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EGYPTIAN DEPARTMENT OF THE UNIVERSITY MUSEUM
ECKLEY B. COXE JUNIOR EXPEDITION TO NUBIA
VOL. V

KARANÒG

THE TOWN

BY

C. LEONARD WOOLLEY

PUBLISHED BY THE UNIVERSITY MUSEUM

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P R E F A C E

THIS volume is the fifth of a series which will record the results of explorations in Egypt, planned and financed by Mr. Eckley B. Coxe, Jr., of Philadelphia. By an agreement made with the University of Pennsylvania, in January, 1907, the expeditions are to be conducted on behalf of the University, and the antiquities obtained will be presented to the University Museum.

Dr. D. Randall-MacIver and the present writer, as curator and assistant curator of the Egyptian department of the museum, have been charged with the duty of conducting the excavations and publishing the results. This volume, describing the Blemyan town of Karanòg, stands in close relation to the two preceding volumes that dealt with the cemetery attached to the town, and to volume vi in which the epigraphical material is published by Mr. F. Ll. Griffith of Oxford. The four volumes bearing the common name of Karanòg will form a complete record of the results obtained by the expedition from the first Blemyan site to be excavated, and will serve as a basis for the material history of that people.

The writer wishes to record his thanks to Dr. D. Randall-MacIver for assistance both on the spot and in the revising of MSS.; and his gratitude to Mr. Eckley B. Coxe for his personal interest in the work as well as for the generosity that originated it.

C. L. W.

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CHAPTER I

GENERAL INTRODUCTION

IN volumes iii and iv of this series are described the results obtained from the excavation of a large cemetery lying a little north of the modern village of Anibeh in lower Nubia, and reasons are given for supposing this cemetery to have belonged to the little known Blemyan people who between the first and sixth centuries of the Christian era inhabited this region. It was tolerably clear that of the Blemyan towns in the neighbourhood, that which the modern natives know as Karanög stood in closest relation to the graves, and the name was therefore applied to those volumes of the series that deal with this Romano-Nubian civilization. The contents of the graves alone, rich and varied as they were, did not illustrate fully enough the Blemyan culture as a whole, and to complete even a preliminary study of the people it was necessary to do some work upon a town site belonging to them; Karanög, in view of its connection with the cemetery, was clearly indicated as the proper site for such work, and therefore in the winter of 1909-1910, while the main forces of the expedition were engaged at Halfa, the writer was employed at Karanög in such digging as was necessary for the results that might be expected. It was not to be hoped that the town site would prove at all rich in museum specimens, of which the graves had already yielded an abundance; its object was rather the study of house plans and constructional features, the collection of chronological data, which were conspicuously absent from the tombs, and the finding of further material for the elucidation of the language.

Karanög, the House of Kara, stands on a low tongue of rock that runs down towards the river, a little distance south of the village of Tomás. At the north end of Tomás village, on a similar but loftier and more precipitous spur, stand the ruins of Sheikh Daoud, which modern geographers have identified, perhaps rightly, with the fortress of Begrash whose name appears both in the writings of the mediæval Arab historians and on inscribed offering-tables from the Blemyan cemetery at Karanög. Between the two fortresses, in front of the modern village, stretches one of the most fertile reaches of lower Nubia, whose broad belt of feathery palms has inclined us to identify Sheikh Daoud with the Phoinikion of Olympiodorus. Facing this rich demilune lies an equally fertile island, Geziret Tomás; but it is more than possible that in the Romano-Nubian period the island formed part of the western bank, which with this addition would certainly have been the largest cultivated area in the region. Some years ago the channel on the west of the island was alone navigable in the summer season; now it is being silted up and in summer is practically dry, while the altered current is carrying away more and more of the eastern part of the island and deepening at the same time the eastern channel, so that in a few years' time the district may have recovered the aspect which it presented fifteen hundred years ago. Similarly the bank on which stood the town of Karanög has been to no small extent eroded by the stream, and here too it is not improbable that the now shallow channel on the east side of the island of Geziret Ibrim, whose northern end lies just over against the castle of Karanög, was once the true river bed and that the island was attached to the western bank. Even as things are to-day, the strategic value of the three Blemyan strongholds, Sheikh Daoud, Karanög, and Ksar Ibrim, is very obvious; it would be vastly enhanced did the two islands form part of the west bank. In that case the cultivated area that now corresponds to Tomás, but so greatly widened, would have been held at either extremity of its arc by the fortresses of Sheikh Daoud and Karanög; southwards from the latter would have stretched a broad band of fertile country, now represented

*The Country
round
Karanög.*

The Country round Karanog. by the island and the western channel of the Nile, which would have joined on to the rich and broad oasis stretching out around and behind Anibeh. Where this dwindles away to desert on the south the great spur whereon Kasr Ibrim was built juts out upon the narrowed river and commands at once Anibeh and the belt of palms that fringes the eastern shore; the chain of forts is carefully chosen to safeguard the whole fourteen mile tract of the most valuable land in Nubia. On Pl. 1 are shown the views obtained by one who stands by the castle of Karanog and looks first down and then up the river. In the first photograph the palm grove hides the ruins of Sheikh Daoud in the distance, but its position can be guessed at the far end of the fertile stretch that contrasts so strongly with the barren aspect of the east bank; thus seen, the island of Tomâs sinks into the main land, the western channel disappears from sight, and the view is much what we may suppose it to have been in Roman times. In the second view the rich island of Geziret Ibrim lies on the left; in the distance the Nile broadens out to enclose the wide sand banks of Abu Ras, doubtless at one time part of the island of Ibrim from which its northern end, sparsely overgrown with thorn scrub and brightened by a few patches of corn, is only divided by a narrow channel. Seen thus from Karanog, this reach of the river looks like a great oval lake with the island in its midst; on the horizon can be seen three precipitous spurs that rise sheer from the water, and on the central spur stands Kasr Ibrim. On Pl. 2, Fig. a, can be seen the view from Kasr Ibrim, looking north and west. Karanog from here is but a spot hardly to be distinguished in the distance, though at one time its huddled group of high whitewashed houses must have been visible enough; on the western bank are the cornfields and groves of Anibeh and behind these the once fertile but now neglected plain stretches bare to the few palms and *durra*-patches that form a tiny oasis on the skirts of the true desert. To-day it may seem a somewhat barren country to have been so elaborately defended, but in the old conditions of wider fields better tilled it must have been a veritable Land of Promise for the wandering tribe that came from the deserts of the southeast to find its inheritance upon the Nile.

Different Periods of the Town's History. The work carried out last winter at the town of Karanog did not in any degree exhaust the site. The castle, the most prominent building, indeed the only one that still stood above the drifted sand, was cleared and examined, and a small number of houses were excavated. In order to obtain from this limited amount of work a fair idea of the whole site, the houses chosen were the only one that lay between the castle and the river, forming the northern limit of the town, the isolated row built upon the higher rock plateau that bounds the town upon the west, a small group at the southwest corner, and three connected houses in the heart of the town not far from the river bank. A comparison of the results from all these brings out clearly certain points. There were two main periods of building, characterized by very distinct styles of architecture. In the earlier the brickwork was good and solid, the smooth whitewashed walls supported barrel vaults above which rose a second and sometimes a third storey reached by winding brick stairs. The rooms were built round or upon open court yards; the ground plans were regular, the main lines of the building truly laid down, and the details of good construction, bonding, etc., carefully observed. In the later period flat roofs of mud laid over rafters and palm-leaf mats took the place of the old vaults, the plans were straggling and incoherent, the walls flimsy and ill built. The houses of the early period were uniform and probably contemporary, but the periods of repair and of rebuilding were naturally different upon different sites and could not be synchronised, and here too additions and alterations made at different dates confused the evidence for the later stages even of a single house. It is not easy to see to what event in the history of the town such a phase of destruction and rebuilding could be due; there is nothing in literary history or in the evidence given by the site itself to define any catastrophe that would result in wholesale reconstruction in a late period. Probably there was no such catastrophe: the older buildings put up by the first settlers fell into disrepair, were first patched and then neglected, and a later and less skilful generation put up from time to time their ruder dwellings over the ruins

of a style which they could not emulate; only a few of the first houses either stood throughout the whole period of the town's occupation or, if they fell into decay, were not supplanted by others, and therefore still occupy the higher levels of the site unconfused by subsequent building. It can however safely be affirmed that almost all the houses, even the latest, fell within the Blemyan period; Meroitic ostraka and painted Blemyan pottery attest this, and though in two cases in the houses (K H 8 and 9) Christian remains were found, and in the castle ruins a Coptic MSS. was discovered, yet these prove no more than a partial occupation by scattered poor families who squatted in the ruins of the deserted town and tried to make habitable a few of its less dilapidated chambers; as evidence they cannot be relied upon much more than can a fragment of an English newspaper and a United States postage stamp, which were found at about the same level as the Coptic MSS., and under a considerably deeper deposit! Generally speaking, we have at Karanög the signs of a civilization which starting at a high level of technical achievement in the days when the influence of the Meroitic tradition was most strong, gradually in its growing isolation degenerated, until impoverished in its material resources and losing grip of all its inspirations except that of the religion to which it tenaciously clung, it sank almost to the level of the modern Nubian. It is true that some of the minor arts such as pottery-making still flourished with something of their old vigour, preserving with characteristic conservatism many of their old motives and modifying but slightly their old technique; it is true that the Meroitic script was still employed side by side with the official Greek, and that the court of the Blemyan kings imitated the forms and etiquette of the Byzantine Caesars; but the general condition of the people had degenerated, and when Silko and Justinian finally destroyed the Blemyes about 543 A. D. they must have been in fact if not in seeming a people far inferior to those with whom Maximinus had made pact about a century before.

One feature in the building seems to stand in relation to the history which we learn from other sources. On Pls. 2, 3 and 4 can be seen the lofty ruins of the castle, so-called because of its commanding position on the high rocks in the northwest corner of the town and of the greater area covered by the solid walls of its imposing pile.* The photographs show how everywhere its walls are breached by great gashes in the brickwork reaching from the windows of the second storey down to its stone foundations and wide enough for a man to pass through; similarly inside the castle the party walls between the rooms are pierced, the doorways battered out and the whole building deliberately ruined so that one can wander through it at random. The front view (Pl. 4, Fig. a; Pl. 5, Fig. b) shows the entrance on the eastern face, and here a difference at once strikes the eye. The gateway has been broken down for a width of some thirteen feet, and even the heavy stones of the foundation courses have been dislodged; but here, and here alone, an attempt has been made to repair the breach. To the broken edge of the wall has been built on as best might be a block of rough brickwork; the bricks are ill-laid, some of them were but broken fragments; rough stones from the desert are mixed with the bricks, and in one place a line of headers is laid slantwise on edge in a fashion which, as the house-sites show, was characteristic of the latest Blemyan period. The piece of patchwork starts at foundation level with the same width as that of the older wall, but this diminishes as the wall rises, until at the highest point at which it stands it has lost a third of its proper thickness: it shows therefore every sign of hasty, makeshift work. This new wall has itself been breached after its completion. Now in the inscription in the Kalabsheh temple, where Silko recounts his conquest of the Blemyes, he seems to speak of two campaigns; after the first of these the Blemyes submitted and he made a truce with them and retired to his own country, trusting to their abiding loyalty by his terms; then they sought a quarrel against him, and in a second

*House KH 2 actually occupied a larger area, but a good deal of this seems to have been taken up with buildings of one storey only (see p. 28).

*Evidence
of Silko's
Campaigns.*

campaign he utterly wiped out the rebellious people. The story is confused enough, but it is perhaps to be reconstructed as follows: Silko immediately after his conversion by the emissaries of Justinian attacked the Blemyes as a proof of his enthusiasm for the new faith and the new alliance; he was victorious, received the submission of Karanog and the other towns, and in token of his victory "broke down the gate thereof" in the true fashion of an eastern conqueror. Then Justinian ordered the destruction of the Isis temple on the island of Philae; it was the common property of the Romans, the Nobades and the Blemyes; two of these peoples were now Christian, the third was cowed, and the moment seemed opportune for the destruction of the last pagan shrine officially maintained within the Roman Empire. But this was too much for the Blemyes, conquered though they were; they hastily repaired the breach in their battered walls and rebelled against their conqueror. Silko, aided by the Byzantine forces under Narses, Justinian's envoy, attacked them again victoriously, and this time left no doubt as to his victory; not only the gate but every door and every wall was breached and the town and castle destroyed beyond the possibility of defence: its inhabitants were scattered or enslaved, and the city of Karanog was deserted. No attempt was ever made to repair any of the breaches in the castle walls made after this second campaign of Silko, and if a few Christian Nubians at one time or another squatted in the less ruined rooms, blocking up a doorway here or there with a flimsy screen of plastered mud, they never essayed anything that could be called rebuilding or even repair; the traces of their ephemeral encampment only enhance the actual desolation of the site.

*Results
from the
House Sites.*

The castle had not passed through any of the stages of alteration or reconstruction during the Blemyan period that were so evident upon the lower house sites. Here, apart from the constructional features peculiar to the earlier and later years of the occupation, differences and developments could be ascertained in the case of pottery also. In spite of the great quantity of pottery vessels found in the graves near Anibeh, no criteria had been there forthcoming whereby any technical progress or any relative chronology could be defined; in the case of the houses, where unbroken floor-levels gave to stratification an importance which it does not always possess, a certain amount of material was found to illustrate, at least in some wares, the gradual transition from the earlier Blemyan shapes and motives to those of Coptic art. New types of all periods served to show the distinction, always more or less observed, between the household wares and those deemed proper to funerary uses; rough handmade store-jars, which were never found in the graves, appear commonly in the house ruins; handmade pots of all sizes were in constant use for cooking or for other domestic purposes, but occur rarely in the tombs, and then only in those of the poorer class; and in the town the proportion of undecorated as opposed to decorated vessels is, as we should expect, greatly in excess of what was observed in the cemetery.

Apart from pottery few objects of interest were found on the town site. There were a number of Meroitic ostraka (Pl. 18, 19, 20), more or less fragmentary, the main interest of which lies in the frequent occurrence on them of numerals, and in the presence of a place-name, *Pezeme*, which is found also in inscriptions at Amara and elsewhere.* A Greek ostrakon seems to be dated to the twelfth year of Alexander Severus (233 A. D.).

Just below the surface of the sand overlying house 7 was picked up a coin of Nero struck at Alexandria in the twelfth year of his reign (65 A. D.). This was the only coin found, and it has the dramatic interest of recalling the mission of the spies whom Nero, when contemplating an Aethiopian campaign which his death prevented him from carrying out, sent down through this country and as far south as the Sudd district on the Blue Nile.

Of later remains the most interesting were two fragments of Coptic MSS. One is on papyrus and is the first Coptic version of a legend already known from Arabic and Aethiopic sources.

* For the hand copies of the inscriptions and for notes thereon I am indebted as usual to Mr. F. L. Griffith.

The story deals with a saint, Sisinnius, whose sister, named Berzelia, was seduced by Satan; *Results from the House Sites.* she became a vampire and used to suck the blood of small children. In the end she was put to death by her brother the saint.* The other MSS. is written on gazelle-skin leather and seems to be a deed of sale or a marriage contract between one Georgios and his wife Christe. In house 8, in the open yard (14 on the plan, Pl. 29) were found the fragments of a rudely painted earthenware chest decorated with the Christian cross (Pl. 13), and in house 9 were parts of a similar chest having upon its sides a rough design of fishes, probably also Christian; a small painted Coptic saucer (Pl. 13) found in the same house 9 points to its having been one of those utilized by the straggling settlers of the post-Blemyan age, and it is possible that the actual construction of the house, which differs a good deal from the others in the site, is in part at least of Coptic work.

One perplexing point about the town is the apparent absence of any temple, that is, of any *The Absence of a Temple.* stone construction such as one would look for upon an important Blemyan site. The stone foundations of the castle and of house 2, the fragments of stone trellise windows (see ch. vi), and the common use of cut stone in the superstructures of the tombs, would lead one to expect some such building as the temple of Kasr Ibrim (Pl. 12, Fig. a). At Halfa, where the Meroitic settlement was of the poorest type, there seems to have been a small temple which though rough enough in its construction was at least in part stone built and superior in style to the houses that lay around it (vol. vii, chap. viii). On the Meroitic site of Gebel Adda the great eastern wall is of massive stone dressed in the manner familiar to us in Blemyan examples: at Faras there are similar stone buildings, though no temple of the period can as yet be traced; at Kasr Ibrim, besides the temple, parts of the walls and some stones incorporated in the Coptic church show typical Blemyan dressing (see Pls. 11, 12). We do not yet know enough to distinguish between Meroitic and Blemyan stonework,† though the difference between Blemyan and Coptic is fairly clear, and it is quite possible that some or all of the stone buildings of these more southern sites are of a date previous to the invasion of Petronius in 23 B. C.; but at Sheikh Daoud the gateway is of similarly treated stone, and as there is little doubt that the earliest buildings there are of the Blemyan time‡, this, if it does not give a later date to the southern sites, at least warrants us in expecting buildings of that type in a Blemyan town. The excavations at Karanòg failed to discover anything of the sort, and though of course they covered but a small part of the town area and cannot therefore in themselves be regarded as at all conclusive, yet taken together with the entire absence of any surface indications of a stone building and the uniformly brick construction of the walls everywhere visible, they do seem to show that a stone temple does not exist upon the site. If such did exist, and it is difficult to imagine a place so important as Karanòg without a temple, and that a temple of stone, it probably stood nearer to the river and has been swept away when the stream changed its channel. The ends of broken walls jutting out from the steep bank show that the houses extended for some distance at any rate over what is now the river, and it may well be that with the disappearance of the eastern quarter of the town there disappeared also the temple of Karanòg.

*Sir Herbert Thompson, who kindly sent me a translation of the fragment, adds the following note: "The story in Aethiopic has been published by Basset, *Apocryphes éthiopiens*, iv. 1894, and by K. Fries in the *Actes du 8^{me} Congrès des Orientalistes* (Stockholm 1889) published in 1893. From an Arabic source the story has been told by Amélineau, *Actes des Martyrs*, 1890, p. 183."

†Where Meroitic is used in contradistinction to Blemyan, it is intended to denote by the first term that period in the history of the inter-cataract region which ended with the campaign of Petronius in 23 B. C., i. e., the period of occupation by the Meroitic people of the Kandakid empire; the second term is used with reference to the subsequent occupation of the same territory by the Blemyes, an off-shoot but not a direct representative of Meroë, which began probably about 100 A. D. and continued till the campaign of Silko c. 543 A. D.

‡In the time of Petronius the Kandakids had seized the Egyptian town of Dakkeh, but the northernmost of their own strongholds which Petronius had to capture was Kasr Ibrim.

*The Visit of
Olympiodorus.*

*The Castle
as it was.*

In the early years of the fifth century A. D. the Greek historian Olympiodorus, then stopping at Aswán for the purpose of collecting material for his work, was invited by the Blemyes to visit their country; welcomed both as a writer and as a fellow pagan, he was entertained at the various towns between the northern or Nobad frontier and Kasr Ibrim on the south. At this time the decadence must already have begun amongst the Blemyes, whom the destruction of Meroë in the middle of the previous century had probably hit hard,* but the community was still a flourishing one. Already from the high citadel of Sheikh Daoud our traveller would have had pointed out to him the patch of gray and white beyond the tree-tops that stood for Karanög. As on the next morning he sailed up the stream along the palm groves, a turn in the green river bank would disclose quite near to hand the streets and buildings of the town that huddled on the lowest slopes of the desert. To the right was the castle, a three-storeyed building whose broad expanse of blank walls was broken only by a few windows, small as windows must be that look out on the burning sun and driving sand of Nubia, and set high up so as to give defence against an enemy's attack. Simple as it was, the building was not without dignity: the severity of its lines was relieved by the pronounced batter of the walls, which gave also an air of solidity such as comes from the sloping buttresses of northern architecture: the roof-line broken by the high curves of the vaults, and the stepped brickwork of their corbelled ends, were in strong contrast to the straightness of its general features; the arched windows of the middle tier, set between the pointed hoods of the lower windows and the flat-topped slits of the third floor, harmonized with the round vaultings and tied up the whole design into an architectural unity. On the low ground beneath the castle rock a smaller house surrounded by a long, low court-yard wall closed in the town to the north. Over the top of this the eye caught the roofs and upper windows of another great building almost as imposing as the castle itself, that occupied a spur of rock just to the south of it and stood high over the close-set houses of the lower town. The town was one of narrow and irregular streets, if streets they could be called, that turned and twisted between houses two and three storeys high which, though orientated regularly, were dotted here or there at random, having no uniform frontage, but set back or projecting forward according as the area each occupied was greater or smaller than that of its neighbour. One house, built over the ruins of an older structure, might stand on a roughly levelled plot several feet higher than that next door; the solid walls of some three-storeyed building whose courtyard blocked with storehouses and low-vaulted magazines betokened the wealth of its owner, stood cheek by jowl with the straggling hovel of a poor man, whose womankind would gather on its flat roof of mud and palm leaves to catch a glimpse of the Greek visitor as he passed on his way from the river bank to the castle.

*The Interior
of the Castle.* When he had climbed the low, shelving rock and passed through the single narrow doorway that gave entrance to the castle, Olympiodorus found himself in a long, vaulted hall, with doors in each of its sides. It was plainly whitewashed, and though the single window was small and set so high up that its top was almost level with the crown of the vault, the morning sun striking through gave a diffused light which, when once his eyes had grown accustomed to it, was quite sufficient and a welcome relief from the dazzling glare outside. On his left a doorway opened onto the great staircase that, winding round its heavy brick pillar, led to the dwelling-rooms above; a low hatch-window in the same wall communicated with a small cupboard-like chamber beneath the vaulting of the lower stair-flights, where perhaps slept the janitor who scrutinized

*It is quite possible that the Blemyes, or at least Blemyan contingents, fought on the side of Meroë in the campaign which ended so disastrously for the Meroitic empire, and that their loss was material as well as moral; at any rate the supposition that the victory of Aezanas marks the turning point in the fortunes of the Blemyes, as illustrated by the difference between the earlier and later buildings of Karanög, is a tempting one, nor does the fact of the comparatively successful resistance offered by them to Maximinus a century later make it at all impossible.

the visitors mounting to the upper rooms. But keeping for the present to the ground floor, *The Interior of the Castle* the historian passed through a second small, vaulted room whose doorway lay opposite to that by which he had just entered the castle, and found himself once more in the open air. He was in a courtyard open to the sky, shut in all round by lofty walls, between which, as down a well, the light and air came, to be caught as best might be by the narrow windows that faced upon the court. Around two sides of it, a little above the windows of the ground-floor rooms, ran a makeshift wooden gallery, its heavier timbers bedded in the brickwork and supported at their outer ends by big uprights that sorely cumbered the narrow ground space; a second and lighter staging ran at a higher level and was reached from the first by a steep ladder. Both, however, seemed to be rather temporary structures that could easily be dismantled, and indeed their inconvenience was obvious enough, for the planking that ran just above the windows of the lower rooms shut out effectively even the little light that a Nubian requires indoors, and made very necessary the lamps that burned within nearly all day long. The scene was busy enough. The courtyard, like all the rooms of the ground floor, was given over to domestic uses. In one corner, in a great oval-topped oven, was being prepared the *durra* bread for the day; here and there squatted women grinding corn or pounding lentils in stone troughs; other servants passed to and fro from the storerooms to the kitchen, or carried away to the magazines the jars of wine that Olympiodorus' vessel had brought as cargo upstream and the corn that was fetched in from the fields to store for future use. The visitor must needs peer through the open door on his right into the kitchen, where through the pungent smoke that eddied round the vault and poured out of the narrow window, and through the darkness that a lamp set in a niche in the far wall illumined but could not dispel, he could see the preparations being made for his welcome. The walls of the room were plastered with mud which had never been whitewashed and was now blackened with smoke and grime, the mud floor was worn rough and uneven by feet trampling where water had been spilled; two or three bricks or stones laid together served as fireplaces, wherein a handful of charcoal glowed beneath a rough, handmade pot of black clay, the incised decoration of which had long since disappeared under a goodly coating of soot. From beneath the springers of the vault, along either side of the room, projected stones, rounded and pierced, built into the brickwork, through which ropes were passed that stretched across from wall to wall; from the ropes there hung above the heads of the cooks bunches of vegetables, shallow brightly coloured trays of basketwork containing dried bread, dates and peas, earthenware pots and joints of fresh meat; there were no shelves, but everything that was not stacked upon the ground or put in chests of unbaked mud was hung in this way from the roof and was exposed to the heat and smoke from below.

