

THE BURNING OF SHIPS AS A SANITARY MEASURE TWO HUNDRED YEARS AGO IN MALTA

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The Mediterranean Sea, under the influence of the Greeks, had become a highway of maritime activity and commerce by the fifth century B.C. Its shores were dotted by thriving seaports in Phoenicia, Greece, Crete, Egypt, Carthage, Southern Italy and Sicily.

The wooden ships that called at these ports carried corn, oil, wine, timber, fabrics and wool.

In this navigational network the Maltese Islands became a nodal location especially astride the routes to and from the Levant for refuge from storms and from pirates, for ship repairs and for the provision of food and drinking water supplies. With the passage of centuries these ships, initially manned by rowers and later on driven by sail, became quite sizeable and crowded with large crews. For most seafarers, traders and travellers - even as late as two hundred years ago - a sea voyage in the Mediterranean was a hazardous enterprise for these men had to face not only misadventure from storms, shipwreck and capture by pirates but had also to contend with a hidden enemy on board itself, i.e. an attack by plague.

Woven throughout our medical history is the constant struggle against the possibility of an invasion of the Maltese Islands by pestilence introduced by plague-infected ships. Indeed such a threat was uppermost in the minds of the Malta port health authorities from the time of the Black Death in 1348 to the last

major outbreak that struck the Maltese Islands in 1813 (1). In the intervening centuries the general medical conviction was that plague was a "contagious" disease transmitted from person to person through bodily touch or through the handling of fomites or "susceptible" objects such as clothing, merchandise, paper, etc that had been in contact with plague-stricken patients.

As there were no effective medical remedies to prevent the dissemination of this rapidly fatal illness or to treat it, the only measures that were adopted by our predecessors to avert and to stem the advance of plague were (a) the establishment of a Lazzaretto for the isolation of crews and passengers reaching Malta for a period of quarantine lasting forty days or less before allowing them to communicate with the population; (b) the eviction of infected ships from Maltese harbours (sfratto); (c) their disinfection by flooding their hulls with sea water and, after drying them, washing their interior with vinegar and finally "smoking" them with the profumo (2), (d) destroying the ship wholesale with its cargo by burning it.

What follows is an account of the case-histories of three plague-infected ships that came to Malta in the late eighteenth century and were destroyed by burning to eradicate the "contagion" on board.

THE VENETIAN KETCH "LA BUONA UNIONE" - 1781

On 6 July 1781 the Venetian ketch named La Buona Unione entered Maltese waters. It had left Alexandria on 12 May with a crew of nine and eighteen Turkish passengers bound for Sfax (Tunis). It carried a cargo of flax, wool, linen, camels' hides and rice (3).

The master declared that eight days after leaving Alexandria plague appeared on board and, in the space of nineteen days, carried off four crew members and ten passengers, the last casualty occurring on 10 June. He approached the island of Cerigo (south of Greece) and later Sfax but he was refused entry in both ports because neither of them had a Lazzaretto for the performance of quarantine.

In conformity with the Health Laws of Malta, the Sanitary Commissioners (4) ordered the eviction of the ship (sfratto) from the island after offering to provide it with the necessary food and water supplies. On the receipt of this order the master stated that he was prepared to submit himself and his ship to the most rigorous quarantine measures rather than leave port. In fact he declined to do so as he felt sure that there was the plague in the bulkhead of his vessel. He added that what remained of the crew and passengers had not succumbed to the disease thanks to the precautions he had taken to limit its

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spread. These consisted in closing the hatchways of the bulkhead and the rooms where various effects belonging to the passengers had been stored. Furthermore, he had ordered the survivors to stay on deck.

The Sanitary Commissioners reported all this to the Grand Master as the Head of State. He appointed a board composed of the Chief Government Medical Officer (protomedico), ex-Sanitary Commissioners and seven high ranking Knights of the Order to consider the matter. They unanimously decided to evict the ship from port. If, however, the crew refused to leave harbour one had to keep in mind that resort to force to induce them to do so could drive them to despair and to the reckless use of violence - an eventuality that would place the "health of this population" to a far greater danger. Under such circumstances, therefore, it was resolved that the best expedient was "to admit the crew and passengers to the most rigid purification by making them leave the ship in the nude, plunging them in sea water and providing them with fresh clothes to be furnished by their respective consuls". Furthermore the ship was to be set on fire "as soon as possible" under the strictest precautions with all its cargo and fittings.

