



TANGANYIKA

MINISTRY OF EDUCATION
ANTIQUITIES DIVISION

OCCASIONAL PAPER No. 1

KISIMANI MAFLA

Excavations at an Islamic Settlement on the
East African Coast

by

H. N. CHITTICK

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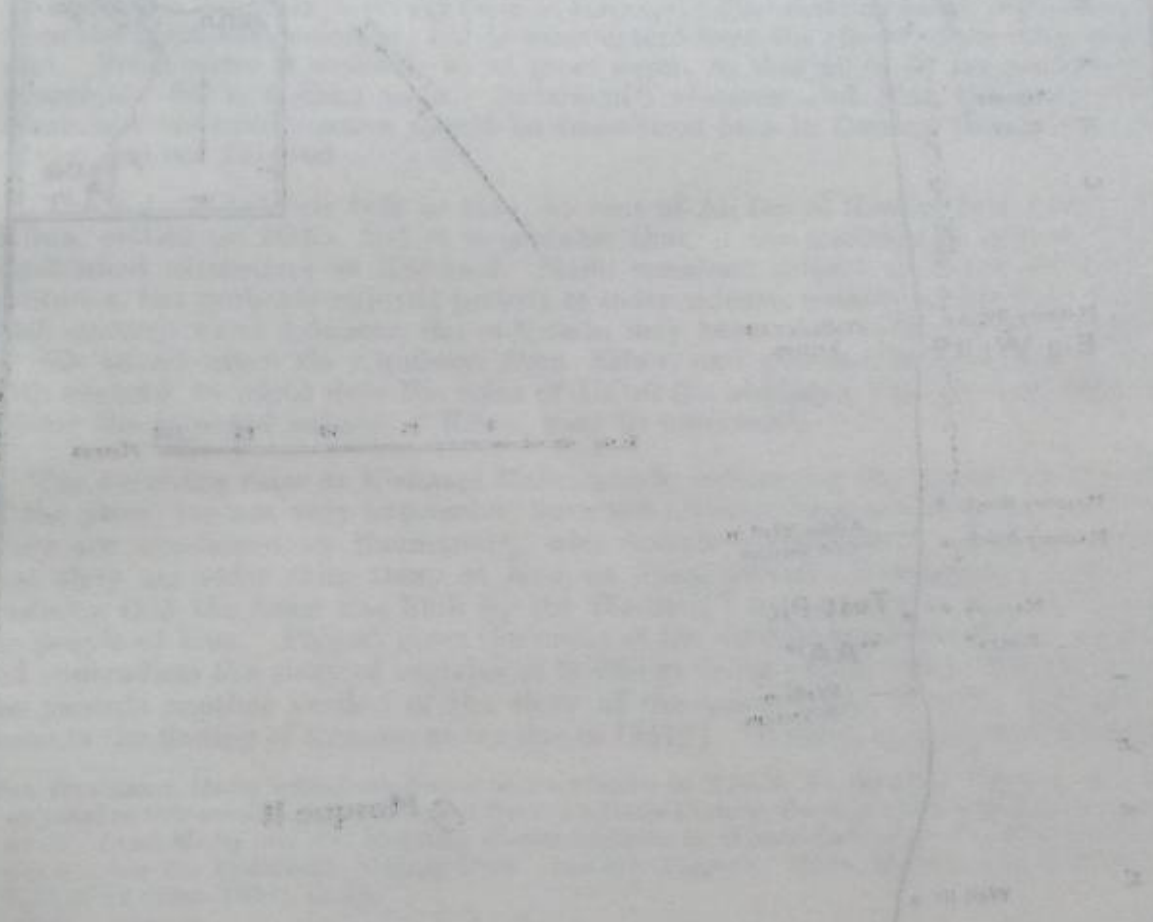
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PREFACE

This paper gives an account of the site of one of the earlier and more important Islamic settlements on the coast of Tanganyika, and of excavations carried out by the Conservator of Antiquities for the Tanganyika Government in 1957. While the excavations were on a small scale, the results are published in some detail in view of the good evidence obtained for the date of much of the material.

Dr. G. S. P. Freeman-Grenville first drew attention to the building which was to be the main object of the excavations; to him, too, grateful acknowledgment is made for his generous work in identifying coins, as also to Dr. J. Walker.



ABBREVIATIONS

T.N.R.—Tanganyika Notes and Records.

Gedi —J. S. Kirkman, *The Arab City of Gedi*, Oxford University Press, 1954, and the classes of pottery described therein.

Tomb —J. S. Kirkman, *The Tomb of the Dated Inscription at Gedi*. Royal Anthropological Institute of Great Britain and Ireland, Occasional Paper No. 14, 1960.

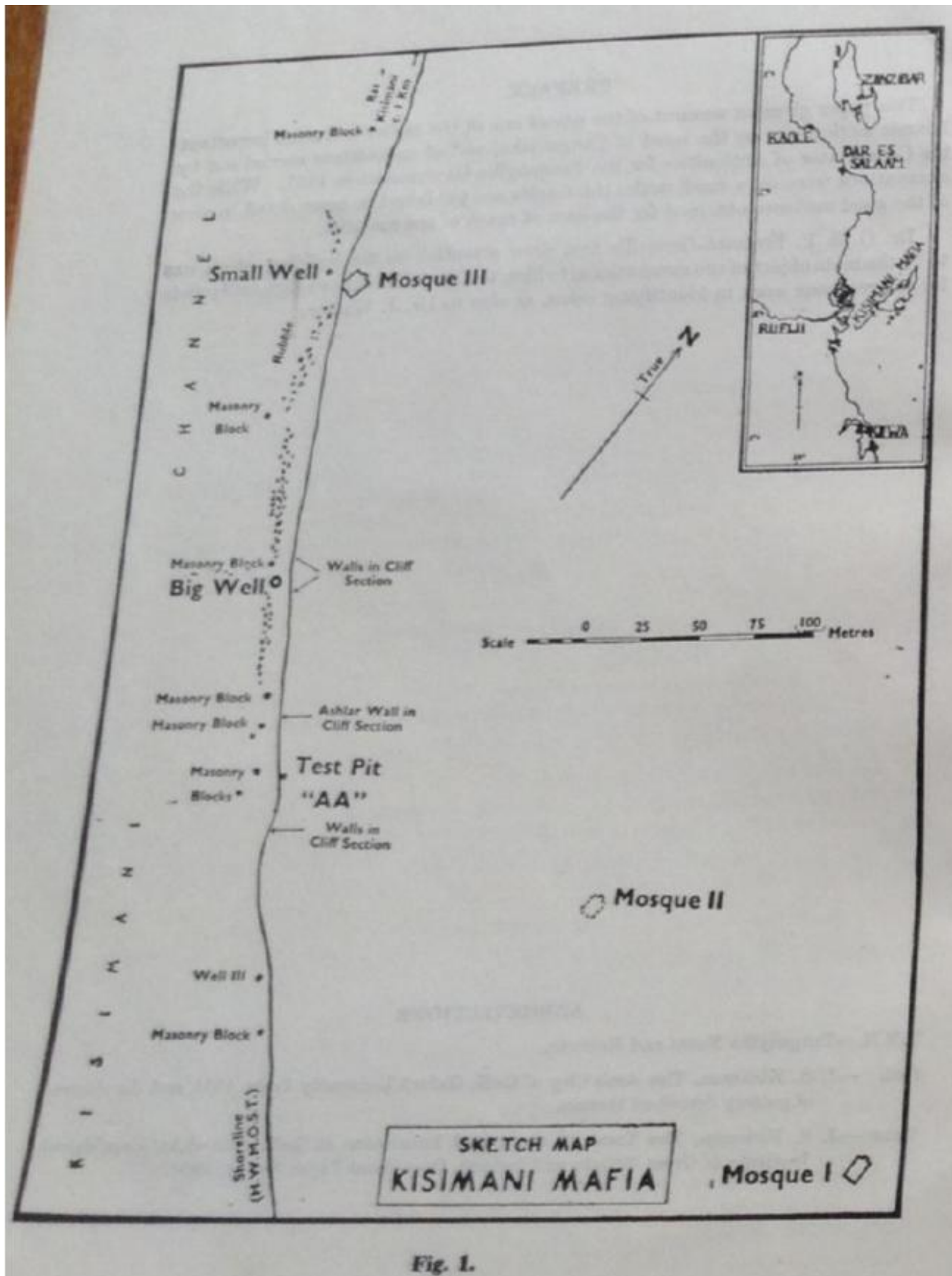


Fig. 1.

INTRODUCTION

The early colonists of the coast of East Africa evidently had a preference for the islands, presumably because they were easier to defend. The islands in the Mafia group have several remains of the settlements of these Arab or "Shirazi" immigrants, of which those near the western tip of the island, Ras Kisimani, appear to be the earliest. The locality, which at the present day possesses only a few houses among plantations of coconuts and cassava, is now called Kisimani Mafia. It seems, however, that the original name was simply Mafia, the island itself being called Chole Shamba and the present Chole island termed Chole Mjini, by which names they have been known to the inhabitants until very recently, if not until the present day⁽¹⁾. At Ras Kisimani deep water extends close to the shore, and all ships sailing up and down the coast pass very close to the cape. The shelving beach is protected from the north-east monsoon, and to some extent from the effects of the south-east also. Fresh water is available at no great depth, so that all in all the position is favourable for a trading town. Baumann⁽²⁾ recommended that the port and administrative headquarters should be transferred here in German times, but his advice was not followed.

The Kilwa Chronicle tells us that the sons of Ali ibn al-Husain, first Sultan of Kilwa, settled on Mafia, and it is probable that, if the tradition is correct, they established themselves at Kisimani. Mafia remained subject to Kilwa for many centuries, but probably enjoyed periods of independence, notably at the end of the 14th century when Sulaiman ibn al-Husain may have established himself as ruler of the island after his expulsion from Kilwa, and perhaps at the end of the 15th century, to which date the coins of Da'ud ibn al-Hasan, who does not appear among the recorded sultans of Kilwa, may be ascribed⁽³⁾.

The surviving ruins at Kisimani Mafia, which, considering the former importance of the place, are not very impressive, have not hitherto been adequately described. They are mentioned by Baumann⁽⁴⁾, who records a tradition, evidently correct, that they are older than those at Kua on Juani island. Revington⁽⁵⁾ relates a tradition that the town was built by the Wadibri⁽⁶⁾ and a story of a quarrel with the people of Kua. Piggott gives the name of the earliest inhabitants as Wadebuli and contradicts the story of remains of buildings being visible below the sea⁽⁷⁾ and also records another version of the story of the quarrel with Kua⁽⁸⁾. Voeltzkow recounts the finding of treasure at the site in 1847⁽⁹⁾. Walker, in his first publication

⁽¹⁾See Baumann, Mafia Island, reprinted in translation in *T.N.R.* No. 40 (Jan. 1957), p. 5. The original of this version, which is taken from the Mafia District Book, is evidently that published as *Die Insel Mafia und ihre kleineren Nachbargebiete* in *Wissenschaftlichen Veröffentlichungen des Vereins für Erdkunde, Leipzig* 1899. See also Piggott, "Mafia, History and Traditions," *T.N.R.* 12 (Dec. 1941), p. 24.

⁽²⁾Op. cit. p. 19.

⁽³⁾See below, p. 12, also Gray, "History of Kilwa," *T.N.R.* 31 (July, 1951) p. 16, and Freeman-Grenville, "Coinage in East Africa before Portuguese Times," *Num. Chron.* Vol. XVII (1957) p. 163.

⁽⁴⁾Op. cit. p. 18. The population at the time (1895) is estimated at 2,500.

⁽⁵⁾"Some Notes on the Mafia Island Group" *T.N.R.* No. 1 (March 1936) pp. 35-36.

⁽⁶⁾Concerning these mysterious people, see Gray, "The Wadebuli and the Wadiba," *T.N.R.* 36 (Jan. 1954) pp. 22-42. Revington's tradition equates them with the Wasakalava of Madagascar: this is very unlikely.

⁽⁷⁾"History of Mafia" in *T.N.R.* 11, (April 1941) pp. 36-37.

⁽⁸⁾"Mafia, History and Traditions" in *T.N.R.* 12 (Dec. 1941) p. 26.

⁽⁹⁾*Reise in Ostafrika* Bd. I Abtg. I pp. 206-207.

of coins of Kilwa type⁽¹⁰⁾, describes many which almost certainly came from Kisimani Mafia, as pointed out by Freeman-Grenville⁽¹¹⁾. The latter briefly describes the remains to be seen in the cliff and on the shore, as well as the pottery found on the surface, and analyses the finds of coins.

DESCRIPTION OF THE SITE

The settlement was situated on the south side of Ras Kisimani, the northern end being about a kilometre from the tip of the cape. There are traces of buildings and occupation debris for a distance of some 400 metres along the shore (see Fig. 1) and the town seems to have extended inland at least 250 metres.

The only building of which much remains standing is a ruined mosque (numbered II) which is thought to be of later date than the main period of occupation of the site, and is situated to the south-west of the main area of settlement. This is a simple, rather plain building, unusually long in proportion to its width. There was probably a central row of pillars, but no trace of these is visible, the body of the mosque being encumbered with debris. The western and southern walls have collapsed; the eastern wall is pierced by two arched doorways, above which are long slots for reinforcing beams (Plate Ia). Between the doors is a sizable cupboard in the thickness of the wall, with arched top, and formerly with a shelf at mid-height. In the north (*qibla*) wall are two small, very narrow windows above, and to the side of, the *mihrab* (Plate Ib). The *mihrab* itself is enclosed in a rectangular frame of cut stone; the arch is recessed in the usual fashion. To judge by the quantity of debris, the roof was of stone.

Part of the *mihrab* of a second mosque (I) survives, but the rest of the building has quite disappeared. This mosque is situated some distance to the west of the first, and was hidden in very thick bush. The lower part of the *mihrab* is ornamented with miniature square pilasters (Plate IIa) which resemble those of the excavated mosque (III) described below and with which it is likely to be contemporary and so of 15th century date⁽¹²⁾. The stub of a finely-cut five-sided pilaster with a moulded base can also be seen; this must have supported the inner part of the *mihrab* arch. The false arches which rest on the square pilasters are surmounted by a frieze of very unusual and perhaps unique design. The dome of the *mihrab* is lacking; the floor is of hard white plaster. Nearby are some graves, almost completely destroyed.

The shore is littered with pottery, including eastern Mediterranean or Persian *sgraffiato* ware, celadon, blue- and green-glazed Islamic ware, white Chinese porcelain and blue-and-white ware; many coins have also been found. There is also much broken stonework on the beach, as well as massive blocks of solid masonry, perhaps part of the foundations of buildings. Three wells are visible, one of which stands to a height of some two metres, the soil in which it was sunk having evidently been washed away. There is also much evidence of erosion in the cliff behind, where up to two metres of stratified deposits can be seen; various stone walls can also be observed in the section. Erosion continues; coconut trees which have recently fallen on to the beach may be seen all along this coast (Plate IIb). The big well may also be seen in this picture, the lower part submerged by the sea. Though there has clearly been much erosion, the theory of the local inhabitants that massive

⁽¹⁰⁾J. Walker, "History and Coinage of the Sultans of Kilwa", *Nun. Chron.* 1936, pp. 43 ff., reprinted in *T.N.R.* 45 (Dec. 1946).

