

SANITARY ORGANIZATION IN MALTA IN 1743

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The configuration of the southern aspect of Valletta presented a different appearance in 1743 from the one we see to-day. Between *Porta del Monte* (now Victoria Gate) and Lascaris Tunnel stretched the Garden of the Grand Master originally planted by Grand Master Jean Paul Lascaris Castellar (1635-57). Over the tunnel stood the residence of the Superintendent of the Port. Beneath the Bastion of St. Barbara were built a number of grain stores, known as the Magazines of Perellos after their founder Grand Master Ramon Perellos (1697-1720), and a chapel (1712) dedicated to Our Saviour. This chapel, which has since been demolished, served for the celebration of the Mass for the crews kept in quarantine on their own ships in front of the wharf.

The quay was known as the wharf of the *Barriera degli infetti o della quarantena* because it was reserved for the unloading of goods and passengers from ships in quarantine. At its extreme end, beneath the Post of Castille, there was a hall for the detention of passengers and also the *barriera*, which was an arrangement of railings made of poles, bollards and beams intended to prevent passengers and crews from coming into close quarters with the inhabitants.

The magazines of Perellos and the chapel were demolished in 1853. The *Barriera* and the nearby arcades ("*loggiato*"), which together with the *barriera* served as a *Parlatorio* or speaking-place seem to have been removed at this period or somewhat earlier (11).

That part of the shore between Lascaris Tunnel and the present Custom House was, in 1651, turned into a small creek by Bali Fra Giulio Amati to provide a sheltered place for boats during bad

weather. It was known as *Porto Pidocchio*, or Port of the Louse, because, at the time of the Knights, the galley oarsmen used to go ashore in this creek to "bask in the sun and delouse themselves" (12).

During the 1743 plague precautions, boats were debarred from approaching that part of the wharf extending from Lascaris Tunnel to the *Barriera* but were made to discharge and embark men and goods only on that part of the shore that stretched inwards from *Porto Pidocchio* towards the Marsa.

On the 8th of June ships coming from Calabria and the Kingdom of Naples were allowed to enter harbour after being inspected by a Health Guardian who had to make sure that they carried no goods from Sicily. The Health Commissioner had to ascertain that the ships had not touched ports in Sicily and had had no dealings with Sicilian or other vessels coming from suspected places or with infected ships.

Ships from places south of Catania and Palermo were placed in quarantine for twenty-four days, but vessels coming from ports in Sicily north of these two towns or from Messina and its neighbourhood were driven away without being permitted to land cargo of any kind. This was the fate that awaited a vessel which reached Malta from Messina on the 7th June with Maltese passengers on board. Only dispatches and money were landed "with all due precautions" (13). On the 11th June two other ships arrived from Messina. They, too, were prohibited from "touching any part of the Islands of Malta and Gozo" and ordered to return to Messina but the Health Commissioners were permitted to receive moneys brought by these ships after the coins had been immersed in vinegar.

A part of the sea in what is now called

French Creek was reserved for the detention of ships under quarantine. This area was bounded to the south-west by the shore beneath the Heights of Kordin as far as Ghajn Dwieli then known as the Garden of Bailiff Francesco de Sousa Menezes; and to the south, east and north by a floating barrier made of a central pontoon and a series of masts chained to one another on each side of it. In this Quarantine Enclosure, sealed off from the rest of the creek, ships were anchored in the following order from south to north: those with a clean bill of health hailing from Portugal, Spain, France, Genoa, Leghorn and Civitavecchia; further on were moored suspected ships; and lastly vessels with a foul bill of health which were berthed immediately near the Military Guard House towards the Marsa in such a position that they were in constant view of the guards. Rowing boats were fastened close to the shore near the Guard House.

