

Tobacco pipes from an underwater excavation at the quarantine harbour, Malta

John Wood

Introduction

Quarantine, from the French for 'forty days', was an extension of the original *trentina*, the thirty days confinement first implemented at Venice when its inhabitants suffered bubonic plague in 1348.¹ Originally the word 'lazaretto' meant an institution for the care and segregation of lepers, leprosy being the particular concern of Saint Lazarus. In due course it came to mean a place of isolation for people with infectious diseases. A quarantine system which originated in the Mediterranean remained almost entirely confined there until the first half of the 19th century.

Quarantine in Malta

Quarantine measures had been enforced in Malta since the Middle Ages.² When the Knights of Saint John came to Malta in 1530 they applied the quarantine laws and procedures which they had evolved during their stay in Rhodes. Infected vessels were allowed to anchor only in specified areas of the harbour. In rough weather they were permitted to moor off the 'post of Castille' in Grand Harbour or behind Senglea near Kordin. In fair weather they went to Marsamxett. Clean ships did eighteen days quarantine, infected ships might do eighty. In 1592 galleys of the Grand Duke of Tuscany brought plague from Egypt. During that plague a temporary lazaretto was erected on Bishop's Island in Marsamxett harbour.³ In 1643 Grand Master Lascaris built the first permanent spacious lazaretto on the island to house ships' crews, voyagers, merchandise and cattle, as a first line of defence against

cholera and plague. Subsequently the island was called Manoel after Grand Master Anton Manoel de Vilhena.

In fact in the Mediterranean between 1600 and 1650 only thirteen years were plague free, and between 1650 and 1700 the figure was down to seven.⁴ In the 1676 plague, orders were issued to transport all patients to the lazaretto and to two magazines situated in Fort St Elmo. Suspected cases were taken aboard ships anchored in Marsamxett with the aim of keeping them under observation for forty days. Sometimes plague broke out among them and they all died.⁵ Following these outbreaks the Marsamxett facilities were successively improved by Grand Masters Cottoner, Caraffa and Manoel de Vilhena.⁶ By 1774, at the time of Ximenes de Texada's customs house, warehousing facilities were provided on the Mar-

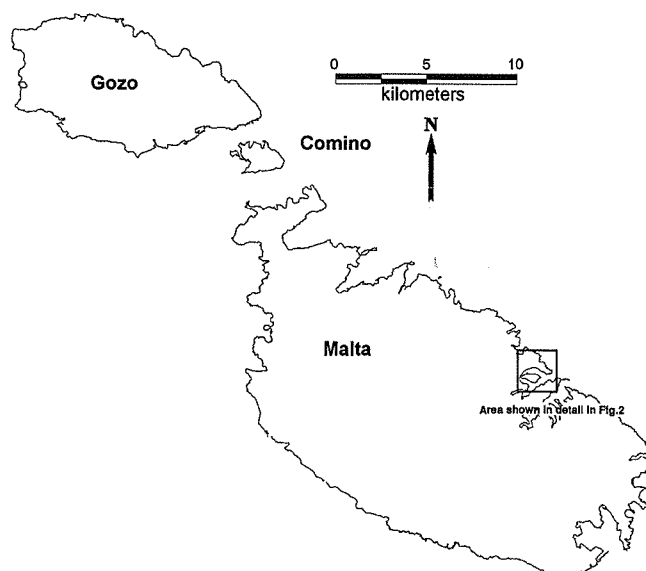


Fig. 1. Map of Malta

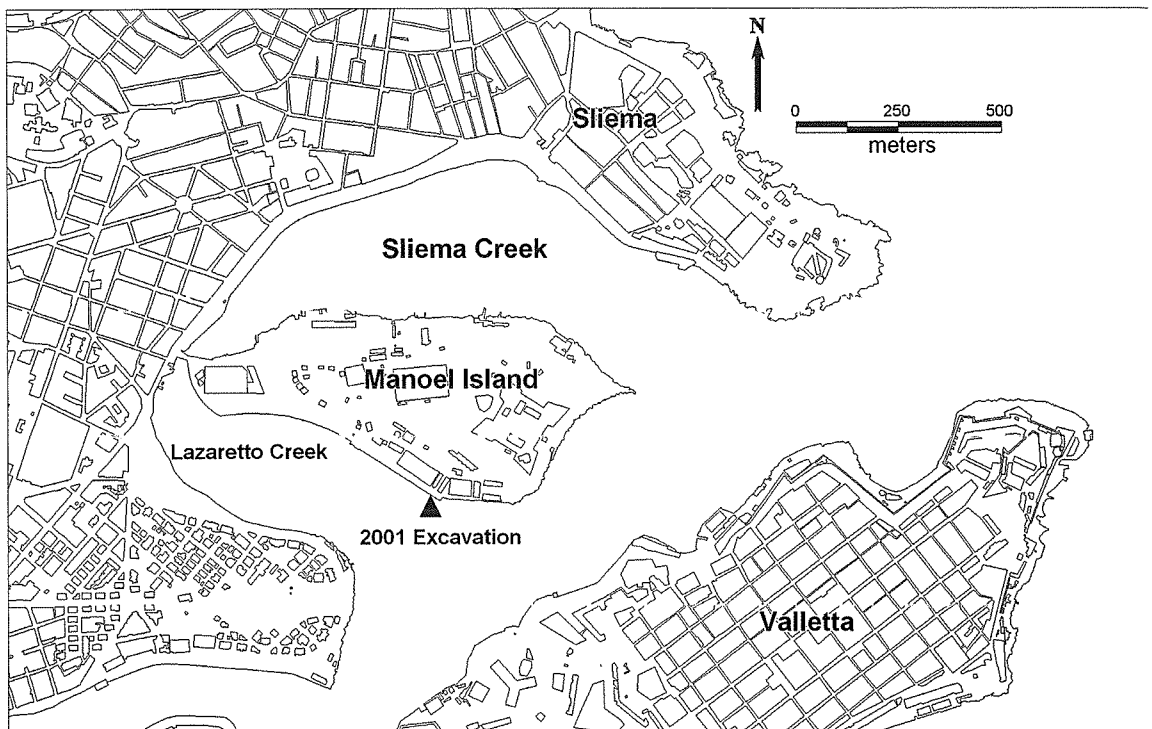


Fig. 2. Map detail showing area of excavation

samxett side of Valletta for merchandise to be stored in quarantine.⁷ Ships with foul bills of health were sometimes moored at Ta' Xbiex. Ships on short quarantine lay under Sa Maison bastion in Marsamxett. For heavy ships unable to enter Marsamxett in rough weather a branch of the quarantine office existed in Grand Harbour under Kordin.⁸ In the 1830s, when normal facilities were stretched, Fort Ricasoli was adapted as a temporary quarantine.⁹ Later in the decade (1837-38) the Manoel lazaretto was enlarged and a plague hospital was built at its western end. It subsequently served as an isolation hospital for the whole island.