⁽¹¹⁾Op. cit. p. 162, and in *Mus.* Vol. LVIII, article 155, p. 162. The coins (Walker's Hoard "A") seem unlikely from the account given to have constituted a hoard in the proper sense, but rather, as Freeman-Grenville implies, a collection made in the time of the German administration: Walker's remarks about the date of the assembling of the hoard (in the reign of al-Hasan ibn Sulaiman) are therefore probably invalid. Coins from the East African coast in the Museum für Völkerkunde, including some from Kisimani Mafia, are also listed by Stuhlmann.

⁽¹²⁾The *mihrab* of the so-called "Nabahany" mosque at Songo Mnara has similar pilasters, but is otherwise different in design.



Plate IA. Mosque I: The east wall.



Plate IB. Mosque I: The northern end.



Plate IIA. Mosque III: The Mihrab.



Plate IIB. General view of the site from the north; the Big Well is visible just off the shore.

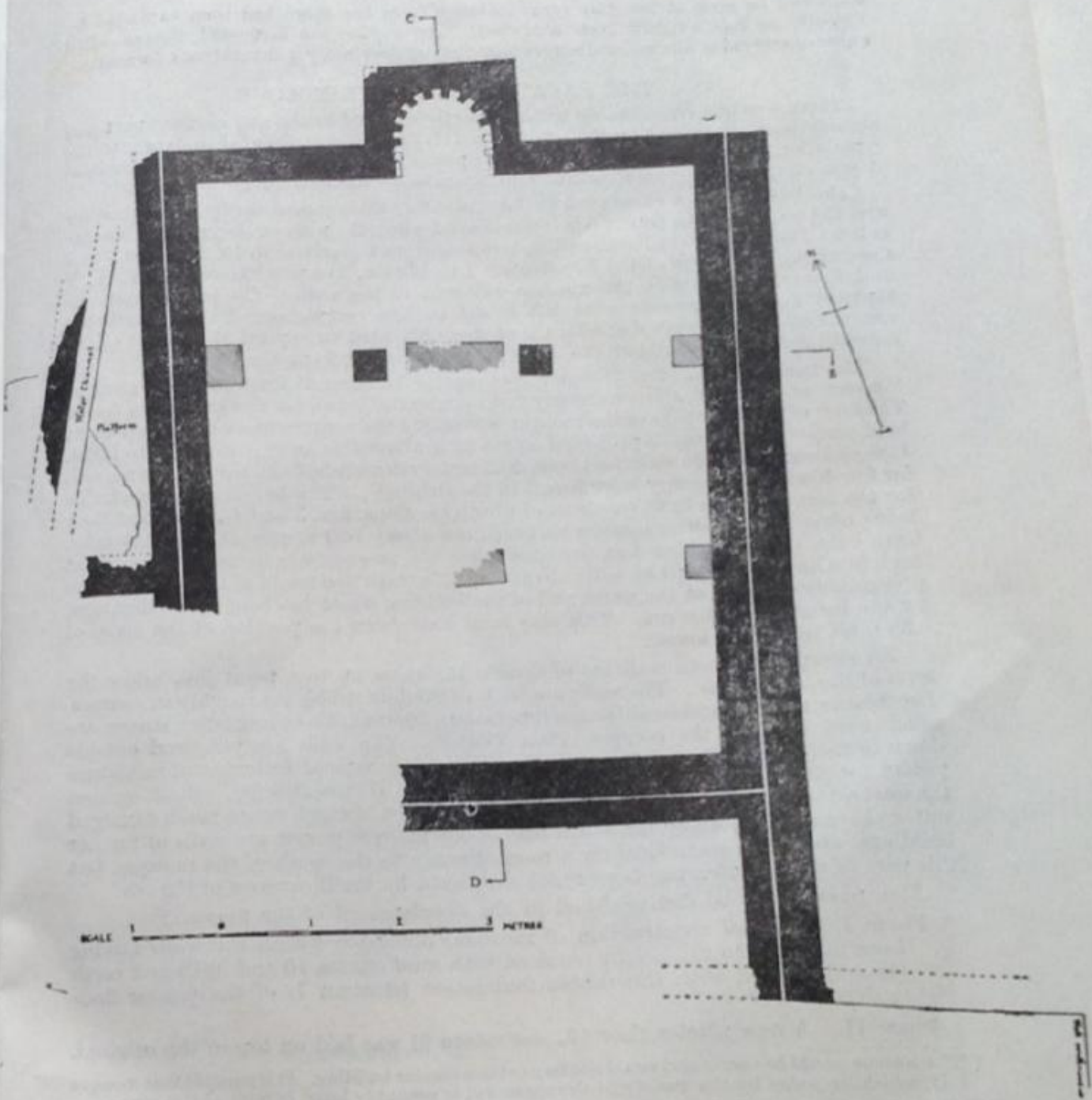


Fig. 2. Plan of the excavated mosque (No. III).

walls can be seen at low tide some distance from the shore has been exploded by Piggott, as has already been observed. The writer has inspected the so-called under-water ruins himself and agrees that they are certainly a natural rock-formation.

THE EXCAVATION OF THE MOSQUE

There was one considerable building partly exposed in the cliff section; part had already been destroyed by the sea (Plate IIIa) and it was decided to excavate the remainder. It was locally asserted to be a palace, but after only one day's excavation it was clear that the building was another mosque (designated mosque III).

The building was excavated in four squares, the squares being laid out anew and the baulks of the top two levels removed when the plan of the mosque became clear. The strata were numbered downwards from 1 (surface) to 10, numbers 3 to 7 designating the fabric of the five floors. In addition, five pits lettered V, W, X, Y and Z were dug outside the mosque adjacent to the walls. The baulks from the topmost floor downwards were left intact on the completion of work, and the excavation filled in with dug soil: the stones excavated were piled at the foot of the seaward side of the building, to assist in protecting it from the waves.

The mosque (plan, fig. 2) was a rectangular building about 9.25×7.25 metres; the corners, however, are not exactly right angles. There were five successive floors. The floor of the last stage of the mosque was only a few centimetres below the present land-surface and the walls projected only a little above this level, if at all (Plate IIIb). It would seem that the walls had been deliberately demolished and the stone removed, for few blocks of masonry were found in the debris⁽¹³⁾. The building is remarkable for the fact that it is built on a sort of plinth (sections, figs. 3 and 4), the latest floor being about 1.60 metres and the earliest floor about 1.30 metres above what must have been the ground level at the time when the mosque was in use. There must therefore have been steps by which to enter. No trace was found of these; they were presumably situated at the south end of the building which has been much damaged by the incursion of the sea. This also must have been the position of the door, of which no trace was found.

All except the north wall are of double thickness up to a point just below the level of the latest floor. The walls are built of random rubble set roughly in courses. The blocks are of considerable size (up to 30×30 cm.), though smaller stones are much used between the courses (Plate IVa)⁽¹⁴⁾. The walls are plastered outside down to their foundations. The *mihrab* retains the stumps of a number of miniature pillars (originally twelve) arranged in a semi-circle (Plate IVb)⁽¹⁵⁾. Built against the west side of the mosque is a plastered bench, alongside which runs a much damaged water channel. Adjoining the south-east of the mosque proper are walls of further buildings, and there was evidently a room directly to the south of the mosque, but this part of the complex has been much destroyed by the incursions of the sea.

Five phases can be distinguished in the development of the mosque:

Phase I. Original construction of mosque, the space within the walls having been made up to the height required with sand (strata 10 and 9)⁽¹⁶⁾ and earth (8) and capped with the rubble foundation (stratum 7) of the plaster floor (ϵ)⁽¹⁷⁾.

Phase II. A new plaster floor (δ , =stratum 6) was laid on top of the original.

⁽¹³⁾Such stone would be *haram* and could not be used in a secular building. It is possible that mosque II, which, to judge by the quality of the masonry, is probably later, is built of this stone.

⁽¹⁴⁾This type of masonry is very similar to that employed at the newly discovered site of Mtitimira some seven miles north of Kilwa Kisiwani.

⁽¹⁵⁾cf. mosque I, mentioned above, and the Great Mosque at Songo Mnara.

⁽¹⁶⁾The lower part of stratum 9 is sterile, and is probably natural sand (see section, fig. 3). Stratum 10 is the sand at this lower level adjoining the foundations of the north wall.

⁽¹⁷⁾No trace of any pillars for the support of the roof was found associated with any of Phases I to III. The roof probably rested on heavy beams running from wall to wall without other support, as in the northern part of the Great Mosque at Kilwa.

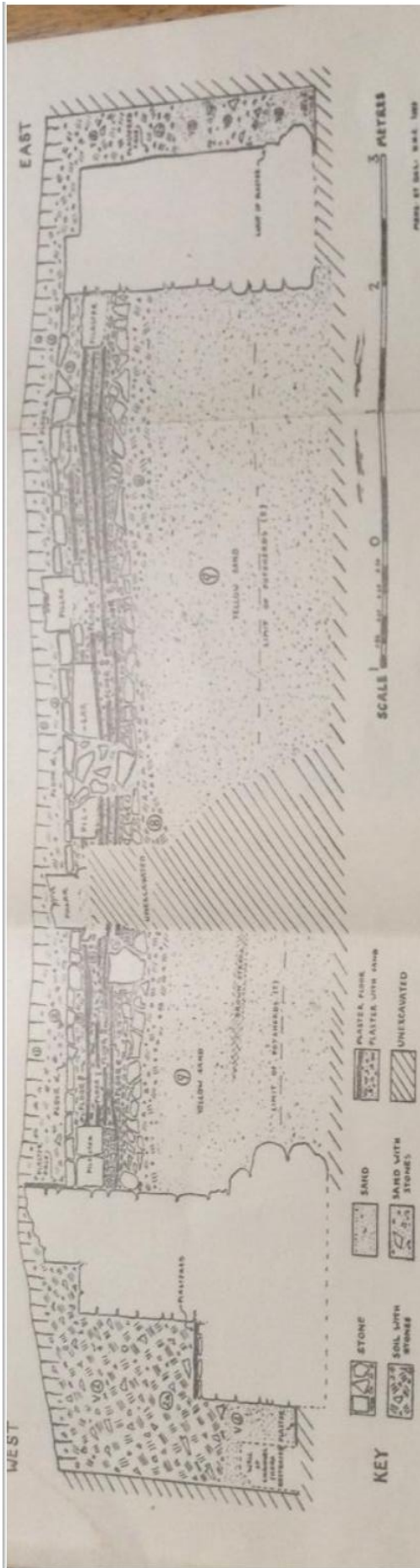


Fig. 3. Section through the mosque from east to west.

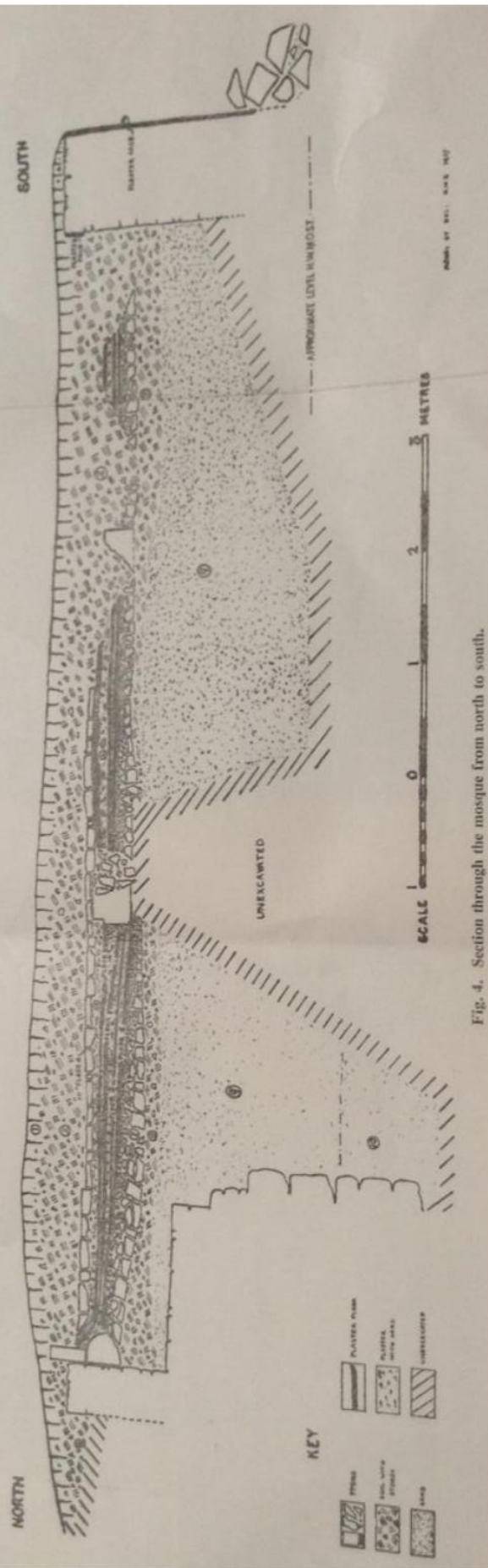


Fig. 4. Section through the mosque from north to south.

Phase III. Pilasters built against east and west walls, two on each side. The interior of the mihrab was altered at this stage and it is probable that the miniature pilasters were inserted; it is possible however that this decoration should be ascribed to Phase V. The plaster floor again renewed (γ = stratum 5).

Phase IV. Two rectangular pillars built on the centre line of the mosque⁽¹⁸⁾; the pilasters remain in use. The floor relaid in plaster for the last time (β = stratum 4, the fabric of which was much damaged in parts).

Phase V. The rectangular pillars and pilasters demolished, square pillars (originally four, almost certainly) being built instead. A floor (α = stratum 3) of stone blocks was laid down covering the foundations of the earlier pillars (Plate Va).

The mosque seems subsequently to have been deliberately destroyed down to this floor level; in parts many stones had been removed from the floor. Sandy soil and debris accumulated over the building (Phase VI = stratum 2).

THE DATE OF THE MOSQUE: COINS

Coins of the sultans of Kilwa were found in the fabric of floors α , β , and γ (strata 3, 4 and 5) and also on floor α and the fill above it (stratum 2). These provide good evidence for dating these floors, and by inference, for dating phases I and II, in the floors of which no coins were found. The coins attributable to the various strata in the mosque are listed in the following table⁽¹⁹⁾.

