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Volume 9

**Pandora Project Stage 2:
four more seasons of excavation
at the Pandora historic
shipwreck**

by Peter Gesner

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CHAPTER 6

ARTEFACT CATALOGUE

During the last four Pandora expeditions more than 1940 object record numbers were accessioned in the QM's Maritime Archaeology (MA) collection.

This chapter presents the original field numbers ascribed to objects 'on site'. Illustrations and photographs are included and the preliminary findings of basic curatorial work.

ASSIGNMENT OF OBJECT RECORDS

Stage 2 produced 1944 object records, each assigned a unique Maritime Archaeology (MA) record number on-site: in 1996, nos. MA4500-4946 were assigned; in 1997, nos. MA6200-6646; in 1998, nos. MA7600-8302; and in 1999 nos. MA8600-8932. When assigning MA numbers, generally one number was given to one object to one closely associated group of objects, although the record numbers above do not reflect the actual number of objects accessioned into the collection.

Once in the conservation laboratory, artefact investigation and conservation was carried out. If a group of artefacts was found concealed in a concretion or another artefact, the originally assigned MA number was retained but each separate item was then assigned a 'part' number. This provided unique identification reflecting the exact number of objects. Also, if a group of 'like' artefacts was recovered in close association,

they too retain the original MA number with additional part numbers. Artefacts found to be broken were given one MA number and each piece given a part number, while artefacts made up of several parts were given one MA number only.

The break in successive numbering between years 1996 and 1999 is due to other MA collection numbers being assigned to artefacts from other ships or sites in the intervening months between expeditions.

ARTEFACT CLASSIFICATION

All of the artefacts excavated from the *Pandora* have been provisionally classified by Campbell & Gesner (2000) according to their function. Artefacts excavated during Stage 2 were placed into the same functional groupings as the artefacts recovered in Stage 1. Additional sub-groups were added to further refine the type of artefacts recovered or to allow for the grouping of artefacts not previously recovered – such as gaming pieces, located under *Utensils and Accessories*, at sub-group Games. These functional groupings are specific to this collection and cannot be cross-referenced across any other Queensland Museum based database. To date, none of the artefacts recovered from the *Pandora* have been 'typed' according to widely used classification systems recognised elsewhere and awaits further development.

ARTEFACT CATALOGUE

Explanatory notes

Unless otherwise indicated, all object dimensions and weights are metric – in mm and g respectively. Spatial or locational data is indicated by X, Y, and Z coordinates within the wreck site's grid system and is given in metres and centimetres. For instance, coordinates X 37.09, Y 3.10, Z 100.66 denote an artefact's location at 37.09m along the site's X axis, 3.10m along the Y axis and 0.66m on the Z axis.

In cases where X, Y, Z coordinates are not indicated, grid number is mostly provided; alternatively if an item was recovered from a spoil heap, the spoil heap's grid of origin is indicated. For instance 90Sph indicates that the item originated from grid 90 and was inadvertently 'sucked up' by the

dredge before measurements to determine coordinate location could be recorded.

L - length, B - breadth, W - width, D - depth, H or ht - height, C - circumference, cap - capacity, dia - diameter, o/a - overall, i/dia - internal diameter, e/dia - external diameter, th - thickness, wt - weight, Sph - spoil heap.

All drawings by Vivienne Moran unless otherwise indicated.

THE SHIP

COPPER ALLOY FASTENINGS

Sheathing tacks

Sheathing tacks from the *Pandora* all have a flat, countersunk head and a square shank that tapers to a pointed end. Lengths range between 29–64 (mm) (1 $\frac{1}{8}$ "–2 $\frac{3}{8}$ ") (Campbell & Gesner 2000: 57).

TABLE 9: Sheathing tacks

MA	Description	Dimensions (mm)	Grid
4540	Sheathing tack, concreted, flat, countersunk head, the square shank tapers to a sharp point	L 45, head dia 16	89 Sph
4635/2	Wood fragment with 3 copper sheathing tacks <i>in-situ</i>		92
4635/3	'Thumb tacks' x 3, rounded head, combined weight of 1g	W 19 x B 10	92
4649	Sheathing tack, concreted	L 40	89
4707	Sheathing tack, flat, countersunk head, square shank tapers to a sharp point.	L 27, head dia 9	87
4778	Sheathing tack, concreted	L 48, head dia 16	87
4867	Sheathing tack, concreted	19 x 16	89 Sph
4888	Sheathing tacks, concreted, x 3		89 Sph
4931	Sheathing tack, extracted from concretion MA4901	L 35	89 Sph
4937/8	Copper alloy tack, fragment	9 x 10	89 Sph
7636/1	Sheathing tack, corroded.	L 33	89 Sph
7636/2	Sheathing tack	L 31	91 Sph
7659/2	'Thumb tacks' x 3 (see MA4635/3)	L19, head dia 10	89
8118	Sheathing tack	L 38	107 Sph
8243	Wood fragment, with a copper sheathing tack		Sph

TABLE 10: Copper bolts, clench rings

MA	Description	Dimensions (mm)	Grid
4624	Clench ring	e/dia 44, i/dia 31	87
4942	Clench ring	e/dia. 21	89Sph
7659/1	Clench ring	dia 66	
7823	Clench ring; Cf. MA7809		92
8268/1	Clench bolt with associated clench ring,	L 765, head dia 35	185
8760/1	Sheathing tack, flat, countersunk head, square shank tapers to a sharp point.	L 27, head dia 9	87
8760/2	Clench ring- associated with composite artefact (wood fragment and button?)		109
8840	Clench ring	e/dia 46, i/dia 26	Sph
8661	Sheathing tacks, concreted, x 3		89 Sph
	Bolt, cylindrical, threaded, stamped '2' or '8'	L 136, head dia 29	109

TABLE 11: Unidentified copper alloy fastenings

MA	Description	Dimensions (mm)	Grid
7660	Fastening- unidentified, square shank, round threaded tip	L 35	91
7795	Ring fastening – unidentified, disc with three prongs projecting from the surface	Rim D 3, prong L 2	92
8857/15	Copper alloy band, riveted circular with 3 rivets	dia 53	88/ 109

TABLE 12: Iron fastenings

MA	Description	Dimensions (mm)	Grid
4731	Bolt		87
4901/2	Bolt concretion (silastic cast), destructive analysis	RL 270 x 50	89Sph
6632	Bolt concretion, destructive analysis, de-accessioned		
6637	Bolt, concretion, destructive analysis, de-accessioned		90 Sph
7614	Bolt concretion (silastic cast)	L 146	90 Sph
7620	Bolt concretion	L 100, dia 18	72
7637	Bolt fragment	L 190	91
7692/1	Bolt, concretion		91
7692/2	Bolt, (silastic cast)	L 320, dia 18	91
7785	Bolt, concretion, destructive analysis, de-accessioned		
7936/1	Bolt, concretion, destructive analysis, de-accessioned		
8029	Bolt concretions, x2 (silastic casts) corroded	1) L 82 x W 36 ; 2) L 340 x dia 18	
8081/1	Bolt fragment, (silastic cast)	L 370 x 60	166
8081/2	Bolt fragment (silastic cast), unidentified concretion		
8130	Bolt, iron, concretion		91
8260	Bolt fragment, concretion (silastic cast), clench ring insitu	L 370, o/a cast L 152	166
8261	Silastic cast (bolt fragment)	557 x 40	185
8299/49	Silastic cast of bolt and keeper plate; extracted from concretion MA8299/1-49	360 x 185;	91
8561/1-2	Silica cast (bolt fragment)		163
8631/1	Silastic cast of a concreted ring bolt with remains of a washer; missing clench ring		90
8633/1	Bolt (silica cast only)	L 565	107
8650	Wood fragments; silastic cast (bolt) Part 1- wood; Part 2 - silastic cast	1) 113 x 92 x 40; 2) 210 x 33;	

TABLE 12: Iron fastenings cont.d.

MA	Description	Dimensions (mm)	Grid
8698	Silastic cast; undetermined object, minimal iron remaining	L 195, dia 18,	203
8715/2	Silastic cast (ring bolt); Ring bolt fragments x 2	L 297	
8768/1	Silastic cast (bolt?) Part 1: silastic cast Part 2: iron concretion	1) 129 x 21; 2) 54 x 31 x 9	109
8845/1-2	Silastic cast (bolt, with a clench ring) with attached un-identified wood fragments of various shapes and sizes x 9	1) 378 x 30; 2) 82 x 16	109

TABLE 13: Iron nails

MA	Description	Dimensions (mm)	Grid
8575	Flat headed nail;	L 45	107
8500	Square iron nail; silastic cast, concretion destructively analysed and de-accessioned		109
8657	Four nail fragments		203

TABLE 14: Unidentified iron concretions

MA	Description	Dimensions (mm)	Grid
7647/1	Concreted fragment		91
7647/2	Concreted fragment		91
7647/3	Concreted fragment		91Sph
8299/15	Wood and iron composite fragment	L 250, B 70	93Sph
8299/16	Iron pin fragment; found near a keeper plate of a barrel saddle, associated with MA8299/1-49	L 70	93Sph
8521/1	Silastic cast, unidentified object		144
8538	Silastic cast, unidentified object		144Sph
8699	Silastic cast, un-id object		203
8700/1	Concretion		204
8715/1	Silastic cast (concretion)		109
8731/3	Un-identified iron object; conical shape; I of 5 components (MA8731/1-5)		Sph
8772	Silastic cast; unidentified fastening		Sph
8773	Silastic cast; unidentified concretion		Sph

RIGGING**TABLE 15: Blocks, cokes and pulleys**

MA	Description	Dimensions (mm)	Grid
6201	Block, single sheave, cheeks in degraded condition and solidly concreted together into one with the sheave		88
6289	Copper alloy coak, plate type, with 3 rivet holes	e/dia 57, i/dia 27, dia holes	88
6515	Block component, heavily degraded, square cheeks with rounded corners, off centre circular hole.		90
6608/2	Copper alloy coaks x 2, (Figure 38), extracted from the concreted pulley sheave (MA6608/1), plate type with three rivet holes and indistinct numbers/letters stamped into the surface (see MA8618/2)	1) e/dia 53, i/dia 19 2) e/dia 57, i/dia 20	90
7835/1	Pulley block, composite concretion, (Figure 39)	48 x 5	183
7835/2	Pulley block, composite concretion	47 x 5	183
7974/3	Bushing, block component		166
7974/4	Pulley sheave, block component	e/dia 110	166
8618/2	Coak, copper alloy, stamped with manufacturer's initials 'I R' and number '10'	e/dia 57, i/dia 20	204

TABLE 15: Blocks, cokes and pulleys cont.d.

MA	Description	Dimensions (mm)	Grid
8193	Block, single pulley sheave	L 72, D 12, e/dia 91, shaft dia 17, pin dia 16	183
8618/3	Block component, cheek fragment with a square hole	L 119 x W 60 x D 48	204Sph
8620/2	Pulley block component, round shaft	e/dia 185	204Sph
8916	Block, fragment		Sph
8917	Block, fragment	L: 740, B 30, dia 75	Sph
7962/1	Coak, copper alloy, round plate type, 3 rivet holes, the number '8' stamped onto the surface	e/dia 49, i/dia 19	90Sph
7962/2	Coak, copper alloy, round plate type, 3 rivet holes, the number '8' stamped onto the surface ' in association with coak at MA7962/1	e/dia 47, i/dia 18	90Sph
7974/1-2	Copper alloy coaks, round plate type, with 3 rivet holes; with the initials "I" and "R" and number "10" stamped onto one surface	1) e/dia 57, i/dia 21, th. 5, wt 97g 2) e/dia 55, i/dia 21, th. 5, wt 85g	166
8028	Copper alloy coak, round plate type with 3 rivet holes	e/dia 49, i/dia 21, hole dia 5	90Sph
8226	Copper alloy coak, round plate style, with three rivet holes	e/dia 50	166
8028	Copper alloy coak, round plate type with three rivet holes	e/dia 49, i/dia 21, hole dia 5	90Sph
8226	Copper alloy coak, round plate style, with three rivet holes	e/dia 50	166
8562	Copper alloy coak, round plate type, with three rivet holes	e/dia 45, i/dia 20	163
8620/3	Coak	e/dia 48, i/dia 19	204



FIG. 38. Copper alloy coaks x 2 (MA6608/1-2).



FIG. 39. Pulley block, composite concretion (MA7835/1).

TABLE 16: Sheaves

MA	Description	Dimensions (mm)	Grid
6219/1	Wooden pulley sheaves (twin) with a square socket hole	64 x 29 x 23;	88
6219/2	Wooden pulley sheaves (twin) with a square socket	dia 28, Th. 6	88
6219/3	Pulley sheaves from a double block	dia 28, Th. 6, square socket 10 x 10	82
6427	Wooden pulley sheave	o/dia 35, hole dia 8	90
6575	Wooden pulley sheave; round (plate type) copper alloy coak, with 3 rivet holes and stamped with a numeral "8".	dia 115, Th.29	90
6608/1	Concreted pulley sheave		
6608/3	Concreted pulley sheave fragment		90
6612	Wooden pulley sheave fragment		90Sph
7827	Pulley sheave and pin, wooden, intact,	dia. 94, shaft dia 20, Th. 23. Pin length 92	183
7935	Wooden pulley sheave fragment; heavily degraded	o/dia approx 90	90Sph

TABLE 16: Sheaves cont.d.

MA	Description	Dimensions (mm)	Grid
7949	Wooden pulley sheave fragment		185
7974/1	Wooden pulley sheave; degraded condition; round plate type with 3 rivet holes. (figure 40)	dia 151, shaft dia 22, th. 28, Coak dia 56	166
8032/1-3	Pulley sheave, wooden components	L 111, B 45	166
8041/2	Pulley sheave, wooden		Sph
8507	Concreted copper alloy pulley wheel; with 3 spokes; similar to MA8618. Remnants of wooden cheeks attached		109
8529	Wooden pulley sheave	o/dia 28	109
8618/1	Copper alloy spoked pulley wheel; similar to MA8507 (figure 41)	o/dia 116, th. 30	204
8618/2	Copper alloy coak, stamped markings "I R" and number "10"	o/dia. 57	204
8618/3	block (cheek) fragment		204
8620/1	Wooden pulley sheave, degraded, coaks absent; round plate type, with 3 rivet holes	o/dia. 123, shaft, o/dia. 18	204
8632/1	Wooden pulley sheave; coak stamped with manufacturer's mark "I R"	o/dia 58, th 5.5	203
8632/3	Wooden pulley sheave; coak stamped with manufacturer's mark "I R"	o/dia 58, th. 5.5	203
8722	Wooden pulley sheave	o/dia 28	Sph
8731/4	Wooden pulley sheave fragments; I of 5 components (MA8731/1-5) extracted from a concretion found in stern area Sph	o/dia 28, B 5, hole dia 4	Sph
8812	Wooden pulley sheave	o/dia 140, th. 30	203
8910	Wooden pulley sheave	L 137, o/dia 104	



FIG. 40. Wooden pulley sheave 3 rivet holes (MA7974/1)



FIG. 41 Spoked pulley wheel, (MA8618/1).

STEERING GEAR

TABLE 17: Steering gear

MA	Description	Dimensions (mm)	Grid
6539	Disc, single sheave for a small block or roller, e.g. for the tiller sweep	dia 19, o/a L 10	90
6619	Bronze fitting (gooseneck for tiller?), 2 circular holes at either end of the base for attachment to the tiller; a square aperture on the base corresponds with a square aperture on the raised 'U' section (for a 'keeper' pin?), No discernable markings or stamps (figure 42)	L 185 x B 55 x H 80 wt 1504	90

COPPER AND LEAD SHEETING

Hull sheathing/sheeting

'Sheathing' refers to copper (Cu) alloy sheets that were attached with Cu tacks to the hull to prevent its' fouling, i.e. by barnacle encrustation. It also provided protection against marine borers, e.g. teredo worms. On the *Pandora*, 'strips' or runs of copper sheathing measured 4" x 14" and were applied up to 16" above the waterline (McKay/Coleman 1992:8)

Copper alloy 'sheets' were also used for other purposes; as were sheets of other metals (mainly lead (Pb)). One of the purposes of sheathing was to protect the ship's timbers from wear, e.g. the scuppers (Cf MA8841) were lined with lead to guard against wear due to friction caused as hawsers were being hauled or were straining while the vessel was at anchor against a current. Another prominent use of metal sheathing was to protect areas of the ship against depredations by rodents, e.g. the breadbins were lined with lead sheets.

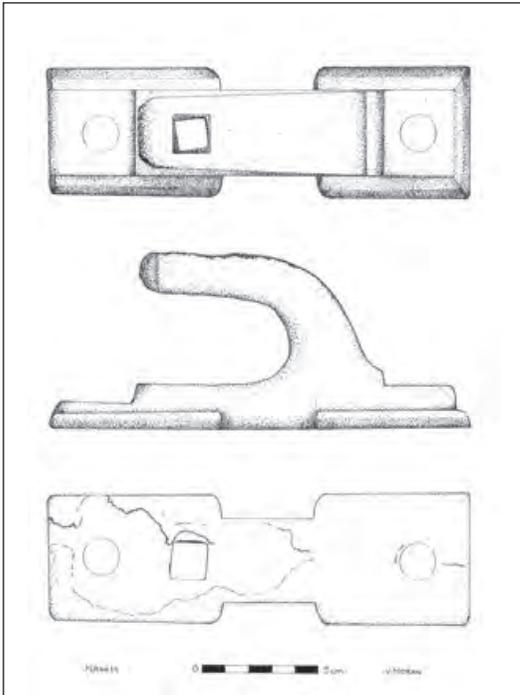


FIG. 42. Bronze fitting 'Gooseneck' (MA6619).

TABLE 18: Copper (Cu) sheathing

MA	Description	Dimensions (mm)	Grid
4542	Sheet fragment	112 x 53 x 1	89Sph
6441	Sheet fragment	54 x 33 x 6, Dia holes 2	90
6635	Sheathing fragment	558 x 355 x 1;	91
7617	Sheet fragment	84 x 51;	91
8244/1	Sheathing fragment	44 x 40 x 8	87Sph
8857/4	Sheathing fragment		87Sph

TABLE 19: Miscellaneous lead (Pb) sheathing

MA	Description	Dimensions (mm)	Grid
6428/1	Sheet fragment	25 x 16 x 1	90
6428-2	Sheet fragment	80 x 67 x 1	90
6457	Sheet fragment	80 x 38 x 1	90
6533	Sheet fragment		90
6540/1	Sheet fragment	117 x 86 x 1	90
6540/2	Sheet fragment	129 x 58 x 1	90
6528/1	Sheet fragment	57 x 55 x 1	90Sph
6528/2	Sheet fragment	67 x 26 x 1	90Sph
6528/3	Sheet fragment	38 x 34 x 1	90Sph
6528/4	Sheet fragment	28 x 26 x 1	90Sph
6528/5	Sheet fragment	25 x 16 x 1	90Sph

TABLE 19: Miscellaneous lead (Pb) sheeting cont.d

MA	Description	Dimensions (mm)	Grid
6528/6	Sheet fragment		90Sph
6591/1	Sheet fragment	100 x 50 x 1	90
6591/2	Sheet fragment	60 x 50 x 1	90
6634/1	Sheet fragment	68 x 56 x 1	90Sph
6634/2	Sheet fragment	57 x 39 x 1	90Sph
6634/3	Sheet fragment	46 x 32 x 1	90Sph
6634/4	Sheet fragment	48 x 40 x 1	90Sph
6634/5	Sheet fragment,	30 x 29 x 1	90Sph
7616	Sheet fragment	200 x 150	91
7630/1	Sheet fragment	92 x 87x 4	72
7630/2	Sheet fragment, holes around the edges	175 x 8	72Sph
7630/3	Sheet fragment	86 x 76 x 3	72Sph
7695	Sheet fragment		72Sph
7782	Sheet fragment, with tack holes	500 x 310	90Sph
7824	Sheet fragment		92
8096	Sheet fragment		91
8206	Sheet fragment	399 x 103 x 5;	Sph
8244/2	Sheet fragment	180 x 68 x 3	Sph
8244/5	Sheet fragment	118 x 26 x 4	Sph
8244/6	Sheet fragment	58 x 59 x 2	Sph
8244/7	Sheet fragment		Sph
8276/3	Sheet fragment		Sph
8285	Sheet fragment		Sph
8288/1	Sheet fragment	130 x 110	165
8288/2	Sheet fragment	130 x 85	Sph
8288/7	Sheet fragment, with tack holes	140 x 38	Sph
8615	Sheet fragment, with (x 6) tack holes	100 x 340	205
8648/1	Sheet fragment		109
8648/2	Sheet fragment		109
8648/3	Sheet fragment		109
8648/4	Sheet fragment		109
8652	Sheet fragment	L 100	206
8667	Sheet fragment; painted (?) with 3 attachment holes	115 x 40 x 6	111
8814	Sheet fragment; with tack holes	165 x 50 x 51	204
8830/1	Sheet fragment		109
8830/2	Sheet fragment		109
8830/3	Sheet fragment		109
8830/4	Sheet fragment		109
8867/1	Sheet fragment		Sph
8867/2	Sheet fragment		Sph
8867/3	Sheet fragment		Sph
8841	Scupper lining (figure 43)	560 x 170; wt 3280	206

MISCELLANEOUS PLANKING / INTERNAL PARTITIONING

TABLE 20: Miscellaneous planking / internal partitioning

MA	Description	Dimensions (mm)	Grid
6340	Dunnage; recovered from deck planking adjacent to forward starboard cabin partition		87Sph
6341/1	Cabin partitioning; deal plank; recovered from deck planking adjacent to the forward starboard cabin partition		87Sph
6341/2	Cabin partitioning; deal plank. Recovered from deck planking adjacent to forward starboard cabin partition: first lieutenant's cabin		87Sph
6530/1	Partitioning board for storage bin; recovered in association with spruce jars MA6529/1-10		90
6530/2	Partitioning board for storage bin. Recovered in association with spruce jars MA6529/1-10		90
6530/3	Partitioning board for storage bin Recovered in association with spruce jars MA6529/1-10		90
6530/4	Partitioning board for storage bin Recovered in association with spruce jars MA6529/1-10; from captain's / lieutenants' store room		90
6530/5	Partitioning board for storage bin; recovered in association with spruce jars MA6529/1-10; from officers' store room		90
6530/6	Partitioning board for storage bin; Recovered in association with spruce jars MA6529/1-10; from officers' store room		109
6530/7	Partitioning board for storage bin Recovered in association with spruce jars MA6529/1-10; from captain's / lieutenants' store room		109
6530/8	Partitioning board for storage bin Recovered in association with spruce jars MA6529/1-10; from captain's / lieutenants' store room		90
6530/9	Partitioning board for storage bin; recovered in association with spruce jars MA6529/1-10; from captain's / lieutenants' store room		90
6530/10	Partitioning board for storage bin; recovered in association with spruce jars MA6529/1-10, from captain's / lieutenants' store room		90
6530/11	Partitioning board for storage bin; recovered in association with spruce jars MA6529/1-10, from captain's / lieutenants' store room		90
6530/12	Partitioning board for storage bin; recovered in association with spruce jars MA6529/1-10; from captain's / lieutenants' store room		90
6530/13-19	Fragments of partitioning board for storage bin x 7, recovered in association with spruce jars MA6529/1-10; from captain's / lieutenants' store room		90
7738/1	Plank fragment; part of a shelf in the officers' store room		90
8114	Wood fragment; possibly deck planking, from the platform deck in the captain's store		92
8591/1-3	Wood fragments; shelving from captain's store x 3		109
8566/1-3	Deck beam fragments (lower deck, lieutenants' store) x 3		92Shp
8684/1	Platform deck plank fragment	110 x 294	109
8684/2	Platform deck plank fragment	250 x 80	109
8684/3	Platform deck plank fragment	275 x 105	109
8684/4	Platform deck plank fragment	60 x 50	109
8816/1	Platform deck planking fragment (lieutenants' store)		90Sph
8816/2	Platform deck planking fragment (lieutenants' store)		90Sph
8816/3	Platform deck planking fragment (lieutenants' store)		90Sph
8816/4	Platform deck planking fragment (lieutenants' store)		90Sph



FIG. 43. Scupper lining (MA8841).



FIG. 44. Unidentified concretion (MA7702)

MISCELLANEOUS UNIDENTIFIED WOOD AND/OR CONCRETED METAL / WOODEN FRAGMENTS

TABLE 21: Miscellaneous un-identified wood and concreted objects

MA	Description	Dimensions (mm)	Grid
4544	Unidentified wood fragments x 4		89Sph
4560	Unidentified wood fragment	60 x 20 x 6	90
4573	Unidentified wood fragments x 4		89
4574	Unidentified concretion; de-accessioned following destructive analysis		89
4575	Unidentified wood fragment	L 300	89
4603	Unidentified concretion		
4604	Unidentified iron concretion		89
4635/1	Unidentified concretion, destructively analysed, cast taken of a bolt hole		92
4653	Unidentified wood fragment	L 110	89
4656	Unidentified concretion		89Sph
4657	Unidentified wood fragment		89
4667	Fragments x 3		89Sph
4708	Fragment		89
4730	Unidentified concretion		87
4742	Unidentified wood fragments x 3 found attached to Polynesian war club MA4743		89
4803	Unidentified wood fragment		87
4836/1	Unidentified wood fragment	290 x 110 x 90	89
4878	Unidentified concretion		87
4879	Unidentified concretion		87
4880	Unidentified concretion;		89
4759	Unidentified wood fragment	L 113	89Sph
4769	Unidentified wood fragment		89
4875	Unidentified wood fragment	100 x 50 x 20	87
4922	Unidentified wood fragment	L 125	89Sph
4943	Unidentified wood fragment	dia 27	89Sph
6207	Unidentified wood fragment; with a nail hole		88Sph
6210	Unidentified concretion; wrought iron band		88
6215/2	Unidentified concretion; recovered with MA6215/1 (faceted glass bottle)		87
6260	Unidentified concretion	330 x 450	88
6327/1	Unidentified concretion fragment		90
6327/2	Unidentified concretion fragment		90
6327/3	Unidentified concretion fragment		90
6327/4	Unidentified concretion fragment		90
6364/1	Unidentified concretion fragment		90
6364/2	Unidentified concretion fragment		90

TABLE 21: Miscellaneous un-identified wood and concreted objects cont.d

MA	Description	Dimensions (mm)	Grid
6398	Unidentified concretion fragment		88
6439/1	Unidentified wood fragment		90
6439/2	Unidentified wood fragment		90
6482/1	Fragment unidentified		90Sph
6482/2	Fragment unidentified		90Sph
6527	Fragment unidentified		90
6570/2	Unidentified concretion		90
6570/3	Unidentified concretion		90
6570/4	Unidentified concretion		90
6599	Unidentified concretion	L 275	90Sph
6604/1	Unidentified wood fragment		90Sph
6604/2	Unidentified wood fragment		90Sph
6604/3	Unidentified wood fragment		90Sph
6604/4	Unidentified wood fragment		90Sph
6604/5	Unidentified wood fragment		90Sph
6604/6	Unidentified wood fragment		90Sph
6624	Unidentified wood fragment	149 x 125	90
6636	Unidentified concretion, with a wooden spike	L 140	90Sph
7602	Unidentified wood fragment		72
7612	Unidentified wood fragment	125 x 27	72
7613	Unidentified concretion	9 x 9 x 74	72
7627	Unidentified concretion		89
7631	Unidentified wood fragment	175 x 113 x 25	
7702	Unidentified concretion (figure 44)		91
7704/1-2	Unidentified concretion		91
7713	Unidentified concretion		91
7728/1	Unidentified wood fragment		Sph
7728/2	Unidentified wood fragment		Sph
7728/3	Unidentified wood fragment		Sph
7728/4	Unidentified wood fragment		90Sph
7728/5	Unidentified wood fragment		90Sph
7728/6	Unidentified wood fragment		90Sph
7728/7	Unidentified wood fragment		90Sph
7728/8	Unidentified wood fragment		90Sph
7728/9	Unidentified wood fragment		90Sph
7728/10	Unidentified wood fragment		90Sph
7742	Unidentified wood fragment		92
7783/1	Unidentified wood fragment		90Sph
7783/2	Unidentified wood fragments x 2		90Sph
7787/1	Unidentified concretions, silastic cast of cavity		90Sph
7787/2	Unidentified concretions; silastic cast of cavity		90Sph
7788/1-15	Unidentified wood fragments x 15		90Sph
7789/1-4	Unidentified wood fragments & concretions x 4		90Sph
7828	Unidentified wood fragment	78 x 62	183
7813	Unidentified concretion; band shaped		92

TABLE 21: Miscellaneous un-identified wood and concreted objects cont.d

MA	Description	Dimensions (mm)	Grid
7830	Stone fragment	65 x 29	181
7831	Unidentified concretion (silastic cast)		Sph
7834	Unidentified wood fragment		Sph
7854/1-4	Unidentified wood fragments x 4		166
7909/1-8	Unidentified wood fragments x 8		164
7924	Metal rod	L 150	90
7964	Wood & unidentified concretion		90Sph
7966	Wood/Unidentified concretion fragment		90Sph
7976	Fragment; Wood/ Unidentified concretion		187
7986	Unidentified concretion		
7955	Fragment		185
7956	Unidentified wood fragment		Sph
7957	Unidentified wood fragment		Sph
7958	Unidentified wood fragment		Sph
7965	Unidentified concretion fragment		90Sph
7967	Unidentified concretion fragment		90Sph
7969	Unidentified concretions x 2		187
7972/1-6	Unidentified wood fragments x 6		187
7990/3	Unidentified wood fragment		Sph
7997	Unidentified concretion		Sph
8014	Lead weight?		94
8027/1-2	Unidentified wood fragments x 2		
8033/2-3	Unidentified concretions; associated with a metal spoon x 2		166
8034/1-2	Unidentified wood fragments x 2		166
8037	Unidentified wood fragment	75 x 20	166
8040	Unidentified concretion		94
8042	Unidentified wood fragment		Sph
8043/1	Unidentified concretion	155 x 75	
8043/2	Unidentified concretion		
8061	Unidentified concretion		Sph
8075	Unidentified concretion		Sph
8083	Unidentified concretion	L 534 dia 2	Sph
8085/1-5	Unidentified concretions,		165
8115	Unidentified wood fragment		Sph
8132	Concreted fragment		92Sph
8135	Unidentified wood fragment		94
8154	Unidentified concretion with bolt cavity	L 300, dia 19	
8158	Unidentified concretion		92
8161	Unidentified concretion		Sph
8167/2	Unidentified fragment		
8167/3	Unidentified fragment		
8168/1-2	Unidentified fragments x 2		Sph
8169	Unidentified wood fragment; bung?		Sph
8171	Wooden beam fragment		Sph
8198	Unidentified wood fragment		Sph

TABLE 21: Miscellaneous un-identified wood and concreted objects cont.d

MA	Description	Dimensions (mm)	Grid
8199	Unidentified wood fragment		Sph
8200	Unidentified wood fragment		Sph
8201/1-2	Unidentified concretion		92Sph
8204	Unidentified wood fragment		185Sph
8207/1-2	Unidentified fragments		167
8213	Fragment		Sph
8240	Unidentified wood fragment	L 106, dia 10	183
8259	Unidentified concretion; de-accessioned following DA		166
8288/6	Unidentified concretion		Sph
8299/5	Unidentified wood fragments x 2, extracted from un-id concretion comprising 8299/1-49	1)144 x 34; 2)100 x 30	91Sph
8299/8	Unidentified wood fragments; extracted from un-id concretion comprising 8299/1-49		91Sph
8299/43-44	Unidentified concretion x 2, extracted from unidentified concretion comprising 8299/1-49		91Sph
8299/48	Unidentified wood fragment; extracted from unidentified concretion adhering to 8299		91Sph
8505	Unidentified concretion	L 410	109
8509	Unidentified concretion		107
8517	Unidentified concretion;		109
8520	Unidentified concretion		109
8521/2	Unidentified concretion		144Sph
8523/1-2	Unidentified concretions silastic cast x 2		144Sph
8539	Unidentified concretion	110 x 17	Sph
8560	Unidentified concretion		165Sph
8561/2	Unidentified wood fragment with an unidentified copper object	30 x 15	163
8564/7	Unidentified wood fragment		109
8571	Unidentified concretion		109
8580	Unidentified concretion	58 x 86	
8563	Unidentified concretion		108
8583	Unidentified concretion		144
8564/1	Unidentified concretion		109
8603	Unidentified concretion		109
8607	Unidentified wood fragment	1280 x 200	
8608	Unidentified concretion		110
8612	Unidentified concretion		Sph
8619	Unidentified concretion		206
8624	Unidentified concretion, part of a pewter plate?	225 x 80 x 184	110
8700/2	Unidentified concretion		204
8707/1-3	Unidentified fragments x 3		206
8716/1-3	Unidentified wood fragments x 3		109Sph
8718/1	Unidentified wood fragment, barrel chock?	490 x 100 x 55	109Sph
8718/2	Unidentified wood fragment, barrel chock?	550 x 125 x 25	
8741	Unidentified concretion		109
8757	Unidentified wood fragment, prism shaped	L 105, ht 50	109
8759/1	Unidentified wood fragment	15 x 32, th. 4	109

TABLE 21: Miscellaneous un-identified wood and concreted objects cont.d

MA	Description	Dimensions (mm)	Grid
8764/1-2	Unidentified wood fragments x 2		109
8767	Unidentified concretion; circular shape, found in association with unidentified concretion MA8741		109
8771	Unidentified concretion	L 220, o/dia 40,	Sph
8774/1-2	Unidentified concretion		Sph
8796/1-3	Unidentified wood fragments x 3		109
8798	Unidentified concretion	90 x 15	109
8800/2	Unidentified wood fragment	92 x 60	88Sph
8817/1-2	Unidentified wood fragments x 2		90Sph
8818/1-4	Unidentified wood fragments x 4		90Sph
8829/2	Unidentified wood fragment	L 105	Sph
8833/1-3	Unidentified wood fragments x 3		Sph
8838	Unidentified concretion, 'hook' shaped	180 x 120	208
8843/1	Unidentified concretion, composite		Sph
8843/2-7	Unidentified concretion; deconcreted into parts		Sph
8844	Unidentified concretion		Sph
8850	Unidentified concretion, silastic cast of cavity		Sph
8851	Unidentified concretion		Sph
8852	Unidentified concretion		Sph
8853	Unidentified concretion, silastic cast of cavity	L 65, dia 22	Sph
8854	Unidentified concretion		Sph
8855	Unidentified concretion; destructively analysed		Sph
8856	Unidentified concretion		Sph
8857/1-9	Unidentified concretions associated with MA8850		Sph
8857/10	Unidentified concretions associated with MA8850		
8857/11	Unidentified concretions associated with MA8850		
8857/13	Unidentified concretions associated with MA8850		
8857/14	Unidentified concretions associated with MA8850		
8858/1	Unidentified concretion		Sph
8858/2	Wrought iron circle, unidentified	dia 59	Sph
8859	Unidentified concretions associated with MA8850		Sph
8860	Unidentified concretions associated with MA8850		Sph
8861	Unidentified concretion		Sph
8881	Iron bar	360 x 70	Sph
8908	Unidentified concretion (composite); ceramic, shell, glass and metal fragments		
8924	Unidentified fragment		Sph
8928	Unidentified fragment		Sph
8930	Unidentified wood fragment		Sph
8931	Unidentified wood fragment		Sph
8634	Concretion	77 x 20	204
8648/5	Metal fragment		
8658	Unidentified concretion		206
8702	Concretion		205
8710	Wood fragment	190 x 110 x 23	205
8909	Unidentified concretion; wood fragment, earthenware sherds, cowrie shells, glass sherd		Sph

TABLE 22: Ship's pumps

MA	Description	Dimensions (mm)	Grid
6253/1	Copper alloy 'common' pump component; piston (Cf. McKay/Coleman 1992:80 E12/1). Letters "C B A" and "L A M B E T H" irregularly stamped onto the flat surface of the neck, probably denoting pump manufacturers Collins & Broughton whose works in Lambeth (a borough in London) are known to have supplied bronze pump components to the Admiralty (Coleman, 1988:203) (figure 45)		88/89
6253/2	Copper alloy pump component, Letters L A M B E T H irregularly stamped onto the flat face (figure 46)	170 x 97 x 97, wt 2581g	88
6253/3	Copper alloy split pin (from the deck pump valve) (figure 47)	55 x 60 x 53, wt 208g	88/89
6274	Copper alloy pump rack (Taylor's common pump)(cf. McKay/Coleman 1992:81) (Cf. MA6253) Letters L A M B E T H irregularly stamped onto the side face (figure 48)	515 x 50 x 33, wt 4004g	88
7784	Unidentified copper alloy bar, pump component?		90



FIG. 45a. Pump component, piston (MA6253/1).



FIG. 45b. Stamped letter detail on piston (MA6253/1).



FIG. 46. pump component (MA6253/2).



FIG. 47. Copper alloy 'split pin' (MA6253/3).



FIG. 48a. Copper alloy pump rack. (MA6274).



FIG. 48b. Letters L A M B E T H irregularly stamped onto the side face (MA6274).

SHIP'S FURNITURE & FITTINGS

Glazing & window furniture

For detailed discussion see chapter 7

TABLE 23: (Near) Complete panes

MA	Description	Dimensions (mm)	Grid
4626	Near complete panes (x2) with scratched broad arrow (figure 49)	1) 200 x 183 x 4; 2) 200 x 70 x 4	87
4630	Near complete pane, broad arrow mark	171 x 136 x 3	89
4725/1	Near complete rectangular pane, broad arrow mark	300 x 150 x 3	87
4732	Near complete pane, broad arrow mark	246 x 200 x 4	87
4828	Complete rectangular pane, broad arrow mark	248 x 210 x 4	87
4895	Complete pane, rhomboid, broad arrow mark	240 x 200 x 4	89
4896	Complete pane, rectangular, broad arrow mark	250 x 200 x 4	89
6202	Complete pane, rectangular, broad arrow mark.	250 x 210 x 3	88
6313	Complete pane with 2 broad arrow marks	190 x 50 x 4	88
6323	Near complete rectangular pane fragment	190 x 150 x 4	88
6399	Complete rectangular (half?) pane	95 x 76 x 3	90
8188	Complete rectangular pane	193 x 168 x 4	183

TABLE 24: Pane fragments (stern section)

MA	Description	Dimensions (mm)	Grid
4502	Pane fragment, broad arrow mark		89
4530	Pane fragment		89
4585	Pane fragment	143 x 48 x 4	89
4591	Pane fragments x 3; one with broad arrow mark	1) 138x 136x 3; 2) 124 x 33 x 3 3) 84 x 60 x 3	89
4617	Pane fragments x 3	1) 138 x 136 x 3; 2) 124 x 33 x 3 3) 84 x 60 x 3	87
4643	Pane fragment	87 x 27 x 3	89
4650	Pane fragments x 2	1) 84 x 33 x 4; 2) 58 x 42 x 3	89
4652	Pane fragments x 3	1) 61 x 30 x 4; 2) 28 x 24 x 3 3) 104 x 39 x 4	89
4661	Pane fragment		87
4666	Pane fragment	143 x 182 x 3	89
4683	Pane fragment	127 x 52 x 3	89
4690	Pane fragment	116 x 40 x 3	89
4725/1-2	Pane fragments, rhomboid	1) 300 x 150 x 3; 2) 199 x 190 x 3	87
4733	Pane fragment	198 x 116 x 4	87
4734	Pane fragment	124 x 55 x 4	87
4740	Pane fragment, broad arrow mark	203 x 100 x 3	87
4745	Pane fragment		87
4748	Pane fragment	154 x 107 x 3	87
4752	Pane fragment	66 x 62 x 4	87
4755	Pane fragments x4	1) 117 x 88 x 4; 2) 98 x 22 x 4 3) 98 x 26 x 2; 4) 52 x 42 x 5	89Sph
4776	Pane fragment	70 x 62 x 3	89
4801	Pane fragment	167 x 156 x 3	87
4804	Pane fragment	110 x 47 x 3	87

TABLE 24: Pane fragments (stern section) cont.d

MA	Description	Dimensions (mm)	Grid
4807	Pane fragment		90
4814	Pane fragment	85 x 31 x 4	88
4820	Pane fragment	72 x 60 x 4	89
4833	Pane fragments x2, scratched broad arrow mark	1) 189 x 11 x 4; 2) 126 x 46 x 4	87
4843	Pane fragment	122 x 71 x 4	87
4848	Pane fragment	80 x 28 x 3	89
4865	Pane fragment	110 x 80 x 4	70
4884	Pane fragments x 4, broad arrow mark	1) 159 x 87 x 3; 2) 69 x 51 x 3 3) 125 x 66 x 4; 4) 47 x 12 x 2	89Sph
4913	Pane fragments x 2	1) 89 x 59 x 5; 2) 64 x 52 x 4	89
4921	Pane fragments x 2 extracted from concretion MA4901	1) 89 x 59 x 5; 2) 64 x 52 x 4	89Sph
4923	Pane fragment; extracted from concretion MA4656	106 x 54 x 4	89Sph
6258	Pane fragment		Sph
6234	Pane fragment	80 x 46 x 4	87
6302	Pane fragment	136 x 108 x 4	
6370	Pane fragment	65 x 41 x 3	107
6409	Pane fragment		90
6495	Pane fragment	50 x 48 x 4	90
6509	Pane fragment		90
6642/1	Pane fragment		
6642/2	Pane fragment		
6642/3	Pane fragment		
6642/4	Pane fragment		
6642/5	Pane fragment		
7601	Pane fragment, broad arrow mark	138 x 147 x 4	72
7621/2	Pane fragment	97 x 30 x 4	70Sph
7621/3	Pane fragment	132 x 17 x 4	70Sph
7621/4	Pane fragment	66 x 23 x 4	70Sph
7621/5	Pane fragment	44 x 32 x 4	70Sph
7621/6	Pane fragment	40 x 19 x 4	70Sph
7621/7	Pane fragment	35 x 26 x 4	70Sph
7621/8	Pane fragment	57 x 12x 4	70Sph
7621/9	Pane fragment	45 x 11 x 3	70Sph
7621/10	Pane fragment	26 x 16 x 4	70Sph
7621/11	Pane fragment	24 x 20 x 4	70Sph
7623/1	Pane fragment	16 x 23 x 3	70Sph
7623/2	Pane fragment		70Sph
7629/1-2	Pane fragment		70Sph
7662	Pane fragment		89
7664	Pane fragment		91
7690	Pane fragment		
7759	Pane fragment		
7780	Pane fragment		94
7802	Pane fragment		92
7850	Pane fragment, broad arrow mark	220 x 108 x 3	94
7968	Pane fragment		166

TABLE 24: Pane fragments (stern section) cont.d

MA	Description	Dimensions (mm)	Grid
7978	Pane fragment		
7989	Pane fragment		93
7998	Pane fragment		94
8050	Pane fragment, broad arrow mark; half pane, deliberately halved? (see MA6399)	200 x 100 x 5	95
8102	Pane fragment		92
8133	Pane fragment		
8210	Pane fragment		185
8287	Pane fragment		
8506/1	Pane fragments		109
8506/2	Pane fragments		109
8506/3	Pane fragments		109
8510	Pane fragment		107
8555	Pane fragment		109
8587	Pane fragments x 4		Sph
8601/1	Pane fragment		Sph
8601/2	Pane fragment		Sph
8601/3	Pane fragment		Sph
8621	Pane fragment, broad arrow mark		110
8761	Pane fragment	87 x 65 x 5	109

TABLE 25: Pane fragments (bow section)

MA	Description	Dimensions (mm)	Grid
7849	Pane fragment; scratched broad arrow mark	174 x 80 x 4	185
8188	Complete rectangular pane, broad arrow mark	193 x 168 x 4	183
8229/1	Pane fragment, broad arrow mark, (see MA7849) half pane, ?deliberately halved		185
8229/2	Pane fragment, broad arrow mark, (see MA7849) half pane, ? deliberately halved		185Sph
8635/1	Pane fragment		205
8635/2	Pane fragment		205
8705	Pane fragment		205

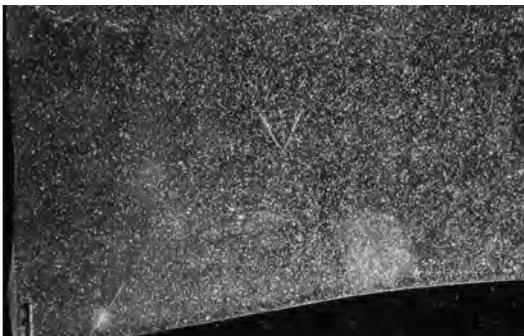


FIG. 49. Near complete pane with scratched broad arrow (MA4626).