The Quarantine Enclosure was watched, day and night, by a number of armed guards under a knight who was allowed to leave his post to have lunch and dinner at his auberge but was expressly prohibited to "go hunting on Kordin Heights or to take mattresses to the Guard House". The sentries were distributed as follows: (a) on the pontoon moored in the middle of the creek and forming part of the floating barrier; (b) at the Guard House on the wharf; (c) on the mole near the garden of Bailiff Francesco de Sousa; and (d) midway between this garden and the Guard House. Apart from these soldiers, three boats of the Health Office also kept a constant watch inside and outside the Enclosure and carried at the prow the flag of the Order (white cross on a red field) as a distinguishing mark. Transgression of duty on the part of the soldiers and other employees was punishable by death.

The scope of the measures outlined above was to prevent persons, boats and ships from entering and leaving the Quarantine Enclosure and to prevent ships within it from communicating with one another. In fact the sentries had orders to shoot anyone disregarding their com-

mands. It is known that on the 11th October, 1744, an English sailor, who had defied the sentry's order not to go ashore, was shot dead by the guards (14). Only rowing boats were allowed to leave the Enclosure to proceed to the *Barriera* across the harbour. They did so at specified times, the signal being given by the hoisting of the flag of the Order on the stores of Grand Master Perellos already mentioned, where the Venerable Congregation of the Galleys had its offices. The boats carried a white flag as an identification mark and as a *laissez-passer*.

The *Barriera* was guarded by soldiers under the command of a corporal by day and of a knight by night (10th June). No one was permitted to approach the area without the licence of the Health Commissioners or of the Guardian of the Port or of the Health Office Clerk. At night two separate rounds of all ships in quarantine were made to ensure that no boats went in the vicinity of these vessels and that none of the crew communicated with the shore except in the case of an emergency. By a *bando* or proclamation of the 13th August, 1743, the inhabitants were warned not to go to the *bastione delle tre punte* overlooking the *Barriera* and not to talk to the passengers and crews detained in quarantine in that area (15).

Ships reaching harbour after night-fall were kept away from the quayside and made to anchor in the vicinity of the *barque de garde* near Fort Ricasoli until examined by the Health Commissioner the following morning.

A sanitary cordon was thrown round the Lazzaretto in Marsamxett Harbour to ensure that none of the persons confined therein absconded. Troops guarded the establishment by day and by night. Sentinels were posted at strategic points of Manoel Island to keep unauthorised persons at bay and given instructions to shoot anyone disobeying their orders. The Health Commissioner himself had to announce his presence when entering the Lazzaretto by sea by hoisting a flag on his boat.

On the 11th June a more vigorous surveillance was imposed along the shores

of Malta. Day duty was performed by the *soldats des vaisseaux* and by the *canoiers de la ville* while the night watch was entrusted to the *tourriers* and the *guardiens* provided by the Municipality.

This sanitary cordon stretched from north to south along the eastern seaboard and comprised the following towers: Ta' l-Aħrax Tower (Torri l-abjad), Torri l-aħmar, St. Paul's Tower, Qawra Tower, Ghallis Tower, Torri Qaliet Marku, Madalena Tower, St. George's Tower, Notre Dame de la Grace Tower (Torri tax-Xgħajra — now demolished), Żonqor Tower, St. Thomas Tower, Xrop il-għagin Tower, Delimara Tower, Ras iċ-ċaġhaq Tower, San Luciano Tower, Post tax-xaqqa, Torri Wardija (near Bubaqra), Post ras bajjada, Torri tal-Hamrija and Post Hagra s-sewda.

Ships attempting to land men or cargo were warned to keep off and go out to sea again; in case of non-compliance they were to be fired at by musketry or artillery. This rule was relaxed only in case of stormy weather when there was the risk of shipwreck. In such a circumstance the ship was allowed to drop anchor but not to disembark crew or goods or to hand in bills of health or letters.

One of the theories that tried to account for the origin and diffusion of plague ascribed the disease to a "vitiated" or "infected" atmosphere. Putrefaction was especially feared. In order to minimise the danger from this alleged source the Grand Master issued a *bando* which laid down the conditions under which horses, mules, dogs and cats dying in Valletta, Floriana, Senglea, Birgu and Bormla were to be buried. These animals were to be interred in specified places outside the fortifications under two "palms" of earth so that they would be well covered from view and their stench prevented from reaching the neighbourhood (16).