Malta had an international reputation as an excellent quarantine station. In June 1784 a

Maltese vessel suspected of being infected was destroyed by fire with all goods on board after her crew and passengers were ordered to strip naked and wash themselves in seawater before being taken to the lazaretto.¹⁰

In times of pestilence letters and papers were fumigated by sprinkling them with vinegar then smoking well with sulphur. In the Malta lazaretto a particular composition was commonly used: Sulphur six pounds, Orpiment, crude Antimony, Lytharge, Cumin seeds, Euphorbium, Black pepper, Ginger, of each four pounds, Asafoetida, Cinnabar, Sal Armoniac (sic) of each three pounds, Arsenic one pound. To these ingredients, first reduced to powder were added raspings of pine wood

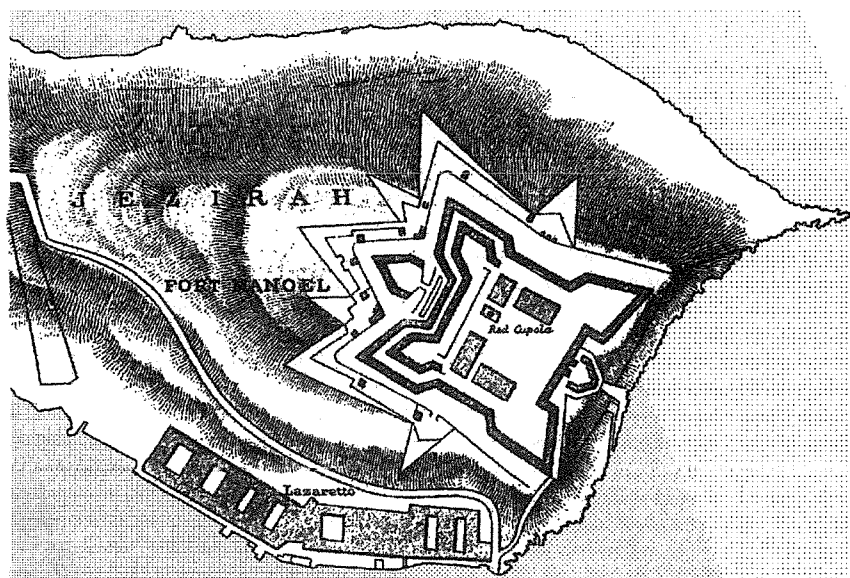


Fig. 3. Fort Manoel and the Lazaretto

six pounds, and bran fifty pounds. It was better to use a smoking box.¹¹ By 1810 merchandise was smoked and aired, letters slit open and fumigated and papers handled with iron tongs before being given a bath in vinegar.¹² Even in 1813-14 the medical treatment of plague was dismissed as useless, but orally administered preventatives such as verbena, calendula, ruta leaves and wine infusion of rosemary, were being recommended. Fumigation with nitric and sulphuric acids was used in hospitals; the smoke of straw and the fumes of vinegar were also used. Tobacco leaves were placed between the fingers of the attendants and the wrists of the patients to avoid catching the disease.¹³ Between 1810 and 1832 an average of eight to ten hundred individuals passed through the quarantine annually.¹⁴ From 1829 registers were kept of persons undergoing quarantine at the lazaretto.¹⁵

Entries in Lloyd Maltese shipping registers give some idea of a continuing plague problem. 1816, entry 15 March – arrived on 09 March HMS Castor with the plague. 1843, entry 14 June – English brig *Romance*, Turkish brig *Mabrook* with plague from Alexandria.¹⁶

From 1841 persons undergoing quarantine in the lazaretto had to pay at the rate of 2 shillings and 6 pence for each guardian employed, although no single individual was to be charged with more than 1 shilling and three-pence a day.

Site Description

This excavation was carried out in an area earmarked for development just off the lazaretto on Manoel Island in Marsamxett harbour (Figs. 2 and 3), between 22 and 29 June 2001.¹⁷

The topography of the seabed consists of a steep slope descending from 4 to 27m at an angle of 55 degrees, values approximate. The top of the slope is littered with war damaged and discarded worked stone blocks (some of archaeological value) and a variety of debris.

The main sediment consists of a mixture of grey silt and sand.

Artefacts recovered ranged in date from before the era of the Knights of Saint John to Royal Naval issues (1530-1930). Seaweed and silt were removed from the artefacts before desalination.

Catalogue

35 of the 42 pipes are stylistically Ottoman *chibouks* – ceramic bowls which would have had perishable reed or wooden stems. The other 7 fragments have origins in northern Europe.

Abbreviations in dimension are: D diameter, L length, W width, RD rim diameter and TD termination diameter.

QH002 Flared rim and rounded bowl with a keel joint to the shank, this latter feature is incomplete. Brownish red clay. Incised line around the waist. The bowl has a group of 3 haphazardly indented rings on either side, close to the shank end. Where the bowl and keel meet the junction is decorated with a line of semaphore dashes. 18th or early 19th century.¹⁸

QH006 Sack-shaped bowl with complete shank. Mould made in reddish brown clay with black slipped appearance. Where the shank joins the bowl a vaguely scribed line gives the appearance of a keel. The shank end is plainly rounded with a 10mm opening. There are traces of lumpy decoration on the lower bowl. Similar to QH061 and a number of other pipes from an excavation at Birgu.¹⁹ 18th - 19th century.