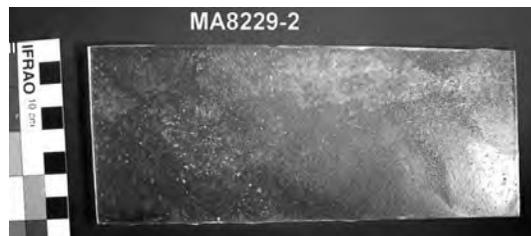


FIG. 50. Pane fragment, broad arrow mark (MA8229/2)..

TABLE 26: Window furniture

MA	Description	Dimensions (mm)	Grid
8946	Lead sash weight, tapered at one end, with a single 'through' hole	270 x 34 x 25; wt 2350	89
4687	Lead sash weight; tapered at one end, with a single 'through' hole	262 x 36 x 22; wt 2318	89
7619	Lead sash weight	315; wt 2441	70
4615	Lead sash weight	315 x 30 x 28; wt 2669	89
4616	Lead sash weight	262 x 36 x 22; wt 2318	89

TABLE 27: Bale' type handles

MA	Description	Dimensions (mm)	Grid
4681	Furniture handle, (figure 51) bale type, cast brass, cabinet or small box handle	L 86, dia 4	89Sph
4863	Copper alloy 'bale type' handle, box or chest	85 x 4	70
4906	Copper alloy furniture handle, (figure 52); crescent moon shaped, possibly used on a chest of drawers or an instrument case. (see MA4928)	58 x 48 x 20	89Sph
4907	Copper alloy bale type furniture handle	L 90, dia 6	89Sph
4928	Copper alloy furniture handle; crescent moon shape, extracted from MA4901 (see MA4906)	59 x 48 x 22	89
6227	Copper alloy escutcheon plate (figure 53); Disc with a central square socket hole, beaded edge. (see MA6517/2)		87
6517/1	Copper alloy bale type furniture handle (figure 54); includes a disc with a central square opening (escutcheon plate) and screw fitting	80 x 39 x 8	90
6517/2	Copper alloy screw fitting, part of MA6517/1+3	L 36, dia head 9	90
6517/3	Copper alloy handle component; escutcheon, with a square socket, part of MA6517/1+2	dia 23	90
6571	Furniture handle, bale type, cast brass	L 83	90



FIG. 51. Furniture handle (MA4681).



FIG. 53. Escutcheon plate (MA6227).



FIG. 52. Furniture handle (MA4906).



FIG. 54. Furniture handle (MA6517).

TABLE 28: Drawer pulls and studs

MA	Description	Dimensions (mm)	Grid
4614	Copper alloy drawer handle stud, screw component missing (figure 55)	18 x 20, wt 10 g	89Sph
4847	Copper alloy furniture hook, a round decorated (beaded) head (figure 56) (see MA4872)	L 41, dia head 41, stem dia 5, base dia 8	89
4872	Copper alloy furniture hook (figure 57)	49 x 35	87



FIG. 55. Drawer handle stud (MA4614).



FIG. 57. Copper alloy furniture hook (MA4872).

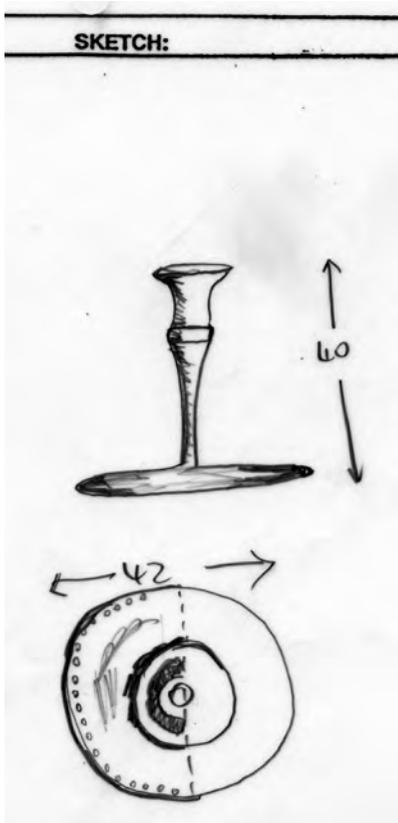


FIG. 56. Furniture hook field sketch (MA4847).

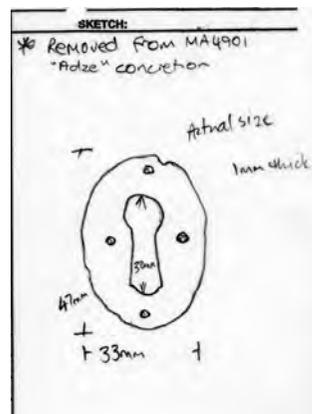


FIG. 58. Copper alloy keyhole plate (MA4930).



FIG. 59. Copper alloy hinge plate (MA4786).

TABLE 29: Keyhole escutcheons

MA	Description	Dimensions (mm)	Grid
4930	Copper alloy keyhole plate (figure 58); extracted from concretion MA4901. Oval shaped, with four holes	18 x 20, wt 10 g	89Sph
6405	Copper alloy keyhole plate; with two attachment holes	31 x 25 x 1	90
6514/1	Wood/ copper alloy fragment, keyhole flange		90
8264	Copper alloy keyhole plate, oval with four attachment holes	42 x 33	94

TABLE 30: Hinges

MA	Description	Dimensions (mm)	Grid
4786	Copper alloy hinge plate, with three attachment holes (figure 59)	18 x 20, wt 10 g	89Sph

TABLE 31: Locks

MA	Description	Dimensions (mm)	Grid
6337	Part of a (iron) lock, four rivet/screw holes, 'L' shaped plate (figure 60)	38 x 21 x 6	90
7963	Iron padlock		91
4537	Unidentified worked copper alloy object, two holes, latch? (figure 61)	30 x 9 x 1	89
4698	Unidentified copper alloy fragment, with a brass knob attached		89



FIG. 60. Part of a (iron) lock (MA6337).



FIG. 61. Unidentified worked copper alloy object (MA4537).

TABLE 32: Miscellaneous handles

MA	Description	Dimensions (mm)	Grid
6388	Handle, furniture knob handle, possibly a drawer pull. Copper alloy	L 19, dia 22	90
6458	Furniture handle, round head dia 40, length 19, Dia stem 15	L 19, dia head 40	90

TABLE 33: Miscellaneous metal fittings

MA	Description	Dimensions (mm)	Grid
6514/2	Fragment, wood/ copper alloy		90
8515	Copper alloy furniture handle (fragment); half of a 'bale' type handle		107
7873	Copper alloy clothes' or coat hook, raised decorative foliate pattern on one surface (figure 62)	42 x 10	
8590/1	Copper alloy disc, backing plate for a handle or draw pull; with a central square socket hole; this disc was attached to MA8590/2	dia 49	109
8590/2	Flat headed copper alloy knob; Handle or draw pull? Inserts into central hole of MA8590/1		109
8067/1 -2	Copper alloy finial in 2 pieces (acorn shape?), base, stem and bulbous body, decoration visible. (see MA580 in Campbell & Gesner 2000: 75) (figure 63)		



FIG. 62. Copper alloy clothes' or coat hook (MA7873).



FIG. 63. Copper alloy 2 pieces (MA8067/1-2).

TABLE 34: Slate / tile / brick / chalk / limestone

MA	Description	Dimensions (mm)	Grid
4606	Limestone fragment	30 x 21 x 24	89
6319	Slate fragment	75 x 52 x 4	90
6371	Slate fragment, writing slate or gallery roofing slate?	280 x 72 x 4	107
6380	Brick fragment	50 x 40 x 50	90
7708	Tile, square, glazed on one side	160 x 160 x 10	92
7736/1	Slate fragment		94Sph
7796/1	Chalk fragment		92
8100	Slate fragment		Sph
8155	Brick fragment		91Sph
8166/1	Chalk /rock fragment		91
8166/2	Chalk /rock fragment		91
8197	Brick fragment		Sph
8246	Ceramic tile, glazed, square tile with a cream-coloured glazing on one surface. Cf. similar glazing as on pot MA8740 (figure 64)	165 x 165 x 8	93
8513	Brick	225 x 100 x 60	110
8585-1	Brick	215 x 100 x 68	109
8585-2	Brick fragment	120 x 100 x 54	
8586	Brick fragment	225 x 95 x 60	109
8602	Brick fragment	215 x 100 x 60	109
8625	Slate fragment	230 x 174	110
8679	Slate fragment, bevelled edge (figure 65)	36 x 87	109
8694	Brick (figure 66)	205 x 100 x 62	109
8727	Brick	215 x 100 x 65	90
8834	Brick	140 x 65 x 45	205

Miscellaneous un-identified metal objects / fragments

TABLE 35: Miscellaneous un-identified metal objects / fragments

MA	Description	Dimensions (mm)	Grid
6601/1	Copper alloy object fragment, circular base with sides (Lid/ instrument cap/ lens cap?) (figure 67)	dia base 36, ht 16	90
6601/2	Copper alloy object, curved lid or case fragment	30 x 13 x 1	90
6601/3	Copper alloy object; curved lid or case fragment	22 x 14 x 1	90
6623	Lead weight, rectangular, (see MA6593 & MA6606) (figure 68)	46 x 29 x 8, wt 119	166
7672	Metal fragment, decorative feature		91
8030/1	Copper alloy fragment	25 x 14 x 12	Sph
8030/2	Lead fragment	25 x 14 x 12	Sph
8106	Lead weight		94
8113	Un-identified fragment		Sph
8122	Lead fragment		Sph
8151	Lead fragment, decorative, filigree edge (figure 69)	40 x 10 x 3	91
8167	Lead fragment		Sph
8170	Iron concretion		Sph
8203	Composite concretion, deconcreted into 17 parts (MA8203/1-17)		Sph
8209	Iron concretion		Sph
8254	Concreted metal ring		Sph
8268/2	Concretion, copper alloy?		Sph
8299/36	Iron disc	dia 8	91/93
8735/1-3	Un-identified metallic object fragments		107
8842	Worked metal piece	25 x 13	Sph

TABLE 36: Copper (Cu) wire

MA	Description	Dimensions (mm)	Grid
4582	Wire, unidentified	L 125, dia. 3	
4780	Wire, copper alloy, fine	L 109, dia 3	89
6291/1	Concretion, copper wire fragments		87
6291/2	Wire fragments concreted on a ring (figure 70)		87
6291/3	Concretion, copper wire fragments		87
6292/1-10	Wire fragments, multiple lengths (figure 71)	L 25-296, dia: 2-3	90
6518	Wire fragment	L 95, dia 2;	90
7961	Wire fragments; previously concreted; comprising two long pieces of wire; each joined by a copper wire ring. (see MA7990/4)	1) L 288; 2) L 199, 3) L 199	90
7990/2	Wire fragment	L 400	90Sph
7990/4	Wire fragments; 2 lengths joined by a ring (see MA7961)	L 177, L 21	Sph
7990/5	Wire fragment		Sph
7990/6	Wire fragments three lengths suspended on a fashioned ring		Sph
8779	Wire fragment		Sph

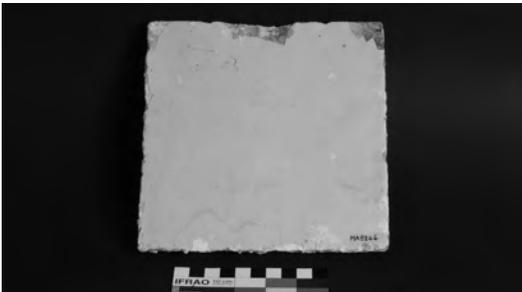


FIG. 64. Ceramic tile, glazed, square tile with a cream-coloured glazing (MA8246).



FIG. 65. Slate fragment (MA8679).



FIG. 66. Brick (MA8694).

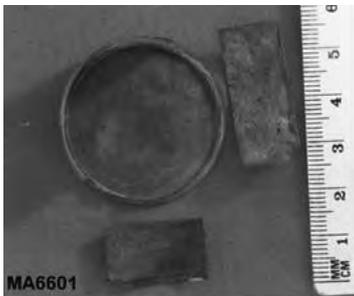


FIG. 67. Copper alloy object fragment (MA6601)



FIG. 68. Lead Weight (MA6623)



FIG. 69. Lead fragment, decorative (MA8151)



FIG. 70. Wire fragments concretioned on a ring (MA6291/2).

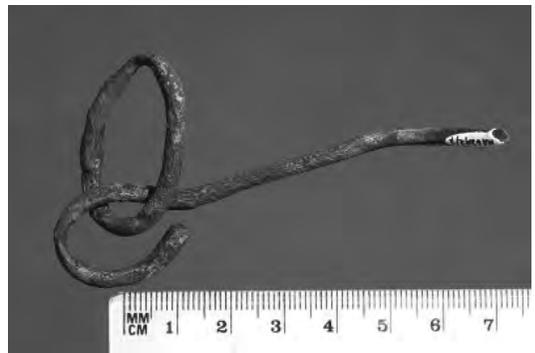


FIG. 71. Wire fragments multiple lengths (MA6292/1-10).

TABLE 37: Copper rings (unidentified)

MA	Description	Dimensions (mm)	Grid
7653	Ring, copper	e/dia 21	
7806	Ring, copper	e/dia 21	92
7809	Ring, copper (figure 72)	e/dia 40	92
7839	Ring (severely degraded)		92
7872/1	Ring, copper	e/dia 41, i/dia 29, th 2	94
7872/2	Ring, copper	e/dia 41, i/dia 29, th 2	94Sph
7896/1	Ring, copper	e/dia.11	92
7896/2	Ring, copper	e/dia 11	92Sph
7896/3	Ring, copper	e/dia 11	92Sph
7896/4	Ring, copper	e/dia.11	92 Sph
7896/5	Ring, copper	e/dia 11	92 Sph
7896/6	Ring, copper	e/dia 11	92Sph
7910	Ring, copper	e/dia 33	92Sph
7927	Ring, copper	e/dia 37, th 3	92
7929	Ring, copper		92
8017	Ring, copper	e/dia 25	94Sph



FIG. 72. Ring, copper (MA7809).

BALLAST

Coal was taken on as ballast in lieu of river stones/pebbles (Logbook entry 20 August 1790). The coal recovered from the wreck – only 5 pieces to date – are from the bow area, near the ship's oven ('Brodie stove'). This probably indicates that coals was being used as fuel for the oven. However, no detailed examination of the interior of the Brodie stove has been carried out to date due to its highly fragile condition.

TABLE 38: Ballast

MA	Description	Dimensions (mm)	Grid
4543	Ballast stone x 2, limestone and hornblende porphyry	1) 42 x 42 x 22; 2) 50 x 30 x 25	89
4645	Ballast stone	30 x 18 x 17	89
4746	Ballast stone x 5 pebbles		87
4823	Ballast stone	23 x 14 x 2	87
6266	Pebble		85
6429	Ballast stone		90
6554	Ballast stone		90
6629	Ballast stone		90
7663	Stone fragment		91
7796/2	Ballast stone		92 Sph
7899	Stone fragment		92
7999/1	Stone fragment		92Sph
7999/2	Stone fragment		92Sph

TABLE 38: Ballast cont.d

MA	Description	Dimensions (mm)	Grid
8159	Ballast stone		92
8242	Stone, white		183
8288/5	Ballast stone		183
8294	Stone fragment		Sph
8655/1	Coal fragment		203
8655/2	Coal fragments		203
8655/3	Coal fragment		203
8819	Limestone fragment		208

TABLE 39: Barrel/cask/keg staves and hoops

MA	Description	Dimensions (mm)	Grid
4592	Barrel stave fragment		89
4600	Barrel stave fragment		90
4608	Barrel stave fragment		89
4612/1-3	Barrel stave and copper hoop fragments x 3		92
4634	Barrel hoop fragments, copper alloy x 2	1) 118 x 19 x 7 2) 90 x 30 x 6	89
4640	Barrel stave fragment	60 x 60	
4654	Barrel hoop fragments, copper alloy	730 x 25	91
4660	Barrel hoop, copper alloy		89
4675/1	Concreted barrel hoop fragment	75 x 28 x 6	89
4688	Barrel stave fragment		89
4699	Barrel stave fragment		89
4702	Barrel end fragment	75 x 62	89
4761	Barrel stave, copper alloy hoop fragment		
6245	Barrel stave fragment	192 x 55	90
6246	Barrel stave fragment	52 x 120	88
6247	Barrel stave fragment, visible hoop imprint	97 x 92	88
6251/1	Barrel stave fragment		87
6251/2	Barrel stave fragment		87
6251/3	Barrel stave fragment		87
6251/4	Barrel stave fragment		87
6278	Barrel hoop fragment, copper alloy	53 x 27 x 7	88
6413	Barrel hoop fragment, copper alloy	86 x 32 x 8	90
6525	Concretion, iron band fragment		90
6544	Concretion, iron band fragment	96 x 88	90
6570/1	Concretion, iron band fragment	79 x 66.	90
6572/ 1-13	Barrel stave fragments		90
6604/7	Barrel stave concretion		
6610/1-2	Concretion, iron band concretions x 2		
6620/1-5	Wooden tub end pieces x5		
6622/1-14	Barrel staves		90
6625/1-3	Barrel end pieces x 3		
6626/1-2	Barrel end pieces x 2		
6631/1-14	Barrel staves x 14		90

TABLE 39: Barrel/cask/keg staves and hoops cont.d

MA	Description	Dimensions (mm)	Grid
7608	Barrel hoop, copper alloy, single rivet, (see. MA4937/4)	780x 25	
7615/1 -10	Barrel hoop, copper alloy fragments x 10		91
7648/1-10	Barrel hoop, copper alloy fragments x 10		91
7671/1-4	Barrel hoop, copper alloy fragments x 4		91
7675	Barrel hoop fragment	L 45	89
7693	Barrel hoop fragment		
7694/1-34	Barrel hoop, copper alloy fragments x 34		
7701	Barrel hoop fragment	L 35	
7758	Barrel stave fragment		
7936/2	Iron band concretion		
7959	Barrel stave fragment		
7960	Barrel stave fragment		
8031/1-2	Barrel hoop fragment, copper alloy		
8082	Wrought iron band (fore mast band?)	L 75, dia 560	165
8086/1-7	Barrel stave fragments x 7		165
8112	Barrel cradle support; possibly associated with MA8160		92
8125	Barrel end fragment		166
8126	Barrel stave fragment		166
8127	Barrel end fragment		167
8128	Barrel end fragment		167
8129/1-2	Barrel end fragments		
8160/1-4	Barrel staves; staves numbered sequentially anti-clockwise		91/ 92
8172/1-32	Barrel stave fragments		91
8173/1-5	Barrel end fragments		
8241	Barrel hoop; concretion		
8296	Concreted barrel hoop fragment	175 x 15	
8297	Barrel hoop fragment, copper alloy	720 x 20	91
8298/1-2	Barrel hoop fragments, copper alloy x 2	1) 735 x 20; 2) 10 x 20	91
8298/2-3	Barrel hoop fragments, copper alloy x 2	1) 770 x 20; 2) 1080 x 23	
8299/1-46	Barrel hoop fragments, copper alloy x 46		
8695	Barrel hoop fragments, copper alloy	175	
8765/1-2	Barrel stave fragment		109
8768/2	Concreted copper alloy barrel hoop		109
8775	Barrel fragment	175 x 105	206
8828	Barrel lid fragment		
8911/1-7	Barrel hoop fragments, copper alloy x 7		
8913	Barrel hoop fragment, copper alloy		
8923	Barrel hoop fragment, copper alloy		
8912	Barrel hoop fragment, copper alloy	870 x 20	
8925	Barrel hoop fragment, copper alloy		
8922	Barrel hoop fragment, copper alloy		

TABLE 40: Ordnance

MA	Description	Dimensions (mm)	Grid
4028	Swivel gun, cast iron, ½-pounder, remnants of a wrought iron tiller on the cascabel (figure 73). Trunnions were mounted in a yoke, stamped with broad arrow. Weight is marked '1-1-6' (1cwt.1 qtr. 6lb = 146lb= 66kg) Comments: The remnant of a wooden tampion was found in place. The letters 'B' and 'S' are stamped on the face of the right and left trunnions respectively 'B' and 'S' probably indicate the Bowling ironworks operated in Bradford by Sturgess & Co (Kennard, 1988:143)	L 853 (33"), dia bore 45 (1¾") Trunnion dia 41 (1½")	72
4190	Cast iron carronade, 18-pounder, Weight: indicated '8-2-2'. (8cwt-2quarters-2pounds = 954 lbs= ca 433kg), stamped broad arrow This carronade is identical to the two carronades retrieved from the wreck of HMS <i>Sirius</i> (1790) on Norfolk Island. (Stanbury 1994:74-5) It was probably cast after 1781, the year the Navy Board recommended that carronades be lengthened from approximately 28 inches (710mm) to > 36 inches (925mm) so that their muzzles would protrude further from the vessel's sides and thereby reduce the risk of the gun's blast setting fire to the ship's shrouds (Lavery, 1987:122) (figure 74)	L 1014 (39½"), dia bore 154 (5¾") Trunnion dia 101 (3¾")	70
8299/1	Cast iron long gun, Standard (George III) 6-pounder carriage gun, i.e. it fired a 6 lb iron cannon ball. Trunnion diameter 105 mm, trunnion face stamped with the letter B, (figure 75) Weight: marked in stamped figures '18 0 26' (denoting 18cwt. 0qtrs. 26lb=2042lb=928kg) Comments: Marked with a broad arrow. Except for the letter B stamped on a fragment of one of the trunnions, there are no other identifying letters, marks or numbers visible; due to corrosion (cf. the letters 'WC' stamped on MA148, which is an identical 6-pounder long gun that was recovered from the Pandora wreck in 1983). To date the QM has recovered two of the twenty '6-pounders' that the Pandora was equipped with (Cf. Campbell/Gesner, 2000: 85) During conservation work a concreted core was drilled from the gun's bore; it consisted of a canister of grape shot, indicating that the crew had loaded the gun at some stage prior to the wrecking; possibly in readiness to repel an attack by hostile "savages" which, they felt, might threaten them in these waters. Hamilton (1793:117) speaks of the "indifferent accounts" they had heard about the islanders in Coral Sea waters; this may refer to the considerable information ("chatter") that was generally about within Royal Navy circles that was based on perceptions held by sailors (officers and ratings alike) who had experience in the South Pacific, which had indicated to them to be wary of islanders. Alternatively, it may just be an indication of the forgetfulness of a gun crew, which had omitted to unload a cartridge after a misfire during gunnery practice.		91/93
8299/2	Trunnion fragment from 6-pounder cannon (MA8299/1) "B" stamp on the trunnion face (probably indicates Bowling foundry, Staffordshire Cf MA4028) (figure 76)		91/93
8299/3	Cannon touch hole/ vent cover ("vent patch")		91/93
8299/4	6 pound cannonball, recovered during deconcretion of MA8299/1		91/93
8299/5	Wood fragments x 2 NB: All objects accessioned under MA8299/5-49 were extracted from the concreted cannon and were initially recovered partially embedded in the concretion	1) L 144, W 65 2) L 100, W 30	91/93
8299/6	Wood fragments, possible fragments of the tampion		91/93
8299/7	Wood fragments, possible fragments of the tampion		91/93
8299/50	Core from 6-pound cannon bore; extracted by drill from concretion adhering to MA8299		91/93



FIG. 73. Swivel gun, cast iron (MA4028).

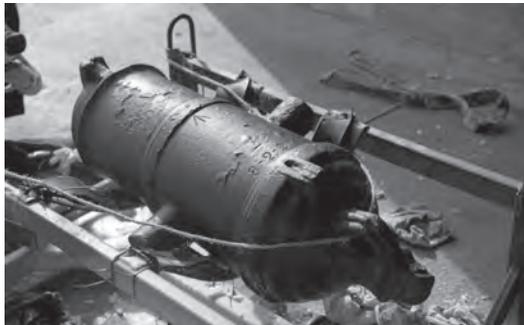


FIG. 74. Cast iron carronade (MA4190).



FIG. 75. Cast iron long gun (MA8299/1).



FIG. 76. "B" stamp on the trunnion face (MA8299/2).



FIG. 77. Trigger guard, copper alloy (MA8887).



FIG. 78. Butt plate, musket, copper alloy, trigger guard fragments (MA8613/2).

TABLE 41: Firearms (small arms)

MA	Description	Dimensions (mm)	Grid
4500	Musket side plate; copper alloy	L 159, W 3, attachment holes x 2 dia 7	89
8574	Pistol/ musket side plate, copper alloy	L 130, attachment holes x 4	108
8567	Trigger guard, copper alloy, length and shape suggests use on a pistol	L 185 x W 26	
8887	Trigger guard, copper alloy, length and shape suggests use on a pistol (see figure 77)	L 200 x W 26	91Sph
8613/2	Butt plate, musket, copper alloy, trigger guard fragments (see figure 78)		110



FIG. 79. Cannonball (MA4936).

Shot for guns (including swivel guns)

In terms of weight, each cannonball size reveals a substantial variation, while diameters of each type of ball reveal only minor variations table 42.

Diameters of 6-pounder balls range between 64 and 66, whereas weight ranges show a larger divergence (400 – >2000g).

Diameters of 18-pounder balls range between 104-114, whereas weight ranges lie between 4000-4500 g.

TABLE 42: : Shot for guns (including swivel guns)

MA	Description	Dimensions (mm, gms)	Grid
4501	Cannonball (6-pdr) embedded within concretion	dia 66; wt 1649	89
4553	1) Cannonball (18-pdr) 2) Concreted 'ball' of grape shot; recovered as large concretion.	1) dia 114, wt 4500 2) dia 18, wt 30g	85
4660/5	Cannonball (18-pdr) x 2	dia 86, wt, 1) 860; 2) 1382	89
4936	Cannonball (18-pdr) with 11 fragments (figure 79)	dia 107; wt: 4000 +	89
4937/1	Cannonball (6-pdr)	dia 67, wt 1620	89
4937/2	Cannonball (6-pdr). This object was part of a large concretion which contained: 2 x 6-pdr cannonballs; 2 complete barrel hoops; 3 barrel hoop fragments (one fragment was joined by a rivet); 1 tack fragment.	dia 67, wt 1644	89
6277	Cannonball fragments (6-pdr) x 8	dia 66, wt 800	88
6598	Cannonball (6-pdr)	dia 66, wt 2000	
6607/4	Cannonball (6-pdr)		90Sph
6645	Cannonball (6-pdr)		90Sph
6646/1	Iron shot fragments	dia 37, wt 88	90Sph
6646/2	Iron shot fragments	dia 37, wt 86	90Sph
8041/1	Cannonball (6-pdr)	dia 67, wt 842	Sph
8131	Cannonball (6-pdr)	dia 67, wt 1217	92
8202/3	Cannonball (18-pdr)	dia 104, wt 4500	Sph
8203/15	Cannonball (6-pdr)	dia 66, wt 1464	Sph
8203/16	Cannonball (6-pdr)	dia 67, wt 852	Sph
8203/17	Cannonball (6-pdr), fragmented		Sph
8299/4	Cannonball (6-pdr)	dia 66, wt 802	Sph
8299/32	Cannonball (6-pdr)	dia 67; wt 1547	91Sph
8299/38	Cannonball (6-pdr)	dia 67, wt 1581	91Sph
8857/6	Iron shot, swivel gun or canister shot (cache of 30 balls)	average dia 32, average wt 93;	109Sph
Nil	Cannonballs, (6-pdr) x 4, no provenance tag (*MA6607/4 and MA6645 are possibly among this cache)	dia range 64-67, wt range 400 - 645	

Shot for small arms

The diameters of small shot vary between 9-32 mm (table 43). In this collection it is thought that larger diameter shot (i.e. >25 mm) indicate canister shot. While smaller diameters indicate pistol and/or musket shot.

TABLE 43: Shot for small arms

MA	Description	Dimensions (mm)	Grid
4712	Ball shot, lead	dia 13 wt 19	89
4864	Ball shot, lead	dia 19, wt 25	70
4933	Ball shot, lead	dia 13, wt 18	89
6233	Ball shot, lead	dia 17, wt 23	89
6256	Ball shot, lead	dia 9, wt 12	88
6280	Ball shot, lead	dia 11, wt 15	88
6288	Ball shot, lead	dia 15, wt 21	90
6419/ 1-5	Ball shot, lead, cluster x 5	dia 9–11, wt 12-16	90
6522	Ball shot, lead	dia 11, wt 15	90
6537/ 1-2	Ball shot, lead, cluster x 2	dia 11, wt 14	90
6558	Ball shot, lead	dia 11, wt 14	90
6562	Ball shot, lead	dia 11, wt 14	90
6566	Ball shot, lead	dia 11, wt 14	90
7771	Ball shot, lead	dia 12, wt 16	
7816	Ball shot, lead	dia 16, wt 21	94
7841/ 1-72	Ball shot, lead, cluster x 72	dia 13-15, average wt 18	92
7866/1-56	Ball shot, lead, cluster x 56	dia 12-15, average wt 19	111
7939/ 1-28	Ball shot, lead, cluster x 28	dia 12-15, average wt 19	111
7982	Ball shot, lead	dia 19, wt 24	92
7988	Ball shot, lead	dia 21, wt 26	Sph
7993/1-9	Ball shot, lead, cluster x 9	dia 12-15, average wt 20.	Sph
8019	Ball shot, lead	dia 22, wt 25	92
8049/1-3	Ball shot, lead, cluster x 3	dia 21-22, wt 24	Sph
8062	Ball shot, lead	dia 19, wt 20	Sph
8070	Ball shot, lead	dia 19, wt 20	Sph
8095/1-2	Ball shot, lead, cluster x 2	dia 15 -22, wt 21-24	Sph
8104/1-16	Ball shot, lead, cluster x 16	dia 15-16, average wt 20	92
8157/1-2	Ball shot, lead, cluster x 2	dia 15- 20, wt 19	91
8181/1-13	Ball shot, lead, cluster x 13	dia 15-16, average wt approx 21	94
8252	Ball shot, lead	dia 15, wt 19	Sph
8531	Ball shot, lead	dia 15, wt 19	108
8596/1-28	Ball shot, lead, cluster x 28	dia 15 -16, average wt approx 20	111
8597	Ball shot, lead, cluster x 70	dia 15-17, average wt approx 20	111
8723	Ball shot, lead	dia range 16 -19	109
8724	Ball shot, lead	dia range 16 -19	88
8731/5	Ball shot, lead	dia range 15 -16	Sph
8742	Ball shot, lead, cluster x 21	dia range 13 -16, average wt. 21	109
8746	Ball shot, lead, cluster x 119	dia range 15 -19, average wt 21	90

TABLE 43: Shot for small arms cont.d

MA	Description	Dimensions (mm)	Grid
8751/2-6	Ball shot, lead, cluster x 5	dia range 15-17, average wt. 21	111
8756/1-6	Ball shot, lead, cluster x 6 (figure 80)	dia range 16-19, average wt 20	109
8857/6	Ball shot, lead, cluster x 32	average dia 32, average wt 73	109
8870/1-2	Ball shot, lead, cluster x 2	dia 21	Sph

TABLE 44: Kegs

MA	Description	Dimensions (mm)	Grid
4599	Barrel hoop fragment	L 395 x W 20	90
4937/3	Riveted hoop for a pouched powder bucket? (see Boudriot, 1977 Vol 2 fig 203)	H 28, dia, 267 circumference 850	89
4937/4	Riveted hoop for a pouched powder bucket? (figure 81)	H 24, dia 785, circumference 269	89
4937/5	Riveted hoop		89
4937/6	Riveted hoop		89
4937/7	Riveted hoop fragment		89

TABLE 45: Gunner's equipment

MA	Description	Dimensions (mm)	Grid
4728	Gun flint (chert)	28 x 24 x 10	87
4749	Gun flint (quartzite)	34 x 38 x 7	87
6231	Gun flint (chert)	26 x 24 x 7	89
6314	Copper alloy spike gunner's priming spike?	L 134; dia 'eye' 25	
6320	Gun flint (chert)	37 x 20 x 15	90
6376	Gun flint (chert)	48 x 43 x 36	88
6410	Gun flint (chert)	36 x 36 x 10	90
6451	Gun flint (chert)	29 x 27 x 8	90
6520	Gun flint (chert)	34 x 32 x 11	90
6551	Gun flint (chert)	35 x 35 x 11	90
8020	Gun flint (chert)		92
8068	Gun flint (chert)		Sph
8258	Gun powder cartridge/ ladle, copper alloy, (figure 82) N.B Fixed onto the end of a long wooden (pole) handle; designed to slide into the gun's bore to remove the charged cartouche in case of a misfire; its diameter suggests use with a '6-pounder' (see MA4203), (Sullivan, 1986:36).		
8299/3	Cannon touch hole cover, "vent patch", lead	L 295 x W 240	
8701	Gun flint (chert)		109
8857/7	Cannon touch hole cover, 'vent patch', lead		88/109



FIG. 80. Ball shot cluster (MA8756/1-6).



FIG. 82. Gun powder cartridge/ ladle (MA8258).



FIG. 81. Riveted hoop (MA4937/4).



FIG. 83. Sword scabbard component (MA8266).

TABLE 46: Bladed weapons

MA	Description	Dimensions (mm)	Grid
7842/1-2	Concretions (Leather? Scabbard fragment?)		166
7975	Fragment scabbard clip		166
8266	Band/ ring, worked, copper ally, scabbard or belt, (figure 83)	59 x 13 x 18	166
8697	Manufactured metal cylinder	e/dia 18, i/dia 11; rectangular core	166

TOOLS AND INSTRUMENTS**TABLE 47: Navigation instruments**

MA	Description	Dimensions (mm)	Grid
4079	Brass pocket telescope (Cf. Campbell & Gesner, 2000:89) (figure 84)	L 163, o/dia 55	92
4535	Navigation instrument components, 1) Ground edge glass square, 2) copper mirror base, with remains of small screws (figure 85)	1) 25 x 23 x 3 2) 20 x 19 x 15	89
4539	Measuring rule, graduations 0°- 95°, ivory octant arc inlaid in wood, part of an octant (figure 86)	L 340	89
4577	Sextant mirror fragment; ground clear edges	36 x 27 x 2	89
4796	Octant arm, multiple components & materials - wood/ glass/ copper alloy/ ivory)	L 434	88

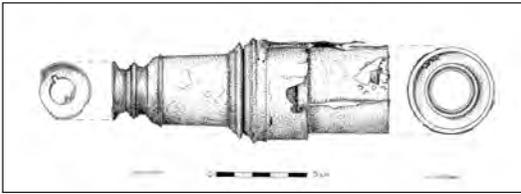


FIG. 84a. Brass pocket telescope drawing (MA4079).



FIG. 84b. Brass pocket telescope (MA4079).



FIG. 87. Navigation instrument parts (MA4796/1-13).

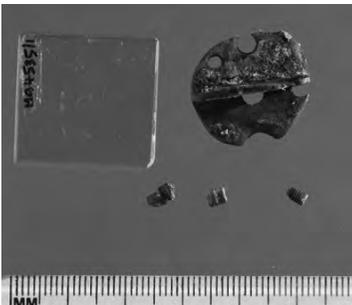


FIG. 85. Navigation instrument components (MA4535).

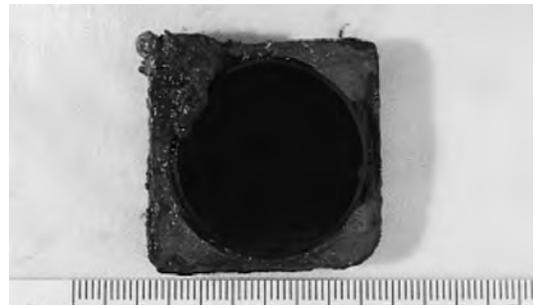


FIG. 88. Navigation instrument part (MA6308/1).

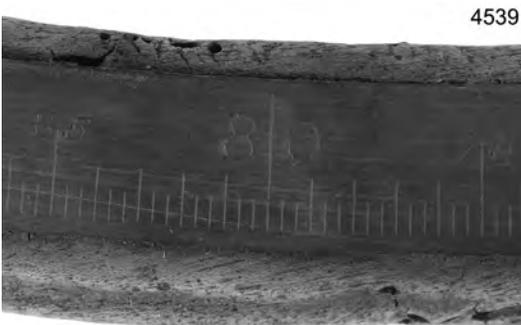


FIG. 86. Measuring rule (MA4539).



FIG. 89. Ivory protractor or gunner's folding rule (fragment) (MA6344).

TABLE 47: Navigation instruments cont.d

MA	Description	Dimensions (mm)	Grid
4796/1	Octant index arm; inscribed "Dollond" and "London" 2) Attachment for the index arm, right angled, screw handle. 3) concreted disc 4) mirror fitting 5) Scale fragment from the Index arm. 6) End of curved scale; still partly concreted. 7) Proximal segments of both radial arms; which were probably made of mahogany. No markings (figure 87)		88
4796/2	Navigation instrument parts, multiple pieces, square lens frame (copper alloy)	L 40 x W 25 x th 20	88
4796/3	Navigation instrument part, two round coloured green glass lenses, with bevelled edge.	dia 49	88
4796/4	Navigation instrument part, copper key with three holes	H 15, dia 23	88
4796/6	Navigation instrument part, copper key with one hole	68 x 29 x 3	88
4796/8	Navigation instrument part, broken copper arm off quadrant wing nut		88
4796/10	Navigation instrument part, multiple pieces		88
4796/12	Navigation instrument part; copper sight, part of stage and square glass		88
4834	Octant component		87
6258	Instrument glass, octant /quadrant component, rectangular	51 x 34 x 3	
6262	Instrument part, right-angled, round end. (cf MA6286 and MA6310)	43 x 24, dia 15	85
6286	Instrument part, right-angled, round end (cf. MA6262 and MA6310)	43 x 24, dia end 15	90
6308/1	Navigation instrument part (figure 88); square glass disc with inset glass disc, reverse face has outline of disc placement, remnant of screw hinge on one corner, possible quadrant piece.	35 x 36, dia 26	89
6308/2	Navigation instrument part, glass disc; opaque, dark coloured, quadrant piece. (cf MA6308/1)	dia 30, W 2	89
6344	Ivory protractor or gunner's folding rule (fragment) graduations in degrees (figure 89); numbered scale on obverse face, grid lines on reverse face. Possibly associated with MA6349 & MA6369.	48 x 15 x 1	90
6349/1-5	Ivory protractor or gunner's rule fragment, obverse face inscribed "Martin London" with a section of the measuring scale (figure 90); reverse face contains gridlines and part of the measuring scale. All parts under this MA number conjoin, parts under this MA number match with MA6344.		90
6352	Navigation / plotting instrument handle, wood /copper alloy, worked metal tip; compare to MA6356 (figure 91)	o/a L 101, dia 6	90
6355/1-3	Copper alloy divider fragments		90
6355/4	Copper alloy implement fragment, undetermined purpose	25 x 12 x 1	90
6369/1	Ivory protractor or gunner's folding rule (fragment) numbered scale on the face. Probably associated with MA6344 & MA6349	32 x 17 x 1	90
6369/2	Ivory protractor or gunner's folding rule (fragment) (figure 92); possibly associated with MA6349 & MA6344 & MA6556.	23 x 10 x 1	90
6491/1	Dividers component fragment, copper alloy, (figure 93)	66 x 12 x 5	90
6491/2	Dividers component, copper alloy.	46 x 5 x 4	90
6491/3	Dividers component, copper alloy	34 x 5 x 3	90
6516	Ivory ruler fragment;; graduated markings on both sides, 5 pin holes in one side, 2 on other side (Gunther's sector)	85 x 18 x 4	90
6541/1	Rulers with a graduated scale, wood/ivory, fragments	85 x 18 x 3	90
6541/2	Rulers with a graduated scale, wood/ivory, fragments	76 x 18 x 3	90



FIG. 90. Ivory protractor or gunner's rule fragment (MA6349/1-5).



FIG. 91. Navigation/plotting instrument handle (MA6352).



FIG. 92. Protractor or gunner's folding rule fragments (MA6369/1-2).



FIG. 93. Dividers component fragment (MA6491/1).



FIG. 94. Copper alloy instrument part (MA6553/1).



FIG. 95. Sector or 'gunner's' folding rule fragment (MA6556).



FIG. 96. Tell-tale compass housing (MA7650).



FIG. 97. Navigation dividers part (MA7807).

TABLE 47: Navigation instruments cont.d

MA	Description	Dimensions (mm)	Grid
6553/1	Copper alloy instrument part; navigational dividers (figure 94); originally part of MA6553/3.	27 x 7 x 6	90
6553/2	Instrument part, copper alloy		90
6553/3	Instrument part fragment, dividers, copper alloy	30 x 6 x 3	90
6556	Sector or 'gunner's folding rule fragment, ivory and copper alloy, hinged component attached, graduated markings incised on both sides (figure 95). Maker: "Martin, London". Associated with MA6369/1+2.	68 x 18 x 4	
7650	Compass housing, gimbaled, copper alloy, a 'tell-tale' compass (figure 96)	245x 265 x10	90
7807	Navigation dividers part, copper alloy (figure 97)	60 x 6 x1	92
8001/1	Lens component, copper alloy, 1 of 4 pieces (MA8001/1-4) possibly from a sighting telescope; keyhole shaped aperture on the cap with a sliding plate cover, ring with an external thread	H 9, dia 20	92
8001/2	Lens component, copper alloy, 1 of 4 pieces (MA8001/1-4) possibly from a sighting telescope; keyhole shaped aperture on the cap with a sliding plate cover, ring with external thread		92
8001/3	Lens component, copper alloy, 1 of 4 pieces (MA8001/1-4) possibly from a sighting telescope, keyhole shaped aperture on the cap with a sliding plate cover, ring with external thread	H 8, dia 23	92
8001/4	Ground glass lens component, 1 of 4 pieces (MA8001/1-4) (figure 98). Possibly from a sighting telescope, keyhole shaped aperture on the cap with a sliding plate cover, ring with external thread.		92
8002	Instrument part, bone/ ivory	dia 17, th 6	92
8247/1	Copper alloy telescope eye piece; 115 x 20 (figure 99); sighting telescope (component of a sextant) possibly associated with MA8542.		93
8247/2	Telescope extension piece, copper alloy / glass;	67 x 18 x 18	93
8289	Quadrant arm, radial arm from a quadrant, copper alloy, (figure 100).	510 x 70 x 60, wt 435	93
8299/42	Navigation instrument fragment, copper alloy (figure 101).	o/a L 25	91/93
8525	Ruler fragment (figure 102); graduated markings visible on both surfaces, copper alloy.	L 75 x W 4	109
8542	Sextant, copper alloy (figure 103)	wt 802	109



FIG. 98. Ground glass lens component (MA8001/4).



FIG. 99. Copper alloy telescope eye piece (MA8247/1).



FIG. 100. Quadrant arm (MA8289).



FIG. 101. Navigation instrument fragment (MA8299/42).

8525

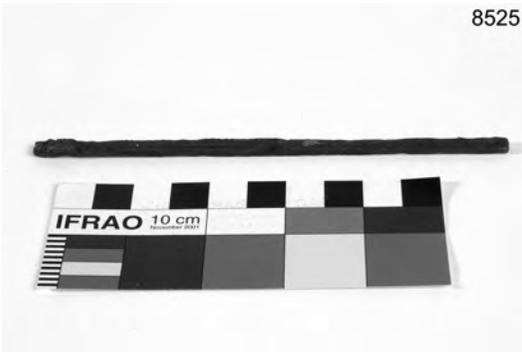


FIG. 102a. Ruler fragment (MA8525).

8525



FIG. 102b. Ruler fragment detail (MA8525).



FIG. 103. Sextant (MA8542).



FIG. 104. Watch winder (MA7703).