From the kitchen the historian was led to quieter rooms on the south side of the court. Here, approached less directly through other rooms, were two magazines (4 and 5 on plan). The inner of these was small and windowless, lit only by a lamp that stood in a niche in the east wall, and here were stored the more valuable of the castle's treasures; the outer room, which was large and lit by two high-set windows (see Pl. 6, Fig. a), was given over to stores of a more domestic sort. In the far corner, on a raised platform, stood a great bin of clay filled with corn, and sacks and baskets of corn were ranged along the walls beside it; here were rows of wine-vessels, some the ungainly pots that held the vegetable beer of the country, some slender amphorae docketed in ink with the names of Greek or Egyptian importers. Just such amphorae as these the porters were even then bringing up from the newly-arrived ship; a steward seated by the doorway counted these as they came in, sealed them afresh with soft mud, and stamped them with the new castle mark, after which they were set in their places amid the older stock; perhaps a list of all, written in white ink on a potsherd, was duly made out and filed with the castle accounts.

The Inhabitants of the Castle. The rooms to the west of the court were next visited. Here the servants of the household lived and worked; women were to be seen spinning thread or making cloth, and preparing oils for the toilet, or making beer from pounded seeds. Some of these rooms facing on the courtyard were so ill lit for the purposes for which they were needed that not only the walls and ceilings but the floors also were whitewashed, and in the subdued, reflected light the bodies of the lightly clad women showed as brown blotches against which gleamed here and there the blue or gold of the glass beads that they wore in such profusion. In one room, where perhaps the guards lounged idly, the visitor smiled to see rude pictures scratched upon the walls: drawings of camels and crocodiles, and of warriors or huntsmen mounted on galloping horses and hurling lances, or of many-oared Nile boats with great lateen sails, the handiwork of the artist in the troop. As he passed from chamber to chamber with his guides, Olympiodorus could see a strange medley of peoples: in contrast to the straight-nosed, thin-lipped aristocrats whom he followed were the negroes, who formed the bulk of the town's inhabitants, the desert folk of mixed blood, Nubians or settlers from the western desert, Egyptians, perhaps amongst them ex-soldiers of the Roman garrison captured in some northern raid, a one-time Christian monk who had bought his life by renouncing his faith, and maybe some fellow Greek who to save his faith had taken refuge with the barbarians and was helping them to imitate the forms of polite life that prevailed in the Byzantine court;—all had their place in the little kingdom whose overlord, harking back to an alien tradition interrupted ages since, called himself the King of Upper and Lower Egypt.

The Upper Rooms. Leaving the servants' quarters of the ground floor, the guest mounted the smaller staircase in the southwest corner of the building that led primarily to the women's quarters. These were more secluded, perhaps, than were the other rooms, but there was nothing of that rigid privacy that surrounds the harim of to-day; the Blemyan women went unveiled and mixed freely with their men-folk indoors and out: their rooms were open to the visitor, and from them he could pass freely into the main dwelling chambers and the official halls that occupied this, the principal floor of the castle. On this upper storey was to be seen the wealth and culture of which Silko's victory, a little more than a century later, was to sweep every trace away. The architecture was still simple enough, but the high arched windows, set only a little way above the floor, lit up the interior, and stood in marked contrast to the narrow slits that pierced the vaults of the ground-floor rooms. On the whitewashed walls may well have hung curtains with dyed patterns of red and blue; the light was broken up by screens of sandstone curiously carved in open-work with figures of strange animals or twining lotus flowers, and was caught in the depths of delicate glass vessels, amber, white or blue, imported from the factories of the Roman Empire. Here were bronze vessels of Greek workmanship, some of them heirlooms handed down from the days of the early settlers when the bronze-workers of Alexandria were famous, and others of ruder native work with hammered designs, the alloy of a rich gold colour or plated with tin to resemble silver. In the women's quarters were caskets of wood inlaid with ivory, toilet-boxes of turned wood or of lacquer-work in polished red and green and yellow, cut through so as to show the natural wood in patterns of festooning leaves, bags of cut and dyed leather, bottles of unguents and toilet instruments of iron and of bronze. Scattered here and there were fine examples of painted pottery, which for variety of colour and design far surpassed anything that Egypt or the Roman world could then produce; from these the eye would turn with more amusement than admiration to rude terra-cotta statuettes of birds or men, or to a small roughly carved or painted stone figure of a hawk resembling somewhat those that stood above the graves in the cemetery to the south, objects crude enough if viewed as works of art, but cherished as emblems of the religion which the Blemyes championed against a Christian world. In one room, perhaps, was transacted the official business of the kingdom, where an Egyptian scribe, whose learning excused his Christianity, translated into official Greek such letters as were to be dispatched to local governors or to friends beyond the proper Blemyan borders, or the lord

of Karanòg himself wrote his orders in the traditional Meroitic script that was soon to become *The Upper Rooms*. a mystery and a legend. Amid such evidences of a real, if barbaric, civilization, it was easy for the visitor to forget the growing poverty of the town, the gradual degeneration of this little kingdom, now shut in to north and to south by religious foes and thrown back upon its own all too scant resources; but on the other hand, as he gazed out from the windows it was difficult not to draw the contrast between this decaying stronghold of paganism and the huge monastery* whose walls he had a little while before seen rising at Akhmim. Yet the view itself was fair enough, looking from the southern windows over palm-grove, *durra* field and river to where in the far distance the noonday sun shone full upon the temple that crowned the northern corner of the heights of Kasr Ibrim, and the historian must needs have understood the better for it the tenacity of a desert people that for centuries had held fast these fertile reaches against the power of Rome. Certainly he must have thanked the gods for the chance that had given him so close a knowledge of the Blemyes, when for other Greek writers they were still but border thieves given to human sacrifice in the Sun's honour and to a warlike activity that made them the scourge of Egypt.

Olympiodorus' own account of his visit to the Blemyan cities is lost, and the above is but an attempt to give a partial picture of the town and castle as it was, an attempt based on the dull evidence of detailed measurements and petty finds which, for the benefit of the student who cares to verify a too fanciful account, is given in other and more technical chapters. To a certain extent the furniture of the tombs has been drawn upon to illustrate the houses of the people with whom it was buried, and for this, as well as for various historical allusions, the reader must be referred to volumes iii and iv of this series. Naturally when a particular date is chosen out of a long period for which chronological evidence is scanty, a few anachronisms may have crept into the description, but it is hoped that those, if detected, may be excused in the interests of an attempt to introduce all the details that can as yet be known of the domestic life of the people of Karanòg.

*The White Monastery, completed by Senouti about 427 A. D.

CHAPTER II

CONSTRUCTIONAL FEATURES

Stonework.

THERE was very little stone building at Karanög. Masonry was only used for the lowest courses of the castle and of house 2, where it formed, as it were, a podium from one to four courses high; above this all was of brick. The stones that were used were carefully cut, averaging about 0.50 m. either way, not always rectangular, with a narrow smoothed edge and a pick-dressed central slab. The pick-dressing represents the true face of the stone, the edge being trimmed back, so as to put the centre in slight relief; precisely similar stone-dressing can be observed on other Blemyan sites such as the cemeteries at Shablul and Anibeh, at Sheikh Daoud, Kasr Ibrim, Gebel Adda, Faras and Behen; it is easily to be distinguished from the Coptic style of stone-dressing to be seen in the church of Kasr Ibrim, where the stones are small regularly-cut oblongs with a broad smooth edge and a small central pick-dressed panel sunk well below the level of the smoothed surface, as well as from the apparently intermediate early Coptic style (also to be seen in the Kasr Ibrim church) where the broad margin is dressed with diagonal striations and the centre, which presents the same level, has three or four regular rows of short pick-markings on the opposite diagonal. On some of these other town-sites there is a considerably larger proportion of masonry as against brickwork; the gateways of Sheikh Daoud and Faras and the great east wall of Gebel Adda are paralleled by nothing at Karanög; but though it may be possible to distinguish between Blemyan and later work we have as yet no criterion by which to differentiate Blemyan from the pre-Roman Meroitic style of building employed in this region, and the imposing masonry of these, mostly southern, sites may in part be due to their earlier but allied inhabitants. It is perhaps safer to describe this form of masonry by the general term "Romano-Nubian" which we have used to include both the true Meroitic and the Blemyan peoples.

The stone courses were dry-built; only the outer stones had worked faces, those on the inner face of the wall being squared but seldom dressed; the narrow and irregular space between the stones of the two faces was filled in with a core of rubble and mason's chippings. Only the outer walls of the castle had stone foundations. Immediately over the top course of stones, and in the internal brick walls above the fourth or fifth course of bricks, was set a layer of *durrastiks* or palm-ribs, running through the wall at right angles to its direction, as if to form a dry-course. A dry-course in this country is obviously unnecessary and it is difficult to see what purpose this feature can have served.

The Bricks. The size of building-bricks averages 0.34 m. by 0.175 m. by 0.095 m., giving in construction exactly one metre of height to ten courses of brick, two metres of wall-length to six and a half stretchers, and about the same length (2.03 m.) to eleven headers. The bricks are plain oblongs without frogs.

In the castle bonding is observed in the case of all walls, but differs considerably in thoroughness according as the constructional character of the walls made the bonding more or less important for their stability. Thus in the angles of the main outer walls great care was shown to secure a deep and regular bond, and the same is true of most of the heavy walls of the ground floor; but here sometimes, and much more often in the upper storeys, little attention had been paid to the joining of the walls; for a number of courses the end of one wall would simply abut

on the face of the other and then a single course of headers, or even a single brick, would serve *The Bricks*, to unite the two. Consequently in the ruin of the castle a wall could fall away (as was the case with the south wall of room 20 a) and leave very little trace of itself upon the face of the wall with which it had been supposed to be joined.

Within each wall itself the bonding of the bricks is careful and good, with alternate courses of headers and stretchers: there is no trace here of the building style found on such an early Nubian site as Areika, where a wall resolves itself into so many pillars of brickwork with curtain-walls of the same thickness connecting them but forming with them no intrinsic whole. All the Karanög walls of the early period—that is of the castle and of the houses in the lower strata—were regular and homogeneous, except the “header” walls of house 6, rooms A, B and C.

In the buildings of a later age certain changes were noticeable. The work was throughout *The Later Buildings* flimsier and more careless: the old walls of a metre's thickness were replaced by slighter ones of 0.50 or 0.60 m. and the bricklaying was less regular than before: sometimes rough stones, more or less the size of bricks, were inserted in the wall, old bricks, sometimes broken ones, were re-used, and the irregularities of such slip-shod work were or were not filled in by a rough daubing with mud. Whereas in the earlier period the wall-faces were smoothly rendered and whitewashed, these later walls which really stood in far greater need of such a seemly covering were either left bare or plastered with a mud which, less skilfully applied, tended to fall away far more readily. The house-walls of the upper stratum, as being more exposed to the wind and weather, might be expected to have lost the rendering they may have originally possessed; and it is true that in the castle, belonging to the earlier date, the mud facing had disappeared completely from the exposed wall-faces; but even where the later walls, directly superimposed upon the earlier, had been subject to the same conditions, the plastering would generally be preserved upon the latter and on the former be completely lacking (Pl. 10).

A very distinctive feature of the later walls was the fondness for inserting courses of headers laid on edge and at a slight slant. This style of work had been noticed in the rib-walls of several of the tombs (vol. iii, p. 12), where no chronological evidence could be obtained: from the town-site it became clear that while it was not unknown at an early time its use gradually came into favour, and was so rare at first and so common later that it can be called characteristic of the end of the period. In house 3, in the north wall of room 5, there were edge-set headers in what must certainly be an early wall: this is the only instance of their use in the first period. House 4 had undergone at least three periods: the original plan was first modified and added to, and later this building was destroyed and an entirely new one constructed over its ruins: one of the doors of the original house was walled up during the alterations, and in this wall there is a course of headers on edge, which belongs therefore to a second period in the town's history. Generally, however, the style is to be found in walls that are manifestly of the latest date, as in K H 8, 14 and, most striking instance, in the patching up of the main gateway of the castle. In this latest period the size of bricks tends to diminish, particularly as regards their thickness: thus 0.33 by 0.15 by 0.095 m. is a common size for bricks, and sometimes the thickness is considerably less than this.

Generally speaking, therefore, it is quite easy to distinguish a wall of the early from one of *Barrel Vaults*, the late period of Blenyan history so far as this is fairly represented by Karanög. The later wall is thinner, the bricks used are generally smaller, and there is a predilection for courses of edge-set headers; the early walls are stout, well laid with large bricks, and as a rule carefully rendered and whitewashed. For roofing the rooms of the castle and of the earlier houses the barrel-vault was invariably used. The method of its construction has been sufficiently explained in vol. iii, p. 18, and though in a house room the area to be spanned was far greater than was the case in the tombs, that method was unchanged and nothing in the way of centering was employed. This system is of course well known, in Asia as well as in Egypt, but whereas the material

Barrel Vaults. employed by the Persians and Byzantines* was burnt brick or stone, and the vault could accordingly be constructed over a much greater area (the span of the great vault at Ctesiphon is 25.80 m.), the crude brick used in the Nile valley was of too soft a nature to stand the strain of a span much more than four metres across.

But where the room was thus small, the crude brick barrel-vault answered its purpose well and where, as is the case in several of the castle rooms, the roof is in whole or part preserved, the arch, which with its single course of bricks appears so fragile, is found fully equal to bearing any normal weight. The bricks are larger but thinner than those used for wall-construction (they measure 0.37 by 0.32 by 0.06 m.), they are made of mud mixed with chopped straw and dung, and their sides are deeply frogged with curved lines impressed by the fingers; the mortar is of the same composition and binds well with the bricks, so that the whole arch is practically a solid unit. The slightly stilted or ovoid curve which resulted naturally from the method of building gave additional strength at the crown. The frogging of the bricks and the curve taken by the vault can be clearly seen in the photograph on Pl. 6, Fig. a. The vault springs flush with the wall-face but the single course of bricks that composes it occupies naturally but a small part of the wall's width. Between the haunches of two parallel vaults the wall continued upwards, slightly overlapping their curve but losing something of the thickness which it had below their spring: thus in the castle the party walls, which are a metre thick on the ground floor, lose some twenty centimetres with each storey. On each side, therefore, between the extrados and the wall there was a roughly triangular empty space below the level of the crown of the vault, that is, below the level of any floor that was to rest upon it. To fill this spandril up solid would have imposed a heavy sideways strain upon the spring and haunch of the arch, its weakest part: some means therefore had to be taken to avoid this. In the great Coptic monastery of St. Simeon near Aswán the problem was solved by spanning this space with a subsidiary vault; the floor then rested upon the crowns of three arches, a large central one flanked by two little ones, and the small flattened spandrels thus left could be either filled in without danger or bridged by flat stones. A similar system of "tubes" was adopted in the Persian palace of Ukheidár (Miss G. L. Bell, loc. cit., Fig. 7), where, however, there was not, for the most part, a second floor, and its object may have been to give coolness to the rooms, as suggested by Miss Bell, as well as to make possible a flat roof; in this case then the "tubes" run over the party-walls, which do not rise above the springers of the vault proper. At Karanog the system employed was different. For the first few days the absence both of subsidiary vaults and of any quantity of filling in the spandrels puzzled me: the vaults, or parts of them, were preserved in a number of cases; loose bricks and stone slabs might be piled upon the vault and fill the spandrels, but the floors were invariably gone and it was difficult to see how they had been supported. In one place only (room 11 on the first floor: cf. Pl. 7, Fig. a) did the evidence for the construction, or rather the construction itself, remain *in situ*. Between the wall-face and the extrados of the arch two bricks and a half were set at a slight angle from the horizontal: they formed a straight line, one point resting upon the back of the vault, the other wedged against the wall; they were well bedded in mud at each end and against one another and the mere pressure kept them rigid. The upper end of the line, that against the wall-face, was on the level of the crown of the vault: it sloped so little that where it formed an angle with the extrados, at its lowest point, the space between it and the floor-level was very small and the stone flags that formed the floor could be laid across this with little or no support. To give a little strength to what was necessarily a weak construction, thin walls were built up at intervals of one or two metres from the base of

*G. L. Bell, The Vaulting System of Ukheidár. *Journal of Hellenic Studies*, xxx, i, p. 69; Choisy, *L'art de bâtrir chez les Byzantins*; Dieulafoy, *L'art ancien de la Perse*, vol. iv; for Egypt, Perrot et Chipiez, *Histoire de l'art dans l'antiquité*, p. 534; cf. also vols. ii and iii of our *Expedition*, viz., "Churches in Lower Nubia," and "Karanog."

the triangle across the spandril to the level of the sloping brick line which thus received certain amount of lateral support. The method is so peculiar that I was fortunate in securing a photograph of the only example of it which time and its inherent weakness have allowed to survive.

Only in the castle were the walls standing high enough to show the methods employed for arching doors and windows, but here there were plenty of varieties to be observed. The three rows of windows in the outer walls were all different, and inside the doors and niches illustrated well the principles and habits of the builders. The true arch was known and employed, but where possible preference was given to the barrel-vault as characteristic of the national architecture. The top windows of the outer walls were flat-headed slits, narrow enough to be spanned by a single brick, so that nothing more elaborate than this was needed. On the ground floor the windows had a false arch formed of two vaulting bricks set at an angle: the window was placed so high that its lintel was about on the line with the springers of the vault that ran along the wall on the inside, and its top came almost level with the vault's crown; to admit the light therefore a hole had to be knocked through the side of the vault, and between the head of the window on the inner wall-face and the extrados of the vault above the hole a subsidiary barrel-vault was made which, sloping gently down, brought the light into the chamber. Had there been no second storey, the window would have had the appearance of a dormer window, such as it is in section, but in reality this appearance is masked by the main outer wall rising up to second-storey level. Usually the collapse of the room-vault and of the floor which it supported had involved in its destruction the short vault through which the light came into the chamber, and had this always been the case it would have been difficult to see how these high-set windows could have been of any use, seeing that they gave directly upon the haunch of the roofing vault; fortunately, however, one or two examples, as in rooms 5 and 12, were preserved intact, and explained the system.

Another curious instance of hesitation between two systems was seen in the first floor window in the west wall of the light-well: viewed from the light-well this was built with a true arch composed of vaulting bricks laid flatways as headers, there being two rings of six bricks each. This true arch, however, did not run right through the thickness of the wall: inside it gave place to a short length of barrel-vaulting. The reason of this mixture is fairly obvious. A barrel-vault needs an upright against which to lean. An arch was built in the face of the wall, presumably with solid centering, and to minimize the amount of centering necessary was not carried back for more than one brick's thickness beyond the wall face: against this arch, on the inside, the sloping bricks of the barrel-vault could well be laid, and the Nubian builder could proceed easily in the style to which he was most addicted. It was indeed the need of a centering that deterred the architects of Karanôg and other Blemyan sites from building arches where a vault would serve: they understood the arch perfectly well and took advantage at times of its special constructional value (*cf.* iii, p. 19), but on them as on the modern Nubian builder it entailed the labour of piling up for its temporary support a solid centering of bricks and mud; consequently in Nubia the arch was comparatively rare and usually of small dimensions. For arches the large and hard vaulting-bricks were generally used; thus the first-storey windows in the outer walls were built of eleven such bricks, laid edgewise as headers, the first storey window in the west wall of the light-well was arched with two rings of the same laid edgewise as headers, six bricks to a ring; small non-architectural features such as niches in the walls were generally arched with ordinary bricks laid flat as headers. The doors are usually vaulted, proper vaulting-bricks being used and laid in the normal way with their thin edge showing on the soffit, in one case (the door between rooms 5 and 6 of the castle) the bricks are laid flat so that the frogs show. The false arches of the ground-floor windows were composed of two vaulting-bricks sloped against each other: in the north wall of the light-well the small first-storey window is built with

Barrel
Vaults.

Vaults
and Arches.

Vaults and Arches. a skew vault of ordinary bricks, two and a half to a ring. For the small windows of the ground floor and the third storey, ordinary bricks served as lintels: the larger first-storey windows had lintels of rough stone. The doorways were provided with stone thresholds and with hinge-stones for the doors.

Outside Stairways. In some of the houses there were out-of-door stairways that must have led onto the roof of such parts of the house as were only one storey high. It would seem that not all the buildings of which the walls can be traced were of the same height: many may have been but store-chambers not suited to supporting upper storeys, but with a flat roof laid above their vaulting, and to reach these an open staircase was built in the courtyard against the range of magazines. Thus in house 2 there is in the southwest corner an inner staircase leading to the upper floors, but there is also an open staircase in the courtyard, well preserved, and it is not unnatural to suppose that the whole of this quarter of the house (rooms 1-5, 18-25) stood only one storey high. It is of course possible that these stairways, which generally seem to stand in close relation to rooms that are clearly storerooms, were intended to give access not to the roofs but to the magazines themselves, where doors may have been set high up under the vault; but there is not evidence enough to settle the point. The more individual features of the various buildings are dealt with in the following chapters, where also are given the grounds for such general deductions as have been made above.

CHAPTER III

THE CASTLE RUINS

DETAILED DESCRIPTION OF THE ROOMS

Room 1.

HERE was the only entrance to the castle. This had been twice destroyed. The north jamb, *Room 1.* which had a central reveal, only stood 1.00 m. high. On the south side of the gateway the wall for a length of 2.00 m. had been broken away right down to the foundations, even some of the stone blocks of the lower courses being displaced. This break had been hurriedly repaired. The gap had not been cut square, so that the lowest course of the reconstructed part did not lie evenly; in the four lower courses rough stones were freely used instead of brick, and neither these nor the bricks were always put in straight: one course was laid on edge but with the bricks sloping in every direction, and some bricks were laid flat but with one angle pointing outside the wall (Pl. 3, 5). The new part started with the thickness of the original wall—1.00 m.—but soon thinned down, especially from the inside, and at the height of 2.00 m. was only 0.60 m. thick. The whole of the south jamb of the original door had thus been destroyed and rebuilt with every sign of demoralized haste, only to be destroyed a second time and reduced to its present ruinous state. Inside the room all the doorways were systematically breached. On the west side the wall had been broken down almost to the width of the inner room (3); on the north, the doorway had been knocked out to double its size, while opposite, on the south, the entrance to the staircase had been sadly battered. The floor level had almost entirely disappeared, only the rough stone foundations being left. Of the vault a little remained in the northeast corner, leaning against the north wall; like the walls it had been mud-rendered and whitewashed. In the room were found fragments of characteristic painted Blemyan pottery and one piece of the hard, white-faced, highly polished ware with red cross-hatching found at Shablūl and certainly belonging to the latest period: it connects closely with certain early Coptic types.

There were also found a lamp of the covered saucer type, very much broken; a painted doll's head, a bone lentoid bead, a piece of twisted bronze wire, a child's arm torn off at the elbow, a (broken) mud jar-sealing, a fragment of Arabic MSS. on paper (found near the main doorway, a little above floor level), and, on the threshold of the west doorway, a fragment of papyrus bearing a Coptic version of the story of St. Sisinnius (see p. 5).

Room 2 (The Staircase).