QH007 Fragment of a bowl and rim. Most of the rim and the entire shank are missing. The damage reveals a 6mm opening where the stem would join the bowl. There is a 3 hole grate between the bowl and rim. Sepia to dark brown clay. One of a group of 9 Venetian pipes categorised as ‘Al Tornio’ and dated 1670-1750 by Boscolo.²⁰ These pipes are thrown on the potter’s wheel in 3 sections: rim, bowl and shank. They were possibly made in Rovigo, a pottery centre south of the city.²¹

QH008 Rounded bowl with squat rim. A keel connects the bowl and shank. The artefact is mould made of a greyish fabric, piebald brown. Both bowl and shank are incomplete. Shank opening 7mm. There is rouletted decoration around the ringed termination and between rim and bowl. The bowl has a double incised line around the middle and a rope like decoration at the junction with the keel. All features are abraded. Late 17th or early 18th century.

QH020 Flat base bowl with fragments of rim and shank. Pale terracotta clay, undecorated, abraded. 3 hole grate at base of rim. Similar to QH007. Venetian 1670-1750.

QH021 Bowl, shank and turned rim. Rim incomplete, 3 hole grate at bowl to rim joint. 10mm shank opening. Dark brown clay. Similar to QH007,020. Venetian 1670-1750.

QH022 1 Large and 2 small fragments of a squashed and bulbous bowl. All 3 fragments form part of the bowl. The large fragment has bits of the rim and remnants of a slug shaped keel. Charcoal grey clay. Heavy rouletting on bowl to keel joint. Rouletted with a lighter touch at rim base.

QH023 Bowl with fragmented rim and shank. The bowl is gadrooned and has a 7mm disc impressed under the base. Double rouletted band between bowl and plain rim. Yellow clay with traces of yellow ochre glaze.

QH024 Bowl, shank and rim fragment. 9mm shank opening. Rouletting around shank and termination. The termination also has a ring of gadrooning on the widest part. The rim has a distinct lip, otherwise plain, over a bowl of imitation basketwork. Yellow clay with traces of ochre glaze. 18th - 19th century.

QH025 Shank and bowl with large fragment of rim. The rim fragment has a 3 hole grate at its base. This fragment, found in two pieces, had been glued together after excavation. Shank opening 10mm. Yellowish pink clay with faint traces of 'gold' spots over the entire artefact.

Clays found in the Po valley, a few kilometres south of Venice, contain a yellow-brown mica giving an overall silvery effect when fired. A method used by older generations to rejuvenate their foul pipes involved placing the artefact in ash under a blazing fire. When the fireplace subsequently cooled and the ashes were raked out the ceramic had a golden, rather than silvery sparkle. This reaction was recently verified by experiment.²²

QH027 Fragment of European style bowl. Probably ball-clay but heavily stained to rust

brown. The seam away from the smoker has a vertical branch of broad leaves and an inverted horseshoe on the right side of the bowl. A similar pattern was produced by McDougalls of Glasgow circa 1870 or later.

QH029 Round bowl, vertical rim. The short shank has a keel joint and swollen end with an 8mm opening. A fine, almost delicate piece in dull black clay. Half of the rim and part of the termination is missing. 18th century.

QH036 Round bowl, vertical rim. The short shank has a keel joint and swollen end with an 8mm opening. Mid grey clay. Part of the upper rim is missing. The rim is horizontally ribbed and has a rope like decoration where it meets the bowl. There is a broad band of rouletting under the stepped termination to emphasise the junction of keel and bowl. 18th century.

QH042 Shank and fragment of rounded bowl. Rim missing. Dark brown clay. The bowl has a lattice pattern over two incised lines. Double incised lines accentuate keel to bowl joint. Band of rouletting under the swollen shank end. 9mm opening. 18th century.

QH045 A squat bowl with rim fragment, keel joint, shank and stepped termination. The latter feature too damaged to measure the opening. Yellowish clay. Rouletted decoration around the termination and shank end, also incised lines around the shank. A hollow line divides rim from bowl. The bowl has a chunky band of rope-like decoration around the middle and a finer twist where bowl and keel meet. 18th century.

QH047 Bowl with slightly tapering rim fragment. Keel joint, stub ended swollen termination. 10mm opening. Brown clay possibly dipped in chocolate coloured slip, then burnished. 18th century.

QH048 Round bowl with slightly flaring rim. Keel joint to flared shank with stepped termination. Light terracotta clay with pinky red paint, glaze or slip. The incomplete rim fragment was found in four pieces and had been glued together after excavation. At the base are two bands of incised lines with rouletting

between. The bowl is deeply gadrooned with vertical rouletting in the hollows. Under the right side of the shank is a 4mm impressed circle with a raised dot in the middle and 7 dots raised in a ring around the centre. This is possibly a maker's mark. Similar 7 and 8 dot stamps were found on 18th century pipes in the neighbourhood of Jerusalem.²³

QH049 Rim fragment with 3 hole grate. Light brown clay with traces of gold speckle. A hand thrown Venetian rim in 'Al Tornio' style. 1670-1750.

QH054 Flat base bowl with shank and fragmentary rim. Grey clay. The bowl is heavily impressed with vertical equilateral triangles, deeper at the apex, above and below the triangles is heavy horizontal rouletting. The shank has a stepped termination decorated in gadroons. 7mm opening. On the flat base is a crudely impressed cross with a capital Y impressed obliquely in each section. Flat base pipes frequently have a continuous lip. Possibly an apprentice piece. 19th century.

QH055 Mould made disc-based bowl and shank. Black clay with patchy marine concretion. Most of rim missing. Bowl and stepped termination both gadrooned. Shank opening 8mm. Keel ending square under bowl. Robinson (1985)²⁴ says the keel may be thus modified from the late 18th century through the 19th century.

QH061 Mould made sack-like bowl with damaged rim. Black clay. The swollen ended shank terminates in a 10mm opening. An abraded 'bunch of grapes' decorates the bowl. There are 10 comparable pipes from an excavation in Malta²⁵ and, without provenance, 2 in the reserve collection of the Archaeological Museum in Gozo.²⁶ 18th – 19th century.

QH062 Shank fragment. 10mm opening. Light creamy body. Bands of rouletting decorate the stepped termination. Abraded.