TABLE 48: Sand-timer ampoules

MA	Description	Dimensions (mm)	Grid
4504	Glass sand-timer fragment; ampoule base		89
4658	Glass sand-timer ampoule fragments x 3		89
4768	Sand-timer ampoule fragment		89
6290/1	Sand-timer ampoule, base fragment	dia. 90, ht 58	90
6290/2	Sand-timer fragment; neck fragment	e/dia lip 28	90
8800/3	Sand timer ampoule fragment		
8681/1	Sand timer ampoule fragment		107
8681/2	Sand timer ampoule fragment		107
8800/5	Sand timer ampoule fragment		
8800/6	Sand timer ampoule fragment		

TABLE 49: Watch pieces

MA	Description	Dimensions (mm)	Grid
7703	Watch winder, gold, fine, worked metal piece, oval shape, with a decorative border (figure 104). Ring attachment at one end; square socket for the winder.	L 20	89

TABLE 50: Regulating discs for sand timers

MA	Description	Dimensions (mm)	Grid
4610	Bone/ ivory disc, intact	dia 20, th 2, hole 2	89
4889	Bone/ ivory disc, with central hole, intact	dia 21, th 2, hole 2	89Sph
6232	Bone/ ivory disc with central hole, intact	dia 22, th 2, hole 2	87Sph
6269	Bone/ ivory disc with central hole, intact	dia 21, th 2, hole 2	85
6381	Bone / ivory disc with central hole, intact (figure 105)		93
7686	Bone/ ivory disc with central hole; intact	dia 24, th 2, hole 2	92
7891	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole. 2	92
7893	Bone/ ivory disc with central hole, intact	dia 16, th 2, hole 2	92
7900/1	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole 2	
7900/2	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole. 2	92
7926/1	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole. 2	92Sph
7926/2	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole.2	92Sph
7926/3	Bone disc; with a central hole, incomplete	dia 15, th 2, hole.2	92Sph
7926/4	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole. 2	92Sph
7926/5	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole. 2	92Sph
7926/6	Bone/ ivory disc fragment with a central hole	dia 15	91
8089	Bone/ ivory disc with central hole, intact	dia 24, th 2, hole. 1	92Sph
8219/1	Bone/ ivory disc with central hole, intact	dia 15, th 2, hole. 2	92
8868/1	Bone/ ivory disc with central hole, intact	dia 19, th 2, hole. 2	93

TABLE 51: Writing / printing implements

MA	Description	Dimensions (mm)	Grid
4684/2	Stamp handle; 'turned', with one threaded end; round in cross-section, wooden, 5 equidistant indented parallel lines encircle the object (figure 106). Found with an un-identified copper alloy fitting or cap (MA4684/1) (see MA4871).	52 x 5 x 5	89
4694	Name stamp; six inserted cast metal sorts (letters) arranged to spell "LARKAN", lead (Pb), in smaller point size a maker's name "I. MOORE LONDON" in a smaller register rotated at 90°. No (wooden) handle or grip in evidence to fit over a spike-shaped tenon moulded out of the back of the stamp for insertion onto a wooden handle (see chapter 3 and 5). Lieutenant. John Larkan was the <i>Pandora's</i> 1st lieutenant. Very few examples of name stamps have been recovered from shipwreck contexts. A similar stamp marked <i>John Cleland RN</i> has been recovered from the 1811 wreck of HMS <i>St George</i> and was the personal stamp of the <i>St George's</i> surgeon (Teisen, 1998: 265) To the best of the author's knowledge no documents are extant in Admiralty archives demonstrating Larkan's use of this name stamp for official purposes.	50 x 15 x 19, ht 38, tenon length 19,	87
4827	Seal stamp, lead; cylindrical, raised letter "M" on the stamp, partially degraded (figure 107)	H 24, dia 21	87
4851	Slate pencil fragment (figure 108)	L 50, dia 6	87
6293	Wood/lead pencil (figure 109)		88
6351	Measuring or mixing tray, rectangular stone slab, with nine round or oval depressions of different sizes (figure 110)	L 158 x W 112 x th 21, wt 808	109

TABLE 52: Writing implement fragments

MA	Description	Dimensions (mm)	Grid
4716/1-2	Slate pencil fragments	1) L 46, dia 6; 2) L 116, dia 6	89
4791	Slate pencil fragment; tapered towards one end	L 60 x dia 5	88
4794/1	Sealing wax; originally attached to MA4794/2 copper alloy disc	L 100 x W 32	88
4893	Dish, unknown purpose; possibly a stamp pad (ink-based) holder?	Dia 110, ht 14	
6400	Lead pencil fragment	L 163	90
6407	Sealing wax,	L 140, x W 20	90
6408/1	Slate pencil fragment	L 112, dia 6	90
6408/2	Slate pencil; fragment associated with MA6408/	L 16 x W 5	90
6404	Ink bottle, square base (figure 111)	Base 45 x 45, H 30, e/dia lip 21, Bore dia 19	90
6432	Sliding pencil fragment, longitudinal half section only, part of the graphite is missing (figure 112).	L 155	90
6437	Slate pencil fragment	L 49, dia 5	90
6442	Worked slate fragment	L 144, dia 6	109
6521	Wood / graphite pencil fragment		90
6549	Slate pencil fragment	L 42, dia 5	90
6580/1	Slate pencil fragment	L 130, dia 6	90
6580/2	Slate pencil fragment	L 105, dia 6	90
6580/3	Slate pencil fragment	L 69, dia 5	90
6616	Slate pencil fragment	L 89 x dia 6	90
7817	Sealing wax / concretion	125 x 5 x 3	94
8000	Pencil (longitudinal fragment) - part of a sliding pencil?		92
8231	Sealing wax		185
8263	Sealing wax, remnants of molten wax at one end	L 96	94

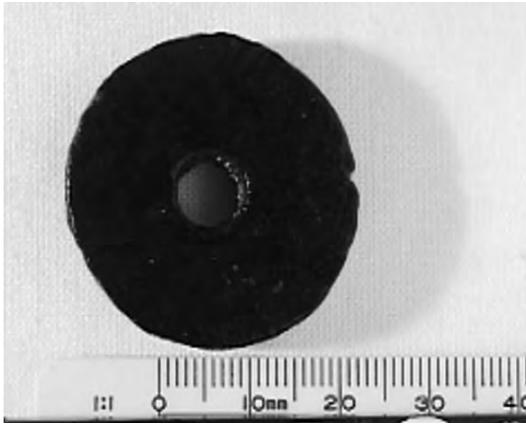


FIG. 105. Bone / ivory disc with central hole (MA6381).



FIG. 106. Stamp handle (MA4684/2).

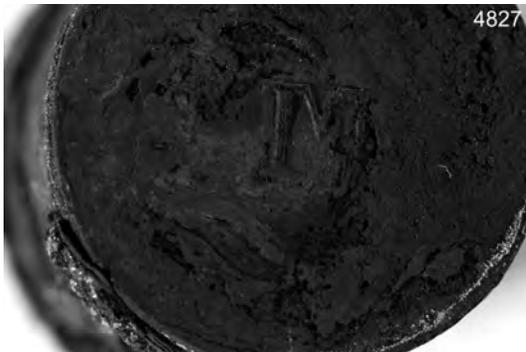


FIG. 107. Seal stamp (MA4827).

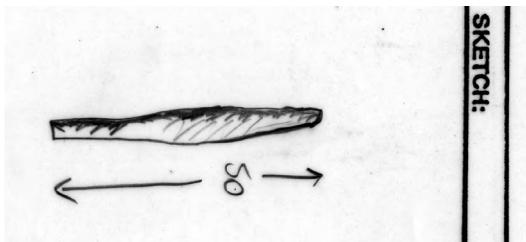


FIG. 108. Slate pencil fragment field sketch (MA4851).

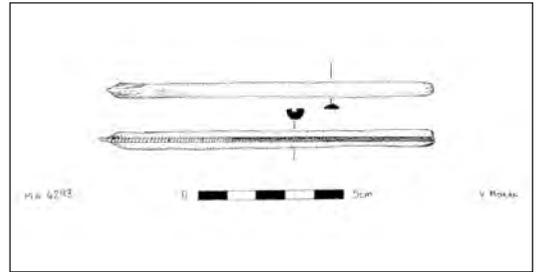


FIG. 109. Wood/lead pencil (MA6293).



FIG. 110. Measuring or mixing tray (MA6351).

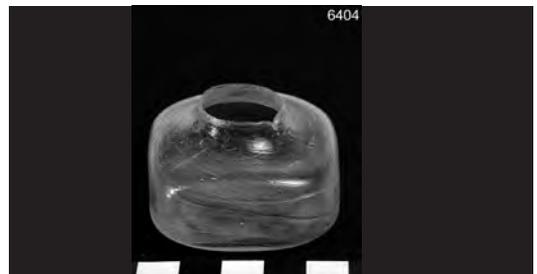


FIG. 111. Ink bottle (MA6404).



FIG. 112. Sliding pencil fragment (MA6432).

TABLE 53: Fishing implements

MA	Description	Dimensions (mm)	Grid
4777	Wooden block / fish net float, square with rounded corners, off centre circular hole	L 123, W 107	89
4800	Fish net weight, cylindrical shape	H 43, e/dia 27, i/dia 19	87
4826	Lead fish net weights, cylindrical x 29	H range 39-41, e/dia 27-28 range i/dia 17-18	87
4830	Lead fish net weight, cylindrical	H 40, e/dia 26, i/dia 17, wt 1255	87
4918	Lead fish net weight, cylindrical, rolled lead sheets	H 40, e/dia 27, i/dia 17, wt 1359	89Sph
4920	Lead fish net weight, cylindrical, extracted from concretion MA4901	H 40, e/dia 27, i/dia 17,	89Sph
6593	Lead weight, undetermined function; rectangular shape	L 42 x W 29 x th 8;	90
6606	Lead weight, undetermined function; rectangular shape	L 46 x W 29 x th 8;	90Sph
7657	Lead weight (sinker?) Spherical / pastille shape, with a hole drilled through the body	L 14, dia 30;	91
8178	Lead weight (sinker?); 'bell' shape, hole in the base, 2 holes at the apex (figure 113).	H 50, base dia 57, wt 889	113

Implement and instrument handles

TABLE 54: Handles

MA	Description	Dimensions (mm)	Grid
4871	Handle, wood/ ivory, (brush- or implement handle), in two parts, threaded connection (figure 114); undetermined function.	63 x 20 x 20	87
4874	Spoon or fork handle, copper alloy (figure 115)	93 x 14 x 3	87
6356	Implement/ instrument handle, copper alloy, navigational/drawing instrument. Ornate rod with two metal 'tongues' at one end for clamping purposes? Compare with MA6352.	L 92, dia 6	90
6360	Handle, ivory, fine turned handle, part of a measuring or navigational implement, remnant of a screw thread at one end.	L 46, max dia 10, min dia 5	90
7730	Handle, wood, tapered, circular socket on one end, (figure 116)	L 110	90
7786/1	Fragment wood	L 112	
7786/2	Handle, turned, wood, tapering from a wide 'belly', threaded at one end (figure 117); rectangular socket through the widest part of the shaft, tapering through the object to a smaller rectangular exit socket.	L 87, dia 11	90
8196	Handle, pewter, flat, tapered, rounded at one end, a cutlery implement.	Th 4	185
8227	Handle, bone/ivory, intact, (figure 118)		166
8282	Handle, brush, wood, fragment (see MA3012)	L 60 x W 34 x dia 19	166
8836	Implement handle, wooden, worked (figure 119)	90 x 22	184



8178

FIG. 113a. Lead weight (MA8178).

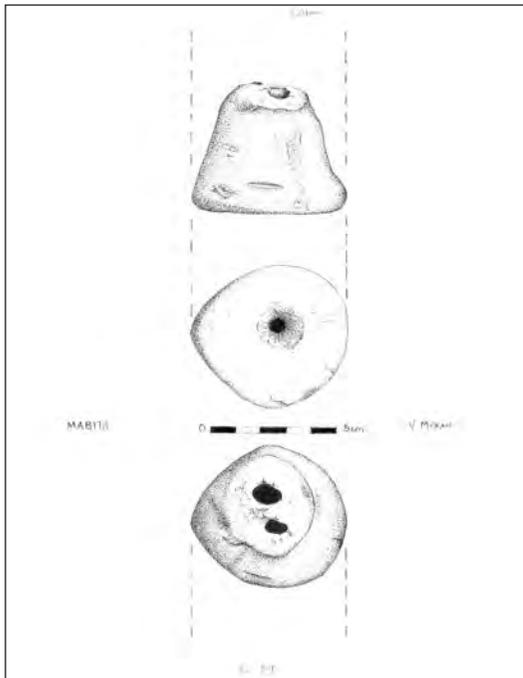


FIG. 113b. Lead weight drawing (MA8178).



FIG. 114. Handle, wood/ ivory, in two parts (MA4871).



4874

FIG. 115. Spoon or fork handle (MA4874).



FIG. 116. Wood handle (MA7730).



7786-2

FIG. 117. Wood handle (MA7786/2).



FIG. 118. Wood handle (MA8227).



FIG. 119. Wood implement handle (MA8836).

TABLE 55: Ceramic jars

MA	Description	Dimensions (mm)	Grid
6583/1	Salt glazed stoneware jar, narrow neck, with remnant cork in place; stamped with the number "3" (figure 120a). Identical to jar MA4016 (figure 120b) recovered from the wreck during the 1995 expedition (Campbell & Gesner 2000:94) Contents identified as mercury. NB: This jar was broken as a result of mercury removal during conservation (first observed concreted attached to carronade MA4190)	H 94 base dia 46 'belly' dia 65 o/a dia neck 29 i/dia neck 22	90
6583/2	Ceramic jar fragment (neck with a cork <i>insitu</i>) Neck of the mercury jar, broken during mercury removal		



FIG. 120a. Salt glazed stoneware jar, with detail inset (MA6583/1).



FIG. 121. Bottle /vial, intact, glass (MA4519).



FIG. 120b. Salt glazed stoneware jar, drawing (MA6583/1).



FIG. 122. Glass bottle/ vial/ flask (MA4793).

TABLE 56: Glass vials and bottles

MA	Description	Dimensions (mm)	Grid
4519	Bottle /vial, intact, glass, slender, tapering towards the base, cylindrical, (figure 121)	H 118, base dia 23, bore dia 8	90
4644	Bottle/ vial, incomplete, glass, cylindrical base segment	base dia 27	89
4793	Bottle/ vial/ flask, glass, intact, round base, body tapering inwards towards a flared, lipped mouth; no cork or glass stopper present (figure 122)	H 52, base dia 46, o/a dia lip, 23, mouth dia 10	88
4795	Bottle/ vial, glass, intact, rectangular section (figure 123); recovered with the remains of a cork stopper in-situ. Compare with vial described under MA71. (Campbell & Gesner, 2000:97).	H 58, base 20 x 15, round neck i/dia 11	88
6300	Bottle/ vial, glass, intact, rectangular base, undetermined contents (figure 124); no cork or glass stopper present.	H 60, base 19 x 17, mouth dia 17	87
7603	Bottle/ vial, glass, fragment; incomplete base fragment;	base dia 14	89
7643	Ground glass bottle stopper;	L 33	92
7645	Bottle/ vial, glass, complete, square based, with a ground glass stopper and un-identified content residue (possibly clove oil)	H 40, base dia 34	
7698/1	Bottle, glass intact, square base, wide neck with un-identified contents (MA7698/2) (figure 125)	H 118, base 46 x 44, wt 208	90
7698/2	Powder, white, unidentified, contents of MA7698/1		90
7732	Bottle, glass, complete, square based	H 124, base 50 x 50, o/a dia lip 25, i/dia 14	90
7733	Bottle/ vial, glass, complete, cylindrical form (figure 126)	H 98, dia base 21 e/dia lip 21, bore dia 12	90Sph
7736/2	Bottle/ vial, glass, fragment, flared lip, medicinal/pharmaceutical purpose	H 95, e/dia lip 23, bore dia 10	94
7747	Ground glass bottle stopper (figure 127)	L 29	92
7748	Ground glass bottle stopper (figure 128)	L 35	92
7769/1	Bottle/ vial, glass, incomplete, square based bottle, with a ground glass stopper <i>insitu</i> (figure 129)	H 113, base 36 x 36, dia lip 25	92
7769/2	Ground glass bottle stopper		92
7769/3	Bottle/ vial, glass, fragment		92
7769/4	Bottle/ vial, glass, fragment		92
7769/5	Bottle/ vial, glass, fragment		92
7769/6	Bottle/ vial, glass, fragment		92
7772	Bottle/ vial, glass, neck fragment with a ground glass stopper	L 39, dia 15	92
7773	Ground glass bottle stopper;	L 39, dia 19	92
7777	Bottle/ vial, glass, intact, glass stopper <i>insitu</i> , identified content residue (see MA132) (figure 130)	34 x 34 x 110	92
7811	Ground glass bottle stopper;	L 27	92
7874	Bottle (figure 131); wide mouth. No glass stopper or cork in place; contents: coated with an unidentified, black residue.	H 75, square base 28 x 28, i/dia 18	94
7933	Bottle (vial) content unknown (figure 132)	H 113, base dia 26, mouth dia 10	166
8069	Bottle/vial, glass, neck fragment with ground glass stopper in-situ		Sph
8097	Bottle/vial, glass, rim, neck and shoulder fragment, medicinal or pharmaceutical purpose		91
8139	Bottle/vial, glass, tapered from base to neck, pronounced lip rim (figure 133)	H 63, base dia 17	94



FIG. 123. Glass bottle/ vial (MA4795).



FIG. 124. Glass bottle/ vial (MA6300).



FIG. 125. Glass bottle (MA7698/1).



FIG. 126a. Glass bottle (MA7733).

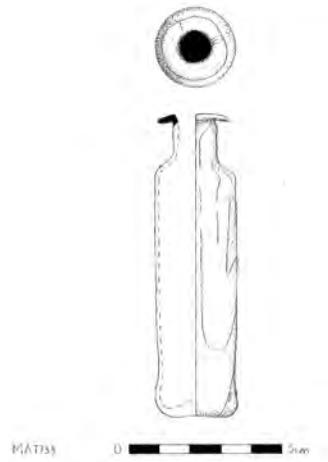


FIG. 126b Field sketch (MA7733).



FIG. 127. Glass stopper (MA7747).



FIG. 128. Glass stopper (MA7748).



FIG. 129. Glass bottle/ vial, incomplete (MA7769/1).



FIG. 130. Glass bottle/ vial (MA7777).



FIG. 131. Glass bottle (MA7874).



FIG. 132. Glass bottle (MA7933).



FIG. 133. Glass bottle (MA8139).

TABLE 56: Glass vials and bottles cont.d

MA	Description	Dimensions (mm)	Grid
8234	Bottle/vial glass, intact (figure 134)	H 70, base dia 14, wt 16	185
8255	Bottle/vial, glass, square base, wide neck (figure 135)	H 110, 40 x 40, wt 73	94
8503	Ground glass bottle stopper, stopper (figure 136)	H 38, W 22	Sph
8732	Ground glass bottle stopper (figure 137)	54 x 20 x 21	104
8281	Bottle/vial, glass, intact, cylindrical body, rounded uneven base; undetermined contents; capacity: approximately 80ml (figure 138) NB: The inner sides of the bottle are partially coated with a concreted material. Hence the approximate capacity measurement	H 92, base dia 25, e/dia 25, i/dia mouth 10	166



FIG. 134. Glass bottle/vial (MA8234).



FIG. 136. Glass stopper (MA8503).



FIG. 137. Glass stopper (MA8732).



FIG. 135. Glass bottle/vial (MA8255).



FIG. 138. Glass stopper (MA8281).

Miscellaneous implements

TABLE 57: Miscellaneous (medical/pharmaceutical) implements

MA	Description	Dimensions (mm)	Grid
8005/1	Syringe, ivory, syringe barrel; one of four components (figure 139)	L 55, dia 12	92
8005/2	Syringe part, ivory, syringe plunger, one of four components (see MA8024)	L 69	92/94
8005/3	Syringe part, ivory, syringe seal, one of four components (see MA8024)	dia 9	92/94
8005/4	Syringe part, ivory, syringe seal one of four components	dia 9	92/94
8008/1	Manufactured object, ivory, threaded shaft dia undetermined function, disassembles by unscrewing the four individual threaded components (MA8008/1-4) (figure 140) Needle holder?	dia 20	92/94
8008/2	Manufactured object, ivory, component, undetermined function, disassembles by unscrewing the four individual threaded components (MA8008/1-4) (figure 141)	L 43x dia 7	92
8008/3	Manufactured object, ivory, component, undetermined function, disassembles by unscrewing the four individual threaded components (MA8008/1-4) (figure 142)	L 55x W 10 x dia 10	92
8008/4	Manufactured object, ivory, component, undetermined function, disassembles by unscrewing the four individual threaded components (MA8008/1-4) (figure 143)	L 49, bore dia 8	92
8009/1	Manufactured item, ivory, fragment, undetermined function; tenon to fit a corresponding mortise		92
8009/2	Manufactured item, ivory, fragment, undetermined function; tenon to fit a corresponding mortise		92
8024/1	Syringe, ivory, syringe barrel, threaded at both ends, one of four components (see MA8005) (figure 144).	L 60, i/dia 10	Sph
8024/2	Syringe component, ivory, plunger cap, internal thread, one of four components, (see MA8005)	i/dia 11	
8024/3	Syringe component, ivory, nozzle fragment, thread on one end, one of four components, (see MA8005)	L 12	
8024/4	Syringe component, ivory, plunger fragment, one of four components, (see MA8005)		Sph
8874	Bowl, glass bowl (figure 145)	H to rim 15, e/dia 50, wt 24	Sph



FIG. 139. Syringe (MA8005/1).



FIG. 140. Manufactured object (MA8008/1).

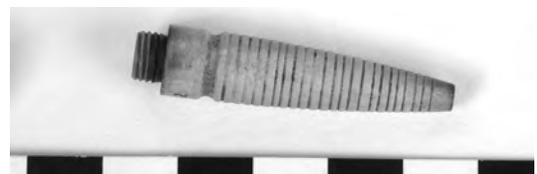


FIG. 141. Manufactured object (MA8008/2).



FIG. 142. Manufactured object (MA8008/3).



FIG. 143a. Manufactured object (MA8008/4).

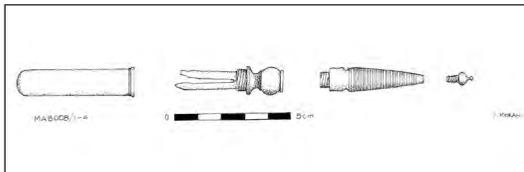


FIG. 143b. Four individual threaded components (MA8008/1-4).



FIG. 144. Syringe (MA8024/1).



FIG. 145. Glass bowl (MA8874).

6294



FIG. 146. Copper alloy needle (MA6294).

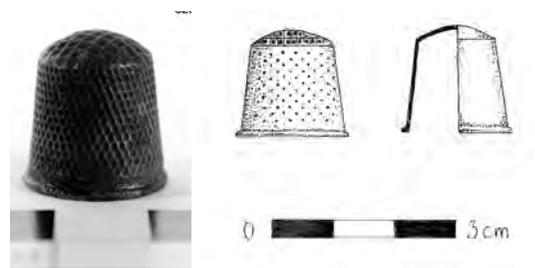


FIG. 147. Copper alloy thimble and drawing (MA8280).



FIG. 148. Worked wooden object (MA8616).



FIG. 149. Instrument part (MA6310).

Sailmaker's equipment

TABLE 58: Sailmaker's equipment

MA	Description	Dimensions (mm)	Grid
4932	Copper alloy pin; round head, sharp point; length 25; found in sediment removed from a gunpowder barrel recovered from grid 89		89Sph
6294	Copper alloy (sailmaker's) needle, a second thread hole above a rectangular eye (figure 146)	75 x 4 x 2	88
8280	Copper alloy thimble (figure 147); a sail-maker's thimble?	H 18, base dia 17	85
8616	Worked wooden object (figure 148); 250 x 46; possibly a fid fragment.		206

Unidentified instrument/ implement/ tool fragments

TABLE 59: Metal Unidentified instrument/ implement/ tool fragments

MA	Description	Dimensions (mm)	Grid
6310	Copper alloy instrument part (figure 149) 43 x 24, Dia end 15 (Cf. MA6286)	43 x 24, dia end 15	89Sph
6402	Wood fragment with a decorative copper alloy catch		90
7832	Worked wooden object; undetermined function. Implement handle?		91
7833	Iron concretion; undetermined object; chain-plate component?		88/89

TABLE 60: Unidentified organic objects

MA	Description	Dimensions (mm)	Grid
4607	Wooden spikes	L 72, L 126	89Sph
4774	Worked wooden objects	L 132, dia 31	89
4797	Wooden dowel fragment		89Sph
6414/1	Wooden spike		90
6414/2	Wooden spike		90
6332/1-10	Wooden spikes x 10		90
8559	Wood fragment	100 x 125 x 70	Sph
8629	Worked wood fragment		203
8630/1	Worked wood fragments		206
8671	Worked wooden object (pyramid shape) 48 x 63 x 60; undetermined function (bung or plug?)		206
8674/1	Worked wooden object; unidentified cylindrical object		205
8682	Worked wooden object; undetermined purpose; plug/ bung	62 x 100 x 10	109
8683	MA8683 - Worked wooden object; unidentified, ovoid shaped	Dia hole 25	205
8711	Wood fragment		205

TABLE 61: Glass / ceramic

MA	Description	Dimensions (mm)	Grid
4586	Glass Instrument fragment	88 x 62 x 1	
8626/1-3	Instrument glass fragments		



FIG. 150. Axe head (MA6508).



FIG. 151. Hammer head (MA8719/90).

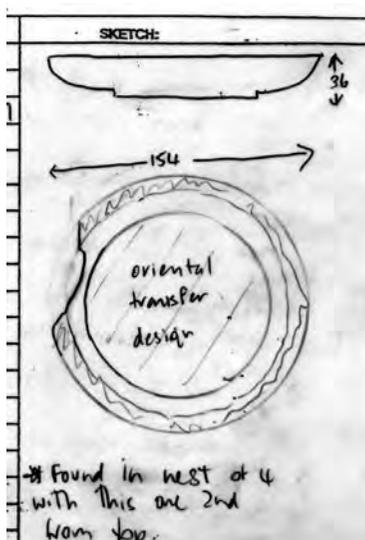


FIG. 152. Tea saucer base field sketch (MA4552).



FIG. 153. Tea saucer base (MA4556).



FIG. 154. Tea saucer base field sketch (MA4557).

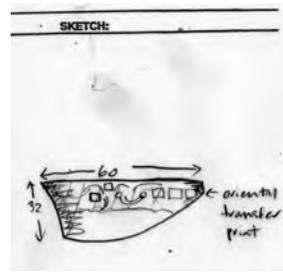


FIG. 155. Tea saucer or tea bowl rim fragment field sketch (MA4765).

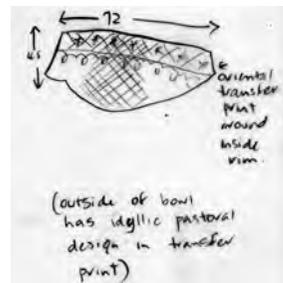


FIG. 156. Tea bowl fragment field sketch (MA4767).



FIG. 157. Tea bowl fragment (MA4775).

TABLE 62: Bosun's tools

MA	Description	Dimensions (mm)	Grid
6508	Axe head, remnant wooden handle, concreted (figure 150)	L 220, W100,	
8719/90	Hammer head, iron (figure 151). Recovered from olive oil jar (MA8719)	L haft 210	90

DOMESTIC EQUIPMENT**TABLE 63: Blue transfer printed tea wares**

MA	Description	Dimensions (mm)	Grid
3003	Tea saucer base fragment, blue transfer-printed saucer. Decoration –'couple and swaddled infant in rural idyll' scene; bordered by a double diamond-diaper band ('Nanking' border) Recovered during the 1993 expedition.	foot ring dia 74	
4552	Tea saucer, blue transfer-print, intact. (figure 152).		90
4555	Tea saucer, blue transfer-print, near complete. Decoration – <i>chinoiserie</i> scene on the inner surface depicting a single swallow in flight, two houses, a walled garden, a willow tree, blossoming apple trees and a boat, in mid river, heading towards an island in the distance. The central (well) scene is bordered by a single spearhead band; an inner rim 'Fitzhugh' border. Evidence of overglaze gilt enrichment on the rim, identical to MA4556 and MA4557.	H 43 o/a dia bowl 152 base ring dia 85 H of foot ring 8	90
4556	Tea saucer, blue transfer-print saucer; complete(figure 153)	H 39 o/a dia bowl 152 base ring dia 88 H of foot ring 8	90
4557	Tea saucer, blue transfer-print, complete (figure 154)	H 40 o/a dia bowl 154 base ring dia 88 H of foot ring 8	90
4765	Tea saucer or tea bowl rim fragment, blue transfer-print. Decoration-'Fitzhugh' border (figure 155)		89
4767	Tea bowl fragment, blue transfer-print (figure 156). Decoration –diamond-diaper pattern around inner rim, underscored with a band of scrolls and spears. ('Nanking' border).		89
4775	Tea bowl fragment, blue transfer-print, diamond-diaper pattern underscored by a spear and scroll motif around the inner rim ('Nanking' border) and a central medallion with 'lamb at rest' scene in the well, encircled with a single diamond-diaper-band (figure 157) (see MA6426).	H 53 Foot ring dia 39	89
4839	Tea bowl rim fragment, blue transfer-print, 'Nanking' border around the inner rim (figure 158); possible fit with MA4775.		Sph
4885	Tea saucer, blue transfer print, incomplete (figure 159). Decoration – <i>chinoiserie</i> scene, with tea house, pagoda, walled garden, willow, blossoming apple trees and a sampan flying a pendant in mid river, heading towards a distant island. A single filigree band borders the (over-size) central scene. 'Fitzhugh' motif band with geometrical and floral patterns around the inner rim; identical to MA4552 (see MA4557).	H 33 o/a dia bowl 125 base ring dia 72 H of foot ring 8	70
4944	Tea bowl rim fragments, multiple sherds, blue transfer print.		89
6426	Tea bowl, blue transfer-print, intact (figure 160). Decoration – inner rim diamond-diaper pattern underscored by spear and scroll motif ('Nanking' border), central well scene with European features ('lamb at rest') and outer surface a single fisherman leaning against a tree scene and (verso) the 'young couple with swaddled infant in rural idyll' scene) (seeMA8821).	H 50 o/a dia bowl 82, base ring dia 38	90

TABLE 63: Blue transfer printed tea wares cont.d

MA	Description	Dimensions (mm)	Grid
6430/1	Tea bowl rim fragment, blue transfer-print (figure 161). Decoration – diamond-diaper pattern, underscored with a spear and scroll motif ('Nanking' border) (see MA4767)	56 x 31 x 2	90
6430/2	Tea bowl rim fragment, blue transfer-print. Decoration –diamond-diaper pattern, underscored with a spear and scroll motif. ('Nanking' border) (see MA4767)	54 x 32 x 2	90
6447	Tea saucer, blue transfer-print, intact (figure 162). Decoration – diamond-diaper rim decoration underscored with spear and scroll, 'Nanking' border motif; the central well with a European feature, the 'young couple in rural idyll' scene encircled by a double diamond-diapered band	H 37 o/a dia bowl 125 base ring dia 7. H foot ring 7	90
6473/1	Tea saucer, blue transfer-print, intact (figure 163). Decoration – <i>chinoiserie</i> scene with two houses, single swallow in flight, a walled garden, with willow tree and apple tree and a boat in mid river heading towards an island in the distance. The central well scene is bordered by a single filigree band; an inner rim 'Fitzhugh' border.	H 37 o/a dia bowl 150 base ring dia 88 H foot ring base 7	90
6473/2	Tea saucer, blue transfer-print, intact (figure 164). Decoration – diamond-diaper rim border and inner 'Nanking' border pattern band around a European feature in the central well, showing the 'young couple with swaddled infant in rural idyll' scene (see MA6447)	H 29 o/a dia bowl 130 base ring dia 72 H foot ring base 7	90
6473/3	Tea saucer, blue transfer-print, intact. Decoration – diamond-diaper 'Nanking' border pattern around the inner rim, young couple in 'rural idyll' scene, encircled by a diamond-diaper band; no decoration on the outer surface.	H 32 o/a dia bowl 123 base ring dia 71 H foot ring base 7	90
6484	Tea saucer, blue transfer-print, intact (figure 165). Decoration – 'Fitzhugh' pattern inner rim and <i>chinoiserie</i> scene in the central well, with a single swallow in flight, a walled garden, pagoda and garden tea house, willow and apple trees, a boat in mid river with a single figure, heading towards a distant island and one bird; the central well scene is encircled by a single trim of stylised scrolls, in blue. Evidence of gilt enrichment on the rim; identical to MA4556 and MA4557.	H 34 o/a dia bowl 152 base ring dia. 70 H foot ring base 7	90
6487/1	Tea bowl, blue transfer-print, intact. Decoration – 'Fitzhugh' inner rim border pattern, central well scene; individual tea house scene on outer surface.	H 52 o/a dia bowl 110 base ring dia 52 H foot ring base 7	90
6487/2	Tea bowl, blue transfer-print, intact (figure 166). Decoration – 'Fitzhugh' border pattern along the inside rim, central well scene; individual tea house scene on outer surface.	H 60 o/a dia bowl 110 base ring dia 55 H foot ring base 7	90
6487/3	Tea bowl, blue transfer-print, intact (figure 167). Decoration – 'Fitzhugh' pattern rim border along the inside rim, and indistinct pattern in the well. Individual tea house scenes on external body.	H 60 o/a dia bowl 110 base ring dia 53 H foot ring base 7	90
6498	Tea saucer, blue transfer-print, intact (figure 168). Decoration – diamond-diaper ('Nanking') border pattern and central well scene depicting a 'young couple with swaddled infant in rural idyll' (see MA6473/2 and MA8821).		
6499	Tea saucer, blue transfer-print, intact (figure 169). Decoration – diamond-diaper "Nanking' border pattern around the inner rim and the central well depicting a 'young couple with swaddled infant in rural 'idyll' scene, encircled by a diamond-diaper band (see MA6498).	H 31 o/a dia bowl 126 base ring dia 68 H foot ring base 6	90
6511	Tea saucer, blue transfer-print, intact (figure 170). Decoration – diamond-diaper "Nanking' border pattern around the rim, 'young couple with swaddled infant rural idyll' scene in the central well, encircled by an inner diamond-diaper band; identical to MA6498 +6499.	H 32 o/a dia bowl 125 base ring dia 73 H foot ring base 7	90



FIG. 158. Tea bowl fragment (MA4839).

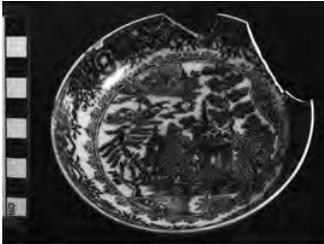


FIG. 159. Tea saucer, blue transfer print (MA4885).

6426



FIG. 160. Tea bowl (MA6426).



FIG. 161. Tea bowl fragment (MA6430/1).



FIG. 162. Tea saucer (MA6447).



FIG. 163. Tea saucer (MA6473/1).



FIG. 164. Tea saucer (MA6473/2).



FIG. 165. Tea saucer (MA6484).



FIG. 166. Tea bowl (MA6487/2).



FIG. 167. Tea bowl (MA6487/3).



FIG. 168. Tea saucer (MA6498).



FIG. 169. Tea saucer (MA6499).



FIG. 170. Tea saucer (MA6511) with reverse side.



FIG. 171. Tea bowl (MA6573/1).



FIG. 172. Tea bowl (MA6573/2).



FIG. 173. Tea bowl (MA6588).

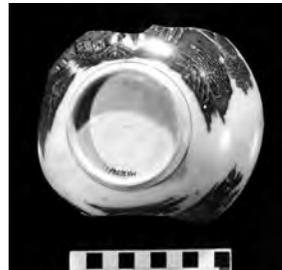


FIG. 174. Tea bowl fragment (MA7656/1).



FIG. 175. Tea saucer (MA7762).

TABLE 63: Blue transfer printed tea wares cont.d

MA	Description	Dimensions (mm)	Grid
6573/1	Tea bowl, blue transfer-print, intact (figure 171). Decoration – ‘Fitzhugh’ pattern around the inner rim and <i>chinoiserie</i> landscape with pagoda scene on the outer body. Square rigged sampan mid river flying a pennant.	H 60 o/a dia bowl 110 base ring dia 52 H foot ring base 13	90
6573/2	Tea bowl, blue transfer-print, intact (figure 172). Decoration – ‘Fitzhugh’ border around inner rim, stylised medallion with a <i>chinoiserie</i> landscape with single pagoda flanked by two trees on an island scene on the outer body.	H 61 o/a dia bowl 109 base ring dia 52 H foot ring base 13	90
6588	Tea bowl, blue transfer-print, intact (figure 173). Decoration – ‘Fitzhugh’ pattern around inner rim; an indistinctly stylised central motif (see MA6573). <i>Chinoiserie</i> landscape with a single pagoda on an island scene on the outer body.	H 57 o/a dia bowl 109 base ring dia 52 H foot ring base 13	90
7654	Tea bowl fragment, blue transfer-print		89
7655	Tea bowl fragment, blue transfer-print		89
7656/1	Tea bowl, base fragment, blue transfer-print (figure 174). Decroation – ‘Fitzhugh’ inner rim border with indistinct central feature		89
7656/2	Tea bowl fragment, blue transfer-print		91
7762	Tea saucer, blue transfer-print, intact (figure 175). Decoration – inner rim diamond-diaper border underscored by scroll and spear motif and the ‘rural idyll’ young couple with swaddled infant scene in the well, diamond-diaper band bordering the central scene.	H 38 o/a dia bowl 135 base ring dia 73 H foot rim base 12	92
7821	Tea bowl rim fragment, blue transfer-print		92
7865	Tea bowl, blue transfer-print, intact, (figure 176). Decoration – degraded glazing; diamond-diaper ‘Nanking’ border pattern around the inner rim, European scenes (single fisherman scene and ‘rural idyll’ scene with young couple and swaddled infant) on the outer body; a central medallion in the well depicting a lamb at rest.	H 58 o/a dia bowl 85 base ring dia 39, H foot ring base 12	92
8150/1	Blue transfer-printed tea bowl (figure 177), incomplete; diamond-diaper ‘Nanking’ band around the inner rim and a central medallion depicting a lamb at rest. European features, single fisherman and ‘young couple with swaddled infant in ‘rural idyll’ scenes, on the outer body. Found together with a rim fragment (MA8150/2).	H 50 o/a dia bowl 85	91
8150/2	Blue transfer-printed tea bowl fragment; rim fragment (figure 178). This fragment combines with MA8150/1 to make a complete bowl. Diamond-diaper inner rim ‘Nanking’ border.		91
8175	Tea saucer, blue transfer-print, intact (figure 179). Decoration – evidence of overglaze gilt enrichment on the saucer’s inner rim, <i>chinoiserie</i> scene with a single swallow in flight, a house and garden house within a terraced garden, willow tree and apple trees in blossom and a sampan with upright figure heading towards a distant island, bordered by a single string of filigree-scrolls. ‘Fitzhugh’ pattern inner rim border	H 36 o/a dia bowl 155 foot base ring dia 85, H foot ring 11	91/93
8299/9	Tea saucer, blue transfer-print (figure 180). Reconstructed, from fragments found in a the storage tank with MA8299 (cannon) (reconstruction by Megan Absalon)	H 35 o/a dia bowl 146	93
8609	Tea bowl, blue transfer-print, intact. Decoration- inner and outer rim (circle and dot pattern) border and a floral/star motif medallion in the central well.	H 53 o/a dia bowl 92 base ring dia 65	110
8781	Tea saucer, blue transfer-print. Decoration – floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim. This saucer was found packed in sawdust in an 8 saucer stack with MA8781, MA8782, MA8783, MA8784, MA8785, MA8786 and MA8787.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109



FIG. 176. Tea saucer (MA7865).



FIG. 180. Tea saucer (MA8299/9).



FIG. 181. Tea saucer (MA8782).



FIG. 177. Tea bowl (MA8150/1).



FIG. 182. Tea bowl (MA8789/1).



FIG. 178. Tea bowl fragment (MA8150/2).



FIG. 183. Tea bowl (MA8789/3).

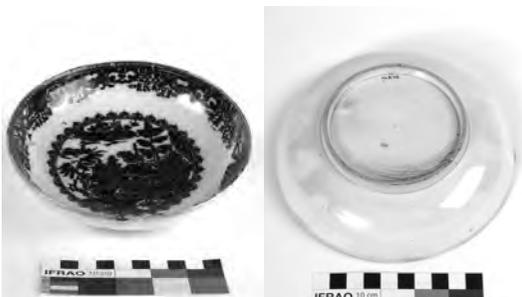


FIG. 179. Tea saucer (MA8175).



FIG. 184. Tea saucer (MA8791/2).

TABLE 63: Blue transfer printed tea wares cont.d

MA	Description	Dimensions (mm)	Grid
8782	Blue transfer-printed saucer, complete (figure 181). Floral motif in the central well and a geometric with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8783	Tea saucer, blue transfer-print, intact. Decoration – floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8784	Tea saucer, blue transfer-print, intact. Decoration- floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8785	Tea saucer, blue transfer-print, intact. Decoration – floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8786	Tea saucer, blue transfer-print, intact. Decoration – floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8787	Tea saucer, blue transfer-print, intact. Decoration – floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8788	Tea saucer, blue transfer-print, intact. Decoration – floral motif in the central well and a geometric motif with a sawtooth edge pattern around the rim, evidence of over-glaze gilt enrichment around the rim.	H 38 o/a dia bowl 142 base ring dia 89 H base ring 7	109
8789/1	Tea bowl, blue transfer-print, intact (figure 182). Decoration – geometric (circle and dot) patterned border around the inner rim and central floral motif in the well; evidence of over-glaze gilt enrichment around the edge.	H 58 o/a dia bowl 93 base ring dia 49 H base ring 7	109
8789/2	Tea saucer, blue transfer-print, incomplete; Displaying in the well a young couple with swaddled infant rural 'idyll' scene, bordered around the inner rim by a band of diamond-diaper patterning; evidence of over-glaze gilt enrichment around the edge .		109
8789/3	Tea bowl, blue transfer-print, intact (figure 183). Decoration – geometric (circle and dot) patterned border around the inner rim and central floral motif in the well; evidence of over-glaze gilt enrichment around the edge. Associated with MA879.	H 58 o/a dia bowl 90 base ring dia 52 H base ring 7	109
8791/1	Tea saucer, blue transfer-print, intact. Decoration – geometric (circle and dot) patterned rim with a sawtooth edge and a floral motif in the central well; evidence of over-glaze gilt enrichment around the edge. NB: recovered from an area close to the '8 saucer stack' (MA8781-8788)	H 30 o/a dia bowl 145 base ring dia 52 H base ring 7	109
8791/2	Tea saucer, blue transfer-printed saucer, intact (figure 184). Decoration – geometric (circle and dot) patterned rim with a sawtooth edge and a floral motif in the central well; Evidence of over-glaze gilt enrichment around the edge. NB: recovered from an area close to the '8 saucer stack' (MA8781-8788)	H 30 o/a dia 145 base ring dia 51 H base ring 7	109
8821	Tea bowl, blue transfer print, intact (figure 185). Decoration – multiple motifs; examples of European scenes ('young couple and swaddled child in rural idyll' and 'seated, carefree young fisherman' The two scenes juxtaposed intended as a moral reminder about responsibility associated with fatherhood?	H 48 o/a dia bowl 83 base ring dia 39 H base ring 7	88
8846/3	Earthenware rim fragments, blue transfer print		

TABLE 64: Hand-painted tea wares

MA	Description	Dimensions (mm)	Grid
3005	Tea saucer, intact, hand-painted, Caughley ('Salopian') manufactured saucer, underside marked with a hand-painted letter 'S' hand-painted 'Caughley' works mark.	H 38 o/a dia bowl 164 dia foot ring 90	103
4885	Ceramic sherds x 2; 1) Blue transfer-printed rim fragment ('Fitzhugh' pattern) (figure 186). 2) Porcelain bowl fragment, scalloped edge hand-painted (cf MA4860 + 4861, MA4900 and MA4904).	1) 42 x 29 2) 39 x 19	89Sph
6252	Earthenware sherd, blue and white striped patterned glaze (figure 187)	85 x 71 x 5	88
6263	Ceramic, hand-painted sherd, blue, rim fragment (figure 188). Fragment fits into a partial reconstruction of the incomplete bowl (MA7600). Two fragments noted to fit MA7600 in a partial reconstruction are MA6263 & MA1276.	62 x 54 x 5	85
7600	Tea bowl, hand-painted bowl (figure 189), incomplete; the inner rim border is a 'Nanking'-like, cross-hatched band, underscored with a spear motif. The cross-hatched band contains registers, each with a triangular 'stack' of fruit and decorative leaves. Evidence of over-glaze gilt enrichment, outer surface perhaps depicts a 'wind-blown seeding or pollination event'; possible fit with MA1276 + MA6263.	H 48 o/a dia 160 foot ring dia 101	72



FIG. 185a. Tea bowl; young couple and swaddled child in rural idyll (MA8821).



FIG. 185b. Tea bowl; seated, carefree young fisherman (MA8821).

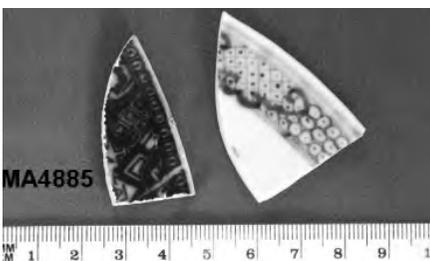


FIG. 186. Ceramic sherds x 2 (MA4885)



FIG. 187. Earthenware sherd (MA6252)



FIG. 188. Earthenware sherd (MA6263)



FIG. 189. Handpainted tea bowl (MA7600)

Cream- or 'cream-coloured' ware

NB: The author acknowledges the 'back-of-house' assistance provided by JCU student/volunteer Ms Rikke Hammer, who spent considerable time sorting and ordering the creamware sherds with a view to finding 'fits' to enhance reconstruction and determine minimum vessel count.