<i>Stratum</i>	<i>Coins</i>	<i>Remarks</i>
1.	Ali ibn al-Hasan (1478-79)—two..... 'Nasr al-Dunya wa-l-Din'—one.....	
2.	Al-Hasan ibn Sulaiman (1479-85)—one.....	Close to floor α
Phase VI	Ali ibn al-Hasan—seven..... Al-Hasan ibn Sulaiman—one..... Da'ud ibn al-Hasan (c. 1460?)—one.....	Four close to floor α Close to floor β where floor α lacking
	(Probably) Mongol of Muhammed Khan (1336-37) or Abu Ishaq (line of Mahmud Shah) (1342-53) ⁽²⁰⁾ —one.....	On floor α
3. (Fabric of floor α)	Al-Hasan ibn Sulaiman—one..... Ali ibn al-Hasan—two.....	One in fill below floor α where floor β lacking
Phase V	Da'ud ibn Sulaiman—one..... Sulaiman ibn al-Hasan (1294-1308)—one...	One ? on floor β
4. (Fabric of floor β)	Sulaiman ibn al-Hasan—one.....	
Phase IV		
5. (Fabric of floor γ)	Sulaiman ibn al-Hasan—one.....	
Phase III		
6-10.	No coins	
Phases I & II.		

⁽¹⁸⁾The foundations of only one of these pillars survives more or less intact, but part of a masonry block in the much-damaged southern part of the mosque is almost certainly part of a second.

⁽¹⁹⁾The coins have been kindly identified by Dr. Freeman-Grenville and in one case, by Dr. J. Walker. The dates are taken from the former's *Chronology of the Sultans of Kilwa* in *T.N.R.* 50 (June 1958) p. 85.

⁽²⁰⁾In addition an illegible coin was found on floor γ . The obverse has a text within two circles separated by a row of dots, struck half off the flan.

It will be observed that coins of various dates are found in stratum 3 (Phase V) onwards. The occurrence of a coin of al-Hasan ibn Sulaiman, the last sultan known to have minted coins, in the fabric of floor shows that this must have been later than c. 1479, the date of his accession. Only coins of Sulaiman ibn al-Hasan were found below stratum 3: the lack of later coins, particularly of those of Ali ibn al-Hasan which are the commonest of all at this site, suggests that stratum 4 (Phase IV) antedates his reign, which is thought to have begun in 1478: it must also of course be later than c. 1308, the date of Sulaiman's accession. The absence of coins in strata 6-10 (Phases I and II) suggest that these date from before coins became common in Sulaiman ibn al-Hasan's reign (his father, al-Hasan ibn Tulut, was the first sultan to mint coins, but these are rare). We may note also the coin of the sultan whose name has been read as Nasr ed-Dunya wa-l-Din⁽²¹⁾ in the uppermost fill; recent evidence from Kilwa suggests that this man ruled in the 16th century.

On the evidence of the coins, found, therefore, we can deduce the following:—

Phase V is later than 1479.

Phase IV is later than 1308 and earlier than 1479.

Phase II is probably not later than c. 1300.

Based on the above, the following is put forward as the possible dates of the various Phases:

Phase I	1240-1290
Phase II	1290-1360
Phase III	1360-1420
Phase IV	1420-1490
Phase V	1490-1520 (?)
Phase VI	After c. 1520

(The pottery in the fill, stratum 2, particularly the absence of blue-and-white ware, suggests that the destruction of the mosque was not long delayed.)

It is possible that the absence of coins in stratum 6 (Phase II) is fortuitous, in which case the dates for the earlier Phases must be lowered.

THE MOSQUE: FINDS

Few objects other than coins and pottery were found; the latter is plentiful only in the upper (fill) levels. The beads found are all of glass: none of the shell beads common at Gedi was found either in the mosque or elsewhere.

The pottery and other finds are described below according to the Phase to which they are to be attributed.

PHASE I.

Imported glazed ware.

The characteristic glazed pottery is of the *sgraffiato* type, imported from Persia or the eastern Mediterranean (cf. *Gedi* Isl. Cl. 3)⁽²²⁾. The body of the ware is red, glazed on the inside and on the upper part of the outside. The characteristic form seems to be a bowl on a flat base. The glaze colour shades from very dark brown through dark-green, light-green, yellow, to nearly white, so that no division can be made on the score of colour (cf. *Gedi* p. 98). The scratched designs are curvilinear, and hatching, both of the design itself and (it would seem) of the background, occurs (fig. 11, c and e).

⁽²¹⁾Walker (op. cit., p. 80, No. 2). *T.N.R.* No. 45 p. 58. Evidence from Kilwa suggests that this man ruled in the 16th century.

⁽²²⁾This and similar references below refer to the classes of pottery as described by Kirkman in *The Arab city of Gedi, Excavations at the Great Mosque.*

page6.JPG



Plate IIIA. Mosque III from the shore before excavation.



Plate IIIB. Mosque III cleared down to floor a.



Plate IVA. North-west corner of Mosque III excavated down to foundation. The series of five floors is visible in the cut on the left.



Plate IVB. Mosque III, the Mihrab, excavated down to floor β , a part of floor α remaining "in situ" on the left.

The only other glazed ware consisted of two body sherds of an unidentified monochrome ware of Islamic flavour. The glaze is light blue, in one case shading to white, over a thick (1.5 cm.) white paste.

It is noteworthy that no examples of the black-on-yellow ware, which is characteristic of the earlier levels at Gedi (Isl. Cl. 1) were found.

One small fragment of a very thin (2 mm.) unglazed painted ware, from stratum 9, is probably imported (fig. 14 e). The ware and paint are precisely similar to the finer Nabataean ware, but the design appears to be of non-Nabataean type.

Among the local pottery a red-burnished ware is characteristic (cf. *Gedi Loc. Cl. 30*) and is found in all strata of this Phase; in Kenya this ware is ascribed to the 13th and 14th centuries⁽²²⁾. The body is grey, with a dark-red slip, which is burnished, usually horizontally. In the case of a comparable vessel, not from within the mosque, the rim is blackened, perhaps by the application of graphite. The chief form for which this ware is employed is the open bowl, almost invariably with incurving rim (fig. 5 a-h). One fragment of black-burnished ware was found.

Among coarser wares, jars and carinated cooking pots, both with outward-curving necks, are characteristic. The neck is usually ornamented with an incised criss-cross decoration (fig. 7 f). Most of the necks are more than 3 cm. in height, so that the distinction drawn at Gedi between short (earlier) and long (later) necks does not seem here to apply.

Stratum 10 (adjacent to the foundations of the north wall) produced besides an incurved rim of red-burnished ware, an indeterminate sherd rounded and pierced (perhaps a spindle whorl) and also a fragment of a bowl with unusual indented decoration on the rim (fig. 9 e).

PHASE II.

The pottery is very sparse, and of no interest. One fragment of red-burnished ware was found.

PHASE III.

Sherds sparse; no glazed ware occurs. Fragments of two bowls in a grey-buff ware have bands of red paint, in one case slightly burnished, on their outcurving rims (fig. 6 l); otherwise the red-burnished ware is lacking. The only jar-neck has appliqué ornament (fig. 9 a); pottery of this type has since been found at Kilwa in a pre-14th century context. It may be compared with a decorated ware found in the lower part of the mounds of debris built up, evidently over a very long period, round the salt pans on the western side of Lake Rukwa (fig. 9 b, c, d). Whether there is in fact a connection between these two similar wares must, however, be regarded as unproven, in view of the great distance (about 800 km.) separating Ivuna from the coast.

PHASE IV.

Glazed and burnished ware is lacking among the rather sparse sherds. Fragments of two carinated cooking pots have very short necks; on one (fig. 6 a) there are vestigial knobs on the carination, and a band of red paint along the rim. Such bands of red paint seem to be common. A fragment of a small jar (fig. 8 f) with small indentations below the neck is noteworthy, as is also the decoration of impressed circles in relief on the body of a small vessel of uncertain form, the ware of which is reddish-buff in colour and highly micaceous (fig. 9 i).

A blue-green biconical bead of wound glass (cf. *Gedi Class 4*; but the present example is translucent) and a yellow opaque glass bead (cf. *Gedi Class 2*) were also found.

⁽²²⁾Kirkman, *Historical Archaeology in Kenya, 1948-56*, in *Antiquaries Journal* XXXVII (1957), p. 17 (bottom), and Kirkman, *Tomb*, pp. 6 and 12.

PHASE V.

The pottery is similar to that of Phase IV. One fragment of a bowl with thickened rim (fig. 5 f) has an orange-red slip. Note the fragment of a lamp (fig. 10 e) with incised decoration on the carination, which can be compared with a fragment from Kilwa⁽²⁴⁾. There was no glazed ware, and only one worn fragment of burnished red ware. A tubular bead of translucent blue-green glass was also found.

PHASE VI.

Among the *imported wares* celadon makes its appearance. Of the three sherds, two are ledge rims (fig. 13 b, c) with translucent light-green glaze over a light grey body; the interior of one is fluted. The third is a body-herd of a bowl, the glaze being grey-green and almost opaque over a dark-grey paste. Two sherds of monochrome Islamic ware, one light green, the other deep blue, were found (cf. *Gedi Isl. Cl.* 18). A yellow-brown glazed earthenware, with a rather soft pink body, in one case heavily ribbed on the outside, is found for the first time. The surface of the glaze is rough, and reminiscent of stoneware. Kirkman⁽²⁵⁾ ascribes these wares to the 16th century, and thinks it probably of far Eastern manufacture; Freeman-Grenville suggests a Mesopotamian or Persian origin, and similar date⁽²⁶⁾.

Among the local wares, red-painted rims continue to be found. One fragment of a bowl with flat-topped rim is painted over much of its interior (see fig. 5, i); at Ungwana this type of ware is dated to late 15th—early 16th centuries⁽²⁷⁾. On the jars and cooking pots both long (above 3 cm.) and short necks occur. Scored decoration on jars is on the shoulder rather than the rim (fig. 7 c). In one case the vessel is decorated with diagonal ribs in low relief, with a line of indentations above at the junction of neck and body. Similar "wealed ware" has since been found in large quantities in early 16th century levels at Kilwa; it does not, however, seem to be related to the ribbed-ornamented ware of Gedi (local Cl. 1). Two fragments of lamps of plain open "boat" shape were found. A body-herd has a new type of incised decoration in panels (fig. 10 b). A large bowl of black ware with very deeply-incised ornament, found at the junction of this stratum with the surface level, is noteworthy (fig. 8 g). Three small decorated and pierced discs of pottery were also found (fig. 14 a-c). Similar discs have since been found at Kilwa with remains of a wire loop, of iron, fixed in the pierced hole. They may have been spindle-whorls, or buttons.

In the surface level, the earthenware with rough yellow-brown glaze is common. Celadon was confined to the ring-base of a large bowl; the glaze is of the same grey-green type as that described above. A small fragment of a ring base with polychrome glaze, probably Persian, shows a design in very dark blue and in a watery light blue on a white ground; the paste is soft, and of light buff colour; the exterior is unglazed (cf. *Gedi Isl. Cl.* 5 ?). The monochrome Islamic ware includes two fragments, probably Persian, of a heavy dark green-blue glaze over a moulded decoration in high relief: much of the glaze has been worn away over the raised areas. The glaze within is black, and the body white and rather soft (fig. 12 b). No blue-and-white porcelain (other than a fragment of European 19th century manufacture) was found, though such occurs on the surface in other parts of the site.

Among the unglazed wares we may remark another example of decoration in panels; in this case the vessel was, it seems, a beaker (fig. 10 c). A body-herd of a jar has deeply impressed ornament on raised ribs (fig. 8 e). Red and black paint

⁽²⁴⁾See Kirkman, *Kilwa: The Defensive Wall*, *T.N.R.* 50 p. 96 and fig. 2 b.

⁽²⁵⁾*Gedi*, pp. 132-3. The ware seems similar to those described under Classes 7-9, but jars rather than bowls are found at Kisimani Mafia.

⁽²⁶⁾*Num. Chron.* 1957, p. 168. This ware, however, seems to have been in use as late as the 18th century.

⁽²⁷⁾Kirkman, information personally communicated.



Plate VA. Pilaster on west side of Mosque III, covered by floor α . The trowel is inserted on floor β and floor γ is in the foreground.



Plate VB. The Big Well, before excavation.

is used on a vessel of very curious design (fig. 9 g). A pierced disc, not unlike those mentioned above, was also found: in this case it was made from a rubbed-down sherd of *sgraffiato* ware.

A fragment of a platter, or lid of a vessel, carved in steatite, found near the surface (fig. 10 f) may be compared to part of a flat-bottomed cylindrical vessel (fig. 10 g) found by Mr. Malcolm Norris on Sanje ya Kati Island, near Kilwa⁽²⁸⁾. Both have evidently been turned by lathe, and both are decorated with low ridges on the exterior. The beads from this Phase are of the reheated cane type, and of tubular and ring shape. The colours were blue and olive-green (opaque) and blue-green translucent (cf. *Gedi* Cl. 2).

A fragment of carved coral stone from the surface level, decorated with an incised chevron pattern, is likely on the analogy of other mosques to have come from the side of the *mihrab*. Also worthy of note is a heavy biconical spindle whorl (cf. fig. 14 h) carved from white calcite: other examples of such objects were picked up on the beach, and further examples have lately been found at Kilwa in a late 15th century context.

PITS OUTSIDE MOSQUE

Five small trenches or pits (lettered V, W, X, Y and Z) were dug outside the mosque⁽²⁹⁾. Apart from the surface level, only two strata could be distinguished: the upper, 2, is a fill of earth and stones dating from after the abandonment of the mosque (Phase VI), the lower, 3, of sand which probably accumulated during the occupation of the mosque⁽³⁰⁾. The pottery, which is rather scanty, shows a similar succession to that found within the mosque.

In the *lower stratum* Islamic *sgraffiato* and red-burnished wares are predominant. One fragment of Chinese porcelain deserves mention: this is a sherd from a bowl of Honan (Sung dynasty) type, perhaps Chün ware, having a light greyish-blue glaze with a matt surface, over a grey porcellaneous body. From the same context comes an unglazed sherd with appliqué decoration (fig. 9 f) which resembles pottery made by women of the Kwere tribe at the present day. *Coins* found in this stratum comprise an unidentifiable fragment of a Chinese piece, two coins of Sulaiman ibn al-Hasan (c. 1294–1308) and, notably, one Mongol coin of Hulagu (1256–65) with the name of his overlord Mangu⁽³¹⁾. One of those of Sulaiman came from the fill of the water channel to the west of the mosque, and in the same place was found part of a glass vessel (fig. 13 k). *Beads* were predominantly of the common brick-red opaque paste (*Gedi* Cl. 1): eleven examples, all small, include ring, biconical and tubular (not longer than 4 mm.) shapes. Single examples of the following were also found: brick-red opaque paste as above but wound (cf. *Gedi* Cl. 4); opaque yellow, translucent blue-green, and translucent green glass beads of tubular and biconical form, all small (cf. *Gedi* Cl. 2); and one true striated cane bead in translucent green glass. Some fragments of iron slag were found in this lower stratum (and also in the surface level) and also a decorative fragment of copper (fig. 14 k). Noteworthy is a fragment of what appears to be a burnt brick, 4 cm. thick and 18 cm. in (probably) width; the length is uncertain. The body of this piece is red-brown in colour and rather soft. The art of burning bricks is unknown in this part of Africa at the present day, and no ancient buildings of red-brick are known.