Although the epidemic at Messina had abated towards the end of the year, the Health Commissioners of Malta did not relax their quarantine measures. They continued to be as strict as ever with all shipping even with units of their own navy in spite of the fact that these ships had not touched any Sicilian Ports; thus,

for instance, a *tartana* though coming from as far north as Civitavecchia and Naples was placed in quarantine on the 24th December with its crew of 168 men and 25 passengers. Among the latter was the new Inquisitor to Malta, Mgr. Paolo Passionei, who was made to spend his quarantine at the *Giardino detto de Bichi* (17).

There was still one contingency that exposed the inhabitants of Malta to the risk of infection in the eventuality of a person absconding from quarantine and taking refuge in a church. In those days chapels and churches enjoyed the privilege of sanctuary. This meant that if a transgressor of the law entered a church or other building with ecclesiastical immunity the police had no right to enter the premises and capture him. There was, therefore, the possibility that escapees from quarantine or the Lazzaretto would avail themselves of this protection to foil the public health authorities with possible fatal consequences to the community if the escapees happened to be affected with plague. Suspension of this privilege of sanctuary pertained only to His Holiness the Pope. Temporary abolition of sanctuary had been sought and obtained by the Order on previous occasions from 1705 onwards. Recourse was, therefore, made in 1743 to His Holiness to discontinue this privilege for a period of ten years to enable the Order to remove from churches and other immune places all those suspected of harbouring contagious illness and to hand them over, with their personal belongings, to the sanitary authorities. The assent of the Pope reached the Grand Master, through the Bishop of Malta, on the 7th December, 1743, and in this way a vulnerable breach in the internal defences of the public health organisation was effectively healed (18).

The last hurdle which the Order had to overcome was of an economic kind. The disruption of commerce with Messina and other places in Sicily brought many Maltese ships to a standstill with consequent hardships to their owners and crews. It also "reduced to extreme misery the poor of the Island and especially of Gozo

who were engaged in the cotton trade, the weaving of cloth and other manufactures". The government felt it its duty of "Christian charity and especially of the pious institution of this Sacred Order" to help these people. An "ad hoc" commission was appointed on the 16th November, 1743, to provide work for the unemployed and to furnish adequate financial relief to the infirm (19).

No further casualties were reported in Messina after the 8th September, 1743, but not before 43,400 citizens had been carried off; sporadic cases, however, continued to crop up in its environs over a protracted period. On the 11th December, 1743, a certain Dr. Pietro Polacco, a Venetian physician, was called to Messina to direct a "general depuration" of the city. The interiors of the houses were cleaned with salt water and then white-washed; the rooms where plague patients had died were fumigated with a mixture containing naval tar, sulphur, incense and other ingredients; cotton goods were immersed in boiling water and even weapons and jewellery were disinfected with vinegar. These operations are described in great detail in a lengthy communication, signed by Dr. Pietro Polacco himself, which was sent to the Grand Master on the 28th February, 1744, by the Senate of Messina. Yet in spite of this extensive cleaning up of the city, Messina had not yet been allowed to resume free trade communication with the rest of Europe by April, 1745 (20). The Order of St. John took no risks with regard to Malta and it was only on the 23rd February, 1746, that the Grand Master considered that the threat of plague had vanished, that it was safe to call off the extraordinary quarantine restrictions and dissolve the special Commission of Knights appointed on the 29th May, 1743 (21). He did so not only with feelings of relief but also with pride at the success of the security measures imposed by the Commission so much so that it was decided to mark the deliverance of Malta from plague by the striking of a commemorative bronze medal.