6489-2

FIG. 190. Shallow dinner plate(MA6489/2).



FIG. 191. Shallow dinner plate (MA8714).



FIG. 192. Reconstructed dinner plate (MA8544/0).

TABLE 65: Intact or near intact creamware shallow dinner plate

MA	Description	Dimensions (mm)	Grid
6489/1	Royal pattern 9" - 10" shallow dinner plate, intact, grey staining	H 25, e/dia 253	90
6489/2	Royal pattern 9" - 10" shallow dinner plate, intact, grey staining (figure 190)	H 26, e/dia 251	90
6489/3	Royal pattern 9" - 10" shallow dinner plate, intact, semi-circular mark impressed into base	H 32, e/dia 249	
8714	Royal pattern 9" - 10" shallow dinner plate, intact (figure 191)	H 45, e/dia 260	109

TABLE 66: Reconstructed 'regular' shallow (9" - 10") dinner plates

MA	Description	Dimensions (mm)	Grid
4625/0	Reconstructed - near-complete 9"-10" Royal pattern shallow dinner plate, letter 'C' scratched onto base, moderate use wear (scratches). No foot ring, no letter stamps. Reconstructed from MA4625, MA1469, MA4022/1+2.	H 24, e/dia rim 253, base dia 156	
4881/2	Reconstructed - near complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from MA4881/1-2, MA4735, MA4766, MA4866.	H 18, e/dia 253, foot ring dia 131	
4925/0	Reconstructed - near complete Royal pattern, 9"-10" regular shallow dinner plate, letter 'C' scratched onto base, use wear, extracted from concretion MA4656. Reconstructed from MA4925/1-2.	H 33, e/dia 255	89
6438/1	Reconstructed - near complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from MA6438/1, MA6490/2- 5, MA6464, MA6519, MA6505/2, MA6557.	H 21	90

TABLE 66: Reconstructed 'regular' shallow (9" - 10") dinner plates cont.d

MA	Description	Dimensions (mm)	Grid
6489/1	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate; some staining due proximity to charcoal from gunpowder barrels in the adjacent magazine; no footring, no use marks. Reconstructed from MA6489/2, MA6489/3	H 256, e/dia 253	
6501/0	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from 3 fragments: MA6501, MA6505/1, MA6505/2.	H 32, e/dia 250	90
8543/0	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from MA8543/1-3, MA8544/3, MA8551/2, MA8551/20, MA8551/52+54, MA8551/69, MA8576/1+3 +5, MA8548/2.	H 26, e/dia 254	90
8544/0	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate (figure 192). Reconstructed from 20 fragments: MA8544/1+2, MA8544/4-7, MA8547/2, MA8551/7, MA8551/9, MA8551/14, MA8551/21, MA8551/35, MA8551/40, MA8551/43, MA8551/57, MA8551/65, MA8551/71, MA8551/79, MA8551/80, MA8551/83 MA8544/ 0	H 21, e/dia 248	109
8545/0	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate, burst * stamp into the base. Reconstructed from MA8545/1-6, MA8551/19, MA8551/24, MA8551/26, MA8551/36, MA8551/60, MA8551/88	H 28, e/dia 251	109
8546/0	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from MA8546/2-8, MA8551/6, and two unnumbered sherds.	H 27, e/dia 254	109
8547/0	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate, letter 'H' or 'I' stamp into base. Reconstructed from 17 fragments MA8547/1+ 3-5, MA8547/7, MA8547/9, MA8551/8, MA8551/11, MA8551/21, MA8551/23, MA8551/27, MA8551/33, MA8551/ 56, MA8551/67 MA8551/73 +99 & MA8576/7.	H 24, e/dia 253	109
8548/0	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate, burst * stamp into the base. Reconstructed from MA8548/1, MA8551/16, MA8551/41, MA8551/42, MA8551/48, MA8551/51, MA8551/55, MA8551/58, MA8551/61, MA8551/63, MA8570/4 & MA8576/2.	H 25, e/dia 253	109
8549/0	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from MA8546/3, MA8549/1+2, MA8551/3, MA8551/12+13, MA8551/59, MA8551/74, MA8551/75, MA8551/82, MA8551/84, MA8551/90 & MA8551/91.	H 19, e/dia 251	109
8550/0	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate, burst * as stamped into the base stamp. Reconstructed from MA8550/1+2, MA8551/17, MA8551/50, MA8551/72 and MA8551/81+82.	H 19, e/dia 251	109
8551/0	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate, letter 'H' or 'I' stamped into the base. Reconstructed from MA8551/5, MA8551/10, MA8551/15, MA8551/18, MA8551/25, MA8551/34, MA8551/32, MA8551/44, MA8551/47, MA8551/70, MA8551/29, MA8551/64, MA8551/86, MA8547/8.	H 24	109
8551/00	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from 14 fragments MA8551/4, MA8551/22, MA8551/28, MA8551/37, MA8551/45, MA8551/49, MA8551/53, MA8551/62, MA8551/66, MA8551/68, MA8551/77, MA8551/78 and MA8576.	H 26, e/dia 254	109
8801/0	Reconstructed – complete Royal pattern, 9"-10" regular shallow dinner plate. Reconstructed from MA8801/1-5.	H 28, e/dia 240	
8802/0	Reconstructed – near complete Royal pattern, 9"-10" regular shallow dinner plate, letter 'C' scratched onto base, slight use wear. Reconstructed from 5 fragments: MA8802/1, MA8802/2 + 3, MA8802/2, MA8802/3.	H 28, e/dia 240	88
8803	Complete Royal pattern 9¾", shallow dinner plate, intact, burst * stamped into the base.	H 25, e/dia 252	88

8" Shallow side plates or 'twiffers'

This plate form has the same depth as the regular shallow dinner plate; it was likely used as a side plate. There are examples with and without a foot ring, indicating that they are part of different dinner services; a

relatively small number of examples have been found to date.

Not all of the following sherds have been analysed with a view to determining whether they can be assembled to form a shallow 9" - 10" dinner plates or 8" side plates.

TABLE 67: Reconstructed 8" shallow side plates

MA	Description	Dimensions (mm)	Grid
1354	Reconstructed – near complete 8" 'twiffer', some use wear, letter 'H' or 'I' stamped into base. Reconstructed from MA1191, MA4087 & MA4183.	H 19, e/dia 205, base dia 130	68/70
1568/1	Reconstructed – near complete 9"-10" shallow dinner plate, letter 'H' or 'I' stamped into base, letter 'C' scratched into the base, some use wear. Reconstructed from MA4064 and MA1568/2.	e/dia 254	72/89
4030/1-3	Reconstructed – complete 8" 'twiffer'. Reconstructed from MA4030/1-3.	H 9, e/dia 204 foot ring dia 118	70
4064	Reconstructed – complete shallow 9"-10" shallow dinner plate, letter 'H' or 'I' stamped into base, letter 'C' scratched onto the base, moderate use wear. Reconstructed from MA1568/1+2.	H 25, e/dia 251	70
4137	Plate sherd, part of a shallow 9"-10" Royal pattern dinner plate, extensive use wear evident, letter 'C' scratched onto base.	H 25, e/dia 235	70
6490/0	Reconstructed - complete shallow 8" shallow dinner plate, use wear marks. Reconstructed from MA6490/1, MA6431/ 2+8+10.	H 9, e/dia 205	90
6438/1-2	Reconstructed – near complete Royal pattern 9"-10" shallow dinner plate. Reconstructed from MA6438/1,MA6438/2.	H 25, e/dia 235	90
8569	Reconstructed – near complete 8" "twiffer", use wear, extensive staining due to proximity of gunpowder magazine. Reconstructed from MA8589/3, MA8568/2 and MA8691.	H 9, e/dia 205	109



FIG. 193. Reconstructed soup plate (MA1312).

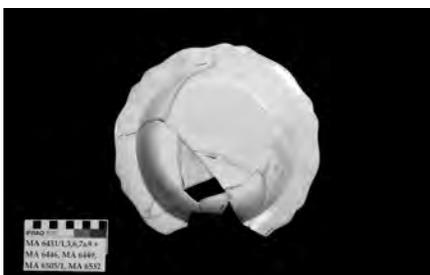


FIG. 194. Reconstructed soup plate (MA6431/0).

Soup plates (9"-10")

This form is a deeper plate than the 'regular' (shallow) dinner plate -i.e. with a height to the rim ranging between 39 to 46mm. It also is present in varying diameters 220-254mm (between 9" and 10"), with, or without, foot rings. It is suggested there were at least two different dinner services on board, probably made by different manufacturers and/or purchased from different retailers. These dinner services were most likely the property of different (groups of) individuals. This reflects their use at the various tables (or "messes") on board (i.e. captain's table, wardroom, gunroom etc).

All soup plates recovered from the wreck to date are 'Royal' pattern. Three complete soup plates – recovered before the 1996 expedition – have been described (Campbell & Gesner 2000:103).

TABLE 68: Reconstructed 9"-10" soup plates

MA	Description	Dimensions (mm)	Grid
1312	Reconstructed – near complete Royal pattern 9"-10" shallow dinner plate, foot ring, letter 'H' or 'I' stamped into base (figure 193). Reconstructed from MA1312, MA1279, MA1775 and MA4142/6.	H 21, e/dia rim 246, foot ring dia 136	70
4926	Rim and base sherd, 9"-10" Royal pattern, soup plate, incomplete, letter 'C' scratched onto the base. . Impressed mark '+' stamped into base, extracted from concretion MA4656	H 41, e/dia 245	89
6431/0	Reconstructed – near complete, 9"-10" Royal pattern, soup plate, (figure 194). Reconstructed with MA6431/1-3-6-7-9, MA6446, MA6449, MA6505/1 and MA6532.	H 30, e/dia 254	90
6431/00	Reconstructed – near complete Royal pattern 9"-10" soup plate, slight staining. Reconstructed from MA6431/4-5, MA6438/2, MA6440.		
6440	Reconstructed – near complete Royal pattern 9"-10" soup plate. Impressed mark '+' stamped into base. Reconstructed from MA6440, MA6431/5 & MA6438/2.	H 37, e/dia 247	90
6448/1	Complete Royal pattern 9"-10" soup plate, some staining	H 32, e/dia 249	109
6448/2	Complete Royal pattern 9"-10" soup plate, burst * mark stamped into the base	H 29, e/dia 250	90
6478	Complete Royal pattern 9"-10" soup plate, burst * off centre on the base, extensive staining	H 32, e/dia 249	90
8177	Complete Royal pattern 9"-10" soup plate, letter 'C' scratched onto base, extensive staining.	H 38, e/dia 240	93
8256/1	Near complete Royal pattern 9"-10" soup plate sherd, MA8256/1-2 conjoin, letter 'C' stamped into the base, slight use wear, staining	foot ring dia 130 (5½")	93
8256/2	Near complete Royal pattern 9"-10" soup plate sherd, MA8256/1-2 conjoin, letter 'C' stamped into the base, slight use wear, staining	H 46,e/dia 250, foot ring dia 130 (5½")	93
8257	Complete Royal pattern 9"-10" soup plate, letter 'I' stamped into base, letter 'W' scratched onto base, grey staining, use wear marks (figure 195)	H 45, e/dia 250, foot ring dia 130 (5½")	93
8292	Royal pattern 9"-10" soup plate, incomplete, some loss from rim edge, extensive use wear, letter 'C' stamped into the base, foot ring	H 45, e/dia 250, foot ring dia 130 (5½")	89
8646	Complete Royal pattern 9" - 10" soup plate, burst * stamp on base	H 35, e/dia rim 250	109
8668/1	Sherd, Royal pattern 9"-10" soup plate, letter 'I' stamped into the base. Reconstructed from MA8668/1-8 to form soup plate.	H 21, e/dia 240	109
8668/2	Plate sherd, MA8668/1-8 can be re-assembled to form Royal pattern 9"-10" soup plate	H 21, e/dia 240	109



FIG. 195. Soup plate, letter 'I' stamped into base, letter 'W' scratched onto base (MA8257).



FIG. 196a. Platter (MA6392/1).

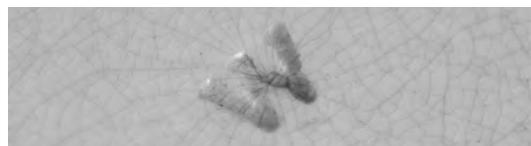


FIG. 196b. Letter 'W' stamp detail on base (MA6392/1).

TABLE 68: Reconstructed 9"-10" soup plates cont.d

MA	Description	Dimensions (mm)	Grid
8668/3	Plate sherd, MA8668/1-8 can be re-assembled to form Royal pattern 9"-10" soup plate	H 21, e/dia 240	109
8668/4	Plate sherd, MA8668/1-8 can be re-assembled to form Royal pattern 9"-10" soup plate	H 21, e/dia 240	109
8668/5	Plate sherd, MA8668/1-8 can be re-assembled to form Royal pattern 9"-10" soup plate	H 21, e/dia 240	109
8668/6	Plate sherd, MA8668/1-8 can be re-assembled to form Royal pattern 9"-10" soup plate	H 21, e/dia 240	109
8714	Complete Royal pattern 9"-10" soup plate, staining	H 38, e/dia 248	88
8804	Complete Royal pattern 9"-10" soup plate, letter 'I' stamped into base, foot ring	H 25, e/dia 240, foot ring dia 131 (5¼")	88
8805	Complete Royal pattern 9"-10" soup plate, letter 'L' stamped into the base, foot ring	H 40, e/dia 240, foot ring dia 131 (5¼")	88
8806	Complete Royal pattern 9" - 10" soup plate, letter 'C' stamped into base	H 42, e/dia 240, foot ring dia 131 (5¼")	88
8807	Complete Royal pattern 9"-10" soup plate, letter 'I' stamped into base	H 41, e/dia 248, foot ring dia 131 (5¼")	88

Serving platters

A substantial number of serving platters were recovered from the wreck. Their shape is uniformly oval, however, their dimensions show a range of sizes; with overall length measurements ranging from 233 to 516mm (9" to 20") Like the shallow plates and soup plates, they also appear to be parts of two different dinner "sets", one with, and one without, a foot ring.

TABLE 69: Serving platters

MA	Description	Dimensions (mm)	Grid
6392/1	Royal pattern platter, intact, letter 'W' stamp into base, foot ring (figure 196)	H 21, 323 x 261 (12½" x 10¼")	90
6392/2	Royal pattern platter, intact, letter 'W' stamped onto base, post conservation cleaning of charcoal staining.	H 22, 320 x 255 (12½" x 10¼")	90
6469	Royal pattern platter, intact, foot ring, crack visible on the under-side of the rim (figure 197)	H 38, 494 x 380 (18½")	90
6477/1	Royal pattern platter, intact, chip on the rim	H 44, 420 x 320 (18½")	90
6477/2	Royal pattern platter, intact, letter 'T' stamped into base, foot ring.	H 31, 405 x 321 (17½")	
6477/3	Royal pattern platter, intact, foot ring.	H 45, 390 x 315 (9⅞")	90
6477/4	Royal pattern platter, intact, letter 'T' stamped into base, foot ring.	H 45, 370 x 295 (14⅜")	90
6478	Royal pattern platter, intact, use wear.	H 32, L 249 (9½")	90
6479/1	Royal pattern platter, intact, glazing stilt (triangular) marks on underside	H 34, 445 x 347 (18")	90
6479/2	Royal pattern platter, intact, glazing stilt (triangular) marks on underside	H 34, 435 x 345 (17½")	90
6479/3	Royal pattern platter, intact, glazing stilt (triangular) marks on underside	H 44, 445 x 345 (17")	90
6480	Royal pattern platter, intact	H 38, 474 x 375	90
6638/1	Royal pattern platter, intact, staining, glazing stilt (triangular) marks on the underside, found nested inside a soup tureen (MA6485)	H 28, 243 x 178 (9⅝")	90
6638/2	Royal pattern platter, intact, staining, glazing stilt (triangular) marks on the underside, found nested inside a soup tureen (figure 198) (MA6485)	H 28, 243 x 178	90

TABLE 69: Serving platters cont.d

MA	Description	Dimensions (mm)	Grid
6638/3	Royal pattern platter, intact, 9"-10", grey staining, glazing still (triangular) marks on the underside, recovered nested inside a soup tureen (MA6485)	H 28, 243 x 178	90
6638/4	Royal pattern platter, intact, 9"-10", grey staining, glazing still (triangular) marks on the underside, recovered nested inside a soup tureen (MA6485)	H 28, 243 x 178	90
7843	Royal pattern platter (figure 199); incomplete, letter 'W' scratched into base, extensive use wear marks	H 30, 300 x 240	92
8799/1	Royal pattern platter sherd; combine with sherds MA8799/2-5 to form one platter (18¾"), use wear	Reconstructed dimensions H 39, 468, x 370	90
8799/2	Royal pattern platter sherd; combine with sherds MA8799/2-5 to form one platter (18¾"), use wear	Reconstructed platter dimensions H 39, 468, x 370	90
8799/3	Royal pattern platter sherd; combine with sherds MA8799/2-5 to form one platter (18¾"), use wear	Reconstructed platter dimensions H 39, 468, x 370	90
8799/4	Royal pattern platter sherd; combine with sherds MA8799/2-5 to form one platter (18¾"), use wear	Reconstructed platter dimensions H 39, 468, x 370	90
8799/5	Royal pattern platter sherd; combine with sherds MA8799/2-5 to form one platter. 6 sherds conjoined to form a complete 18¾" platter, slight use wear.	Reconstructed platter dimensions H 39, 468, x 370	90
8826	Royal pattern platter sherd, use wear		90
8800/1	Royal pattern platter, almost complete (figure 200) (+MA8800/4)	270 x 185	90
8800/4	Royal pattern platter; almost complete (+MA8800/1)	270 x 185	88
4866	Rim sherd; Royal pattern, plate or platter		70

TABLE 70: Dishes 'Useful' wares/bowls/ gravy boats/ tureens/ jugs/ pots

MA	Description	Dimensions (mm)	Grid
4686	Bowl, intact, with a pedestal foot ring, everted, rolled rim (figure 201)	e/dia 265, base dia 130, ht 108	87
6342	Pot, intact, base cylindrical, with a semi-rolled rim and a pronounced square section foot ring (figure 202) (see MA1429, MA1625)	H 85, i/dia 89, e/dia rim 102, wt 73,	90
6393	Serving dish, intact, deep sided, oval shape, slight use wear. A similar dish was recovered during the QM's 1986 Pandora expedition and has been described as a platter (Campbell & Gesner, 2000:105).	H 56, L 364, W 283	90
6455	Gravy or sauce boat, intact, foliate design on the handle, pedestal foot ring (figure 203)	L 173, H 63, base width 77, wt 155	87
6476	Bowl, intact, deep sided, pedestal base (figure 204)	H 70, e/dia 153, wt 223	90
6485	Soup tureen, intact (figure 205) (matching lid accessioned separately as MA6513), grey staining, a stack of small platters (MA6638/1-4) found nested inside the tureen	H 125, 350 x 200, wt 1133	90



FIG. 197a. Platter (MA6469).



FIG. 197b. Letter 't' stamp on platter base (MA6477).

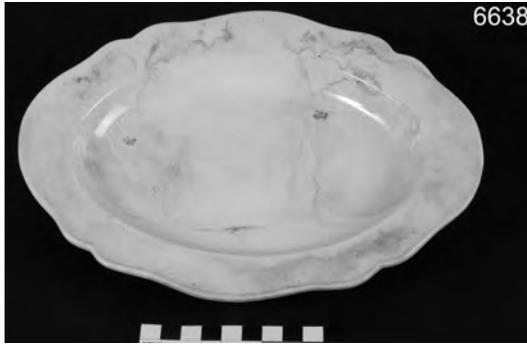


FIG. 198. Platter (MA6638/2).



FIG. 199. Platter (MA7843).

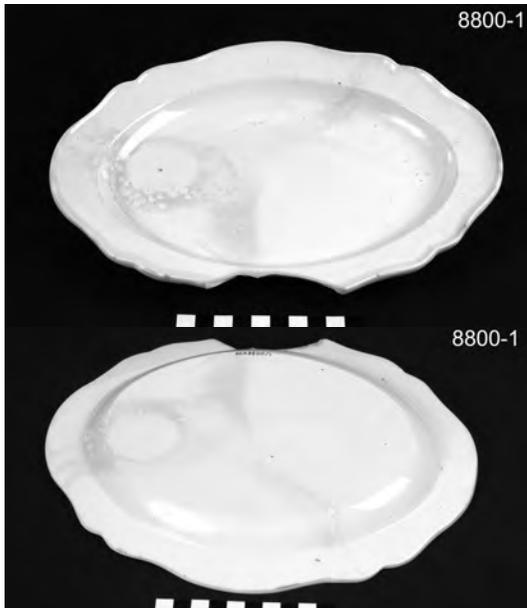


FIG. 200. Platter with reverse side (MA8800/1).



FIG. 201a. Bowl (MA4686).

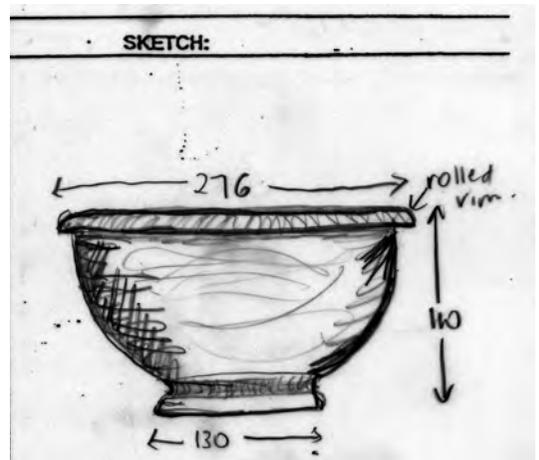


FIG. 201b. Bowl field sketch (MA4686).



FIG. 202. Bowl (MA6342).

TABLE 70: Dishes 'Useful' wares/bowls/ gravy boats/ tureens/ jugs/ pots cont.d

MA	Description	Dimensions (mm)	Grid
6513	Tureen lid; intact (figure 206) (fits with MA6485), centred oval plumed knob in a raised foliate decoration, ladle opening to one side (ladle not found).	H 85, 293 x 211, wt 643	90
6500/1	Bowl, intact, deep sided, pedestal foot ring (figure 207).	H 63, e/dia 153, base dia 73, wt 170	90
6500/2	Bowl, intact, deep sided, pedestal foot ring	H 67, e/dia 154, base dia 70, wt 172	90
7790	Handle (figure 208), possible fit with MA6600 and MA6615?	66 x 20 x 71	
8265	Pot, near complete, everted, semi-rolled rim, missing rim sherd (figure 209)	H 55, i/dia 61, base dia 47	113
8649	Bowl, intact, deep sided, pedestal foot ring, two cracks in the bowl from the rim	H 76, e/dia 156, base dia 71	109
7790	Bowl, intact, deep sided, pedestal foot ring	H 76, e/dia 156, base dia 71	92
8869	Sauce or gravy boat handle and rim sherd (see MA6455), decorative foliate pattern		
8871	Sauce or gravy boat sherd, pedestal base sherd (see MA6455)	75 x 50	

TABLE 71: Miscellaneous creamware sherds

MA	Description	Dimensions (mm)	Grid
4671	Pot, sherd, rolled rim (see MA6342)		89
4735	Creamware sherd, Royal pattern		87
4766	Creamware sherd, Royal pattern		89
4881/1	Creamware sherds, Royal pattern plate base and side		89Sph
4881/2	Creamware sherds, Royal pattern plate base		89Sph
4924	Creamware sherd, Royal pattern plate rim sherd		89Sph
6305	Plate rim sherd, diamond beaded border NB: This is the only example of a cream-coloured tableware sherd in the assemblage recovered to date from the <i>Pandora</i> wreck that is not 'Royal pattern' creamware	113 x 50 x 6	107
6317	Creamware sherd, Royal pattern plate sherd		107
6446	Royal pattern plate rim sherd (conjoins with MA6431/1)		109
6449	Royal pattern plate rim sherd; conjoins with MA6431/1		109
6532	Royal pattern shallow plate sherd; conjoins with MA6431/1		90
6557	Royal pattern plate sherd		90
6590	Royal pattern rim sherd		90
6600	Creamware sherd, raised bands across the outer surface (figure 210) see MA6615		90
6615	Creamware sherd, raised bands across the outer surface (figure 211) (see MA6600 and MA7790)		90
7622/2-13	Creamware sherds conjoin with MA7622/15-25, 27 - 28, MA4022/3, and MA1398/2 to form a 'sparrow beak' jug (Francis, 2001:50) Missing handle. Temporary re-construction by Megan Absolon.		70/72
7624	Creamware sherd, Royal pattern		70
7658	Creamware sherd, Royal pattern, rim sherd		91
7790	Creamware sherd, handle, with raised bands, (figure 212) (see MA6600 and MA6615)		90
7930/1	Creamware sherd, Royal pattern plate sherd		92
7930/2	Creamware sherd, Royal pattern plate sherd		92
8060	Creamware sherd, Royal pattern (figure 213).		



FIG. 203. Gravy or sauce boat (MA6455).



FIG. 204. Bowl (MA6476).



FIG. 205a. Soup tureen (MA6485).

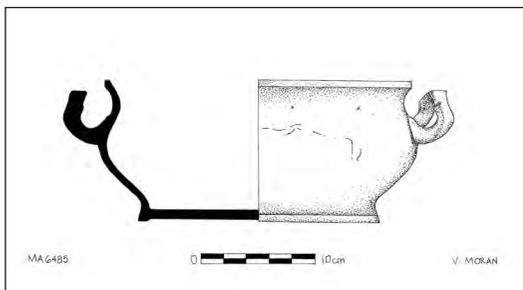


FIG. 205b. Soup tureen drawing (MA6485).



FIG. 206a. Soup tureen lid (MA6513).

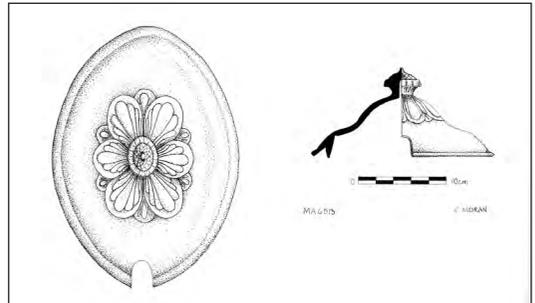


FIG. 206b. Soup tureen lid drawing (MA6513).



FIG. 207. Bowl (MA6500/1).



FIG. 208. Handle (MA7790).



FIG. 209. Bowl (MA8265).

TABLE 71: Miscellaneous creamware sherds cont.d

MA	Description	Dimensions (mm)	Grid
8079/1-10	Creamware sherds, NB: These sherds possibly conjoin with MA8038 which was also recovered from Grid 166		166
8038	Creamware sherd. This sherd probably conjoins with sherds MA8079/1-10 also from grid 166		166
8165	Creamware sherd, plate rim sherd		Sph
8216/1	Creamware sherd, plate rim sherd		Sph
8216/2	Creamware sherd, plate rim sherd		166
8546/1	Creamware sherd, plate sherd, stained		109
8570/1	Creamware sherd, Royal pattern		166
8570/2	Creamware sherd, Royal pattern		166
8570/3	Creamware sherd, Royal pattern		166
8592/3	Creamware sherd, Royal pattern		109
8691	Creamware sherd, Royal pattern plate rim and base sherd		109
8696	Creamware sherd, plate rim sherd		166
8826	Creamware sherd, Royal pattern plate rim sherd		109
8864	Creamware sherd, Royal pattern plate rim sherd		Sph



FIG. 210. Creamware sherd (MA6600).



FIG. 212. Creamware sherd (MA7790).

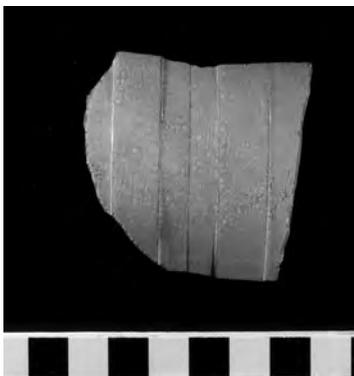


FIG. 211. Creamware sherd (MA6615).



FIG. 213. Creamware sherd (MA8038).

Spruce essence jars ("pots")

The *Pandora's* logbook refers to 380 'pots of essence of spruce' received on board on 18 September 1790 as an anti-scorbutic while the vessel was off the New Stairs at Chatham loading stores for her South Pacific voyage (Adm. MS180). To date more than 225 complete jars have been recovered from the wreck and a dozen or so broken or fragmented ones, representing at least another twelve jars. At least another two dozen spruce jars remain within the confines of the wreck, deliberately left *in-situ* to be recovered at a later date. They were found in a specially constructed wooden bin in the officers' storeroom on the platform deck (grid 90).

All of the recovered spruce jars are wheel-thrown earthenware; the colour of the earthenware clays varies between light orange

to a deep, brick red. They are lead-glazed on the interior as well as the exterior surfaces. There is a wide variety of colours – ranging from light amber to rich, almost blackish brown.

Although there is considerable size variation, there appear to be two main sizes: a 'larger' size (i.e. with a height between 130-145 mm and a base diameter >95 mm) and a 'regular' size (height between 100-125 mm and a base diameter <95 mm).

The larger jars have a capacity of approximately 500 ml, while the average 'regular' size ones contain approximately 410 ml.

Jars found *in-situ* in grid 90, were uncovered in a bin on the floor in the captain's and lieutenants' store room on the 'platform' deck (figure 30).

Breakage was prevented by packing the jars in sawdust.



FIG. 214. A variety of 'spruce jars'.

TABLE 72: Essence of spruce pots

MA	Description	Dimensions (mm)	Grid
6307	Lead glazed, complete (figure 215)	H 118, base dia 92, mouth e/dia 46, mouth i/dia 29	90
6345	Lead glazed, complete	H 113, base dia 70, mouth e/dia 44, mouth i/dia 25	90
6357	Lead glazed, complete	H 131, base dia 91, mouth e/dia 48, mouth i/dia 30	90
6462/1	Lead glazed, complete	H 121, base dia 92, mouth e/dia 48, mouth i/dia 33	90
6462/2	Lead glazed, complete	H 121, base dia 95, mouth e/dia 47, mouth i/dia 29	90
6462/3	Lead glazed, complete	H 133, base dia 97, mouth e/dia 50, mouth i/dia 36	90
6462/4	Lead glazed, complete	H 124, base dia 92, mouth e/dia 48, mouth i/dia 29	90
6462/5	Lead glazed, complete	H 112, base dia 94, mouth e/dia 47, mouth i/dia 32	90
6462/6	Lead glazed, complete	H 122, base dia 95, mouth e/dia 47, mouth i/dia 29	90
6462/7	Lead glazed, complete	H 126, base dia 91, mouth e/dia 47, mouth i/dia 30	90
6462/8	Lead glazed, complete	H 118, base dia 97, mouth e/dia 54, mouth i/dia 37	90
6463/1	Lead glazed, complete	H 112, base dia 94, mouth e/dia 47, mouth i/dia 36	90
6463/2	Lead glazed, complete	H 120, base dia 93, mouth e/dia 48, mouth i/dia 39	90
6529/1	Lead glazed, complete	H 126, base dia 92, mouth e/dia 48, mouth i/dia 30	90
6529/2	Lead glazed, complete	H 122, base dia 92, mouth e/dia 50, mouth i/dia 32	90
6529/3	Lead glazed, complete	H 115, base dia 95, mouth e/dia 46, mouth e/dia 38	90
6529/4	Lead glazed, complete	H 130, base dia 91, mouth e/dia 47, mouth i/dia 29	90
6529/5	Lead glazed, complete	H 130, base dia 93, mouth e/dia 50, mouth i/dia 31	90
6529/6	Lead glazed, complete	H 132, base dia 94, mouth e/dia 50, mouth e/dia 36	90
6529/7	Lead glazed, complete	H 115, base dia 95, mouth e/dia 46, mouth e/dia 38	90
6529/8	Lead glazed, complete	H 130, base dia 93, mouth e/dia 50, mouth i/dia 31	90
6529/9	Lead glazed, complete	H 112, base dia 96, mouth e/dia 41, mouth i/dia 27	90
6529/10	Lead glazed, complete	H 120, base dia 100, mouth e/dia 49, mouth i/dia 34	90
6531/1	Lead glazed, complete	H 125, base dia 95, mouth e/dia 49, mouth i/dia 32	90
6531/2	Lead glazed, complete	H 111, base dia 89, mouth e/dia 46, mouth i/dia 39	90
6531/3	Lead glazed, complete	H 128, base dia 96, mouth e/dia 52, mouth i/dia 34	90
6563/1	Lead glazed, complete	H 114, base dia 93, mouth e/dia 49, mouth i/dia 30	90
6563/2	Lead glazed, complete	H 113, base dia 91, mouth e/dia 50, mouth i/dia 35	90
6563/3	Lead glazed, complete	H 118, base dia 86, mouth e/dia 46, mouth i/dia 28	90
6563/4	Lead glazed, complete	H 129, base dia 89, mouth e/dia 46, mouth i/dia 28	90
6563/5	Lead glazed, complete	H 128, base dia 94, mouth e/dia 45, mouth i/dia 27	90
6563/6	Lead glazed, complete	H 119, base dia 96, mouth e/dia 45, mouth i/dia 39	90
6563/7	Lead glazed, complete	H 124, base dia 92, mouth e/dia 45, mouth i/dia 29	90
6563/8	Lead glazed, complete	H 121, base dia 97, mouth e/dia 46, mouth i/dia 30	90
6563/9	Lead glazed, complete	H 122, base dia 86, mouth e/dia 46, mouth i/dia 30	90
6563/10	Lead glazed, complete	H 114, base dia 92, mouth e/dia 45, mouth i/dia 27	90
6563/11	Lead glazed, complete	H 116, base dia 87, mouth e/dia 46, mouth i/dia 25	90
6563/12	Lead glazed, complete	H 121, base dia 97, mouth e/dia 46, mouth i/dia 30	90
6564/1	Lead glazed, complete	H 123, base dia 93, mouth e/dia 42, mouth i/dia 26	90
6564/2	Lead glazed, complete	H 131, base dia 94, mouth e/dia 50, mouth i/dia 31	90
6564/3	Lead glazed, complete	H 126, base dia 96, mouth e/dia 49, mouth i/dia 31	90
6564/4	Lead glazed, complete	H 116, base dia 85, mouth e/dia 46, mouth i/dia 29	90

TABLE 72: Essence of spruce pots cont.d

MA	Description	Dimensions (mm)	Grid
6564/5	Lead glazed, complete	H 123, base dia 93, mouth e/dia 51, mouth i/dia 32	90
6564/6	Lead glazed, complete	H 121, base dia 92, mouth e/dia 47, mouth i/dia 28	90
6564/7	Lead glazed, complete	H 132, base dia 94, mouth e/dia 49, mouth i/dia 30	90
6564/8	Lead glazed, complete	H 115, base dia 96, mouth e/dia 50, mouth i/dia 35	90
6564/9	Lead glazed, complete	H 111, base dia 89, mouth e/dia 47, mouth i/dia 33	90
6564/10	Lead glazed, complete	H 112, base dia 93, mouth e/dia 47, mouth i/dia 33	90
6564/11	Lead glazed, complete	H 115, base dia 98, mouth e/dia 48, mouth i/dia 34	90
6565/1	Lead glazed, complete	H 112, base dia 89, mouth e/dia 46, mouth i/dia 26	90
6565/2	Lead glazed, complete	H 124, base dia 90, mouth e/dia 50, mouth i/dia 38	90
6565/3	Lead glazed, complete	H 129, base dia 94, mouth e/dia 50, mouth i/dia 38	90
6565/4	Lead glazed, complete	H 115, base dia 94, mouth e/dia 46, mouth i/dia 33	90
6565/5	Lead glazed, complete	H 121, base dia 92, mouth e/dia 47, mouth i/dia 39	90
6586/1	Lead glazed, complete	H 109, base dia 92, mouth e/dia 47, mouth i/dia 31	90
6586/2	Lead glazed, complete	H 120, base dia 99, mouth e/dia 50, mouth i/dia 37	90
6586/3	Lead glazed, complete	H 124, base dia 94, mouth e/dia 45, mouth i/dia 28	90
6586/4	Lead glazed, complete	H 130, base dia 97, mouth e/dia 52, mouth i/dia 34	90
6586/5	Lead glazed, complete	H 122, base dia 92, mouth e/dia 48, mouth i/dia 29	90
6586/6	Lead glazed, complete	H 125, base dia 95, mouth e/dia 52, mouth i/dia 33	90
6586/7	Lead glazed, complete	H 124, base dia 91, mouth e/dia 53, mouth i/dia 34	90
6586/8	Lead glazed, complete	H 124, base dia 94, mouth e/dia 48, mouth i/dia 30	90
6586/9	Lead glazed, complete	H 119 base dia 95, mouth e/dia 47, mouth i/dia 29	90
6586/10	Lead glazed, complete	H 113, base dia 93, mouth e/dia 53, mouth i/dia 37	90
6586/11	Lead glazed, complete	H 121, base dia 101, mouth e/dia 50, mouth i/dia 36	90
6586/12	Lead glazed, complete	H 120, base dia 91, mouth e/dia 51, mouth i/dia 32	90
6586/13	Lead glazed, complete	H 112, base dia 92, mouth e/dia 43, mouth i/dia 29	90
6586/14	Lead glazed, complete	H 121, base dia 97, mouth e/dia 49, mouth i/dia 36	90
6586/15	Lead glazed, complete	H 132, base dia 95, mouth e/dia 55, mouth i/dia 36	90
6587/1	Lead glazed, complete	H 114, base dia 90, mouth e/dia 48, mouth i/dia 34	90
6587/2	Lead glazed, complete	H 121, base dia 92, mouth e/dia 53, mouth i/dia 35	90
6587/3	Lead glazed, complete	H 120, base dia 89, mouth e/dia 49, mouth i/dia 29	90
6587/4	Lead glazed, complete	H 112, base dia 89, mouth e/dia 47, mouth i/dia 30	90
6587/5	Lead glazed, complete	H 127, base dia 90, mouth e/dia 50, mouth i/dia 30	90
6587/6	Lead glazed, complete	H 104, base dia 94, mouth e/dia 48, mouth i/dia 34	90
6587/7	Lead glazed, complete	H 124, base dia 94, mouth e/dia 48, mouth i/dia 29	90
6587/8	Lead glazed, complete	H 118, base dia 95, mouth e/dia 53, mouth i/dia 35	90
6587/9	Lead glazed, complete	H 119, base dia 89, mouth e/dia 47, mouth i/dia 30	90
6584/1	Lead glazed, complete	H 124, base dia 94, mouth e/dia 48, mouth i/dia 29	90
6584/2	Lead glazed, complete	H 121, base dia 91, mouth e/dia 48, mouth i/dia 33	90
6584/3	Lead glazed, complete	H 118, base dia 99, mouth e/dia 52, mouth i/dia 31	90
6584/4	Lead glazed, complete	H 123, base dia 93, mouth e/dia 53, mouth i/dia 34	90
6584/5	Lead glazed, complete	H 122, base dia 91, mouth e/dia 49, mouth i/dia 30	90
6584/6	Lead glazed, complete	H 121, base dia 90, mouth e/dia 49, mouth i/dia 30	90

TABLE 72: Essence of spruce pots cont.d

MA	Description	Dimensions (mm)	Grid
6584/7	Lead glazed, complete	H 125, base dia 92, mouth e/dia 49, mouth i/dia 27	90
6584/8	Lead glazed, complete	H 117, base dia 95, mouth e/dia 52, mouth i/dia 33	90
6584/9	Lead glazed, complete	H 132, base dia 94, mouth e/dia 49, mouth i/dia 31	90
6584/10	Lead glazed, complete	H 125, base dia 85, mouth e/dia 20, mouth i/dia 15	90
6584/11	Lead glazed, complete	H 121, base dia 92, mouth e/dia 53, mouth i/dia 35	90
6584/12	Lead glazed, complete	H 125, base dia 90, mouth e/dia 45, mouth i/dia 30	90
6584/13	Lead glazed, complete	H 120, base dia 99, mouth e/dia 50, mouth i/dia 34	90
6584/14	Lead glazed, complete	H 121, base dia 93, mouth e/dia 50, mouth i/dia 34	90
6584/15	Lead glazed, complete	H 122, base dia 88, mouth e/dia 42, mouth i/dia 26	90
6585/1	Lead glazed, complete	H 125, base dia 89, mouth e/dia 48, mouth i/dia 22	90
6585/2	Lead glazed, complete	H 128, base dia 93, mouth e/dia 42, mouth i/dia 30	90
6585/3	Lead glazed, complete (figure 216)	H 110, base dia 91, mouth e/dia 49, mouth i/dia 36	90
6585/4	Lead glazed, complete	H 129, base dia 92, mouth e/dia 46, mouth i/dia 28	90
6585/5	Lead glazed, complete	H 124, base dia 91, mouth e/dia 47, mouth i/dia 29	90
6585/6	Lead glazed, complete	H 115, base dia 91, mouth e/dia 46, mouth i/dia 28	90
6585/7	Lead glazed, complete	H 125, base dia 95, mouth e/dia 47, mouth i/dia 31	90
6585/8	Lead glazed, complete	H 121, base dia 94, mouth e/dia 51, mouth i/dia 32	90
6585/9	Lead glazed, complete	H 125, base dia 91, mouth e/dia 45, mouth i/dia 27	90
6585/10	Lead glazed, complete	H 116, base dia 83, mouth e/dia 50, mouth i/dia 32	90
6585/11	Lead glazed, complete	H 125, base dia 88, mouth e/dia 48, mouth i/dia 32	90
6585/12	Lead glazed, complete	H 125, base dia 91, mouth e/dia 45, mouth i/dia 27	90
6585/13	Lead glazed, complete	H 110, base dia 90, mouth e/dia 47, mouth i/dia 32	90
6585/14	Lead glazed, complete	H 125, base dia 94, mouth e/dia 45, mouth i/dia 27	90
6585/15	Lead glazed, complete	H 112, base dia 94, mouth e/dia 51, mouth i/dia 37	90
6536/1	Lead glazed, complete	H 131, base dia 94, mouth e/dia 53, mouth i/dia 32	90
6536/2	Lead glazed, complete	H 130, base dia 94, mouth e/dia 51, mouth i/dia 33	90
7767	Lead glazed, complete	H 123, base dia 94, mouth e/dia 51, mouth i/dia 33	92
8013	Lead glazed, complete	H 115, base dia 90, mouth e/dia 49, mouth i/dia 27	94
8107	Lead glazed, complete	H 128, base dia 88, mouth e/dia 48, mouth i/dia 32	94
8108	Lead glazed, complete	H 129, base dia 92, mouth e/dia 53, mouth i/dia 34	94
8109	Lead glazed, complete	H 112, base dia 78, mouth e/dia 44, mouth i/dia 25	94
8110	Lead glazed, complete	H 121, base dia 91	94
8138	Lead glazed, complete	H 126, base dia 89, mouth e/dia 50, mouth i/dia 32	113
8148	Lead glazed, complete	H 127, base dia 94, mouth e/dia 48, mouth i/dia 30	165
8149	Lead glazed, complete	H 130, base dia 90, mouth e/dia 47, mouth i/dia 30	94
8183	Lead glazed, complete	H 123, base dia 91	94
8184	Lead glazed, complete	H 125, base dia 93, mouth e/dia 52, mouth i/dia 33	94
8186	Lead glazed, complete	H 118, base dia 85, mouth e/dia 49, mouth i/dia 31	94

TABLE 72: Essence of spruce pots cont.d

MA	Description	Dimensions (mm)	Grid
8262	Lead glazed, complete	H 117, base dia 76, mouth e/dia 41, mouth i/dia 34	113
8535	Lead glazed, complete	H 103, base dia 76, mouth e/dia 39, mouth i/dia 23	109
8637	Lead glazed, complete	H 116, base dia 92, mouth e/dia 37	90
8638	Lead glazed, complete	H 116, base dia 92, mouth e/dia 37	90
8639/1	Lead glazed, complete (figure 216)	H 116, base dia 92, mouth e/dia 37	90
8642	Lead glazed, complete (figure 217)	H 127, base dia 85, mouth i/dia 33, Wt 341	90
8643	Lead glazed, complete	H 118, base dia 97, mouth e/dia 53, mouth i/dia 39, Wt 384	90
8644	Lead glazed, complete	H 127, base dia 93, mouth e/dia 52, mouth i/dia 33, Wt 407	90
8645	Lead glazed, complete	H 118, base dia 89, mouth i/dia 33, Wt 407	90
8822	Lead glazed, complete	H 104, base dia 79, mouth e/dia 43, mouth i/dia 21	109
8647/1	Lead glazed, complete (figure 218)	H 125, base dia 90, mouth e/dia 32	90
8647/2	Lead glazed, complete	H 125, base dia 95, mouth e/dia 31	90
8647/3	Lead glazed, complete	H 111, base dia 90, mouth e/dia 49, mouth i/dia 34	90
8647/4	Lead glazed, complete	H 121, base dia 90, mouth e/dia 45, mouth i/dia 28	90
8647/5	Lead glazed, complete	H 112, base dia 93, mouth e/dia 50, mouth i/dia 34	90
8647/6	Lead glazed, complete	H 125, base dia 92, mouth e/dia 54, mouth i/dia 35	90
8647/7	Lead glazed, complete	H 121, base dia 90, mouth e/dia 54, mouth i/dia 34	90
8647/8	Lead glazed, complete	H 130, base dia 90, mouth e/dia 51, mouth i/dia 34	90
8647/9	Lead glazed, complete	H 124, base dia 93, mouth e/dia 52, mouth i/dia 34	90
8647/10	Lead glazed, complete	H 125, base dia 90, mouth e/dia 54, mouth i/dia 35	90
8647/11	Lead glazed, complete	H 127, base dia 94, mouth e/dia 51, mouth i/dia 34	90
8647/12	Lead glazed, complete	H 112, base dia 88, mouth e/dia 50, mouth i/dia 31	90
8647/13	Lead glazed, complete	H 112 base dia 86, mouth e/dia 43, mouth i/dia 26	90
8647/14	Lead glazed, complete	H 114, base dia 100, mouth e/dia 54, mouth i/dia 39	90
8647/15	Lead glazed, complete	H 120, base dia 88, mouth e/dia 46, mouth i/dia 28	90
8659/1	Lead glazed, complete	H 110 base dia 95, mouth e/dia 46, mouth i/dia 31	90
8659/2	Lead glazed, complete	H 114 base dia 95, mouth e/dia 48, mouth i/dia 29	90
8659/3	Lead glazed, complete	H 112 base dia 94, mouth e/dia 49, mouth i/dia 29	90
8659/4	Lead glazed, complete	H 127 base dia 91, mouth e/dia 48, mouth i/dia 30	90
8659/5	Lead glazed, complete	H 121 base dia 91, mouth e/dia 50, mouth i/dia 32	90
8659/6	Lead glazed, complete	H 115 base dia 94, mouth e/dia 45, mouth i/dia 31	90
6279/3	Lead glazed, incomplete	L 46, W 20, th 5	87
6312/1	Lead glazed, incomplete	L 28, W 19, th 5	90
6312/2	Lead glazed, incomplete	L 65, W 43, th 4	88
6611	Lead glazed, incomplete	Mouth e/dia 42, mouth i/dia 25	90
8639/2	Lead glazed, incomplete	H 116, mouth e/dia 37	90
8639/3	Lead glazed, incomplete (figure 219)	Mouth e/dia 50, mouth i/dia 33	90



FIG. 215. Spruce pot (MA6307).