⁽²⁸⁾Fragments of "steatite platters" are reported from all the sites in the interior of Somaliland described by Curle, *The Ruined Towns of Somaliland*, *Antiquity* Vol. XI (Sept. 1937) p. 322. Similar fragments have also been found at Kilwa Kisiwani and Kaole.

⁽²⁹⁾These are in effect those parts of the original squares (A, B, C, D) in which the excavation was laid out, that proved to fall outside the walls of the building.

⁽³⁰⁾The stratification in pit Y is slightly more complicated, but since no finds of significance were found therein it is not here described.

⁽³¹⁾See B.M. Catalogue VI p. 10 No. 14. For this identification I am indebted to Dr. Walker. The coin was found in Pit Z, stratum 3.

In the upper stratum, (Phase VI) dark-green Islamic monochrome glazed ware was found, together with sherds of celadon, one with a light-grey glaze, and another, light green on the outside, and greenish-blue within; the paste is light grey. A sherd of *sgraffiato* is probably derived. Red-painted rims, usually of the flat-topped type (cf. fig. 5 i) are characteristic of the local wares. One curious sherd, almost flat in section, is decorated with bands of incised ornament, the space between being coloured with red paint and burnished (fig. 10 a). Besides a fragment of an open pear-shaped lamp (as fig. 10 e) part of another with a long narrow spout was found (fig. 10 d); a similar type of spout occurred in the lower stratum also. A fragment of the base of a glass flask (from V 2) is decorated with a moulded design (see fig. 13 i). The coins comprise one of al-Hasan ibn Sulaiman (c. 1479-1490), two of Ali ibn al-Hasan (c. 1478-79) and one of Da'ud ibn al-Hasan (c. 1480 ?).

THE EXCAVATION IN THE CLIFF

A very small excavation was made in the cliff section ("Pit AA" on plan) at a point 220 metres south of the excavated mosque, where the occupation deposit appears to be greater than elsewhere. The pit was dug to a depth of two metres but the bottom of the deposit was not reached. The proportion of glazed sherds was remarkably high, amounting to 20 per cent in some levels. The deposit is not associated with any visible structure. The finds may be summarized as follows:

Surface level (1)

Coin: Sulaiman ibn al-Hasan.

Pottery: Islamic monochrome glazed ware; red ware with red slip predominant in unglazed wares.

Stratum 2: Black soil with shells.

Pottery: Base of tea-cup (1) in blue-and-white ware (fig. 13 l). Flat base of large stoneware jar: green-brown mottled glaze over purple-brown body. Among unglazed wares red-painted rims of bowls occur.

Stratum 3: Stony black soil.

Pottery: Islamic monochrome glazed ware; celadon with light grey-blue cracked glaze over dark grey paste. Jar with red-painted rim (fig. 8 d).

A copper needle (fig. 14 l) and one small opaque red bead (*Gedi* Cl. I) were also found.

Strata 4 and 5: Black soil shading to brown, with pebbles.

Coin: al-Hasan ibn Sulaiman.

Pottery: Islamic *sgraffiato* with dark green glaze. Burnished red-slip bowls appear (fig. 5 c). Unglazed jars with incised ornament on rim (figs. 7 e and g).

Stratum 6: Brown sandy soil.

Pottery: *Sgraffiato*, chiefly with yellow slip under a glaze having blotches of dark-brown and green. Bowl with blue-green glaze over light grey body incised with a petal design: the base unglazed (fig. 13 d). This is perhaps a Honan ware, but the incised decoration, different in technique from that found on celadon, would seem unusual. Fragments of a burnished red-slip bowl (fig. 5 d).

Stratum 7: Brown gravelly soil.

Pottery: *Sgraffiato* similar to that found in Strata 4-6. Burnished red ware predominant, as also in Stratum 8 where an example has the rim blackened with graphite (fig. 5 h).

THE WELLS

Two wells were excavated (designated "Big Well" and "Small Well" on plan, fig. 1). Both are submerged by the sea at high water. The soil round the Big Well has been washed away down to sea level, leaving the well lining standing like a tower:

the masonry is of courses of roughly squared blocks of considerable size, with narrow courses of thin slabs between, and is not unlike that of the excavated mosque (Plate V b). The base of the lining of the well was reached at about one metre below the beach level.

Excavation was difficult owing to the periodic irruption of the sea. The pottery was notable for the predominance of blue-and-white among the glazed wares except at the bottom of the excavation (70 to 100 cm.) where *sgraffiato* (one sherd) and monochrome Islamic only were found. Stratigraphically the pottery sequence is valueless, as the sherds seem to have been washed in or mixed up by the waves of the sea. Nevertheless two fragments (one of a bowl and one of a jar) with red-painted rims are worth illustrating (figs. 6 g and 8 a) as also a sherd of blue-and-white porcelain (fig. 13 g). Two heavy biconical spindle whorls or beads, flatter in section than that described above, were also found (fig. 14 i), together with a small pierced disc of the same white alabaster-like stone (fig. 14 j) and a gaming-piece (fig. 14 g).

The Small Well, the top of which was level with the surface of the beach (the upper part of the lining having presumably been washed away) yielded many coins together with a small disc of gold, perhaps a coin, measuring about 6 mm. in diameter and under 0.5 mm. in thickness. All had apparently been washed in by the sea. Near the well was found a seal-ring with an arabesque design (fig. 14 m). The pottery from this well is of no interest.

MISCELLANEOUS FINDS

A flat-bottomed cylindrical jar of burnished red-painted ware (fig. 6 j) was found protruding from the cliff section near mosque III. It lay about 10 cm. above the bottom of the deposit, and possibly dates from the 13th century.

In the course of digging a latrine pit some 70 m. north of mosque III a fragment of a bowl with panelled decoration in burnished red paint (fig. 5 j) and another of a lamp of curious design (fig. 9 j) were found. Here blue-and-white porcelain was found at a depth of upwards of 50 cm. Coins found near the surface of the same pit include one of Ali ibn al-Hasan and one of Da'ud ibn al-Hasan.

On the beach were found some hundreds of coins of "Kilwa" type having been washed out of the cliff section (see below). Among other beach finds may be mentioned a kohl stick (fig. 14 p), a gaming piece (fig. 14 f) and numerous fragments of iron slag. Some fragments of Islamic *sgraffiato* (fig. 12, j, k) of blue-and-white porcelain (fig. 13 m) and of celadon (figs. 12 f, 13 a) are illustrated, together with the base of a large vessel probably of Persian origin, having painted decoration both in and outside (fig. 12 a) and a bowl of Islamic monochrome ware (fig. 12 h). This is one of the two characteristic shapes of vessels in this ware: the other has a "ledge" form of rim. Both types have ring bases.

COINS FROM THE BEACH*

In addition to the stratified coins described above, a large number of coins were picked up on the beach; they were particularly plentiful in the area of the Small Well. Those that are legible are identified as follows:

Sultans of Kilwa:

al-Hasan ibn Talut ...	...	...	...	1
Sulaiman ibn al-Hasan ...	...	...	...	41
Da'ud ibn Sulaiman ...	...	...	...	15
Muhammad ibn Sulaiman ...	...	...	...	5
Ali ibn al-Hasan ...	...	...	...	367
al-Hasan ibn Sulaiman ...	...	...	...	136

*This summary is based on extensive notes made by Dr. Freeman-Grenville to whom the author is most grateful for his industry and co-operation; certain identifications have been made by Dr. J. Walker, to whom he also expresses his thanks.

<i>Kilwa type:</i>				
Da'ud ibn al-Hasan ...	...	...	...	19
al-Husain ibn Ahmad (†) ...	...	...	...	1
Ishaq ibn Hasan ...	...	...	...	2
Ali ibn Yusuf... ..	...	...	...	3
"Nasr al-Dunya wa-l-Din" ...	...	...	...	28
<i>Other foreign Muslim</i> ...	...	...	...	6
<i>Indian</i> ... ..	...	...	...	1
<i>Chinese</i> ... ..	...	...	...	2

The proportions ascribed to the various sultans are thus similar to those found in the course of excavation (except that in the latter case coins of Sulaiman ibn al-Hasan are rather more plentiful) and to those found in the two wells. The great predominance of Ali ibn al-Hasan (more than half of all the coins) is remarkable, particularly as he is recorded as having reigned for only 1½ years. In previously published collections al-Hasan ibn Sulaiman has predominated over this sultan; a possible explanation is that al-Hasan's coins are considerably larger and that the casual collector might prefer these, and reject some of the smaller coins of Ali, which, as found, often appear to be insignificant.

The coins listed as of "Kilwa type" are ascribed to rulers not named in the Kilwa Chronicle. Nothing is known of Da'ud ibn al-Hasan; his coins resemble in style those of Ali ibn al-Hasan and it has been suggested that he was a brother of that sultan⁽²²⁾. The two coins of Da'ud found in the course of the excavation were both from deposits of Phase VI, which is quite consistent with this suggestion. A third coin of this type was found in the course of digging a latrine, at depth greater than about 30 cm. from the surface.

Ishaq ibn Hasan and Husain ibn Ahmad (the reading of the coin ascribed to the latter is doubtful) were both probably rulers of Zanzibar⁽²³⁾. The paucity of coins from this neighbouring island is remarkable.

Ali ibn Yusuf appears to have been a sultan of Mogadishu⁽²⁴⁾.

"Nasr al-Dunya wa-l-Din" is probably a 16th century ruler of Kilwa (see above, p. 6).

The *foreign coins* comprise:

- (a) al-Kamil Muhammad (A.D. 1218-1238). This Ayyubid coin is thought to be the first clear evidence of trade with Egypt yet to come to light.
- (b) a Mongol coin, almost certainly of Hulagu, similar to that excavated (see above, p. 9). Dr. Walker considers this coin was probably minted at Basra.
- (c) A coin with ellipsoid flan of one of the Cola (Chola) rulers of South India called Rajaraja; probably of Rajaraja III, who ruled about A.D. 1250. Flan: ellipsoid. Weight: gm. 3.37. Specific gravity: 10.1.
- (d) Two Chinese coins, one of Shen Tsung (1078-1085)=Schjöh 553, and one of Che Tsung (1094-1097)=Schjöh 586. Little significance should be attached to the date of these, which falls within the period to which Chinese coins found in Africa most commonly belong⁽²⁵⁾, even though they may be in a much later context.

In addition four Islamic coins of non-Kilwa type were found on which it was not possible to read anything useful.

It is notable that all foreign coins found are of early date, before A.D. 1360.

⁽²²⁾Walker op. cit. p. 72. Freeman-Grenville (*Num. Chron.* 1957) suggests he might have been a semi-independent ruler of Mafia, but this is admittedly hypothetical. The proportion of coins of Da'ud ibn al-Hasan found at Kilwa and Mafia are about the same.

⁽²³⁾Freeman-Grenville *ibid.* p. 170.

⁽²⁴⁾Freeman-Grenville *ibid.* pp. 155-156.

⁽²⁵⁾Cf. *T'oung Pao*, Vol. XLVII, pp. 81-82.

Variants: Sultans of Kilwa.

Thirteen new variants were included in the collection. Most of these show only minor differences of pointing and decoration from published examples, but they emphasize the large number of dies that were used: some twenty variants of al-Hasan ibn Sulaiman are known to date, and eleven of Ali ibn al-Hasan, despite his eighteen-month reign. The most notable new variant⁽²²⁾ is of the former sultan. Both obverse and reverse have texts contained by a double hexagonal figure, surrounded on the obverse only by dots. The text (with points added) reads:

Obv.	al-Hasan son of Sulaiman he is glorious	الحسن بن سليمان (٢)
Rev.	relying upon God.	اعتمد على الله

The apparent absence of rhyme is notable.

There were also two mules, both of reverses of al-Hasan ibn Sulaiman.

⁽²²⁾Cf. Freeman-Grenville, *op. cit.* pp. 154-5 (No. III).

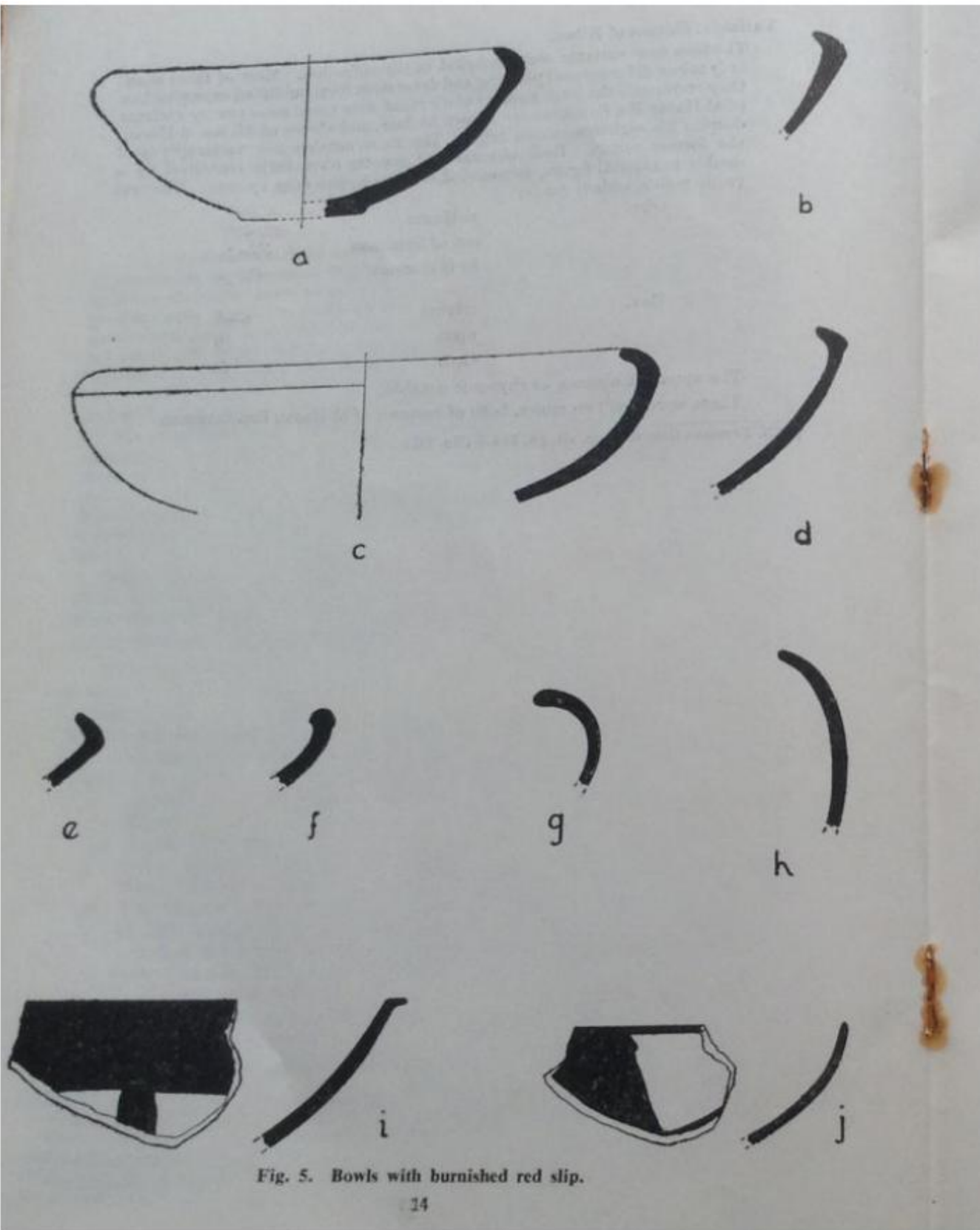


Fig. 5. Bowls with burnished red slip.

