘River Stair’ entrance than ever. It seems to be a ‘wash-out’ by rain-water of the wall, which at this point is weather- worn almost to its foundation, and through which the bare rock obtrudes in several places. Actually the inter-buttress space between vi and vii is about 70 cm. less than in all the other such spaces in this section; but this looks like an architectural error, and the fact that this space is located at the small irregular break through East Wall is no more than a coincidence. The relative positions
and dimensions of buttresses I, II, III, IV, V, VI and VIII are correct: only buttress VII is bodily 70 cm. too far north on the wall for symmetry (see FIG. 24).

![Diagram of buttresses and wall](image)

**FIG. 24**

The buttresses on this wall have not the extra defensive 'glacis' at their feet, which are found on Outer South Wall for 'anti-scaling' defence. East Wall buttresses have the normal inclination to the vertical (set back 1 in 7 vertical rise) right down to their foundation on the rock (see FIG. 25).

![Diagram of东墙和MIRGISSA岩壁](image)

**FIG. 25**

The bonding of the brickwork in East Wall is clearly visible on the surface, abreast buttress IV, where the weathered surface is horizontal and reveals one complete course throughout the wall's thickness (see FIG. 26).
The thickness of East Wall at this point is 5.65 m., omitting the buttresses. Allowing for 1 cm. of plaster between bricks, this gives the dimensions of one brick as: 33.4 × 16.7 × 9.0 cm. Somers Clarke’s figures for Matuha bricks are: 31.0 × 16.0 × 7.0 cm., which would give a ‘cement’ thickness of 3.1 cm. in each joint—which is much too much. It seems likely that the bricks he measured may have all been somewhat worn, and that the true dimensions are about: 33 × 16.5 × 8.0 cm., which are practically what we found at Shalfak (33 × 16.0 × 11.0). (It is possible, of course, that the bricks are not uniform throughout the whole Fort.) The placing of the courses will be considered when Inner West Wall is recorded, as here the courses are continuous throughout the length of the wall, and to a fair height.

2. South Ditch. Clearing drift-sand from South Ditch, to about 1.30 m. below surface.


THURSDAY, 17 DECEMBER 1931

13th Day of Work


2. East Wall. The khor outside East Wall, south from North-east Wing, is now practically cleared—including the south face of North-east Wing.

A small wall runs from north to south, a few metres east of and parallel to East Wall. Except for breaks, it appears to be continuous. The south face of North-east Wing has no buttresses, and the buttresses of East Wall itself are of the ‘secondary defence’ type—i.e. without the extra anti-scaling glacis at their feet. This implies, as one would expect, that no great danger of attack from the east existed. An enemy could not cross the Nile at this point, nor for 4 miles south, nor 5 miles north; and in any case there was Dabenarti due east. Any force descending the Nile from the south could, it is true, come right to a landing abreast of the fort; but they would be visible for miles upstream, and would land themselves in a position from which extrication would be difficult. They would be right between Dabenarti and Mirgissa: the river would serve them no good—merely carry them into the cataracts.

In the khor referred to above, a break through the main East Wall was mentioned. Outside this narrow and irregular break there are many rough slabs of stone, apparently laid as a paving to a path descending eastwards. This can hardly be the main River Stair, but is certainly a way down of some sort. From the design of the Main Wall, buttresses, and small parallel wall extending south and north of this break, and from the fact that many of the stone slabs are of sandstone (one of them an obvious column-base), I would suggest that
KUSH

this path is of late date when the stonework inside the Fort had already fallen somewhat, but not of very recent date since the slabs are more or less on rock beneath a good deal of drift-sand (see FIG. 27).

The finding of this path makes it necessary to clear the outer face of East Wall farther south, in order to dump from inside the Fort elsewhere than over the path. It does not seem to be the best time to continue clearing the path eastwards down the khor, as there is a mass of drift-sand and we might well find ourselves having to continue to the river bank—a very long job.

Found in debris of North-east Wing: flint knife, eight small mud discs, mud figures.

FRIDAY, 18 DECEMBER 1931


2. *East Wall.* Completed the clearing of the outer face of East Wall, from North-east Wing on the north to about half-way to South-east Wing on the south. Buttresses nos. 1 to xiv uncovered, some of them worn down to rock. This area is now ready for photographs and dumping. Cleared the south face of North-east Wing to its eastern end, on which face there are no buttresses.

**Saturday, 19 December 1931**

15th Day of Work

Locals: 51.  
Times: 6.30–5.0.  
Weather: Fine.  
Temp.: 69° at 3.20 p.m.

2. East Wall.

1. *South Ditch.* Clearing drift-sand debris outside Outer South Gate.

2. *East Wall.* Photographed and surveyed area, in order to use it for dumping from the Inner Fort.

**Sunday, 20 December 1931**

Day of Rest

Weather: Fine.  
Temp.: 73° at 3.30 p.m.

N.F.W. went to inspect the island of ‘Teyt’, 3 miles north of Mirgissa, where a cemetery of Graeco-Roman date was located. Many fragments of painted pottery were found. On a rock near this cemetery is a rock drawing of cattle, of the usual type found at Semna and Sarras. The island of ‘Teyt’ is shown on Somers Clarke’s plan, but not named. The rock mass, on which the inscriptions nos. 1, 2 and 3 are, is called ‘Angarer’, and the area of inscriptions 4 and 5 ‘Matuka’,—presumably the mouth of the Wadi Matuka.

**Monday, 21 December 1931**

16th Day of Work

Locals: 48.  
Times: 6.30–5.0.  
Weather: Fine.  
Temp.: 74° at 2.30 p.m.

1. *South Ditch.* Clearing drift-sand debris from outer face of Outer South Wall and from Ditch. Level of debris is now down to just below the top of the Ditch in places, and the outer line of buttresses to the extreme west end of Outer South Wall are cleared.

*Outer South Gate.* There is no such gate. The fickleness of circumstantial evidence is well demonstrated by the absence, in spite of previous indications, of any Outer South Gate to the Fort. The presence and position of this gate were assumed for three reasons—two early and one recent:

1. The measurements of the four sections of Outer South Wall showed an increase of some 5 m. on the extreme West section.
2. All the remainder of Outer South Wall was clearly without break.
3. The opening in the outer face of the wall, when found, was uncovered inwards to beyond the line of buttresses east of it.
KUSH

No. I is evidently due to an aberration of the architect and signifies nothing more. No. II now has no significance. No. III is due to the fact that the more eastern buttresses do not now present a true record on their inner faces, being worn down below the top of the 'anti-scaling' glacis (see Fig. 28).

Continuing clearance of this end of Wall and Ditch to have a clear section and photographs of them.

Fig. 28

2. Inner Fort. Commenced the clearance of an area in the eastern half of Inner Fort, and a little north of half-way down the Fort. This area immediately adjoins that in which traces of sandstone are visible, and it is proposed to work into this latter area from the south.

The debris here is about 1 m. thick, surface of potsherds and stones and drift-sand (very thin). Immediately below the surface is black organic dust, mixed with potsherds, charcoal, straw, etc. Uncovered Rooms 1 and 2.

Room 1. A door on the east side, blocked: a wall in the centre of the room built on black debris. Found in debris: upper part of hawk-headed figure (crude) in (?)limestone, 3 sealings, flint fragments, pot sealings, potsherds, fragments of leather, faience fragments, shell, charcoal. Cleared to gebel.

Room 2. North of Room 1. Debris as in Room 1.

These rooms appear to belong to a poor quarter, as the walls are badly worn, re-built, etc.—and the walls built on debris are very irregular (see Fig. 29). Completed fireplace in house, and trailer for car.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

TUESDAY, 22 DECEMBER 1931

         2. Inner Fort. Weather: Fine. Temp.: 73° at
         Rooms 1–4. 2.30 p.m.

1. South Ditch. Down about 3.0 m., in drift-sand.

2. Inner Fort. Uncovered Rooms 3–6. Debris all the same—black dust,
potsherds, and straw fragments below surface, depth about 0.80 m.

![Diagram]

Fig. 29

Room 2. Door on east. Found in debris: copper chisel, copper ring,
fragments leather, pottery pendant, pottery beads, mud jar stoppers.
Cleared.

Room 3. Door on east into Room 4. Cleared.

Room 4. Door on north into Room 6. Cleared.

Room 5. Door on north into Room 2. Circular magazine broken into
west wall. Found in debris: flint knives, mud beads, mud pot stopper,
potsherf with incised mark and hieratic in black. Cleared.

Room 6. Found in debris: fragment of pottery offering dish, letter
seal of ḏḏw-hprw, base fragment small stone vessel, flint knives.

WEDNESDAY, 23 DECEMBER 1931

         2. Inner Fort. Weather: Fine. Temp.: 75° at 4 p.m.

2. **Inner Fort. Rooms 7–9 (see FIG. 30).**

   **Room 6.** Door on north. Walls about 50 cm. above floor. Against the north wall is what might have been a stairway, built on debris, with two stone slabs at its west end.

   **Room 7.** Door on north. East end tails off on to bare rock. Found in debris: carnelian beads, fragment of scarab, *large* stone weight, flint knife.

   **Passage 8.** Door at south end. Runs north to south. Found: small stone figure, beads, flint, limestone tally.

   **Room 9.** Small magazine at south end—east side tails off on to bare rock. A sandstone column base is in position.

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**19th Day of Work**

**Thursday, 24 December 1931**

          2. Inner Fort.

Locals:  67.  
Weather:  Wind  
Times:  6.30–5.0.  
Temp.:  73° at  
and sand.  
2.30 p.m.

1. **South Ditch.** Clearing drift-sand debris.

2. **Inner Fort. Rooms 10 and 11.**

   **Room 10.** Walls broken away on east. East of this room is a *bath* of stone slabs, similar to those at Šemna, Uronarti and Sarras, with radial paths of stone slabs sloping down to the central basin from the north, south, east and west. The bath has a deeper circular hole in the centre. Found in debris: part of stone palette, part of ‘pilgrim bottle’, mud jar stopper, flint fragment.

   **Room 11.** Door on east.

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**20th Day of Work**

**Friday, 25 December 1931**

          2. Inner Fort.  

Locals:  66.  
Weather:  Wind  
Times:  6.30–5.0.  
Temp.:  and sand.

1. **South Ditch.** The area of debris is now all below the rim of ditch, continuing down.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

2. Inner Fort. Rooms 8-12.

Room 8. Clearing remainder of this passage.

Room 11. Cleared to rock.

Passage 12. From east to west, north of rooms. The north wall of this street(?) is the first of the thick walls which we have so far encountered in this area, and should enclose a more interesting part than lies south of it.

SATURDAY, 26 DECEMBER 1931


2. Inner Fort. Weather: Fine. Temp.: 64° at 2 p.m.

wind.

1. South Ditch. Clearing drift-sand from ditch at west end.

2. Inner Fort. Rooms 9-13. In the centre of this area is a rise of rock, towards which as a centre all the walls fade away with weathering. North of this rock is an area of bathrooms, in which there are three baths of stone slabs, with a large pot as a centre piece. In baths numbers I and III, there are four approaches to each bath, of stone slabs, with a very slightly raised border to each approach of stones on edge. These approaches are at 90° with each other, slope downwards to the bath, and about 2 m. long. In the four quarters between pairs of approaches there appear to have been floors of burnt brick. The approaches are not water-ways, as the upright sides are of no height—but they would seem to be for wet bathers, or clothes-washing drainage—the burnt-brick floors being the floor of a room enclosing the bath. Baths II and III have a large spherical pot for the central depth, while I is rock cut. All these baths, approaches, and floors are on about 30 cm. of debris; and are later than the broad northern wall of this area and the Street 12 (see FIG. 31).

Street 12. East to west. Cleared. A few traces of a mud floor remain.

Area 13. Includes the baths I, II, III. Found in debris: one large jar in position north of bath III in Street 12, pottery, two fragments of seal impressions.