The scene portrays the St. Elmo extremity of Valletta protected by a barri-

cade of stakes. To the left rises an obelisk bearing a civic crown near the top, in honour of the Grand Master, and a Greek legend on its base. This inscription is a motto taken from a medal of the Emperor Trajan and meaning Protector of the City. On the cornice of the base stands a cock, a symbol of vigilance. Round the margin of the medal are the words TUTATORI SUO, derived from a medal of Emperor Probo and signifying "To its protector". The bottom carries the date 1743 (22).

When we survey the arrangements made by the Order of St. John of Jerusalem we are struck by the lack of purely medical provisions and by the absence of physicians among the Commissioners and the other participants in what today would be considered to be a pre-eminently medical enterprise. In delivering judgment, however, we must bear in mind that in 1743 the discipline of public health as a special branch of medicine had not yet arisen and that medical science knew nothing about the aetiology and propagation of plague. Indeed, medical progress in the 18th century was slow and painful not only as regards aetiology and pathology of disease but also as regards therapy. In fact how would Maltese physicians have treated their plague-patients if the epidemic had reached the Island? They would certainly have followed the current methods of treatment in vogue at the time in Europe as set forth in one of the latest manuals on the management of plague. A copy of this *Trattato de' remedj contro la peste* ("Treatise on remedies against Plague") is attached to the other papers forming the collection of documents on which this study is based (23). It was written by a Signor Elvezio, physician to His Royal Highness the Duke of Orleans and published in Venice in 1743 — the same year of the Messina pestilence.

Treatment consisted in the administration of emetics, such as preparations of ipecacuanha and of antimony, purges and bloodletting. Great store was laid on the promotion of sweating by a so-called "anti-pestilential sudorific" containing a

dried extract of the gall of the pig and powdered liver of vipers. A decoction of quinine was also recommended for the same purpose. The idea behind these measures was to rid the body of the poison of plague by every evacuant means. It was, however, realised that this drastic treatment weakened the patient to a great extent. To counteract this unwanted effect, the patient was given a Gold Tincture consisting of gold dissolved in a solution of nitric acid, oil of camphor and alcohol.

Opium was prescribed with great caution to combat restlessness and delirium. The buboes were treated by the application of emplastra to promote pus formation and then incised and evacuated. To escape catching the disease, several preservatives were available. These included the carrying on one's person of a lemon into which dried cloves were inserted, or else a small bag containing nutmeg, camphor and other aromatic substances.

Persons were fumigated or smoked with burnt gunpowder and asafetida. The air in houses was purified in a like manner or else by the heating of vinegar, cloves and other herbs.

It is obvious, from the foregoing considerations, that physicians were too overwhelmed by the medical ignorance of the time to make a valid contribution in the fight against plague. They were only aware that there were endemic foci of plague which periodically flared up to assume epidemic proportions and that these foci were in the Levant from where they invaded Europe along the trade routes by land and by sea. The impact of bacteriology on the investigation of the causes of disease started to make itself felt only one hundred years later while the causative agent of plague and its mode of conveyance to man by the flea from infected rats were not discovered until 1894 and 1897 respectively.

On the other hand, when we compare the sanitary measures enforced in 1743 with modern methods of plague control

we find that there were only a few of the present procedures which were not applied in Malta in those days, i.e. the search for signs of plague in the rodent population of the Island and the launching of a drive for the destruction of rats. Except for this neglect of the rat, the sanitary precautions planned and executed by the Knights are still essentially those adopted by the public health authorities of our own day, i.e. (a) quarantining of infected areas and of ships hailing from them, (b) segregation of contacts, and (c) isolation and disinfection of suspected merchandise. Although, therefore, the Knights were far removed from us in scientific knowledge we cannot fail to be impressed by the soundness of their principles of public health prophylaxis, the rationality of the methods employed and the welding into an integrated sanitary system of their naval, military and economic resources. We are also reminded that in the fight against disease the wise utilisation of non-medical procedures and personnel has its place as much as the application of the results of medical knowledge and research.

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(References 6 and 7, in the first part of this article should have read "Royal Malta Library", instead of "Royal University of Malta".)