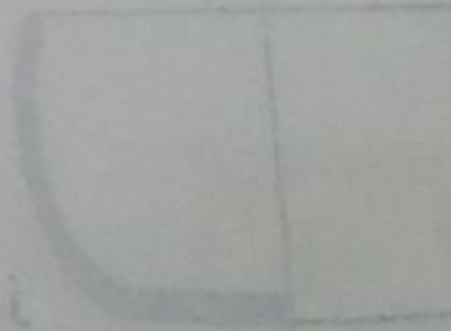
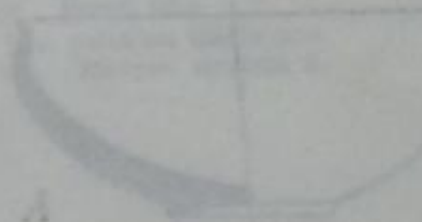
N.B.—The diameters of the pots are measured at the rim, or, where this is lacking, at the base, unless otherwise stated.

FIGURE 5.

Bowls with burnished red slip, probably of local manufacture. Scale $\frac{1}{2}$.

N.B.—All are of rather coarse grey ware, and made without the use of a potter's wheel.

- (a) Bowl, part lacking. Diam. 31.5 cm. Brick-red slip inside and out with traces of horizontal burnish. Mosque, stratum 8.
- (b) Rim sherd of bowl. Red slip, burnished. Diam. 32 cm. Mosque, stratum 8.
- (c) Rim sherd of bowl. Red slip, burnished, with high gloss and a sort of crackle. Diam. 32 cm. Test Pit AA, stratum 5.
- (d) Rim sherd of bowl, brick red slip inside and out, traces horizontal burnishing. Diam. 48 cm. Test Pit AA, stratum 6.
- (e) Rim sherd of bowl, dark brick red slip, horizontal burnish within. Diam. 22 cm. Outside mosque, stratum Y. 4.
- (f) Rim sherd of bowl of different character from those described above. Diam. 30 cm. Orange slip, unburnished. Mosque, stratum 3.
- (g) Rim sherd of bowl, strongly inturned. Bright red slip with horizontal burnishing. Black ? graphitic paint on rim, also burnished. Diam. 31 cm. Test Pit AA, stratum 8.
- (h) Rim sherd of bowl. Red slip with horizontal burnishing. Diam. 37 cm. Test Pit AA, stratum 9.
- (i) Rim sherd of open bowl, with flat top. Partly painted in red internally; exterior wet-smoothed with a wisp of grass or similar substance. Diam. 26 cm. Mosque, stratum 2.
- (j) Rim sherd of open bowl, buff slip within, partly painted in dark red paint, subsequently burnished; design apparently cruciform. Exterior rough. Diam. 18 cm. Latrine, below 40 cm.



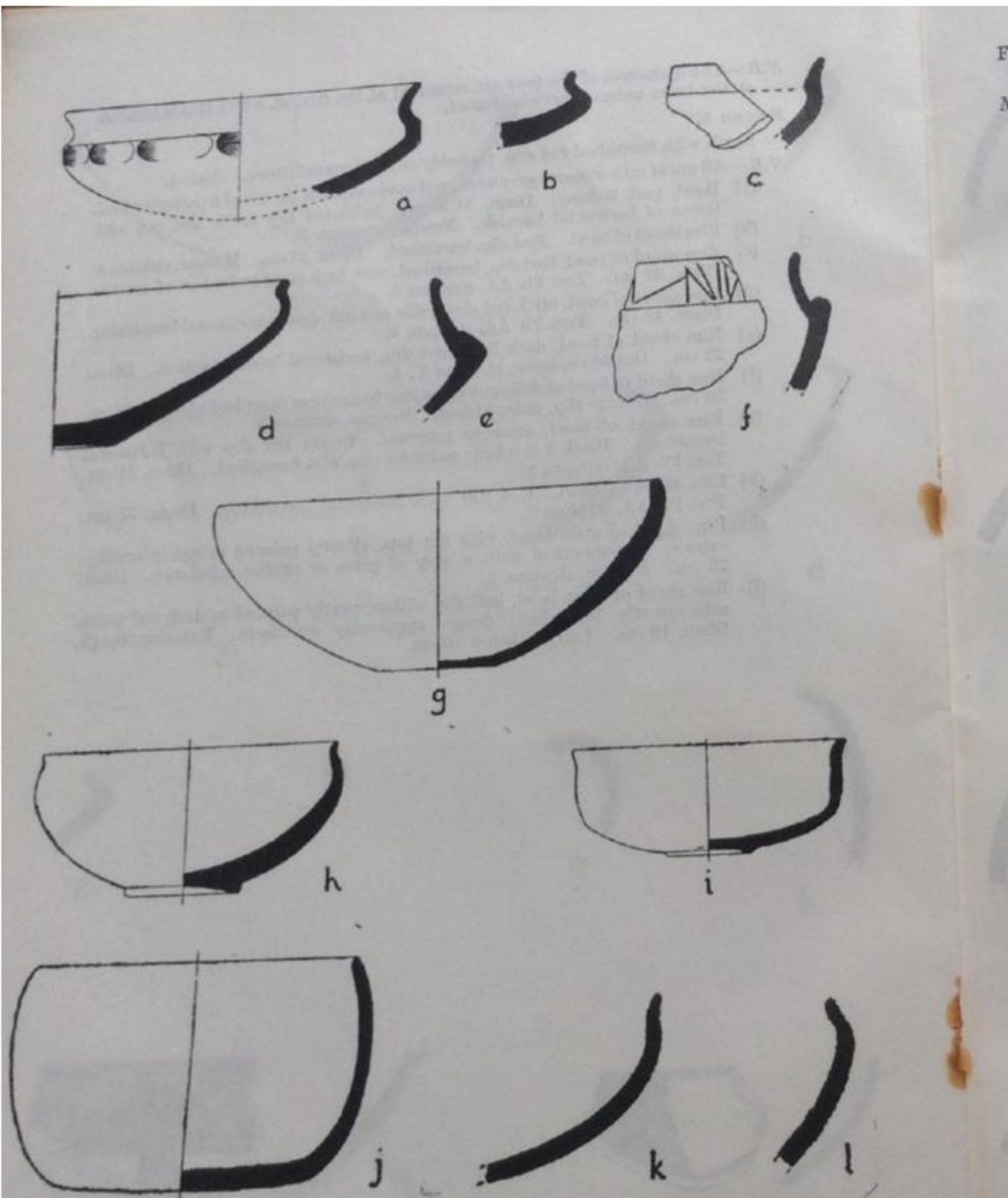


Fig. 6. Carinated cooking-pots and miscellaneous bowls.

FIGURE 6.

Carinated cooking-pots and miscellaneous bowls of local manufacture. Scale 1/3.

N.B.—All pots are made without the use of the potter's wheel.

- (a) Rim sherd of carinated bowl, probably a cooking pot. Dark grey body, wet-smoothed. Shoulder decorated with slightly raised knobs; traces of red paint on inside of rim. Diam. 20 cm. Mosque, stratum 4.
- (b) Rim sherd of carinated bowl; ware as (a) above but without decoration. Diam. 24 cm. Mosque, stratum 4.
- (c) Rim sherd of bowl; ware as (a) above. Red paint on rim inside and outside. Diam. 24 cm. Mosque, stratum 5.
- (d) One half of an open bowl. Coarse grey body shading to red, with large and plentiful grits and ground-up fragments of pottery as levigation. Body wet-smoothed; traces of paint on interior of rim. Diam. 26 cm. Beach find.
- (e) Rim sherd of carinated bowl; ware as (a), but without paint. Diam. 27 cm. Mosque, stratum 9.
- (f) Rim sherd of carinated bowl; ware as (a) above. Scored design on outside of rim and white slip or paint on in- and outside of same. Diam. 35 cm. Mosque, stratum 9.
- (g) Fragment of bowl. Grey body with buff slip, red paint on interior of rim. Diam. 24 cm. Big well, upper fill.
- (h) Bowl, nearly complete. Coarse black body with some quartz grits. Slightly raised base. Traces red paint on the interior and exterior of rim. Diam. 16 cm. Beach find.
- (i) One half of small bowl. Grey body with white grits. Slightly raised base, traces orange slip within, outside wet-smoothed. Diam. 14 cm. Beach find.
- (j) Jar with flat base and nearly vertical sides. Grey body with red slip inside and out, horizontally burnished. In places the slip has fired to a dark grey colour. Diam. 16 cm. Found protruding from cliff about 10 cm. above the base of the occupation deposit.
- (k) Bowl, part lacking. Grey body with red paint or slip on interior and on exterior of rim. Horizontal burnish. Diam. 22 cm. Beach find.
- (l) Rim sherd of bowl. Grey body wet-smoothed. Red paint on inside and outside of rim, now blackened by fire. Diam. 22 cm. Mosque, stratum 5.

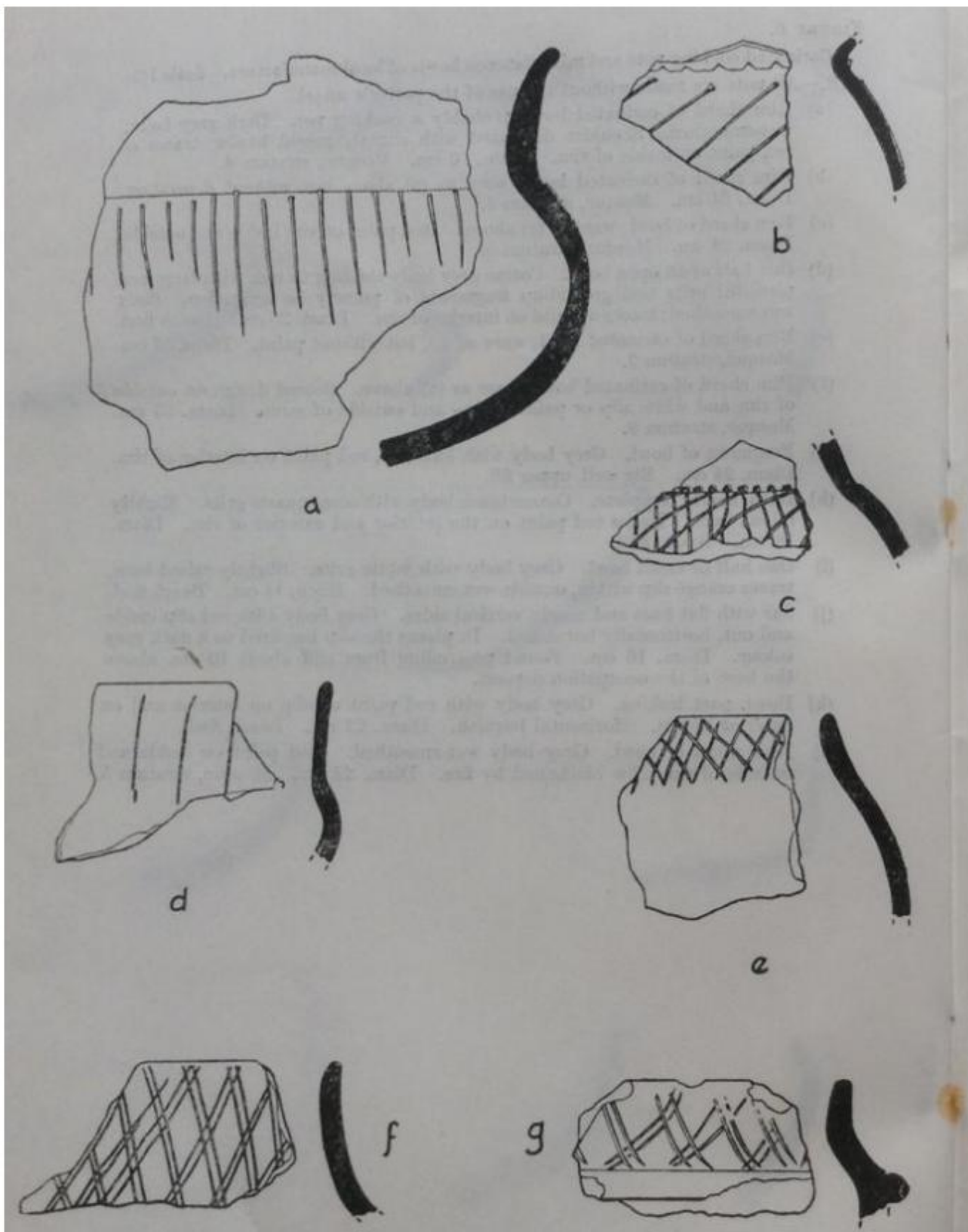


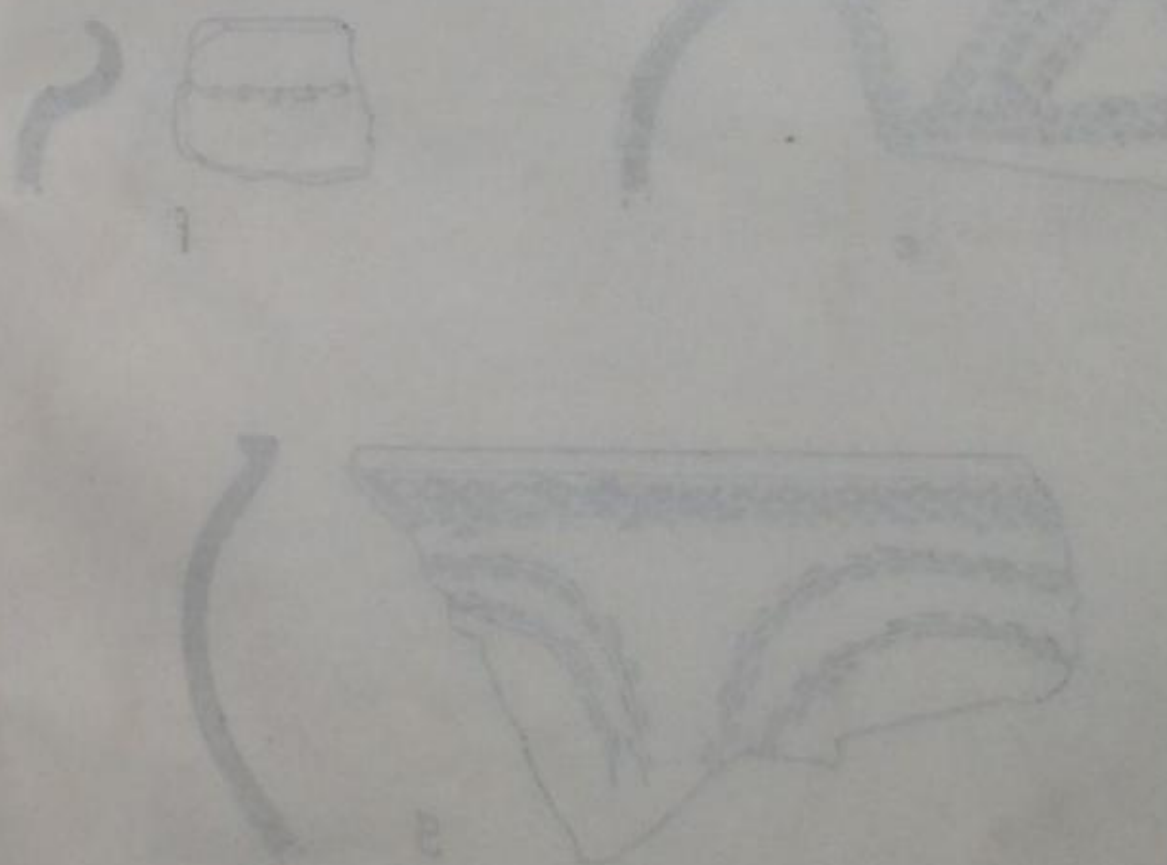
Fig. 7. Miscellaneous pottery of local manufacture.