SUNDAY, 27 DECEMBER 1931


2. Inner West Wall.

1. Gebel Sula. N.F.W. took car 20 km. due west of Mirgissa to Gebel Sula—a prominent feature on the skyline from the Nile—over about 10 km. of practically dead flat sand. On the south-east spur of Gebel Sula (Sudan Survey, Sheet 35-1) is a fairly precipitous rock, on which is an outpost station of stone shelters. Unlike many of these hilltop stone-works this is well laid out; a line of contiguous huts fringe the top edge of the cliff, each with its door at

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the back. I brought away every potsherd which was in the place—most of them lying where first broken—and they appear to be ancient beyond doubt—not Dervish. This outpost commands a very wide view indeed in all directions but from south to west, and beyond the Nile to the east. Among the potsherds are: R.Br.W., Db: W—the former usually with a red slip inside and out. The fragments are being reconstructed as far as possible, and will be recorded in the Object Register.

2. Inner West Wall (not yet excavated).

Plan. This wall is straight, with six large buttresses on the outer face, which are clearly visible in plan view (as shown in FIG. 32) and in elevation—since they stand to a greater height than the wall itself. The buttresses are standing to a height of 5 m. or more above present ground level in Outer Fort West, whereas the wall itself is mostly to 3 m. and in two places only 1 m.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

The north and south buttresses are in the nature of corner towers, being about 8 m. wide as against 6 m. in the intermediate buttresses, and projecting inside the Fort also, as shown in FIG. 33.

![Diagram of NW Corner](image)

FIG. 33

The overall length of Inner West Wall is 184 m., and presents an excellent example of the methods of Fort-Wall construction. At the first intermediate buttress from the south end, the joint at which the buttress has been built against the outer face of the wall is clearly visible—and, being unweathered, gives a true angle for the ‘batter’ of the Wall. The batter on the outer face of Inner West Wall is a set-back of 58 cm. in a rise of 372; or 1 in 6.42. (In the Diary note on East Wall the ‘batter’ of the outer face, taken from a small piece, was given as 1 in 7.)

Courses. The attitude of bricks in courses appears to be indiscriminate, the best attitude being chosen to keep the courses level throughout. (See ‘Levels’ below.) Bricks are found showing in the Outer Face in every possible position except upright on end: they even occur for short lengths of a metre or so in a course set on one edge (see FIG. 34).

![Brick Courses](image)

FIG. 34

The courses—so far as their east to west line is visible in the North and South faces of the buttresses—are sloping down inwards, as are some of the foundation courses of the Giza Pyramids. This slope at Mirgissa is a fall of 8.9 cm. from outside inwards, in a length of 240 cm.; i.e. 1 in 27. It is not visible whether this slope continues in the wall itself, as distinct from the buttresses.

From the distribution of the change in nature of the brick material (proportion of stone chips in bricks, stone dust in plaster, etc.) it would seem that, in general, the whole of Inner West Wall was built course upon course—each course finished throughout the length of the wall before the next course was
begun (see also under ‘Levels’). This practice in the Old Kingdom mastaba casings might well be expected to have developed from mud-brick practice.

The thickness of 12-course layers does not vary throughout the whole wall by more than 3 cm.—being almost invariably an exact 130 cm. This gives the thickness of 1 brick + 1 layer of plaster as 10.82 cm., or a brick thickness of over 9 cm.

Layering. The layers of 12 courses are remarkably clear throughout the full 180-m. length of Inner West Wall, each layer being topped with a ‘halfa’-grass layer with the reeds lined through the thickness of the wall (east to west). It was noticed that these layers were visible at some distance and the reason was found to be as follows: the ends of the ‘halfa’ stalks were more sensitive to weathering than either brick or plaster, and became disintegrated well into the wall surface. This left a thin space along the wall, the shadow in which made a dark line. Although, at first it was thought that the visibility was due to a slightly thicker inter-course plaster, this was found not to be so—the plaster and ‘halfa’ being the same thickness as the plaster in other courses (see FIG. 35).

These layers are all of 12 courses, for the full length of the wall, except in one place. Here, for a length of a couple of metres in one of the buttresses, 13 courses are placed; probably to level up a course which had flattened down a bit too much.

Levels. The courses and layers of Inner West Wall were checked by Level Instrument through their full length; and several very interesting points stand out.

The lowest layer varies in height between 128 cm. at the south end of the wall, and 130 cm. at the north end; the next layer above does not vary a centimetre from 130; the next is also an exact 130 throughout; and the next is a steady 132 cm. throughout. In other words, each layer of 12 courses must have been very accurately laid to correct thickness before the ‘halfa’ ‘sandwich’ was put on and the next layer begun.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

When the corrected levels were calculated for each layer at the north and south ends of the Wall, and at intermediate points, it was found that every layer dropped 110 cm. in this length of 184 m. from the south to the north end. This drop was uniform throughout the length, so that sighting along any layer, it was absolutely level-surfaced for 184 m., but that level was not arrived at by any form of liquid 'level'. The sighting line, referred to above, cut the southern horizon exactly: projected northwards it fell several degrees below the northern horizon. (The southern horizon is formed by a flat line of hills, about 3 or 4 miles away, and of greater height than Mirgissa.)

It seems quite possible that the southern horizon was used by the builders as a sighting line for their levels, and that, from the point of view of the surveyor in charge, the building of Inner West Wall, course by course, proceeded from north to south. The aforesaid supervisor would probably take his station daily at the North-West Corner. If this was the method, then one has to assume that the Outer Wall of the Fort (south) was not in place, or was rising in consonance with the Inner Wall, otherwise the horizon would not have been visible. But it is scarcely probable, in any case, that the Outer Wall building preceded the inner.

If the layers of Outer West Wall, and the west end of Outer South Wall, are as clearly visible when excavated, it should be possible to say whether their construction was simultaneous with or subsequent to that of the Inner Wall. 
Timbering, etc. (To follow later.)

MONDAY, 28 DECEMBER 1931

2. Inner Fort. 
3. Inner West Wall.

Weather: Fine. Temp.: 62° at 2 p.m.

1. South Ditch. Clearing the last metre or so of drift-sand from the ditch. The section, so far as visible at present, is as shown in FIG. 36.
KUSH

The inner face of the mud-brick wall of South Glacis was plastered with mud containing a very high percentage of rock chippings—so that its face looked much like the rock surface, and was hard. The faces of the rock-cut ditch itself are, in two places, filled in with rock fragments—presumably to smooth off a break in the rock.

2. Inner Fort, Rooms 14–19 (see Fig. 37).

The rock level over this area dips sharply to the east and, whereas the bare rock shows in Room 14 and the walls between 14 and 7 are completely denuded, under Rooms 16, 17, 18 and Wall Street the rock is more than a metre below the surface. The Rooms 16–18, however, are denuded to below their floor levels, and the floor of East Wall Street is also gone. All these walls, with the exception only of East Wall itself, rest on rock at their western ends and on clean drift-sand filling at their eastern ends.

Fig. 37

The inner (west) face of East Wall, on removing the drift-sand, appears as new as when first built. It is not plastered, and the hand-marks made in smoothing the mud ‘cement’ between the courses are clearly visible. Here the builders have gone down to rock for the foundation of the Fort Wall, but have then filled in the depression in the rock (which becomes eventually a khor outside the Fort) with clean drift-sand. On this sand they have built their subsidiary walls—street and room walls, etc. In one place—the North Wall of Room 19—the foundation course of bricks had been laid on the drift-sand (see Fig. 38).

Fig. 38

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When cleared to the foundations, this area of East Wall will give an accurate figure for the 'batter' on the inside of the Fort walls; and show whether or not it is 1 in 7 as on the outer face.

The debris of Rooms 14–19 is the usual black dust, mud, etc., down to the floors, where these latter remain, and below the floor level—drift-sand down to rock.

**Room 14.** West and north ends denuded to rock.

**Room 15.** Contains magazine (cellar?), door on east to Room 16. One pot in position in magazine. Found: black stone palette, bowl, flint.

**Room 16.** Contains a small magazine. The east and west walls are double, but whether of different dates or merely as foundations is not clear—as the room is denuded below floor level. Door on west to Room 15. Found: bowl, stone pot lid(?), mud stopper.

**Room 17.** Denuded below floor level, drift-sand below.

**Room 18.** Denuded below floor level, drift-sand below.

3. **Inner West Wall. Timbering** (see fig. 39). The distribution of timber in the construction of this wall is more regular and systematic than in any of the Forts previously excavated. In the total length of the outer face of the Wall as at present standing there are 69 log ends in one brick course—this being the course which remains almost unbroken throughout the 184 m. of the Wall's length. The average distance horizontally between logs is therefore about 2.7 m., and the distance seems to vary only between about 2 m. and 3.5 m.

Every log in the face of the Wall (with five exceptions) is laid directly on the ‘halfa’-grass layer. The five exceptions are all in buttresses (three in the southern buttress, and two in the fourth buttress north), and are in from three to five brick courses above the ‘halfa’. This would seem to be due to the fact that much longer logs were required in these positions, and that the builders probably had difficulty in getting logs of sufficient length to be also straight. When laid on the ‘halfa’ layer, one end or the other would be of necessity up in the air, and would eventually show some brick-courses above its true level. The lengths of logs required would be, theoretically:—7 1/4 m. at the base of the wall in buttresses, 5 1/4 m. at the base of the wall between buttresses. At a height of 7 m. above the wall-base, these figures would be 5 1/8 and 3 3/8 m. respectively.
KUSH

The majority of the logs are between 15 and 20 cm. in diameter, but they run as much as 28 cm. diameter; and as small as 10 cm. All are whole tree-trunks, with the bark still in place, and all run lengthwise through the wall’s thickness.

Ventilators. This heading covers one of the most interesting discoveries, if not the most interesting, connected with the construction of Mirgissa Fort. Nothing of the kind was observed in any of the other forts—Semna, Uronarti or Shelfak—and no previous mention of the practice in Egyptian architecture is known to me at the moment—though it may well exist.

The modern practice of ‘ventilating’ the walls was very systematically carried out in the Inner West Wall and, so far as examination has gone, also in the north and south walls.

In constructing the wall airways were left open through its full thickness, from Outer Fort to Inner Fort, intersecting in their passage other airways running lengthwise through the whole 180 m. of the wall. In the present remaining height of this wall there are three layers of these ventilators, each layer being a complete, intercommunicating system.

The ventilators were observed some time ago, and thought to be for the purpose of giving a little air to the inhabitants of the fort streets and rooms—but they were seen to be in the same three brick-courses throughout the whole length of the wall. The reason for this was not at first apparent—but when the ventilators were found in the end buttresses, where they could not possibly open through into the Inner Fort but only lengthwise into the north and south walls, a further explanation was sought and found. The system is shown in FIG. 40.

Owing to the unequal weathering of different parts of the wall, the series of ventilators sketched above is by no means complete.

The air passages are nearly all of one brick-course in width and two brick-courses in height; but there are others of one brick in height and width, and a very few of three bricks in height. These latter are probably broken away, and were originally as the remainder.

The 1 x 1 holes are all in the sixth brick-course above Level A. 23 holes are 2 x 1; 12 holes are 1 x 1; and 4 holes are doubtful.

All the existing orifices will be included in the Fort plan, when this area is excavated and surveyed.

Tuesday, 29 December 1931

23rd Day of Work


2. Inner Fort. Weather: Fine. Temp.: 64° at 2 p.m.

1. South Ditch. Reached the bottom of the ditch for the first time. The section is shown in FIG. 41.
SERIES I ALL IN 5TH & 6TH BRICK COURSE ABOVE LEVEL A.

SERIES II ALL IN 2ND & 3RD BRICK COURSE ABOVE LEVEL B

SERIES III ALL IN 9TH & 10TH BRICK COURSE ABOVE LEVEL C

HALFA' Layer LEVEL C
HALFA' Layer LEVEL A
HALFA' Layer LEVEL B

SECTION SHOWING LEVELS A, B & C
REFERRED TO ABOVE

FIG. 40

ORIGINAL LEVEL OF DRIFT SAND AT W. END

SOUTH GLACIS

ROCK CUT

FIG. 41

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KUSH


Room 20. West of 19. Cleared to sand foundation.


Room 22. North of 20. A large room, with two sandstone column-bases in position, and a large square slab of sandstone set in the floor. Cleared to mud-brick floor, below which is a floor of mud, and below that is sand.