A door led from the entrance-hall to the main staircase of the building: it had a raised *Room 2.* threshold on the inside of the door, which had opened outwards. The stairs faced one on entering, and to the left there was a narrow recess between the central pillar and the wall of the entrance-hall, lighted by a small hatch-window 0.80 m. above floor level, through the latter wall. The pillar had been footed out here, for 1.05 m. of its width to a height of 0.60 m. above floor level, so as to narrow the passageway to 0.40 m. On the east side of the pillar the floor dropped 0.60 m., to the level of the foundations; the return westwards at the end of this space was screened off by a thin wall shutting off the low vaulted space under the second flight of steps, that on the south side of the pillar. This small sunken space may have been used as a cellar or possibly as a

guard-room for the stair porter. The first flight of steps was carried up on a solid base; a rough niche had been hewn out in the pillar-face and its smoke-blackened condition showed that a lamp had stood within it to light up the stairs. After the first turn the steps were supported on barrel-vaults. The second flight was lighted by a window set so high up in the wall that its arch just cut into the vault springers of the flight above; the wall on the east is not preserved to a height sufficient to show the window which must have been there. The first floor was reached by a door in the southwest corner of the stairway leading into room 8 A. its jamb 0.15 m. from the face of the south wall. The stairs sloped at an angle of thirty degrees; the actual steps were ill preserved. Of the first flight the solid base naturally remained, but the form of the steps had for the most part disappeared; of the second, only a little of the vaulting at the west end remained; of the third flight, the greater part of the vaulting; the beginning of the next flight (that on the north of the pillar), and the greater part of the vaulting of the upper flight on the west side (see Pl. 5).

Rough measurements were:

The solid flight reaches a level of 0.70 m. above floor level.

The second flight starts at c. 1.20 m. (springers at 0.75 m.) and ends with the springers at 1.30 m.

The third flight rises from 2.10 m. to 2.50 m.

The fourth flight rises from 2.90 m.

Each section of vaulting is carried only as far as the angle of the central pillar and the next section rests upon its crown. Owing to the angle at which the ring-courses are laid the space between the wall and the crown of the vault that leads up towards it is considerably greater than that between the wall and the springers of the same vault, *i.e.*, between the wall and the angle of the pillar; the earlier ring-courses of each section of vaulting have therefore a much greater span than the rest of the section which lies between the pillar and the wall; and the corner landing, and perhaps the top step of each flight, rested upon the vault running at right angles to it.

Room 3.

Opening out of the entrance-hall, this room was little more than a passage to the open court or light-well (22). It had been much ruined, the two doors were widely breached, and most of the west wall had fallen. The vaulting had rested against the east wall; very little of it was left. Both vault and walls had been mud-rendered and whitewashed. The room as it now stands does not seem to have received any light other than that which came in by the doors; if there was ever a window in the west wall it was small and set very high up. The room measured 3.80 m. by 3.50 m. In the room were found part of the base of a blue glaze vase and a stamped mud jar-sealing (Pl. 15).

Room 4.

The only approach to the room was through room 5: this doorway had been breached at the time of the destruction of the castle, but the later squatters had erected in it a sort of bin, running two flimsy walls of mud and broken brick across the doorway on either side of the sill, and thus closing up the room, unless indeed they used as a door the hole which had been knocked through into room 3, a little above floor level.

The vaulting had rested against the east wall; a very little of it remained in the northeast corner; like the walls, it had been mud-rendered and whitewashed. There was no window to the room, but a small niche in the east wall had held the lamp used to give light. Probably this was only a storeroom and required safety rather than illumination. The room measured 3.10 m.

by 3.45 m. In it were found two small fragments of a Meroitic ostrakon, the upper half of a small *Room 4*, blue glaze Osiris amulet, a fragment of a small wooden vase lacquered and decorated with a *sgraffato* floral design (9111, Pl. 15), several fragments of ordinary painted Meroitic pottery, one of Coptic (red paint on buff slip) and one of the late Meroitic or transition period with painted festoons and small rosettes in relief.

Room 5 (see Pl. 6).

The floor is of rough stone slabs overlaid with mud, and is very much broken up. In the *Room 5*, southeast corner was a rectangular platform of brickwork 1.20 m. by 1.00 m.; as it stood only 0.30 m. above the level of the stone foundations of the floor, it could not have risen much above the original floor level, and was presumably either a base for some heavy object or the foundation of a brick bin; it does not look like a divan. There was a breach at the west end of the north wall, the west wall itself had suffered severely, and the west end of the south wall had been razed down to the stone foundations; at the east end of the room, however, a large part of the vaulting was intact. Neither this nor the walls seem ever to have been whitewashed or even rendered, but are quite rough. Besides the doorways leading into rooms 4 and 6 there was a window at the east end of the south wall, and probably there had been another in the west end of the same wall where it was broken away; the window was 3.50 m. above ground level and measured 1.10 m. by 0.50 m. In the south wall there was also an arched niche 0.80 m. high, 0.50 m. wide and 0.25 m. deep, 1.40 m. above floor level; a similar arched niche was in the middle of the west wall.

In the east wall, 3.15 m. from the floor, there was a shallow rectangular recess 0.90 m. high by 0.70 m. wide and about 0.30 m. deep, which looked as if it were meant to take a stone slab. It was surmounted by a simple cornice of mud brick, formed of two courses, the lower projecting 0.05 m. and the upper 0.10 m. from the face of the wall. On each side of this, in the angles of the room, there was at the height of 1.30 m. from floor level a hole 0.20 m. square, driven 0.20 m. into the brickwork of the east wall, clearly meant to take the end of a beam, the mark of which could be seen on the face of the north wall, running out for a distance of 1.25 m. As the room was apparently otherwise roughly finished, and (judging from the jar-sealings found in it) used as a storeroom, it is difficult to explain these features, which are not paralleled in any other room in the castle.

The room measured 5.25 m. by 3.50 m. In it were found a fragment of basket-work, a rectangular piece of mud (broken) marked with holes like a tally, a flat, roughly circular stone marked with holes and lines (9129, Pl. 15), and six large mud jar-sealings, one apparently bearing a trefoil leaf, one obliterated altogether, one with a snake device like that illustrated in vol. iii, p. 79, fig. 2, and three others shown in Pl. 15.

Room 6.

Practically the whole of the south wall was destroyed down to the stone foundations, and *Room 6*, even of these two or three blocks had been displaced. Presumably there had been a window on this side. There were three doorways in the room, one in each of the other walls. That into room 5 had been breached and then clumsily patched up and narrowed by the squatters of a later period with flimsy jambs of broken brick and plastered mud; the doorway into the inner court, which had also suffered severely, was completely blocked up by the end of the mud bin or granary built in the corner of the courtyard after the dismantling of the fortress. The western doorway was the only one left open; one wooden jamb had been let into the south outer wall; the western wall was too much destroyed to show the original height of the door, nor was there any trace of the vault remaining. The walls had been mud-rendered, but, apparently, never whitewashed. No objects were found in the room. The room measured 3.50 m. by 4.20 m.

Room 7.

This room opened out of the last and gave access to the second staircase; the door leading to this, at the north end of the west wall, had been much damaged, and the jambs were all broken away. The north wall was standing between two and three metres high, but had been partly undermined just above floor level; while the room was being cleared the great weight of the rubbish behind the wall (in room 21) thrust it forward from below, displacing it by about 1.00 m. In order not to destroy the whole of this wall, which remained almost in position, leaning against the rubbish, room 21 was not cleared.

In the south wall was an arched niche 0.70 m. high by 0.50 m. broad, 0.80 m. above the floor. Just east of this the wall had been breached down to floor level, and beyond the gap stood only 1.40 m. high. This gap came just where the window must have been (in several outer rooms of the castle the wall had been breached in downward continuation of the window-line) and looked as if it might have served as a door for the late settlers in the castle ruins; it formed, however, no part of the original plan.

The room measured 3.20 m. by 3.20 m. The springers of the vault, distinguished from the wall by a bevelled offset, were 2.55 m. above floor level; the crown of the arch had disappeared. Both walls and ceiling had been mud-rendered, but there was no sign of their having been whitewashed. In the room were found a mud jar-sealing inscribed **IAAPΩN** (the first two letters were rather indistinct, but could be restored from the other example found in room 9, Pl. 15), and a lotus flower roughly cut in sandstone and forming part of a tracery window.

Room 8 (The Second Staircase).

On passing through the doorway from room 7 the stairs faced one; on the left was the thin party wall that shut off the space beneath the return flights, on the right was the doorway into room 9. Owing to the presence of this doorway there were only two steps in the first flight which, together with the whole of the next flight on the west side of the central pillar, rested on a solid base, the vaulting system being first employed for the return on the south side. In the west wall was a window placed so high up that its crown cut well into the side of the vault above it: this window was of the false arch type; another window on the south side lighted the next flight. The stair-chamber measured 3.50 m. by 3.05 m. It had not originally been intended for a staircase. This was an afterthought, for instead of the vaults that supported the flights being built into the wall during the process of its construction, as was the case in the main staircase, ledges to take the springer-bricks had been roughly hacked in the face of the already existing wall.

A breach had been made through the south wall. The whole staircase was in a far more ruinous condition than was the other; the central pillar stood only 1.10 m. high, and above that height only the ledges hacked in the walls showed where the vaulting had run.

On the floor was found a fragment of floral stone tracery from a window.

Room 9.

Entered from the stairway. The door in the north wall leading to room 10 had been narrowed in the period of squatter occupation by a thin screen-wall of mud (see Pl. 6). The west wall had a window close up to the northern angle; this was the only instance of an outer room in which the main wall of the castle had not been breached. The staircase door had been knocked about a good deal, and the east wall had been largely and at its south end utterly destroyed. Both walls and ceiling had been rendered and whitewashed; the springers of the vault were 2.20 m. and the crown about 4.10 m. above floor level. The floor was very rough and uneven, the mixture of mud and chopped straw overlying the original surface of the desert

having largely disappeared, and being partly overlaid by the refuse collected during the squatter *Room 9* period.

The room measured 3.50 m. by 3.70 m. In it were found a stone grinder, a flat worked stone and another like a tally or game-board (9128, Pl. 15), an iron-toothed sickle (9109, Pl. 15) exactly like the modern mugbás or mashil, and a curved knife-sheath of wood covered with leather, also two plain mud jar-sealings, one inscribed IAAPΩN (Pl. 15) and one bearing a snake sign like that in vol. iii, p. 79, fig. 1; a plain cup of gray-black ware of a type not found in the cemetery and probably later in date, and a fragment of red pottery with black and cream-coloured paint belonging to the late Blemyan period.

Room 10.

The room had had three doorways: that leading from 9 had been narrowed down, as *Room 10*, already described, by the stragglers who settled in the ruined building and patched up such parts as were at all habitable; the doorway in the north wall leading to 11 had been blocked up altogether by the same hands; only the door into 20 remained open altogether. The west wall had been breached from the window down to the stone foundations a large part of the east wall had been destroyed and the doorway in it broken through. The vault had almost entirely gone; its springers were 1.15 m. above floor level, distinguished from the wall-face by a bevelled offset, and its crown was 4.15 m. high. Both vault and walls had been well rendered and whitewashed; and on the east wall there could be distinguished in the patches of whitewash that remained traces of graffiti showing a horse, a running camel, and a few marks that may once have been Meroitic characters but were too far destroyed to be legible. The late patching of the doorways was not whitewashed; in that of the north door was built in part of a lower grindstone. The floor was of broken bricks and mud mixed with chopped straw, very uneven and probably due in large part to the later rather than to the original occupants.

The room measured 3.50 m. by 3.70 m. In it were found two fragments of leather from sandals, a bronze knife-blade (9104, Pl. 15), and a lamp of the covered saucer type.

Room 10 A (on the first floor.)

This had a door in the south wall over that in the lower room, and apparently one at the *Room 10 A*, north end of the east wall.

Room 11.

There was only one doorway in this room, that leading from room 10, which had been *Room 11*, blocked up; but in the east wall a breach had been effected into 19 which served all the purposes of a door, and the outer western wall had also been breached down to the stone foundations. In the north wall was an arched niche 0.70 m. high, 1.15 m. above floor level, and in the south wall, 1.05 m. up, was a similar niche. The walls were roughly plastered with mud containing a large percentage of chopped straw, and had never been whitewashed. The vault had not been plastered otherwise than in the course of construction; it was intact; the springers, not distinguished by any offset, were 2.50 m. and the crown 4.45 m. above the stone flags that formed the foundation of the floor. The floor had been formed of a layer of chopped straw, ashes and mud that overlaid the stone foundations to a depth of perhaps 0.30 m.; but the surface was so broken that accurate measurements were not possible.

The room measured 3.60 m. by 3.40 m. In it were found two flat stone grinders, a lower grinding-stone and part of a second, some nuts of the dōm palm, fragments of rough pottery, including one of a lamp of the covered saucer type, and a small piece of papyrus, found on the threshold of the blocked-up doorway.

Room 12.

The only doorway was in the east wall into room 13. There had been two windows, one in each of the outer walls, but both of these had been breached down to foundation level. In the south wall there was a niche cut into the face of the wall, and in the east wall another, 0.55 m. high and 1.25 m. above the floor. The walls and vault had been smoothly plastered with mud and whitewashed, and on the whitewash were scratched a fair number of graffiti. Owing to the decay of the chopped straw in the plaster, as well as to the falling away of large pieces of the surface, these were seldom intelligible; but in the south wall could be distinguished a man on horseback attacking a camel, a crocodile, a jackal and a ship. The room measured 3.60 m. by 4.20 m.

Room 13.

In the north side were two windows high up and cutting into the side of the vaulting: both had been breached down to the stone foundations. In each of the other walls was a doorway. That on the west, opening out of room 12, had been narrowed slightly by the late settlers, a column of poor brickwork being built up against the north jamb. There was a reveal 0.25 m. deep and 0.15 m. wide, to take the door; there was no sign of the hinge-stone, but a stone slab was built into the south jamb just below the spring of the arch. At the east end of the south wall was a doorway to room 19: the jambs and reveals had been broken away, but the arch remained; further along the same wall was an arched niche with bevelled reveal, 1.10 m. above floor level. In the east was the doorway to room 14. The walls, like the vault, had been mud-rendered and whitewashed; of the whitewash very little remained, and the traces which it bore of graffiti had no more meaning. The vault, distinguished from the wall by a bevelled offset, had its springers 2.45 m. and its crown about 4.00 m. above floor level; it was all broken away, and its height could only be measured from the marks left on the west wall-face. The floor was of mud laid on the natural stone, and but little of it remained.

The room measured 4.75 m. by 4.20 m. In it were found a string of five small blue glass beads, late; a piece of bent iron, apparently a hasp (9107); a cow's horn; some twisted grass cord; a little painted pottery of Blemyan type, all in small fragments; and part of a leather sandal.

Room 14.

The whole of the north and the northern part of the east wall were utterly destroyed. Probably in the north wall there had been two windows, as in room 13; there had been a doorway leading to room 15 in that part of the east wall which had been broken down. In the south wall, right in the corner, was a door leading to room 17, and in the middle of the wall an arched niche with bevelled reveal (see Pl. 7). In the west wall was the doorway to room 13; this had a deep reveal to take the door; the threshold was in position, and consisted of two rough blocks of sandstone. The walls and vault had been whitewashed, but little of this remained and there were no distinguishable graffiti. The vault had disappeared altogether except at the southwest corner where a few of the springers still kept their position at a height of 2.35 m. from the floor. The floor had been of mud laid over the natural rock, but most of the surface had perished.

The room measured 4.25 m. by 5.60 m. In it were found a lamp of the covered saucer type and a plain stone conical weight.

Room 15.

The whole of the north and east walls had been destroyed down to the foundation stones, *Room 15*, and at the corner even these had been overthrown: a large part of the south wall was also razed, but enough of the foundations remained to show that a doorway leading into room 16 had stood at its eastern end; the north end of the west wall had fallen, and so only the southwest corner of the room survived in more than outline. The walls and vault had been plastered and whitewashed: the vault, distinguished from the wall-face by a bevelled offset, had its springers 2.65 m. above floor level; the floor had been of mud laid over the natural rock but its surface had almost wholly perished.

The room measured 4.25 m. by 6.60 m. In it were found a stone weight inscribed on two of its sides **HEC** and **MIXA** (9138), and two fragments (fitting together) of gazelle-skin leather inscribed on both sides with Coptic text; these latter were found just above the floor level about 2.00 m. from the east and 1.00 m. from the north wall under about 0.70 m. of rubbish (see p. 5).

Room 16.

The north and east walls are almost entirely destroyed and the south wall is badly breached *Room 16*, where stood the doorway into room 1, while its eastern end has fallen altogether. Presumably there was a window in the east wall. The west wall has a breach 0.60 m. wide opening into room 17: this may have been used as a doorway by the late squatters, but was not such originally. No sign of whitewash remained upon the walls. The vault springers were 2.20 m. above floor level: the mud surface of the floor had almost entirely disappeared, leaving the natural rock exposed.

The room measured 4.20 m. by 3.20 m. Nothing was found in it.

Room 17.

In the north wall was a doorway leading into room 13. This was the only door and the *Room 17*, room therefore corresponds very closely to room 4 on the opposite side of the passage-room 3: like it, it was not lighted by any window and was approached by a single doorway put as far away as possible from the main entrance to the castle. The east wall was breached into room 16, and the south wall into room 3; in the west wall was an arched niche 0.65 m. high by 0.45 m. by 0.40 m. deep, 1.10 m. above the floor. The walls had been plastered with mud but not whitewashed. The greater part of the vault was intact, only the east end of it having collapsed: its springers were 2.55 m. above the floor level. The floor was of mud thinly spread over the natural rock, and was fairly well preserved.

The room measured 3.50 m. by 3.45 m. In it were found only a modern adze (turiya) head and a leaden toy whistle in working order, also modern, and a United States two cent postage stamp.

Room 18.

This was the best-preserved room in the castle. It was entered only from 22, the light-well, *Room 18*, by a door which was blocked up by the late bin built in the corner; there was also in the south wall a single window giving on the light-well, set high up, like the ground-floor windows in the outer castle walls, so that its crown cut into the side of the ceiling-vault and the space between the window proper and the extrados of the ceiling had to be covered in by a short subsidiary vault. In the north wall towards the east end of it was a niche roughly hacked out in the brickwork: in the west wall was built an arched niche 0.60 m. high by 0.05 m. by 0.40 m. deep, 1.25 m. above floor level. Along the north and south walls, at a height of 2.60 m. above

the floor, let into the first springer-course of the vault, was a row of projecting stones, round-ended and pierced horizontally. They were roughly built in, so that the line made by the holes was none too true: they measured about 0.13 m. either way and projected about 0.10 m.; the holes were some 0.03 m. in diameter. An exact parallel to these stones can be seen in some modern Nubian houses, where ropes are strung from one to another across the room and from the ropes are hung baskets or pots of food, vegetables, etc. In the modern houses these rooms are the cooking-rooms, and it is not unnatural to suppose that at Karanog also this room may have been the castle kitchen.

The roof was intact (except for a small hole at the east end), and had its springers 2.55 m. and its crown 4.00 m. above floor level. The floor had been of mud laid over the natural rock, but very little of its surface remained. The walls had been very roughly plastered with mud but never whitewashed, and were blackened by smoke. It is noticeable that, though the doorway of the room had been considerably enlarged by the fall of the top of its arch, and though the collapse of the high walls let vastly more light into the courtyard or light-well than can have filtered down into it when the whole building stood complete, in spite of the hole in its roof the room was still very dark. The modern Nubian does not let much sunlight into his house, but the ground-floor chambers of the ancient castle, if we may judge from this the most perfect example, must have been so gloomy that we cannot but assign them to the more menial class of its inhabitants, reserving for the better sort the lighter rooms with their more generous windows of the upper floor.

The room measured 3.50 m. by 5.00 m. Nothing was found in it.

Room 19.

In the north wall there was at its western end a doorway opening into room 13; part of it had fallen. In the east wall, which originally presented no special features, the niche in room 18 had been broken through and formed a rough hole. In the south wall was a doorway leading to room 20; the wall had collapsed with the fall of the vault and stood only 1.50 m. high (see Pl. 8, Fig. a); near its west corner was a niche 0.40 m. wide and 1.10 m. above floor level. The west wall had been breached into room 11. Both wall and vault had been smoothly plastered and whitewashed: the vault had fallen in; its springers, distinguished from the wall-face by a bevelled offset (seen in the photograph) were 2.45 m. above floor level. The surface of the mud floor was fairly well preserved and showed that, like the walls and ceiling, it had originally been whitewashed. This was presumably done to lighten the room, which must have been somewhat dark at the best since it depended altogether on secondary light and got even this only through the doorways—unless indeed the apparent niche in the ruined south wall was really a narrow window like that in the south wall of room 1; but even so its narrowness, and its distance from the light-well, would have prevented its being very effective. This whitewashing of the floors (*c.f.* room 20) is an unexpected feature and one not paralleled by modern Nubian houses: certainly the room cannot have been used as a storeroom when such pains were taken to make it habitable, and one would be inclined to refer it, together with room 20, to the female slaves of the establishment who lived on the ground floor but in its more private and sequestered rooms.

The room measured 3.50 m. by 3.40 m. In it were found a mud jar-sealing with cross design similar to one from room 3 (see Pl. 15), a small wooden handle, perhaps for a stiletto, length 0.085 m., a stone playing-board or tally (9127, Pl. 15), part of a small lozenge-shaped stone trough, some pottery of the characteristic painted Blemyan types and one white and red fragment to be assigned rather to the Coptic period, and part of a red pebble-burnished wheelmade pot of indefinite type.

Room 20.

In the north wall was the doorway to room 19 already described, and there may have been *Room 20.*, a window towards its western end. In the east wall was a window opening on the light-well; the soffit of its arch was 3.80 m. above floor level; below it the wall was breached down to the ground. The south wall had been breached at its east end through into room 21, but there had been no door here originally; in the west wall was a door leading into room 10. The walls and vault had been smoothly mud-rendered and whitewashed; of the vault nothing remained except a few of its springers 2.45 m. from the ground and the imprint of its curve on the wall where the crown reached a height of 4.20 m. As in room 19 the floor had been whitewashed and a good deal of its original surface remained (see Pl. 8 a).

The room measured 3.40 m. by 3.60 m. In it were found a fragment of gazelle-skin leather, uninscribed, a wooden spindle-whorl, and part of the rind of a large melon.

Room 21.

This was not excavated (see on room 7).

Room 21.

Room 22 (The Light-well or Courtyard).

This was an open courtyard, occupying the area of two rooms and therefore disturbing the *Room 22.* symmetry of the castle plan, inasmuch as there were two sets of rooms on three of its sides but on the fourth, the south side, only a single room between it and the outer wall of the castle. The rooms of the inner series had for the most part windows opening onto this open space, and so while on the ground level it was used as the courtyard of the palace and doubtless was the scene of its busiest life, it served also as a light-well for the surrounding chambers that could not be lighted from the outside.

The floor was of beaten mud, as rough as that of the court of a modern Nubian house. In the northwest corner was a brick circle about 1.60 m. in diameter; the marks on the wall showed that it had had a conical or beehive shape some 2.20 m. high; above this height the brickwork of the wall was deeply blackened by smoke. It is probable that this furnace belongs to the genuine castle period; the fact that it is on the original ground level need not count for much or for anything but its position near the "kitchen" (room 18), the absence of ovens in any of the rooms, and the probability that the original inhabitants did have ovens and would put them in the courtyard rather than in any of the ill-ventilated chambers, are all in favour of this belonging to the proper castle plan. In the southeast corner the presence of similar blackening upon the walls (though there are no definite traces of brickwork) may be evidence for another oven opposite to the first.

In the northeast corner and in the southwest we have to deal with structures of a very different date. Just in front of the door of room 18 a shallow rectangular pit had been dug below the original floor level and round three of its sides (the fourth being flush with the east wall of the court) had been built thin flimsy walls of broken brick and plastered mud similar in character to that which partially blocks the doorway between rooms 9 and 10 (see Pl. 6). The north wall of this bin or granary ran along the threshold of the door and completely blocked the entrance to room 18; a ledge roughly cut in the east wall to take the edge of a wooden lid over the bin showed that its original height was 1.15 m. It is likely that when the bin was made the floor level had already risen a good deal above the original, and that only a certain proportion of the bin-wall stood above the surface. A very similar erection in the southwest corner blocked the entrance to room 6; it was, if anything, of even rougher construction. On the question of date it is worth noticing that both these bins stood to a considerably higher level than the much better built oven.