FIG. 216. Spruce pot (MA8639).



FIG. 217. Spruce pot (MA8642).



FIG. 218. Spruce pot (MA8647/9).

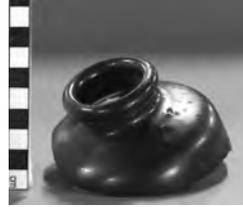


FIG. 219. Spruce pot fragment (MA8639/3).



FIG. 220. Case bottle (l) with field sketch (r)(MA7845).



FIG. 221. Glass bottle (MA7680).

Case bottles

A 'case' bottle is a generic term for a bottle shape, i.e. with a square base and square sides so that they could be packed away with minimum loss of space inside a square, compartmentalised case. Case bottles are therefore square bodied with rounded edges and horizontal shoulders. There is generally a slight tapering from the square shoulder to the square base which is indented with a pronounced pontil. The glass is usually green and between 1½-2½ mm thick. So-called 'case bottles' were in wide use during the eighteenth century, generally, but not exclusively, used to bottle gin (Jones & Smith, 1985:15).

There is considerable size variation among the examples of 'case' bottles recovered from the *Pandora*. The largest dimension is a base measuring 107 mm x 107 mm and the smallest 50 mm x 50 mm (figure 220).

The larger end of the scale (i.e. base dimensions >65 mm x 65 mm) are mainly green coloured and may therefore have been 'case gin bottles'. The case bottles with dimensions towards the lower end of the range (i.e. < 65 mm x 65 mm) are made of clear glass, which probably indicates a different beverage, draught or medicinal concoction was contained in them (see MA7862).

TABLE 73: Case bottles

MA	Description	Dimensions (mm)	Grid
7845	Complete, green glass, one gallon capacity, approx. 4400 ml, (figure 220)	H 340, base dia 107, mouth e/dia 41, i/dia 19, wt 1701	166
Fragmented bottles, neck and sides			
4513	Green glass, fragment	L 31, W 23, th 2	88
4541	Green glass, fragment		89
4598	Green glass, fragment	L 73, W 29, th 5	89
4756	Green glass, fragment	L 40, W 27, th 1	89
4817	Green glass, mouth and neck	Mouth e/dia 38, i/dia 15	87
Fragmented bottles, base and sides			
7680	Green glass, base (figure 221)	L 90, W 90	89
7786/1	Green glass, base	L 102, W 102	90
7836/1	Green glass, base, associated with MA7836/2-6	L 90 W 90	92
7836/2	Green glass, fragment, associated with MA7836/1, 3-6		92
7836/3	Green glass, fragment, associated with MA7836/1-6		92
7836/4	Green glass, base fragment, associated with MA7836/1-6		92
7836/5	Green glass, base fragment, associated with MA7836/2-6		92
7836/6	Green glass, base fragment, associated with MA7836/1-5		92
7861/1	Green glass, base, exfoliation evident	L 70, W 70	92
7861/2	Green glass, base fragment, exfoliation evident		92
7881	Clear glass, base	L 88, W 88	Sph
7882	Clear glass, base	L 65, W 65	Sph
7889	Clear glass, base	L 89, W 89	Sph
7917	Green glass, base	L 90, W 90	92
7918	Green glass, base	L 91, W 91	92
8064/1	Green glass, base	L 88, W 88	92
8077/1	Green glass, base	L 84, W 84	165
8078	Green glass, base	L 70, W 70	165
8501	Green glass, base	L 72, W 72, H100	Sph
8568/1	Green glass, base	L 75, W 75	109

English Wine Bottles (EWB)

The term 'English wine bottle' is used generically to describe the dark green glass bottles with a circular cross section first developed in England in the mid sixteenth century. It is generally a very broadly applied term. The bottle in question should have a two part finish (i.e. a lip and string rim), an

indented base, a roughly cylindrical body, a rounded well defined shoulder, and a neck one-quarter to one-third of the total body height, and be dark green in colour (Jones & Sullivan 1985:73).

The examples of English wine bottles from the *Pandora* wreck are mainly of approximately one pint capacity, ie, between 410-460 ml capacity.

TABLE 74: Complete bottles (EWB)

MA	Description	Dimensions (mm)	Grid
6311	Complete	H 245, base dia 85, mouth e/dia 35, i/dia 25	109
7724	Complete, with cork stopper <i>in-situ</i>	H 239, base dia 74, mouth e/dia 33, i/dia 23	94
7726	Complete	H 235, base dia 78, mouth e/dia 33, i/dia 23	92
7729/1	Complete	H 230, base dia 85, mouth e/dia 32, i/dia 23	
7744	Complete, with contents and cork stopper <i>in-situ</i>	H 230, base dia 75, mouth e/dia 33, i/dia 24; cap 448 ml	92
7906	Complete	H 280, base dia 86, mouth e/dia 35, i/dia 26	166
7907	Complete, with cork loose inside	H 235, base dia 96, mouth e/dia 33, i/dia 22	166
8235	Complete, with cork loose inside	H 260, base dia 85, mouth e/dia 34, i/dia 23	166
8554	Complete	H 245, base dia 100, mouth e/dia 32, i/dia 20	109
8593	Complete	H 250, base dia 90, mouth e/dia 35, i/dia 25	109
8600	Complete	H 270, base dia 90, mouth e/dia 37, i/dia 27	110
8725	Complete	H 278, base dia 80, mouth e/dia 35, i/dia 24; cap 448 ml	90
8820	Complete	H 244, base dia 95, mouth e/dia 33, i/dia 25	88
4835	Complete, recovered with contents and cork stopper <i>in-situ</i> (figure 222)	H 275, base dia 85, mouth e/dia 32, i/dia 29, cap 458 ml	
7611	Complete, recovered with contents and cork stopper <i>in-situ</i> (figure 223)	H 220, base dia 78, mouth e/dia 35, i/dia 25, cap 433 ml	
7743	Complete	H 230, base dia 76, o/dia lip 32, bore dia 22; capacity: 438ml	94
7731	Complete, no cork in place	H 230, base dia 74; o/dia lip 35, bore dia 25; 411 ml capacity	91
7737	Complete (figure 224)	H 230, base dia 74, mouth e/dia 33, i/dia 24, cap 430 ml	
8514	Complete	H 260, base dia 90, mouth e/dia 28, i/dia 21, cap 488 ml	109
8526/1	Incomplete, base fragment. Combines with 8526/2/3 to make a complete bottle	Base dia 90	109
8526/2	Shoulder fragment	L 140	109
8526/3	Fragment		109
8527	Complete (figure 225)	H 230, base dia 100, mouth e/dia 33, i/dia 23, cap 458 ml	109
8763	Complete	H 265, base dia 90, mouth e/dia 34, i/dia 25	109
8824	Complete (figure 226)	H 268, base dia 85, mouth e/dia 34, i/dia 26	88
4687	Neck fragment	H 260, base dia 100, mouth e/dia 31, i/dia 18	87
7649/1	Base and body fragment	Base dia 55	91
7651/1	Neck and shoulder fragment	H 150, mouth e/dia 38	89
7632	Base fragment	Base dia 65	89
7649/2	Neck fragment		91
7679	Base fragment	Base dia 85	92
7709/1	Base fragment	Base dia 107	92
7720	Neck fragment		92

TABLE 74: Complete bottles (EWB) cont.d

MA	Description	Dimensions (mm)	Grid
7725	Neck fragment		
7727	Base fragment	Base dia 76	
7723/1-4	Fragments	1) H 235, base dia 72, mouth i/dia 20	94
7760/2	Neck fragment		
7768	Fragment		94
7755	Base fragment		90
7876	Neck fragment	Mouth e/dia 34, i/dia 24	
7944/1	Base fragment		94
8035/1-5	Fragments		166
8511	Neck and shoulder fragment		109
8627	Neck fragment	Mouth e/dia 37	204
8823	Base and body fragment	H 178, base dia 88	109
8676	Complete, short-necked bottle (figure 227)	H 240, base dia 120, mouth i/dia 25	109
8689	Complete (figure 228) See MA8676	H 174, base dia 68, mouth e/dia 29, cap 350ml	



FIG. 222. EWB (MA4835).



FIG. 224. EWB (MA7737).



FIG. 223. EWB (MA7611).



FIG. 225. EWB (MA8527).



FIG. 226. EWB sketch (MA8824).



FIG. 229. Decanter (l) and sketch (r) (MA4672).



FIG. 227. EWB (MA8676).



FIG. 230. Decanter (MA4917).



FIG. 228. EWB (MA8689).



FIG. 231. Decanter (l) and sketch (r) (MA8152).

Drinking - Glass tableware

TABLE 75: Decanters

MA	Description	Dimensions (mm)	Grid
4672	Complete (figure 229)	H 200, base dia 89, rim i/dia 42, wt 233g	87
4917	Complete, (figure 230. Facetted around base and neck with etched design around the belly)	H 170, base dia 62, rim e/dia 36, belly dia 84	87
8152	Complete (figure 231)	H 240, base dia 99, rim e/dia 34, i/dia 28, wt 366g	91
8534	Neck fragment	Rim e/dia 28	109

TABLE 76: Drinking glasses (alcoholic beverages)

MA	Description	Dimensions (mm)	Grid
4619	Base fragment (figure 232)	Base dia 47	87
4620	Wine glass, incomplete. Rounded ovoid body	H 112, base dia 65	87
4621	Wine glass, incomplete. Rounded ovoid body. Similar to MA4673	H 110, base dia 63	87
4673/1	Wine glass, incomplete. Rounded ovoid body, similar to MA4621 (figure 233)	H 114, base dia 63	87
4673/2	Wine glass fragment, part of MA4673/1	L 32, W 19	87
4770	Wine glass, incomplete. Straight conical body	H 114, base dia 62	89
4689	Tumbler base fragment	H 31, base dia 48	89
4771	Tumbler fragment with handle (figure 234)	H 31, base dia 47	89
4842	Tumbler handle	H 51, W 30, dia 9	89
4899	Tumbler handle (figure 235)	51 x 30, dia 9	89
6475/1	Tumbler	H 105, base dia 57, rim i/dia 76	90
6475/2	Tumbler	H 105, base dia 57, rim i/dia 57	90
6472	Wine glass, straight conical body	H 114, base dia 60; bowl dia 57	90
6475/3	Wine glass	H 101, base dia 55, rim dia 79	90
6475/4	Tumbler	H 101, base dia 55, rim dia 79	90
6486/1	Wine glass, straight conical body (figure 236)	H 113, base dia 61, rim e/dia 56	90
6486/2	Wine glass, straight conical body	H 113, base dia 61, rim e/dia 57	90
6486/3	Wine glass, straight conical bowl	H 115, base dia 64, rim e/dia 57	90
6486/4	Wine glass, straight conical bowl	H 115, base dia 63, rim e/dia 58	90
6486/5	Wine glass, straight conical bowl	H 114, base dia 55, rim e/dia 58	90
7871	Wine glass, straight conical body	H 112, Base dia 64, rim e/dia 58	94
8748	Wine glass, straight conical body (figure 237)	H 110, base dia 60, rim e/dia 54	109
8795/2	Wine glass, straight conical body	H 116, rim e/dia 54	109

TABLE 77: Wine glass fragments

MA	Description	Dimensions (mm)	Grid
6535	Base and stem	H 86, base dia 62	90
7646	Base and stem	Base dia 60	91
7859	Straight conical body		92
7860	Straight conical body	H 112	92
7871	Straight conical body	Base dia 64, H 112	94
8215	Stem and base fragment	Base dia 60	
8729/1	Base and stem, straight conical bowl	H 95, base dia 66	109



FIG. 232. Base fragment (MA4619).



FIG. 235. Tumbler handle (MA4899).



FIG. 233. Wine glass and drawing (MA4673/1).



FIG. 236. Wine glass (MA6486/1).



FIG. 234. Tumbler fragment (MA4771).



FIG. 237. Wine glass (MA8748).

TABLE 76: Wine glass fragments cont.d

MA	Description	Dimensions (mm)	Grid
8729/2	Fragment with black staining		109
8737	Conical shaped bowl, fractured rim	H 110	107
8748	Straight conical body	H 110, base dia 69, rim dia 54	109
8790/1	Fragment	H 115, base dia 65	109
8790/2	Fragment	H 118, base dia 65	109
8790/3	Fragment	H 118, base dia 65	109
8794/1	Base fragment	Base dia 60	109
8794/2	Fragment		109
8794/3	Fragment	H 110	109
8794/4	Fragment	H 118	109
8795/1	Fragment	H 115	109
8795/2	Complete, straight conical body	H 116, dia 56	109
8843/2	Fragment		109
8843/3	Wine glass; incomplete, conical bowl.	H 112, rim e/dia 56	109

TABLE 78: Condiments

MA	Description	Dimensions (mm)	Grid
6215/1	Flask or decanter, or component of a cruet set (figure 238). Facetted glass with a pedestal base. See MA6488 for a similar pattern.	H 131, base dia 51	87
6488	Bowl, facetted glass (figure 239) (See MA6215/1 above)	H 38, rim e/dia 60, base dia 75, th 2	87
6225	Stopper, ground glass	L 35, shaft dia 10, head dia L 17, W 16	

TABLE 79: Miscellaneous bottles / flasks / jars

MA	Description	Dimensions (mm)	Grid
4750	Jar, stoneware, fragment, salt-glazed	H 149, th. 6	87
4862	Bottle, intact, rectangular base, flat sides, concave chamfered corners, long neck, rolled rim (figure 240). Medicinal/pharmaceutical.	H 123, base 56 x 19, mouth dia 16, wt 81	89
6358	Jar, intact, stoneware, salt-glazed; pickled, no internal glazing	H 305, base dia 215, e/dia lip 122, bore dia 91	90
6592	Bottle (canister shape), intact, glass, rectangular base, rounded chamfered corners, wide mouth (figure 241).	H 175, e/dia rim 45, base 85 x 65, wt 342	90
7609	Jar, intact, stoneware, salt glazed. Iron-oxide wash on upper (shoulder) section (reminiscent of 'tiger ware') (figure 242). Double cordoned incised bands halfway on the body. No internal glazing.	H 106, base dia 92, mouth dia 75	92
7610	Jar, intact, stoneware, salt-glazed. Iron oxides wash on upper (shoulder) section (reminiscent of 'tiger ware') (figure 243). Single cordoned incised band under the shoulder. No internal glazing.	H 150, base dia 120	92
7714	Bottle (canister shape), intact, glass, square base, with chamfered corners, wide-mouthed, no lid or cork stopper in place (figure 244)	H 150, base 74 x 73, e/dia mouth 75	92
7739/1	Jar, intact, stoneware, salt-glazed, two incised concentric band marks halfway up the body (figure 245). Iron-oxide wash on the upper body (reminiscent of 'tiger ware') No internal glazing. Cork stopper in place (stopper registered as MA7739/2). Cork stopper <i>in situ</i> on recovery.	H 107, base dia 98, e/dia lip 82, mouth dia 72	92
7739/2	Cork stopper found <i>in situ</i> 7739/1	Dia 72	92



FIG. 238. Flask or decanter (MA6215/1).



FIG. 242. Jar (MA7609).

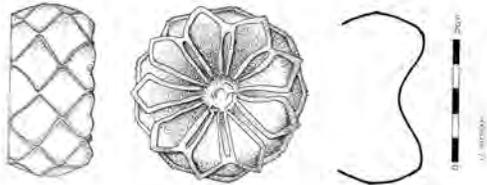


FIG. 239. Bowl (MA6488).



FIG. 243. Jar (MA7610).



FIG. 240. Bottle (MA4862).

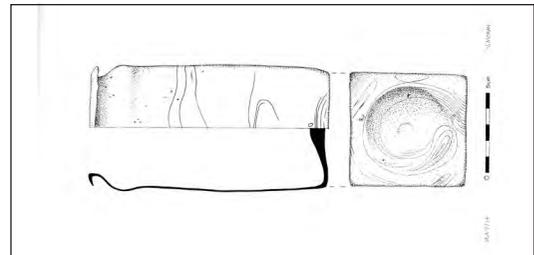


FIG. 244. Bottle drawing (MA7714).



FIG. 241. Bottle (MA6592).



FIG. 245. Jar (MA7739/1).

TABLE 79: Miscellaneous bottles / flasks / jars cont.d

MA	Description	Dimensions (mm)	Grid
7740	Bottle (canister shape), intact, glass, complete, square base, wide mouth and a flanged lip. No lid or cork stopper in place.	H 144, base 75x 75, mouth dia 51, wt 312 g	92
7754	Jar, intact, stoneware, salt-glazed, iron-oxide washes on the upper body (reminiscent of 'tiger ware') (figure 246). Two incised bands halfway along the body. No internal glazing.	H 107, base dia 93, e/dia mouth 78	92
7757	Bottle (canister shape), intact, glass, no lid or cork stopper in place (figure 247).	H 140, base 53 x 52, i/dia mouth 36	91
7766	Bottle (canister shape), intact, glass, square base, wide mouth. No lid or cork stopper in place.	H 146, base 72 x 72, e/dia lip 68, bore dia 51	92
7814	Jar, intact, stoneware, salt-glazed, No internal glazing. One incised line encircling the shoulder. Iron-oxide wash applied to the upper half of the body (reminiscent of 'tiger ware')	H 140 base dia. 281, e/dia mouth 185, i/dia mouth 104, wt 3639 g	92
7844	Jar, intact, stoneware, salt-glazed. Iron oxide wash applied to the upper body (reminiscent of 'tiger ware') (figure 248). No internal glazing.	H 110, base dia 98	94
7846	Jar, intact, earthenware, brown lead glazing unevenly applied, recovered from the bow area (crew's quarters?) (figure 249). No cork stopper or lid in evidence.	H 222, base dia 127, e/dia lip 130, mouth dia 112, wt 1272	166
7914	Bottle (canister shape), intact, glass, rectangular base, rounded chamfered corners, wide mouth	Ht 170, base 80 x 60, mouth dia 14, wt 386 g	92
7915	Bottle, intact, glass, ground glass stopper <i>in situ</i> (figure 250)	H 180, base dia 73	111
7945	Flagon with a lug handle, intact, stoneware (figure 251)	H 142, base dia 60, o/dia mouth 32, max girth 98	164
7992	Sherd, coarse earthen ware		Sph
8045	Bottle, intact, glass, square base, defect of manufacture on the lip, (figure 252). No cork or glass stopper in evidence.	H 147, base 54 x 54, bore dia 17	92
8066/1	Jar, earthenware, flat circular base, two lug handles, shoulder and neck fragment missing. Internal glazing, wheel-thrown (figure 253).	H 240, base dia 70	111
8073	Jar, earthenware base; wheel-thrown, rounded base, tapered outwards towards the shoulder, narrow neck (figure 254). Found in the bow area (galley?).	base dia 775, o/dia of lip 81; wt 3928 g	165
8162	Jar, intact, stoneware. Three incised parallel bands around the shoulder. No internal glazing.	H 280, base dia 195, e/dia mouth 28 wt 3289 g	94
8528	Bottle (canister shape), intact, glass, rectangular base, rounded chamfered corners, narrow neck, loss to one shoulder.	H 175, base 80 x 65, wt 353	109
8553	Bottle (canister shape), intact, rectangular base, rounded chamfered corners.	H 175, base 80 x 55, o/dia mouth 30	109
8677	Jar, intact, earthenware, wide mouth, lipped rim, salt glazed, 3 incised parallel lines along upper body (figure 255)	H 175, base dia 132, i/dia mouth 88	109
8690	Jar, intact, stoneware, iron-oxide wash on the upper body only (reminiscent of 'tiger ware') (figure 256). Irregular neckline, three incised parallel lines under the shoulder. No internal glazing.	H 230, base dia 120, dia mouth 100, wt 1847 g	112
8740	Jar ceramic, fragment, prominent lip, blue/green glazing on outer and inner body. (Cf. glazing on ceramic tile (MA8246).	H 80, base dia 60, e/dia mouth 65, wt 179 g	109

TABLE 80: Incomplete glass containers (bottles, flasks, canisters etc)

MA	Description	Dimensions (mm)	Grid
4773	Bottle fragments, glass, incomplete, rectangular base; flat chamfered corners, wide mouth; cork stopper fragment included cf MA6592	base dia. 84 x 60, e/dia lip 47, bore dia 33	89
6248/1	Glass bottle neck fragment (neck fragment)	H 38, rim e/dia 60, base dia 75, th 2	



FIG. 246. Jar (MA7754).



FIG. 249. Jar (MA7846).



FIG. 247. Bottle (MA7757).



FIG. 250. Bottle (MA7915).



FIG. 248. Jar (MA7844).



FIG. 251. Flagon (MA7945).



FIG. 252. Bottle (MA8045).



FIG. 255. Jar (MA8677).



FIG. 253. Olive oil (?) Jar (MA8066/1).



FIG. 256. Jar (MA8690).



FIG. 254. Jar (MA8073).

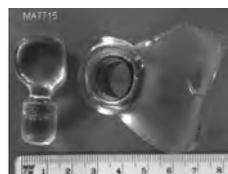


FIG. 257. Bottle neck fragment (MA7715).

TABLE 81: Miscellaneous bottle fragments

MA	Description	Dimensions (mm)	Grid
7635	Glass bottle fragment, square base	52 x 52	92
7649/3	Glass bottle fragment		91
7651/2-8	Glass bottle fragment		89
7652/1-4	Glass bottle fragment		89
7670	Glass bottle neck fragment	i/dia 65	91
7673/2-3	Glass bottle neck fragment		91
7712	Glass bottle fragment, square base	Base 55 x 58	92
7715	Bottle neck fragment, with a ground glass stopper <i>in-situ</i> (figure 257)		
7716	Glass bottle neck fragment, glass stopper <i>in-situ</i>	i/dia neck 13, stopper length 41	92
7705	Glass bottle fragment, cylindrical, flanged lip		92
7757	Glass bottle fragment, square base, wide mouth	Ht 140, base 52 x 53; i/dia mouth 36	91
7800/1	Glass bottle neck and shoulder fragment (figure 258)	o/dia lip 32, bore dia 14	92
7800/2	Glass bottle base fragment (figure 259)	base 74 x 74	92
7800/3	Glass bottle fragments x 12		92
7801	Glass bottle fragment		92
7803/1-7	Glass bottle fragments		93
7858	Glass bottle base fragment, rectangular, chamfered, rounded corners; canister-shape	base 86 x 63	92
7875	Glass bottle base fragment, rectangular, rounded chamfered corners, canister-shape	base 82 x 64	
7878	Glass bottle base fragment, square	base 52 x 52	
7879	Glass bottle fragment, remnant cork <i>in-situ</i>		Sph
7887/1	Glass bottle base fragment, square	base 29 x 28	94
7888	Glass bottle base fragment, rectangular base, concave chamfered corners	base 80 x 55	Sph
7890/1-2	Glass bottle fragments, wide mouth		94
7937/1	Glass bottle neck fragment	e/dia lip 56, bore dia 34	111
7942/1-4	Glass bottle fragments, neck and shoulder, cork stopper <i>in-situ</i>	e/dia lip 36, bore dia 21	
7981/1	fragment. inside coated with residue Glass bottle fragment, bottle in 2 parts, upper fragment (figure 260)	e/dia lip 26, bore dia 11, body dia 50	92
7981/2	Glass bottle fragment, bottle in 2 parts, lower	base dia 50	92
7981/3	Cork fragment		
7991	Ground glass bottle stopper (figure 261)	L 40	Sph
7995/1-24	Glass bottle neck and shoulder fragments,	e/dia lip 36, bore dia 29	
8047	Glass bottle fragment,	e/dia lip 35, bore dia 14	111
8059	Glass bottle neck fragment, wide mouth	e/dia lip 32, bore dia 18	111
8065	Glass bottle neck fragment, wide mouth	e/dia lip 30, bore dia 5	
8203/1-17	Glass bottle rim fragments, wide mouth	e/dia lip 48, bore dia 32	92
8267/1-2	Glass bottle fragments,	e/dia lip 64, bore dia 51	92
8532	Glass bottle base and body fragment, rectangular, concave chamfered corners, wood fragment inside the bottle.		109
8680/1-11	Glass bottle fragments		109
8739/1	Glass bottle neck fragment, cork stopper <i>in-situ</i>		109
8739/2	Glass bottle fragment		109



FIG. 258. Bottle neck and shoulder fragment (MA7800/1).



FIG. 259. Bottle fragment (MA7800/2).



FIG. 260. Bottle in 2 parts (MA7981).



FIG. 261. Ground glass bottle stopper (MA7991).

Sherds – Unidentified glass and ceramic sherds

TABLE 82: Unidentified Glass sherds

MA	Description	Dimensions (mm)	Grid
4536	Sherd, glass	60 x 48 x 1	89Sph
4651	Sherd, glass	54 x 22 x 2	89
7644/1	Sherd, glass		92
7644/2	Sherd, glass		92
7668/1	Sherd, glass		Sph
7668/2	Sherd, glass		Sph
7669	Sherd, glass		89
7674	Sherd, glass		89
7691	Sherd, glass		Sph
7709/2	Sherd, glass		Sph
7709/3	Sherd, glass		89 Sph
7710	Sherd, glass		92
7717	Sherd, glass		92
7729/2	Sherd, glass		90
7735/1	Sherd, glass		Sph
7735/2	Sherd, glass		Sph
7741	Sherd, glass		Sph
4764/1-2	Sherds x 2	1) 73 x 64 x 2; 2) 81 x 60 x 2	89
4887/1-2	Sherds x 2, bottle fragments	1) 55 x 45 x 3; 2) 40 x 39 x 1	89Sph
4905	Sherd, bottle fragment		89Sph
4915	Sherd, glass	44 x 43 x 1	89

TABLE 82: Unidentified Glass sherds cont.d

MA	Description	Dimensions (mm)	Grid
4935	Sherd, glass		89
6206	Sherd, glass	57 x 56 x 4	88
6209	Sherd, black glass		88
6211/1-2	Sherds, glass	72 x 57 x 4	88Sph
6254	Bottle fragment Sherd, glass		90
6279/1-2	Sherds, glass	1) 22 x 8 x 4; 2) 31 x 31 x 1	87Sph
6216	Sherd, glass	93 x 33 x 2	Sph
6226	Sherd, glass	72 x 57 x 4	87
6316	Sherd, glass	81 x 43 x 2	90
6324	Sherd, glass		88
6338	Sherd, glass		90
6343	Sherd, glass		90
6350	Sherd, glass		90
6353	Sherd, round glass, curved edge, possible instrument glass (see MA6411)	7 x 45 x 2	109
6362	Sherd, glass	38 x 30 x 1	90
6367	Sherd, glass	45 x 21 x 1	90
6411	Sherd, glass		ph
6434	Sherd, glass	77 x 27 x 2	90
6459	Sherd, glass	66 x 63 x 4	90
6497	Sherd, glass	30 x 21 x 3	90Sph
6524	Sherd, glass	42 x 25 x 3	90
6547	Sherd, glass	34 x 20 x 1	90
6550/1	Sherd, glass		90
6550/2	Sherd, glass		90
6555	Sherd, glass	53 x 26 x 1	90
6594	Sherd, glass	53 x 26 x 1	90
6609	Sherd, glass	76 x 23 x 1	90Sph
6628/1	Sherd, glass	82 x 35 x 2	90Sph
6628/2	Sherd, glass	67 x 16 x 1	90Sph
6628/3	Sherd, glass	35 x 24 x 2	90Sph
6643/1-10	Sherd, glass		Sph
7621/1	Sherd, glass	94 x 38 x 4	70
7628	Sherd, glass		89Sph
7633/1-4	Sherd, glass		92
7634	Sherd, glass		92
7639	Sherd, glass		92
7640	Sherd, glass		92
7642	Sherd, glass		92
7753	Sherd, glass	85 x 72 x 2	Sph
7760/1-5	Sherd, glass	base 55 x 55	92
7763/1-2	Sherd, glass		Sph
7765	Sherd, glass		Sph
7770	Sherd, glass		92
7776/1-3	Sherd, glass		92

TABLE 82: Unidentified Glass sherds cont.d

MA	Description	Dimensions (mm)	Grid
7826/1-5	Sherd, glass		94
7851	Sherd, glass		94
7885/1-12	Sherd, glass		94
7890/3-6	Sherd, glass		Sph
7919/1-3	Sherd, glass	Th 2	92
7923	Sherd, glass		92
7931	Sherd, glass		111Sph
7937/2	Sherd, glass		111
7943/1-32	Sherds, glass		94Sph
7944/2	Sherd, glass		92
7984	Sherd, glass		Sph
7996	Sherd, glass		90
8053	Sherd, glass		Sph
8057	Sherd, glass		Sph
8058/1-2	Sherds, glass		92Sph
8064/2-4	Sherds, glass		165
8077/2-5	Sherds, glass		165
8084	Sherd, glass		92
8103	Sherd, glass		Sph
8119	Sherd, glass		Sph
8203/4-14	Sherd, glass		Sph
8218/1-7	Sherd, glass		Sph
8253	Sherd, glass		Sph
8299/17-18	Sherds, glass		Sph
8299/25	Sherd, glass		Sph
8299/45	Sherd, glass		109
8502/1-2	Sherd, glass		109
8530	Sherd, glass		109
8536/1-2	Sherd, glass		109
8552	Sherd, glass		109
8568/2	Sherd, glass		Sph
8577/2	Sherd, glass		109
8582	Sherd, glass		109
8588/1-2	Sherd, glass		109
8592/1-2	Sherd, glass		203Sph
8632/2	Sherd, glass		90
8636/1-3	Sherd, glass		203
8654	Sherd, glass		111
8670	Sherd, glass		107
8681/3-5	Sherd, glass		109
8686	Sherd, glass		109
8831	Sherd, glass		Sph
8267/3	Sherd, glass		Sph
8288/3-4	Sherd, glass		Sph
8731/2-5	Sherd, glass		109

TABLE 82: Unidentified Glass sherds cont.d

MA	Description	Dimensions (mm)	Grid
8733/1-5	Sherd, glass		88
8738	Sherd, glass	20 x 25	109
8759/2	Sherd, glass		107
8777	Sherd, glass	Th ½	109
8793/5	Sherd, glass		109Sph
8843/4	Sherd, glass		
8777	Sherd, glass	Th ½	109
8793/5	Sherd, glass		109Sph
8843/4	Sherd, glass		

TABLE 83: Unidentified ceramic sherds

MA	Description	Dimensions (mm)	Grid
4602	Sherd, earthenware	70 x 43 x 1	89
6335	Sherd, earthenware, rim fragment	50 x 30	90
6454/1	'Washer' like fragment, ceramic (figure 262)	9 x 3, dia. 26	90
6454/2	'Washer' like fragment; ceramic	9 x 3, dia. 26	90
6456/1	'Washer' fragment (figure 263) incised line on outer edge; joins with MA6456/2&3		90
6456/2	Washer' fragment, incised line on outer edge; joins with MA6456/2&3		90
6456/3	Washer' fragment, incised line on outer edge; joins with MA6456/2&3		90
6507/1-11	Sherds, earthenware		90
6510	Earthenware sherd		90
6460	Sherd, earthenware rim fragment	56 x 51 x 6	90
6618/1-7	Sherds, earthenware		90
8066/2	Sherds, earthenware		90
8290/1-4	Sherds, earthenware		92
8581	Sherd, stoneware, salt glazed		109
8594/1-2	Sherd, stoneware, salt -glazed		111
8623	Earthenware salt glaze sherd		
8633/2	Earthenware sherd		107
8687	Earthenware salt glazed sherd		Sph
8747	Earthenware salt glazed sherd	30 x 60	90
8797	Earthenware sherd, glazed rim and body	L 120	107



FIG. 262. 'Washer' like fragment (MA6454/1).

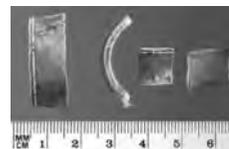


FIG. 263. 'Washer' fragment (MA6456/1).

TABLE 84: Porcelain tableware

MA	Description	Dimensions (mm)	Grid
4854	Tea saucer, intact, powder blue coloured in the well, with a faint, incised floral design in the central face (figure 264). (see MA4589) White exterior surface with faint traces of painted overglaze decoration. An underglaze painted mark on the base (solid lozenge character encircled by a double line) representing victory and success, one of the Taoist 'Eight Precious Things' (see MA4859). Possible a set MA4856 or MA4857.	H 32 e/a dia 158 foot rim base dia.85 H foot rim 6 th 2, wt 175	87
4856	Tea bowl, intact, powder blue exterior surface (except base area within the pedestal shaped foot rim) with a faint incised floral design, (figure 265); a floral overglaze painted decoration in the well (with traces of overglaze gilt enrichment within the incised floral pattern on the outer body) Small chip on the rim. Similar markings to MA4854, possibly forms a pair with saucers MA4854 or MA4859. The character on the base is possibly "sacred fungus" character, considered by Taoist mystics as the food of the Immortals (<i>xian</i>); symbol of longevity (see MA4857).	H 56, e/a dia 101	70
4857	Tea bowl, intact, identical to MA4856; powder blue exterior surface with a faint incised floral design, with traces of inlaid gilt enrichment, white interior surface with faint brown over-glazed (painted) floral decoration which is partly erased. Chip and crack on the body that almost reaches the base. Similar markings to MA4854, possibly forms a pair with MA4854 or MA4859. Character on the base is possibly the "sacred fungus" cipher Considered by Taoist mystics as the food of the Immortals (<i>xian</i>), symbol of longevity) (cf. MA4856).	H 55, o/a dia 102, pedestal base rim dia 40	70
4858	Tea bowl, intact, white glazed. Faint traces of (painted) brown over glaze floral decoration on exterior body (figure 266). The pattern is similar to the decoration in the well of MA4856.	H 65, e/a dia 140, pedestal base rim dia 72	70
4859	Tea saucer, intact, powder blue interior surface with an over glaze incised floral design (originally gilt inlaid?) (chapter 7, figure 459). White outer body with traces of over glaze decoration. Painted mark on the base (solid lozenge character encircled by a double line) One of the Taoist 'Eight Precious Things', symbol of victory and success. (see MA4854). Possibly a pair with MA4856 or MA4857.	H 24 e/a dia 153, dia foot ring 82, H foot ring 4 th 2	70
4860	Tea saucer, incomplete, hand painted underglaze <i>chinoiserie</i> scene, in light blue with a pagoda, willow tree, apple tree in blossom, bridge, and an island in the distance; inner rim border of geometrical patterns small underglaze blister in the well (figure 267) (see MA3005 & MA4861).	H 40, e/a dia 125 dia foot ring 69	70
4861	Tea saucer, incomplete; scalloped edge, hand-painted under glaze <i>chinoiserie</i> scene in aquamarine blue, a pagoda, garden teahouse, bridge, willow tree, migrating birds and a single figure in the garden; inner rim border of geometrical patterns; no apple tree in blossom (figure 268) (see MA3005 & MA4860).	H 32 e/a dia 126 dia foot ring 68 H foot ring 4	70
4900	Tea bowl fragments, blue and white hand painted design, fluted rim segments (figure 269). Possibly associated with MA4860-61, MA4885 or MA4904.	1) 26 x 21 2) 42 x 29	89
4904	Tea saucer or tea bowl rim fragments, blue and white hand painted design, fluted rim fragments (figure 270). Possibly associated with MA4885 & MA4900.	1) 39 x 19; 2) 34 x 24 3) 40 x 20	89
6204	Tea saucer or tea bowl rim fragment, blue and white hand painted design, scalloped edge (figure 271). Possibly associated with MA4860 or MA4861.	29 x 25 x 3	88Sph
6270	Tea saucer or tea bowl rim fragment, blue and white hand painted design, scalloped edge.	25 x 15 x 3	85

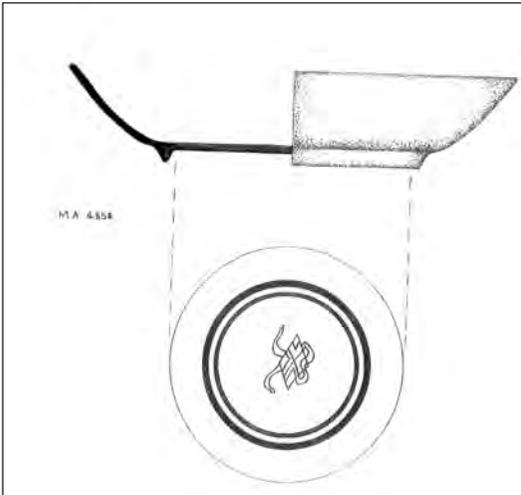


FIG. 264. Tea saucer drawing (MA4854).

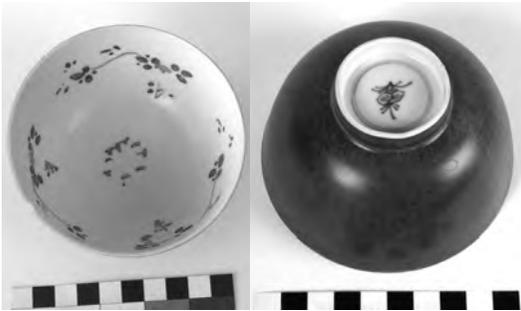


FIG. 265. Tea bowl (MA4856).

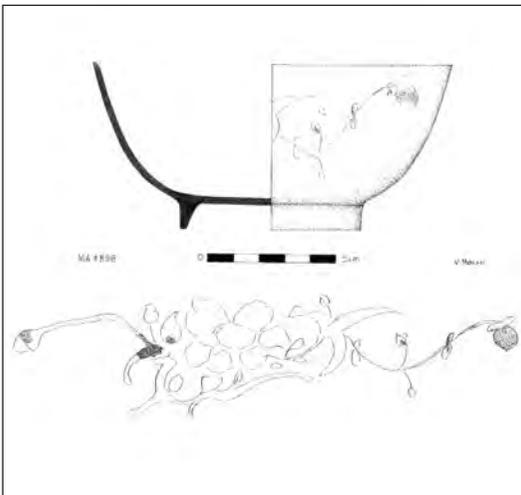


FIG. 266. Tea bowl drawing (MA4858).



FIG. 267. Tea saucer (MA4860).

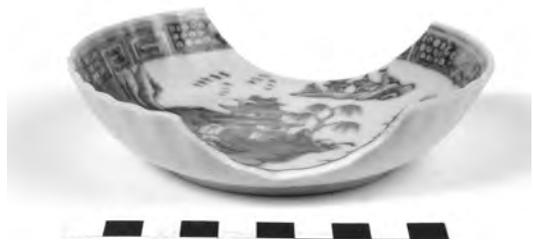


FIG. 268. Tea saucer (MA4861).

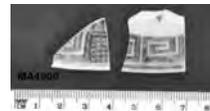


FIG. 269. Tea bowl fragments (MA4900).

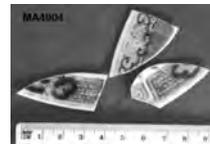


FIG. 270. Tea saucer or bowl fragments (MA4904).



FIG. 271. Tea saucer or bowl fragments (MA6204).

Chamber ware

'Chamber ware – A typical chamber service ... consisted of a ewer and basin, soap and toothbrush trays, sponge tray, mouth 'bason' and ewer, 'foot pail' and jug (Reilly, 1995:100).

TABLE 85: Chamber ware

MA	Description	Dimensions (mm)	Grid
4516	Bowl, pewter (figure 272) possible association with chamber pot (MA4551) or as a basin for a ewer	H 55; o/a dia rim 205	88
4551	Chamber pot, pewter (figure 273) possible association with MA4516	H 116; o/a dia 190 base dia 145	90
4578	Chamber pot, ceramic, intact, creamware single handle (chapter 7, figure 457)	H 156; o/a dia rim 204 base dia 138	89



FIG. 272. Bowl and drawing (MA4516).



FIG. 273. Chamber pot (MA4551).

TABLE 86: Lighting implements

MA	Description	Dimensions (mm)	Grid
4829	Candlestick (figure 274), copper alloy, square base, double band of beaded decoration around the lower end of the base and a single band around the upper end of the base. Manufactured in two sections, 'Baluster' style stem; joined to the base by hammering or clenching.	H 142; base 105 x 105	87
6372	Fitting, ceramic/ copper alloy, undetermined function, possible candlestick holder or a lamp base		88
6607/1	Chain link lengths x 3 (figure 275), copper alloy, attached at anchor points to MA6607/3. Possibly part of suspended lamp. Associated with 6607/2+3, from the captain's store.		
6607/2	Fitting (figure 276), glass and copper alloy. Associated with 6607/1+3, Possibly part of suspended lamp, from the captain's store.	H 50, width 43	90
6607/3	Band or metal hoop (figure 277), copper alloy, decorated with beaded edges and intersecting lines, with 3 equidistant (riveted) hooks. Vestiges of loops attached on obverse face at site of hooks. Associated with MA6607/1+2. Possibly part of suspended lamp, from the captain's store (cf. Schiffer, Schiffer & Schiffer, 1978: 313; Teisen, 1998: 267).	dia 220 band width 18	90
7756	Candlestick, copper alloy, possible pair with MA7863.		91
7863	Candlestick (figure 278), copper alloy, possible pair with MA7756	Ht 172; base 81½ x 81	92
8187	Candlestick holder (figure 279), copper alloy, round base tray with scalloped edge	H 65, base dia 165 wt 150	93
8862	Candlestick holder (figure 280), copper alloy, candlestick holder; ornamental, three attachment holes to fix to a bulkhead	L 75 wt 69	109
8793/1	Lamp (wick) (figure 281) guard fragment, glass		
8793/2	Lamp (wick), guard fragment, glass		109
8793/3	Lamp (wick), guard fragment, glass		109
8793/4	Lamp (wick), guard fragment, glass		109



FIG. 274. Candlestick and drawing (MA4829).

7863



FIG. 278. Candlestick (MA7863).



FIG. 275. Chain link lengths x 3 (MA6607/1+3).



FIG. 276. Fitting Associated with 6607/1+3 (MA6607/2).