QH063 Mould made pipe in light pink clay. Round bowl with slightly flaring rim, keel joint, shank and termination. Bowl and shank end are gadrooned. Incised lines accentuate the keel joint. The whole is glazed olive to brown

apart from the lip of the rim and some worn patches around the bowl. Glazed pipes are relatively rare. Splash glazes have been noted in Israel, Lebanon and Yemen.²⁷ In Tunis a few blue and white glazed pipes were produced, almost certainly at the Qallaline factory where other domestic wares were being produced.²⁸ Robinson (1985)²⁹ published 4 from Corinth, speculating 'they may be a local Corinthian product,' although 'pipes with green and yellow glaze do occur in late 17th century Poland.' Bikic has recorded green glazed pipes in Belgrade, Serbia, attributed to the 17th century.³⁰

QH080 Stem fragment of European pipe. White clay stained brown. 1.5mm bore. 19th century.

QH093 European pipe. Stem incomplete. Pipeclay stained chestnut brown. Bowl opening 19.5mm just out of symmetry. 1.5mm bore. The bowl has arabesque and arched ribbed decoration. The left hand stem has 2 illegible characters (Mc?) then DOUGALL and GLASGOW on the reverse. Duncan McDougall & Co. operated from 1846-1967. They were one of the largest pipe manufacturers in UK and exported their product in huge numbers. Late 19th century.

QH104 Bowl and shank fragment. Most of rim missing. Yellowish brown clay with red brown stain possibly caused by the marine environment. The bowl has neatly incised flutes under a band of rouletting. Under the bowl is a square ended keel delineated by incised lines containing a broad band of rouletting. There is also a band of rouletting around the upper junction of bowl and shank and around either side of a swollen termination. Shank opening 15mm. On the underside of the keel is a 5mm diameter maker's mark impressed with Arabic characters. Makers' seals which rarely occur in the Ottoman factories before the 18th century are almost universal by the 19th. They are sometimes meaningless imitations of an Arabic monogram.³¹

QH180 Fragment of egg-shaped bowl with vestigial shank. Brown body with red stains. There is a pronounced and carefully delineated keel with a diagonally incised 'chin strap'. A

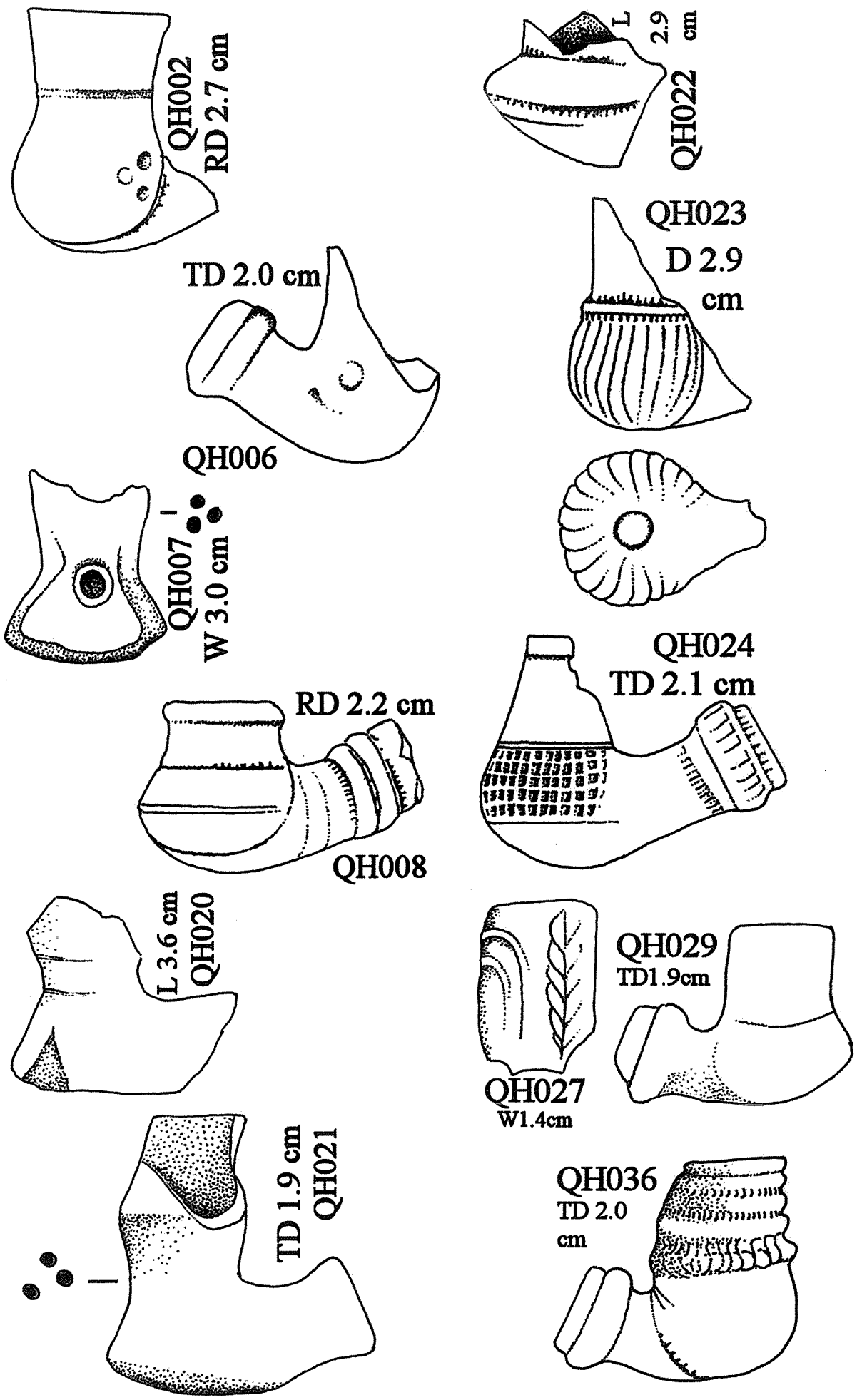
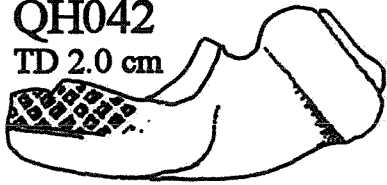
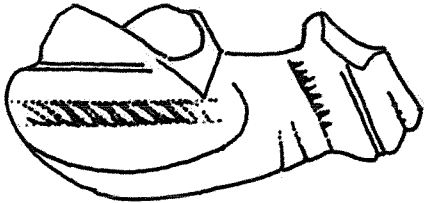
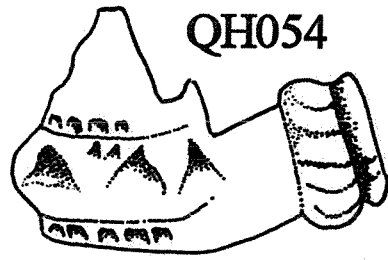