FIGURE 7.

Miscellaneous pots of local manufacture. Scale $\frac{1}{2}$.

N.B.—All pots are made without the use of the potter's wheel.

- (a) Fragment of cooking pot. Grey body with traces of orange paint on upper part outside. Shoulder decorated with vertical raised weals. Diam. 30 cm. Beach find.
- (b) Fragment of pot; grey ware, wet-smoothed. Shoulder decorated with raised diagonal weals, and small tooth-like projections above. Diam. 22 cm. Mosque, stratum 2.
- (c) Fragment of pot; red ware, wet-smoothed. Shoulder decorated with vertical and diagonal scored lines and a line of impressed recesses above. Diam. 30 cm. Mosque, stratum 2.
- (d) Rim of pot. Grey body burnt to buff outside (with buff slip). Decorated with vertical scored lines. Diam. 23 cm. Mosque, stratum 9.
- (e) Rim sherd of pot. Red body, wet-smoothed. Rim decorated externally with criss-cross pattern of scored lines. Diam. 20 cm. Test Pit AA, stratum 4.
- (f) Rim of pot. Grey body shading to buff, wet-smoothed. Decorated with criss-cross pattern of scored lines. Diam. 30 cm. Mosque, stratum 9.
- (g) Rim of pot. Grey body with white grits; red slip. Rim decorated externally with criss-cross pattern of scored lines. Diam. 27 cm. Test Pit AA, stratum 4.



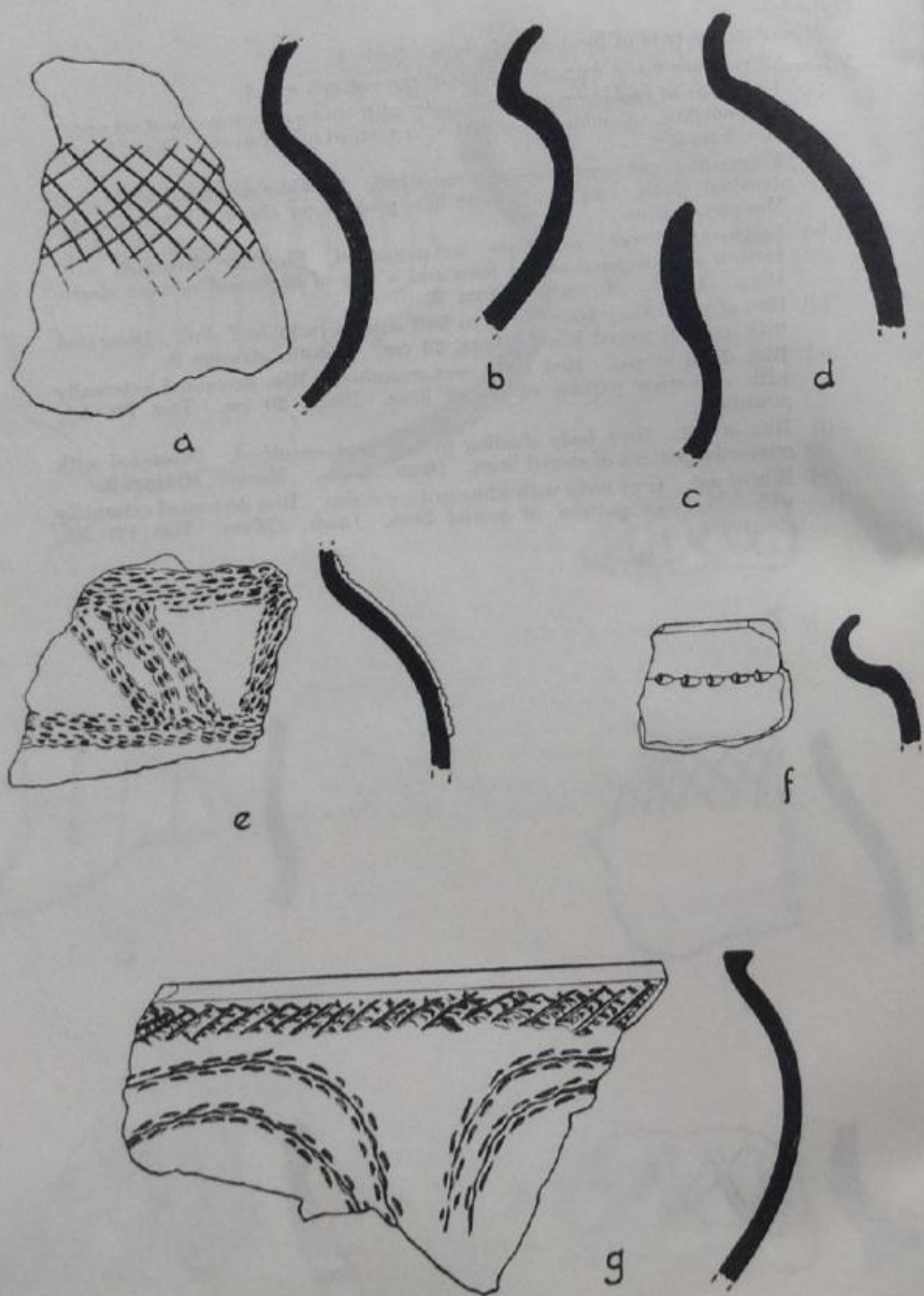


Fig. 8. Miscellaneous pottery of local manufacture.

FIGURE 8.

Miscellaneous vessels, chiefly jars, of local manufacture. Scale $\frac{1}{2}$.

N.B.—All pots are made without the use of the potter's wheel.

- (a) Fragment of jar. Reddish-grey ware, decorated criss-cross pattern scored lines. Rim painted inside and out in red. Diam. at upper edge 18 cm. Big well, upper fill.
- (b) Rim sherd of jar. Grey body with straw levigation, wet-smoothed; no decoration. Diam. 16 cm. Mosque, stratum 3.
- (c) Rim sherd of pot with upper part noticeably thickened. Grey body with straw levigation, wet-smoothed; no decoration. Diam. 16 cm. Mosque, stratum 7.
- (d) Rim sherd of jar. Buff body with levigation of ground-up pottery and straw (?). Exterior of rim painted orange-red. Diam. 16 cm. Test Pit AA, stratum 3.
- (e) Fragment of jar. Grey body with white grits shading to reddish-buff. Decorated with wide raised bands on which indentations have been made with a pointed instrument. Diam. uncertain. Mosque, stratum 1. Probably post-16th century.
- (f) Rim sherd of cooking pot (?). Reddish body, wet-smoothed, blackened on exterior. Decorated with indentations along shoulder. Diam. 20 cm. Mosque, stratum 4.
- (g) Rim fragment of bowl. Reddish grey body, thin for size of pot, wet-smoothed. Decorated with incised pattern made with sharp instrument. Diam. 30 cm. Mosque, stratum 1-2. Probably post-16th century.

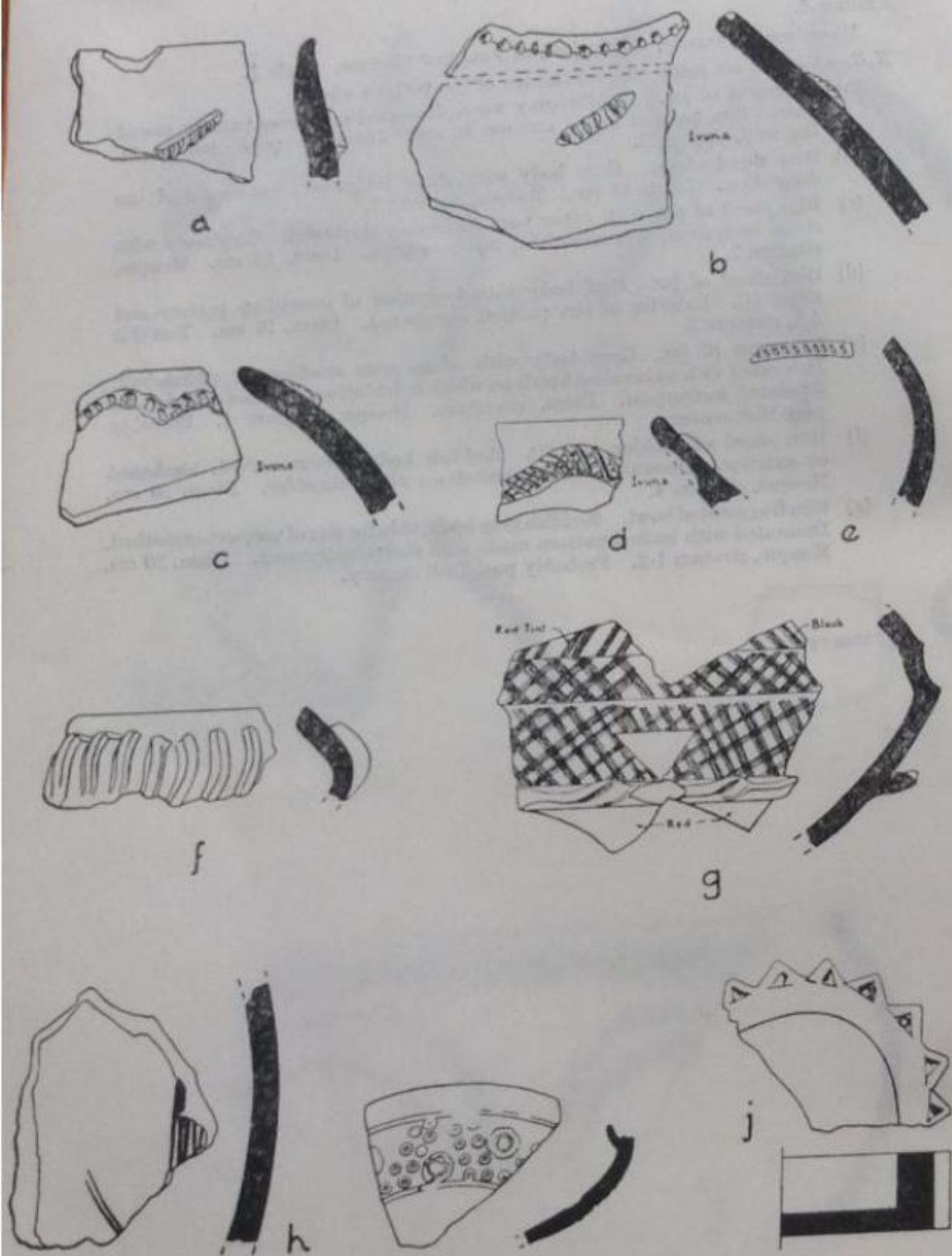


Fig. 9. Miscellaneous pottery of local manufacture.

FIGURE 9.

Fragments of miscellaneous vessels. Scale $\frac{1}{2}$.

N.B.—All pots are made without the use of the potter's wheel.

(a) Rim sherd. Reddish-buff body with small black and white grits. Wet-smoothed internally with buff slip (?) on outside, decorated with appliqué band of clay on which vertical cuts are incised. Diam. about 22 cm. Mosque, stratum 5.

(b) Rim sherd of hole-mouthed pot. Grey body with large white and brown grits, shading to buff on exterior. Wet-smoothed outside and upper part of rim; lower part of interior left rough. Upper part of rim decorated with deep indentations; below rim an appliqué band of clay with incised cuts. Diam. 18 cm. FROM IVUNA SALT PANS, stratum 6.

N.B.—The elevation as drawn shows at top the upper part of rim and below the lower part of the side of the vessel viewed upright.

(c) Rim sherd of hole-mouthed jar. Grey body shading to reddish-buff, containing a few specks of mica-like substance; wet-smoothed. Decorated with a serpentine appliqué band of clay with indentations thereon. Diam. 24 cm. FROM IVUNA SALT PANS, stratum 8.

(d) Rim sherd of hole-mouthed jar. Grey body with white grits, shading to dark brown. Decorated with serpentine appliqué band of clay with incised decoration thereon. Diam. 20 cm. FROM IVUNA SALT PANS, stratum 4.

(e) Rim sherd of deep bowl. Grey body shading to buff; wet-smoothed. Top of rim decorated with small incisions. Diam. 25 cm. Mosque, stratum 10.

(f) Rim sherd of small bowl. Grey body shading to buff, wet-smoothed and decorated with raised appliqué vertical bands of clay. Faint traces red paint. Diam. 12 cm. Outside mosque, stratum W.3.

(g) Body sherd of ? bottle-shaped vessel. Reddish-grey body with some white grits and many small air or seed holes; wet-smoothed. Decorated with an indented ridge and with diagonal lines of red and black paint (red in one direction and black in the other). The part below the ridge is painted red. Diam. at widest point 17 cm. Mosque, stratum 1. Post-16th century.

N.B.—It is uncertain which way up this fragment should be depicted.

(h) Body sherd of shallow bowl (?). Grey body shading to reddish, colour with red slip inside and out, but burnished on inside only. Part of a design in lustrous black graphitic paint is visible. Diam. uncertain. Beach find.*

(i) Body sherd of vessel of uncertain form. Reddish-buff body with flecks of mica-like substance, wet-smoothed on inside, buff slip on outside. Decorated with a band of impressed but raised circles. Maximum diam. 12 cm. Mosque, stratum 4.