Wednesday, 30 December 1931

24th Day of Work

2. Inner Fort. Weather: Fine. Temp.: 70° at 1.30 p.m.


2. Inner Fort. Rooms 19–27 (see fig. 42).

In this area a larger room, 22, was uncovered with three sandstone column bases, and a square slab of sandstone in the floor. Room 27 is another bathroom, and has remains of a stone paved floor, sloping down towards the large pot which forms the bath. At the east end of Passage 12 is a large drain channel of sandstone blocks coming through a large wall and running down to the east. Before reaching East Wall the rock surface is bared and the drain broken away, but it clearly made its exit through the break in East Wall into the khor in which stone slabs were found. This break is now clearly a drainage exit, and not a River Stair.

Passage 12. Cleared to mud floor and rock.

Room 15. Removed pot in position.

Room 24. Cleared to gebel.

Room 25. Cleared to drift-sand.

Room 26. Small water-channel of sandstone, running from west to east; door on north.

Room 27. Another bathroom.

Room 28. Clearing.

Found in surface debris, and on surface, of West Wall Street (north end) three fragments of inscribed weather-worn stones from temple, and one complete jar.
KUSH

Thursday, 31 December 1931

25th Day of Work

2. Inner Fort. Weather: Fine. Temp.: 70° at 2 p.m.


2. Inner Fort. Rooms 19, 28-30. East Wall Street. The ‘batter’ of the inner face of East Wall, measured abreast Room 21, is 1 in 6.57; that of the outer face being 1 in 7. That is to say, the thickness of East Wall (which is 6.5 m. at the foundations abreast Room 19), decreases by 2 m. in every 6.5-m. height. If a limit of narrowness of 2 m. is assumed for the top of the wall—the height of the wall did not exceed 14 m. above foundations at this point, it would have had a 4-m. thickness at 7 m. up, and a 3-m. thickness at 10 m. up.

Room 28. Found in debris: pottery discs, mud sealing, mud stamping. Cleared to floor of mud, on sand. (See Fig. 42.)

Room 29. This is the first of the thick-walled rooms, north of the 1 to 11 group of rooms. Two doors—one west, one north.

Clearing debris of drift-sand, mud, potsherds, etc., to mud floor.

Street 30. Immediately south of Room 29, running east to west. Closed by small wall.

Friday, 1 January 1932

26th Day of Work


2. Inner Fort. Rooms 29 and 30.

Room 29. Large room with thick walls, well-built, and standing to a height of about 1 m. Three doors, on east, west and north. Sandstone column base in centre of floor, and another stone base near the north wall. Cleared to floor.

Street 30. South of Room 29, running from west to east across the Fort. Clearing westwards to mud floor.

Saturday, 2 January 1932

27th Day of Work

2. Inner Fort. Weather: Fine. Temp.: 77° at 2 p.m.

2. Inner Fort. Rooms 29–31 (fig. 43).

The Rooms 29 and 31, and Street 30, together with the other rooms appearing east and north, are of thick walls and well-built. The sandstone column-bases in Rooms 29 and 31 (the two rooms being identical in plan) seem to show that the north walls are either an addition or did not go up to the roof, and that the line of column-bases may be found continuing northwards beyond the north walls.

Street 30. Clearing to mud floor, which is broken in places, and completely denuded at the east end.

Room 31. Three doors, the eastern and northern being blocked. Three large blocks of sandstone, one on the other, are alongside the northern column-base.

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Sunday, 3 January 1932

Weather: Fine.

N.F.W. and Handrick to Halfa 11 a.m., returned 6 p.m.

Monday, 4 January 1932


2. Inner Fort.


2. Inner Fort. Rooms 30–32.

Street 30. Clearing eastern end of street. One large jar in position.

Room 31. Finished clearing floor.

Day of Rest

28th Day of Work
KUSH

Room 32. East of Room 31. This room is larger than 31 and 29, as it continues north of them. A large circular enclosure is in the middle of the room, better built than the usual magazines. Found in debris: grinding stone (?) for flour.

Tuesday, 5 January 1932


Times: 6.45-5.15.
Temp.: 80° at 1.30 p.m.

29th Day of Work

1. South Ditch. Clearing at west end and between ditch and glacis.

2. Inner Fort (FIG. 44).

Room 32 would seem to have been divided into two down its north–south axis, but only slight traces of the wall remain. There are ten sandstone column bases now visible, two of which are out of the symmetrical plan, but apparently in their set positions. The room continues to the north. The large circular magazine (?) is well built, plastered white both inside and out, and has a regular ‘batter’ of 1 in 10 vertically. The stone paving is laid pretty level and the top faces of the slabs are level. It had occurred to me that they might have been re-used blocks from the temple, but an examination of their under-sides reveals them to be undressed—and there is no trace of any hieroglyphic remains or decoration on any part of any stone.

The water-channel, which is composed of a line of blocks with a channel cut in them, passes under one column base, and continues north under debris. The section is as shown in FIG. 45.

The situation of the stone-paving seems to indicate a central thoroughfare, from east to west, along the axis of the doorways of Rooms 29, 31 and 32.

The baked-brick paving is well laid, and the bricks vary much in dimensions. The thickness averages between 3 and 5 cm., and the lengths are mostly 28 to 33 cm., but the widths vary a great deal—some tiles being square in plan.

The column bases are of different types; those in Rooms 29 and 31 are blocks with a circular depression (only one block being itself circular—the other rectangular); in the west half of Room 32 the blocks are circular (for section, see FIG. 46).

In the east half of Room 32 there are five blocks in symmetrically correct position (for section, see FIG. 47).

There is one similar block alongside another in the north-east corner (as cleared so far).

There is one very large irregular block with a raised circular platform for column (for section, see FIG. 48), and there is one plain square block, with no circular marking at all, but which is exactly in correct position for the south-east column.
\( P = \) paving of large flat slabs of sandstone, with good surface

\( B = \) brick paving of burnt brick, many \( 28 \times 16 \times 3 \) cms, many \( 33 \times 17 \times 5 \) cms, and one \( 42 \times 27 \times 3 \) cms, and many of various sizes.

**Fig. 44**

**Fig. 45**

**Fig. 46**

**Fig. 47**

**Fig. 48**

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At the east end of Passage 30, the wall lines are denuded into the mud floors, and a large globular pot is in position in a corner. A well-smoothed and rectangular slab is set in the floor askew—perhaps indicating a door sill, but no trace of doorway is certain.

**Room 32.** Found in debris: one fragment of wood.

**Street 33.** Runs from south to north, outside the east wall of Room 32. Its east wall is built on drift-sand and is almost denuded to its foundation. Some traces of the mud floor of street remain.

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**WEDNESDAY, 6 January 1932**

**30th Day of Work**

Work on:
1. South Ditch.
2. Inner Fort.
3. East Wall.

Weather: Cooler. Temp.: 76° at 1 p.m.

1. **South Ditch.** Completed the clearance of South Ditch to a point due south of the outer face of Outer West Wall. The ditch evidently continues to the west and forms some kind of a junction with Outer West Glacis and its ditch. The surface outside South Glacis, forming the south side of South Ditch, is nearly finished to the same point. The mud-brick wall forming South Glacis is broken away to rock surface (an artificially levelled surface)—towards its west end (see Fig. 49).

‘Batter’ on outer face of Outer South Wall:

\[
\begin{align*}
\text{100} & \\
\text{16} &
\end{align*}
\]

or 1 in 5.5 vertical.

‘Batter’ on foundation glacis of Outer South Wall:

\[
\begin{align*}
\text{232} & \\
\text{262} &
\end{align*}
\]

or 1 in 1.1.

2. **Inner Fort. Rooms 34 and 35.** The room next north of 29, which is now begun, shows two column bases in such position as to make it probable that these two rooms were one—at least in so far as roof support was concerned. The north–south layout of the column bases is as shown in Fig. 50.

**Room 34.** East of Passage 33, which is east of Room 32. Cleared to foundation of drift-sand.

**Room 35.** Door on south to Room 29, one to east and one to west. Clearing debris—mostly drift-sand with mud-brick debris on the lower levels. Depth of debris gradually increases in a north-west direction from the south-east corner of Room 32 to the north-west corner of 35—where it is about 130 cm. above the floor.

3. **East Wall.** East Wall is almost entirely down to nearly rock level, but there remain two points where the wall still stands to a height of some 7 m. above the rock—the outer north-east corner, and about the centre of the wall’s length. At its southern end there appears to be a fair depth in the debris. The central
KUSH

elevated portion gives some interesting information on the methods of carrying a wall over a high point.

Brick Courses. In South-East Wing, where the rock spur descends sharply at an angle of about 45°, the spur wall is laid throughout in strictly horizontal courses. It is fortunate that the builders did this or the wall would certainly have completely vanished by now instead of standing as it does to some 6 m. or more in height. In East Wall, however, a rock eminence is traversed in quite a different and less intelligent manner—the courses coming up on a slant both from north and south, with a short level section on the highest part. As a result the wall shows signs of splitting vertically throughout its full height at the points where the gradients in the courses meet. A good effort was made to avoid this trouble—which the builders evidently foresaw—by interlocking the meeting courses as best they could. In the case of the meeting of the northward down-grade and the central level, the join was as shown in Fig. 51.

At the junction of the southern down-grade and the normal level wall south of it, one of the layers is lowered as can be seen from Fig. 52.

Layering. The ‘halfa’-grass layers follow, in general, the rule found in Inner West Wall; i.e. every 12 brick courses; but they have to depart slightly from this in one or two places on the above-mentioned rise and fall of the wall’s foundations. Where the brick-courses interlock the number of courses, naturally, varies; but the distance between ‘halfa’-layers remains constant. In this way one ‘halfa’-layer proceeds (southwards) up the incline, along the level section, and down the incline—meeting the ground in its course, where it ceases.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

One other 'halfa'-layer, in transferring from the level section to the south down-grade, ceases altogether for a short distance and picks up its correct position again on the southern section of level wall. Fig. 53 shows this (C-C).

*Timbering.* The logs in this area follow the rule of being only laid directly on the 'halfa'-grass layer. Timber is only visible on the two lowest layers.

*Ventilators.* The ventilators through the thickness of the wall show clearly here, but the positions of the longitudinal ventilators is not apparent on the weathered ends of the wall. Here there is a variation from the rule of Inner West Wall, for two of the three levels of ventilators are made directly on the 'halfa'-layer. These holes are quite definitely not timber-holes, as an examination of their interiors revealed. Those not on 'halfa'-layer are in ninth course above it.

For section of East Wall, see FIG. 53.

The vertical distances between 'halfa'-layers, from the rock up, are: 1.30, 1.28, 1.31, 1.31, 1.30 m., which agrees exactly with Inner West Wall.

*Levels.* The levels of the horizontal section of wall all sight exactly on the northern horizon. The southern horizon from this position is hidden by a spur of rock running east just on the north side of South-east Wing; all of which agrees with the possibility—suggested originally in connection with Inner West Wall—that levels were got by horizon-sighting.

*Layering* (continued). The 'halfa'-grass is laid through the wall's thickness, i.e. east to west, rests on a brick course without intermediate plaster, and has a layer of plaster on top of it before the next course is laid (see FIG. 54).
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Commenced clearing the outer face of the southern half of East Wall—from the point previously cleared to a point abreast the junction of East Wall and Inner South Wall. This will be a dumping area for the south-east quarter of the Inner Fort.

4. *Nile Levels.* On the subject of Nile levels in general, the following excerpt from a letter received from Mr Grabham, Khartoum, is of special interest:

‘3 January 1932.—I made a small trip at Christmas-time along the Nile near the 5th Cataract between Berber and Shereik. . . . The river channel is flanked by recent alluvium standing at about modern high flood level. There is ancient alluvium rising 3 or 4 m. above the modern alluvium and its material is usually partly impregnated with lime. Rising still higher are the gravels attaining perhaps 12 to 18 m. above the modern H.F.L. Their distribution suggests that the ancient river followed a different course in places’.

**THURSDAY, 7 JANUARY 1932**

<table>
<thead>
<tr>
<th>31st Day of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. East Wall.</td>
</tr>
</tbody>
</table>

1. *South Glacis.* Finished the area of South Ditch and Glacis, and the outer face of Outer South Wall from its western extremity for a distance of 42 m. to the east. The cubic capacity of the ditch itself over the length is 580 cubic metres: the total debris, mostly drift-sand, removed from and above the ditch and glacis has been 2,470 cubic metres. Area photographed, surveyed and levelled.

2. *Inner Fort.* Started on Room 36.