Room 22. In the north wall (see Pl. 8 b) was the pointed-topped window of room 18, 3.20 m. from the ground, measuring in extreme height 0.95 m. Above this was the arched first-floor window, 5.30 m. above ground, 1.20 m. high. At 8.20 m. were two narrow flat-topped windows only 0.20 m. wide and 0.60 m. high; above these the wall was broken away. Along the face of the north wall, 4.10 m. from the ground, were seven double holes let into the brickwork; they were 0.25 m. deep, the upper holes were some 0.30 m. square and the lower holes 0.20 m. high by 0.30 m (see Pl. 8, Fig. a and the section on Pl. 23); they seem to have been meant to take beam-ends. Similar holes ran along the face of the west wall at a height (measuring to the top of the holes) of 6.75 m.; there were four between the north angle and the window and one south of the window. At this level there ran along the north wall-face a slight indented line cutting across the top of the window-arch; it looked as if here the edge of a heavy plank had been partially let into the wall; on the west wall a similar ridge occurred at the level of the beam-holes in the north wall, and here too were two beam-holes 4.35 m. and 4.95 m. from the north corner. On the north wall the two levels were connected by a line of small holes slanting up and suggesting a ladder. On the other walls there were no such marks to be seen.

The natural explanation of these holes and ledges is that there was a double balcony or platform covering the northern half of the courtyard for some 5.00 m. and extending right across it from east to west; the beam-holes represent the platform supports, the ledges the plank floor, and the two are connected by a ladder; the wooden uprights that supported the southern ends of the beams have naturally disappeared. As against this view it must be urged that the position of these two balconies, having no connection with the upper rooms of the castle, the upper one of which is at a totally different level, and so placed as effectually to cut off all light from the already gloomy rooms 3, 18, 19, 20, as well as from the more important first-floor rooms above these, would quite stultify the architect of the building: it is almost impossible to imagine a permanent structure of this sort. Of course it may have stood so; or there may have been a regularly recurring need for such a structure whose skeleton would be permanently installed, whereas the plank flooring might only have been laid down as occasion demanded; *e.g.*, it is possible that the walls of the courtyard were whitewashed; there is no evidence at all for this, but from room-walls equally exposed the mud plastering and whitewash found on sheltered faces have peeled away quite as thoroughly and leave a surface as little indicative of its former condition as the walls of the courtyard. If in order to give sorely needed light to the inner rooms the walls of the light-well received an occasional coat of white, it is just possible that the scaffolding might have stood permanently in position, or at any rate that the holes by which it was supported were left open in the wall-face for use on each recurring spring cleaning. It is almost certain that the structure, whatever it was, belongs to the original occupation of the castle, for though the later squatters did occupy at least one room of the upper storey (that above 18), yet the erection of so big and elaborate a thing as this is quite out of keeping with the slipshod, flimsy character of their general patchwork; they would be far more likely to have put up a wooden roof, if anywhere, over one of the less ruined rooms whose smaller span would have rendered the task less ambitious and, by doing away with the need for wooden uprights, less costly.

The east wall of the court is much ruined and only the ground-floor doorway of room 3 can be traced. On this floor there were, as we have seen, no windows, for room 3, as being little more than a passage, required but little light, and room 4, as a storeroom, none at all. Presumably the upper rooms were lighted by windows similar to those on the north and west sides. On the south there were no windows at all, since here there was only a single set of rooms, and these all got their light through the outer main wall of the castle; the doorway into room 6 was the only feature. A breach had been knocked through into the corner of room 5. On the west side there was at the south end a doorway into room 21, and this room had presumably had a

window onto the court corresponding to that of room 20, but the wall was broken away below *Room 22*, its level. The window of the ground-floor room 20 had been breached down to the ground; it was a round-topped window and curious constructionally, being a combination of a true arch on the outside, with a skew vault in the thickness of the wall (see p. 13). Above this was an arched window formed of a double row of six vaulting bricks laid flat as headers in the upper row, and on edge in the lower; immediately above this at a height of 8.65 m. from the ground was another window probably of the same size, but altogether ruined.

The courtyard measured 7.90 m. by 4.90 m. In it were found three large stone troughs (two of them had holes worn through the bottom), a stone impost with socket for door-jamb and hole for hinge, a fragment from a stone tracery window, a clay lamp of the covered saucer type and another of the long-nozzled type resembling Byzantine lamps, a fair number of fragments of characteristic painted Blemyan pottery, mostly from large vessels, a kohlpot of lacquered wood in black, yellow and red (9110, Pl. 15), a fragment of Arabic MSS. on parchment, a fragment from a printed copy of the Koran, and a fragment from a Yorkshire newspaper of 1878.

CHAPTER IV

THE HOUSE RUINS

HOUSE I

House 1. THE house was surrounded by a large quadrilateral enclosure measuring some 50.00 m. by 40.00 m. The wall that enclosed it was of mud brick, usually upon rough stone foundations; it had been much ruined, and the whole of the southeast corner had wholly disappeared. On the west side some rough and rather slightly built walls had been built between the outer or courtyard wall and that of the house, forming a small enclosure and a long narrow passage which, though apparently blocked at the end, may have served as an approach to the house.

The house itself stood on sloping ground, the rooms along the east upon the lowest level from which the other floor levels rose in a series of steps. The building was much ruined; the walls in many cases were destroyed down to the level of the floors, and seldom stood more than about 0.60 m. above them. Along the east side, the outer wall of the house was built on rough stone foundations, which at the northeast corner projected so as to thicken the walls by 0.25 m.

Room 1. The walls had been destroyed to too low a level to show any traces of doorways. It had a mud floor.

Room 2 had a mud floor at a somewhat higher level; in this room were found four sherds of characteristic painted Blemyan pottery and a small fragment of a stone window-frame: the walls were in places 0.75 m. high.

Room 3 showed no traces of any floor; from just outside its south wall came one blue glass spheroid and one carnelian faceted lentoid bead.

Room 4 had no doorway; the floor was of mud laid over rough stone slabs, and was 0.50 m. higher than that of room 1.

Room 5 had no floor; the walls stood 0.40 m. high.

Room 6 was clearly an open, unroofed court. Along the north side are the remains of an out-of-door staircase; the first step was solid, it stood against the west wall and was 0.30 m. high; the two blocks against the north wall (0.30 m. high) had supported a barrel-vault of mud brick, over which the steps had run. In the south wall was a doorway leading into room 7, and in the west wall another doorway leading into room 9. There were found in the room fragments of a cup of black incised ware and of a small alabaster kohlpot with very thin walls.

Room 7 was long and narrow. The wall, especially on the south side, was much destroyed; in the southwest corner was a block of masonry measuring 0.40 m. by 0.25 m., and in the same wall, 1.60 m. from the west corner, were built in two rough flat stones, one of which projected 0.30 m. from the wall-face; it is very probable that the main doorway into the house was here and that the corner block served as a doorstep.

Room 8 had doorways in the south wall into room 9 and in the west wall into room 11; the walls stood about 0.60 m. high. A good many fragments of pottery were found in the room, including some of F xlvi from a cup resembling in decoration 8723 (vol. iv, Pl. 92), F lxii in lightly burnished red wheelmade ware, and rough handmade hearth-burned pottery.

Room 9 had doorways in the north, east and south walls, the last being to the staircase; in the west wall there had been a doorway into room 12, but this had subsequently been walled

up. The walls were about 0.50 m. high. A small fragment of blue glaze ware and two of *House 1*, simply painted pottery were found in the room.

Room 10. The staircase. On passing through the door that led from room 9, you turned to the left to ascend the first flight. This was solid. With the first turn to the right the steps were supported on brick vaults, but as the walls and the central pillar stood only 0.60 m high, and the first flight of the stairs had reached a point higher than this, there was no trace of such vaulting left. The pillar measured 2.30 m. by 0.60 m. Behind it, on the south, east and west sides was a vacant space under the stairs, probably used as a cupboard; it was shut in at the foot of the stairs by a very thin curtain-wall. There were found in this stair-chamber fragments of pottery F xlvi with "columbine" pattern in black, red and purple, on a light ground, F xlvi, and several other painted pieces.

Room 11. The mud floor was 0.30 m. above that of room 8. The inner walls had been destroyed down to floor level, and there was no trace of any doorway. In the southwest corner was a brick base, not much above the floor, presumably intended to support some weight. One painted fragment and some pieces of coarse, handmade pottery were found in the room.

Room 12. In the east wall was a doorway leading into room 8. To the south of this there had been a doorway into room 9. This had later been blocked up with a thin rough wall of mixed stones and bricks, leaving a recess in the wall-face; a quarter-column of brick stood by the south jamb, and beyond this there seems to have been raised brickwork, like a divan, reaching to the southeast corner of the room. Along the south a wall had been built in the room parallel to and 0.40 m. from the main wall of the house. To this space there was no visible inlet, but its walls were strongly coloured by fire, and it seems to have been a sort of furnace. A few fragments of pottery, including painted pieces of shapes F xlvi and F lii and of a late (?) reddish-yellow bowl F lxxxi, were found here; in the room itself were fragments of F v painted with figures of leopards in black and white on a red ground, of a heavily ribbed pot of doubtful shape, of the hard white-faced ware, classed by us in our *Areika* volume, p. 36, as g. and other less distinctive wares. In the northwest corner of the room a line of bricks ran diagonally from wall to wall; it may have been a bin, but its meaning is not obvious. Outside the south wall was found a lotus-flower carved in sandstone, part of a tracery window (9133, Pl. 17).

Though the area covered by the courtyard is considerable, the house itself is not large. The style of brickwork shows clearly that it is of early date, and this is borne out by the character of the bulk of pottery fragments found within it; the slight alteration consisting in the walling-up of the doorway between rooms 9 and 12, though the walling itself is of careless and late type, does not necessarily bring even the period during which the house was occupied down very late in the history of the town.

The ground plan of the house, with its open courtyard surrounded by one or two rows of rooms, and with its winding staircase on one side of the (presumed) entrance, is not unlike that of the castle, but the resemblance between the buildings was probably not so great as appears. Rooms 4 and 5 were certainly mere magazines, vaulted (as the thickness of their walls would imply) and entered by doorways in the southern walls set some distance from the ground, and only reached by the open-air staircase. It is very likely that the same is true of rooms 1, 2 and 3. The number of living-rooms on the ground floor would therefore be reduced to five, counting in the narrow entrance-chamber, room 7. Since the outer walls are of uniform thickness throughout the building, it may be that the second-storey rooms extended over the whole; but as the walls are only 0.80 m. thick, it is improbable that there was ever a third storey.

HOUSE 2 (see Pl. 9).

House 2.

The house stood on the highest point of a low tongue of rock that runs out from the edge of the sandstone desert, and is separated by a little sandy valley from the similar spur on which the castle stood. Being thus exposed, the house has suffered severely; the walls are highest in the centre of the site, where they stand about one metre above floor level, but the outer walls are still more ruined, and the rooms to the east and southeast could only be measured by the remains of the floor surface. The outer wall was of mud brick upon heavy foundations of pick-dressed sandstone blocks resembling those of the castle; the inner walls were for the most part of brick only. The area covered by the building is actually greater than that of the castle, being 50.00 m. by 60.00 m., but its ruinous condition makes its less striking.

Rooms 1 and 19 were built out against the main wall of the house; they were of flimsy construction and had been much ruined. Between them lay a large square slab of sandstone, which may have been a threshold, for apparently there was here a door in the main west wall giving access to room 20. The two rooms would suggest porters' lodges.

Room 2 had a doorway giving on room 20; it was too much ruined to present any features of interest.

Rooms 3 and 4 were small magazines communicating one with another by a narrow doorway in their party wall. Access to them must have been gained by doors in their northern walls set at some distance above the ground, and reached by the open-air staircase in the courtyard (21).

Room 5 was approached only from the courtyard (21); in it were found a great many fragments of pottery of all types, and several ostraka (Pl. 18, Fig. 1; and 20, Fig. 4).

Room 6 was a long and narrow room with a gap at the east end of its south wall (the outer wall of the house), which seemed to have been an original doorway; on the west was the staircase (7), and on the north a narrow door into room 23. The room contained a good many pottery fragments and, by the south door, a number of pear-shaped blocks of crude mud, smoothed carefully and with a hole bored through the small end. The use of these objects is uncertain.

Room 7. The staircase was much ruined. The edge of the first step had apparently been flush with the jamb of the door leading from room 6, and the second flight had rested on a solid foundation. Instead of a real central pillar there was only a thin wall, just enough to support the vaults of the stair-flights, which, in the confined space of the chamber, must have been unusually short.

Rooms 8 to 13 were a series of small magazines, the doors of which had been above the level to which the walls are now standing; they presented therefore few individual features of interest. In 8 there was a raised base probably intended for some heavy object; at the east end of 10 there was a rectangular chest or bin of crude mud; in 11 were found fragments of a painted clay doll of very rude style; 12 was littered with remains of *durra* and other grains, and there was also found in it an ostrakon (Pl. 18, Fig. 2); the south end of 13 was partitioned off as if for a granary by a slight wall of mixed brick and stone.

Room 14 had a doorway in the east wall leading to 14 and another in the south wall leading to 24. Against the middle of the west wall was a small mud erection semi-circular in plan, oval in form, and divided down the middle into two parts; just opposite to it, against the west wall, there was a large jar buried in the ground for half its height. The mud erection resembles the nest or coop used by the modern peasant for rearing young pigeons, and as in the modern house the coop is usually flanked by a water-jar, it is probable that this was also the purpose in the ancient example. On the west wall lay an unfinished stone offering-table.

Room 15 communicated with room 14 on the west and with room 16 on the east. The western doorway seems to have been blocked up by a late bin of flimsy construction (*c.f.* room 24), and such a sign of subsequent occupation, or at all events of a change in the house-plan, is

confirmed by the fact that in this room there are two different floor levels separated from one *House 2*, another by a thick stratum of burnt ashes.

Room 16 was much ruined. It had doorways on the west side into 15, on the south into 27, and on the east, where both the party wall and the outer house-wall were destroyed down to floor level, there may well have been a third doorway into room 17. In the southwest corner was a small double bin, or perhaps a hearth, of crude mud. In the room was found a rudely carved stone Ba-statue (9137).

Room 17 was almost entirely ruined away. A true end to the south wall suggested a doorway, of which the western jamb had disappeared. In the southeast corner there was no trace of the outer house-wall, but the south wall had been recessed back, and within the recess stood a large upright stone slab with a worked face to the north: between it and the brickwork was a narrow space measuring 1.20 m. by 0.40 m., perhaps for a wooden upright. There may therefore have been a large gateway in the east wall at this point.

Room 18 was much ruined. It had a doorway into 26, but presented no other features calling for remark.

Room 20 appears to have been the entrance-hall of the house, from which access was given to the courtyard (21). In it was found a round terra-cotta lamp.

Room 21 was clearly an open courtyard. As one entered it from 20 there was directly upon the left a broad stone staircase which (supported after the first two or three steps upon a vault of mud brick) ran round the east and south sides of the court and gave access in the first place to the magazines 3 and 4, and subsequently to the roof, or to the first-storey rooms of this part of the house, if such existed. Two of the stone steps remain *in situ*; they measure 1.10 m. by 0.30 m., are 0.25 m. high and run without any balustrade right up flush with the face of the supporting wall. In the space below the stairs were found ostraka (Pls. 19, Fig. 3; 20, Fig. 2). Opening out of the courtyard were other doorways on the north side into room 25, on the south into 5, and on the west into 22.

Room 22 was divided up by brick partitions into bins or granaries; across the door was a block of masonry 0.50 m. high, clearly intended to prevent the contents of the room pouring out when the door was opened. It was impossible to say whether or no these partitions belonged to the original house-plan: they were not bonded into the walls, but that is no argument for either view, and on points of building style these screen walls are not always to be judged by analogy with construction walls.

Room 23 had doorways into room 6 on the south side and into 24 on the north. There was a large bin of crude mud and mud brick built against the north wall.

Room 24 communicated with rooms 23 and 14, but the door leading into the latter seems to have been blocked at a later date by a slightly built granary running right across it.

Room 25 showed strong marks of burning in the southwest corner.

Room 26, communicating with 18 and 21, was too much ruined away to present any features of interest, and the case was the same with the large room 27.

The house was of typically early style: the stone foundations of the outer walls are paralleled by the best examples of Blemyan work in the castle, in the Anibeh graves, at Sheikh Daoud, Ksar Ibrim and other sites; the brickwork was good, of large bricks, well and regularly laid; the walls were, except in the small western magazines, smoothly plastered and whitewashed. The plan of the building, however, differs very materially from that of the castle. The house is divided into two distinct parts, the eastern and the western, and these communicate with each other only by one doorway (that between rooms 15 and 16), placed as far as possible from the two known entrances in rooms 6 and 20. A large part of the ground floor was given over to small magazines that have no parallel in the castle. The lines of the cross-walls also are much less regular than in the castle; probably the walls that divide the smaller magazines were not

House 2. in all cases carried through to the upper storey, where certain rooms may well have been larger and the plan more simple: thus, rooms 3 and 4, 8 and 9, 10 and 11, 12 and 13, probably formed but four rooms on the first floor. It would also appear likely that room 26 was not carried up to first-floor level, since otherwise there would have been no means of lighting directly the room over 27, and the same must have been true of rooms 22 and 25 (unless indeed 23 served as a light-well to the western section of the house), so that from first-floor level up the light-well area would have been the whole square formed by rooms 21, 22, 25 and 26, in which case the ground plan of the house is less abnormal than at first appears. If, on the other hand, room 23 was really a light-well, the division of the house into two practically independent parts would be more marked than ever. It is fairly clear that the open-air staircase in 21 would not reach higher than to the first-floor level, and this being so, the eastern half of the house cannot have consisted of more than two storeys; the western half may perhaps have had three.

There was a great deal of pottery found upon the site, and the proportion of handmade vessels, both large and small, was noticeably great; it is clear that such pottery was in common domestic use, but was not considered generally the correct thing for tomb furniture. In the cemetery therefore it was found mostly in poor graves, whereas on the house sites it is much more abundant and widespread. Several new types were noted (F lxxiv, lxxviii, lxxix, A, B and C sections of rims), also a number of fragments of F xii and kindred types (this was the pottery generally used for ostraka), of F v, with painted decoration, F xvii, plain, F xlvi and the allied shapes, many pieces being painted, and one of F lix of black handmade ware, burnished but not decorated with punctured or incised ornament. There were a good many fragments of F lii with a dull red haemaitic ground and cross-hatching or simple festoon patterns near the rim in blue-black and yellowish-white. This particular ware, which was not exactly paralleled in any of the graves, resembles more closely that found by Dr. G. A. Reisner in the tombs of his X type in the district north of the Blemyan frontier; it is probably late, and runs over into Coptic. Lying on the surface over room 17 was a fragment of stamped Christian ware (Pl. 13) somewhat like that shown in Areika, Pl. 29, Fig. 6. There were several fragments of coarse blue glaze and a good many fragments of glass vessels, one with spiral decoration of applied glass thread, and a broken button or counter of millefiori glass.

HOUSE 3.

House 3. This house stood high up on a spur of rock separated from that on which stood house 2 by a fairly deep sandy channel. Being thus exposed the house had suffered greatly; only the central rooms remained, and of these the walls stood only some 0.60 m. high. They were all mud-plastered and whitewashed, well built, and clearly of early date. The outer rooms had altogether disappeared, and on the bare rock face not even their plan could be recovered. It is quite likely that only the central rooms were more than one storey high, for such fragments of walls as can still be traced projecting beyond the central block are slighter in construction and scarcely capable of supporting an upper floor; but the site was so ruinous that its original plan cannot be discussed to any great advantage.

Room 1 had in the middle of the floor a small, roughly built structure, long and narrow, and about 0.50 m. high, covered with a barrel-vault, and with an opening at its east end; it suggested a baking-oven, but did not show sufficient signs of burning to give much ground to the suggestion. Three small and very fragmentary ostraka were found in the room. There were no traces of doors at the height to which the walls stood.

Room 2 had a doorway at its northwest corner giving access to room 3; the west wall was destroyed almost down to floor level, but a gap in the centre of it seemed to mark the place where there had been an outer door; this, however, had apparently been blocked up later, and a thin wall some 3.00 m. long met the wall-face just at this point.

Room 3 communicated with rooms 2 and 4, but possessed no features of any interest. *House 3.*

Room 4 had had a doorway into room 5, but the south wall had suffered very much, and the door-jambs had disappeared. Against this wall there had been a small bin built of mud brick and daub. A piece of glass enamelled with flowers in red, yellow and blue, was found in this room, actually below what had been the floor level, but the floor level was too much broken for this fact to have any significance, and the glass is almost certainly of Arab date. In the room were also found two fragments of clay statuettes (9124 A, Pl. 13), and a piece of a small obsidian vase.

Room 5 had a breach in the east wall, which may represent an original doorway; comparison with other plans would lead us to expect a staircase in this room, but in its ruined condition there was no sign of such.

The projecting walls to the north of the house gave evidence of a room or rooms of which the major part had disappeared. Two parallel walls close together and 3.70 m. long may perhaps represent an open-air staircase. Close to this there were two furnaces hewn roughly into the brickwork of the main house-wall and burnt a deep red by constant use. Beyond them two pillars of brickwork, one against the wall-face and another 0.65 m. from the first, were of uncertain meaning. Close to this was found a bronze finger-ring with apparently unmeaning marks engraved on the bezel (9106).

A small fragment of an ostrakon (Pl. 20, Fig. 7) was found just south of the central building in the ruined room there, of which only the beginnings of the walls remained.

HOUSE 4 (see Pl. 27).

Houses 4, 5 and 6 formed a single group in the middle of the town; they were contiguous, *House 4.* and it was not easy to see precisely what were the limits of each. Between 4 and 5 an alley ending in an open yard seemed to give a fairly definite barrier, though in the latest period the levels here were so much raised that early barriers were quite obliterated, and the yard which properly belongs to house 5 may well have extended into the neighbouring property. Houses 4 and 6 were still more difficult to define. It seems tolerably clear that in the first period house 4a, which was perhaps an earlier building altogether, was the principal structure. A little later, probably, the small and comparatively poor house 6a was built up against the corner of it, between it and the fine early house to the south: it may be that 6a was really an annex to 4a. In the later period considerable additions were made to house 6a, various rooms being added against the east wall of 4a, and while most of the old walls continued in use, a large new courtyard was added on the southeast, and there were incorporated what seem to have been outbuildings of the first period. Over the ruins of house 4a, a good many of whose walls were still standing high enough to be re-used, other rooms were built; but whether these formed part of the new house 6 or formed (as is more probable) a separate dwelling, it is difficult to decide: the fact that the late house 4 had a courtyard of its own on the west, overlying the rooms 7a and 8a of the older house, make it more probable that the buildings were separate. House 4 will therefore be treated as a distinct building both of the early and of the late dates. It is to be noticed, however, that though two levels* can be clearly differentiated on the site—corresponding to a first period, namely that of the founding of the town in general, and to a period of rebuilding after destruction—yet here the work of the second period is vastly better in quality than that, for instance, upon site 5; this difference may be due merely to the relative wealth of the owners, but a comparison of the details makes it appear more probable that the rebuilding is earlier in date than that of house 5 and of other sites such as house 8. It is important to recognize this, as otherwise confusion might arise from supposing that, the period of reconstruction being

*The patching of the walls of the second period was on a small scale and did not alter levels.

House 4. uniform throughout the whole town, corresponding levels upon different house-sites could be used indiscriminately for chronological arguments. This is not the case; levels in each house must be considered separately.

Rooms 1 to 6 of the latest house overlay older rooms, also six in number but differently arranged.