(j) Fragment of a lamp. Grey body shading to buff, wet-smoothed; interior of vessel blackened by fire. Decorated with angular projections on exterior, the tops of each of which are ornamented with an impressed triangle, one of the projections being pierced vertically. Diam. 10 cm. Latrine, below 40 cm. A similar vessel has since been found in the fill, probably 15th century, of a stone-built house at Kaole, near Bagamoyo, and another in an early 16th century context at Kilwa.

*Many bowls of this ware have since been found in a 15th century context at Kilwa.

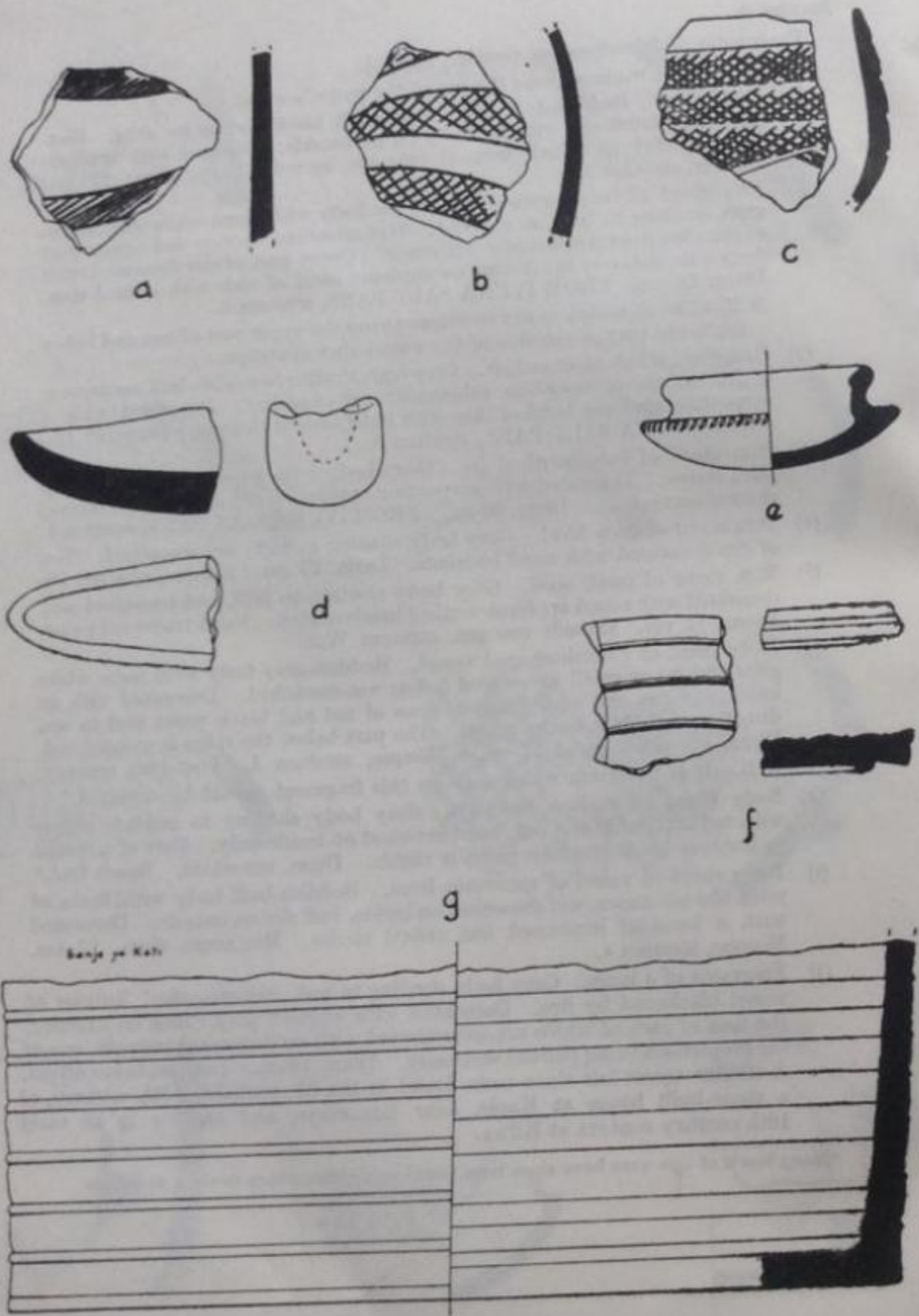


Fig. 10. Miscellaneous pottery of local manufacture.

FIGURE 10.

Miscellaneous body fragments of vessels of local manufacture. Scale $\frac{1}{2}$.

- (a) Fragment of vessel of uncertain form. Buff body, wet-smoothed outside, decorated with bands of incised diagonal lines, the space between being painted red and burnished. Length of fragment 6.5 cm. Outside mosque, stratum B 2.
- (b) Body fragment of vessel of uncertain form. Body grey within and reddish-buff without; red slip on outside. Decorated with bands of incised criss-cross hatching; traces of white infilling in incisions. Length of fragment 6.5 cm. Mosque, stratum 2.
- (c) Rim sherd of small pot. Dark grey ware with mica-like flecks, wet-smoothed. Decorated with bands of incised criss-cross hatching. Diam. 16 cm. Mosque, stratum 1.
- (d) Spout of lamp, dark grey body with cream slip blackened by fire at point of spout. No decoration. Length 7 cm. Outside mosque, stratum B 2.
- (e) Fragment of lamp. Red body with cream slip, decorated with oblique incision on projecting ridge. Diam. 8 cm. Mosque, stratum 3.
- (f) Fragment of the lid of a vessel (?). Steatite, apparently turned on a lathe. The upper face is slightly ridged, and two lines are incised along the outer edge of the lid; the lower side is plain except for a ridge which it is presumed fitted inside the rim of the vessel to which the lid belonged. Diam. c. 40 cm. Mosque, stratum 1.
- (g) Fragment of side and base of a stone vessel. Steatite, apparently turned on a lathe. The outside is ornamented with equally-spaced ridges; small irregular grooves on the inside are probably due simply to the method of manufacture. The surviving part of the bottom of the vessel is smooth both inside and out. Diam. at base 26 cm. FROM SANJE YA KATI (Kilwa), and illustrated for comparative purposes.

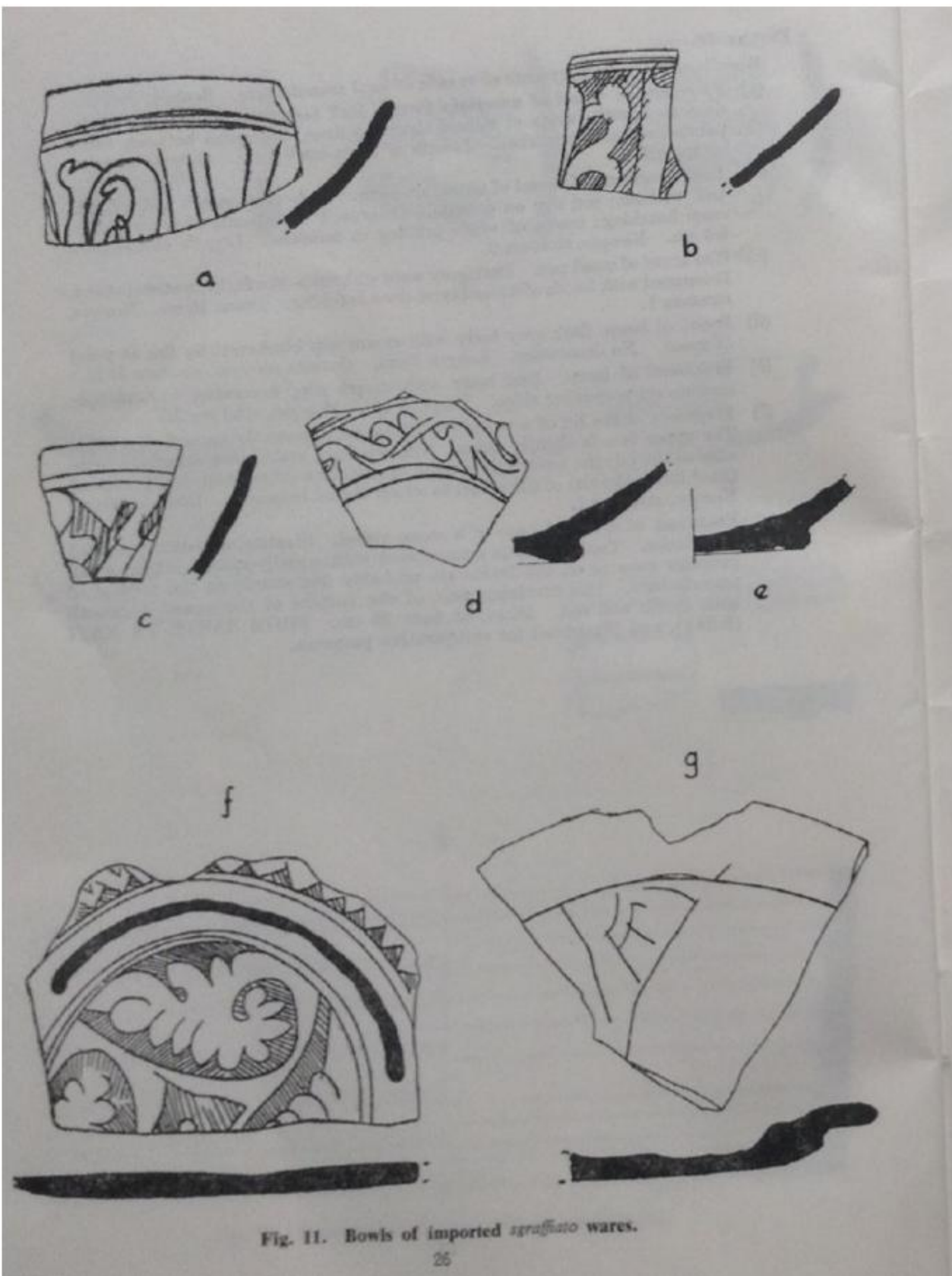


Fig. II. Bowls of imported *agraffato* wares.

FIGURE 11.

Bowls of imported *sgraffiato* wares. Scale $\frac{1}{2}$.

All the fragments are of a close-grained, red-bodied ware, with a white slip, through which a pattern is incised. The coloured glaze which for the most part obscures the slip covers the whole of the interior, but only the upper part of the exterior, of these bowls; it is, of course, thicker over the incised lines of the design.

- (a) Rim sherd of bowl. Glaze grass-green on outside, shading to yellow-green on the inside. Diam. c. 30. Beach find.
- (b) Rim fragment of bowl, yellow glaze shading to green. Diam. about 24 cm. Beach find.
- (c) Rim sherd of bowl, green glaze shaded to yellow-green (thin and almost pure yellow on the outside owing to the underlying slip). Diam. 22 cm. Mosque, stratum 9.
- (d) Sherd from base of bowl. Green glaze shading to yellow-brown. Diam. of base c. 8 cm. Beach find.
- (e) Fragment of base of bowl. Traces of green glaze shading to yellow, but no incised design visible. Diam. 8 cm. Mosque, stratum 9.
- (f) Fragment of base of a platter. Green glaze shading to yellow. Length of fragment 14 cm. Beach find.
- (g) Fragment of platter with rim. Green glaze shading to yellow and brown. Diam. about 28 cm. Beach find.

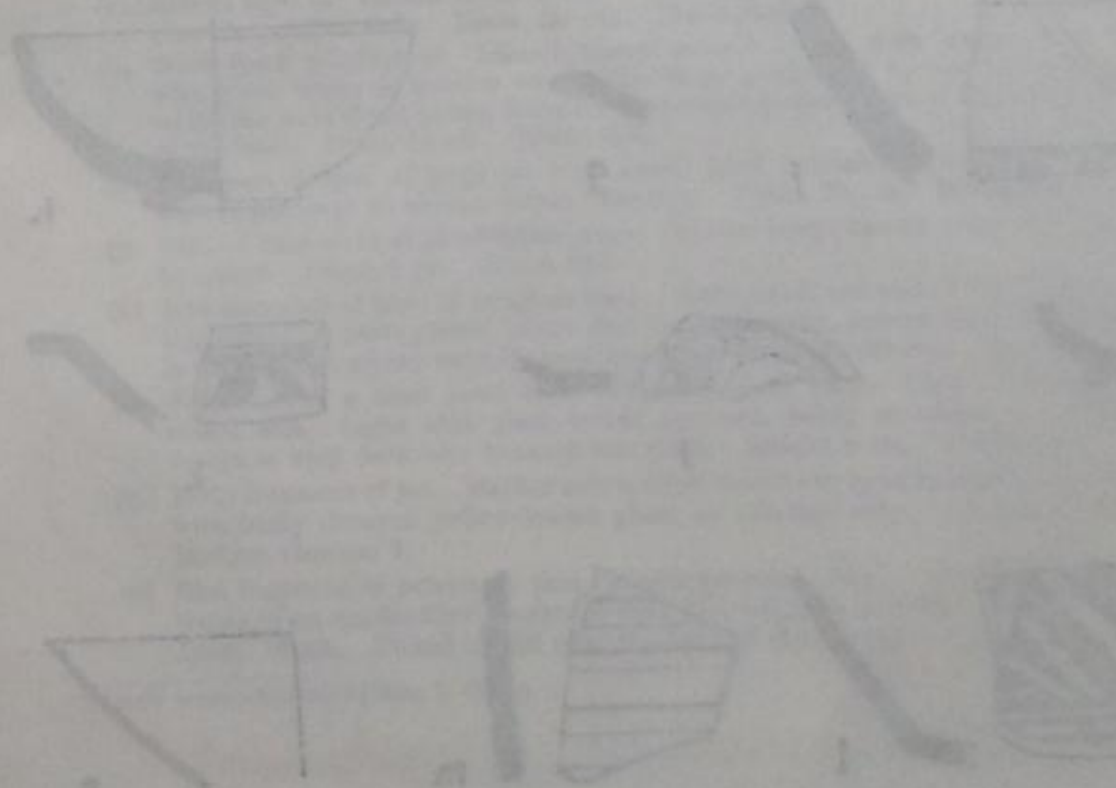




Fig. 12. Miscellaneous imported glazed ware.

FIGURE 12.

Miscellaneous fragments of imported glazed ware. Scale $\frac{1}{2}$.