Fig. 4. Tobacco pipes from European and Ottoman sources, found at the Lazaretto excavation

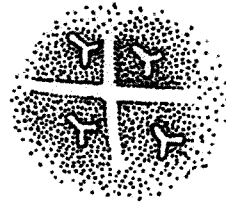
QH042
TD 2.0 cm



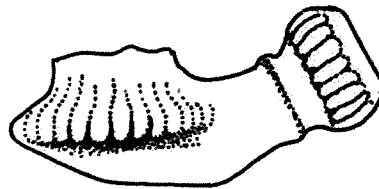
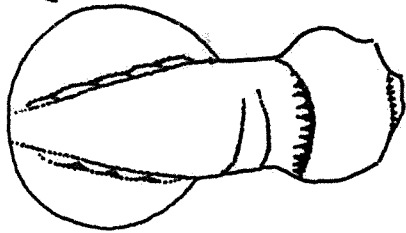
QH054



QH045 TD 2.9 cm

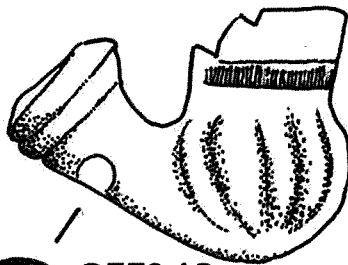
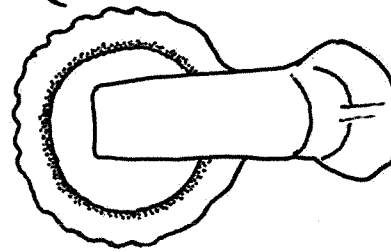
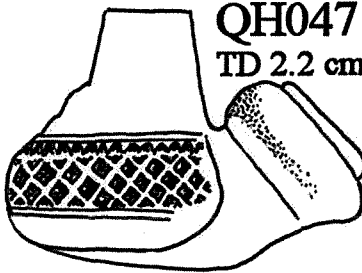


TD 2.0 cm



QH055 D 3.1 cm

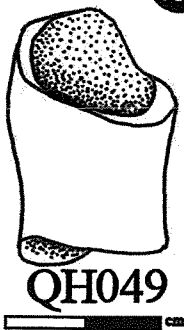
QH047
TD 2.2 cm



QH061
L 4.4 cm

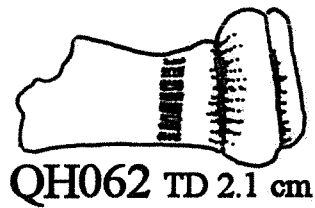


QH048
TD 1.9cm

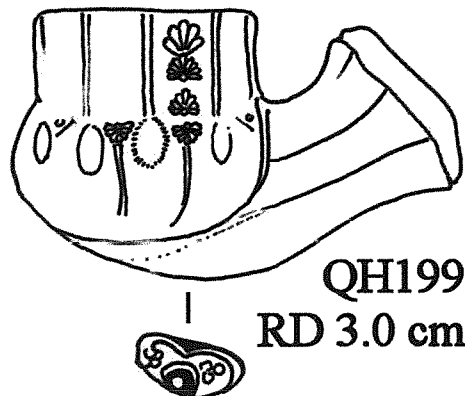
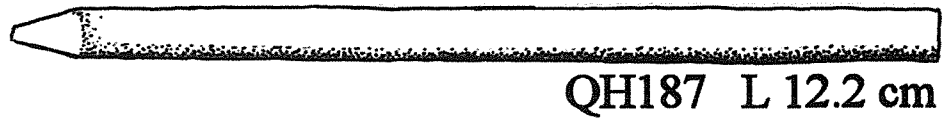
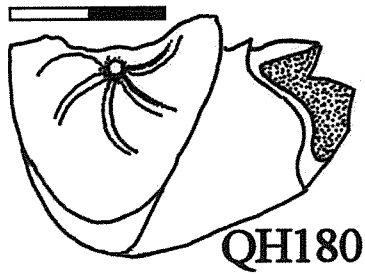
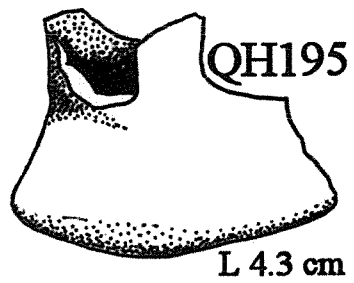
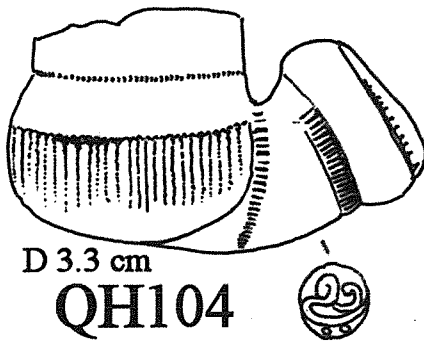
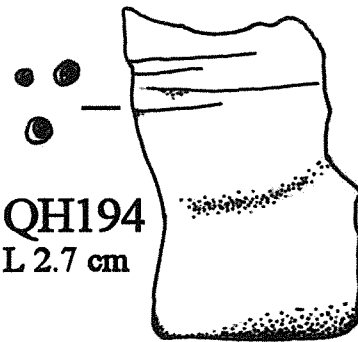
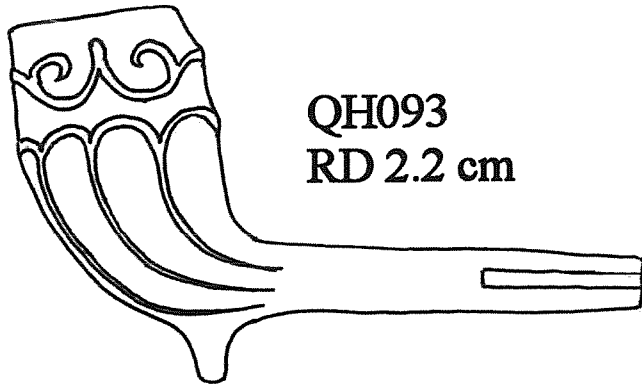