Room 1. The floor was of mud laid over a mass of vaulting-bricks that represented the roof of the older house: the walls were solid and well built; when they did not run over the old walls which served as their foundation, the new foundations went down nearly as low as the old floor level. In the room were found fragments of common undecorated pottery and the rim of a big bowl with rosette ornament in relief. Under the floor level were two rooms of the older period and also a narrow passageway which seems to have served as the main entrance to the house and thus gives to it a ground plan rather different from anything else found upon the site. The front door was on the north, and the hall led straight through to the staircase and thence to room 4 a, while a door on the left opened on room 2 a and the small room 1 a was reached through this. The floor of the rooms was 1.10 m. below that of the later building, the walls were for the most part heavy, well built, mud-rendered and whitewashed: the rooms had all been vaulted. In the room 2 a were the fragments of a handmade jar (F v.) with red haematite surface and a rough design of spots and bars in white (9116); in the southeast corner of the same room, by the doorway, stood a red vessel of handmade ware, full of ashes and heavily burned, clearly used as a hearth. The doorway seems to have led only to a cupboard under the stairs in 3 a.

Room 2. The central pillar of the staircase stood well above the floor level of the neighbouring rooms, and on the east side of the pillar the steps remained also well above that level: it looks as if only the lower flights had been rubbed up and the stairs had continued in use during the later period of the house. The south wall had been entirely rebuilt and the north doorway blocked up.

Rooms 3 and 4. The dividing wall between these two rooms was broad but only two courses high (one course was laid aslant on edge) and was perhaps never carried up to ceiling level: there was no opening in the wall, but it was not standing so high that part of it may not have been used as a threshold. There was a door in the west wall of room 4 leading out into the courtyard. Both the east wall, which rested on the older brickwork, and the west wall, which was independent, were marked by courses of bricks set on edge and were of rather inferior style generally. Under them lay a single narrow room (4 a) which extended a little to the south beyond the main wall of the later building. The upper floor level had perished but the foundations of the later walls were only 0.80 m. above those of the older. In this room was found the chalice 9118.

Room 5. The upper floor level was preserved and was 1.10 m. above the lower, the intermediate space being filled up with vaulting bricks fallen from the first roof: the old walls were whitewashed, and stood from 0.60 m. to 1.20 m. high. In the late east wall was a doorway which had been blocked up at a subsequent period with a typical late Blemyan wall of rough small bricks with header courses slantwise on edge; this piece of brickwork resembles that on such sites as house 5 (late) and is perhaps more contemporary with them, house 4 (late) belonging to an earlier time than the upper buildings on some other sites. In this room and in room 6, where too the upper floor level was intact 1.10 m. above the older, no pottery of any particular interest was found.

Rooms 7 a and 8 a did not communicate directly with room 4 a, alongside of which they lay, but seem to have been reached through another room or passage on the south which lay outside the limits of the excavations: a breach of the east end of the party wall was probably a doorway between the two rooms, and in the northwest corner of 8 a was a wide doorway beyond which work did not go; its east jamb was preserved, but the north end of the west wall had been

broken away. The walls were well built, mud-rendered and whitewashed, and fitted with niches *House 4*, for lamps. Fragments of a good bowl of clear white glass were found in 8 a.

Above these two rooms stretched a yard belonging to the later house: its floor of beaten mud was unbroken but the boundary wall nowhere stood more than two courses high and much of it had disappeared altogether. Against the wall of the house a pit had been sunk (hence the breach in the wall between 7 a and 8 a) which was lined with brick, the brickwork was carried up a little above ground level and the bin or granary so formed was roofed with rough stone slabs forming a raised divan against the house wall.

Excavations did not proceed west of this yard, and though a wall of old date was found running obliquely from the northwest corner of room 8 a down to a small room that underlay the late courtyard (11) of house 5, its connection, if any, with the ground plan of house 4 a could not be ascertained.

HOUSE 5 (see Pl. 9, 26).

There were here two houses, the later superimposed upon the earlier but covering a larger *House 5* area. Many of the older walls were incorporated in the second building but some had been destroyed down below the upper floor level and were consequently disregarded when the lines of the later house were laid out. The older house was a poorly built structure apparently of only one floor, for the walls were not strong enough to support a second storey and no vaulting-bricks were noticeable amongst the ruins. In one or two instances there were courses of headers set on edge in the walls of the upper building, which from its general character may be classed as more or less contemporary with the upper houses on sites 6 and 8; but it does not follow that the earlier building here is necessarily of the same date as the lower houses on these other sites. It may be so, in which case it must be regarded as a dwelling of the poorer class of people; but it equally well may and perhaps more probably does belong to the middle period when some of the older houses were undergoing repair and alteration. The later house was also of a poor type throughout, and the heavy layer of mud and burnt rubbish that spread over a great part of the site may well be the remains of a flat roof of mats or palm-ribs laid across beams and covered with a mud coating; this is the roof normally in use at the present day.

Even the lower house-plan is ill-ordered and irregular. It seems to have formed roughly two sides of a square of which the remainder, in the southeast, was an open court; the rooms were in a double range except in the southwest corner which was given over to a magazine. But if this was a rambling building, the later house was a maze in which neither levels nor angles were regarded; it is the haphazard kind of thing that the modern Nubian would perpetrate. For the sake of clearness the room numbers of the earlier house are distinguished by the letter "a".

Room 1 had no doorway and probably had no roof; it seemed to be merely a space partitioned off from the rest of the courtyard 2. In it was found a small ostrakon (Pl. 20, Fig. 6), and scattered over this room and 2 were numerous pieces of rough pottery, fragments of three glass vessels and a small piece of lead. The north and west walls belonged to the later date only, the east and south to both periods.

Room 2 was an open courtyard: the south and west walls belonged to both periods; at the northwest corner there was apparently a doorway leading into 8 and at the northeast corner a doorway into 3: both of these had been much ruined.

Room 3 apparently communicated with rooms 2 and 5, but the whole end of the wall separating these two rooms and forming the west side of room 3 had disappeared.

Room 1 a of the earlier building had been all one open court.

Room 4 had a doorway on the west into room 5: it presented no features of interest.

House 5.

Room 5 was a large room (5.80 m. by 3.90 m.) with doorways on the east to rooms 4 and 3 (probably) and on the west to room 10; on the (upper) floor level were found two fragments forming together a large ostrakon (Pl. 19). Beneath this were several rooms of the older building.

Room 2 a lay partly underneath room 4, partly underneath room 5; it was filled up with perfectly clean drifted sand, on the top of which were laid the later floor and wall foundations, 0.80 m. above the foundations of the earlier walls.

Room 3 a lay under room 6, occupying the east part of it: a buttressed curtain wall with a doorway at its south end separated it from room 6 a; against the north wall was a mud bench.

Room 4 a lay underneath rooms 5 and 8; it was filled up with a mass of fallen brickwork amongst which were numerous fragments of pottery and two ostraka. The walls had been neither whitewashed nor mud-plastered: there was no doorway at the height to which the walls stood, circ. 1.00 m., so that the room must have been a magazine only.

Room 5 a lay underneath rooms 5 and 10: the walls stood about 1.00 m. high and were neither whitewashed nor plastered: there was no door.

Room 6 a lay beneath the west part of room 6: the west wall like that of 3 a was a buttressed curtain wall with a doorway leading outside the house.

Room 6 was a long and narrow space that apparently had not been roofed. In it was found the pot F Ixxvii, (9117).

Room 7 was a small room that apparently had been used as a storeroom, for it had no door at floor level, though the walls were ruined down so low that the evidence was not absolute.

Room 7 a lying below the last had been divided into two unequal parts by a wall running east by west and these two parts had been covered in by low barrel-vaults so as to form two magazines about 1.10 m. high with openings (probably) at the east end: their roofs had been broken through and the whole room filled up solid with rubbish over which was laid the floor of room 7.

Room 8 was a passage with two rectangular turns and a dividing door. It seemed to be entered from 2 but the south jamb had disappeared so that the exact length of this member of the passage was uncertain. In the southwest angle was a (ruined) hearth, the wall around it a good deal discoloured by heat. In the part of the passage that ran north by south was a doorway, after which the passage took a turn to the left. Here the walls were hopelessly ruined. The south wall of room 10 seems to have continued eastwards from its angle, in which case there must have been in it a doorway opening onto the passage: there was no sign of any wall against the face of the east wall of the passage, so the door may have been here (as suggested on the plan) in the southeast corner of the room. If the passage also gave access to room 9 it must have been at the corner where the east end of the north wall was ruined quite away; in that case the continuation of the passage westward would have formed a recess.

Room 9. Besides the possible opening in the northeast corner there was a doorway in the middle of the west side leading out into the yard; the walls, which had been very badly built originally, were now particularly ruinous.

Room 10. The north wall rested on the wall of the older room; the east wall was late. The south wall had almost entirely disappeared, but remains at the west end pointed to its having run along for the greater part of the room's length; the west wall was built very much askew. All these late walls were badly built; in the photograph on Pl. 9 a can be seen the edge-set headers in the west wall, where broken bricks were commonly employed; the wall-faces, however, had been roughly plastered and whitewashed. Under this room was room 9 a, a storeroom of the early house; it had no doorway at the level to which the walls stood (0.75 m. and less). In the middle of the room was a large store-pot with its rim broken away; it was 0.97 m. high and had been buried for about half its height in clean sand; above this level the room was full of fallen bricks and rubbish on which the later floor was laid. In the pot were remains of palm-leaf matting.

The west wall of the room was also the outer wall of the older house; outside it, in the yard and *House 5*, immediately under the west wall of room 10, was a big earthenware basin with top diameter 0.77 m., bottom diameter 0.56 m. and height 0.27 m. The basin was empty and had been broken by the weight of the wall resting on it (see Pl. 9 a).

The northwestern rooms of the later house were much ruined, and owing to their different levels it was not easy to judge of their original arrangement. Thus from room 9 there was a step up into room 12, and from this again four steps led up towards room 11; but in the northwest corner of this room the remains of the old walls were still standing to a considerable height and the floor attached to the south wall was 1.30 m. above that of 12; there must therefore have been several more steps which have disappeared. The courtyard that lay outside the west wall of house 4 was about on a level with the floor of room 11 in house 5, which was probably also an open court.

Room 12 may well have been unroofed. The whole of the west wall was destroyed by "sabakh" diggers, and a few bricks seemed to show that another wall had run across it dividing it into two, a northern and a southern half, and had been similarly destroyed. In the middle of the floor space were found two fragments of stone cut on two planes with a device of bars and circles (see cut): their use is conjectural. A very small ostrakon was also found here.

The west wall of 13 showed two periods of building: the lower part of the wall was continued through and formed the west wall of room 11 as originally designed. When room 11 was heaped up with rubbish and the floor level raised so as to run over the top of the older buildings in its southwest corner, this wall was dismantled and buried with the rest: so that the western limits of room 11 in its latest period are not ascertained. But room 13 was kept to its original plan and along the ruins of the older wall a new one was built which now stands 0.70 high. But even the earlier of these two walls belongs to the late period, and not to that represented by the underlying house 5 a, still less to that of the lower levels of site 4. The periods of building and of rebuilding on the different sites are not coincident.

The doorway of room 13 must have been in the ruined east wall. On the floor were found two ostraka (Pl. 20, Fig. 3) and another inconsiderable fragment.

HOUSE 6 (see Pl. 27).

The southern part of house 6 with its courtyard and outbuildings was superimposed over *House 6*: the ruins of two older buildings which do not seem to have any connection with each other: in that case the older house 6 a was quite small, consisting of four rooms and a staircase. The later house had a much greater area.

Rooms 1, 2 and 3 stood apart from the rest of the house. Here had stood an earlier building (rooms A, B, and C) whose walls were in part used as foundations for the later work though their lines were not very closely followed. The difference in depth between the two levels was about 0.80 m. The earlier walls were built entirely of large bricks used as headers (a feature only observed upon this part of the site), while the later walls, which were of good construction, had alternate headers and stretchers in each course. At the northeast corner on the top of the new wall was a hollow apsidal construction, of six courses of brick stepped outwards at the curved east end and perpendicular on the straight west end: presumably it was a granary of late date, posterior to the destruction of this second period building. Outside the northwest corner was a mud divan. To the east of these rooms stretched a large courtyard belonging to the second period only: in its southeast corner was a round hole plastered inside with mud—one of the crude mud vessels to be seen in any Nubian courtyard at the present day: in the northeast was a group of small magazines (4 and 5) approached by a flight of three steps, and another small magazine



House 6. was built just west of these against the north wall of the courtyard and the corner of the house. The yard wall was of ordinary type (alternate headers and stretchers) but thin and poorly built: the floor was simply a heavy bed of ashes and house refuse.

Room 1 a lay partly underneath the west part of the courtyard. This was a well-built room with a doorway to the east: in the south and west wall were niches; the walls were originally whitewashed. In the north wall two doors led into room 2 a and the staircase (3 a), respectively. In the southwest corner of the room were found several pots, including two decorated specimens (F v and F xlvi) and a number of plain ones.

Room 6, the staircase (= 3 a), seems to have been used equally in both periods. There was a little cupboard under it, approached from room 7 (= 2 a), in which were found some small plain pots. The two lower steps on the south side of the pillar were rubbed up in the second period, and the ascent then started on the east flight, whose third step (the highest) gave a height of 1.10 m. above the lower floor level. As far as could be made out, room 5 a had been rubbed up to a height of 1.40 m., at which level was laid the floor of the new room 9; this floor had disappeared, but a new wall had been built parallel with that of the stairwell across room 5 a, leaving a narrow cupboard (?) 0.40 m. wide between, and this later wall, for economy's sake, was built with arch foundations, the arches resting on the ruined east and west walls of room 5 a and on the wall that ran just west of the latter: the crown of these arches coincided with the apparent floor level of the later room. This room 9 was probably entered by a doorway (through both walls) in its southwest corner, where the stairs would just have reached its floor level.

The only other rooms of the older house were 2 a and 4 a, the latter opening into 5 a by the whole length of its side; the small space west of 5 a was presumably a cupboard, being only 0.75 m. wide. They presented no particular features of interest, but had all been vaulted. Beyond these, along the east wall of house 4, stretched three more rooms, apparently forming part of house 6; they were much ruined, and the only thing of interest discovered was a fragment

of a stone screen, thus  ; its extreme measurement was 0.125 m.

To the south of house 6 were the remains of several buildings belonging exclusively to the early period. The excavation of these was only pursued far enough to give a reasonable definition to the area within which work was confined; the walls therefore form no coherent plan.

Room D was clearly part of a fine and well-built house. The whitewashed walls were solid and preserved nearly to the springers of the vault whose ruins cumbered the floor-space; the doors were provided with stone thresholds, and the outer door had its hinge-stone still *in situ*; a bowl of plain pottery was the only object discovered in the room. In front of this house, to the east, there had been apparently a courtyard, which was covered by a heavy midden deposit; in this were found an ostrakon (Pl. 21, Fig. 5), a scarab (9113), and a green glaze figure of Bes (9112). South of this area was a wall, apparently that of the courtyard, with a group of three low vaulted magazines, the largest having a flight of three steps inside it.

HOUSE 7 (see Pl. 27).

House 7. This was a very small house, containing only four proper rooms and a staircase on each floor. Judging from the thickness of the walls (0.80 m.), it had been of two storeys. In its ruined condition the walls towards the centre of the site stood as high as 1.35 m., while some of the outer walls were razed to their foundations. The house was an early one of solid brick construction, the walls carefully mud-plastered and whitewashed. After the destruction of the original building there had been a second period of occupation, when most of the original walls

had been re-used, but the floor level considerably raised and the ground-plan altered in some *House 7* respects.

Room 1 had doorways in the north and east walls leading to rooms 3 and 2, respectively. The first doorway was blocked up by a large irregularly constructed bin of mud brick and daub, and a similar structure stood in the northeast corner. Both of these belonged to the later period of the house; inside they were smoothly lined with mud, and were carried down to the original floor level, but their outsides were left perfectly rough and had been buried beneath the later floor level to the height of one metre. In the southwest corner, close to the modern surface, was found a coin of Nero struck at Alexandria in 65 A. D. (9103).

Room 2 had a doorway into room 3, which had been walled up during the later period. The double bin that stood in its northeast corner was better constructed than most of the later work, and stood on the original floor level, but it was difficult to say to which period it belonged.

Room 3 communicated on the east with room 4, and on the south with rooms 1 and 2. The north wall had been much ruined, but a gap near the west end, where there were no signs of walling at all, must, in the absence of any gate elsewhere, show the position of the original entrance to the house. Against this wall was a mud hearth, rounded inside and heavily burned; against the south wall, between the two doors, was a long low divan of mud brick. Towards the southeast corner of the room was a fragment of rough and flimsy walling whose foundations were 0.60 m. above the original floor level; this is consistent with the 1.00 m. stratum between the two floor levels discernible in room 1. In the northwest corner was found a broken mud jar-sealing stamped with the Christian "labarum" (Pl. 15); this belonged to the upper level of later occupation.

Room 4, communicating with room 3 and with the staircase. The east wall had been much destroyed, and at one point, towards its south end, had been patched with a rough wall, wherein was a course of bricks used as headers on edge in the late Blemyan style. The south wall had been entirely razed down to floor level; only the west jamb of the doorway and the width of the stairs pointed to its ever having existed.

Room 5. The staircase. This was quite ruined, only the central pillar and the lowest step being traceable. It is clear that in the second period the stairs were not used; the later floor was laid over the ruins of the pillar and the wall that divided the staircase from room 4, making one room out of the two.

Room 6 was only an open yard, roughly rectangular, having a gateway at its east end.

HOUSE 8 (see Pl. 10, 29).

The site had passed through three periods, of which the first and last represent a different *House 8* period and a different style in building. The earliest house was solidly built of mud brick, its walls well plastered and whitewashed. At a later time additions and alterations were made; the floor level was in some cases at least slightly raised, doors were walled up, but the general plan remained almost the same; it was a case of repairs rather than of rebuilding. Later again this house was largely destroyed: the vaulted roofs collapsed, the rooms were filled with drifted sand, and only some of the less battered walls still protruded above the surface. On this site was erected a new building; the standing walls of the older house were incorporated in it, so that where they were could be utilized the plans are coincident; but where the older ruins had been wholly buried the new builders disregarded their position and their lines alike and proceeded independently. The new building was very different from its predecessor in having slighter walls, less regular in their angles, and fit to support a flat roof only instead of the barrel-vaulting of the older structure; it was a building of a single storey only, roughly finished and squalid, and in every way marked the decadence that had set in since the time when the earlier builders of Karanđa laid the stout walls of their lofty houses.

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House 8. The house stood upon the slope, so that the westernmost rooms were upon the solid rock, and in consequence had suffered very greatly, while the lower walls were built upon the sand, and being covered by the drifts, were much better preserved.

Rooms 1 to 7 had no older remains beneath them.

Room 1 had a doorway in the east wall leading to room 3; there may well have been a doorway in the north wall also, but this was too ruinous to show any traces of one. In the northeast corner of the room was a bin with mud walls, sunken below floor level.

Room 2. All the walls were in a ruinous condition, standing from 0.20 m. to 0.40 m. high, and in many places destroyed down to floor level. There may have been a doorway in the north wall, and presumably were others leading to the rooms to the east and south. In the west wall had been an entrance door; the wall here had wholly disappeared, but a large flat slab of living sandstone had been smoothed and trimmed to act as a threshold; the line of the wall ran flush with its edge.

Rooms 3 and 4 were also too ruinous to present any features of interest; the former communicated with rooms 1 and 8, the latter must have had a door through into room 5. Both rooms showed traces of more than one floor level, but between these there was not more difference in height than would be accounted for by a slight repairing, or even by a reasonable period of indecent living.

Room 5 was a narrow closet in which, at the south end, a large store-pot was buried in the floor apparently up to its rim (both floor level and rim had disappeared).

Rooms 6 and 7 are two divisions of an open-air yard, with walls partly of uncoursed rubble, partly of rubble laid in herring-bone fashion, recalling some of the walls of houses in the Romano-Nubian settlement opposite Halfa.

The floor levels of the eastern part of the new house, built over the old, started 0.60 m. below that of rooms 3, 4 and 5, and were stepped down again in the more easterly rooms.

Room 8. All the walls belonged to the older period. The upper floor had disappeared, but was probably level with that of room 9; a doorway to room 3 had been effected through the old wall, and there must have been a step or two steps from the threshold to the floor. The doorway into room 12 had been altered: in the original building the framework had stood in a reveal in the east side of the north jamb and had been let into a groove cut in the face of the south wall. In the later period the north reveal and the groove were filled up with walling that projected to form the jambs of a narrower doorway. The walls had all been plastered and whitewashed in the older period. The room was filled up with clean drifted sand in which were found two fragments of a Greek ostrakon (see p. 4). Also in this room was found a curved and toothed sickle-blade like that from the castle (see Pl. 15).

Room 9. All the walls belong to the first period and are plastered and whitewashed. They stood about 2.00 m. high from the lowest floor. In the north wall was a doorway apparently leading outside the house; this in the middle period had been walled up with a fairly well-built wall the lowest course of which was composed of bricks laid edgewise as headers; this wall was not plastered or whitewashed. At the same time a new floor had been laid 0.30 m. above the old. In the latest period all the walls were re-used, the north door remained blocked, the old door in the east wall was narrowed by having a small block of brickwork built up against the face of each jamb; the floor was raised 0.80 m. above that of the middle period. At this time the room was used as a storeroom; large pots were sunk in the floor; the impression of one was left in the middle of the room and another had almost blocked the doorway.

Room 10 was in reality little more than a store-place partitioned off from room 11; it is doubtful whether the dividing wall ever stood very high above floor level.

Room 11 was a small room with doorways east and west leading to rooms 13 and 5: the latter door, in a wall ruined down to its foundations, was rather problematical. The doorway into 13 seems to have been prolonged into a corridor or passage, the south wall of which was

ruined away for the major part of its length; in this, just beyond the door, was buried a black *House 8*, pot of handmade, hearth-burned pottery, its rim level with the floor. The walls were very ruinous and originally of the poorest construction, bricks and unshaped stones being mixed quite indiscriminately; the bricks were small, measuring 0.33 m. by 0.15 m. by 0.095 m.

Below rooms 10 and 11 and stretching a little to the east of them, was a room of the older house measuring 2.10 m. by 1.90 m., with a doorway at the east end of its north wall. In the south wall was a square niche 0.30 m. high and 0.40 m. wide. The walls were all whitewashed. To the north of this room was another, also of the lowest level, and not utilized in the later building; it had a doorway in its northeast corner leading into another room of the early period that underlay the late room 13: these older walls stood as much as 1.00 m. and 1.20 m high (see Pl. 10).

Room 12. All the walls were old; as in most other cases, they had not stood very high above ground level at the time when the later house came to be built, so were used less as walls than as the foundations along which the new walls might run; thus in Pl. 10 b, the line of demarcation between the old and new work in the north wall of room 12 can plainly be seen; the old wall was thicker than the new, it was plastered and whitewashed, whereas the new was neither, and the actual superimposition was clumsily done. In the northeast corner of the original room was a doorway, and there were two doorways in the west wall giving access to the (early) rooms 8 and 9; between these two doors was an arched niche 0.65 m. above the floor, 0.50 m. wide and 0.55 m. high. In the latter room the two western doorways had been narrowed, and another doorway had been made in the middle of the eastern wall; the floor was raised 1.00 m., and in the middle of it was embedded a very large pot.

Room 13 was L-shaped, the foot of the L being a small, partly walled-in recess in which stood a black handmade globular pot buried up to its rim in the floor. There was presumably a doorway into the passage part of room 11, where the wall was broken altogether away. All the walls except the south wall, which was built over the old work, were roughly constructed of mixed bricks and broken stones.

The old room underlying this has been already noticed. Outside it, against the face of the east wall, had been built a slight courtyard wall of brick, containing a course of headers on edge. This belonged to the middle period, when the house underwent various minor alterations. At the same time the threshold of the door in the northeast corner of this old room had been raised by a course of rough stone slabs laid slantwise on edge.