   **Room 35.** Found in debris: bowl, flint knife. Cleared to mud floor.

   **Room 36.** East of Room 35, and identical. Doors on all four sides into adjoining rooms—to 31 on south, 32 east, 35 west, unexcavated room on north. Two column-bases, as in the other rooms.

3. *East Wall.* Clearing outer face on southern half of East Wall—between the high remaining section of the wall on the north and the junction with Inner South Wall on the south. This part of East Wall crosses two narrow, short and steep gullies descending to the plain below. South-east Wing runs out on the south ridge of the southern of these two gullies, and a rock ridge (apparently without any brickwork having been on it) limits the area on the north. Uncovered three buttresses. Found in debris: faience heads, axe-head, three bowls, nine mud jar-stoppers, ring stand fragment.

   Uncovered a stairway, running parallel to the outer face of East Wall, along the outer faces of the buttresses—apparently a walk following the wall from south to north. The wall uncovered earlier, abreast the first rooms excavated in the Inner Fort, would seem to be part of the same walk.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

South-east Gate. A doorway through East Wall was found here, opposite the northern of the two gullies, being an original door of the fort design. This doorway opens on to the extra-mural walk and may lead to a descent of the gully: the buttresses are designed for the inclusion of this door in the original layout of the Fort. The lower 30 cm. or so of the wooden door remain in this South-east Gate. The door-posts, of square section, 20 cm. square, are also discernible. The door was pivoted at the northern post, and opened inwards, in which position it now is. The face of the door is composed of six vertical planks of timber, each 30 cm. wide and 10 cm. thick; and these are backed by a longitudinal of about 7 cm. thickness. Remains of a wooden door-sill are only just discernible in the debris. All the wood is in the last stage of disintegration (see Figs. 55 and 56).

The stairway in the outer walk is well built, the steps being of stone slabs levelled off with mud.
KUSH

Friday, 8 January 1932

2. East Wall. Weather: Fine. Temp.: 85° at 3 p.m.

1. Inner Fort. Commenced on Room 37.

   Room 32. Clearing northern half of this large room, north of the circular magazine.

   Room 36. North of 31, and similar in size and plan, with column bases. Found in debris: head of small mud figure.

   Room 37. North of 35, and similar thereto. Clearing debris. Two doors at present visible, one east and one west.

2. East Wall. Clearing outer face of East Wall southwards to East Wing, which is a small wing running east on a spur of rock just north of South-east Wing. Found in debris of South-east Gate: fragment of copper, fragment of diorite lid, mud jar stopper.

   Clearing debris of fallen stones and potsherds from the khor which descends steeply to the east of South-east Gate. Found traces of mud side-walls and steps of a stairway. South-east Gate is evidently a River Gate of a sort, and has many points in common with the break in East Wall farther north—through which the water-channel from Room 32 makes its exit (see FIG. 57). Both openings through East Wall have the distance between the buttresses adjusted to allow for their passage: both openings have a water-channel passing through them to a khor. In the case of South-east Gate the actual doorways remain:
DIARY OF THE EXCAVATION OF MIRGISSA FORT

it seems possible that the more northerly opening may have had similar doorways, and may have had a similar pathway descending the khor towards the river plain below. South-east Gate has been partly reconstructed at some period, and the faces of the doorway passage are built of stone and mud—the southern side having several large blocks of sandstone built into it. The original faces of these walls must be behind, and will appear in due course. The water-channel is original, and is well cut in the actual stone steps descending at the east side of the Gate—which stone steps are also well cut and levelled: they show signs of much foot-wear on the treads. The wood in position seems to belong to the reconstruction—which is to be expected.

Outside South-east Gate, the walls of the stairway running north parallel to the Fort wall, correspond to a similar wall found earlier abreast Rooms 17 and 18 (abreast buttresses IX and x); so that this extra-mural street would appear to have followed the length of East Wall, at least from North-east Wing to East Wing, using stairways to climb and descend the spurs of rock which jut out east of the Fort Wall.

[Image: Gully figure]

Fig. 58

It will be necessary at some future date to endeavour to pick up the courses of the River Stair or Stairs at the feet of the two above-mentioned khors, on the sandy plain between the Fort Rock and the river bank.

Between buttresses xv and xvii the line of the outer face of East Wall is denuded to the rock, which at this point is a spur running out to the east. Somers Clarke has a trace of mud-brickwork shown as a wing running out on this spur, but, although there may well have been a wing here, there is no trace whatever of mud on the rock outside the line of the wall. The line of the base of East Wall differs between the section north of buttress xv and that south of buttress xvii, so that what happened to the wall in this area can only be conjectured. The big change in level of the wall’s foundations up and over the spur of rock, combined with the ‘batter’ of the outer face of the wall, may well account for the lines north and south failing to coincide on the plan. A perfectly straight wall across a gully, with a ‘batter’ on both inner and outer faces, would appear in plan as shown in FIG. 58.

The rise in level between buttresses xv and xvii, however, is only 3 m.; which, with a ‘batter’ of 1 in 7, would account for about ½ m. variation in the line. The actual variation is about 2 m.
1. *Inner Fort.* Clearing debris of drift-sand from the large Room 32; door blocked on north. This room, or rather the western half of it, would seem to have had an open roof in the centre, under which was a square of baked brick tiles which covered the area within the column bases. The large circular magazine is built on top of these tiles, which are broken away under the floor of the magazine. A careful examination of the floor, walls, and cracks in this magazine failed to give any clue as to its last contents.

![Diagram](Fig. 59)

*Room 37.* North of 35 and similar in plan. The debris in this room is still deeper than in 35, and the walls are standing to a height of 2 m. Two column bases, as in the adjoining rooms.

The debris standing in the west door of this room gives a clear section showing the deposits, and their lines are continued along the face of the West Wall in the form of light and dark lines.

2. *East Wall.* Continued the clearance of South-east Gate, River Stair and outer faces of East Wall and East Wing. Found in debris between buttresses xx and xxi: fragment of alabaster kohl-pot collar, mud sealings, wooden pin.

At the junction of East Wall and East Wing the buttresses are built on drift-sand, and on a diagonally-placed wall which appears to have been built to retain the sand (see FIG. 59).


*South-east Gate.* Removed the later lining of doorway and uncovered the original doorway, the timber sills of the Inner and Outer doors of which are still in position in the side walls. The reconstruction was done with stones
and mud, on a line which was at an angle with the original, and new door-sills and doors fitted. The water-channel was floored over with mud and two sections of it taken up and used in the walls.

The level of the foot of the cliff east of this doorway is 6.021 m. above modern H.W.L. of Nile.

Sunday, 10 January 1932

Weather: Fine, cooler.

Went by car to Semna West on a compass course. The desert here is good and the straight line distance only 43 km. The distance actually covered was 46 km., and the journey took 1 hour 8 minutes to the top of Gebel Barga. [Gebel Barga is 3 to 4 km. due west of Semna Forts, and is about 260 m. high.]

Monday, 11 January 1932

Work on: 1. Inner Fort. 2. East Wall. 3. East Wing. 4. River Stairs.


34th Day of Work

1. Inner Fort (Fig. 60).

The Rooms 29–37, so far excavated, in this area are in many ways the best preserved of any found in these fortresses. The surface of the walls and floors, and the column bases are in very good condition. The floors of Rooms 29, 31, 35, 36 and 37 are unbroken, and show the method of laying very clearly. The floor is one-brick thick, and the bricks laid very regularly in rows—the top surface being finally thinly plastered over. The bricks are laid (as shown in Fig. 61) in each of the above rooms.

Ordinary mud-bricks of normal dimensions. The number of bricks in the east-west widths of each room are:

| Room 29—37. |
| Room 31—40. |
| Room 35—39. |
| Room 36—45. |

Room 32. This large room continues to show interesting features. The rectangular area in the centre of the western half of the room is now seen to have filled the space on which there were no column bases—probably under an open roof. The baked brick tiles are as carefully laid as the mud-brick floors of the other rooms, and are with the longest axes north and south, except the border down the east and west sides of the area—where a row is placed in the other direction, as can be seen in Fig. 62.

These tiles are continued under the circular magazine, under the stone paving, and are fitted against the column bases—so that they are presumably of the same date as the columns. The stone slab paving, and the magazine must be subsequent additions, though they are quite as good workmanship.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

as the other parts of the room. The circular magazine has a small stair leading up against it, of which three steps are so preserved that it is clear there were no other steps: in other words the magazine (?) must be now standing to nearly its original height, which would have been about 150 cm. It will be seen from the plan that this magazine, the slightly raised mud-brick floor west of it, and the small stair east of it, are all on one axis with the third row of column bases (counting from south to north). In an east to west direction the magazine is central in the baked-brick tile area. There is a line of stone slab paving on the north side of the raised mud-brick floor, and another line on the south: there is a line of paving by the north-west door of the room, but not in line with it: there is a further area of stone slabs on top of the north-east corner of the tiling, which slabs have a diagonal line cut across them as shown. What these various arrangements signify is by no means clear.

![Fig. 63]

The doors communicating through Rooms 32, 36, 35 and farther west are all on one axis.

Room 37. The west doorway of this room presents a section of the debris, the continued line-marks of which extend north and south over the whole length of the west wall—which stands to nearly 2 m. above the floor. These debris levels give a very interesting cumulative record of the life of Room 37 from the time when the roof first fell in to the day when the surface level of the debris and rooms attained an even level floor at its present height. Since this door was not blocked, and the wind must have come through it from the west, the lines on the west wall all show a dip down at the doorway, and slope up to the tops at each end (see FIG. 63). The section of debris in the doorway reveals the materials of which it is composed, while the lines along the wall, in addition, record the 'rains'. By 'rains' are meant deposits of moisture in any way. Some are clearly heavy rains, whilst the smaller and finer lines may be merely moisture from dew or mist; but they are certainly moisture since the lines are of particles of debris adhering to the wall surface. The doorway section is referred to by lettered layers below:
<table>
<thead>
<tr>
<th>Top Surface</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>180.0</td>
<td>A. Distinctly shows traces of roof material lying on the floor itself. It is 6.5 cm. deep, and consists of dust and fragments, very minute, of either wood or reeds.</td>
</tr>
<tr>
<td>146.0</td>
<td>B. About four thin layers of mud in a ½ cm. thickness—probably dust from walls, moisture—set in layers.</td>
</tr>
<tr>
<td>127.0</td>
<td>C. 1 cm. thick of sand, with no visible layering. Heavy winds.</td>
</tr>
<tr>
<td>120.0</td>
<td>D. 4 cm. thick, composed of about 30 very thin layers of mud with microscopical layers of sand between. A succession of moisture-set deposits of brick-dust, with wind-blown sand in the intervals.</td>
</tr>
<tr>
<td>91.0</td>
<td>E. 3 cm., composed of 17 layers of fine mud with no sand between them.</td>
</tr>
<tr>
<td>84.5</td>
<td>F. 1.5 cm. of sand layers, with very slight traces of mud only. Wind-blown sand set by moisture, with little dust falling from the walls.</td>
</tr>
<tr>
<td>79.0</td>
<td>G. 0.5 cm., composed of about 30 very thin layers of mud without sand. Comparatively rapid succession of small dust deposits set by moisture, without much wind.</td>
</tr>
<tr>
<td>60.0</td>
<td>H. A thin layer of wind-blown sand only.</td>
</tr>
<tr>
<td>58.0</td>
<td>I. 2 cm. of about 15 very thin layers of mud, set by moisture, without sand.</td>
</tr>
<tr>
<td>57.0</td>
<td>J. 1 cm. of wind-blown sand only.</td>
</tr>
<tr>
<td>52.0</td>
<td>K. 0.5 cm., of about 10 thin mud layers—same as I.</td>
</tr>
<tr>
<td>21.5</td>
<td>L. 15.5 cm. of close-packed sand layers, set by moisture, in which are a very few small fragments of potsherds and scraps of chaff.</td>
</tr>
<tr>
<td>21.0</td>
<td>M. 5 cm. deep. The first distinct fall of parts of mud-brick, with scraps of reed or chaff mixed. This fall would seem to be due to wind or other disturbance rather than rain, of which there is no trace.</td>
</tr>
<tr>
<td>18.0</td>
<td>N. 14 cm., composed of hundreds of very thin layers of sand, and of mud with sand of varying thickness between. This would seem to be a combination of F, G and H to a different scale.</td>
</tr>
<tr>
<td>17.5</td>
<td>O. A 1 cm. layer of chaff or reed debris. Possibly some remaining roof material from another room farther north or west was deposited by the wind or other agency.</td>
</tr>
<tr>
<td>16.0</td>
<td>P. Sand for 2 cm. with slight traces of very thin mud in places, and chaff scraps. Possibly all wind-deposited, as there are no continuous layers. At the top of this layer is the first clear record of heavy rains, about seven close lines of adhering dust are laid for the whole length of the west wall.</td>
</tr>
<tr>
<td>13.0</td>
<td>Q. Fairly clean sand for 19 cm. with no distinct layers and a few small scraps of mud-brick. Winds. At about the middle of this layer there is a very heavy rain line passing right across the west wall.</td>
</tr>
</tbody>
</table>
R. 5.5 cm., of about 30 thin mud layers, with chaff in places in the lower levels. At the top of this layer a heavy rain line crosses the west wall.