FIG. 279. Candlestick holder (MA8187).



FIG. 277. Band or metal hoop associated with 6607/1+2 (MA6607/3).

TABLE 87: Cork bottle stoppers

MA	Description	Dimensions (mm)	Grid
6379/1-20	Cork stoppers, a cache of 20 identical bottle corks	L range 33 – 36, dia range 17-20	90
6390	Cork stopper	L 37, dia 21	90
6394	Cork stopper	L 44, dia 23	90
6395	Cork stopper	L 34	90
6396	Cork stopper	L 43, dia 25	90
6397/1-9	Cork stopper x 9	L range: 34-42, dia range 19-21	90
6412/1-3	Cork stopper x 3	L range: 35-39, dia range 19-21	90
6420	Cork stopper		90
6481	Cork stopper		90
6435/1-2	Cork stopper x 2		90
6466	Cork stopper	40 x 24	90Sph
6542	Cork stopper fragment		90
6560	Cork stopper		90
6574	Cork stopper		90
7729/3	Cork fragment (from MA7729/1)		90Sph
7864	Cork stopper	L 28	92
7880	Cork jar stopper; to fit a stoneware storage jar	dia 35, th 2½	94
7884	Cork fragment		111Sph
7940/1-3	Cork stopper x 3		111
8055	Cork fragment		90
8156/1-3	Cork stopper x 3		91
8164	Cork stopper		91Sph
8514/2	Cork stopper, associated with MA8514/1		109Sph
8553/2	Cork stopper		90Sph
8600/2	Cork stopper		110Sph
8731/1	Cork stopper		111Sph
8099/1-7	Cork stopper x 7	L range 37-40, dia range 16-21	91



FIG. 280. Candlestick and drawing (MA8862).

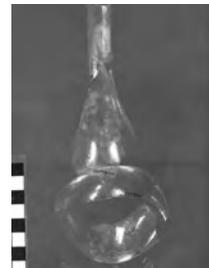


FIG. 281. Lamp wick guard (MA8793/1).

UTENSILS AND ACCESSORIES

TABLE 88: Eating/ Drinking/ Dining

MA	Description	Dimensions (mm)	Grid
4589	Tablespoon, pewter, (figure 282)	L 230, wt 69	89
4660/2	Utensil handle (figure 283), pewter, four un-identified hallmarks on spoon's handle, indistinct maker's initial on the left.	87 x 9	89 Sph
6331	Utensil handle, bone/ copper, rectangular, with a slight taper; copper alloy stud/ rivet in one end.	78 x 16 x 9	90
6406	Cup, with stem, ivory, rim fragment missing (figure 284),		90
6543	Tablespoon, pewter fragment.	49 x 26 x 8	90
7697	Bowl (figure 285), pewter (see MA4516).	H 45, e/a dia 210	91
7707	Utensil handle, copper alloy handle.	L 69	92
7921	Container, incomplete, earthen ware mug or pot (figure 283), with a foot rim.	H 54, dia 46	92
8033/1	Tablespoon (figure 287), silver, no visible hall marks		166
8016	Serviette ring? (figure 288), ivory/ bone		92
8837	Tablespoon (figure 289), pewter, with hole through handle	L 210, wt 71	184
8843/5	Bell (figure 290), copper alloy, clapper and handle not recovered (MA8843/2-7). Possibly used to summon the steward to the 'Great Cabin'.	H 100, dia 110	88Sph
8202/1	Drinking vessel (figure 291), pewter tankard; separate handle (MA8202/2). Decorative lines encircling the body around the base, no evident maker's marks . Recovered in degraded condition, with several holes; evidence of crushing.		93/94
8202/2	Tankard handle (figure 292), pewter, Associated with MA8202/1.	110 x 71 x 68, wt 145	92/93
8605	Mug/tankard (lidded) (figure 293), pewter, round container with single handle, wide mouth, the remnant of a hinged lid mechanism, lid absent, 'thumb' piece missing.	H 60 base dia 95 wt 188	203



FIG. 282. Tablespoon (MA4589).



FIG. 284. Cup (MA6406).

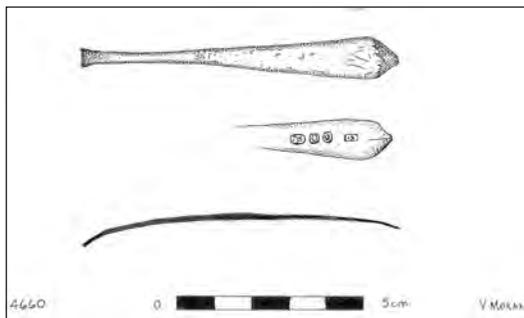


FIG. 283. Utensil handle (MA4660/2).



FIG. 285. Bowl (MA7697).



FIG. 286. Drinking cup, incomplete (MA7921).



FIG. 287. Tablespoon (MA8033/1).

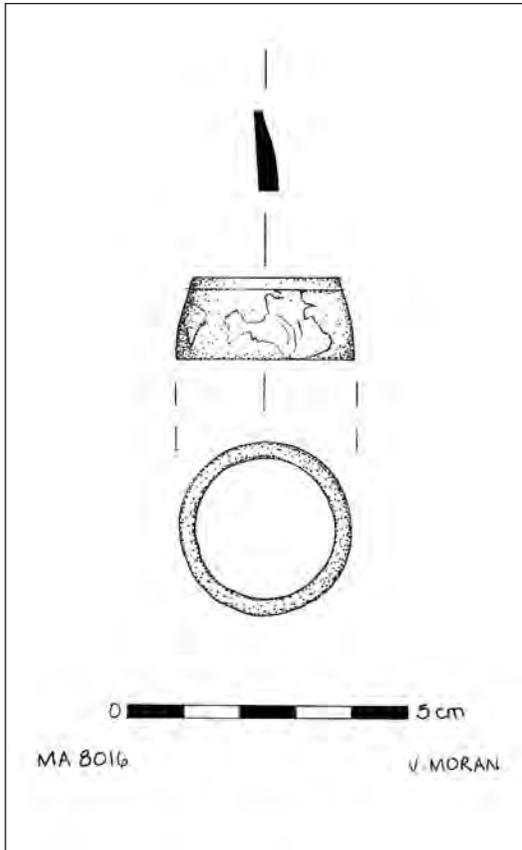


FIG. 288. Ivory or bone serviette ring? (MA8016).



FIG. 289. Tablespoon (MA8837).



FIG. 290. Bell (MA8843/5).



FIG. 291. Pewter drinking vessel (MA8202/1).



FIG. 292. Tankard handle (MA8202/2).



FIG. 293. Pewter mug (MA8605).

TABLE 89: Boiling/baking/broiling

MA	Description	Dimensions (mm)	Grid
6200	Kettle (figure 294), copper.	245 x 233 x 220	88
6605	Handle (figure 295), kettle, copper alloy, one attachment hole.		90
7781	Pot (figure 296), cooking, copper, circular base, rolled rim, with rivets for handle attachments, no handle in evidence.	H 238, base dia 298; o/a dia lip 335 dia mouth 301; wt 3042	181
8613/1	Baking trays (figure 297), copper alloy, (nested), smaller tray nested inside the larger tray, extensive loss due to corrosion, both trays have only one single riveted handle	Outer tray; L 450 (incl. handle) x 300 x 55 Inner tray L 380 (incl. handle) x 310 x 55	
8770	Fragments kettle or pot (figure 298), copper alloy, thin metal sheeting rim fragment, with a single additional riveted copper alloy piece (lug?)		



FIG. 294. Kettle (MA6200).

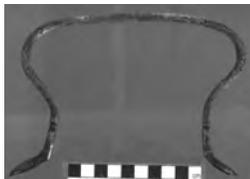


FIG. 295. Kettle handle (MA6605).



FIG. 296. Pot (MA7781).



FIG. 297. Baking trays (MA8613/1).



FIG. 298. Kettle or pot fragments (MA8770).



FIG. 299. Spigot (MA6603).

TABLE 90: Spigots

MA	Description	Dimensions (mm)	Grid
6603	Spigot (figure 299) copper alloy.	L 167, H 90, dia pipe 13	90
8153	Spigot, copper alloy	L 148, H 89, dia pipe 13	91

TABLE 91: Decorative glass tablewear

MA	Description	Dimensions (mm)	Grid
6488	Bowl cut glass, similar cut glass pattern noted on MA6215/1 and MA6512, concave diamond decoration over surface, possibly part of a cruet/condiments set.	H 36; o/a dia rim 58 dia base dia 55	90
6512	Bowl, (figure 300), cut glass, similar cut glass pattern noted on MA6488, concave diamond decoration over surface, possibly part of a cruet/condiments set.	H 38 o/a dia 71	90
7751	Bowl (figure 301), cut glass, table ware, with decorative motif (alternating panels and mitres and a star/ flower pattern) impressed into the base, possible mould/condiments bowl.	H 29; dia rim dia 71 dia base 56	92



FIG. 300. Bowl (MA6512).



FIG. 301. Bowl (MA7751).

TABLE 92: Smoking

MA	Description	Dimensions (mm)	Grid
4559	Pipe stem	116 x 6	90
4717	Pipe stem fragments	L 68; L 45	89
4726	Pipe stem	L 151	87
4758	Pipe stem fragment	L 58	89Sph
4818	Pipe stem fragment		87
4832	Pipe stem fragment	L 53, e/dia 6, i/dia 2	87
6236	Pipe bowl fragment	37 x 20 x 8	87
6346	Pipe stem	L 120, e/dia 6, i/dia 2	90
6243	Pipe stem	L 62, e/dia 6, i/dia 2	87Sph
6354	Pipe stem	L 78, e/dia 6, i/dia 2	90
6452	Pipe bowl & stem fragment (figure 302); raised ribbon decoration on the bowl. Stem parallel with top of the bowl. Sharp spur with no evidence of markings.	bowl diameter 20; stem length 27	90
6471	Pipe stem	L 62, e/dia 7, i/dia 2	90
6545	Pipe stem	L 117, e/dia 7, i/dia 2	90
6577	Pipe stem fragment	L 126, e/dia 7, i/dia 2½	90
6602	Pipe stem	L 85, e/dia 7, i/dia 2	90Sph
7641	Pipe stem fragment	e/dia stem 6, i/dia 2	92
7804	Pipe, clay pipe and stem (figure 303); raised ribbon decoration on the bowl	bowl dia 22, stem length 138	92
8101	Wooden pipe bowl (figure 304)	H 50; dia bowl 23	



FIG. 302. Pipe bowl & stem fragment (MA6452).



FIG. 304. Pipe bowl (MA8101).



FIG. 303. Pipe (MA7804).



FIG. 305. Coin (MA7941).

TABLE 93: Coins

MA	Description	Dimensions (mm)	Grid
4691	Coin, silver or copper alloy, concreted	dia 40	89
4794/2	Coin, silver or copper alloy, concreted, on recovery attached to a stick of red sealing wax (see MA4794/1)	dia 39	88Sph
4660/4	Coin, copper alloy, concreted, possibly a George III halfpenny (see MA8833/9-15)	dia 23	89Sph
4816	Coin, copper alloy, concreted, possibly a George III halfpenny (see MA8833/9-15)	dia 23	87
6333	Coin or button (?) copper alloy	dia 30	90
6581	Coin or button (?) copper alloy	dia 30	90
7941	Coin, copper alloy, '20 Reis' Portuguese copper alloy coin, poor condition, no mint mark in evidence (figure 305) (see MA8179 & MA8203/3). Obverse: Centrally placed "XX" with a "crown" above the two letters and the year "1715" under the letters and between dots. Partially legible letters around the outer circle "D[G]---EBRASILREX-----" (King of Brasil by the grace of God). Reverse: A globe emblem placed centrally; partially legible letters around the outer edge: "- - - - - RBEM" ['orbem'] Similar markings to MA8179 & MA8203/3. Reverse legend therefore most probably reads: "PECUNIA. TOTUM CIRCUMIT ORBEM" [Money to circulate (i.e. be valid for) all around the world]. NB: This legend appears on all copper colonial Portuguese currency. John V was King of Portugal (and Brazil) from 1706 to 1750; his name is not discernable on the coin due to extensive corrosion.	Dia 32	111

TABLE 93: Coins cont.d

MA	Description	Dimensions (mm)	Grid
8179	<p>Coin, copper alloy, '20 Reis' Portuguese copper alloy coin, poor condition, no mint mark in evidence (figure 306).</p> <p>Obverse: Centrally placed XX with a crown above the XX (between crosses) with a date year (1714) placed between dots under the letters. Partially legible inscription around the outer edge "IO[AN]... D G P ET BRASIL".</p> <p>The inscription "IO[AN] D G P ET BRASIL REX" refers to IOAO V or IOAN V or IOANNES Q [Quintus] - so, Joao V; by the grace of God, King of Portugal and Brazil.</p> <p>Reverse: A globe emblem placed centrally; there is a partially legible legend around the outer diameter, which reads: "----- RBEM?".</p> <p>Reverse legend most probably reads: "PECUNIA. TOTUM CIRCUMIT ORBEM" (money to circulate i.e. be valid, all around the world).</p> <p>NB: This legend appears on all copper colonial Portuguese currency. Joao [John] V was King of Portugal (and Brazil) from 1706 to 1750.</p>	dia 33	113
8195	Coins, copper alloy, concreted, cache of 3, no visible surface markings	dia 37	185
8203/3	<p>Coin, copper alloy, '20 Reis' Portuguese copper alloy coin, heavily degraded due to corrosion; with similar markings to MA7941 and MA8179.</p> <p>Obverse: centrally placed "XX" with a "crown" above the two letters XX (between crosses) and the year of issue "1711" or "1719" below the letters (between dots) Partially legible letters around the outer edge that read "D - ET BRASILREX".</p> <p>Reverse: A globe emblem placed centrally; there is a partially legible legend around the outer edge that reads "----- RBEM?" [See notes for MA8179].</p> <p>One of seventeen items from a composite concretion, de-concreted into 17 parts (MA8203/1-17).</p>	dia 33	92
8833/9-15	<p>Coins, copper alloy, cache of 7 coins found in association with copper alloy buttons (MA8833/7), poor condition, surface detail uneven.</p> <p>MA8833/14+15 are the least corroded, clearly showing the right-facing laureate and cuirass bust of George III.</p> <p>From the faces and diameters, it is evident the denominations are most likely half pennies and are so-called 'first issue' [i.e. coins issued annually between 1770 and 1775 during the early reign of George III (1760-1820)] 'First' issue coins have a cuirassed bust of the monarch; later issues (i.e. 'second' and 'third' issues) show a toga-draped bust (Seaby, 1966:199).</p> <p>Obverse: with a laureate and cuirassed right-facing bust of King George III and faint traces of the inscription "Georgius III REX".</p> <p>Reverse: left-facing image of Britannia in a toga holding a trident with a shield bearing a Union Jack at her side (discernable on MA8833/9 only - a date is not discernable in the exergue under the shield) As 'first issue' examples the date must be between 1770 and 1775.</p> <p>Site location: unrecorded grid#, but recovered from a spoil heap (Sph) in the bow area excavation.</p>	dia 23 - 26	Bow area Sph

TABLE 94: Sharpening and grinding implements

MA	Description	Dimensions (mm)	Grid
6273	Whetstone, fine grain basalt (figure 308)	45 x 24 x 13	88

TABLE 95: Gaming pieces

MA	Description	Dimensions (mm)	Grid
6568	Wooden disc, possible gaming piece	dia 65, th 10	90
6617	Wooden disc, possible gaming piece	dia 58, th 8	90Sph
7722	Wooden disc, possible gaming piece	dia 29, width 18	92
8516	Wooden disc, possible gaming piece	dia 31, th 7	107
7774	Metal fragment		92
7973	Lead fragment	L 95 x 60, wt185	166
7951	Worked object		92
8271	Worked lead object, with a band of five incised lines (figure 309), undetermined purpose, gaming pieces?		Sph
8291	Lead roll; multiple fragments		
8755/1	Disc, wood, worked (figure 310), possible gaming piece, bung or plug?	dia 90, th 7	109
8755/2	Disc, wood, worked, gaming piece, or plug? One piece with evidence of a scratched 'X' or 'W'	dia 95, th 12	109
8755/3	Disc, wood, worked, possible gaming piece, bung or plug?		109
8762	Shaped wooden object, gaming piece, or plug?	dia 34	109
8766	Disc, wood, worked (figure 311), possible gaming piece, bung or plug?	dia 65, th 15	
8809	Worked wooden object (figure 312), round shaft through the long axis of the object, 'wear' groove on flat outer surface. Similar to MA8810	80 x 65 x 30	204
8810	Worked wooden object, round shaft through the long axis of the object, 'wear' groove on flat outer surface. Similar to MA8809.	80 x 60 x 32	204
8833/1	Disc, wood (figure 313), carved gaming counters / draughts' pieces? (ID by Dr Irvine Finkel, British Museum)	dia 15-18, th 5	Sph
8833/2	Disc, wood, carved gaming counters / draughts' pieces? (ID by Dr Irvine Finkel, British Museum)	dia 15-18, th 5	Sph
8833/3	Disc, wood, carved gaming counters / draughts' pieces? (ID by Dr Irvine Finkel, British Museum)	dia 15-18, th 5	Sph
8833/4	Disc, wood, carved gaming counters / draughts' pieces? (ID by Dr Irvine Finkel, British Museum)	dia 15-18, th 5	Sph
8833/5	Disc, wood, carved gaming counters / draughts' pieces? (ID by Dr Irvine Finkel, British Museum)	dia 15-18, th 5	Sph
8833/6	Worked wooden object (figure 314), one hole drilled into the widest part of the object. Toggle button?	L 34, dia at widest part 13	Sph
8872	Worked, wood	208 x 39 x 50	Sph

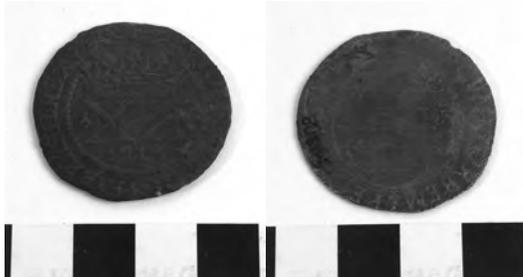


FIG. 306. Coin (MA8179).

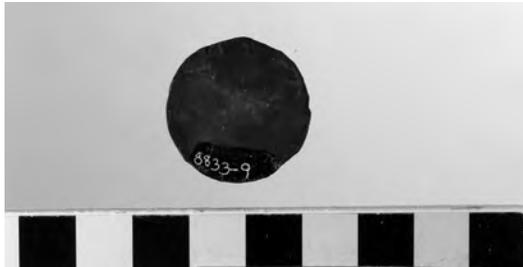


FIG. 307. Coin (MA8833/9-15).



FIG. 308. Whetstone (MA6273).

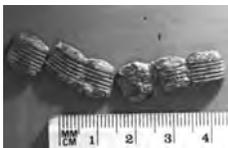


FIG. 309. Worked lead object (MA8271).



FIG. 310. Wood disc (MA8755/1).

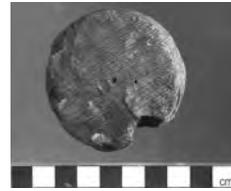


FIG. 311. Wood disc (MA8766).



FIG. 312. Wooden object (MA8809).



FIG. 313. Wood gaming counters (MA8833/1).



FIG. 314. Wood object possible button toggle (MA8833/6).

CLOTHING AND ACCESSORIES

TABLE 96: Copper alloy buttons

MA	Description	Dimensions (mm)	Grid
4527	Button, copper alloy	dia 34	90
4609	Button, copper alloy (x2), with attachment ring	dia 33	89
4629	Button, copper alloy, with remnant of attachment ring	dia 30	89
4631	Button, copper alloy, attachment ring	dia 32	89
4639	Button, copper alloy	dia 32	89
4641	Button, copper alloy, attachment ring	dia 31	89
4647	Button, copper alloy	dia 36	
4670	Button, copper alloy	dia 35	89
4692	Button, copper alloy	dia 27	89
4703	Button, copper alloy	dia.39	89
4704	Button, copper alloy	dia range: 24 - 40	87
4713	Button, copper alloy	dia 25	89
4723	Buttons, copper alloy	dia range: 21-28	89
4747	Button, copper alloy	dia: 30	87
4772	Button, copper alloy, attachment ring	dia 36	89
4787/1-2	1) Button, copper alloy attachment ring, 2) cap like attachment	1) dia 28; 2) dia 16	87
4816	Button, copper alloy	dia: 32	89
4824	Button, copper alloy	dia 36	89
4840	Button, copper alloy	dia.38	87
4845	Button, copper alloy, attachment ring	1) dia 15; 2) Soldered eye fragment, dia 12	89Sph
4846	Button, copper alloy	dia 37	89
4849	Button, copper alloy	dia 17	
4886	Button, copper alloy fragments		
4914	Button, copper alloy		
4934	Button, copper alloy		
4623	Buttons, copper alloys (x8)	dia range 25 - 37	87
4635/4	Button, copper alloy, attachment ring	dia 16	92
4663	Button, copper alloy (x2) 1) Concreted with ring attachment 2) Cap-like attachment; dia	1) dia 35 2) dia 33	89
4676/1	Button, copper alloy (x2), trace of beaded edge	dia 31	31
4676/2	Button (figure 315), copper alloy, faint trace of textile imprint on surface	dia 31	89
4919	Button (figure 316), copper alloy, embossed decorated face, and attachment ring, extracted from concretion MA4901.	dia 33	89Sph
4938	Button (figure 317), copper alloy, 'Fouled anchor' design, intact eye attachment ring, extracted from concretion MA4901, from uniform jacket.	dia 22	89Sph
4939	Button, copper alloy, with attachment ring	dia 32	89Sph
6220	Button, copper alloy, with attachment ring	dia 15, ring ht 8	89
6223	Button fragment, copper alloy	dia 14	89
6224	Button, copper alloy	dia 30	89
5242	Buttoned, de-accessioned, due to complete disintegration through advanced corrosion		87
6255	Button, copper alloy, with attachment ring	dia 14	88

TABLE 96: Copper alloy buttons cont.d

MA	Description	Dimensions (mm)	Grid
6257	Button, copper alloy, with remnants of attachment ring	dia 15	88
6268/1	Button, de-accessioned, due to complete disintegration through advanced corrosion		85
6268/2	Button, de-accessioned, due to complete disintegration through advanced corrosion		85
6268/3	Button, de accessioned, due to complete disintegration through advanced corrosion		85
6272/ 1-3	Button, copper alloy, with attachment rings	1) dia 33, 2) dia 27 3) dia 34	85
6285	Button, copper alloy	dia 15	88
6295	Button, copper alloy	dia 14	88
6297	Button, copper alloy	dia 16	88
6298	Button, copper alloy	dia 17	88
6301	Button, copper alloy	dia 17	87
6373	Button, copper alloy, with attachment ring	dia 17	88
6377	Button, copper alloy	dia 14	88
6382/3	Button, copper alloy, fragment, with attachment ring	dia 17	90
6389	Button (figure 318), copper alloy, with attachment ring and a decorated (beaded) edge	dia 24	90
6401	Button, copper alloy	dia 32	90
6416	Button, copper alloy	dia 32	90
6417	Button, copper alloy	dia 33	90
6425	Button, copper alloy Copper alloy button	dia 14	90
6453	Button, copper alloy Copper alloy button	dia 33	90
6483	Button, copper alloy Copper alloy button with a soldered eye attachment ring	dia 34	90
6503	Button, copper alloy Copper alloy button	dia 28	90
6534	Button, copper alloy Copper alloy button	dia 16	90
6559	Button, copper alloy Copper alloy button		90
6597/1-3	Button, copper alloy Copper alloy buttons	1) dia 32, 2) dia 28 3) dia 16	90Sph
7607	Button, copper alloy, with attachment ring	dia 28	89
7687	Button, copper alloy, with attachment ring	dia 30	89Sph
7750	Button, copper alloy		92
7791	Button, copper alloy, with attachment ring		92
7794/1-2	Button, copper alloy, with attachment ring, remnant gilt in evidence		92
7805	Button, copper alloy, with attachment ring, remnant gilt in evidence		92
7815	Button, copper alloy	dia 16	92
7883	Button, copper alloy	dia 13	92
7892	Button, copper alloy, with attachment ring	dia 13	92
7894	Button, copper alloy, with attachment ring	dia 15	92
7895/1-3	Buttons, copper alloy, with attachment ring	dia 14	92
7897	Button, copper alloy	dia 13 (all)	92
7898/1-3	Buttons, copper alloy		164Sph
7905	Button, copper alloy, with attachment ring		Sph
7916	Button, copper alloy, with attachment ring	dia 35	90

TABLE 96: Copper alloy buttons cont.d

MA	Description	Dimensions (mm)	Grid
7922/1-2	Buttons, copper alloy, with attachment ring		92
7925/1-2	Button, copper alloy, with attachment ring		Sph
7928	Button, copper alloy	dia 16	92
7938	Button, copper alloy, with attachment ring	dia 29	111
8003/1-3	Button, copper alloy	dia range 18-29	92
8007	Button (figure 319), copper alloy, 'Fouled anchor' design, intact eye attachment ring, from uniform jacket.	dia 24	92
8022/1-2	Buttons, copper alloy, with attachment ring	dia 27	92
8036	Buttons, copper alloy, with attachment ring	dia 15	166
8052	Buttons, copper alloy, with attachment ring	dia11	Sph
8087	Button, copper alloy		91
8092	Buttons, copper alloy, with attachment ring	dia 10	91
8093	Button, copper alloy	dia 16	91
8094	Button, copper alloy	dia 15	91
8105	Buttons, copper alloy, with attachment ring	dia 11	92
8123/1	Button, copper alloy with the remnant of attachment ring, decorative beading around the border on the obverse face.	dia 25;	Sph
8123/2	Button fragment		90
8185	Button (figure 320), copper alloy, (x2), concreted together with remnant of attachment ring, decorative beading around the edges on the obverse face.	dia 25	Shp
8217/1-3	Buttons, copper alloy, with attachment ring	dia 36	Sph
8219/2	Buttons, copper alloy, with attachment ring		Sph
8238	Button, copper alloy	dia 24	Sph
8251/1-2	Button, copper alloy	dia 14	Sph
8251/2	Buttons, copper alloy, with attachment ring		Sph
8272/1-2	Buttons, copper alloy, with attachment ring	dia 13	166
8276/1	Button (figure 321), copper alloy, with attachment ring	dia 21	166
8276/2	Button (figure 322), copper alloy, with attachment ring		166
8286	Button, copper alloy, with attachment ring	dia 11	Sph
8299/1-4	Button, copper alloy		91/93Sph
8300	Button, copper alloy		Sph
8512	Button, copper alloy		107
8572	Button, copper alloy, with attachment ring	dia 22	109
8573	Button, copper alloy, with embossed 'fouled anchor' design.	dia 16	109
8578	Button (figure 323), copper alloy, button base inlaid with shell component, 4 'sew through' holes, imprint of textile on reverse face	dia 15	109
8579/1-3	Lead discs (buttons?)	dia 30	109
8599	Button, copper alloy	dia 29	111
8610	Button, copper alloy	dia 11	Sph
8611	Button, copper alloy		Sph
8614	Button, copper alloy, fragment	dia 10	Sph
8640	Button, copper alloy, with attachment ring	dia 30	107
8662	Button, copper alloy	dia 15	109
8664	Button, copper alloy	dia 35	109

TABLE 96: Copper alloy buttons cont.d

MA	Description	Dimensions (mm)	Grid
8675	Button, copper alloy, with attachment ring	dia 33	205
8693	Button, copper alloy, with attachment ring		109
8704	Button, copper alloy, with attachment ring	dia 16	204
8720/1-12	Button, copper alloy, with attachment ring	x 9 dia 35 x 3 dia 22	109
8726	Button, copper alloy, with attachment ring	dia 25	90
8734	Button, copper alloy	dia 35	109
8744/1-3	Button, copper alloy, with attachment ring	dia 13 (all)	109
8745/1-3	Button, copper alloy, with attachment ring	dia 34 (all 3)	109
8749	Button, copper alloy	dia 30	109
8751/1	Button, copper alloy	dia 30	111
8752	Button, copper alloy, with attachment ring	dia 15	109
8753	Button, copper alloy, with attachment ring	dia 15	109
8758	Button, copper alloy, with attachment ring	dia 22	109
8778	Button, copper alloy, with attachment ring	dia 15	107
8780	Button, copper alloy, with attachment ring	dia 19	
8792/1-3	Button, copper alloy	dia range 16-18	109
8813	Button, copper alloy, 'sew through' type, concreted, with two holes Grid Sph		Sph
8829/1-2	Lead (?) buttons		
8829/3	Lead button with an eye attachment ring	dia 5	
8832	Button, copper alloy	dia 18	109
8833/19	Button (figure 324), copper alloy, oval shape, 'Fouled anchor' design, with a separate chain link attached.		
8833/ 18	Button, copper alloy, with attachment ring		Sph
8833/ 20	Button, copper alloy, with attachment ring	dia 10	Sph
8833/ 21	Button, copper alloy, with attachment ring	dia 11	Sph
8833/7	Button, copper alloy, with attachment ring		Sph
8833/8	Button, copper alloy fragment,		184
8868/2	Button, copper alloy, with attachment ring		Sph



FIG. 315. Copper alloy button (MA4676/1).



FIG. 317. Copper alloy button (MA4938).



FIG. 316. Copper alloy button (MA4919).



FIG. 318. Copper alloy button (MA6389).



FIG. 319. Copper alloy button (MA8007).



FIG. 320. Copper alloy button (MA8185).

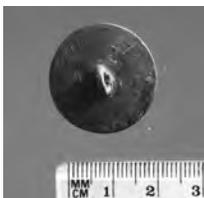


FIG. 321. Copper alloy button (MA8276/1).



FIG. 322. Copper alloy button (MA8276/2).



FIG. 323. Copper alloy button (MA8578).



FIG. 324. Copper alloy button (MA8833/19).

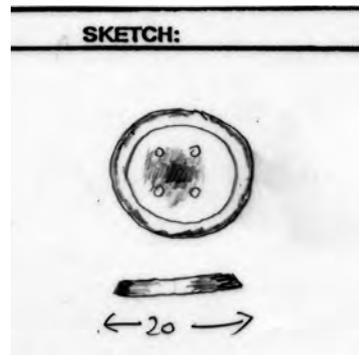


FIG. 325. Ivory button (MA4902).

6229



FIG. 326. Ivory button (MA6229).

TABLE 97: Bone buttons

MA	Description	Dimensions (mm)	Grid
4902	Button, ivory (figure 325), 'sew through'; flat base, concave face, 4 thread holes and bevelled edges, intact	dia 21	89
6229	Button, toggle-shaped, wood (figure 326). Associated with a 'duffle coat' or lanyard end.	L 22	87
6259	Button, bone/ ivory, figure 327, 'sew through' type. Flat base, concave face, 4 thread holes, bevelled edge (cf. MA6261).	dia 24, th 4	88
6261	Button, bone/ ivory (figure 328), 'sew through' type. Flat base, concave face, 4 thread holes, bevelled edge, intact (cf. MA6259).	dia 24, Th 4	88
6299	Button, bone / ivory	dia 13	
8121	Button, bone / ivory (figure 325), 'sew through' type, with bevelled edge, 4 thread holes.	dia 28	Sph
8760/2	Button, bone (figure 325) 'sew through' type , 4 thread holes, bevelled edge.	dia 24	109

TABLE 98: Buckles

MA	Description	Dimensions (mm)	Grid
4714	Buckle (figure 331), possible belt, copper alloy	32 x 29 x 3	89
6239	Shoe buckle (figure 332), pin remains attached, copper alloy	28 x 24, pin 16	87
6328	Shoe buckle (figure 333), pewter, embossed beaded decoration, lettering and a floral motif. One of a pair with MA6386, indistinct lettering along the top register of buckle - "George Brit ___" and lettering along the bottom appears to read "Admiralty ...ng" or "W...."		90
6329	Shoe buckle, pewter, embossed beaded decorations (floral motif) and lettering. Indistinct lettering due to corrosion, however the words "Admiralty" (bottom register) and "George" (top register) are discernable. One of a pair with MA6328.	78 x 54	90
6368	Buckle (figure 334), copper alloy, crimped or wave-like pattern on the upper surface	38 x 30	90
7688	Shoe buckle (figure 335), copper alloy; o/a length 55	L 55	92
8606	Shoe buckle (figure 336), silver, possibly one of a pair with MA8672, decorative, scalloped edges, ornate patterning compare with MA8672	73 x 34	204
8672	Shoe buckle (figure 337), silver, possibly one of a pair with MA8606, decorative, scalloped edges, ornate patterning, compare with MA8606	75 x 34	204

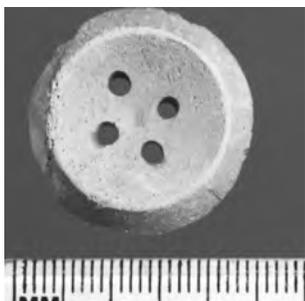


FIG. 327. Ivory/bone button (MA6259).

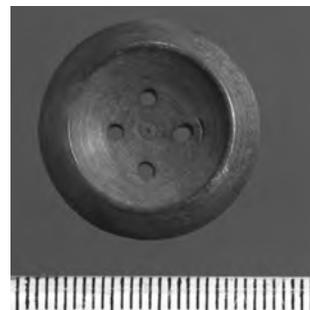


FIG. 328. Ivory/bone button (MA6261).

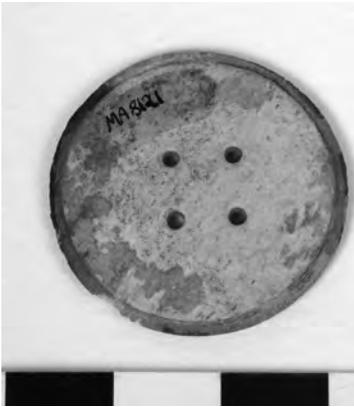


FIG. 329. Ivory button (MA8121).



FIG. 330. Bone button (MA8760/2).



FIG. 331. Copper buckle (MA4714).

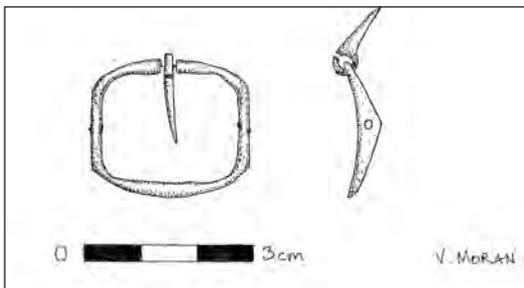


FIG. 332. Shoe buckle (MA6239).



FIG. 333. Shoe buckle (MA6328).



FIG. 334. Shoe buckle sketch (MA6368).



FIG. 335. Copper shoe buckle and sketch (MA7688).

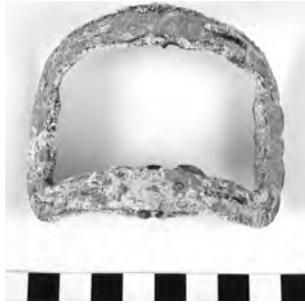


FIG. 336. Silver shoe buckle (MA8606).



FIG. 337. Silver shoe buckle (MA8672).

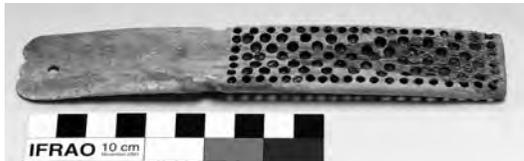


FIG. 338. Brush back / shoe horn (MA4674).

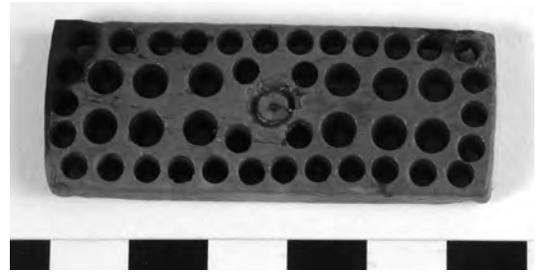


FIG. 339a. Brush back / shoe horn reverse (MA4781).



FIG. 339b. Brush back / shoe horn (MA4781).



FIG. 340. Brush handle fragment (MA4782).

TABLE 99: Toiletries/personal grooming

MA	Description	Dimensions (mm)	Grid
4674	Brush back/shoe horn (figure 338), bone/ ivory, shoe-horn handle; rectangular, with multiple bristle holes. An identical example was recovered during the 1983 season (Campbell & Gesner 2000:124).	170 x 29 x 7	87
4781	Brush back, ivory/bone (figure 339). An identical example was recovered during the 1983 season (Campbell & Gesner 2000:125).	57 x 22 x 5	87
4782	Brush handle fragment, bone / ivory, bulbous end, the opposite end (incomplete) has 3 parallel rows of evenly spaced holes (Dia. 2) for bristles (figure 340).	100 x 10 x 4 7 dia holes 2	87
4783	Brush handle; bone/ivory (figure 341).	57 x 22 x 69	87
6365/1	Wooden brush back, five rows of nine or ten holes for bristles, degraded condition (figure 342).	L 108 dia holes 6-9	
6365/2	Wooden brush back, five rows of seven holes for bristles, remnant thread; degraded condition.	L 90 dia holes 6-10	90
7870	Double-ended brush handle, ivory (figure 343), possibly tooth brush, similar to MA8015.	130 x 8 x 4	94
8015	Double-ended brush, ivory, possibly toothbrush, similar to MA7870	120 x 5 x 3	92
8557	Lice comb fragment	43 x 29	165 Sph



FIG. 341. Brush handle fragment (MA4783).



FIG. 345. Intaglio/seal (MA6421).

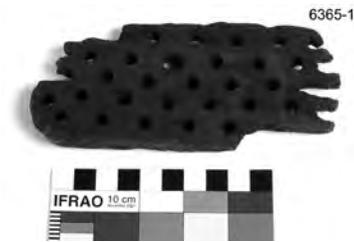


FIG. 342. Wooden brush (MA6365/1).



FIG. 346. Intaglio/seal (MA7677).

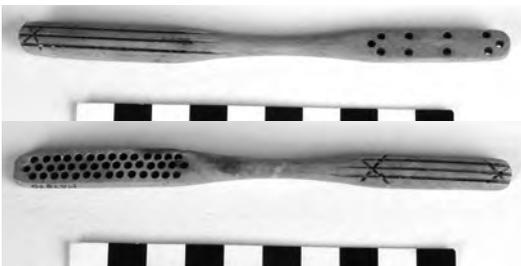


FIG. 343. Wooden brush back (MA7870).



FIG. 347. Intaglio/seal (MA7903).



FIG. 344. Intaglio/seal with Atlas figure (MA6348).

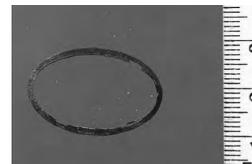


FIG. 348. Intaglio/ seal frame or mount (MA8054).

Intaglios

It was “fashionable” among eighteenth century gentlemen to hang seals, keys and trinkets from watch chains. Although largely decorative, the seals were also used as a personal mark on the sealing wax put on a letter (Jones/Smith, 1985:111).



FIG. 349. Intaglio/seal (MA8214).

TABLE 100: Intaglios

MA	Description	Dimensions (mm)	Grid
6348	Intaglio/seal with an Atlas figure (amethyst?) (figure 344)	17 x 13 x 3	90
6421	Intaglio/seal (figure 345) black basalt, incised right-facing head; the seal's reverse side stamped with a maker's mark "Wedgwood & Bentley" and a Wedgwood catalogue number 304. (Probably a depiction of Hannibal).	27x 24 x 3	90
7677	Intaglio/seal (figure 346), agate, mounted, set in copper alloy frame ending in an attachment eye for a chain, decorative leaf pattern with a French quote: "Il ne change qu 'en mourant" (Nothing changes until death/dying) incised around the edge. The leaf possibly symbolises life's cycle.	15 x 13	89
7903	Intaglio/ seal (figure 347) agate, set in copper alloy frame, see MA8054, oval shape, image of a women standing with an anchor (symbolising Hope?).	21 x 14 x 2	Sph
8054	Intaglio/seal frame or mount (figure 348) copper alloy, oval shaped, compare with MA7903	L 28, W 20	
8214	Intaglio/seal (figure 349), agate, portrays a women's figure (a Vestal Virgin?) offering a libation to the virtue of truth (Veritas) The plinth is inscribed "Veritas".	19 x 13 x 1¼	92Sph
8222	Intaglio/ seal, agate, set in a gilt mount, indistinct incised figure	29 x 21 x 3	166
8827	Intaglio/seal, agate, mounted, set in copper alloy frame. Intaglio mounted in a metal frame as a 'spinner'; stone inset with an incised pattern of a right-facing bearded man's bust, wearing a skull cap. (Greek philosopher?). The reverse face appears unpolished (figure 350).	L 51 Intaglio 20 x 17	90
8833/16	Frame, copper alloy, oval shaped frame with a decorative pattern on one side. Two holes on either extremity suggest mounting as a 'spinner' for an intaglio/ seal? (see MA8827).	35 x 25	Sph



FIG. 350a. Intaglio/seal front (MA8827).



FIG. 350b. Intaglio/seal reverse (MA8827).

TABLE 101: Miscellaneous clothing & accessories

MA	Description	Dimensions (mm)	Grid
4660/3	Sewing pin, copper alloy	L 28, dia head 2	89
4932	Sewing pin (figure 351), copper alloy		89
6382/1	Disc, copper alloy, possible button	dia 30	90
6382/2	Disc, copper alloy, possible button	dia 30	90
6382/3	Disc, copper alloy, possible button	dia 30	
6415/1	Dressmaker's pin, copper alloy, round head	L 29, dia head 2	90
6415/2	Dressmaker's pin, copper alloy, round head	L 35, dia head 2	90
6423/1	Dressmaker's pin, copper alloy, round head	L 24, dia head 2	90
6423/2	Dressmaker's pin, copper alloy, round head	L 27, dia head 2	90
8295	Dressmaker's pin, fragment, copper alloy	L 31.	Sph

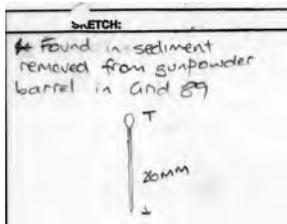


FIG. 351. Sewing pin sketch (MA4932).



FIG. 352. Adze blade (MA4506).



FIG. 353. Adze blade (MA4520).



FIG. 354. Adze blade (MA4618).



FIG. 355. Adze blade and drawing (MA4762).

4876



FIG. 356. Adze blade and drawing (MA4876).

Polynesian material culture

None of the adze blades from the *Pandora* have been recovered as a hafted adze, i.e. bound to a wooden haft by plaited (coconut) fibre or twined fibre cord (Hauser-Schäublin & Krüger 1998:291; Kaeppler, 1978:152). To date no remains of the organic materials (coconut fibre cord or wooden haft) have been found in association with any of the blades. The majority of Tahitian adze blades recovered from the *Pandora* wreck are significantly different in shape and are a smaller size or apparently have not been finished; this applies especially to their tangs which do not have the prominent arched elevation (e.g. MA4521, MA4618 and MA8189).



FIG. 357. Adze blade (MA4927).



FIG. 358. Adze blade (MA7638).

TABLE 102: Adze blades

MA	Description	Dimensions (mm)	Grid
4506	Adze blade (figure 352), fine grained basalt, triangular blade and a slightly arched tang in cross-section	243 x 69 x 66wt 1423	89
4520	Adze blade (figure 353), fine grained basalt, triangular blade and a slightly arched tang in cross-section	154 x 49 x 39wt 384	87
4521	Adze blade, fine grained basalt, triangular blade and a slightly arched tang in cross-section. Possible semi-finished state, off-cast by the tool maker	141 x 47 x 37wt 352	88
4618	Adze blade (figure 354), fine grained basalt, triangular blade and a slightly arched tang in cross-section. Possible semi-finished state, an off-cast by the tool maker.	113 x 52 x 27 wt 301	87
4762	Adze blade (figure 355), fine grained basalt, triangular blade and a slightly arched tang in cross-section	124 x 40 x 26 wt 348	89
4812	Adze blade, fine grained basalt, triangular blade and a slightly arched tang in cross-section	105 x 33wt 433	88
4876	Adze blade (figure 356), fine grained basalt, triangular blade and a slightly arched tang in cross-section	185 x 56 x 48wt 570	87
4910	Adze blade, fine grained basalt, triangular blade and a slightly arched tang in cross-section	117 x 44 x 32wt 489	89
4927	Adze blade (figure 357), fine grained basalt, recovered from concretion MA4901	280 x 73 x 68wt 1932	
7638	Adze blade (figure 358), fine grained basalt	280 x 70 x 50 wt 1891	91
7721	Adze blade (figure 359), fine-grained basalt, triangular blade and a triangular tang in cross-section	223 x 70 x 40wt 913	92
7799	Adze blade, fine grain basalt, triangular blade and a slightly arched tang in cross-section. Significantly different in shape and smaller size than the majority of Tahitian adze blades recovered from the <i>Pandora</i> wreck.	73 x 21 x 15	92
7857	Adze blade, fine grained basalt, triangular blade and a slightly arched tang in cross-section	119 x 42	92
8134	Adze blade (figure 360), fine grained basalt, triangular blade and a slightly arched tang in cross-section	172 x 53 x 40wt 669	94
8189	Adze blade (figure 361), possible semi-finished state, off-cast by the tool maker	138 x 43 x 31wt 331	183
8236	Adze blade (figure 362)	L 200wt 805	Sph
8270	Adze blade	L 190wt 683	185
8519	Adze blade fragment		107
8914	Adze blade (figure 363), possible semi-finished state, off-cast by the tool maker	135 x 47 x 32; wt 333	Sph



FIG. 359. Adze blade (MA7721).