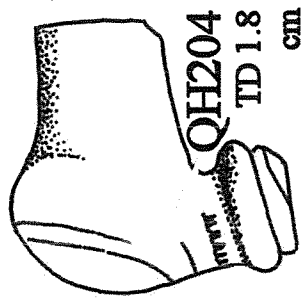
QH049

QH063
RD 2.5 cm

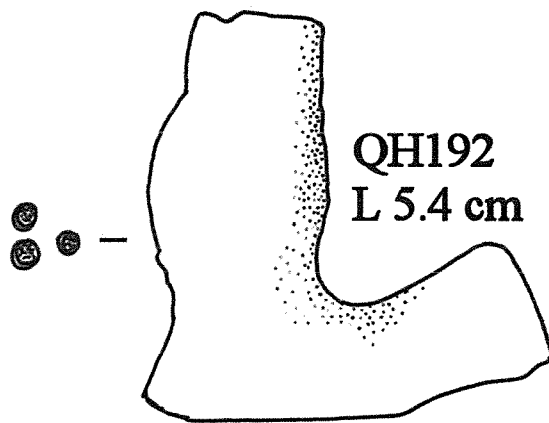


QH062 TD 2.1 cm

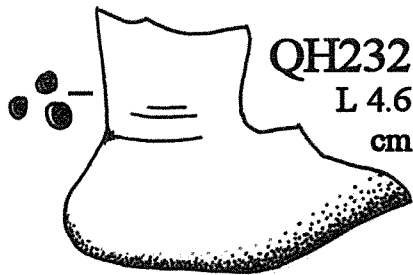




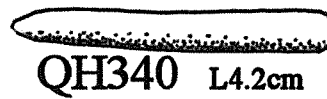
QH204
TD 1.8
cm



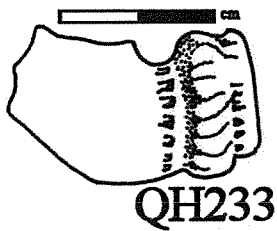
QH192
L 5.4 cm



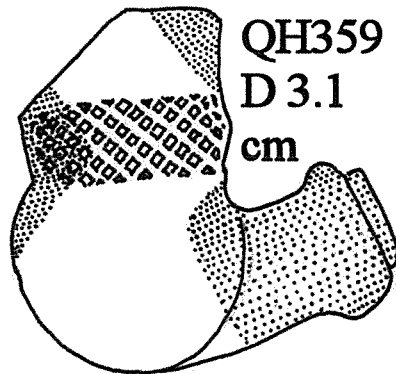
QH232
L 4.6
cm



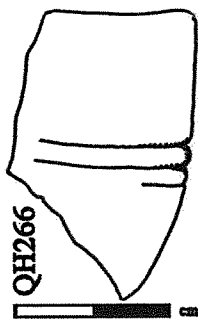
QH340 L 4.2 cm



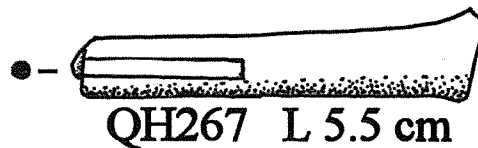
QH233



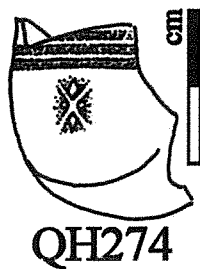
QH359
D 3.1
cm



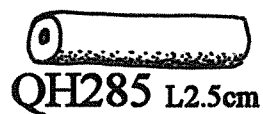
QH266



QH267 L 5.5 cm



QH274



QH285 L 2.5 cm

pattern of seven arcs radiating from a central raised dot decorates both sides of the bowl albeit with the upper portion missing. A similar design is impressed on a lily-shaped bowl at Dar Othman in Tunis-Medina (photographed but not drawn). After 1850.³²

QH187 White clay pipe stem, pointed at one end. Length 125mm, outside diameter 6mm. Appears black and partially red. This unusually straight and cylindrical stem seems to have been re-worked to use with a chibouk.

QH192 Flat base bowl with shank and hand turned rim. Dark beige clay speckled with gold spots. Damaged rim. Undecorated. 3 hole grate between rim and base. 10mm shank opening. Venetian 1670-1750.

QH193 Round bowl with short swollen ended shank, the junction forms a keel. Most of the tapering rim is missing. Shank opening 7mm. Yellow brown clay. 18th century.

QH194 Bowl with the lower part of a turned rim inclusive of 3 hole grate. Shank missing. Light terracotta surfaces, internally grey. Venetian 1670-1750.

QH195 Bowl fragment, most of rim and shank missing. Light brown clay with marine growth and dark stains. A 7mm diameter hole is bored centrally in the base of the bowl, it is so symmetric that it appears to have been drilled, reason unknown. Venetian 1670-1750.

QH199 Parallel faceted rim on rounded panelled bowl. The faceted shank flares to a scalloped termination. Buff coloured clay with signs of burnishing. Much of the shank and termination is missing. The rim panels are decorated with palmettes and floral fans. Bowl panels are divided by double incised lines ending in floral triangles at the waist, each panel contains an impressed oval of rouletting. On the left side of keel under the bowl is an oval stamp. The style has been found in numerous places as diverse as Tunis³³ and Alaska³⁴ and was produced in Turkey from the 19th to the early 20th century. Hayes says after 1850.³⁵ However, a similar pipe was excavated from a Maltese sewer abandoned in 1840.³⁶

QH204 Rounded bowl with short shank leading to stepped termination. Much of the vertical rim is missing. Mould made. Terracotta clay with transparent slightly yellow glaze. 9mm shank aperture. A band of rouletted decoration spans the underside of the shank. The bowl has several randomly incised lines. 18th century.

QH232 Bowl, with fragment of shank and rim, at the base of which is a 3 hole grate. Dark beige body and a smattering of 'gold' spots. Venetian 1670-1750

QH233 Fragment of shank and stepped termination. Light terracotta clay with dark stains. Shank aperture 8mm. The shank end is gadrooned with bands of rouletted decoration on either side.