S. 6.5 cm. of wind-blown sand, in the middle of which a heavy rain line marks the west wall from end to end.

T. 29 cm. of wind-blown sand, only separated from S by a thin line of adhesion—presumably that of the heavy rain line mentioned under S.

U. 7 cm. of fine mud and sand mixture, with slight traces of thin layering, near the top of which a heavy rain line marks the wall.

V. 19 cm. of mud-brick fragments, small stone fragments, many scraps of straw or chaff, some scraps of black cloth material, charcoal fragments.

W. 34 cm. of a slightly moisture-hardened sand, with small scraps of chaff throughout, and small fragments of mud-brick. The top of this layer is the present level of the Inner Fort at this point, there being in addition the surface pebbles and stones, with potsherds.

An interesting approximation—though only very approximate—can be calculated from these layers, assuming: (I) that layers such as D are ¼-mud-brick material; (II) that those like N are ¼-mud; (III) that G, I, etc., are all mud; and (IV) that the maximum fall of wall material into any room is that from only two of its walls.

The total mud deposit in the room is 24.73 cubic metres which, assumed to have come from two walls, would mean a minimum original height for the walls of Room 37 of 3.39 m.

Room 32. Found in debris: fragments of mud sealings, carnelian barrel bead (fragment); painted pottery, flint.

Room 37. Clearing.

2. East Wall. Clearing outer face of East Wall. Uncovered buttresses nos. xxv and xxvi, the latter being at the turn of the wall of East Wing.

3. East Wing. Clearing sand from north face, which is denuded at the east end. There are no buttresses on this face.

4. South-east River Stairs. Found in debris: fragments of pottery, flint. The upper steps of the stair are cut in the rock itself, and lower down are augmented by mud-brickwork. About halfway down the khor the angle of descent becomes very steep and the passage very narrow: here all traces of the stair are destroyed by rain and falling debris. Further traces are beginning to appear near the cliff foot.

At 1.0 p.m., five planes of No. 14 Squadron, R.A.F., from Amman, came close over Mirgissa from the south-west and landed at Halfa.
Tuesday, 12 January 1932

          2. East Wall.  Weather: Fine.  Temp.: 73° at
          3. East Wing.
          4. South-east River Stair.

1. Inner Fort. In the north-east quarter, Rooms 32 and 37 are still being cleared; also the street north of 37 and North Wall Street itself have been begun. Room 38, east of 37, is also begun.

The height to which the walls here have been preserved leaves further interesting evidence un-denuded. The west doorway of Room 37 preserves, for the first time in these fortresses, the beginning of the arched door-top (see Fig. 64).

![Fig. 64](image)

From the curvature remaining, the top seems to have been more or less semi-circular—and the original full height of the door opening about 1.97 m. As the height of walls preserved increases slightly to the north and east of this point, we may find a doorway with even more of its arch remaining.

Room 32. Small magazine against east wall. Further sandstone column bases, continuing the eastern lines of columns farther north—and the water-channel continues north. A door in the east wall opens into Street 30.

Room 37. Door on east to Room 38. Clearing remainder of debris.

Room 38. North of 36, east of 37, similar in plan to both. Commenced to clear drift-sand and mud-dust debris.

2. East Wall. Clearing the outer face of wall and buttresses from South-east Gate to East Wing. In this area the builders have overcome a difficulty very
ingeniously. This part of East Wall crosses the head of the steep khor down which the South-east River Stair goes. In order to prevent sliding of the foundations without going down to rock over the whole area, a curtain wall was first built—before the Fort Wall was started. This curtain wall ran diagonally across the head of the khor and was filled in behind with drift-sand. Upon this wall, and upon the drift-sand which it held up, was built East Wall. This curtain wall is about 2 m. thick, and built down on to rock (see FIG. 65).

3. East Wing. Clearing drift-sand debris from north face of this spur wall.

4. South-east River Stair. Clearing drift-sand at foot of khor, at a level of 25 m. below the South-east Gateway. Uncovered denuded remains of massive mud-brickwork southwards from this point, the extent and nature of which are not yet clearly visible.

WEDNESDAY, 13 JANUARY 1932

2. East Wing. Weather: Fine. Temp.: 74° at 2 p.m.
3. South-east River Stair.
4. Dabenarti Levels.

1. Inner Fort. Continued clearance of Rooms 37 and 38, Street 39 and North Wall Street. Upper debris mostly drift-sand, with traces of mud.
2. East Wing. Continued clearance of north face.
3. **South-east River Stair.** Continued clearance of bottom of khor and mud-brickwork at foot.

4. **Dabenarti Levels.** The following levels, above modern H.W.L., were obtained of the lowest standing parts of Dabenarti Fort. These are of interest in connection with the general Nile levels between Middle Kingdom and modern times (see FIG. 66).

![Diagram](image)

**FIG. 66**

A is a fairly high remnant of West Wall.
B is a stone-built quay with ramps descending to north and to south.
C is an East-West Wall.
D is an East-West Wall on a rubble foundation at its western end.

The following levels were obtained (all above modern H.W.L. in metres):
- B—level of quay top 11.5 m.
- B—lowest stonework at north end of north ramp, 10.5 m.
- B—lowest stonework at south end of south ramp, 5.5 m.
- C—lowest point of mud-brick foundation, 6.0 m.
- D—lowest point of mud-brick foundation, 6.0 m.
- D—lowest point of rubble foundation, 5.5 m.

It will be seen from this that no mud-brick remains less than 6 m. above modern H.W.L.; and that no stonework remains less than 5.5 m. above modern H.W.L.

All the remainder of the Fort and its foundations are at higher levels than those given above.

5. **North Wall Street.** In the north face of this street, the walls of which are standing about 2 m. high, two of the lateral ventilator apertures have been uncovered. They open into the street about 1.5 to 2 m. above the floor, in the plastered face of the wall, and are 2 bricks high by 1 brick broad like the majority of those recorded in Inner West Wall. This is the first time we have got the original, un-denuded opening. Among other functions these evidently did supply air to the streets, as well as drying the walls themselves.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

THURSDAY, 14 JANUARY 1932

Work on: 1. Inner Fort.  
           2. East Wall.  
           3. East Wing.  
           4. South-east River Stair.

Locals: 60.  
Weather: Fine, warm.  
Times: 6.30-4.45, 74° at 1 p.m., 79° at 5 p.m.

37th Day of Work

1. Inner Fort.

North Wall Street. Clearing debris of drift-sand from North Wall Street, eastwards from Inner North Gate. The walls of this street are well preserved to about 2 m. height, plastered and, in the case of the north wall which is the inner face of Inner North Wall, the wall has a ‘batter’. So far, two ventilators have been uncovered, opening into North Wall Street opposite Room 40. The block of rooms comprising Nos. 29 to 40, has a passage encircling it on all four sides.

   Room 37. Clearing debris.

   Street 39. Found in debris north of Room 40: fragments of mud sealings, and one shell.

   Room 40. West of Room 37. Clearing debris. This room is similar in plan to the others of the block.

   Street 41. This is a continuation of Street 39 to the south of its western end (see FIG. 67).

North Wall. Abreast of Room 37 the denuded plan of North Wall has been swept clean to observe the brickwork. The ventilators are all seen to be roofed by a row of transverse bricks (see FIG. 68).

The remainder of the wall is of normal brick-laying.

2. East Wall. Over the section of East Wall between South-east Gate and East Wing the courses have a regular gradient down from south to north of 1 in 9.4. At the north end they join a level section which goes some way past South-east Gate. Outside the buttresses xxiv to xxvi there is a small parallel wall, corresponding exactly in width and distance from buttresses with fragments found farther north in several places. Evidently this wall followed the course of East Wall throughout its length, between the various wings, at a distance of 5.5 m. from the outer face of East Wall itself.

On top of the remains of this wall opposite buttress xxv was found some wood which may be part of a door.

3. East Wing. Completed clearing of debris from north face of East Wing (see FIG. 69).

4. South-east River Stair. Cleared to the foundation, on rock, of the massive mud-brick wall which appears to protect the lower end of the khor stairway. The wall is denuded almost entirely at the west side, but its northern end goes down about 3.5 m. on to rock: this end may be broken away. The wall is
DIARY OF THE EXCAVATION OF MIRGISSA FORT

cleared to rock along the whole of its East face and nothing, so far, goes eastward from it towards the river.

Sinking trenches in the plain between the foot of the cliff and the river bank reveals drift-sand only, so far. The sand is clean, except for a very few finely stratified patches of charcoal debris (see FIG. 70).

![Diagram of excavation site]

**FIG. 70**

**FRIDAY, 15 JANUARY 1932**

Work on: 1. Inner Fort. 2. South-east River Stair.


Weather: Fine. Temp.: 76° at 3 p.m.

1. **Inner Fort.** Clearing North Wall Street; found one flint knife.

   Street 39. Clearing eastwards to floor of street.

   Room 40. Clearing room. One sandstone column-base in centre of room.

2. **South-east River Stair.** Clearing at foot of khor, viz. the north end of mud-brick wall, to uncover rock surface.
Saturday, 16 January 1932

Work on: 1. Inner Fort. 2. South-east River Stair.

Weather: Cold, wind.

1. Inner Fort.

*North Wall Street.* Clearing westwards to mud floor. Debris—
drift-sand.

*Room 37.* Clearing debris to mud-brick floor.

*Street 39.* Clearing debris to mud-brick to east.

*Room 40.* Door on south. Clearing.

*Street 41.* Clearing to floor from north to south. Found in debris,
west of Room 40: fragments of mud sealings, fragments of leather.

*North Wall.* Cleared top surface of wall and buttresses to the east
end of wall; for visit of Governor-General.

2. South-east River Stair. Clearing debris of drift-sand and stones from foot
of khor, below River Stair.
Governor’s car arrived to await trip to Abusir Rock on Monday.

Sunday, 17 January 1932

Weather: Cold, wind.

N.F.W. and Handrick visited the island forts of Mayanarti and Dorgaynarti.

*Mayanarti.* The ruins are well described by Somers Clarke in the *JEA* of
July 1916. In addition: the island is abreast of Khor Musa Fort, and is 400
or 500 m. long. The buildings cover an area about 135 m. long (North to South)
by 60 m. wide. All the brickwork visible is in thin walls, one or two bricks thick,
and appears to be built on a mound of brick debris. No rock is visible on the
island, though there is probably a rock ‘knob’ under the raised part where the
buildings are. There is no clear plan in the arrangements of the rooms, all being
poorly built, the bricks badly made and placed, and the lines of walls far from
straight. On the east side are two small rooms on the remaining walls of which
are coloured Christian (?) paintings. A little lower, on the east side, by a
‘saggiya’ is a fragment of sandstone cornice which looks like Ptolemaic work.
Among the stones of the saggiya water-channel are other similar broken
fragments.

Somers Clarke mentions finding some bricks of the same dimensions as
those of Buhen, but I could find nothing resembling in any way Middle Kingdom
work—though there might conceivably be something New Kingdom under the
mound. Among the potsherds I saw nothing which looked like earlier work
than Graeco-Roman, though I would hesitate to say that none exists.