Room 14 was an open courtyard used in all three periods. The second floor is 0.20 m. and the third 0.75 m. above the first. There seems also to have been another at a height of 1.10 m., almost level with the floor of room 12, but this had been of poor construction and was almost entirely broken away; probably it belonged to a Coptic settlement. The earliest court had had a doorway at the west end of the south wall and another in the northwest corner. In the middle period the former of these doorways had been blocked up altogether and a projecting jamb had been added to the south side of the latter, the threshold being raised at the same time, and the east wall of the court was repaired with a wall in which bricks set edgewise as headers occur. Later the threshold of the northwest doorway was again raised to meet the new floor level; and finally in the latest period the doorway was blocked altogether. In the photograph on Pl. 10 a, the blocking of the south doorway is clearly seen, the space below the later brickwork showing the rise in floor level that had occurred before the change was made. In the court were found fragments of a large handmade terra-cotta chest, rudely painted in red on a pink slip with a design in which the cross is the chief motive (Pl. 13); fragments of a number of large handmade jars and of some of form F xii, a fragment of a small vessel of millefiori glass and part of a painted saucer of regular Coptic style resembling that from house 9 (Pl. 13).

HOUSE 9 (see Pl. 11, 28).

House 9. This small house differed very greatly from all the others excavated. The plan was wholly different, having a certain resemblance to that of a Coptic church, though varying from that in essential details; the method of construction too was different, for whereas mud brick was practically the only material used on other sites, here the majority of the walls were built of sandstone rubble plastered with mud and whitewashed. The objects found in the house showed that at one time at least it had been occupied by a Christian folk; how much of it, if any, dates back to an earlier period it was impossible to say. The building stood directly on the bare rock, and thus, since there was no risk of the site being sanded up, there was no chance of stratification, however many times it may have been occupied. The whitewashed walls had in some cases been replastered with a rougher coating of plain mud; there were therefore two stages of occupation, even though the interval between them may have been of the shortest; the bulk of the pottery found was of the regular Blemyan type, and this may mean that the house as it stands was of Blemyan, perhaps late Blemyan, origin, though of unusual type, and that the subsequent Christian occupation was short and did little to modify the building. The south wall stood as high as 1.50 m. The weathering had destroyed the mud plaster where this was exposed and had laid bare the rubble structure of the wall (Pl. 11); the north and east outer walls had suffered greatly.

Room 1 had an entrance in its southwest corner and gave access through two doors to room 2 and through one to room 4. The northwest angle was partitioned off by a low, rough, curved screen of mud as if for a bin, or to keep in place some large receptacle. The north and west walls were of mud brick, the rest of rubble. The floor was of mud.

Room 2. Opposite the two doors from room 1 were two others on the east side communicating with the staircase and with room 5; at the north end was a screen wall of mud brick, leaving in the centre a very wide doorway into room 3. In the northeast corner was a small rectangular enclosure with a low mud wall, the remains of a bin or box; in the northwest corner, between the doorway into room 1 and the screen wall, was a solid block of brickwork consisting of three steps, the topmost narrower than the others; it seemed to be not one of the open-air staircases found, e. g., in house 2, but rather a stepped seat or base for some object.

The floor of the room was made of fine large sandstone flags, well laid, and to all appearances not covered with mud; the walls, of rubble plastered with mud, had been whitewashed, and the whitewash covered with a later coarse mud-rendering. On the floor was found a broken millefiori bead.

Room 3. Entered from room 2 and leading to room 4. As in room 2 the earlier whitewash of the walls had been covered with a later plastering. The floor was of mud. On the west side of the room were found fragments from two large store-pots of handmade, hearth-burned pottery with creamy-pink surface whereon was a rough design in red paint, and of a large clay chest similar to that shown on Pl. 13; it was handmade and hearth-burned, the painting was red on a light-yellowish surface, and represented fish. The chest must once have had a lid, which was missing.

Room 4 may have been an open court. The outer walls are wholly ruined away.

Room 5. The outer wall, much ruined, was so thin and of such poor construction as to suggest that it had had at best but a flat roof instead of a vault. It was entered only from room 2.

Room 6, also much ruined, contained the staircase, which, judging from the small size of its central pillar, can only have led to a single upper floor. Here was found a saucer of regular Coptic ware, with a design in brown paint on a smooth white surface (Pl. 13).

CHAPTER V

THE POTTERY

It was to be expected that there should be some difference between the pottery found in the tombs and that from the houses in the town. Tomb pottery in Egypt is usually of a finer kind than was common in domestic use, and this is as true at Karanog as at other places. The similarity was sufficient to establish the identity of civilization and custom; it was impossible from the broken fragments in the houses to identify every form found in the graves, but at least every class of ware found in the cemetery was represented on the town site. Painted pottery was less in proportion to other wares, which was precisely the point to be expected; but every kind of painted ware was found. The difference between the sites was that from the houses came types of pottery which either did not occur at all in the graves or were there relatively less common. Rough handmade pots undecorated or decorated only with rude incised lines, pots used for cooking or such household purposes, and great store-jars, handmade and burnt in the open hearth, were common in the houses and rarely if ever were deposited in the tombs. Besides these the town buildings produced a great number of wheel-made undecorated bowls such as were used for domestic purposes and were not considered proper funeral offerings. These two classes together formed, naturally, quite a large proportion of the pottery found on the town site, and constitute the main difference between it and the graves. Of the types most common in the graves, shape F i was unusual in the town, or else its fragments could not easily be identified; F iv was very common both in the plain and the painted ware; F xii was one of the most usual forms, and so were F xlvi, xlviii and the allied shapes; F lii was fairly well represented; F xxxii was comparatively rare, as was F ix, one of the commonest grave types; F xvii was also not very common; of the new shapes peculiar to the town site, F lxxxii to F lxxxvi were represented by very numerous examples showing many slight divergences from type, while most of the others were represented by only one or two specimens. It must be remembered that only a very small part of the town was worked, and the conclusions reached as to the proportionate representation of types—as well as other conclusions—are tentative only, and subject to correction; thus houses 5 and 6 produced a far greater amount of painted pottery than did houses 2 or 9, and further excavation might upset any theory based on the mere number of specimens found. In fact, the result arrived at is no more than this; that in the town the tomb pottery is well and fairly uniformly represented, but the different conditions naturally account for the larger proportion of useful as opposed to decorative pottery, and for the existence of a large amount of domestic ware that was not used as funeral furniture. There is no doubt that the people of the town and those of the cemetery are the same, but they used things in their houses which they did not put, or put rarely, in their tombs.

Numerous as the graves near Anibeh were and long as was the period which they represented, no evidence could be adduced for their comparative dating; and the great mass of pottery found in them did not help in this respect; nothing like a sequence relatively chronological could be devised from it. In the town site conditions were more favorable. During the existence of the town buildings were destroyed or fell into disrepair and were covered up by later buildings below the level of whose floors the older structures, buried in their own rubbish, still stood, often to a considerable height. Where the floors of the later houses were intact it was obvious

*Tomb and
Town
Pottery*

Chronological Evidence.

that the objects found below them would be, upon the whole, earlier than those found above; on the other hand, it had to be remembered that the interval of time between the fall of one house and the building of another above it might be very small, and that such vicissitudes were not necessarily contemporary upon different house-sites: the top level on one might be no later than a stratum next door which underlay the unbroken flooring of another house; and this being so, not only was it perilous to argue from one site to another, but there was no saying that pottery found above the intact floor of one building had not got there from the ruins of a building close by which was actually earlier though less deeply buried than its neighbour. Each site had therefore to be taken by itself, and then could only be adduced in evidence if the upper floor-levels were really unbroken. When once these were broken, infiltration might always confuse argument; and without unbroken floors the argument from mere stratification and depth of burial could not stand for a moment. The pottery from above and below each intact floor had to be compared, that which was common to both strata eliminated, and the result compared with that from other sites; very often these results were contradictory, and in any case they are likely to be weakened or upset by further research. But at the best they are very small. The Nubian has always been conservative, and the lapse of some four hundred years is not likely to find much change in him: indeed the difficulty with Nubian pottery is more often to arrive within a thousand years of the truth.

Late and Early Types.

It would certainly appear that the painted pottery with floral, animal or conventional designs, which we may call characteristically Blemyan, ran through the whole period of their occupation of the country. It occurred uniformly in the graves, and is found in the town at the highest as well as at the lowest levels. In the later period, however, it does seem to grow less common; on the upper floor-levels it figures in smaller proportions and is to a large extent ousted by the plain wares in which open bowl shapes and ribbed fabrics predominate. The ribbing of pots is by no means necessarily late; thus from the presumably early grave G 187 we have the closely ribbed form F xxxiii; and ribbed household pots are not uncommon in the deeper house-sites; but on the surface, and above top floor-levels, the amount of ribbed ware is vastly greater and the shapes to which ribbing is applied are clearly much more numerous, even though they cannot all be ascertained. A pot cannot, because ribbed, be assigned to a late date; but ribbing is more characteristic of a late date than of an early.

One fabric is found at Karanog, as on the town site at Shabtūl, which does not appear in the tombs. This is a white-faced ware with a very hard, smooth and slightly lustrous surface very different from the rather mealy surface of the white-faced vessels (mostly F xlvi and xlii), which were found in the cemeteries. Pots of this fabric are rather thick and clumsy; the clay, however—red clay—is well levigated and hard; the white is either a dead white or takes in patches a slight orange shade, which brings the ware into relation with the similarly hard-faced, cream-coloured or lemon-coloured ware of Coptic sites. Not infrequently the surface is decorated with a large and careless cross-hatching in red. This fabric occurs only in the upper levels, but that it is not due only to subsequent occupation of the site by Coptic settlers is shown by the fact of a piece being found below the unbroken floor of the yard of K H 4, within the walls of the earlier underlying house. Probably it belongs to the latest period, that of transition from the Blemyan to the Coptic.

Coarse linear ornament, though naturally found on common pots of all periods, is very usual in what we must regard as the later wares. Thus in the upper house-levels were found numerous examples of F lii and liii of a dark red haematitic ware; but instead of the black floral decoration of the tomb specimens, these always had below the rim either diagonal stripes arranged in groups of two or three or else loose festoons in black and yellowish-white paint. In late undecorated vessels of red haematitic ware the rim is occasionally accentuated by a dull line of blue-black matt colour.

Also confined to the top levels is a ware, mostly used for flat bowls, though sometimes for deeper vessels, with a bright lemon-coloured surface, hard but more grained than that of the white ware already mentioned, of which it might otherwise be regarded as a variant. The fabric is not to be distinguished from that common on early Coptic sites. The bowls, in which it is most usual, have sometimes a plain flat edge like a modern dinner-plate, sometimes a deeply grooved edge with pendulous outer flange like the Roman mortaria (see F lxxxii, lxxxiv); in these bowls the yellow surface is usually confined to the inner face, the outer either being of the plain clay or having a brown wash, but in some cases the yellow is on the outside and the inside is white. It is to be noticed that whereas an orange tint is not uncommon on the painted pottery more typical of the early period, and this seems to have for its base a red colour, the late yellow has for its base white, and yellow and white fade imperceptibly into each other. The difference is quite marked when two pieces of the respective wares are set side by side. Moreover, the late yellow colour is in many cases less homogeneous with the clay it covers; it flakes off like a slip and is quite opaque. In one late mottled orange fragment a red had been thinly washed over a white slip and apparently rag burnished; some of the lemon-coloured wares seem to be similarly prepared with a yellow wash over the wet white slip, but the change of surface-colour may be due to the burnishing process and the firing rather than to an actual application of colour. This yellowish-white paint is also much used for decoration on a red ground; thus it is common on vessels of shapes F lii, liii, and on a late fragment from K H 4 6 occurs in spots punctuating a black reticulated pattern on red. It does not, however, entirely oust white paint in decoration. Thus from K H 4 8a came a very dark red burnished pot with necklace band of short vertical stripes in matt white; and a fragment of F xlvi, also from K H 4 6, has a white ground covered with a reticulated pattern in broad red lines. Decoration in colour on a white ground runs right through the period; certainly it is very common in the early period, but in the later also, in spite of the general tendency to simplify, we find fragments of an elaborate design (F v) of asps and winged knots in black and red on a white ground; of a cup (F xlvi), white with a broad purple band whereon delicate trefoil buds; a saucer (F llix) seen from inside with its mealy white surface, red rim and two narrow red bands, would seem too to carry on the early tradition, though its hard lemon-coloured outer surface links it on to the later levels in which it was found. In fact, painted pottery survived in later Blemyan days and is not to be distinguished from its forerunners; but it is less common than formerly. A pot (F v) with a very bold grape-cluster and tendril design with running circles above, done in black, purplish-red and thin yellowish-white on a reddish haematite ground belonged actually to the later but typologically to the earlier time: a similar pot with lozenges alternately red and black-hatched on a lemon-coloured ground though not without parallels from the tombs which one would be inclined to put down to an earlier date also belongs to—and agrees tolerably well with—the later.

The plain festoon design has been mentioned as being common on late F lii pots: it is not confined to this shape. For instance, it occurs in red on the white inner face of a shallow flanged "mortarium" bowl (F lxxxiii): in purplish-black on red (associated here with a dark rim-band) on a wide-mouthed pot of a type not met with in the tombs, (rim-section D): and upon a fragment of a ribbed pot with rosette ornament in relief. As it also occurs commonly upon Coptic pottery we must take it to be a transition motive, though the finding of one F lii specimen (black and white festoons) underneath the latest floor-level of site K H 4 shows that its development falls well within the Blemyan period.

Most of these chronological criteria are deduced from very scanty evidence: there is, however, one development of the potter's art and the fashions of it which is thoroughly well established, and this is the prevalence in the latest period of the rosette ornament in relief:—after the vessel is complete little lumps of clay are pressed onto the surface, at regular intervals

Stamped
Wares.

round the rim, and these are stamped with a die in the form of a rosette. Quantities of fragments thus ornamented were found, and in view of their number it was worth noticing that the varieties of stamps are very few: the impressions are rough and the patterns not always distinguishable; but only two or three different dies could be detected; this is perhaps an argument for a local pottery manufacturer, or for importation from a single centre of produce, as well as for a comparatively short life-time for the particular ware. The vessels seem as a rule to be bowls or wide-mouthed jars, and the majority of them are deeply ribbed—another characteristic of the later pottery: in one case the rosette in relief is associated with *impressed* ornament. Impressed or stamped ornament as such cannot be assigned to one rather than to another period, though the pottery on which it occurs is often more of an early type, such as the mealy-faced thin white cups of F. xlvi, e. g., 8669 (iv. Pl. 87): an example with stamped snakes between red painted bands (a common device, cf. Nos. 8672 (iv. Pl. 88), 9039, etc.), was found in the lowest levels of K H 4 under unbroken floors: on the other hand, the instance quoted with relief rosettes, and a lemon-coloured fragment with stamped concentric circles and a fragment of a bowl with plain stamps arranged in zigzags, like the first but lacking rosettes in relief, both found above the latest (intact) floor-level on the same house site, would show that the fashion lasted a long while. In contrast to this is an early fragment (K H 5, 7) having a band of herring-bone incised pattern, deeply cut with a metal knife in the wet clay.

Handmade
Wares.

Of handmade pottery most was rough and did not lend itself to classification. Very common throughout, and not least so in the latest period, is the squat jar (F v) with a slightly curled rim, of rough ill-levigated black clay, burned in the open fire, often with some rude decoration, such as a pair of hatched triangles, incised upon the shoulder. These pots are not burnished. A curious fragment, late, was that of a shallow bowl moulded inside a basket—according to the modern Nubian fashion—the inside black and slightly burnished, the outside rough and showing all the pattern of the basket. The finer black wares in the house sites as in the tombs were rare: when they could be dated at all they were early, but there were too many undateable specimens for this to be considered a rule. From site K H 5 came a fragment (Pl. 13) showing a gazelle in punctured work: from a low level in K H 4 came a bold and interesting linear design (Pl. 13) and a rougher example of a cross-hatched band: while the same site produced a late example of well-burnished undecorated black ware. In contrast to this hand-done incision is the "engine-turned" ornament of some of the red pottery which, judging from analogy, must be late; for in Coptic, as in the modern Aswān and Assiut pottery, this "lathe-turned" or "engine-turned" ornament is very common.

New Pottery
Forms.

On Plate 14 is continued the index of Blemyan pottery forms, of which the first sixty-nine numbers were figured in vol. iv. Nos. lxx, lxxi, lxxii, lxxiii are from Halfa and were found in graves of the New Empire re-used in Romano-Nubian times:

F lxx.	Plain red clay, height 0.29 m., H 4: also a broken example from H 5.	
F lxxi.	Ochrous brown surface with brown spot-wreath on shoulder. Broken.	H 6.
F lxxii.	Light pinkish-drab clay, haematite wash, height 0.145 m.	H 17.
F lxxiii.	Bowl with small tubular handle, plain red clay with haematite wash, unburnished. The remaining forms are from the town site of Karanog.	H 4.
F lxxiv.	A tall cylindrical stand of rough red ware, height 0.29 m.	House 2.
F lxxv.	A squat ring-stand of rough red ware, height 0.11 m., diameter 0.20 m. at base. Fragment.	House 5.
F lxxvi.	Dark brownish-red ware with haematite surface of the same colour, finely burnished. Height 0.095 m.	House 4.
F lxxvii.	Rough red clay with haematite surface, unburnished, height 0.26 m., 9117.	House 5.
F lxxviii.	Strainer of very fine white ware, smooth white surface with reddish-brown spot-wreath below rim. Fragments only.	House 2.

House 2.

F Ixxix. Plain red ware, unburnished, with small white circles below rim. Fragments only.

In the same house were found fragments of a similar spouted bowl, with a flat rim, of red ware covered with cream-coloured slip on which was a bold trefoil-bud wreath in red and purple.

F Ixxx. Small bowl of fine light-coloured clay painted with bands of red and black.

The walls very thin and skilfully turned; base missing. Height c. 0.06 m.

F Ixxxi. Plain red ware with haematite surface unburnished, the surface rather soft and decayed. Lathe-grooves round rim. The shape resembles closely one of the common *terra sigillata* types. Height 0.05 m.

F Ixxxii. Flat bowl like a mortarium; rather rough plain red clay. Height 0.13 m., diameter 0.38 m.

F Ixxxiii. Bowl, like a mortarium, of reddish clay with buff surface: outside plain; inside, the rim and a row of festoons with band below coloured red. A late example. Height 0.105 m., diameter 0.22 m.

F Ixxxiv. Fine pink clay with haematite wash, burnished. Height 0.052 m., diameter 0.16 m.

From the same house site came two rather coarse variants of the type with more perpendicular walls.

F Ixxxvi. Fine red ware with haematite surface well burnished. Height 0.035 m., diameter 0.15 m.

House 4.

House 1.

House 2.

House 7.

House 7.

House 8.

Fragments of bowls and other open vessels were very numerous but the types could not be definitely ascertained. The three rims, A, B, C, drawn at the foot of the form-index show some of the commonest forms. A was of plain red-brown ware; B of light red ware with darker brownish surface and yellowish-white festoons painted below the rim; C was of plain red ware. The last rim-section, D, came from a very large pot of rough red ware with a little festoon pattern round the rim, below which was a band of pinched ornament in relief.

CHAPTER VI

(a) DECORATIVE STONEWORK

*Carved
Openwork
Screens*

UPON almost every Blemyan site that we have visited we have found fragments of screens or windows of carved sandstone. At Karanog only four pieces were turned up; in the castle (room 8) a small fragment of a twining stalk from a floral design and (room 7) a lotus flower; in house 1 the lotus flower figured on Pl. 17 and in house 4 another small floral piece. But though the town produced so little of this nature, that little cannot adequately be illustrated without reference to the richer finds from other places, and therefore it seems best to publish here all that we have of this characteristically Blemyan work from whatever site it comes.

*Examples
from Halfa*

The best examples hitherto were found in and about a small Blemyan chapel built on a hill near Halfa (see vol. vii, "Buhen," ch. viii); the fragments were scattered far and wide over the steep slopes of the hill as if in consequence of some deliberate act of destruction; they had in many cases suffered severely from the weather, and the pieces that survived, numerous though they were, did not suffice, unfortunately, to show with any certainty what the original design had been. Two if not three screens are represented; in two of them the principal motive was gryphons' heads with long straight necks (the bodies are lost), while numerous floral fragments chiefly of the conventionalized lotus type may have been in combination with these, or may have been confined to a separate panel. A number of uraeus snakes probably belong with the floral element; a foot, a leg, and a hand holding a staff show that the human figure was also introduced. Each screen was cut out of a single slab of sandstone, and formed a rectangle, considerably higher than it was wide (probably 0.78 m. by 0.54 m.), divided by horizontal bars into zones 0.20 m. high, wherein apparently the same design was repeated. The original slab was eight centimetres thick and the solid frame stood out only about three millimetres above the plane of the decorated field, but the latter was cut back behind so that the fret-work had a depth of four or four and a half centimetres only. The cutting seems to have been done with a saw and is at a perfect right angle to the plane of the surface. The actual cutting out of the tracery is very fine, some of the stalks and tendrils of the floriate work being no more than four or five millimetres wide, which considering the nature of the sandstone employed is a considerable technical achievement, and the points of attachment and support seem to have been remarkably few; the delicacy thus obtained was heightened by the surface-carving of detail and the rounding off of edges, which removed any impression of flatness and emphasized the fineness of the lines. Sometimes by cutting down the surface the actual plane is altered and a further appearance of roundness is given as the minor twigs and tendrils recede behind the more important features of the design. Naturally the finer tracery has suffered most from the wanton destruction and the weather to which all has been exposed, but the comparatively large fragment of a curving lotus-stem in the lower right-hand corner of Pl. 16, shows how fine was the drawing and how skilful the cutting of the stone. The gryphon screens were by reason of their subject somewhat heavier in treatment than the floral one (supposing that to have been distinct from them), but gave more scope for surface modelling, which is quite well executed so far as the heads are concerned: it is a pity that the total disappearance of the bodies makes it impossible to realize the original appearance of the screen.

A number of fragments from Faras show a heavy but impressive design of highly *Examples from Faras.* conventionalized lotus flowers (Pl. 17). Here too recurs the same gryphons' head motive that we have met at Halfa; another fragment gives the figure of the lion-headed god Arsenuphis. A small piece was picked up at Gebel Adda.

The only Egyptian parallel for these tracery stone screens is given by a tracery window of Rameses III from Medinet Habu; but this is an isolated example, which neither for date nor for workmanship can be brought into comparison with the Blemyan screens. The latter must rather be considered a purely Meroitic development which flourished in Nubia during the Blemyan period; and they give further evidence of the heights which in various arts were attained by this desert people.

The little sandstone capital illustrated on Pl. 17 comes not from a screen but from a lintel, *Capital from Karanög.* as is shown by the precisely similar but more complete piece found at Faras. The cornice in this is supported by a capital at either end and along it runs a row of uraeus snakes; in the centre is the sun's disc flanked by uraei. A lintel found in the Karanög cemetery, coming from one of the "approaches" or miniature chapels attached to the superstructures of the tombs, has the same uraeus-flanked disc carved upon it in relief, and upon another lintel, also from the cemetery, there are faint traces of the same device executed in paint. This might be taken as a link connecting with the Blemyan period proper the gateway and the stone temple of Kasr Ibrim where the disc with its supporting snakes forms the only decoration. The capitals from Faras and Karanög are of a highly developed type closely resembling some of the latest work at Philae, at Kalabsheh, at the temple of Dendür built by Augustus, and in the Meroitic temple at Nagaa, where also is the line of uraeus snakes that appears on the Faras lintel. In all these is clearly evident the debt to Greek art, whose importance has already been remarked upon in dealing with Blemyan pottery. During the more peaceful Ptolemaic period architectural decoration in the north and in the south of the Nile valley developed uniformly, subject as it was to the same Greek influence working upon the common inheritance of Egyptian models. After that period, when connection between the two countries was severed, the style was in each stereotyped enough to endure, or if it progressed to progress along much the same lines; we are therefore not justified in supposing that because a building in Nubia or in the Sudān resembles one of Roman date in Roman Egypt it is an imitation of it, influenced by it, or subsequent to it in date.