QH266 Rim fragment. Dark grey clay. Raised horizontal band incised either side around junction of rim and bowl.

QH267 Fragment of European pipe stem. White clay stained brown. McDOUGALL stamp on left hand stem and GLASGOW on the right. Late 19th century.

QH274 Bowl and shank fragment. Dark brown clay. Vestige of horizontally grooved rim. The rounded bowl has an impressed decoration consisting a diagonal cross with raised dots to left and right and raised diamonds above and below the intersection. Fragmentary keel joint. 18th century.

QH285 Ochre stained pipeclay stem fragment. 1.5mm bore. European. 19th century.

QH340 Fragment of smooth, solid, dull black stem, 4cm long slightly tapered at one end.

QH359 Rounded bowl with rim and shank. The rim has a gentle swelling around the middle and slightly fluted lip. Around the lower half of the rim is a band of impressed lattice decoration. Stepped termination. Yellow clay. The body, rim and shank have large patches of blue and ochre glaze. 10mm shank opening. Much of the rim is missing. 18th-19th century.

Discussion

Whilst it is difficult to date most of these artefacts precisely given that there is no secure stratification, there are a number of characteristics which have been used for approximate dating,³⁷ i.e. style, physical size, clay colour, presence and shape of a keel, diameter of the shank orifice, monogram.

At the turn of the 16th century there is a report that Turkish sailors were enjoying their tobacco and pipes courtesy of the English.³⁸ By 1612 European travellers in the Near East were describing tobacco pipes with wooden bowls and long cane stems.³⁹ For religious and for practical reasons Ottoman Turks enforced the death penalty for anyone caught smoking. In fact the practice only became legal in the early 1720s following a counter-*fatwa* by the Damascene mufti.⁴⁰ This ban and the fragility of the material may explain the dearth of early artefacts. Hayes⁴¹ suggested that evidence for 17th century pipes should be sought outside the major cities where the *fatwa* may have been more difficult to enforce. Given the introduced tradition of burning tobacco in a ceramic bowl, the availability of clay and an established pottery industry, clay bowls (*chibouks*, *pipi tal-Qasba*) were an obvious development. Latterly there were centres of production in many towns and cities. In some workshops the level of sophistication reached an art form. However *pipi tal-Qasba* were never manufactured on an industrial scale in Malta.

Regarding the pictorial record; a round bowl with slightly flaring rim cf. QH048 was illustrated by Louis Ducros in a watercolour of 1778 'Group of young Gozitan people folk dancing'.⁴² Other similar pipes are illustrated in an album of Maltese costumes in the National Library of Malta⁴³, 'Peasant' and 'Gentleman' being distinguished by the length of their reed stems. Badger's 'Country man' 1838 and the proprietor of Brockdorff's 'Maltese pothouse' 1849 are both enjoying reed pipes which have characteristics recognisable in this collection. Such was the popularity of tobacco that in 1801 priests in Malta were expressly forbidden to smoke in public, it being beneath their dignity. However they were free to do so in private.

Tobacco, despite its widespread use, was never a big crop in Malta.⁴⁴ There are records in the archive of it being imported during the

last half of the 17th century, particularly between 1654-1665 and 1684-1694.⁴⁵ Ports of origin were in Anatolia, Dalmatia, France, the Greek mainland and islands, Italy, the Levant, Lisbon, the Maghreb, Tripoli and UK.

In the 18th century tobacco and pipes were being imported.⁴⁶ Shipping cargoes listed in *Il Mediterraneo* and *Lloyd Maltese* include both those items throughout the 19th and early 20th century. There is specific mention of pipes; in 1841 four times from Italy, twice from France and one part cargo from UK, in 1849 and 1869 from Anatolia. Thereafter and through to 1920 imports are mentioned from France but more frequently from the UK.

Conclusion

Although within living memory some Maltese potters made pipes for private clients, the majority appear to have been imported. The pictorial evidence indicates a high proportion of these artefacts originated in Balkan, Greek or Turkish territory. The glazed pipes are possibly Balkan. Particularly when the Venetian pipes are included the written evidence for a lively east - west trade is borne out. Increasing taste for the European style in later years is also confirmed in shipping records.

Travellers and traders by sea inevitably faced the hazard of disease. Malta's quarantine facility was obviously first class, enduring its tedium seems to have been somewhat alleviated by the narcotic effect of tobacco.

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St John Simpson has been my mentor in all matters relating to *chibouks*. David Higgins provided a prompt and accurate assessment of the Northern European pipes.

Philippe Gosse communicated his forthcoming publication on pipes from the Marseille quarantine.