At modern H.W. the lowest level of the mud-brick is only a bare 2 m. above
the water—and this same mud-brickwork looks very late.
Dorgaynarti. Again Somers Clarke gives an excellent description in JEA, July 1916—except that his estimated measurements are wrong. The island on which the Fort stands includes several parts which would be separated at H.W. At present (January) the island is about 1000 m. long (North to South) by about 600 m. broad; and at H.W. it would be about 200 m. long by 80 m. broad. The Fort itself is about 80 m. long by 50 m. wide (not 190 × 80 as given by Somers Clarke).

The Fort walls are of a thickness comparable with the Middle Kingdom forts—but I am sure this is no earlier than late New Kingdom. The bricklaying is poor, and the whole construction shows several crudities which are not found in anything Middle Kingdom from Semna to Mirgissa, inclusive.

The ‘batter’ of the walls is much coarser than the above-mentioned forts, the lines are less true, and the wall in one place makes a sweeping curve where the Middle Kingdom forts would have had an angle. The bricks are mostly 34 × 17 × 9.

As Somers Clarke states, the water has disintegrated the lowest courses of the outer face. But modern H.W. is 3 m. below the lowest existing foundations, which are of stones thrown down and scattered by water. No rocks are visible on the island, but may exist under the Fort. There are two large areas, one north and one south of the Fort, over which are scattered stones which appear to be either from a rubble foundation or from a rubble ‘break-water’ to check the force of the water. These are all scattered and flattened down, apparently by water.

Although Somers Clarke mentions timber reinforcing the walls, I could find no trace of any. Some of the bricks are large square bricks, 35 × 35 × 10—similar to but thicker than some found at Mayanarti. The plan is, very roughly, shown in FIG. 71.
There are traces of subsidiary buildings both inside and outside the Fort—and there appear to have been buttresses of some sort on the outer faces of the walls, but they are not regular.

In the curved section of the wall, the whole brick-laying follows the curve throughout the wall’s thickness.

Potsherds are not enlightening. Many are Graeco-Roman, but some might well be New Kingdom. Only excavation, as in the case of Mayanartı, can give more idea of the date of construction.

Both Mayanartı and Dorgaynartı are within a few minutes by boat from the west bank—by the house of Sheikh Osman Abd er-Rahman, and thence by good road north and south. There are no cataracts here.

Monday, 18 January 1932

2. South-east River Weather: Cold. Temp.: 67° at 3 p.m.

Stair.

At 10.30 a.m. N.F.W. fetched the Governor-General and his party by car from Abusir Rock to Mirgissa. The party consisted of the Governor-General; his A.de-C.; Mr Ingleson—Governor of Halfa; Mr Wallis—District Commissioner of Halfa; and Mrs Ingleson. After spending about two hours seeing the Fort and records, return was made to Abusir. After lunch in the launch a visit was made to the Church of Abdel Gadr (about a.d. 1500), near Dorgaynartı.

1. Inner Fort (Fig. 72).

It will be seen that the blocked doorways confine the entry to Rooms 31, 36, 29, 35, 37, 43, 42, and 40—to the passage through the room east of 37; which is not yet excavated. The mud-sealings were mostly found at point ‘A’ in the lower debris on floor of street.

The column-bases in Room 43 are not yet uncovered—and there may be another yet in Room 40.

As far as the spacing of column-bases goes, it is clear that Rooms 31, 36 and next north, formed a unit for roof support: that Rooms 29, 35 and 37 were another unit; and 43, 42 and 40 a third unit.

Room 32. The arrangement of the column-bases so far cleared shows three separate systems of roof support, the 10 columns around the circular magazine being one, the 9 columns forming the south-eastern quarter another; and the 6 north from them a third (see Fig. 73).

In the northward extension of the north-east quarter of Room 32, on the west wall, are the remains of a small offering shrine. A wooden panel, 50 cm. wide by 3.5 to 4 cm. thick, white plastered back and front, is set with mud into a recess in the wall. Before the niche is a small raised ‘mastaba’ of mud-brick also plastered, the top surface of which is formed by two baked-brick tiles—presumably taken from the floor tiling. On this top is
the lower part of a tall bowl-stand in position. The wooden panel has had a design and inscription in colours (painted on only), but this is almost completely gone. Only the lower part of the panel remains (see Fig. 74).

*Inner North Wall.* The plan of Inner North Wall, from its eastern end to buttress XI is now visible (see Fig. 72). The extreme eastern buttress is a long one which runs equal distances along East Wall and North Wall, and forms the North-east Corner of Inner Fort. Buttress VI is also a buttress of treble width, and is presumably half-way between I and Inner North Door, though the latter is not yet excavated or surveyed.

The eastward extension of the central longitudinal ventilator in Inner North Wall is visible, and shows this to have run throughout the whole length of the wall with, apparently, transverse intersecting ventilators opening into North Wall Street through each buttress.

An interesting fact is revealed at the junction of Inner North Wall and East Wall. The former was completed throughout, including all its buttresses and their foundation glacis; and then the northern extension of East Wall was built *against* this.

The southern wall of North-east Wing is built against the structure of Inner Fort. These points appear in Fig. 72. Between buttresses I and II on Inner North Wall the foundation—or anti-scaling glacis is visible; and the north extension of East Wall is built on top of this at point B.
DIARY OF THE EXCAVATION OF MIRGISSA FORT


TUESDAY, 19 JANUARY 1932


1. Inner Fort. Clearing area between Rooms 34 and 44 and East Wall Street, which area is denuded below floor levels. North of 44 the rock rises and a step is cut in it between 44 and the next room north, which thus has a higher floor level. Uncovered lower part of mud-brick stair in East Wall Street, against the inner face of East Wall, going up from south to north—built on debris. Uncovered Room 44, north of 34.

The rooms farther west complete the shape of the large building symmetrically, and their shapes, dimensions and distribution of column-bases all conform to the plan. Room 43 is south of 42. Cleared the encircling street of large building, which is no. 39 on north, no. 41 on west, no. 30 on south, and no. 33 on the east. In the section 41 the southern end is denuded below the floor level.

Room 32. In clearing debris around the painted wooden panel in niche, found two fragments of mud-sealings.

Room 33. East of Room 32, clearing debris to floor level from south to north.

Room 40. Has two column-bases as in the two rooms east thereof.

Room 43. Has two column-bases as in the two rooms east thereof, and in the southern circular depression in the base are the remains of wooden pillar. Door on north, blocked up.

Room 44. East of Room 33, north of Room 34. Cleared to mud floor, and rock where floor is missing.

Inner North Wall. The junction of this wall, at its eastern end, with the northern extension of East Wall, has one or two points of interest. When the Inner Fort, East and North Walls, were completed, buttress I had a foundation glacis built against its north face, and the recess between buttresses I and II had a similar glacis. In the latter case this glacis was built over the fallen builders’ debris which had accumulated outside the wall in the construction work. This debris consists of broken mud-bricks, clean and completely un-weathered, with a layer of small stone chips on top of them, and some large rocks. When the northern extension of East Wall was built against this part, the inner face of it (East Wall) came midway in the recess between buttresses I and II, on the glacis. That part of the glacis which remained visible at that stage of the building—i.e. the western half of the space between buttresses I and II—was cut away. The cut line of the slope of the glacis is now visible in the west face of East Wall.
This cutting away also reveals the foundation of builders’ debris, etc., on which the glacis was built. Fig. 75 illustrates the stages of construction and the remaining signs of those stages in the present weathered plan view.

2. South-east River Stair. The mud-brick remains at the foot of the khor of South-east River Stair are, in most places, denuded to thickness of one brick or less. The lines of the walls are only traceable in places, and mostly from the direction of the brick-laying. There appear to have been two walls with a passage between them, which follow the line of the foot of the cliff, making two changes of direction.

From the formation of the rock on the cliff above, it seems possible that the River Stair—instead of descending the channel of the khor itself, which is very steep at the bottom—left it about half-way down and went south on a gentler slope. At the foot of this cliff stair the way would have turned back to the north into the walled passage. At the north end of this walled passage the way would descend steeply round the end of the brick wall by rubble-filled steps to the east. Some stones remaining on the rock surface, some 2 to 3 m. below the drift-sand level, may belong to this part.

I would conclude that there was no drift-sand in the Middle Kingdom for two reasons. Firstly, there is mud-brick adhering to the rock-surface 1 m. below the wall’s foundations; and this mud-brick has been made fluid by water and subsequently set hard again on the rock. Secondly, there are stones fallen, probably from the steps of the stair, resting on rock well below the level of debris.

The purpose of the walled passage would presumably be protection of the lower part of River Stair from observation, assault, and also the fall of rocks or sand from the very steep cliff slopes above (see Fig. 76).

Wednesday, 20 January 1932

Work on: 1. Inner Fort.  
Locals: 51.  
Times: 6.30-4.45.
2. South-east River Stair.  
Weather: Cold.  
Temp.: 61° at 1.30 p.m.

1. Inner Fort.

Room 32. Clearing northwards at east side of room. Uncovered two doors, one in East Wall and one in West Wall. Both these doors have steps and wooden sills, with recesses for the wooden door-posts. Uncovered two more column-bases north of those already cleared—making 26 bases in Room 32. Found in debris: fragments of mud-sealings, and one mud jar-stopper.

Room 38. West of 32. Commenced clearing.

2. South-east River Stair. Clearing drift-sand from foot of River Stair—reached 170 cm. below foundation of mud-brick wall. The rock here still descends on a slope—and the rock face appears to be water-worn.
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THURSDAY, 21 JANUARY 1932

Work on: 1. Inner Fort.
2. South-east River Stair.

Locals: 50.
Weather: Cold.

42nd Day of Work
Times: 6.30-4.45.
Temp.: 64° at 2 p.m.

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1. Inner Fort (FIG. 77).

Street 33. Clearing to floor of street.
Room 38. Found in debris: one pot.
Room 45. Clearing debris of sand and mud-brick, to floor level.
Room 46. Clearing debris of sand and mud-brick, to floor level.

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EXCAVATION AT PRESENT & FOLLOWING THE ROCK SLOPE DOWN AT B.

WHERE THE LINE OF A WALL IS ASCERTAINABLE IT IS DRAWN IN HEAVY LINE
THE FOUNDATION OF THE WALL ON ROCK AT POINT "A" IS 7.00 METRES ABOVE MODERN H.W.L.
KUSH

The area of Rooms 34, 44, 46 and 45 is very denuded, and bare rock shows in many places (FIG. 77).

Now clearing rooms north of 36 and 32.

2. South-east River Stair. Clearing debris of drift-sand, from below foot of River Stair, to rock level sloping down steeply to east. The debris at this point consists almost entirely of drift-sand—being on the lee-side of the Fort rock, which is 30 m. high. The sand is stratified, with layers of harder sand mixed with traces of mud washed down by rain from the Fort brick-debris, and these strata descend to the east in a curve. In various of these strata, from the surface to 1.5 m. below it, are odd potsherds and scraps of wood and charcoal.

At about 1 m. below the foundation of the mud-brick wall on rock the surface of the rock changes in character. The ordinary angular fractures, points and edges of the cliff above cease; and the surfaces are all clean and rounded. The actual material of the rock is unchanged. This point is 6 m. above modern H.W.L.

At 5.5 m. above modern H.W.L. was found a deposit of charcoal, where a fire had been made, directly on the surface of the rock. At the date of making the fire this rock was bare of sand, which can be due to one of two things: either the wind did not deposit sand at that date, or the river removed it annually at high water. In view of the rock surface here, I would favour the
latter theory. In this charcoal, also on rock surface, were two or three small potsherds of R.Br.W. (see fig. 78).

There is so far nothing but clean drift-sand directly on the rock at this point, without any debris such as would be expected had the rock been exposed without water scouring at intervals. There is no trace either of an eastward extension of the River Stair, nor of the fallen remains of one.

Royal Names. The following are the names of kings which have been found this season, so far:

I. $h^e$-hpr-$R^e$

Sealings 32-1-59, 70.

(Also on no. 13-X.114 in Corpus [pl. ii] the $h^e$ is clearly written as such.)

II. mn-?-R$^e$

Sealing 32-1-44.

The $mn$ seems certain, but the final sign, though clearly inscribed, is not interpreted.*

III. mn-?-R$^e$

Wall relief fragment 31-12-169 ‘a’.
The final sign is not clear, but is not $hpr$, and does not look like $M^5$.t.

IV. $dd.w$-hpr.w

Sealing 31-12-92.