FIG. 360. Adze blade (MA8134).



FIG. 361. Adze blade (MA8189).



FIG. 362. Adze blade (MA8236).



FIG. 363. Adze blade (MA8914).

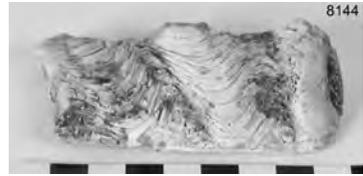


FIG. 364. Adze blade (MA8144).

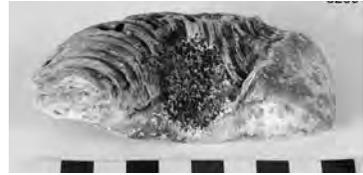


FIG. 365. Blade shell implement (MA8230).



FIG. 366a Polynesian war club (Tonga) (MA4743).



FIG. 366b Polynesian war club detail (Tonga) (MA4743).



FIG. 366c. Polynesian war club detail (Tonga) (MA4743).

TABLE 103: Shell blades

MA	Description	Dimensions (mm)	Grid
8144	Adze blade, clam shell (<i>Tridacna maxima</i>) fragment (figure 364) see MA1161 and MA1699 (Campbell & Gesner, 2000: 128).	85 x 46 x 11wt 72	185
8230	Bladed shell implement, (<i>Tridacna maxima</i>) (Clam shell) (figure 365) possible scraping implement, see MA1161, MA1699 and MA8144.	90 x 55 x 24	185

TABLE 104: War Clubs

MA	Description	Dimensions (mm)	Grid
4743	Polynesian 'paddle-shaped' war club (Tonga) 'Moungalaulau, (figure 366a); (St Cartmail type VI). Wood: <i>Casuarina equisetifolia</i> . A typical 'paddle shaped' club, with incised patterns and schematized human figures. Commonly referred to as a 'paddle' club; with a round shaft; slightly flared at the butt end. No signs of use-wear on the shaft; no butt lug or attachment hole is present as an attachment point for a wrist cord. Incised decorative elements include herring bone, basketry and banded zigzag motifs. Schematized figures in the uppermost (i.e. head end) panel include human figures holding weapons or ceremonial paraphernalia and one figure wearing a head-dress; possibly denoting the semi-divine, supreme chief Tu'i Tonga (St Cartmail, 1997:128). There is also a series of three schemata in a panel possibly representing a (human) birthing sequence. This detail from MA4743 (figure 366b) shows an incised panel with two human figures; one of them wearing a head-dress Schematized (human) birthing sequence, bottom panel (figure 366c), left to right. Some longitudinal cracking occurred during conservation treatment.	L 1065, extreme width (head end) 105	89
4809	Polynesian 'paddle-shaped' war club (Tonga) Moungalaulau, (St Cartmail type VI). Wood: <i>Casuarina equisetifolia</i> . Round shaft; no evidence of use-wear on the handle. No butt lug, however two holes have been drilled, converging at a right angle, probably to accommodate a twine wrist cord. Carved decorative elements include herring bone, basketry and banded zigzag motifs. No schematized anthropomorphic or zoomorphic figures as on MA4743. Some longitudinal cracking during conservation treatment.	L 970, Max W 76, dia shaft 30, dia butt end 38	87
4810	Polynesian 'coconut stalk shape' war club (Tonga) Apa'apai (St Cartmail type IV), (Figure 367a). Wood: <i>Casuarina equisetifolia</i> . Classic so-called 'coconut-stalk' type. A carved representation of the coconut leaf stalk. Diamond-sectioned head (flat head) (Figure 367b). trending to a rounded shaft / handle. The handle shows signs of use-wear, (Figure 367c). A butt lug has been cut in the centre of the handle fashioned in one piece from the shaft (Figure 367d). There are six raised carved parallel bands in groups of, respectively 6, 6, 5, 4, 3, 2; the bands run in descending order down the length of the club from the head to the butt end. The groups of parallel bands are interspersed with panels of finely carved, zigzag and herring-bone motifs, which continue down the shaft to the slightly flared butt end. Decorated with incised patterns and schematized human and animal figures (Thomas, 1995:94). Some longitudinal cracking during conservation treatment.	L 1000, m Max w W106 Dia shaft 42, dia butt end 56	87
4821	Sword-shaped club, (figure 368). Wood: <i>Casuarina equisetifolia</i> . No butt lug. Vestiges of twine were found wound around the butt end of the handle. Possibly from Samoa; collected from there by the Pandoras? Or collected by the Pandoras from Tonga after it had been 'locally' traded there from Samoa? A 'fleam-shaped' weapon? Preliminary research suggests it may be based on a Fijian design for a chief's staff or on a Samoan weapon. It is a very unusual shape; no examples are known from other collections made from Polynesia in the 18th - or early 19th Century; although in October 1773 George Forster, who was on board the Resolution as a scientist during Cook's second Pacific voyage, described a club from Tonga "shaped like a blade of a veterinarian's fleam" - a blood-letting instrument. (Thomas & Berghof 2000: 238)(Forster, 1777, Book 2 Chapter 1, October 1773)	L 760, Max W 98, Carved handle (245 long) round in cross section dia shaft 24	



FIG. 367a. Polynesian war club (Tonga) (MA4810).



FIG. 367b. Polynesian war club detail (Tonga) (MA4810).



FIG. 367c. Polynesian war club detail (Tonga) (MA4810).



FIG. 367d. Polynesian war club detail (Tonga) (MA4810).



FIG. 368. Polynesian war club (Tonga) (MA4821).



FIG. 369a. Polynesian war club (Tonga) (MA4822).

4822



FIG. 369b. Polynesian war club detail (Tonga) (MA4822).



FIG. 369c. Polynesian war club detail (Tonga) (MA4822).

4852



FIG. 370a. Polynesian war club detail (Tonga) (MA4852).



FIG. 370b. Polynesian war club detail (Tonga) (MA4852).

TABLE 104: War clubs cont.d

MA	Description	Dimensions (mm)	Grid
4822	Polynesian 'paddle-shaped' war club (Tonga) Modified 'paddle' shape (St Cartmail type V), (figure 369a). Wood: <i>Casuarina equisetifolia</i> . This is the so-called 'modified coconut stalk' type. Intermediate style between the 'apa'apai' and the 'paddle' club, with features of both types, e.g. the carved parallel bands of the apa'apai' and the rounded 'paddle' club head (figure 369b). The rounded shaft displays no use-wear marks. Raised carved parallel bands in groups of, respectively, 6, 5, 5, 4, 3 run in descending order down the length of the club from the head to the butt end. No decorated panels between the groups of parallel carved bands (figure 369c). The butt end has a perforated lug fashioned in one piece from the shaft to accommodate a wrist cord.	L 1075, Max W 102 dia shaft 31, dia butt end 42	89
4852	Polynesian 'paddle-shaped' war club (Tonga) Moungalaulau (St Cartmail type VI). Wood: <i>Casuarina equisetifolia</i> Common 'paddle' shape; oval in cross-section at the head, (figure 370a), the shaft ends in a pronounced flanged handle; use-wear marks in evidence on the handle. Both faces of the club consist of two angled flat surfaces which converge forming a central ridge, (figure 370b). Raised groups of parallel carved bands, in groups of, respectively, 10, 9, 7, 4, 3 run in descending order down the length of the club from head to the butt end. No decorated panels with zigzag motifs have been carved or incised between the parallel bands. The head end is more pronounced (more pointed) than MA4822. No butt lug to attach a wrist cord as in MA4822.	L 1325, Max W 103, dia shaft 31	89
4853	War club or ceremonial club? (figure 371). With two carved prongs at one end. Tapering to a blunt point. Wood: <i>Casuarina equisetifolia</i>	L 1110, W 55, head 399, butt 15H of prong 122, W of prong 96	89
6567	Polynesian war club fragment, (figure 372); head end of a 'povai' (St Cartmail type 2), with a hole running part way centrally through the shaft to accommodate a fitting.	L 83, dia 31	90
7853/1	Polynesian (war) club (fragment), (figure 373); Wood: <i>Casuarina equisetifolia</i> . Incised surface decoration, spatula shaped head. No shank. Probably Tongan; combines with MA7853/2-4 to make one artefact; extensive deterioration in evidence	L 230, W 66	166
7853/2	Polynesian (war) club fragment; combines with MA7853/1-4 to make one artefact.		166
7853/3	Polynesian (war) club (fragment) Length 103; Shank fragment. Shaped similar to MA1351. Combines with MA7853/1+2+4 to make one artefact.		166
7853/4	Polynesian (war) club (fragment) Combines with MA7853/1-3 to make one artefact.		166
7856	Wood fragment; extensively deteriorated; undetermined species. Polynesian ceremonial club?		166
7946	Polynesian war club (fragment) (Tonga), (figures 374a-d); Wood: <i>Casuarina equisetifolia</i> . Faint carved, schematized seated (anthropomorphic) figures in evidence; also a turtle. Found in association with MA7947. The handle seems to have suffered complete disintegration.	L 281 dia shaft 49	164
7947	Polynesian war club (fragment?) (Tonga), (figure 375); Wood: <i>Casuarina equisetifolia</i> . Found in association with MA7946. Worked wooden fragment (club fragment?) Extensively deteriorated handle.	L 190	164
7970	Wood fragments (x2) (figure 376), possibly a handle of a Polynesian ceremonial club.	L 1) 290L 2) 125	109
7971/1	Wood fragment, heavily degraded, possible Polynesian ceremonial club fragment.		187
7971/2	Wood fragment, heavily degraded, possible Polynesian ceremonial club fragment.		187
7971/3	Wood fragment, heavily degraded, possible Polynesian ceremonial club fragment.		187
8750	Polynesian (war) club fragment, carved geometric pattern in evidence. Extensive deterioration due to worm-action.	143 x 50 x 27	109



FIG. 371. War club or ceremonial club (MA4853).



FIG. 372. War club fragment (MA4567).



FIG. 374b. War club detail (MA7946).



FIG. 373. War club fragment (MA7853/1,3).



FIG. 374c. War club detail (MA7946).



FIG. 374a. War club (MA7946).



FIG. 374d. War club detail (MA7946).



FIG. 375. War club fragment (MA7947).



FIG. 376. Wood fragments (MA7970).

TABLE 105: Poi pounders

‘Poi’ is a starchy Tahitian pudding made from pounded breadfruit, taro or bananas, matured by fermentation; it was an important food staple in Polynesia. (Barrow, 1972:96) Stone pounders were used to prepare (mash) the whole vegetable. Stone identifications by Warren Delaney and drawing by Vivienne Moran unless otherwise indicated.

MA	Description	Dimensions (mm)	Grid
4138	Poi pounder, (figure 377).		
4724	Poi pounder, (figure 378), fine grained basalt, flared round base, bar handle, the handle is concave on top; known in Tahitian as a ‘penu’. (Hooper, 2006:186) Similar in style to MA1143 (Campbell & Gesner, 2000:131)	H 168dia base 150wt 2707	87
7954	‘Poi’ pounder, (figure 379), fine grained basalt, with a triangular shaped bar handle	112 x 112 x 150 wt 1325	92
8220	‘Poi’ pounder, (figure 380), fine grained basalt, worked from one pice of stone	175 x 100wt 1235	185



FIG. 377. Poi pounder (MA4138).



FIG. 379. Poi pounder (MA7954).



FIG. 378. Poi pounder (MA4724).



FIG. 380. Poi pounder (MA8220).

Fishing equipment

A substantial proportion of the fishing gear recovered from the wreck is comprised of one of the three components that make up the so-called 'classic' Tongan trolling lure/hook assemblage (Kaehr, 2000:268).

This 'classic' lure/hook assemblage consisted of a bone shank, to which was tied a worked sliver of pearl shell [*Pinctada margaritifera*]. Thirdly, a fashioned turtle shell or bone hook was tied onto the back of the bone shank (Kaeppeler 1978:235). There are various hook shapes and sizes.

Octopus lures are also prominent in the *Pandora* collection, consisting of a worked shell or bone shank and a 'kauri; shell with drill holes to accommodate twine to tie the shell to the shank. Alternatively an egg-shaped stone was fashioned which could be tied to the shell or bone shank (e.g. MA4665 and MA8279).

For a more detailed discussion of the Polynesian fishing gear recovered from the *Pandora* wreck, see Fallowfield, 1998.

NB: All shell species identification by Dr Thora Whitehead (Queensland Museum).

TABLE 106: Lures

MA	Description	Dimensions (mm)	Grid
4546	Trolling lure component (figure 381), shell, sliver of <i>Pinctada margaritifera</i> , component of a 'classic' Tongan fish lure / hook assemblage	84 x 12 x 3	88
4548	Trolling lure component (figure 382), a bone shank component of a 'classic' Tongan fish lure/hook assemblage	L 143W 26, th. 17	89
4580	Trolling lure component; sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	93 x 15 x 11	87
4593	Trolling lure component, sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	56 x 8 x 6	Sph
4613/1	Trolling lure (figure 383), bone, shank component, of a 'classic' Tongan fish lure/hook assemblage	38 x 5 x 4	89
4613/2	Trolling lure component, sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	75 x 12 x 9	89
4613/3	Trolling lure component, sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	74 x 9 x 8wt 10	87
4646	Trolling lure component, sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	75 x 12 x 11	89
4709	Trolling lure component, sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	77 x 11 x 13	89
4736	Trolling lure component, sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	80 x 1 x 10	87
4757	Trolling lure component, sliver of <i>Pinctada margaritifera</i> ; a component of a 'classic' Tongan fish lure/hook assemblage	77 x 11 x 10	89
4779	Trolling lure (figure 384), a sliver of <i>Pinctada margaritifera</i> ; a component of a 'classic' Tongan fish lure/hook assemblage	93 x 17wt 19	87
4788	Modified shell fragment (trolling lure?) sliver of <i>Pinctada margaritifera</i>	60 x 18 x 3	87
4813	Trolling lure fragment, <i>Pinctada margaritifera</i> , small hole in one end	122 x 26 x 3	88
6208	Octopus lure component (figure 385), <i>Cypraea tigris</i> (Tiger cowry), with two holes	36 x 26 x 10, dia hole 3	88
6336	Trolling lure component; undetermined shell species	90 x 16	90
6387	Trolling lure component (figure 386), a sliver of <i>Pinctada margaritifera</i> , a component of a 'classic' Tongan fish lure/hook assemblage	81 x 13 x 11	90
6633	Trolling lure component, undetermined shell species	68 x 14 x 5	90

TABLE 106: Lures cont.d

MA	Description	Dimensions (mm)	Grid
6641	Trolling lure component, bone shank part of a 'classic' Tongan trolling lure	149 x 25 x 18	90
7678	Trolling lure component; unidentified shell species; two holes at one end, opposite end notched	L 93	92
7711	Trolling lure component fragment, unidentified shell species		92
7719/1	Trolling lure component fragment; unidentified shell species		92
7719/2	Trolling lure component fragment, unidentified shell species	L 50	92
7867	Trolling lure component, bone shank part of a 'classic' Tongan trolling lure, drilled through at one end, notched at the opposite end. (see MA8275)	140 x 22 x 13	92
7901	Trolling lure component, pearl shell, two holes drilled at each end	116 x 22 x 2	92
7983	Trolling lure component fragment, unidentified shell species		92
7985	Trolling lure component, a sliver of <i>Pinctada margaritifera</i>	89 x 11 x 9	90
8023/1	Trolling lure component, <i>Pinctada margaritifera</i> ,	L 60	90
8023/2	Trolling lure component fragment, unidentified shell species	L 34	90
8023/3	Trolling lure component fragment; unidentified shell species	L 35	Sph
8025	Trolling lure component fragment; unidentified shell species	L 65	91
8098	Trolling lure component, <i>Pinctada margaritifera</i> , hole through the body, notched at the other end	69 x 7 x 6	185
8146	Trolling lure component, <i>Pinctada margaritifera</i>	86 x 12 x 9	94
8180	Trolling lure component, <i>Pinctada margaritifera</i>	89 x 9 x 7	185
8194	Trolling lure component; <i>Pinctada margaritifera</i>	89 x 12 x 9	185
8203/1-17	Trolling lure components, bone shank part of a 'classic' Tongan trolling lure		185
8221	Trolling lure component, bone shank part of a 'classic' Tongan trolling lure	160 x 35 x 17	185
8232	Trolling lure component, two holes at one end, notched at the opposite end	90 x 12 x 9	
8237	Trolling lure component; <i>Pinctada margaritifera</i>	120 x 23 x 2	91
8275	Trolling lure component (figure 387), bone shank part of a 'classic' Tongan trolling lure, two holes at one end, notched at the other end.	145 x 26 x 13	185
8299/47	Trolling lure component fragments		
8504	Trolling lure component, <i>Pinctada margaritifera</i>	66 x 8	
8537	Trolling lure, component, fragment <i>Pinctada margaritifera</i>	95 x 30	111
8598	Trolling lure component, unidentified shell species	66 x 8	203
8653	Trolling lure component, unidentified shell species, two holes at one end, notched at the opposite end (see MA8275)	70 x 11 x 6	90
8692	Trolling lure component, unidentified shell species	90 x 10 x 7	107
8730	Trolling lure component, unidentified shell species	85 x 11 x 9	109
8754	Trolling lure component, unidentified shell species	70 x 9 x 6	
8829/4	Trolling lure component fragments		



FIG. 381. Trolling lure component (MA4546).

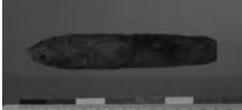


FIG. 382. Trolling lure component (MA4548).



FIG. 383. Trolling lure component (MA4613/1).



FIG. 384. Trolling lure component (MA4779).

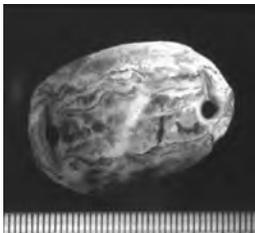


FIG. 385. Octopus lure component (MA6208).



FIG. 386. Trolling lure component (MA6387).



FIG. 387. Trolling lure component (MA8275).



FIG. 388. Fish hook (MA4547).



FIG. 389. Fish hook (MA4587).



FIG. 390. Fish hook (MA4588).



FIG. 391. Fish hook (MA4632).



FIG. 392. Fish hook (MA4744).

TABLE 107: Hooks

MA	Description	Dimensions (mm)	Grid
4547	Fish hook (figure 388), bone, two holes, one at the base of the curve, the other through the tip, probably indicates attachment to a double lure (MA690 and MA1567) component of a 'classic' Tongan fish lure/hook assemblage.	L 95	90
4587	Fish hook (figure 389), bone, carved, partially degraded, (ID by Tom Fallowfield)	L 160	89
4588	Fish hook (figure 390), wood, carved object, degraded and split, undetermined wood species	270 x 35 x 30	87
4632	Fish hook (figure 391), bone fish, undetermined animal species	46 x 36 x 8	89
4744	Fish hook fragment (figure 392), <i>Pinctada margaritifera</i> ; barbed end missing	L 45 dia hole 3	
4763	Wooden spike; part of a fish hook		89
4785	Fish hook fragment, sliver of <i>Pinctada margaritifera</i>	L 42 wt 4	87
6284	Fish hook, a component of a 'classic' Tongan fish lure/hook assemblage	36 x 28 x 5	88
6375	Fish lure barb? (figure 393)	40 x 4, x 9	88
8006	Fish hook fragment (figure 394), unidentified shell species, component of a 'classic' Tongan fish lure/hook assemblage	45 x 12 x 6	92
8565	Fish hook (figure 395), wooden	L 62	109
8595	Fish hook (figure 396), bone	45 x 42 x 9	111
8721	Fish hook (figure 397), wood, remnants of binding material (fibrous twine) in place	295 x 190	90

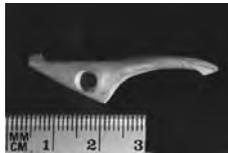


FIG. 393. Fish hook (MA6375).



FIG. 394. Fish hook (MA8006).



FIG. 396. Fish hook (MA8595).



FIG. 395. Fish hook (MA8565).



FIG. 397. Fish hook remnants (MA8721).

TABLE 108: Octopus lures

MA	Description	Dimensions (mm)	Grid
4564	Octopus lure component, <i>Cypraea tigris</i> , a single hole drilled at either end	L 47, W 47 dia hole 3	89
4590	Octopus lure component, <i>Cypraea tigris</i> ; holes in each end. Grid 87	L 72, W 51 dia hole 3	
4665	Octopus lure sinker weight (figure 398), stone, undetermined stone type	H 93, base dia, 53	89
4898	Octopus lure component, <i>Cypraea tigris</i>	74 x 61, dia hole 3	89
6235	Octopus lure component, <i>Cypraea tigris</i> , holes at each end	55 x 43 x 11, dia hole 3	87
6287	Octopus lure component, two pair of drilled holes for twine attachment	145 x 29 x 4	90
6494	Octopus lure component, unidentified shell species undetermined shell species	62 x 40 x 6	90
7706	Octopus lure component	Ht 80	92
7764	Octopus lure component (figure 399), <i>Cypraea tigris</i> , one hole drilled at the head	L 70 x 65	92
7829	Octopus lure component, <i>Cypraea tigris</i> , one hole drilled into the head	70 x 65	181
7913	Octopus lure component, shell, <i>Cypraea tigris</i> (tiger 'kauri') with a single hole drilled at one		181
8018	Octopus lure component, <i>Cypraea tigris</i> , with one drilled hole		90
8046	Octopus lure, component	H 80, base dia 45	92
8279	Octopus lure component (figure 400), stone weight Grid 183	H 90, base dia 40	183



FIG. 398. Octopus lure sinker (MA4665).

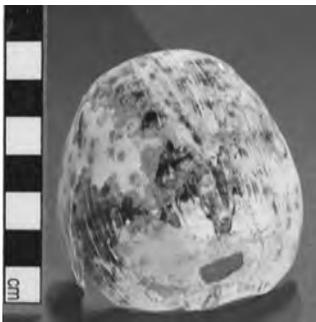


FIG. 399. Octopus lure component (MA7764).



FIG. 400. Octopus lure component (MA8279).

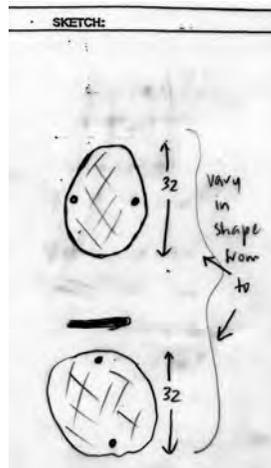


FIG. 401. Coconut husk disc (MA4529).

Tahitian mourning dress – Polynesian material culture

A number of worked ('modified') shell and coconut husk fragments have been recovered. Modification consists mainly of uniform shaping and sizing (into various fragment shapes and sizes) and of drilling one or more holes in specific places on the various shaped fragments, suggesting a regular, patterned arrangement of shell discs and slips and coconut husks fixed to the various bark cloth aprons or vests, comprised by a Tahitian mourning dress (Kaeppler, 1978: 122).

It is noteworthy that except for 3 pieces, all of the coconut husk and shell components were recovered from grids in the stern section. Only MA7852 and MA8191/1-2 originate from bow section grids. This suggests that these may not be components of a mourning dress as it is considered unlikely that two

such dresses were collected by the *Pandora's* crew. Rather, they may be components of necklaces (Cf. Kaeppler, 1978:209). Other components of a mourning dress – in particular delicate organic materials such as feathers, fibres or twines – have not yet been recovered; this is almost certainly attributable to the poor survival environment for organics presented by the surrounding tropical (coralline) waters, which cause aggressive deterioration of such materials. Although some are surprisingly resilient et MA7681

For a more detailed discussion of mourning dress components recovered from the *Pandora* wreck, see Illidge, 2002, who also suggests only one dress was collected by the *Pandora's* crew.

NB: All shell identifications by Dr Thora Whitehead (QM).

TABLE 109: Coconut husk components

The coconut husk discs appear to be similar in shape, although there is slight variation in sizes. They were attached in rows to the bark cloth apron component of the mourning dress (Kaeppler, 1978: 124).

MA	Description	Dimensions (mm)	Grid
4529	Modified coconut husk discs x 3 (figure 401), flat oval discs, some with drilled hole, degraded condition	L 23 – 35 hole dia 1-2	89
4554	Modified coconut husk discs, flat oval discs, some with drilled hole (see MA4529)	L <10, hole dia. 2	90
4568	Modified coconut husk fragments (figure 402), flat oval discs, one with a drilled hole	L 25-35 hole dia 2	89
4571	Modified coconut husk fragments, disc, various sizes	L 22	89
4584	Modified coconut husk, oval disc shapes, some with drilled holes, degraded.		89
4680	Modified coconut husk (figure 403), oval disc shapes, with drilled holes, degraded condition;	L 28 hole dia 1	89
6203	Modified coconut husk, flat disc shape;	24 x 27	87

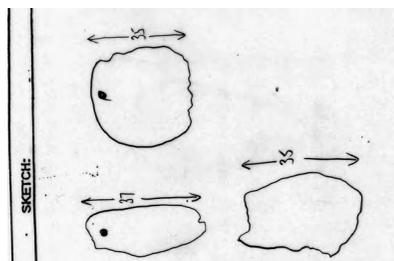


FIG. 402. Coconut husk fragment (MA4568).

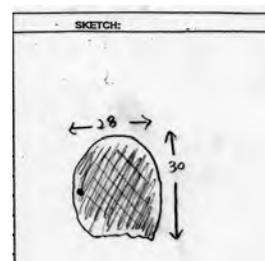


FIG. 403. Coconut husk (MA4680).

TABLE 110: Shell components

All shell identifications by Dr Thora Whitehead (QM)

MA	Description	Dimensions (mm)	Grid
4528	Modified shell fragment, two holes, species <i>Pinctada margaritifera</i>	59 x 41 x 2; hole dia 3	89
4532	Modified shell fragment, figure 404, species <i>Pinctada margaritifera</i> , multiple holes along edges, possibly originally mounted on the wooden crescentic chest piece of a mourning dress or a component of the shell face mask		89
4729/1	Modified shell fragment, species <i>Pinctada margaritifera</i> , multiple holes along edges; possibly originally mounted on the wooden crescentic chest piece of a mourning costume	129 x 87 x 9	87
4729/2	Modified pearl shell fragment, <i>Pinctada margaritifera</i> , possibly a feature of the classic crescentic chest piece	136 x 97 x 7	87Sph
4729/3	Modified pearl shell fragment, <i>Pinctada margaritifera</i>	135 x 135 x 18	87Sph
4808	Modified pearl shell fragment, <i>Pinctada margaritifera</i> , multiple holes along edges, possibly originally mounted on the wooden crescentic chest piece of a mourning costume	124 x 65 x 5	90
6237	Modified pearl shell fragment, sliver with two holes, components of the chest apron, comprising rows of shell slivers or slips suspended from the characteristic crescentic wooden chest piece	56 x 25 x 1; holes dia 3	87
6326	Modified pearl shell, <i>Pinctada margaritifera</i> , rectangular sliver, one hole drilled through one end, components of the mourning dress' chest apron, comprising rows of shell slivers or slips suspended from the classic crescentic wooden chest piece	17 x 3 x 1	109
6374	Modified pearl shell, <i>Pinctada margaritifera</i> , rectangular sliver, one hole drilled through one end, components of the mourning dress' chest apron, comprising rows of shell slivers or slips suspended from the classic crescentic wooden chest piece	22 x 4 x 2	88
6383/1	Modified shell fragments (figure 405), <i>Pinctada margaritifera</i> , rectangular slivers, with a single drilled hole through one end, components of the chest apron, comprising rows of shell slivers or slips suspended from the distinctive crescentic wooden chest piece	33 x 3 x 1	90
6383/2	Modified shell; rectangular <i>Pinctada margaritifera</i> , single hole drilled through one end, half a hole at the other end	9 x 3 x 1	90
6383/3	Modified shell, <i>Pinctada margaritifera</i> , rectangular sliver, a single hole drilled through both ends, tapers to a point	21 x 4 x 1	90
6383/4	Modified shell, <i>Pinctada margaritifera</i> , rectangular sliver, a single hole drilled through one end	21 x 3 x 1	90
6383/5	Modified shell, <i>Pinctada margaritifera</i> , rectangular sliver, a single hole drilled through one end	16 x 3 x 1	90
6424/1-2	Modified shell fragments (figure 406); rectangular sliver, a single hole drilled through one end, <i>Pinctada margaritifera</i> , components of the chest apron, comprising rows of shell slivers or slips suspended in columns from the typical crescentic wooden chest piece	25 x 3 x 1	90
6502/1	Modified shell fragment, with a single hole drilled through one end, rectangular sliver, <i>Pinctada margaritifera</i> , component of the chest apron, comprising rows of shell slivers or slips suspended in columns from the distinctive crescentic wooden chest piece	22 x 2 x 0.5	90
6502/2	Modified shell, rectangular sliver fragment, a single hole drilled through one end, tapers to a point, <i>Pinctada margaritifera</i> , component of the mourning dress' chest apron, comprising rows of shell slivers or slips suspended from the typical crescentic wooden chest piece	16 x 3 x 1	90
6548	Modified shell, <i>Pinctada margaritifera</i> , rectangular sliver, a single hole drilled through one end, component of the mourning dress' chest apron, comprising rows of shell slivers or slips suspended in columns from the typical crescentic wooden chest piece	25 x 3 x 1	90

TABLE 111: Other Polynesian material culture

All shell identifications by Dr Thora Whitehead (QM)

MA	Description	Dimensions (mm)	Grid
4605	Worked object (figure 407), bone/ivory, four bevelled edges	L 156 W 18	89
4679	Ornament or pendant (figure 408), carved, bone, worn either as an ear-ring or on a necklace; possibly from Mangaia (Edge-Partington 1996:17), or carved ornament/ necklace pendant, shaped like dog's testicles; probably from the Austral Islands (ID by M.Quinnell 1999) (Cf. Edge-Partington, 1996:17; Hooper, 2006:213)	46 x 30 x 36 wt 54	89
4695	Carved ethnographic object (figure 409), bone; incomplete, claw shaped, notched along one edge and tapers to a point (see MA4784)	L 45	87
4784	Carved 'claw-shaped' object (figure 410), serrated (notches?) along one edge, tapering to a point, a single hole drilled through the object at one end, possible necklace ornament (see MA4792)	L 64	88
4792	Carved claw shaped ornament, intact, serrated (notches?) along one edge tapering to a point, a single hole drilled through the object at one end, (see to MA4784)	L 61	88
4799	Modified pearl shell fragment (figure 411), <i>Pinctada margaritifera</i> , three drilled holes	70 x 45 x 2	88
4946	Carved claw shaped object, incomplete, extracted from concretion MA4880, serrated (notched?) along one edge and tapers to a point	L 42	Sph
4869	Coconut quiver cover (figure 412), 4 holes drilled along the edge for a draw-'string' or thong to attach the quiver to a belt (see MA7681/1)	L 76	87
6422	Shark's tooth (figure 413); with a single thread hole drilled through the base	12 x 4 x 10	
7734	Shell armband (figure 414), serrated, decorative markings on edges, unidentified shell species	i/dia 81	90Sph
7681/1	Coconut /bark quiver cover (figure 415) holes drilled along the edge for a draw-'string' or thong to attach the quiver to a belt (see MA4869)	70x 28x 28 wt 9	91
7681/2	Arrowhead or dart point (figure 416), wood, recovered from within the quiver cover MA7681/1	L 73	91
8176	Modified triton ("trumpet") shell (figure 417), two holes in one end	320 x 153 x 120; wt 954	
8225	Shell armband fragment (figure 418), undetermined shell species	i/dia 93 wt 28	165
8558	Shell armband fragment; undetermined shell species	i/dia 66	
8604	Worked (triton) shell (figure 419), "trumpet" shell, two holes	L 380, wt 874	204
8673	Worked blade, wood, undetermined function. Possible paddle blade	L 170	206
8674/2	Worked object (figure 420), wood, unidentified		206
8728	Worked object (figure 421), wood, hafted or wrapped with twine, wooden object, tapered, wrapped with fine plaited 'twine'; undetermined function, (see twine on fish hook MA8721)	L 115 Twine 2	90



FIG. 404. Modified shell fragment (MA4532).



FIG. 405. Modified shell fragment (MA6383/1).

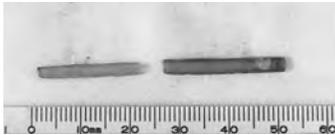


FIG. 406. Modified shell fragment (MA6424/1-2).

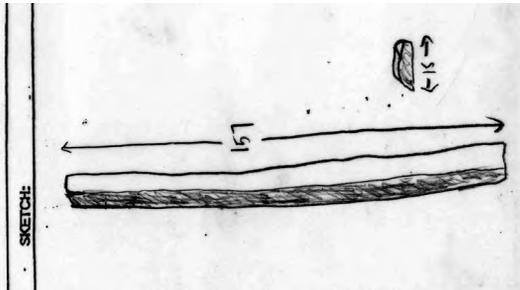


FIG. 407. Modified shell fragment sketch (MA4605).



FIG. 408. Ornament or pendant (MA4679).



FIG. 409. Carved ethnographic object sketch (MA4695).



FIG. 410. Carved ethnographic object (MA4784).



FIG. 411. Modified pearl shell fragment (MA4799).



FIG. 412. Coconut quiver cover (MA4869).

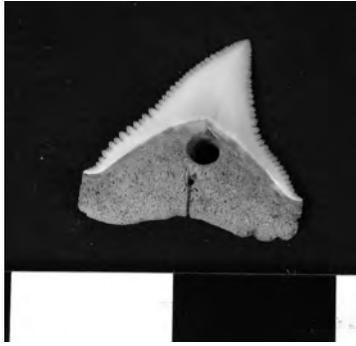


FIG. 413. Shark's tooth (MA6422).



FIG. 414. Shell armband (MA7734).

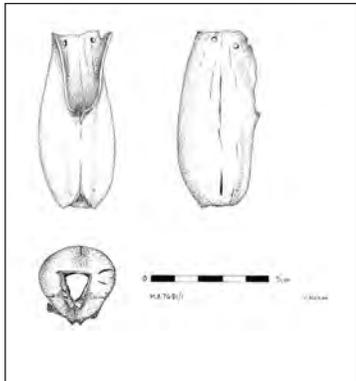


FIG. 415. Coconut /bark quiver cover (MA7681/1).



FIG. 416. Arrowhead or dart point (MA7681/2).



FIG. 417. Modified triton ("trumpet") shell (MA8176).



FIG. 418. Shell armband fragment (MA8225).



FIG. 419. Worked (triton) shell (MA8604).



FIG. 420. Worked wood object (MA8674/2).



FIG. 421. Worked wood object (MA8728).

TABLE 112: Modified shell fragments (un-identified purpose)

MA	Description	Dimensions (mm)	Grid
4579	Shell fragment, <i>Pinctada margaritifera</i> (Pearl shell) modified with one drilled hole	1) 89 x 80 x 2 2) 60 x 40 x 2	87
4738	Shell, <i>Pinctada margaritifera</i> , modified	122 x 108 x 3	87
4753	Shell fragment, <i>Pinctada margaritifera</i> (Pearl shell), modified	70 x 46 x 3	87
4825	Shell fragment, <i>Pinctada margaritifera</i> , modified with one drilled hole	33 x 25 x 1	87
4850	Shell fragment, <i>Pinctada margaritifera</i> , modified with two drilled holes	68 x 53 x 4	87
4870	Modified shell fragment with one drilled hole	31 x 17 x 2	87
6212/1-2	Shell fragments, <i>Pinctada margaritifera</i> (Pearl shell) modified with one drilled hole	1) L 79, dia 4; 2) 27 x 22 x 1	88
6230	Shell fragments, <i>Pinctada margaritifera</i> (Pearl shell) modified with one drilled hole	103 x 59 x 3	89
6249	Shell fragment, <i>Cypraea tigris</i> , modified, hole dia 3, one hole, two vertical grooves with central holes cut into the top of the shell	43 x 31 x 12	90
6334	Shell, modified unidentified	L 79, dia 4	90
6436	Shell, unidentified, modified shell with two drilled holes	75 x 73	90
6589	Shell, unidentified, one drilled hole	91 x 87 x 3	90
7746	Shell fragment, modified, unidentified	30 x 18	92
7752/1-2	Shell fragment, modified, unidentified		92
7820/1	Shell, modified, unidentified, with 2 holes drilled through the one surface, lure component?		94
8622	Shell, modified unidentified, with three holes,		110
8769	Shell fragment, modified, unidentified	109 x 26 x 2	166

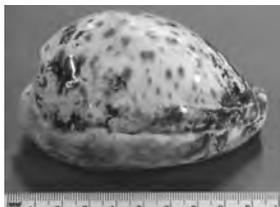


FIG. 422. Cowrie shells (MA4505).

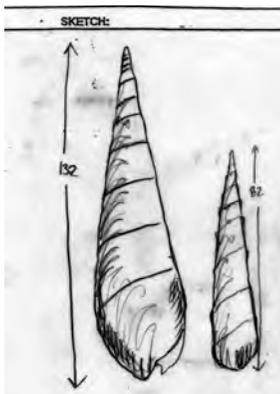


FIG. 423. Auger shells (MA4507).



FIG. 424. Turbo snail shells (MA4511).

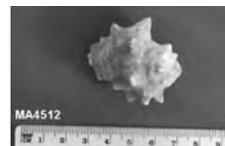


FIG. 425. Tone shell (MA4512).



FIG. 426. Mollusc shells (MA4514/1-5).

Natural history specimens

Shells designated as natural history specimens do not show evidence of modification, e.g. perforation for adornment or for attachment. The shells are therefore possibly part of a natural history collection – see MA4722, a cache of cowrie shells indicating they may have been put in a bag after being sorted and grouped by the collector. Alternatively, they were picked up incidentally by one of the crew as souvenirs; perhaps as proof and a memento that they had been to exotic places. Alternatively, some may be shell species that are native to Great Barrier Reef (GBR) waters and have accumulated there naturally, having colonised the wreck. In cases, where species also occur in GBR waters, the appropriate indication is annotated (e.g. MA4802)



FIG. 427. Cone shells (MA4515).

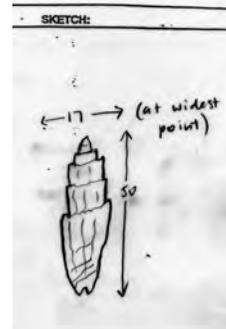


FIG. 428. Mitre shell (MA4524).

TABLE 113: Natural history specimens

All shell identifications by Dr Thora Whitehead (QM)

MA	Description	Dimensions (mm)	Grid
4503	Pearl shell, <i>Pinctada margaritifera</i>		89
4505	Cowrie shells, x 4 (figure 422), <i>Cypraea tigris</i>	L 86-90	89
4507	Auger shells x 2 (figure 423), <i>Terebra crenulata</i> and <i>Terebra maculata</i>	1) L 82; 2) L 133	89
4508	Mole cowrie shell, <i>Cypraea talpa</i>		89
4509	Cowrie shells, <i>Cypraea erosa</i> and <i>Cypraea caputserpentis</i>		89
4510	Cowrie shell, <i>Cypraea maculifera</i>		89
4511	Turbo snail shells x 2 (figure 424), <i>Turbo setosus</i> ,	1) L 52; 2) L 46	89
4512	Cone shell (figure 4250, <i>Thais tuberosa</i>)	L 49	89
4514/1-5	Mollusc shells x 5 (figure 426), <i>Oliva miniacea</i> & <i>Oliva caerulea</i>	L 45-60	89
4515	Cone shells (figure 427), <i>Conus eburneus</i> x 2	L 30	89
4517	Cowrie shell, <i>Cypraea caputserpentis</i>		88
4518	Cone shell, <i>Conus textile</i>		88
4522	Cowrie shells, <i>Cypraea tigris</i>		88
4523	Cowrie shells, <i>Cypraea caputserpentis</i> & <i>Cypraea erosa</i>	L 1-6	88
4524	Mitre shell (figure 428), <i>Mitra stictica</i>	L 51	88
4525	Tube shell, <i>Thais tuberosa</i>		88
4526	Cone shells, <i>Conus lithographus</i> & <i>Conus textile</i>		88
4538	Bivalve shell, <i>Codakia tigrina</i>	L 65	89
4545	Cowrie shell, <i>Cypraea caputserpentis</i>	L 68	89
4549	Cone shell, <i>Conus textile</i>	L 21	89

TABLE 113: Natural history specimens cont.d

MA	Description	Dimensions (mm)	Grid
4550	Cone shell, <i>Conus generalis</i>	L 30	89
4558	Cowrie shell, <i>Cypraea caputserpentis</i>	L 59	89
4567	Cowrie shells x 3, <i>Cypraea caputserpentis</i>	L 29-37	89
4569	Cone shell, <i>Conus textile</i>	L 140	89
4581	Cone shell, <i>Conus eburneus</i> , cowrie shell, <i>Cypraea caputserpentis</i> , turban shell, <i>turbo petholatus</i>	L 29-59	89
4594	Auger shell, <i>Terebra maculate</i>	L 43	89
4596	Cowrie shell, <i>Cypraea caputserpentis</i>		89
4611	Cone shell, <i>Conus textile</i>		89
4633	Cowrie shell, <i>Cypraea caputserpentis</i>		89
4636	Auger shell, <i>Terebra maculate</i>		89
4637	Auger shells <i>Terebra maculate</i>		89
4638	Cowrie shell, <i>Cypraea caputserpentis</i>		89
4648	Calf cowrie, <i>Cypraea vitellus</i>		89
4655	Tiger cowrie, <i>Cypraea tigris</i>		89
4660/1	Cowrie shell, <i>Cypraea caputserpentis</i>	L 43	89
4668	Cowrie shell, <i>Cypraea caputserpentis</i>	L 26	89
4669	Cowrie shell, <i>Cypraea caputserpentis</i>	L 26	89
4682	Cowrie shell, <i>Cypraea caputserpentis</i>	L 30	89
4685	Carnelian cowrie, <i>Cypraea carneola</i>	L 37	89SpH
4693	Cowrie shell x 2 <i>Cypraea caputserpentis</i> , cone shell, <i>Conus eburneus</i>	1) L 30, 2) L 32	89
4696	Gastropod, <i>Polinices tumidus</i> , cowrie, <i>Cypraea caputserpentis</i>	1) L 37, 2) L 22	89
4700	Cowrie shell, <i>Cypraea caputserpentis</i>	L 24	87
4705	Cone shell, <i>Conus eburneus</i>	L 30	89
4706	Cowrie shell, <i>Cypraea caputserpentis</i>	L 26	89
4718	Olive shells x 5, <i>Oliva amethystine</i>	L 33-46	89
4719	Mitre shells, <i>Mitra stictica</i>	L 35-39	89
4720	Cone shells, <i>Conus eburneus</i>	L 31-36	89
4721	Tube shell, <i>Thais tuberosa</i> ;	L 32	89
4722	Cowrie shells x 22 (figure 429), <i>Cypraea caputserpentis</i> , cache suggests they were part of a sorted, bagged collection		89
4737	Cowrie shell, <i>Cypraea caputserpentis</i>	L 27	89
4741	Cowrie shell, <i>Cypraea caputserpentis</i>	L 25	87
4751	Egg cowrie, <i>Ovula ovum</i>	L 84	87
4760	Olive shell, <i>Oliva mantichora</i>	L 41	
4789	Sea urchin spine	L 50	87
4790	Cowrie shell, <i>Cypraea caputserpentis</i>	L 28	87
4798	Cowrie shell, <i>Cypraea erosa</i>	L 32	87
4802	Volute shell, <i>Cymbiola rutila</i> , NB: also found in GBR waters – in deeper reef top environments, so possibly not an artefact.	L 67	87
4805	Cone shell, <i>Conus quercirus</i>	L 44	87
4806	Mole cowrie shell, <i>Cypraea talpa</i>	L 82	90

TABLE 113: Natural history specimens cont.d

MA	Description	Dimensions (mm)	Grid
4819	Cowrie shell, <i>Cypraea caputserpentis</i>	L 25	87
4831	Cowrie shell, <i>Cypraea caputserpentis</i>	L 27	87
4838	Olive shell, <i>Oliva minicea</i>	L 71	
4841	Cowrie shell, <i>Cypraea caputserpentis</i>	L 24	89
4844	Cowrie shell, <i>Cypraea caputserpentis</i>	L 24	89
4873	Cowrie shell, <i>Cypraea caputserpentis</i>	L 24	87
4883/1-3	1) Cone shell, <i>Conus avenatus</i> 2) Cowrie shell, <i>Cypraea serpentina</i> 3) <i>Cypraea schilderoorum</i> (NB: Not found in Australian waters)	1) L 35, 2) L 25 3) L 34	89Sph
4891	Cone shell, <i>Conus striatus</i>	L 74	89Sph
4908	Cowrie shells x 2, <i>Cypraea caputserpentis</i>	L 25-27	89Sph
4909/1	Olive shells x 2, <i>Oliva episcopalis</i>	L 49-53	89Sph
4912	Cowrie shells x 3, <i>Cypraea arabica</i> & <i>Cypraea tigris</i>	L 62-93	87
4916	Turban shell, <i>Turbo petholatus</i>	L 56	89
4929	Spider conch shells x 2, <i>Lambis truncate</i> , NB: extracted from concretion MA4901	L 24-55	89Sph
4940	Shell, unclassified		89Sph
6213	Cowrie shell, <i>Cypraeidae</i> sp.	L 24	89Sph
6218/1	Tiger cowrie shells, <i>Cypraea tigris</i>		88
6218/2	Tiger cowrie shells, <i>Cypraea tigris</i>		88
6221/1	Cowrie shells, <i>Cypraeidae</i> sp.		89
6221/2	Cowrie shells, <i>Cypraeidae</i> sp.		89
6240/1	Cowrie shells, <i>Cypraeidae</i> sp.		87
6240/2	Cowrie shells, <i>Cypraeidae</i> sp.		87
6241/1	Cone shells, <i>Conus quercirus</i>		89
6241/2	Cone shells, <i>Conus quercirus</i>		89
6250/1	Cowrie shells, <i>Cypraeidae</i> sp.		90
6250/2	Cowrie shells, <i>Cypraeidae</i> sp.		90
6265/1	Cowrie shells, <i>Cypraeidae</i> sp.	L 160	85
6265/2	Cowrie shells, <i>Cypraeidae</i> sp.	L 160	85
6267/1	Shell, unidentified		85
6267/2	Shell, unidentified		85
6282	Shell, unidentified		Sph
6283	Tiger Cowrie, <i>Cypraea tigris</i>		88
6303	Cowrie shell, <i>Cypraeidae</i> sp.		
6304/1	Shell, figure 430 unidentified	L 44	89



FIG. 429. Cowrie shells (l) field sketch (r) (MA4722).