Notes

- 1 J. Seal, *The Wreck at Sharpnose Point*, (London. Picador, 2001), 173
- 2 P. Cassar, *Medical History of Malta*, (London. Wellcome Historical Medical Library, 1964), 285.
- 3 Ibid., 166.
- 4 D. Cutajar, (1987) 'The Malta Quarantine 1654-1694', *Mid-Med Annual Report* (1987), 29.
- 5 Cassar, 173.
- 6 Ibid., 300 (Archives of the Order of Malta (AOM) 265,1701, f.65).
- 7 Ibid., 298.
- 8 Ibid., Cassar, 295.
- 9 Ibid., Cassar, 305.
- 10 Ibid., Cassar, 288.
- 11 A. Russell, *The Natural History of Aleppo*, Vol.II, (London. 1794), 381. Elsewhere, Marcel Pagnol describes how in 18th century France, a prophylactic by the name The Vinegar of the Four Thieves had 'worked miracles during a previous plague in Toulon by destroying the invisible germs which propagate infection. Take a sprig of rue from the very top of the plant, a clove of garlic, a quarter of a walnut and a piece of rock salt the size of a pea'. M. Pagnol, *The Time of Love*. (London. André Deutsch, 1991).
- 12 Cassar, 289-91.
- 13 Ibid., 86-7.
- 14 Ibid., 296.
- 15 Ibid., 294.
- 16 Public Record Office, London. FO 102/63.
- 17 Preliminary Report provided by Nathaniel Cutajar, at the time Curator, National Museum of Archaeology, Malta.
- 18 J.W. Hayes, 'Turkish clay pipes: a provisional typology', Type XXII, in P. Davey, (ed.), *The Archaeology of the Clay Tobacco Pipe*, BAR International Series 92, (Oxford. 1980), 6.
- 19 J. Wood, 'Pipes from Malta: a short account of the tobacco pipes found in Dockyard Creek, Birgu', *International Journal of Nautical Archaeology*, 27.4, (1988), 313-330.
- 20 G. Boscolo, *La pipa Chioggiotta*, (Chioggia. 2000), 7.
- 21 According to Giancarlo Scarpa. Personal communication Philippe Gosse.
- 22 Personal communication Philippe Gosse 21.07.05
- 23 R. P. Harper & D. Pringle, *Belmont Castle: the Excavation of a Crusader Stronghold in the Kingdom of Jerusalem*, (Oxford. Oxford University Press, 2000), figures 13.1-18 and 13.2-31.
- 24 R. Robinson, 'Tobacco pipes of Corinth and the Athenian Agora', *Hesperia* 54 (1985), 162.
- 25 Wood (1998), Catalogue no. VTR 1994: 34, 38, 40, 42, 47, 90, 94, 95, 108, 138.
- 26 J. Wood, 'Pipes from Gozo (Malta)', *Society for Clay Pipe Research Newsletter* 36, (1992), 18-31.
- 27 Harper & Pringle, 152.
- 28 J. Wood, 'A study of clay tobacco pipes in Tunis: Were they traded to Gozo (Malta)?', *Post Medieval Archaeology* 33, (1999), 233-241.
- 29 Robinson, 172.
- 30 Personal communication Philippe Gosse 21.07.05.
- 31 Robinson, 186.
- 32 Hayes (1980), 3-10.
- 33 Wood (1999).
- 34 Castle Hill Archaeological Project, Sitka, Alaska. Catalogue no. 98-113. Personal communication Dave McMahan.
- 35 Hayes (1980), 7.
- 36 Under the direction of Nathaniel Cutajar, at the time Curator, National Museum of Archaeology, Malta. The sewer system served occupants of the Auberge de Castille, one of the most impressive Baroque buildings in Valletta. It was used to quarter both French and English regiments between 1798 and 1840. Personal communication Nathaniel Cutajar.
- 37 I have used Hayes (1980) and Robinson (1985). Any inaccuracy is mine.
- 38 J.T. Bent, *Early Voyages and Travels in the Levant*, (London. 1893), 49, note 1.
- 39 W. Lithgow, *Rare Adventures*, (1632), cited in A. Dunhill, *The Pipe Book*, (London. A. & C. Black, 1924), 152-3.
- 40 St J. Simpson, 'An ordeal with a pipe: changing attitudes to smoking in the Near East during the 17th-18th centuries', *Society for Clay Pipe Research Newsletter* 47, (1995), 20.
- 41 J.W. Hayes, *Excavations at Sarachane in Istanbul, Vol. 2: The Pottery*, (Princeton. Princeton University Press, 1992).
- 42 T. Freller, *Gozo, the Island of Joy*, (Malta. Colour Image, 1997), taken from: *Voyage en Italie, en Sicile et à Malte (1778)*, J.W. Niemeijer and J.T. de Booy (eds.), 2 vols (Paris. Martial, 1994)
- 43 An untitled album of Maltese costumes by the Maltese artist Francesco Zimelli (1749-1803). Melitensia Collection, National Library of Malta.
- 44 After some initial opposition the crop was introduced on a small scale at the beginning of the 18th century. B. Blouet, *The Story of Malta*, (Malta. Progress Press, 1967), 125.
- 45 Cutajar, 53.
- 46 Some Maltese were smuggling contraband tobacco into Sicily. In: J. Debono, *Trade and Port Activities in Malta 1750 - 1800*, (Malta. PEG, 2000), 14





Plate 8. Tobacco pipes from European and Ottoman sources, found at the Lazaretto excavation

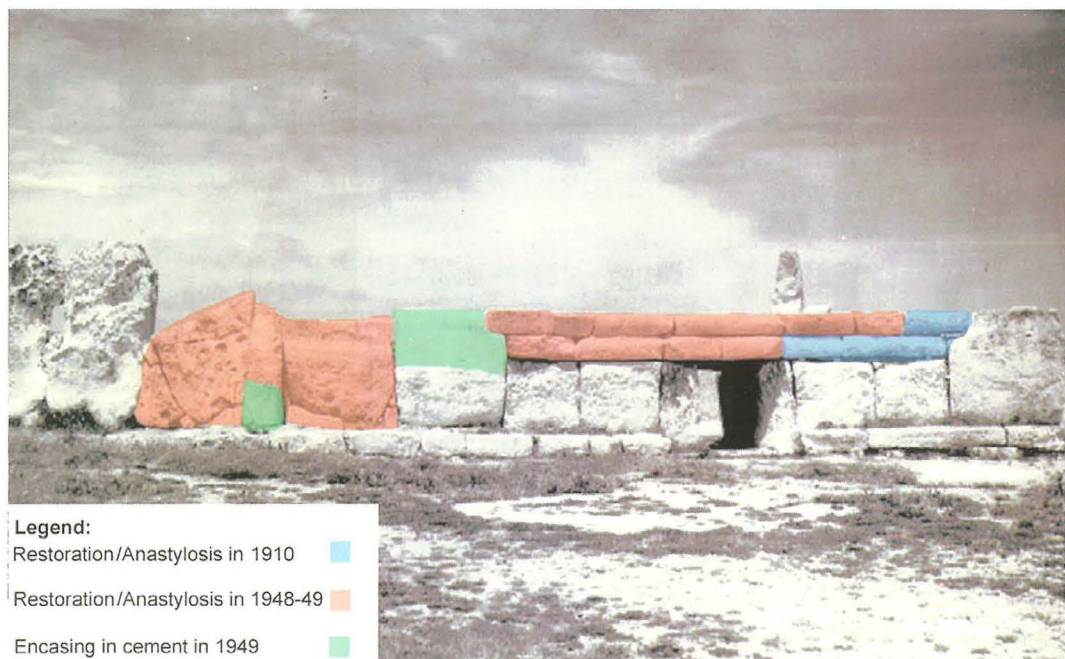


Plate 9. Different phases of restoration of the façade of Haġar Qim