(Also in Corpus no. 4-10 [pl. i].)

* See Gauthier, Livre des Rois, 2, p. 115 and Gardiner, Sign-List, Y8. Editor.
KUSH

V. s-n-wšr.t Sealing 32-1-63, 71, 72, 74 SENWESERT.
(Also in Corpus no. 7-501 [pl. i].)

So far there is no appearance of h³bš.w [Wg3f], h³-kš.w-Rc [sn.wšr.t],
which occur in the Corpus.
I have not the means here of placing dd.w-ḥpr.w or h³-ḥpr-Rc.

Place Names

I. bwn S

Sealings 32-1-80, 62, 75.
(Also in Corpus [pl. i] 18-X.42, 17-X.20
[pl. ii] 6-27.)

II. ɪkn

Sealings 32-1-93, 61.
(Also in Corpus [pl. i] 14-X.8, 15-502, 16-507
[pl. ii] 5-X.11.)

So far there is no appearance of dr-wtjw. Is it possible that ḫkn refers
either to the combined garrison of Mirgissa and Dabenarti, or to the district
which includes them both?
No mention here yet of ḫšf-iwnw, ṣḥn-h³-kš.w-Rc, w³f-hjš.wt, ɪtn.w-pd.wt,
or sn-mw.t.

Friday, 22 January 1932

43rd Day of Work

Work on: 1. Inner Fort. Locals:

2. South-east River Weather: Cold.

Stair. Temp.: 66° at

Times: 6.30-4.45.
3.30 p.m.

1. Inner Fort. Continued clearance of Rooms 38 and 47, north of 36 and 32.
Room 38. Has similar plan to all the other rooms in this area, except
that the northern column base seems to have been displaced. This appears
to be about the deepest debris in Inner Fort, the north wall of Room 38,
and the walls of the two streets north of it standing to over 2 m. high.

An unusual feature of certain of these rooms is the setting of timber
poles into the walls across corners. They do not occur in all rooms, but
their arrangement is regular in those rooms where they do occur.
These poles are in two tiers, the lowest at about 65 cm. from the floor
in every case, and the upper at about 125 cm. from the floor. There may
have been higher ones but the walls are not preserved to their height. The
poles are of circular section, about 10 cm. in diameter and about 1 m. long (from wall to wall). In those rooms where the poles occur in adjacent corners on opposite sides of a wall, the two rooms concerned are connected by a door in that wall. This is found in three pairs of rooms, 36-38, 29-35 and 42-40. In Room 37 the poles have none opposite them in Room 35, as 35 already pairs with 29—and 37 has no connecting door to 35. Every room has poles across one corner (see FIG. 79).

These 'perches' could have served so many different uses that one can hardly fix on any particular purpose as being that for which they were built.

2. South-east River Stair. Clearing drift-sand from rock surface below foot of stair.
KUSH

SATURDAY, 23 JANUARY 1932

Work on: 1. Inner Fort.  2. South-east River Stair.
Times: 6.30-4.30.  Temp.: 64° at 1 p.m.

cold.

1. Inner Fort. Clearing North Wall Street in its eastern half, and the street and rooms south thereof.

Street 39. Clearing eastwards to mud-brick floor.

Room 47. Commenced clearing this room which is east of no. 38. Uncovered stair of mud-brick, going up from north to south against the west wall—5 steps.


SUNDAY, 24 JANUARY 1932

Weather: Fine, windy.

A.m.—N.F.W. and Handrick to Sheikh Osman’s house, by the tomb and church of Sheik Abdel Gadr. Photographed Mayanarti and Dorgaynarti.

MONDAY, 25 JANUARY 1932

Work on: 1. Inner Fort.  2. South-east River Stair.  3. North-east Wing.
Times: 6.30-4.45.  Temp.: 66° at 3 p.m.

1. Inner Fort. Continuing the clearance of the North-east Corner of Inner Fort—Rooms 38, 47 and 32, and Streets 39 and North Wall Street.

Inner North Wall. In the eastward progress in this street four more ventilators have been uncovered at the openings into the street. It is now clear that, on this level, a very regular scheme was followed in the lay-out of these ventilators. One pierced the Fort wall through the centre of each buttress; except in the case of buttress vi, which is a broader buttress than the others, and through which three ventilators pass. The central ventilator of the three is through the middle of the buttress, and the other two at equal distances (to a centimetre) on each side. All these ventilators—six in number so far—connect with the east-west ventilator which runs through the length of the wall equidistant from its inner and outer faces (see FIG. 80).

Rooms 31, 29, 43; 36, 35, 42; 47, 38, 37 and 40 (see FIG. 81).

A central line of doorways runs east and west through the centre-line of the room groups 31-29-43; 36-35-42; and 47-38-37-40. In the case of Room 43 the door at the west end into Street 41 is not traceable, but may have been there as the wall is denuded.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

All the doors opening from north to south are out of centre with the room axes, and to the west of those axes except in the door from Room 31 to 36; this being obviously to avoid the columns.

From the positions of open and blocked doorways, and the fact that most of the blockings are well built in and plastered one with the wall face, it looks as though an early modification of the distribution of doors was
made. Possibly they had not anticipated the cold of the winter hereabouts and, when it came, tried to stop the through wind: the positions of the blocked doors looks very like this.

The blocking of the doors may, however, have been due to a change in the purpose for which this block of rooms was used. Originally, practically every room communicated with all its neighbours; in the present state there is only one entry to the whole group of rooms—through Room 47.

The order of construction of the walls is clear from the sketch above. 1st—the encircling wall; 2nd—the north-south division walls; 3rd—the east to west sections.

From the irregularity in position and width of the north to south doors it looks as though they may have been an afterthought.

Room 47. Found in debris; fragments of mud-sealings, and potsherds. Uncovered mud-brick stairway against north and west walls, and two column-bases (see Fig. 82). One column-base is a small one at the south-east angle of the stair and apparently connected in some way with the support of a timber extension of the stair. This stair stops at the north face of the door in west wall of room, and all the faces of the stair show it to be an unbroken construction as now standing. The south-east corner has been bonded to some upright, presumably wood, which stood on the small column-base. The doorway in the west wall is of greater width than any other door in this set of rooms; the north face being exactly in line with the north face of the two doors due west of it, and the south face being farther south than that of the same two doors referred to.

The continuation of this stair upwards must have been of wood since no trace remains at present, but whether it went south past the door (which its height at this point would have permitted), or east to some other support,
DIARY OF THE EXCAVATION OF MIRGISSA FORT

is not clear. The completion of the excavation of the room may uncover further evidence.

2. South-east River Stair and river levels. The question of the H.W.L. at the foot of the River Stair appears to have been settled now beyond any shadow of doubt, as the actual level has been found. The evidence is threefold:

I. The water-worn surface of the rock is very clearly defined at a level of 6.73 m. above 1931 H.W.L. From this level down to the lowest cleared (4.15 m. above 1931 H.W.L.) the rock is deeply water-worn—all the veins of harder rock standing out from the surface, well polished. The upper limit of this wear, taken at different points, always gives the same level.

II. That part of the rock which was submerged has a surface deposit of salt crystals, which are very thickly distributed from the lowest level up to about 6 m. above 1931 H.W.L. Above that they are more thinly distributed and their highest level is 6.73 m. above 1931 H.W.L. Above this level there is not a single salt crystal to be found. Again, the highest points, taken over the whole area, always give the same level.

III. At a slightly lower point, 6.23 m. above 1931 H.W.L., there is river mud and sand tightly packed into a pocket in the rock. At the same point was found, wedged hard in a crack of the rock, a small potsherd, a water-polished pebble, and a small fragment of bone hardened almost to semi-fossilization by water.

That the H.W.L. was once at this point (6.73 m. above 1931 H.W.L.) is certain. That it was there during the occupation of the Fort seems equally certain, for several reasons:

1. The river stair ceases entirely at this point.

2. Potsherds, charcoal and the bone fragment were all found on the rock surface, with no intermediate debris. In fact the whole debris here is clean red drift-sand from the rock surface upwards for a thickness of a couple of metres. Above this it is still drift-sand, but stratified by rain drainage from the cliff, and including potsherds, etc., of later and higher levels (see Fig. 83).

From the general contours of the river at this place, and the fact that the foreshore is entirely of sand with no rock visible nearer than the first islands, it would appear quite possible that the lower slopes of the Fort rock formed the west bank of the river—not only at High Water but also at Low Water. Certainly, at High Water, the first island was entirely submerged; and Dabenarti was the nearest dry land.

Under these conditions, and before the foreshore 'grew' its 5- or 6-m. depth of drift-sand, the channel between Mirgissa and Dabenarti would have been very much less hazardous to boats than it now is. The placing of the
Dabenarti 'quay' immediately above what is at the present moment a very bad cataract may not, at that time, have been so unaccountable (see FIG. 84).

3. North-east Wing. Commenced clearing the north face of this wing, and the outer face of East Wall north of the wing.

North-east Wing has two walls, as depicted by Somers Clarke, but the northern wall is either an addition or a secondary outer defence—for the southern wall has buttresses on its northern face. Subsequent to the building of this wall, and its buttresses, against the outer face of East Wall, there was added a foundation glacis on rubble foundation.

The exit of a water-channel has been uncovered just north of this wall, which channel passes through the full thickness of East Wall (some 14 m.) and is lined and roofed with stone slabs. It must come from Outer Fort North, but this is not yet excavated.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

TUESDAY, 26 JANUARY 1932

very strong wind. 1.30 p.m.

1. Inner Fort. Continued clearance of North Wall Street, Street 39, and Rooms 32 and 47, in the north-east corner of Inner Fort.

Room 32. Clearing northwards at north end of room. Against the north wall of room appears to be a raised platform, limited by a small low wall, the north wall being painted in white with colours in places. Not yet clearly visible.

Street 39. Clearing eastwards north of Room 47. In the middle of the street is a square mud-brick pillar from which a thin wall runs eastwards down the street. Found in debris abreast Room 47: mud-sealings, fragment BkT; one large bowl of recent design containing bones of very small infant, in upper level of drift-sand debris in street.

Room 47. Uncovered the southern column-base, on which is still standing the remains of a wooden column to a height of about 50 cm.

2. North-east Wing. Clearing eastwards. Uncovered two buttresses on the north face of south wall and uncovered a northern wall, parallel to the southern wall, about 3 or 4 m. from it. Debris is almost entirely drift-sand.

Royal Names. The following additional names have been found on mud-sealings:

I. Ṣḥm-ḥw-tj.wj-Rc-Ṣbk-ḥtp In Breasted, AR, I, p. 331, there is said to be ‘no evidence connecting this king with the name Sebek-hotep’.

WEDNESDAY, 27 JANUARY 1932


1. Inner Fort

Street 39. The mud-brick pillar and wall in the centre of this street, north of Room 47, are now seen to be part of a stair. This stair is preserved to the full height of the walls (2 m.), and occupies the southern half of the street’s width. If the eastern end of the whole structure is preserved
we shall be able to estimate pretty accurately the original height of the stair (see Fig. 85).

Room 32. The raised platform against the north wall stands up like a stage, with smooth mud plaster on all sides and on its floor. The part of north wall which forms the back of the stage is painted white, all other parts being either black or dark blue. The column-bases in the eastern half of Room 32 continue northwards, the most northerly being actually against the south-east corner of the stage. The wooden column is still standing on this base to a height of over 1 m., though only supported by sand debris. The wood is very fragile (see Fig. 86).
DIARY OF THE EXCAVATION OF MIRGISSA FORT

All the column-bases in Room 32— with the exception perhaps of nos. 7, 8; 11, 12; 15, 16 and 17— still show the outline marks of the columns themselves, and each base has a central ‘cross’ marked in the sandstone. The columns were all roughly octagonal in section—the faces of the octagon being from 8 to 9 cm. wide and the diameter of the columns 22 cm. between faces (see FIG. 87). They appear to have been painted red, as the outline of their bases on the sandstone is, in many cases, surrounded by red stain. The column-bases in all the rooms of this ‘block’ have recesses to take 22-cm. columns.

Street 39 comes in from the left and may possibly lead up to this platform by steps.