(b) OSTRAKA

Thirty-three ostraka were found, of which the majority were very fragmentary, containing only two or three characters apiece. They were generally written upon pieces of amphorae (F xii) whose smooth surface is better adapted to writing than are the rougher native wares; the ink is sometimes black, sometimes white. Hand copies of all the more important specimens have kindly been made for me by Mr. F. L. Griffith and are published on Plates 18-20. The description of these is as follows:

Plate 18.	Fig. 1. Written in white ink on a red sherd.	K H 2. 5.
	Fig. 2. Written in black ink on a red sherd.	K H 2. 12.
	Fig. 3. Written in black ink on a red sherd; the writing obscure.	K H 2. 21.
Plate 19.	Written in white ink on a red sherd: the left-hand ends of the lines are probably broken away, the right-hand ends are complete.	K H 5. 5.
Plate 20.	Fig. 1. A and B. Red sherd inscribed on both sides in black ink.	K H 2. 21.
	Fig. 2. Written in black ink on a fragment of yellowish amphora; complete.	K H 5. 13.
	Fig. 3. A and B. Red sherd inscribed on both sides in black ink.	K H 2. 5.
	Fig. 4. Written in white ink on a red sherd.	
	Fig. 5. A and B. Red sherd inscribed on both sides in white ink: in the upper line of the reverse (B) one letter seems to be missing at the right-hand end.	South of K H 6.
	Fig. 6. Written in black ink on a red sherd; the right-hand ends of the lines appear to be complete.	K H 5. 1.
	Fig. 7. Written in black on a red sherd; complete.	K H 3.

CHAPTER VII

CATALOGUE

OF BLEMYAN OBJECTS, CHIEFLY FROM KARANÖG, NOW IN THE UNIVERSITY MUSEUM.

9101. Bronze coin of Ptolemy Philadelphus, found at Halfa, loose in the sand, north of the fortress of Buhen.

9102. Bronze coin of Cleopatra VII, found close to the "Roman temple," at Buhen.

9103. Bronze coin of the Emperor Nero, struck at Alexandria, found at Karanög. K H 8.

9104. Bronze knife, the handle partly broken, 0.10 m. long. Karanög Castle, room 10. Pl. 15.

9105. Iron finger-ring, bezel much corroded; found just outside the gateway of the castle of Karanög.

9106. Bronze finger-ring; on the bezel a few indistinct marks. K H 3.

9107. Iron staple (?) slightly decorated. L. 0.10 m. Karanög Castle, room 13.

9108. Bronze tubular box with lid. h. 0.08 m. d. 0.014 m.

9109. Sickle of iron, L. 0.105 m., with leather sheath, from Karanög Castle, room 9. Pl. 15.

9110. Cylindrical wood kohlpot, lacquered black, yellow and red. h. 0.104 m. Karanög Castle, room 2. Pl. 15.

9111. Fragments of wooden vessel lacquered yellow and black with sgraffito floral decoration. Karanög Castle, room 4. Pl. 15.

9112. Figurine of Bes, very poor green glaze. K H 6.

9113. Steatite scarab, bright green glaze; below, a scorpion (?) roughly incised. K H 6.

9114. Odd glass and glaze beads and fragments of glass, including millefiori green, yellow and red; deep blue transparent; and enamelled glass with flowers in green, blue and yellow, and red band, probably Arabic. From various sites in Karanög town.

9115. Terra-cotta chest 0.74 by 0.40 by 0.46 m., of rough handmade open-fireburned clay with light pink engobbage wash and design in haemattite red of panels and crosses; Christian work. Pl. 13. K H 9.

9116. Pot, most of rim gone, handmade, of rough brown clay, open-fir-burned; red haemattite surface whereon very rough design in white paint. Almost globular shape. h. 0.27 m. K H 4a.

9117. Vase F Ixxvii. h. 0.26 m. Wheelmade, red clay, plain, found in long yard north of house. K H 5.

9118. Chalice F Ixxvi of red clay with brown-red surface, burnished. h. 0.095 m. d. 0.10 m. K H 4.

9119. Straight-sided cup, brownish clay. h. 0.05 m. d. 0.09 m; date doubtful. Karanög Castle, room 5.

9120. Straight-sided saucer, coarse brownish clay with light pinkish-drab engobbage. h. 0.013 m. d. 0.10 m.; date doubtful.

9121. Lamp, roughly circular, round nozzle, concentric circles; light pink clay, haemattite wash. K H 2.

9122. Lamp, round; pear-shaped; light clay, design of raised dots and doves (?). ? Christian? Pl. 13. K H 4.

9123. Lamp, long, pear-shaped, raised line and dot design; rough brownish clay. Karanög Castle, the light-well. Pl. 13.

9124. Fragments of rough clay figurines, painted A. B. C. with black marks on light haemattite ground. Pl. 13. K H 2 and 3.

9125. Fragments of pottery from the town site of Karanög; most of these are dated and are the type specimens referred to in ch. v.

9126. Very fragmentary bowl of poor blue glaze found on the surface at Karanög town. h. 0.08 m. d. 0.15 m.

9127. Stone stamp 0.07 by 0.05 m. Pl. 13. K C 19.

9128. Stone stamp 0.007 by 0.045 m. Pl. 15. K C 9.

9129. Stone stamp, circular. d. 0.045 m. Pl. 15. K C 5.

9130. Stone stamp, 0.04 by 0.014 m. K C 9.

9131. Stone stamp, 0.05 by 0.015 m. K C 14.

9132. Mud jar-sealing stamped IAAPON. Pl. 15. K C 4.

9133. Fragment from stone tracery screen; lotus flower. h. 0.12 m. Pl. 17. K H 1.

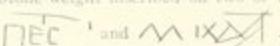
9134. Small stone capital from cornice. h. 0.09 m. Pl. 17. K H 2.

9135. Numerous fragments of stone tracery screens from hill shrine at Buhen. Pl. 16.

9136. Fragments of stone tracery screens from Faras. Pl. 17.

9137. Sandstone statuette of a hawk; very rough work. K H 2.

9138. Stone weight inscribed on two of its sides

 *REC* and *IX*.

Karanög Castle, room 15.

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View from Karanog Castle looking towards Tomâs



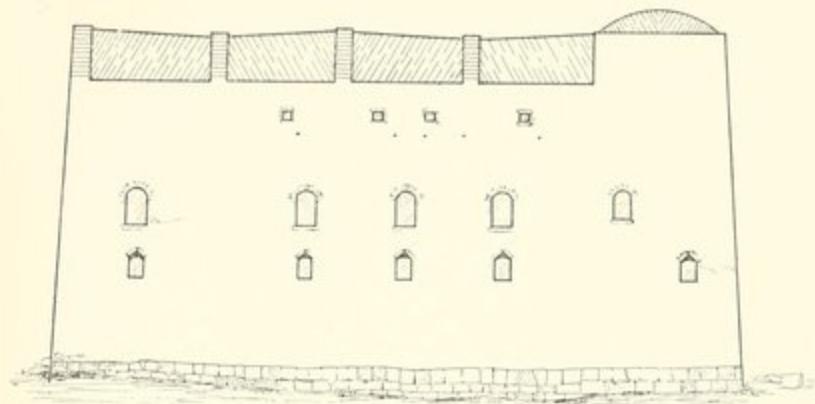
View from Karanog Castle looking towards Kusr Ibrim.



View from Kasr Ibrim looking towards Karanög.



Karanög Castle from the northwest.



The Castle: Restored elevation of the west face.



The Castle: The west face.



The Castle: The northeast corner.

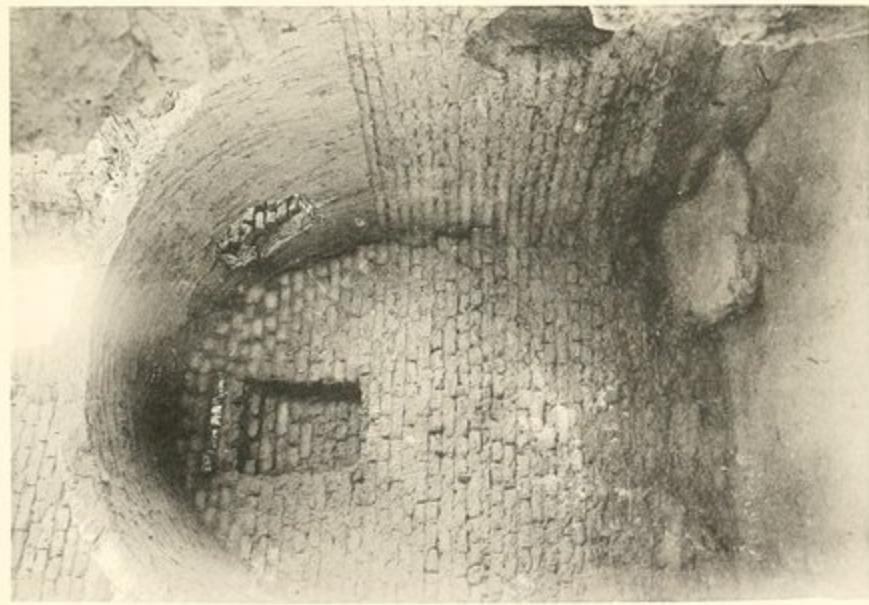


The Castle: The east face showing the repaired gateway.



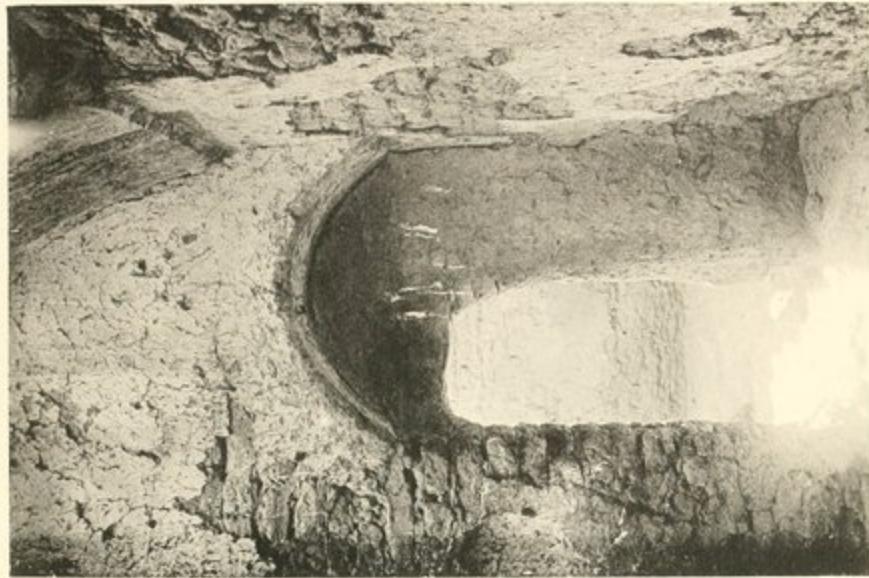
The Castle: The ruined gateway seen from inside.

The Castle: The great staircase.



The Castle: East end of room 5.

See pp. 17, 18

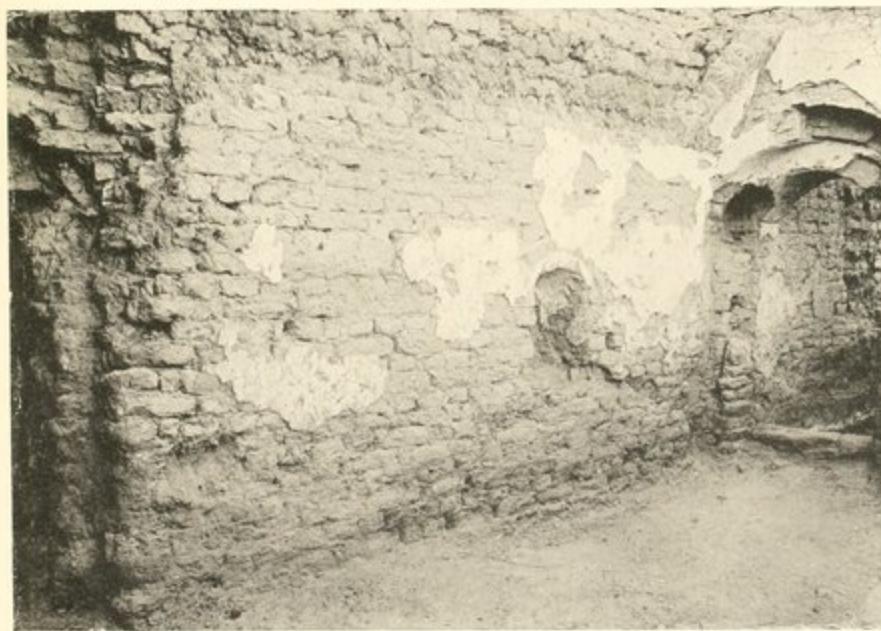


The Castle: Partly blocked doorway between rooms 9 and 10.



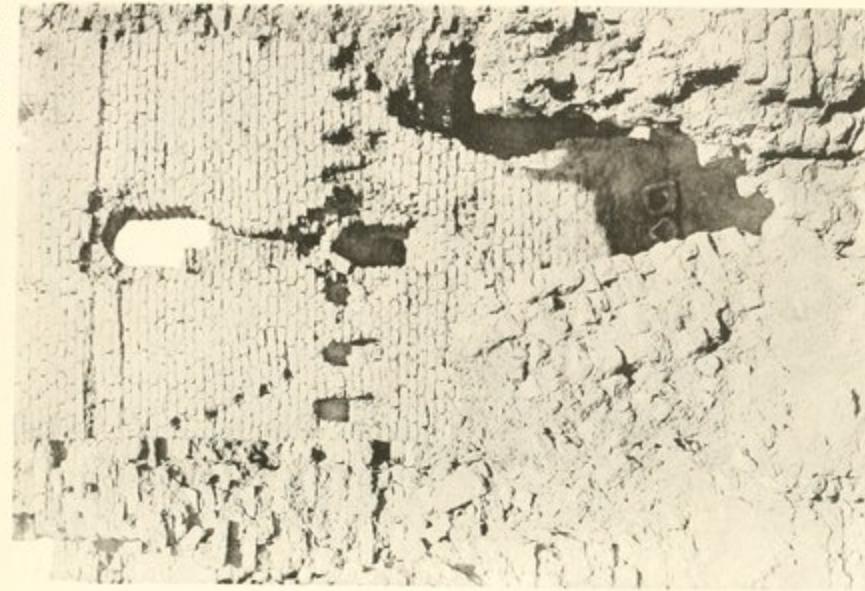
The Castle: Room 11a, showing the method of floor-laying above the vault.

See p. 12



The Castle: Niche and doorways in room 14.

See p. 20



The Castle : Whitewashed floor in room 29.

The Castle : The light-well seen from room 6.



House 5: Room 9a.

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House 5: Rooms 12 and 13, looking towards 11.

See p. 35



House 2: Seen from the Castle.

See pp. 28-30



House 8: General view looking west.



House 8: Room 13.



House 9: Looking west.

See p. 40



Ksar Ibrim from the south, showing the podium of a temple (?) incorporated in the wall.

See p. 5



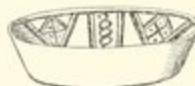
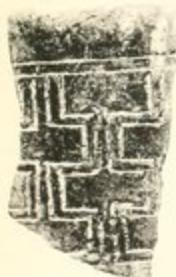
Kasr Ibrim: The gateway.



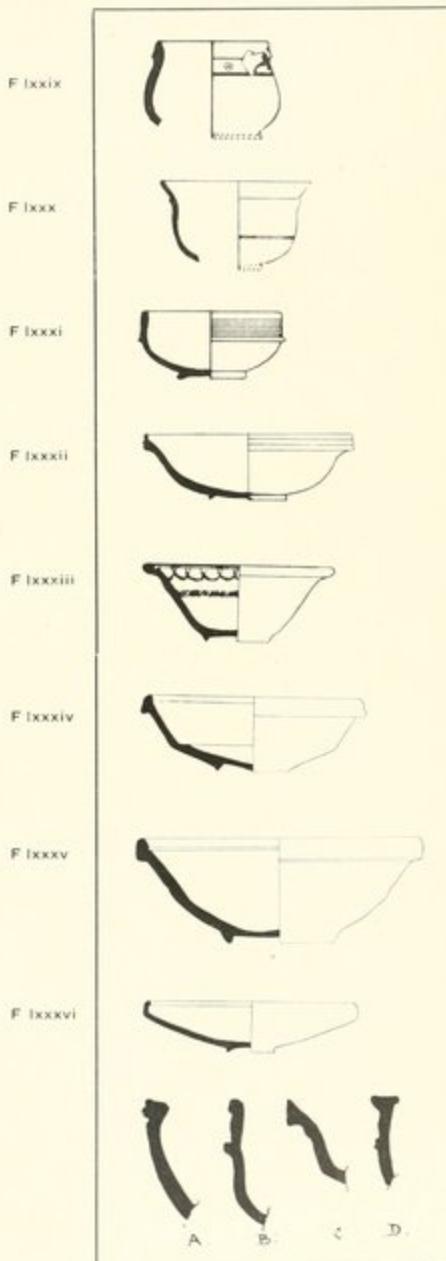
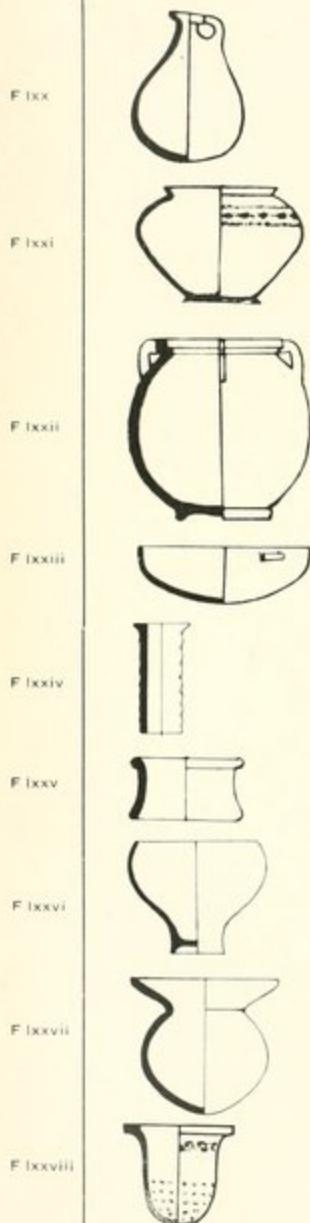
Kasr Ibrim: The temple.

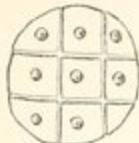


Fragments of painted terra cotta figures.

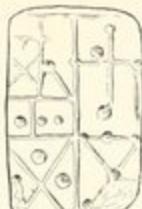
House 2:
Christian potsherd.House 9:
Coptic Saucer.

Lamps, incised pottery, and painted pottery chest. (House 8.)





9129 KC 5.



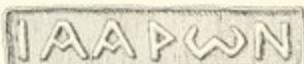
9127 KC 9.



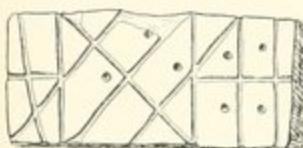
KC 3.



KC 5.



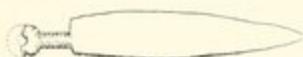
KC 9.

9128 KC 7.
Stone talles (?)

KC 5.



KC 5.

9104 KC 10.
Iron knife.KH 7.
Mud jar sealings.

9110 KC 22.



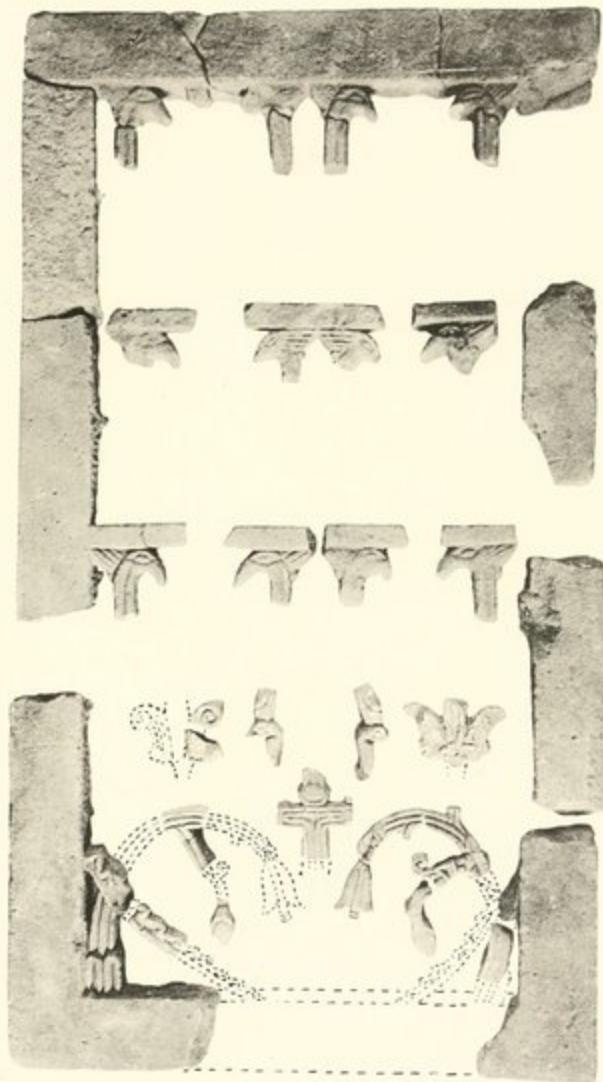
9111 KC 4.



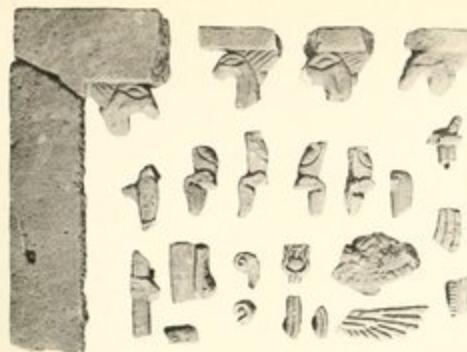
9109 KC 9.

Lacquered wooden toilet boxes.

Iron sickle with leather handle.



Fragments of stone tracery screens from Halfa.



Fragments of stone tracery screens from Halfa.



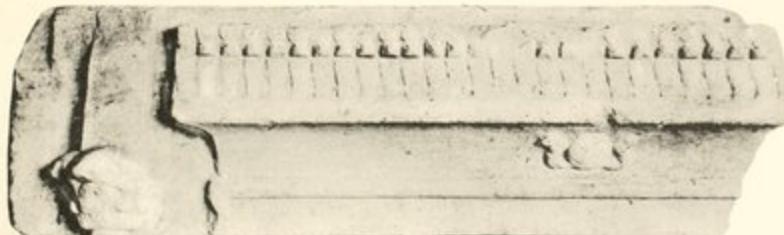
9133 KH 1.



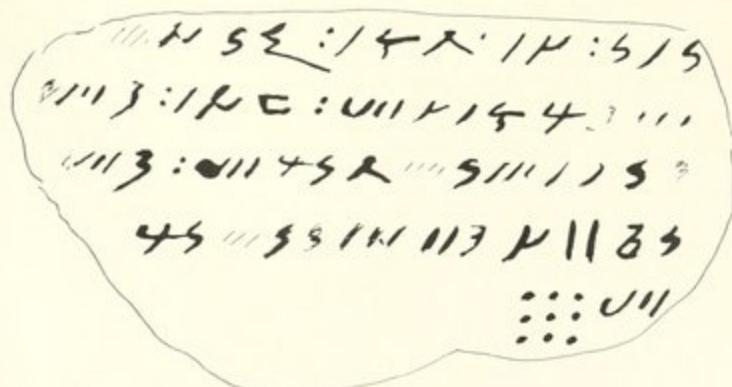
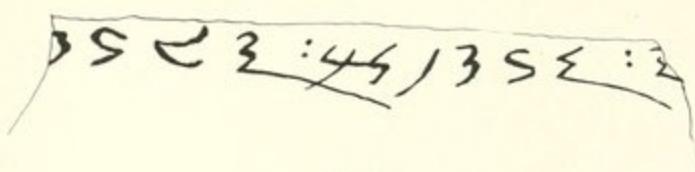
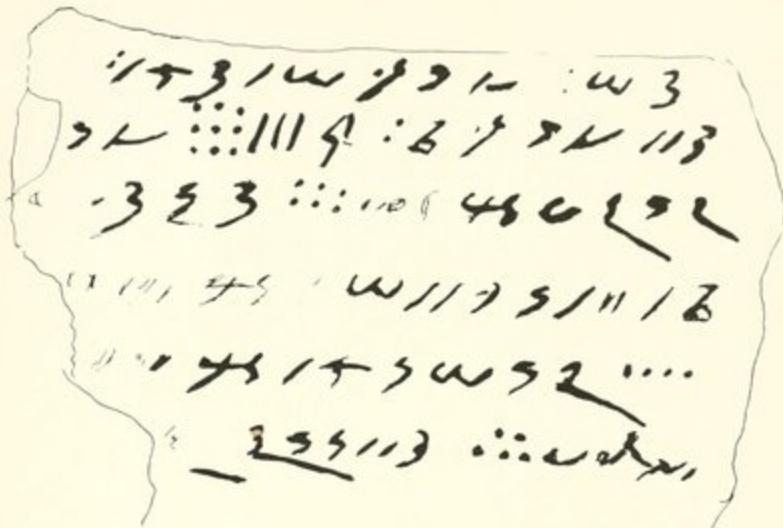
9134 KH 8.