- (a) Fragment of base of a bowl. Buff body of fine but soft texture. Edges very worn. Glazed on interior only, white ground with blurred light-blue spots and clearly defined dark-blue lines. Perhaps related to "Sultanabad" ware. Diam. 6 cm. Mosque, stratum 1.
- (b) Body fragment of a jar, Persian (? Rayy). Soft light cream body with appliqué design in relief. Very thick dark greenish-blue glaze which has worn off over the parts in relief. Plain, rather "spongy", dark grey glaze within. Length of fragment 11 cm. Mosque, stratum 1.
- (c) Fragment of base of bowl (?), Persian. Hard grey-white body of a stone-like texture. Under-glaze design in blue-grey (probably originally dark blue). Surface glaze, which was probably light blue, almost completely vanished. Diam. of base 10 cm. Beach find.
- (d) Body fragment of jar (?). Soft light cream body. Horizontal ridges on exterior, with dark bluish-green glaze over; light-green glaze in interior. Length of fragment 7 cm. Beach find.
- (e) Body sherd of large jar (?). Body light cream, fine grained but soft. Decorated on exterior with ridges and design in relief under thick dark blue-green glaze; very dark grey glaze within. Cf. (b) above. Length of fragment 8 cm. Mosque, stratum 1.
- (f) Body fragment of large celadon jar. Body buff, rather coarse-grained for this type of ware. Glaze grey-green with slight crackle on exterior and marked crackle on interior, where the glaze is rather thinner and more grey in shade. Exterior decorated with fluting and part of a curvilinear design. Length 8 cm. Beach find.
- (g) Rim of bowl of "Islamic monochrome" ware. Buff body with bluish-green glaze on interior only. Diam. 26 cm. Beach find.
- (h) Bowl (part missing) of "Islamic monochrome" ware. Soft cream body with green glaze on interior only. The three marks left by the spurs on which the bowl stood during firing are prominent in the centre of the interior of the base. Diam. 15 cm. Beach find.
- (i) Fragment of base of large jar (?). Fairly hard reddish-buff body. Thin white glaze over all except within base-ring. Diam. 20 cm. Beach find.
- (j) Part of base of bowl of *sgraffiato* ware. Brown body, brown glaze shading to cream. Diam. 8 cm. Beach find.
- (k) Rim fragment of bowl of *sgraffiato* ware. Body brick-red and of fine texture. Scraped-away parts glazed brown and the rest cream, except the rim which is dark brown-green; exterior unglazed. Diam. about 30 cm. Beach find.
- (l) Fragment of a deep bowl with carination near base. Light buff body, rather soft. Light blue glaze inside and out, being ornamented with a design in very dark blue beneath the glaze. Height 9 cm. Beach find.*
- (m) Body fragment of jar. Rather soft reddish-buff body heavily ribbed outside, with badly decayed yellow-brown glaze on exterior only. Length 7.5 cm. Mosque, stratum 2.
- (n) Rim fragment of extremely thin Chinese porcelain bowl. White body with traces of an unidentified design in very low relief on interior. White glaze. Diam. 18 cm. Found in cliff near the base of the deposit.

*Kindly made available by Mrs. E. Organ.

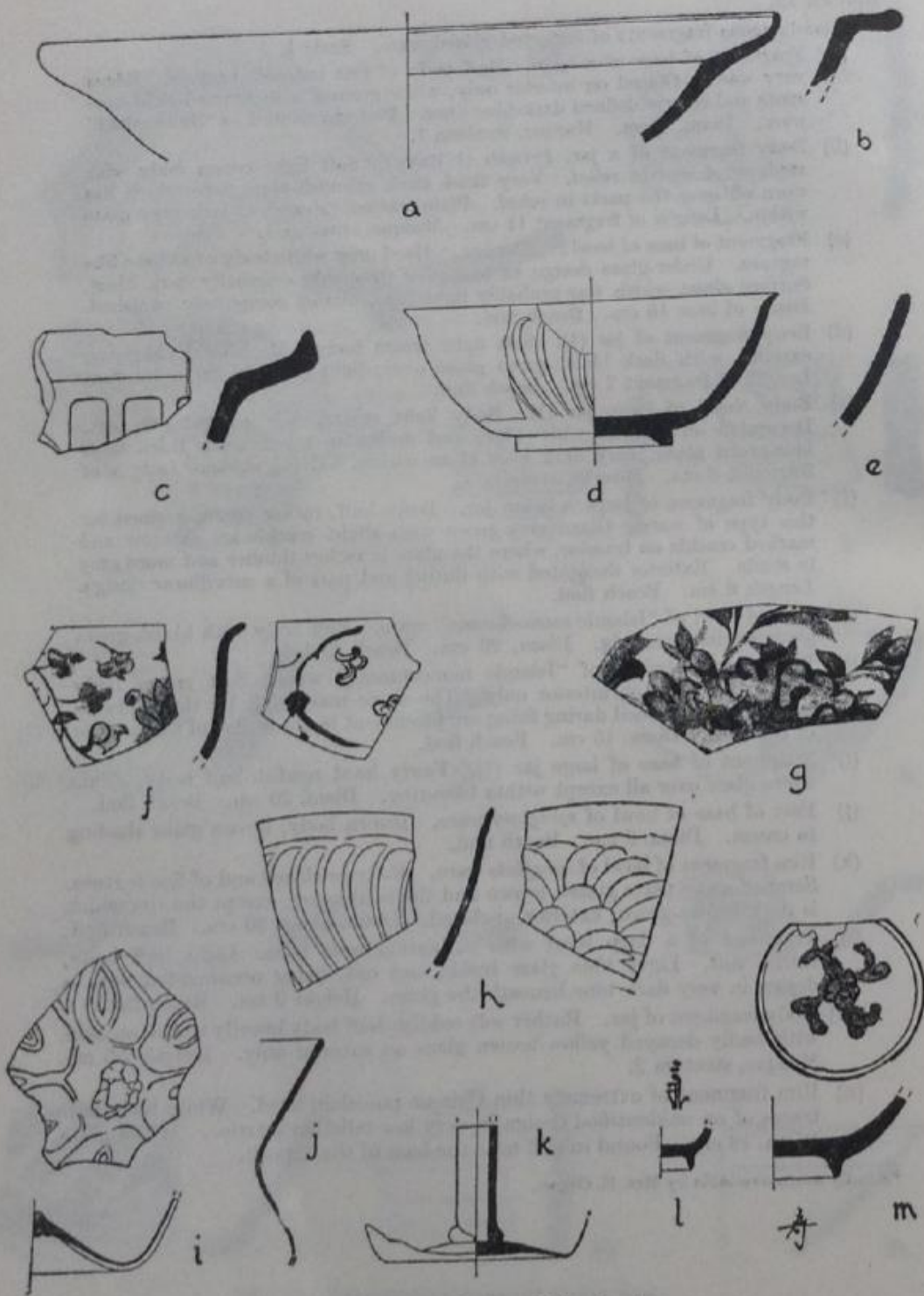


Fig. 13. Chinese porcelain and Islamic glass.

FIGURE 13.

Chinese porcelain and Islamic glass. Scale $\frac{1}{2}$.

- (a) Rim fragment of celadon bowl, light grey-buff body; glaze grey with greenish tinge; no crackle. Diam. 24 cm. Beach find.
- (b) Rim fragment of celadon bowl. Body light grey, glaze light green (greyish due to body showing through); slight crackle. Diam. c. 18 cm. Mosque, stratum 2.
- (c) Rim fragment of bowl, fluted internally. Body light grey, translucent light green glaze. Diam. c. 13 cm. Mosque, stratum 2.
- (d) Fragment of bowl. Very light grey paste, light greenish-blue glaze. Exterior decorated with curving incised fluting rather coarsely executed. Glaze does not quite extend to base ring on outside. Diam. 12 cm. Test pit AA, stratum 6.
- (e) Rim fragment of celadon bowl. Grey body, semi-translucent olive-green glaze. Diam. 16 cm. Mosque, stratum 2.
- (f) Rim fragment of blue-and-white bowl. White body with painted design within and without; slight outlining of design in more opaque blue on exterior. Diam. 14 cm. Bottom of Big Well.
- (g) Fragment of plate (?), blue-and-white ware; almost flat in section. Body white; design (on interior only) rather blurred; outlines slightly emphasized. Glaze has a slightly bluish tinge. Length 10 cm. Bottom of Big Well.
- (h) Rim fragment of bowl. Greenish *ch'ing-pai* glaze, crackled, over carved design. Diam. 14 cm. Beach find.
- (i) Base of bottle (?) in green glass with few bubbles, the exterior moulded in a petal design. Base diam. 6 cm. Outside mosque, stratum V 2.
- (j) Rim fragment of glass vessel. Blown glass with plentiful air bubbles. Colour peacock blue. Diam. 18 cm. Beach find.
- (k) Part of base (?) and stem of glass vessel. Transparent light-green glass almost without air bubbles. The stem is hollow and has been drawn out with a twisting motion. Height 4 cm. Outside mosque, stratum V 3.
- (l) Base of tea cup (?) of blue-and-white ware, design on exterior too blurred to be worth illustrating. Device on middle of interior (illustrated) within a double circle. Diam. 2 cm. Test pit AA, stratum 2.
- (m) Base of bowl of blue-and-white ware. Design on interior (illustrated) has outlines emphasized in darker blue than filling. Hardly anything remains of design on exterior except device in middle of base (illustrated) and two concentric circles outside base ring. Diam. 4 cm. Beach find.

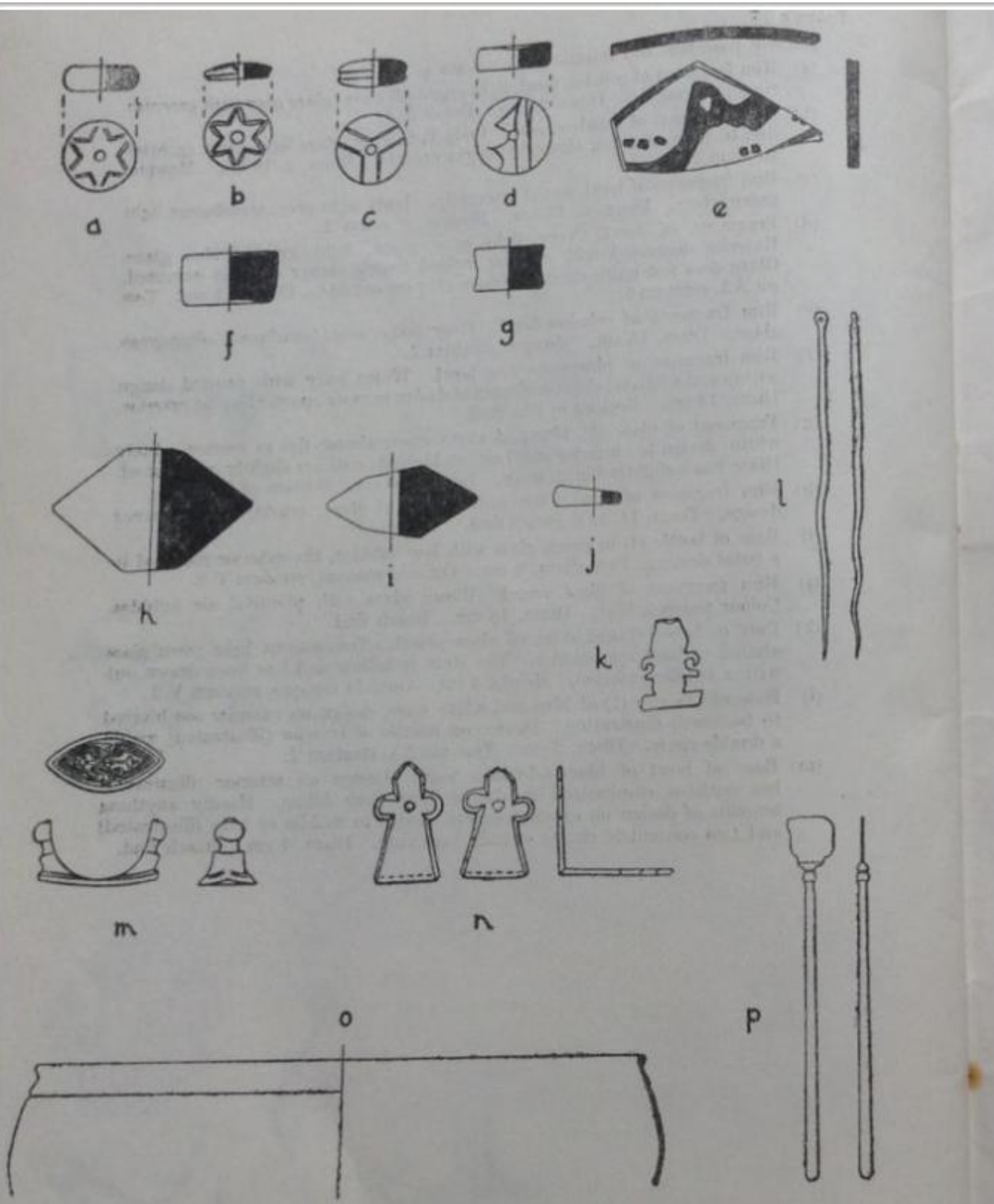


Fig. 14. Small objects of pottery, stone and metal.

FIGURE 14.

Miscellaneous objects of pottery, stone and metal. Scale $\frac{1}{2}$, except (o) which is $\frac{1}{4}$ and (e), (l) and (m) which are full size.

- (a) Spindle whorl(?) of buff-coloured terracotta. Impressed design on one face. Much worn. Diam. 2.5 cm. Mosque, stratum 2.
- (b) Spindle whorl(?) of red terracotta with impressed design on one face and very shallow grooves round the edge. Diam. 2.3 cm. Mosque, stratum 2.
- (c) Spindle whorl(?) of reddish-buff terracotta. Incised design on one face and shallow groove round edge. Diam. 2.5 cm. Mosque, stratum 2.
- (d) Spindle whorl(?) made from a rubbed-down sherd of *sgraffiato* ware. Diam. 2.7 cm. Mosque, stratum 1.
- (e) Small sherd of very fine and thin red ware with design in brown paint. The ware is precisely similar to Nabatean ware though the little that remains of the design would not seem to be typically Nabatean. Length 3.5 cm. Mosque, stratum 9.
- (f) Gaming-piece (?). Dark grey terracotta. No decoration. Diam. 3.5 cm. Beach find.
- (g) Gaming-piece (?). Orange-buff terracotta. No decoration. Diam. 2.5 cm. Big Well.
- (h) Biconical object of white calcite pierced along its shorter axis, possibly a very heavy bead. Diam. 7 cm. Beach find.
- (i) Biconical object as (h) above. Diam. 5 cm. From bottom of Big Well.
- (j) Bead (?) of white calcite. The piercing is well off centre. Diam. 2.3 cm. From bottom of Big Well.
- (k) Decorative fragment of copper. Quite flat in section. Length 3 cm. Thickness under 0.05 cm. Outside mosque, stratum W.3.
- (l) Needle, of copper or bronze. Length 6 cm. Trial pit AA, stratum 3.
- (m) Fragment of finger ring, billon, engraved with arabesque design. Length 2 cm. Near Small Well.
- (n) Angle-piece of copper or bronze. Probably originally fixed to a wooden box. Traces of iron nails in each of the arms. Length of longer arm 3.9 cm. Beach find.
- (o) Fragment of rim of bowl, bronze, decorated with an incised groove below rim. Diam. 30 cm. Small Well.
- (p) Kohl stick (?). Flat ornamental projection at upper end considerably damaged. Copper or bronze. Length 11.5 cm. Beach find.