Room 47. Among the debris of mud-brick and sand there is a good deal of wood dust, which confirms the idea that the stairway in this room was of timber in its upper levels—but no further evidence has appeared yet from the floor or walls (see FIG. 88).
**Street 39.** The eastern half of this street has a floor of mud, about 18 cm. above the original mud-brick floor but, since the Middle Kingdom sealing fragments were all found above this, it looks like an early re-surfacing of the floor. With a fair amount of traffic these rooms, streets and walls must have required re-plastering at frequent intervals.

![Fig. 89](image)

The stair in the east end of the street ascends eastwards, evidently to the roof. The side wall and steps are well plastered, and the steps fairly regular (see Fig. 89). There are nine remaining steps up, their heights being 16.5, 20.5, 23.6, 19.5, 19.1, 21.4, 19, 18, and 16.8 cm., and their depths 35, 31, 33, 34, 36, 37, 34, and 23 cm. The average step height is 19.4 and depth 32.9. The gradient of the stairway is 1 on 1.68 or an angle of 30° 45’.

Since the eastern limit of the stairway is preserved, it is simple to arrive at the original height. This, allowing for a total of 18 steps to a 44-cm. landing at the top is 3.44 m.—or, allowing for 17 steps to a 74-cm. landing (which is much more probable) the height is 3.24 m. This should be compared with the estimated height of the walls of Room 37, which was calculated earlier in the Diary from the cubic content of the room’s mud-brick debris.

The eastern end of Street 39 appears to open into Room 32 just beside the altar steps—but this remains to be cleared. Found in debris: three sherds inscribed in black in Hieratic, flint knife and mud-sealings.
Room 38. The distribution of the column-bases in this room is a little irregular—as though the roof had required extra or differently distributed support at some time. The normal bases are present, the southern in true position, the northern to the south-west of its normal position. In addition there are two bases, one circular (broken) and one irregular slab. All have marks of a wooden column on them.

Room 47. The steps of the stairway in the north-west angle of this room are irregular in depth owing to the turn and landing in the corner of the room; but the upper section of three steps gives a gradient of 1 on 1.58 or an angle of $32^\circ$ $27'$, which compares closely with that of the stairway in Street 39. The heights of the steps up are 19.4, 26.7, 32, 22.9, 22.2 and 23 cm.—averaging 24.5 cm.

Assuming the same gradient to continue upwards, a distance of 280 cm. is needed for the stair to attain the more probable of the two roof heights referred to under 'Street 39, stairway'. From the present top of the stair the east wall of the room is distant 540 cm. and the south wall 345 cm.; from which it appears more probable that the stair continued in timber to the south and reached the roof above the south wall of the room.

The column-bases in this room are normal, with an additional small base at the south-east corner of the stairway—which would be needed to carry the timber going south. The treads would presumably rest on this beam at their eastern ends, and have their western ends set into the west wall of the room.

The width of this stair is 140 cm., that in Street 39 being only 75 cm. wide. It would pass over the top of the doorway, in the west wall of Room 47, exactly, if the door height were 2 m. (see FIG. 90).
The north wall of Room 47 is the boundary wall of the 'block', 130 cm. thick. The south and west walls are inner divisions of the 'block' and are only 100 cm. thick. The east wall, however, is a 130-cm. wall and is bonded into the north wall, but not into the south wall. It seems possible, therefore, that the east wall may have extended south originally to the south side of Room 32. Room 32 would then have been a long temple, $24 \times 7.5$ m., with a double row of columns throughout its length—into which the western part of Room 32 was later opened and its roof column-supported.

**Room 32.** The 'altar' in Room 32 is against the north wall and, including its stairway, is in the centre of the wall. The altar is smooth-plastered a dark blue (or possibly black) and well finished. The stairway against its west side is of shallow steps, five of which are now uncovered. The steps are 11, 10, 9, 10 and 10 cm. high, and 31, 34, 36 and 34 cm. deep: gradient 1 on 3.5 or an angle of $15^\circ 54'$. This is very near half the gradient of the other two stairways (Room 47 and Street 39).

The north wall of Room 32, as all the other walls, is plastered dark blue; but over the altar there is a white area bounded east and west by vertical bands of colour. What may have been painted on this white wall has vanished and the colour only remains for about 30 cm. up from the altar top. The vertical bands are yellow, red, yellow, red, yellow—divided by two parallel black lines with white between them (see FIG. 91).

The northernmost columns in Room 32 are against the south face of the altar and, from the fact that here there are three columns, it appears that Room 32 had an open roof down the centre. The area under this roof opening is entirely baked-brick tiled.

The west wall of Room 32, northwards from the door into Room 47, is also coloured, in dark-blue, white and yellow (see FIG. 92).

[LATER : It is now seen that all the walls of Room 32 had this colouring.]

The north wall of Room 32, above the altar, shows evidence of four coatings of plaster on the mud-brick face of the wall. First there is a thickness of 1.3 cm. plain mud plaster; second, a thickness of 0.2 cm. coloured dark-blue; third, a thickness of 0.8 cm. coloured dark-blue; and finally, a thickness of 0.4 cm. coloured white. So that this wall has been re-plastered at least three times.

Found in debris: copper pin and flint knife.

2. North-east Wing. Clearing debris of pebbles, etc., and drift-sand from north of the south wall of wing.
KUSH

Thursday, 28 January 1932

Work on: 1. Inner Fort. Locals: 54.
   Temp.: 59° at 3 p.m.

1. Inner Fort

Street 39. At a point in the street abreast of Room 37, where the re-plastering of the floor is worn away to the original mud-brick floor, the levels of re-plastering are visible, as shown in FIG. 93.

![Fig. 93](image)

Between the plaster levels 2 and 4 there are many close-set levels where the floor has evidently just been given a thin wash to smooth it.

North Wall Street. Cleared to its eastern end. Found in debris: base of alabaster kohl-pot.

![Fig. 94](image)

Room 32 (see FIG. 94). Cleared remaining steps of altar stair, and the sill of doorway into Street 39. Found in debris: part of large pot with bones of very young child—in sand debris.

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*Street 33.* East of Room 32. Cleared to north end.
*Street 39.* Found in debris: fragments of mud-sealings.
*Room 47.* Found in debris: fragments of mud-sealings and bowl.
*Room 48.* East of the north end of Street 33. Doors south and east. Walls denuded (see FIG. 95).

2. *North-east Wing.* Continued the clearance of drift-sand from this wing. The plan is now seen to be roughly as shown in FIG. 96.

The North-east Wing consists of a main wall running eastwards to the end of the rock spur, turning north at this end. There are buttresses along the north face of the wall, with 'foundation' glacis slopes between them. The core of these glacis slopes is made with large rocks resting against the face of the wall proper.

The northern wall appears to be in the nature of an outer glacis, as the space between the walls is a deep, rock-cut ditch. This ditch may turn north along the outside of East Wall and join the eastern end of the Outer North Ditch of the Fort.

**FRIDAY, 29 JANUARY 1932**

49th Day of Work


2. North-east Wing. Weather: Fine, Temp.: 60° at cold. 1.30 p.m.

1. Inner Fort. Cleared remainder of debris from streets and rooms in north-east corner of Inner Fort for photographing.

2. North-east Wing. Clearing debris from the ditch between walls to the bottom of rock-cutting.

Clearing northwards along outer face of East Wall north of wing walls. Also clearing north wall of wing and outside its north face. Here there is rubble debris, under which are many potsherds (many of crucibles) and below the potsherds, walls of small rough buildings. These small rooms appear to be of earlier date than the building of the north wall of North-east Wing.

**SATURDAY, 30 JANUARY 1932**

50th Day of Work


Weather: Fine, Temp.: 64° at 3 p.m. wind north-east.


*Room 51.* Walls broken. Door on east to Room 53.
*Room 52.* South of Room 51. Clearing.
*Room 53.* Door on east. Clearing.

N.F.W. and Handrick visited Semna West and Uronarti by west bank.
DIARY OF THE EXCAVATION OF MIRGISSA FORT

SUNDAY, 31 JANUARY 1932


   Rooms 51 and 52. Cleared to floor.

   Room 53. Passage between rooms. Found in debris: pot-stands and bowl.

   Room 54. East of Room 53. Found in debris: stone chisel and pot lid.

MONDAY, 1 FEBRUARY 1932


1. North-east Wing (see FIG. 97). Clearing ditch of North-east Wing. Uncovered Room 55.

   Room 55. Walls broken. South of Room 54. Door on west to Room 53 stopped up.

   In the area north of North-east Wing the debris consists almost entirely of potsherds and ashes of charcoal. The potsherds are broken jars—some with pierced bases and others without. In Room 54 is a stack of these pots, built into the form of a small mastaba.
KUSH

2. East Wall. North of North-east Wing the outer line of East Wall is not clear. There have been buttresses, but of irregular dimensions, and not corresponding to those in other parts of the wall. The area is worn down by wind and sand almost to rock level, and as it is worn below the level of the buttress floors, few lines are traceable.

Mr Grabham saw the Fort and objects during the day and returned to Halfa in the afternoon.

TUESDAY, 2 FEBRUARY 1932
53rd Day of Work
Weather: Fine. Temp.: 64° at 1.30 p.m.

1. North-east Wing. Clearing drift-sand from ditch of wing.
Clearing north of North-east Wing. Debris: potsherds, charcoal, ashes, etc. Uncovered Rooms 56–60.

Room 24 (sic). Two small magazines.
Room 56. North of Room 51. Cleared.
Room 57. Walls broken down. North of Room 54. Doors on east and west. Two magazines.
Room 58. East of Room 55. Found: One pot with handle. Cleared to floor.
Room 60. North of Room 59. Clearing to rock surface.

WEDNESDAY, 3 FEBRUARY 1932
54th Day of Work
Weather: Fine. Temp.: 64° at 1.30 p.m.

1. North-east Wing. Continued the clearance of North-east Wing, and the area north thereof—including the outer face of East Wall of Fort.

This area has been very puzzling, owing to the distribution of debris, and its nature; but the sequence is now fairly clear.

The area of small rooms (nos. 51–60) is built largely on debris of potsherds and ashes, but partly on rock. The debris over these rooms was almost entirely small rubble, to a fair depth.

In East Wing itself the ditch contained mostly drift-sand with, in the lower levels, debris of mud-brick from the fallen walls. The north wall, lining the ditch on its north side, is built on debris of potsherds. A series of walls of one-brick thickness against the north side of this wall appear to be retaining walls for rubble and are built on potsherds and debris. Above them was a metre of small rubble debris.

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The 'glacis'-slope of mud, built against the lower part of the South Wall of the Wing is built on debris, as is also the similar slope against the outer face of East Wall and its buttresses.

The sequence of construction work would appear to have been:

I. The entire Inner Fort with its walls and buttresses, on rock.

II. The South Wall of North-east Wing, with its buttresses, on rock.

III. The 'glacis'-slope against the lower part of the north face of the South Wall of North-east Wing, and against the lower part of the outer face of Inner North Wall of Fort, built on debris of mud-bricks with an inner core of large rocks between the buttresses.

IV. The northward extension of East Wall of Fort, and the entire Outer Fort Walls, with their buttresses.

During one of the above periods the area north of North-east Wing was occupied by workshops of some sort and the ground covered with ashes, charcoal and potsherds. The potsherds are almost entirely of one type of pot, the so-called 'drain-pipe' or 'crucible' which is certainly neither of these things. None show the traces of heat which a crucible would show; and a very large number are unpierced in the base—precluding the possibility of their being pipe sections. Their exact purpose remains problematical.

V. The cutting of a 'ditch' in the rock against the north face of North-east Wing. The rock chips from this work were used to fill the small retaining walls north of the ditch.

The northward turn of the east end of North-east Wing wall may have been made at this period or earlier.

The entire Ditch system of the Fort may also have been done at this time and the only stone 'glacis' made.

The small rooms north of North-east Wing may have been built at this time or earlier.

VI. The ditch of North-east Wing was cut deeper. The stone chips from this work were dumped over the Rooms 51–60 and over the small retaining walls south of them.

VII. The mud-brick 'glacis'-wall was built on the northern edge of the North-east Wing Ditch—the previously dumped stone debris being used as a backing thereto.

The mud-brick 'glacis'-slope against the outer face of the north extension of East Wall of Fort may have been built at this period or earlier. It is on potsherd debris.

The East Wing and South-east Wing were presumably contemporary with North-east Wing (no. II above); but there is, so far, no evidence for or against this.