Fragments of stone tracery screens from Faras.



Stone lintel from Faras.



See p. 45

Meroitic Ostraka.

:1.21 411:12 88:4.31.00:2
 1111 212

:11152:523.2432:458W
 1111 91R3 111

:215N52:45929W15,2
 2555N

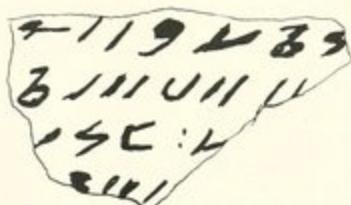
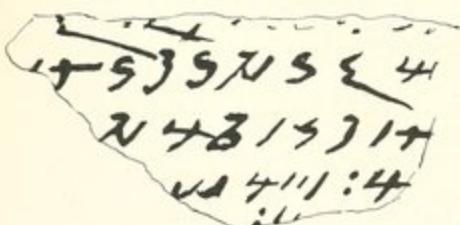
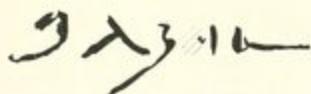
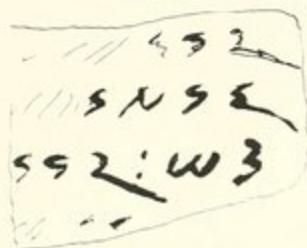
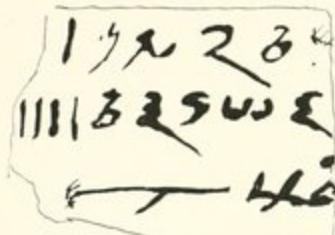
:1111392:15538:14
 1111 3:14 55N

:54:11152...1113111→
 11115314 1-8

:15329N:42535532.7:W3

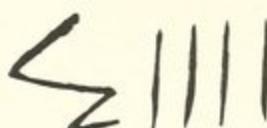
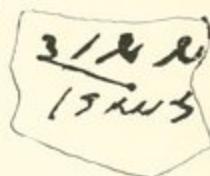
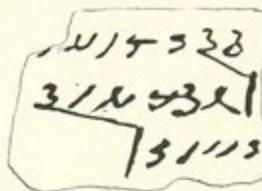
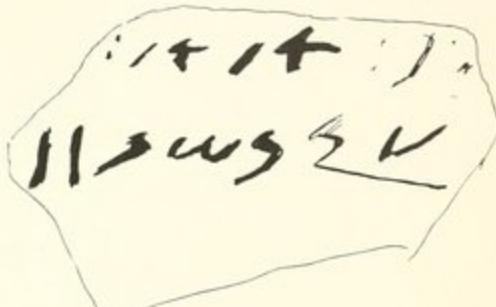
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 :5313 42052

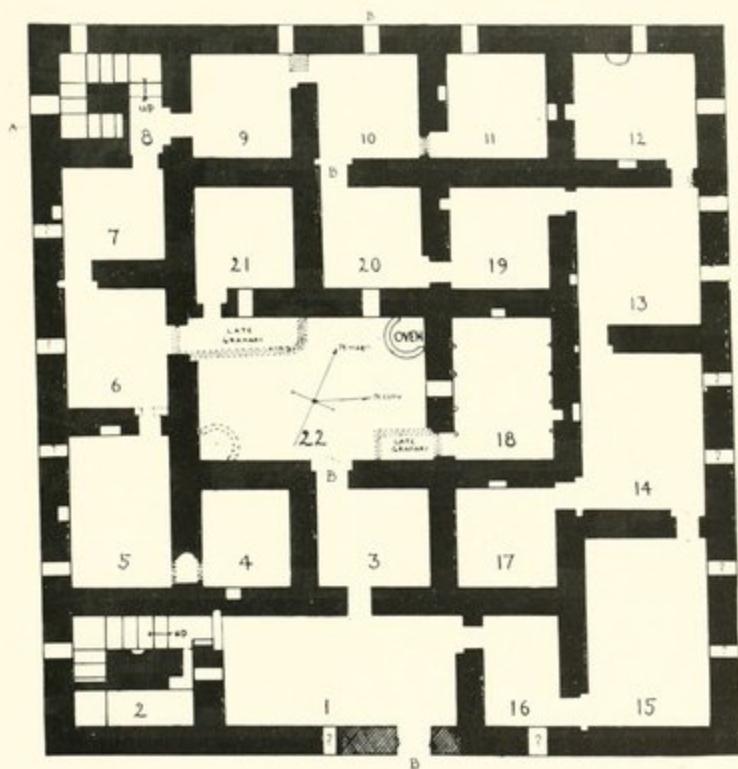
See p. 48.



See p. 18.

Meroitic Ostraka.

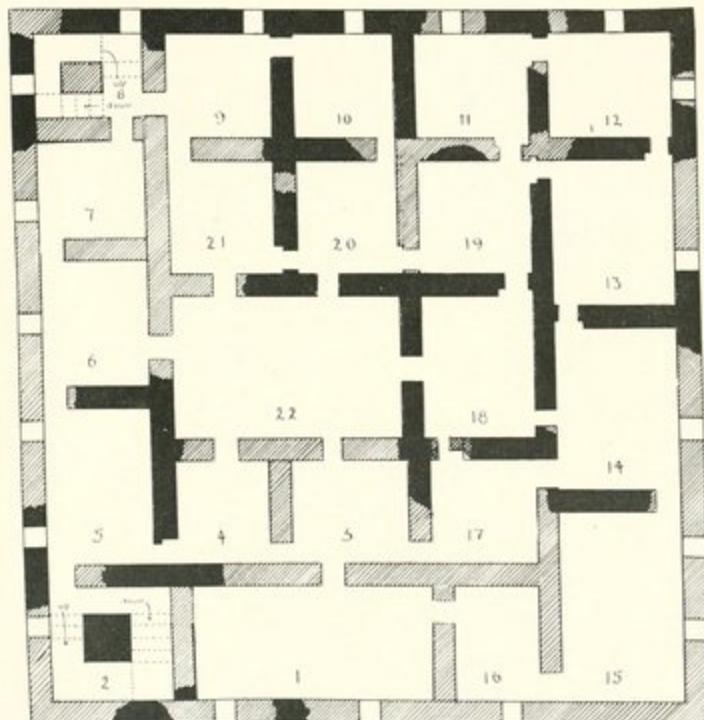




Cross-hatching denotes late Blemyan repairs.
Broken hatching denotes post-Blemyan work.

See p. 15.

Scale 1:200

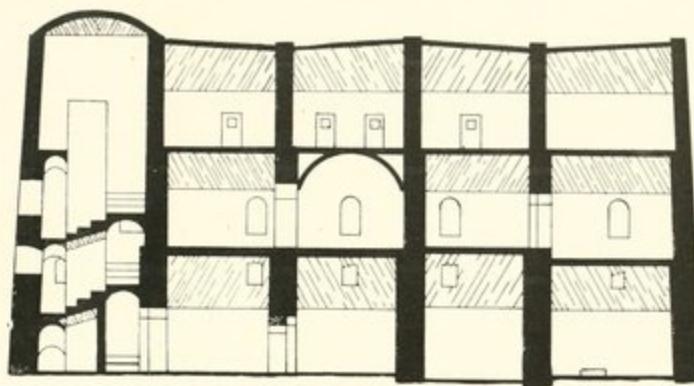


The parts of the walls still standing above floor level
are shown in solid black.
The restored parts are hatched.

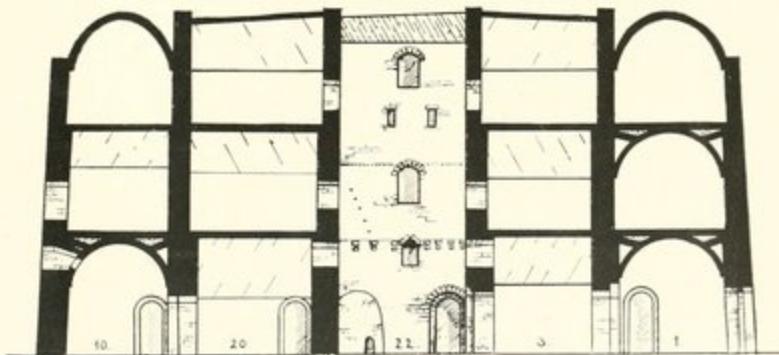
See p. 15.

Scale 1:200

THE CASTLE. PLAN OF FIRST FLOOR.



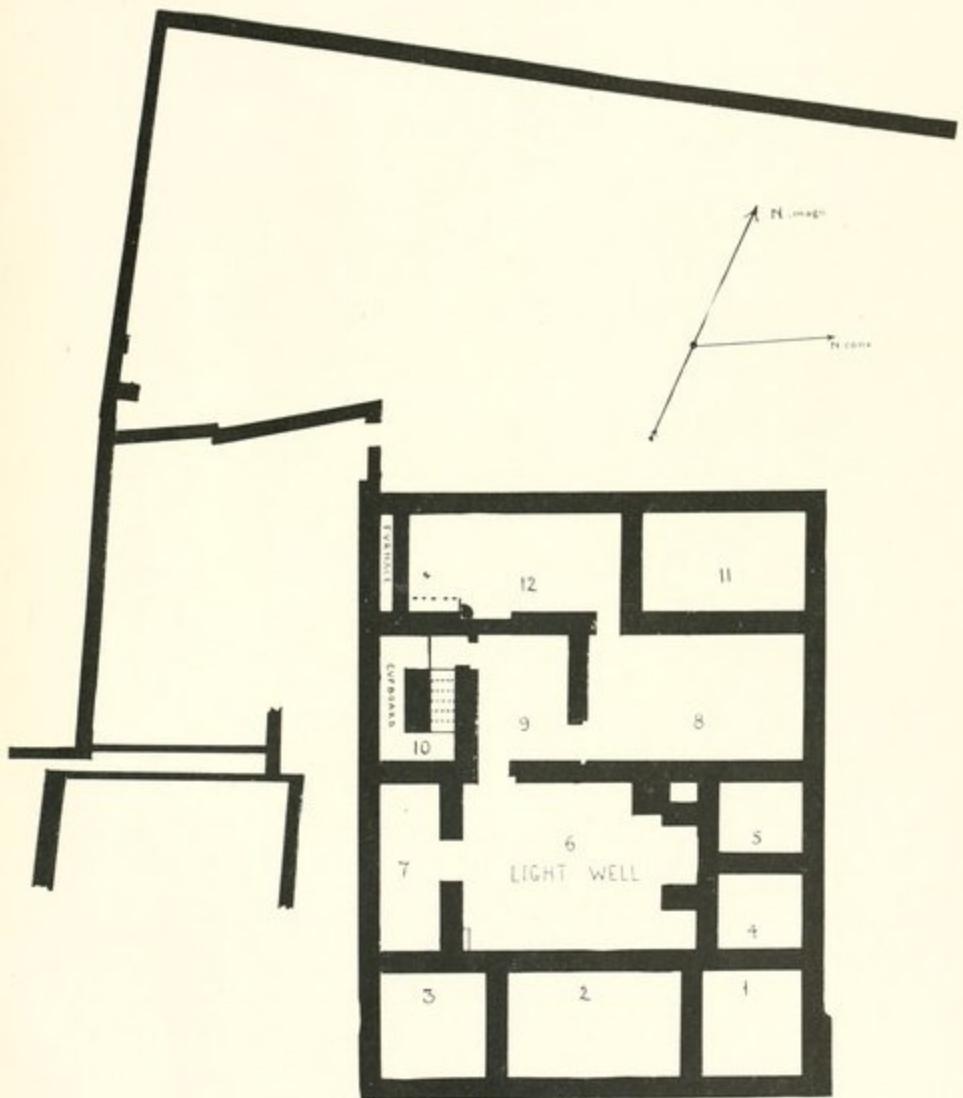
Restored section North by South along line A—A in ground plan, Pl. 21.



Restored section East by West along line B—B in ground plan, Pl. 21.

See p. 15.

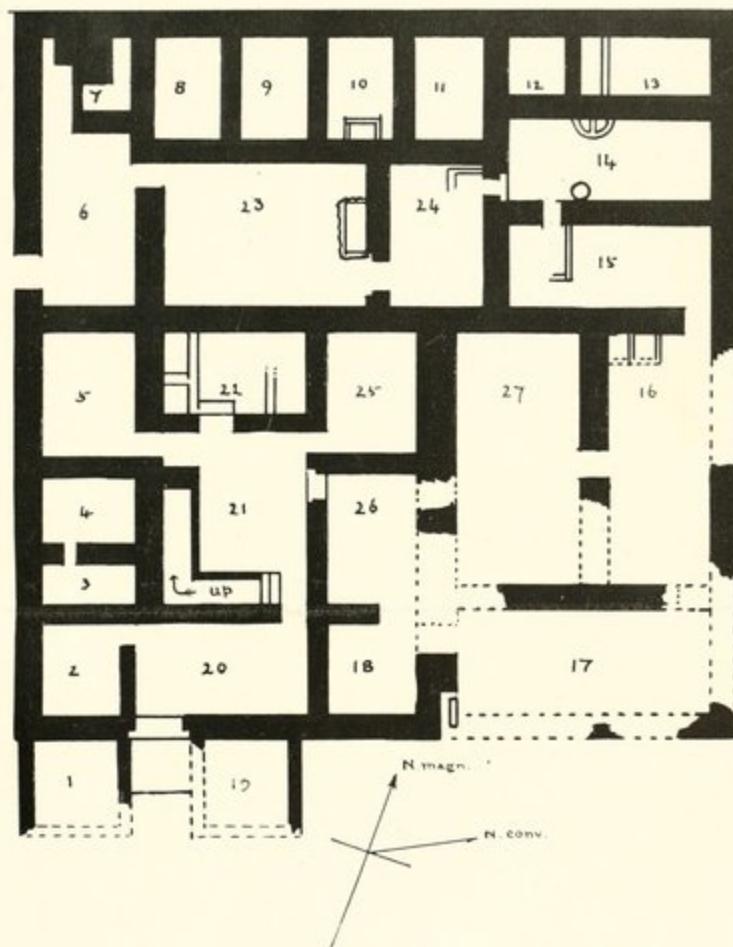
Scale 1:200



See p. 26.

Scale 1:200

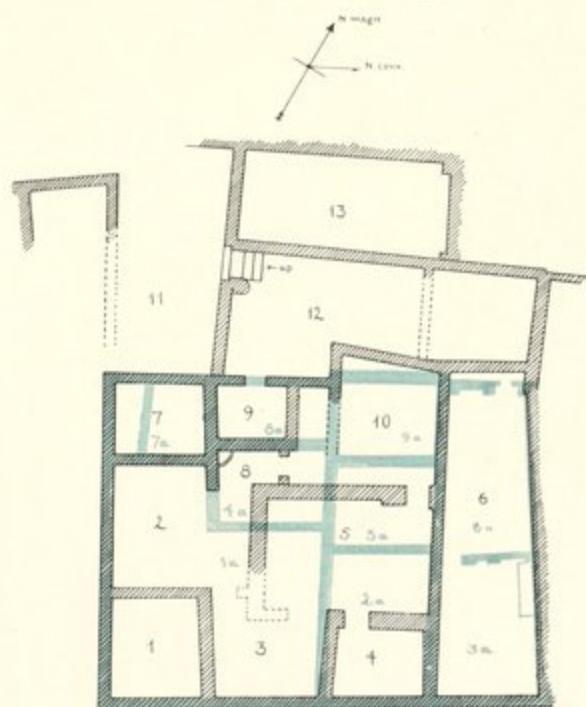
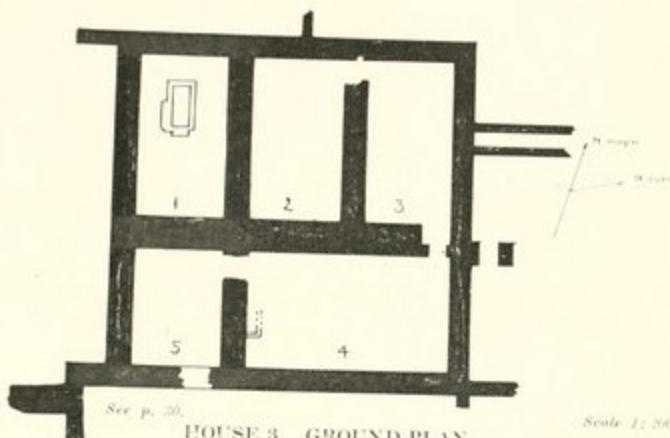
HOUSE 1. GROUND PLAN.



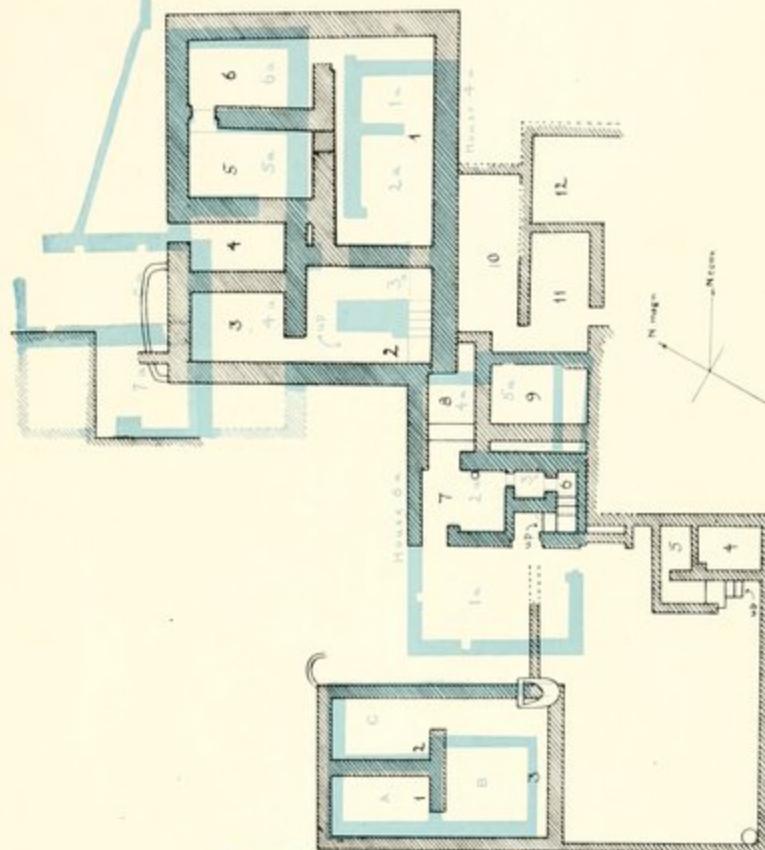
See, p. 28.

Scale 1:200

HOUSE 2. GROUND PLAN.



Black denotes buildings of the later period.
Blue denotes buildings of the earlier period.

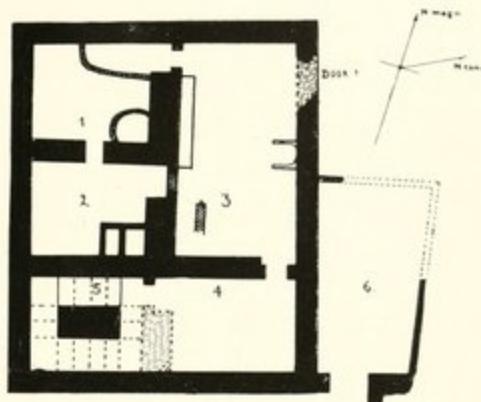


See pp. 37, 35.

Black denotes buildings of the later period.
Blue denotes buildings of the earlier period.

Scale 1 : 200.

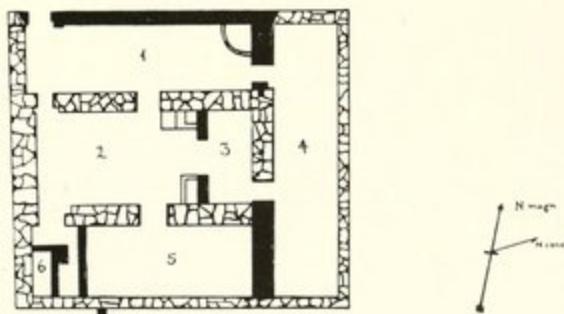
HOUSES 4 AND 6. GROUND PLAN.



See p. 36.

HOUSE 7. GROUND PLAN.

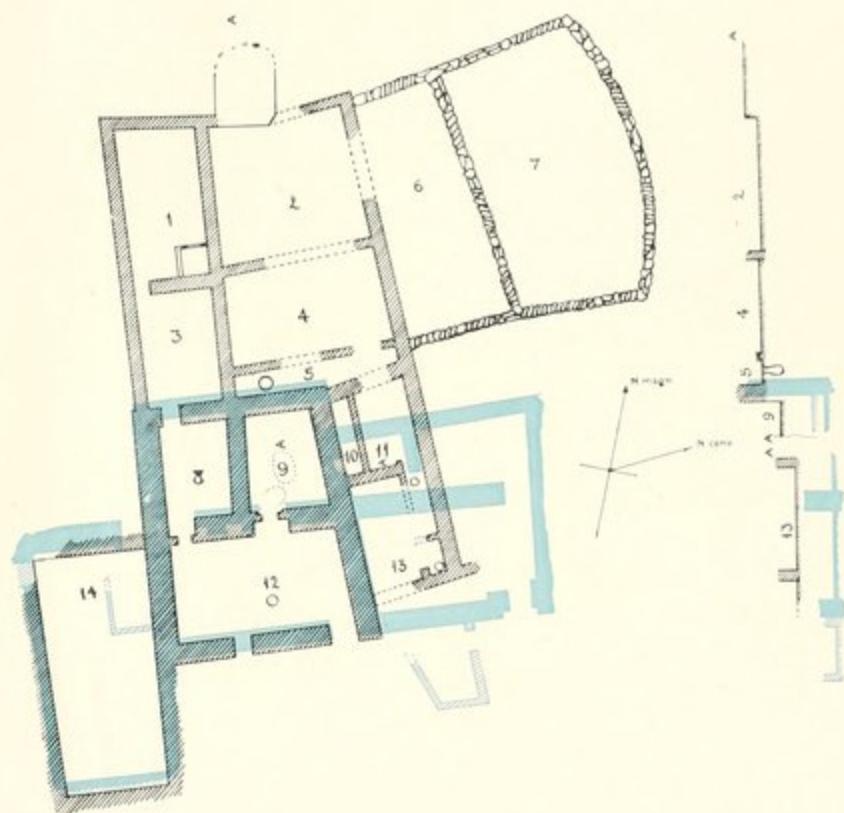
Scale 1:200



See p. 40.

HOUSE 9. GROUND PLAN.

Scale 1:200



Black denotes buildings of the later period.
Blue denotes buildings of the earlier period.

See p. 37.

HOUSE 8. GROUND PLAN.

Scale 1:200