FIG. 430. Shell (MA6304).

TABLE 113: Natural history specimens cont.d

MA	Description	Dimensions (mm)	Grid
6304/2	Shell, unidentified	L 44	89
6306	Shell, unidentified		107
6315/1	Cowrie shells, <i>Cypraeidae</i> sp.		90
6315/1	Cowrie shells, <i>Cypraeidae</i> sp.		90
6315/1	Cowrie shells, <i>Cypraeidae</i> sp.		90
6366	Shell fragment		90
6384/1	Cowrie shells, <i>Cypraeidae</i> sp.		90
6384/2	Cowrie shells, <i>Cypraeidae</i> sp.		90
6403	Cowrie shell, <i>Cypraeidae</i> sp.		90
6493	Cowrie shell, <i>Cypraea tigris</i>		
6506	Unidentified shell species		90
6552	Cowrie shell, <i>Cypraeidae</i> sp.	L 30	90
6640	Cowrie shell, <i>Cypraea caputserpentis</i>		
7604	Cone shell (figure 431), <i>Conus</i> sp.	L 143	89
7605	Cone shell, <i>Conus</i> sp.		89
7606/1	Cowrie shell, <i>Cypraeidae</i> sp.		89
7606/2	Cowrie shell, <i>Cypraeidae</i> sp.		89
7625/2	Cowrie shells, <i>Cypraeidae</i> sp.		89
7625/1	Cowrie shells, <i>Cypraeidae</i> sp.		89
7626/1	Cone shell, <i>Conus</i> sp.		89
7626/2	Cone shell, <i>Conus</i> sp.		89
7661	Cone shell, <i>Conus</i> sp.		89
7665	Cowrie shell, <i>Cypraeidae</i> sp.	L 60	91
7666	Cone shell, <i>Conus</i> sp.	L 105	91
7667	Cone shell, <i>Conus</i> sp.		91
7676/1	Cone shell, <i>Conus</i> sp.		89
7676/2	Cone shell, <i>Conus</i> sp.		89
7676/3	Cone shell, <i>Conus</i> sp.		89
7682	Shell, unidentified		89
7683	Cowrie shell, <i>Cypraeidae</i> sp.		83
7684	Cone shell, <i>Conus</i> sp.		89
7689	Cowrie shell, <i>Cypraeidae</i> sp.		89
7699	Shell fragment, <i>Pinctada</i> sp.		89
7718	Cowrie shell, <i>Cypraeidae</i> sp.		92
7749	Cowrie shell, <i>Cypraeidae</i> sp.		92
7761	Shell, unidentified		
7775	Cowrie shell, <i>Cypraeidae</i> sp.		92
7778	Pearl shell, <i>Pinctada margaritifera</i>		92
7779	Pearl shell, <i>Pinctada margaritifera</i>		92
7792	Shell, unidentified		92
7793/1	Cowrie shell, <i>Cypraeidae</i> sp.		92

TABLE 113: Natural history specimens cont.d

MA	Description	Dimensions (mm)	Grid
7793/2	Cowrie shell, <i>Cypraeidae</i> sp.		92
7808	Shell, unidentified	L 120	92
7810	Cowrie shell, <i>Cypraeidae</i> sp.		92
7812	Shell, unidentified		92
7818/1	Cowrie shell, <i>Cypraeidae</i> sp.	L 85	94
7818/2	Cowrie shell, <i>Cypraeidae</i> sp.	L 85	94
7819	Cone shell, <i>Conus</i> sp.	L 85	94
7820/2	Cone shell, <i>Conus</i> sp.		
7820/3	Shell, unidentified.		
7825	Shell, unidentified		92
7837	Cowrie shell, <i>Cypraeidae</i> sp.		166
7838	Cone shell, <i>Conus</i> sp.		
7847/1	Cone shell, <i>Conus</i> sp.		92
7847/2	Cone shell, <i>Conus</i> sp.		94
7847/3	Cone shell, <i>Conus</i> sp.		94
7869/1	Cowrie shell, <i>Cypraeidae</i> sp.		92
7869/2	Cowrie shell, <i>Cypraeidae</i> sp.		92
7886	Shell, unidentified		166
7912	Pearl shell, <i>Pinctada margaritifera</i>		183
7934	Cone shell, <i>Conus</i> sp.		92
7950	Cowrie shell, <i>Cypraeidae</i> sp.		92
7952	Shell, unidentified		166
7953	Pearl shell, <i>Pinctada margaritifera</i>	L 160	94
7977	Cowrie shell, <i>Cypraeidae</i> sp.		94
7979	Pearl shell, <i>Pinctada margaritifera</i>		92
7990/1	Shell, unidentified		
8004/1	Cowrie shells, <i>Cypraeidae</i> sp.		
8004/2	Cowrie shells, <i>Cypraeidae</i> sp.		
8010/1	Shell, unidentified		
8010/2	Shell, unidentified		
8010/3	Shell, unidentified		
8010/4	Shell, unidentified		
8011	Cone shell, <i>Conus</i> sp.		92
8012	Pearl shell, <i>Pinctada margaritifera</i>		165
8021	Cone shell, <i>Conus</i> sp.		
8039	Shell, unidentified		
8051	Cowrie shell, <i>Cypraeidae</i> sp.		166
8063	Pearl shell fragment, <i>Pinctada margaritifera</i>		91
8080/1	Shell fragments, unidentified		
8080/2	Shell fragments, unidentified		
8091	Shell, unidentified		

TABLE 113: Natural history specimens cont.d

MA	Description	Dimensions (mm)	Grid
8120	Shell, unidentified		94
8124	Shell, unidentified		94
8136/1	Cowrie shells, <i>Cypraeidae</i> sp.		185
8136/2	Cowrie shells, <i>Cypraeidae</i> sp.		185
8137/1	Shell, unidentified		185
8137/1	Shell, unidentified		185
8141/1	Cowrie shell, <i>Cypraeidae</i> sp.		185
8141/2	Cowrie shell, <i>Cypraeidae</i> sp.		185
8141/3	Cowrie shell, <i>Cypraeidae</i> sp.		185
8142	Shell, unidentified	L 60	185
8143	Shell fragment, <i>Pinctada margaritifera</i>	L 105	185
8145/1	Auger shell, <i>Terebrae</i> sp.		185
8145/2	Auger shell, <i>Terebrae</i> sp.		185
8145/3	Auger shell, <i>Terebrae</i> sp.		185
8145/4	Auger shell, <i>Terebrae</i> sp.		185
8145/5	Auger shell, <i>Terebrae</i> sp.		185
8174	Pearl shell, <i>Pinctada margaritifera</i>		183
8182/1	Cowrie shell, <i>Cypraeidae</i> sp.		185
8182/2	Cowrie shell, <i>Cypraeidae</i> sp.		185
8192	Cowrie shell, <i>Cypraeidae</i> sp.		166
8208/1	Cowrie shell, <i>Cypraeidae</i> sp.		185
8208/2	Cowrie shell, <i>Cypraeidae</i> sp.		185
8208/3	Cowrie shell, <i>Cypraeidae</i> sp.		185
8208/4	Cowrie shell, <i>Cypraeidae</i> sp.		185
8228	Cowrie shell, <i>Cypraeidae</i> sp.		
8233	Cowrie shell, <i>Cypraeidae</i> sp.		
8249	Bailer shell		166
8250/1	Cowrie shell, <i>Cypraeidae</i> sp.		166
8250/1	Cowrie shell, <i>Cypraeidae</i> sp.		166
8273	Pearl shell, <i>Pinctada margaritifera</i>		166
8274	Cowrie shell, <i>Cypraeidae</i> sp.		166
8278	Cowrie shell, <i>Cypraeidae</i> sp.		
8283	Cowrie shell, <i>Cypraeidae</i> sp.		
8284	Trochus shell		109
8299/34	Shell, unidentified		109

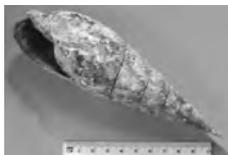


FIG. 431. Cone shell (MA7604).



FIG. 432. Shell (MA8651/1-4).

TABLE 113: Natural history specimens cont.d

MA	Description	Dimensions (mm)	Grid
8524	Pearl shell, <i>Pinctada margaritifera</i>	L 120	206
8584	Shell, unidentified		111
8651/1-4	Shell, unidentified shell species, one of a cache of four (figure 432), similar to MA8651/1	L 34	206
8669	Shell, unidentified	L 85	
8706	Cowrie shell, <i>Cypraeidae</i> sp.	L 85	
8717/2	Shell, unidentified		163
8736	Shell, unidentified		
8815/1	Shell, unidentified		
8915	Tiger Cowrie shell, <i>Cypraea tigris</i>		

TABLE 114: Organic material (rope, hemp, leather, coconut)

MA	Description	Dimensions (mm)	Grid
4595	Modified coconut husk, flat oval disc shape	Dia 30	89
4601	Skeletal material, non-human, large animal bone		89
4945	Rope fragments x 2, plaited strands	Longest piece 100	89Sph
6276	Rope fragments		88
6281	Rope fragments		88
6318	Skeletal material, animal, bovine		90
6467/1	Coconut husk fragments	L 105-143	90Sph
6467/2	Coconut husk fragments	L 105-143	90Sph
6467/3	Coconut husk fragments	L 105-143	90Sph
6467/4	Coconut husk fragments	L 105-143	90Sph
6474/1	Coconut husk fragments		90
6474/2	Coconut husk fragments		90
6474/3	Coconut husk fragments		90
6474/4	Coconut husk fragments		90
6474/5	Coconut husk fragments		90
6504/6	Fragments of rope/ wood with nail holes through rope; suggests attachment of rope to pieces of wood. Nailed down to dunnage or deck planks to act as cushioning for a fragile object?		90
6583/3	Wood, attached to the mercury jar (6583/1)		90Sph
7798	Modified coconut husk, flat oval disc shape	dia 30	92
7840/1	Coconut fragments		Sph
7840/2	Coconut fragments		Sph
7855/1	Coconut husk fragments		166
7855/2	Coconut husk fragments		166
7868	Coconut husk fragment		92
7908	Leather fragment		164
7932/1	Coconut husk fragments		92
7932/2	Coconut husk fragments		92
7932/3	Coconut husk fragments		92

TABLE 114: Organic material (rope, hemp, leather, coconut) cont.d

MA	Description	Dimensions (mm)	Grid
7948	Leather fragment; rectangular shape with equidistant tack holes along two opposite edges	170 x 40	183
7980	Wood fragment		94
7987	Coconut husk fragment		Sph
7994	Leather fragment	50 x 35	92
8056	Coconut husk fragment	37 x 48	92
8071/1	Coconut husk fragment		Sph
8071/2	Coconut husk fragment		Sph
8071/3	Coconut husk fragment		Sph
8071/4	Coconut husk fragment		Sph
8071/5	Coconut husk fragment		Sph
8071/6	Coconut husk fragment		Sph
8071/7	Coconut husk fragment		Sph
8074	Coconut husk fragment		Sph
8111/1	Coconut husk fragment		Sph
8111/2	Coconut husk fragment		Sph
8111/3	Coconut husk fragment		Sph
8111/4	Coconut husk fragment		Sph
8111/5	Coconut husk fragment		Sph
8190/1	Leather fragment		183
8190/2	Leather fragment		183
8190/3	Leather fragment		183
8190/4	Leather fragment		183
8190/5	Leather fragment		183
8190/6	Leather fragment		183
8190/7	Leather fragment		183
8269/2	Coconut husk fragment		185
8269/1	Coconut husk fragment		185
8508	Coiled rope fragment, recovered after cutting it off a larger (coiled) length left in-situ on the lower deck		109
8564/2	Rope fragment		109
8663/1	Wood fragment		109
8663/2	Wood fragment		109
8665/1	Organic fragments, Undetermined		
8665/2	Organic fragments, Undetermined		
8743/1	Leather fragment		109
8743/2	Leather fragment		109
8743/3	Leather fragment		109
8835	Leather shoe heel with multiple tack holes	64 x 64 x 13	Sph
8663/3	Wood fragment		109
8713	Coconut husk fragment?		203
8717/1	Bamboo fragment		109

TABLE 114: Organic material (rope, hemp, leather, coconut) cont.d

MA	Description	Dimensions (mm)	Grid
8839/1	Coconut husk fragment		206
8839/2	Coconut husk fragment		206
8839/3	Coconut husk fragment		206
8857/8	Oakum fragment		Sph
8865	Worked wooden object, tapered, single hole	L 170	Sph
8918	Rope fragment		Sph
8919	Rope fragment		Sph
8920	Rope fragment		Sph
8921	Rope fragment		Sph
8926	Rope fragment		Sph

TABLE 115: Faunal Remains

MA	Description	Dimensions (mm)	Grid
4664	Stingray barb, tapered with serrated teeth	71 x 28 x 1	89
6217/1	Skeletal material, unidentified animal	L 55	85
6217/2	Skeletal material, unidentified animal	L 55	85
6217/3	Skeletal material, unidentified animal	L 55	85
6275	Skeletal material, unidentified animal	L 70	88
6361	Skeletal fragment, unidentified animal		90
6596	Skeletal material, bovine (ID S. van Dyck)		90
6630	Skeletal material, animal, spine? tapered, serrations on one edge	L 109	90
7696	Skeletal material, unidentified animal		183
7700	Skeletal material, unidentified animal; faint butchering marks		89
7797	Skeletal material, unidentified animal		92
7822/1	Sea urchin spines, faint evidence of working	L 57-59	92
7822/2	Sea urchin spines, faint evidence of working	L 57-59	92
7848	Skeletal material, unidentified animal		166
7911	Skeletal material, unidentified animal		Sph
8026	Skeletal material, unidentified animal		Sph
8072	Skeletal material, unidentified animal		Sph
8088	Skeletal material, fragment, unidentified animal		Sph
8147/1	Skeletal material, unidentified animal		185
8147/2	Skeletal material, unidentified animal		185
8223	Skeletal material, unidentified animal		164
8224/1	Skeletal material, unidentified animal		164
8224/2	Skeletal material, unidentified animal		164
8239	Skeletal material; unidentified animal		183
8245	Bone disc	dia 11	Sph
8556	Tooth fragment; unidentified species		109
8277	Skeletal material; unidentified animal		185
8293/1	Skeletal material; unidentified animal		Sph
8293/2	Skeletal material; unidentified animal		Sph

TABLE 115: Faunal Remains cont.d

MA	Description	Dimensions (mm)	Grid
8518/1	Skeletal material, unidentified animal		107
8518/2	Skeletal material, unidentified animal		107
8617/1	Skeletal material, unidentified animal		204
8617/2	Skeletal material, unidentified animal		204
8656/1	Skeletal material, unidentified animal		203
8708	Skeletal material, unidentified animal	75 x 85	206
8712/5	Skeletal material, unidentified animal		205
8712/6	Skeletal material, unidentified animal		205
8628/1	Skeletal material, unidentified animal, butchering marks		204
8628/2	Skeletal material, unidentified animal, butchering marks		204
8641	Skeletal material, unidentified animal		Sph
8656/2	Skeletal material, unidentified animal		203
8685	Seed pod, unidentified	L 120	109
8703	Skeletal material, unidentified animal		Sph
8712/1	Skeletal material, unidentified animal		205
8712/2	Skeletal material, unidentified animal		205
8712/3	Skeletal material, unidentified animal		205
8712/4	Skeletal material, unidentified animal		205
8776/1	Skeletal material, unidentified animal		206
8776/2	Skeletal material, unidentified animal		206
8808/1	Skeletal material, unidentified animal		204
8808/2	Skeletal material, unidentified animal		204
8811	Seed pod, unidentified	L 105	204
8825	Skeletal material, unidentified animal		Sph
8866	Skeletal material, unidentified animal		Sph
8873	Skeletal material, unidentified animal		Sph

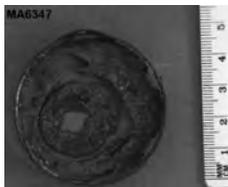


FIG. 433. Part of container lid (MA6347/2).

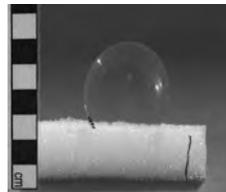


FIG. 434. Front piece picture frame cover (MA6450).

TABLE 116: Miscellaneous worked objects

MA	Description	Dimensions (mm)	Grid
6347/1	Container lid, copper alloy, circular base with raised sides; no apparent marks or stamps	H 9, dia 49	90
6347/2	Part of copper alloy container lid (figure 433), possible key-shaped cut out in centre	27 x 24 x 1	90
6450	Front piece, glass, picture frame cover, convex (figure 434)	44 x 34 x 1	109
7902/1	Worked object, unidentified organic material (figure 435)		92
7902/2	Worked object, unidentified organic material		92

TABLE 116: Miscellaneous worked object cont.d

MA	Description	Dimensions (mm)	Grid
7902/3	Worked object, unidentified organic material		92
7902/4	Worked object, unidentified organic material		92
7902/5	Worked object, unidentified organic material		92
7902/6	Worked object, unidentified organic material		92
7902/7	Worked object, unidentified organic material		92
7902/8	Worked object, unidentified organic material		92
7902/9	Worked object, unidentified organic material		92
8541	Copper alloy concretion	L 41, H 19	Sph
8833/17	Worked silver object, undetermined function. Implement or instrument fragment, round in cross-section and tapered, six equidistant indented parallel lines encircle the object, internal thread.		Sph



FIG. 435. Worked object (MA7902/1-10).

TABLE 117: Miscellaneous metallic instrument parts

MA	Description	Dimensions (mm)	Grid
4678	Copper alloy fitting		89
6582/1	Copper alloy tube	L 26	90
6582/2	Copper alloy fitting fragments		90
7745	Copper alloy disc		92
7920	Concretion		92
8540	Concretion		Sph
8709/1	Concretion		206
8709/2	Disc fragment		206
8709/3	Disc fragment		206



FIG. 437. Olive-oil jar base (MA8719/2)



FIG. 441. Iron deck bolt and ring (MA8719/54)



FIG. 438. Single hole roves (MA8719/12)



FIG. 442. Iron deck bolt and ring (MA8719/76)



FIG. 443. Copper alloy tacks (MA8719/86)



FIG. 439. Iron brads (MA8719/24)



FIG. 440. Ringbolt fragment (MA8719/35)



FIG. 436. Earthenware olive-oil jar showing fragmentation due to explosion on ascent (MA8719/1)

Olive oil jar contents

An olive oil jar (MA8719) was recovered from grid #208 (X 43.01, Y 6.98, Z 98.96) in 1999. This jar was the fourth jar of this type to be recovered from the wreck; compared to the previous three however, it was remarkable in that it contained a large number of artefacts including various sizes of iron spikes and ring bolts, a copper

alloy door knob, iron hammer heads, and a number of leather or canvas bags, each containing hundreds of roves, nails or tacks. None of the three jars raised from the wreck previously had contained any artefacts.

The fourth jar's contents have been grouped and accessioned under numbers MA8719/5-175.

TABLE 118: Olive oil jar and contents

MA	Description	Dimensions (mm)	Grid
8719/1	Olive oil jar, (figure 436) coarse earthenware, narrow base, wide shoulder, narrow rolled neck. Makers mark "TMF" embossed below arched ridges on each shoulder with a cross motif (Cross of Lorraine?) Damaged during transit from the seabed to the deck of the expedition's mother-vessel; base fragment (MA8719/2) was dislodged, when the jar 'exploded' due to expansion of a gaseous bubble that had formed on the seabed under 4 ATA from corroding metal and/or decaying organic matter inside the jar. The bubble expanded as a result of the reduction of ambient pressure as the jar was being raised. Cf. MA3 and MA138 + MA139 (Campbell & Gesner, 2000:109-10).	H 780, i/dia neck 200	208
8719/2	Olive oil jar base fragment, (figure 437), from MA8719/1. Sample (fragment) from the base sent for (neutron activated) analysis to Research Reactor Centre, University of Missouri, Columbia (USA). The analysis determined that the clay used in the jar can be sourced to the vicinity of Montelupo (near Lucca) in Tuscany. Assorted contents MA8719/5-175.	Dia 286, base dia 250, wt 3051	208
8719/3	Ceramic fragment olive oil jar		208
8719/4	Ceramic fragment olive oil jar		208
8719/5	Organic fragments, remains of a canvas bag		208
8719/6	Leather fragment, part of 8719/5		208
8719/7	Organic fragments		208
8719/8	Conglomerate, unidentified organic material		208
8719/9	Small 'type 3' iron nails		208
8719/10	Iron 'type 3' nails	74 x 10 (head) wt 6	208
8719/11	1) Single-hole roves (x23) 2) 1 small tack	1) 10 x 10	208
8719/12	Iron roves x 5x, (figure 438), single hole roves	10 x 10	208
8719/13	Strip of single hole iron roves x 5		208
8719/15	Strips of single hole iron roves x 2	L 140 and 20	208
8719/16	Rope fragment	L 50	208
8719/17	Single hole iron rove	10 x 9	208
8719/18	Iron rove	10 x 9	208
8719/19	Iron square shanked spike		208
8719/20	Leather bag fragment		208
8719/21	Pebble		208
8719/22	Oakum fragment, organic		208
8719/23	Iron square shanked spike		208

TABLE 118: Olive oil jar and contents cont.d

MA	Description	Dimensions (mm)	Grid
8719/24	Iron brads, found in a cluster (figure 439); probably originally kept in a canvas or hessian bag		208
8719/25	Bag ('#3') with 5226 iron tacks		208
8719/26	Leather bag fragments		208
8719/27	Textile fragment		208
8719/28	Leather bag for nails?		208
8719/29	Leather bag for tacks?		208
8719/30	Rope; knotted around remains of a leather bag		208
8719/31	Leather fragments from top of bag #2		208
8719/32	Unidentified wood fragment		208
8719/33	Rope with a knot		208
8719/34	Leather bag with tacks		208
8719/35	Ringbolt fragment (figure 440)		208
8719/36	Leather fragments from 'brad' bag		208
8719/37	Iron square shanked spike		208
8719/38	Iron square shanked spike		208
8719/39	Hinges with leather bag fragments		208
8719/40	Unidentified organic fragment Perhaps a ? canvas bag?		208
8719/41	Fragment, unknown iron fastening		208
8719/42	Iron square shanked spike	L 173	208
8719/43	Iron square shanked spike		208
8719/45	Iron square shanked spike		208
8719/46	Iron square shanked spike		208
8719/47	Iron square shanked spike		208
8719/48	Iron square shanked spike		208
8719/49	Stone fragment		208
8719/50	Wood fragment		208
8719/51	Wood fragment		208
8719/52	Fibre fragments; leather / fibre		208
8719/53	Fibre fragments; leather / fibre		208
8719/54	Iron deck bolt and ring (figure 441)		208
8719/55	Iron spike		208
8719/56	Iron spike		208
8719/57	Iron square shanked spike		208
8719/58	Iron square shanked spike		208
8719/59	Iron square shanked spike		208
8719/60	Iron square shanked spike		208
8719/61	Iron square shanked spike		208
8719/62	Iron square shanked spike		208
8719/63	Iron square shanked spike		208
8719/64	Iron square shanked spike (figure 442)		208

TABLE 118: Olive oil jar and contents cont.d

MA	Description	Dimensions (mm)	Grid
8719/65	Iron square shanked spike		208
8719/66	Iron square shanked spike		208
8719/67	Iron square shanked spike		208
8719/68	Bag #1, Leather bag with 2019 tacks		208
8719/69	Iron nails from 'bag #1'		208
8719/70	Wooden dowel fragment		208
8719/71	Oakum, fragments		208
8719/72	1) Strips of roves x 36 multiple hole roves) 2) 3x square shanked nails		208
8719/73	Iron disc		208
8719/74	Iron and material from 'Bag # 1'		208
8719/75	Iron square shanked spike		208
8719/76	Iron square shanked spike	L 153, wt 133	208
8719/77	Iron square shanked spike		208
8719/78	Iron square shanked spike		208
8719/79	Leather bag fragments		208
8719/80	Iron square shanked spike		208
8719/81	Iron square shanked spike		208
8719/82	Leather/ fibre fragments		208
8719/83	Hinge bag fragment		208
8719/84	Iron square shanked spike		208
8719/85	Iron square shanked spike		208
8719/86	Copper alloy tacks x7 (figure 443)		208
8719/87	Leather fragments from MA8719/83		208
8719/88	Iron square shanked spike		208
8719/89	Iron square shanked spike		208
8719/90	Iron hammer head (figure 151)		208
8719/91	Iron square shanked spike	L 228, wt 224	208
8719/92	Iron square shanked spike	L 102, wt 84	208
8719/93	Iron square shanked spike	L 144, wt 96	208
8719/94	Iron square shanked spike	L 174, wt 132	208
8719/95	Iron square shanked spike	L 184, wt 93	208
8719/96	Iron square shanked spike	L 109, wt 70	208
8719/97	Iron square shanked spike	L 200, wt 139	208
8719/98	Iron square shanked spike	L 165, wt 141	208
8719/99	Iron square shanked spike	L 160 wt 138	208
8719/100	Iron square shanked spike	L 170, wt 120	208
8719/101	Iron square shanked spike	L 175, wt 108	208
8719/102	Iron square shanked spike	L 178, wt 117	208
8719/103	Ring bolt	L 260, ring dia 115	208
8719/104	Ring bolt, 1) Ring, 2) bolt	L 298, dia 121	208
8719/106	Iron square shanked spike	L 215 x 20, wt 179	208

TABLE 118: Olive oil jar and contents cont.d

MA	Description	Dimensions (mm)	Grid
8719/107	Iron square shanked spike	L 240 x 24, wt 251	208
8719/108	Iron square shanked spike	L 179 x 21, wt 124	208
8719/109	Iron square shanked spike	L 176 x 19	208
8719/110	Iron square shanked spike	L 190	208
8719/111	Iron square shanked spike	L 175, wt 121	208
8719/112	Iron square shanked spike	L 190, wt 252	208
8719/113	Iron square shanked spike	L 135, wt 84	208
8719/114	Iron square shanked spike	L 220, wt 295	208
8719/115	Iron square shanked spike	L 140, wt 261	208
8719/116	Lock mechanism element	L 255	208
8719/117	Iron square shanked spike	L 140, wt 110	208
8719/118	Iron square shanked spike	L 125, wt 85	208
8719/119	Iron square shanked spike	L 210	208
8719/120	Iron square shanked spike	L 120	208
8719/121	Iron square shanked spike	L 160	208
8719/122	Iron square shanked spike	L 180	208
8719/123	Iron square shanked spike	L 245, wt 300	208
8719/124	Iron square shanked spike	L 240, wt 374	208
8719/125	Iron square shanked spike	L 230, wt 273	208
8719/126	Iron square shanked spike	L 164, wt 130	208
8719/127	Iron square shanked spike	L 270, wt 350	208
8719/128	Iron square shanked spike	L 122, wt 54	208
8719/129	Iron square shanked spike	L 197, wt 246	208
8719/130	Copper alloy door knob or furniture handle (figure 444); ht 48, head screw dia 9; ovoid shaped knob attached to the stem flaring to a circular flange.		208
8719/131	Iron square shanked spike	L 160, wt 119	208
8719/132	Iron square shanked spike	L 180, wt 90	208
8719/133	Iron square shanked spike	L 170, wt 126	208
8719/134	Iron square shanked spike	L 190, wt 133	208
8719/135	Iron square shanked spike	L 160, wt 123	208
8719/136	Iron square shanked spike	L 225, wt 271	208
8719/137	Iron square shanked spike	L 265, wt 374	208
8719/138	Iron square shanked spike	L 240, wt 375	208
8719/139	Iron square shanked spike	L 175, wt 128	208
8719/140	Iron square shanked spike	L 245, wt 404	208
8719/141	Copper alloy door knob or furniture handle (figure 445); ovoid shaped knob attached to the stem flaring to a circular flange.	73 x 45 x 32, wt 64	208
8719/142	Iron square shanked spike	L 232, wt 381	208
8719/143	Spike; conjoined with an iron disc		208
8719/144	Iron spike		208
8719/145	Iron square shanked spike	L 91 x 10, wt 25	208
8719/146	Iron square shanked spike	L 155 x 21, wt 105	208

TABLE 118: Olive oil jar and contents cont.d

MA	Description	Dimensions (mm)	Grid
8719/147	Iron square shanked spike	L 243 x 29, wt 334	208
8719/148	Iron square shanked spike	L 170 x 23, wt 127	208
8719/149	Iron square shanked spike	L 160 x 21, wt 121	208
8719/150	Iron square shanked spike	L 173 x 22, wt 107	208
8719/151	Iron square shanked spike	L 166 x 23, wt 141	208
8719/152	Iron square shanked spike	L 280 x 33, wt 406	208
8719/153	Iron square shanked spike	L 165 x 23, wt 131	208
8719/154	Iron square shanked spike	L 320 x 35, wt 497	208
8719/155	Iron square shanked spike	L 273 x 31, wt 364	208
8719/156	Iron square shanked spike	L 143 x 13, wt 87	208
8719/157	Iron square shanked spike	L 307 x 34: wt 469	208
8719/158	Iron square shanked spike	L 145 x 18, wt 205	208
8719/159	Iron square shanked spike	L 128 x 19, wt 87	208
8719/160	Iron square shanked spike	L 174 x 19, wt 111	208
8719/161	Iron square shanked spike	L 310 x 36, wt 589	208
8719/162	Iron square shanked spike	L 245 x 34, wt 419	208
8719/163	This number was not used		
8719/164	Iron square shanked spike	L 149 x 12, wt 103	208
8719/165	Iron square shanked spike	L 101 x 23, wt 82	208
8719/166	Iron square shanked spike	L 165 x 19, wt 94	208
8719/167	Iron square shanked spike	L 119 x 21, wt 85	208
8719/168	Iron square shanked spike	L 111 x 12, wt 57	208
8719/169	Iron square shanked spike	L 165 x 19, wt 87	208
8719/170	Lock		208
8719/171	Iron square shanked spike	L 162 x 22, wt 96	208
8719/172	Iron square shanked spike	L 135 x 24, wt 103	208
8719/173	Iron square shanked spike	L 92 x 21, wt 67	208
8719/174	Iron square shanked spike	L 165 x 14, wt 68	208
8719/175	Iron square shanked spike	L 170 x 19, wt 122	208
8719/176	Door lock		208



FIG. 444. Door knob or furniture handle (MA8719/130)



FIG. 445. Door knob or furniture handle (MA8719/130)

Human skeletal material

More human skeletal remains were recovered from the wreck site during Stage 2 of the *Pandora* Project. These remains were identified by University of Queensland (UQ) honours student Damien Steptoe under supervision of Assistant Professor Dr Walter Wood - as belonging to three individuals. These individuals were fondly designated by the names of ‘Tom, Dick and Harry’. This brings to a total the remains of three men recovered from the wreck. Initial research has been unsuccessful in identifying these men (<http://intarch.ac.uk/journal/issue11/4/toc.html>).

Deaccessioning and re-interment of human skeletal remains

At the end of the 1993 season a memorial obelisk containing the remains of the first man recovered from the wreck, was lowered onto the seabed adjacent to the wreck. The then HMAS *Cairns* Chaplain, Mark Wallbank, Royal Australian Navy, conducted a ‘Service for burial at sea’ (Gesner,2000:43).

The intention of the Maritime Archaeology Section of the Queensland Museum was to deaccession all human skeletal material and re-inter them at the memorial obelisk commemorating the *Pandora’s* dead. However this intention has been altered since a break-through at Bond University in 2010 where forensic science PhD candidate Sheree Hughes-Stamm successfully pioneered a new technique to sequence Y-DNA from water-logged human skeletal material. Dr Hughes was able to sequence a clear Y-DNA sequence for each of the 3 sets of bones – they represent 3 out of the 35 named men who died during the wreck of the *Pandora*.

[<http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1118&context=theses>]

The possibility now exists that reverse genealogical research may be able to assist in finding matching Y-DNA sequences from living male descendants of ‘Tom, Dick or Harry’ and thereby identifying them.

TABLE 119: Human skeletal material

MA	Description
4570/2	Human skeletal material, rib
4701/2	Human skeletal material, proximal phalange
4701/3	Human skeletal material, middle phalange
4572/2	Human skeletal material, rib, left
4572/3	Human skeletal material, rib, 1st right
4572/4	Human skeletal material, rib
4572/5	Human skeletal material, middle phalange
4892/2	Human skeletal material, thoracic vertebra
4892/3	Human skeletal material, rib left
4892/4	Human skeletal material, rib
4892/5	Human skeletal material, metacarpal, 2nd right
4882/2	Human skeletal material, cervical vertebra
4882/3	Human skeletal material, rib
4882/4	Human skeletal material, metatarsal 4th right
4882/5	Human skeletal material, proximal phalange
4882/6	Human skeletal material, proximal phalange
4882/7	Human skeletal material, middle phalange
4754/2	Human skeletal material, proximal phalange
4754/3	Human skeletal material, metacarpal 3rd left
4754/4	Human skeletal material, proximal phalange
4903/2	Human skeletal material, sacrum
4622/2	Human skeletal material, rib, right
4622/3	Human skeletal material, ulna left
4622/4	Human skeletal material, radius, left
4868/2	Human skeletal material, mandible, 4 molars
4868/3	Human skeletal material, rib, 2nd right
4868/4	Human skeletal material, C3
4533/2	Human skeletal material, rib, right
4533/3	Human skeletal material, rib, right
4533/4	Human skeletal material, T8
4533/5	Human skeletal material, T5
4533/6	Human skeletal material, T6
4533/7	Human skeletal material, T3
4533/8	Human skeletal material, T4
4533/9	Human skeletal material, T7
4533/10	Human skeletal material, T9

TABLE 119: Human skeletal material cont.d

MA	Description
4533/11	Human skeletal material, T9
4533/12	Human skeletal material, T7
4533/13	Human skeletal material, talus, right
4533/14	Human skeletal material, metatarsal, 4th right
4533/15	Human skeletal material, metatarsal, 3rd right
4533/16	Human skeletal material, scapular
4897/2	Human skeletal material, ulna, right
4897/3	Human skeletal material, lumbar vertebra
4815/1	Human skeletal material, lumbar vertebra
4815/2	Human skeletal material, rib
4836/2	Human skeletal material, metacarpal, 3rd right
4894/2	Human skeletal material, rib, left
4894/3	Human skeletal material, rib, right
4894/4	Human skeletal material, rib, left
4811/1	Human skeletal material, scapula, left
4811/2	Human skeletal material, rib, 11th left
4811/3	Human skeletal material, metacarpal, 2nd left
4811/4	Human skeletal material, metacarpal, 3rd left
4811/5	Human skeletal material, metacarpal, 4th left
4811/6	Human skeletal material, middle phalange
4811/7	Human skeletal material, lunate, left
4531/2	Human skeletal material, rib, right
4531/3	Human skeletal material, rib, right
4531/4	Human skeletal material, rib, right
4531/5	Human skeletal material, rib, right
4531/6	Human skeletal material, rib, 3rd right
4531/7	Human skeletal material, rib, 2nd right
4531/8	Human skeletal material, T1
4531/9	Human skeletal material, T2
6271/7	Human skeletal material, rib
6271/8	Human skeletal material, rib
8203/2	Human skeletal material, bone
8703	Human skeletal material, bone
8886	Human skeletal material, tooth
4677/1	Human skeletal material, cranium
4677/2	Human skeletal material, mandible

MA	Description
4677/3	Human skeletal material, rib, 12th left
4677/4	Human skeletal material, radius
4677/5	Human skeletal material, ulna
4677/6	Human skeletal material, C7
4677/7	Human skeletal material, C2
4677/8	Human skeletal material, C1
4677/9	Human skeletal material, C4
4677/10	Human skeletal material, C5
4677/11	Human skeletal material, C6
4056	Human skeletal material, fibula
4093	Human skeletal material, bone
4531/1	Human skeletal material, scapula
4533/1	Human skeletal material, rib, right
4534	Human skeletal material, rib, right
4561	Human skeletal material, rib
4565	Human skeletal material, metatarsal, 5th right
4566	Human skeletal material, humerus, left
4570/1	Human skeletal material, rib fragment
4572/1	Human skeletal material, clavicle, left
4576	Human skeletal material, rib
4583	Human skeletal material, lumbar vertebra
4597	Human skeletal material, calcaneus, right
4659	Human skeletal material, lumbar vertebra
4662	Human skeletal material, rib
4697	Human skeletal material, rib
4701/1	Human skeletal material, clavicle, right
4711	Human skeletal material, proximal phalange
4715	Human skeletal material, rib, 1st left
4903/1	Human skeletal material, C1
4576	Human skeletal material, tibia, right
4897/1	Human skeletal material, tibia, right
4894/1	Human skeletal material, rib, right
4892/1	Human skeletal material, femur, right
4882/1	Human skeletal material, talus, right
4868/1	Human skeletal material, scapula, right
4642	Human skeletal material, rib

TABLE 119: Human skeletal material cont.d

MA	Description
4837	Human skeletal material, metacarpal, 5th left
4622/1	Human skeletal material, scapula, left
4754/1	Human skeletal material, C2
4727	Human skeletal material, ulna, right
4628	Human skeletal material, tibia, left
4627	Human skeletal material, humerus, right
4911	Human skeletal material, humerus, left
4877	Human skeletal material, calcaneus, right
6470	Human skeletal material, rib, 1st left
6444	Human skeletal material, metatarsal, 5th left
6238	Human skeletal material, bone
6244/1	Human skeletal material, thoracic vertebra
6264	Human skeletal material, femur fragment
6271/3	Human skeletal material, thoracic vertebra
6222	Human skeletal material, rib fragment
6228/1	Human skeletal material, rib, right
6309	Human skeletal material, tibia, left
6321	Human skeletal material, cuboid, left
6322	Human skeletal material, calcaneus, left
6325	Human skeletal material, proximal phalange
6214	Human skeletal material, rib
6330/1	Human skeletal material, femur, left
6329	Human skeletal material, rib, 12th right
6339	Human skeletal material, metacarpal, 1st right
6359	Human skeletal material, femur, right
6363	Human skeletal material, rib, left
6378/1	Human skeletal material, clavicle
6385	Human skeletal material, rib, right
6391	Human skeletal material, T10
6418/1	Human skeletal material, ilium
6445	Human skeletal material, T12
6465	Human skeletal material, bone
6468	Human skeletal material, tibia, right
6492	Human skeletal material, bone
6461/1	Human skeletal material, ilium, left
6496	Human skeletal material, patella, right

MA	Description
6523	Human skeletal material, rib, 12th left
6526	Human skeletal material, scapula, right
6538	Human skeletal material, C1
6546/1	Human skeletal material, bone
6614/1	Human skeletal material, T5
6569	Human skeletal material, frontal bone
6576/1	Human skeletal material, rib, left
6578	Human skeletal material, ilium, right
6579	Human skeletal material, fibula, left
6595	Human skeletal material, rib, left
6613/1	Human skeletal material, frontal bone
6627/1	Human skeletal material, humerus, right
6639	Human skeletal material, parietal bone
6228/2	Human skeletal material, thoracic vertebra
6244/2	Human skeletal material, rib
6378/2	Human skeletal material, rib, left
6244/3	Human skeletal material, bone
6271/4	Human skeletal material, rib, right
6271/5	Human skeletal material, rib, right
6271/6	Human skeletal material, rib, right
6418/2	Human skeletal material, sacrum
6418/3	Human skeletal material, sacrum
6418/4	Human skeletal material, ulna, left
6330/2	Human skeletal material, talus
6330/3	Human skeletal material, metatarsal, 1st right
6330/4	Human skeletal material, femur
6418/5	Human skeletal material, rib
6418/6	Human skeletal material, rib, right
6418/7	Human skeletal material, rib, right
6418/8	Human skeletal material, vertebra
6418/9	Human skeletal material, vertebra
6418/10	Human skeletal material, T9
6418/11	Human skeletal material, T8
6418/12	Human skeletal material, T6
6418/13	Human skeletal material, T4
6418/14	Human skeletal material, lumbar vertebra

TABLE 119: Human skeletal material cont.d

MA	Description
6418/15	Human skeletal material, T2
6418/16	Human skeletal material, T1
6418/17	Human skeletal material, T11
6418/18	Human skeletal material, C6
6418/19	Human skeletal material, C3
6418/20	Human skeletal material, C5
6418/21	Human skeletal material, C4
6418/22	Human skeletal material, C2
6418/23	Human skeletal material, metatarsal, 3rd left
6418/24	Human skeletal material, metacarpal, 3rd right
6418/25	Human skeletal material, metacarpal, 5th right
6418/26	Human skeletal material, proximal phalange
6418/27	Human skeletal material, proximal phalange
6418/28	Human skeletal material, proximal phalange
6418/29	Human skeletal material, femur
6418/30	Human skeletal material, fibula, right
6418/31	Human skeletal material, rib
6418/32	Human skeletal material, rib
6418/33	Human skeletal material, mandible
6418/34	Human skeletal material, mandible
6418/35	Human skeletal material, radius
6418/36	Human skeletal material, ulna
6418/37	Human skeletal material, fibula
6418/38	Human skeletal material, humerus
6644	Human skeletal material, rib, left
6461/2	Human skeletal material, scapula
6461/3	Human skeletal material, T7
6546/2	Human skeletal material, middle phalange
6576/2	Human skeletal material, rib, left
6576/3	Human skeletal material, rib, right
6576/4	Human skeletal material, rib, 2nd left
6613/2	Human skeletal material, frontal bone
6614/2	Human skeletal material, parietal bone

MA	Description
6614/3	Human skeletal material, maxilla, 2 teeth
6614/4	Human skeletal material, maxilla
6627/2	Human skeletal material, T3
6627/3	Human skeletal material, middle phalange
6627/4	Human skeletal material, rib, 11th left
6627/5	Human skeletal material, rib, 11th right
6627/6	Human skeletal material, rib
6627/7	Human skeletal material, rib, 1st left
6627/8	Human skeletal material, rib, 1st right
8076	Human skeletal material, metacarpal
8090	Human skeletal material, tooth
8163	Human skeletal material, bone, unidentified