On 9 July another attempt was made to persuade the Venetian master to leave the island and proceed to either Tunis or to Marseilles each of which had a Lazzaretto.

The master and crew, however, replied that if they were forced to leave the island, they would sail to Sicily and on reaching the nearest coast they would run the ship aground and go ashore to save their lives. Realising the danger to which such "an event would expose the Kingdom of Sicily and indeed the whole of Italy", the Sanitary Commissioners offered the other alternative to the master and crew i.e. admission to the Lazzaretto under the conditions mentioned above including the burning of their ketch.

Having accepted this offer, the men on board were transferred to the Lazzaretto after being divested of their clothes and repeatedly immersed in sea water. They were then given a fresh set of vestments and placed under the surveillance of the Sanitary Guards who were prohibited from coming in contact with their charges.(5)

The ship was towed to St. Julian's bay "some five miles distant from Valletta", where a military cordon was established. It consisted of "numerous detachments" under the command of three knights. Besides, a number of armed rowing boats were posted at the mouth of the bay to prevent anyone from approaching it. The ship was placed "in the chosen spot" and set on fire, by means of "the implements used in similar cases", in the presence of the Sanitary Commissioners.

On the 10 July one of the passengers

showed suspicious signs of plague in the form of a carbuncle below the left inguinal region. He was isolated from the rest of the detainees. On the 14 a sailor felt sick and was also isolated. None of the remaining men had any signs of illness so much so that by the 10 August the Grand Master and his Sacred Council decided to submit the healthy men to a double quarantine (6) as was in fact done. Pratique was granted on the 19 September.

The sick passenger and seaman eventually recovered. The former sailed to Tunis and the latter was discharged from the Lazzaretto after being washed with vinegar and exposed to the profumo.

THE MALTESE CORSAIRING GALLIOT "SANTA MARIA E ANIME DEL PURGATORIO" - 1784.

On 7 June 1784 the Maltese corsairing galliot Santa Maria e Anime del Purgatorio with forty-two crewmen and ten passengers entered Malta harbour. It came from the island of Lampedusa where the corsair had boarded a French polacre, that had lost four sailors from plague, and seized some of its cargo. The Maltese corsairing vessel was attacked by plague on its way to Malta and by the time it had reached Valletta harbour, it had lost twenty-two of its crew from this disease.

The Sacred Council of the Order ordered the disembarkation of the surviving men at the Lazzaretto and the destruction of

the galliot "with all its sails, fittings and cargo ...except objects made of metal" - presumably the guns and anchor. The ship was duly burned "with maximum security and precautions" on the foreshore of the Lazzaretto (7). The pyre lasted two days "until the galliot was reduced to ashes" (8).

THE VENETIAN MERCHANTMAN OF MASTER MARCO RUGONI - 1784

Sometime before June 1784 a Venetian ship left Salonica (Greece) with a cargo of cotton, silks and drugs belonging to a number of merchants who were the subjects of the Bey of Tunis. The ship appeared before Valletta under full sails and made for Marsamxett Harbour. As it passed by Fort St. Elmo the watch on duty hailed the master and asked the routine questions as to the ship's port of departure, the type of cargo and the number of passengers on board. No answer was forthcoming and none of the crew or passengers were to be seen.

The ship continued on its course to the interior of the harbour until it came to a halt opposite the Lazzaretto. The Captain of the Port, in the company of two guards, approached the ship in a boat in an endeavour to talk to the master; but no one appeared and no reply was received to his calls. He ordered the guards to board the ship. They found no one except the master, by name Marco Rugoni, who was lying in a bunk in his cabin in a "moribund state".

Rugoni told the guards that he was the sole survivor of the crew who had died of the plague and their corpses had been dumped into the sea. He himself contracted the disease and in spite of his failing strength he endeavoured to remain at the helm to steer the ship inside the harbour until, overcome by exhaustion and somnolence, he had to give up the effort. He then managed to drag himself to his cabin.

These occurrences were reported to the Grand Master who decided to send on board a medical practitioner who had successfully treated the plague-stricken on previous occasions and "who had to be prepared to sacrifice his own life" - in which case his family would receive "a substantial compensation". The choice fell on the surgeon Stefano

Borg. He was to land the master with the help of Sanitary Guards, convey him to the Lazzaretto and attend to him until he either recovered or died. In either event Borg was to remain confined to the Lazzaretto to undergo a quarantine of eighty days. The surgeon assented to these conditions and proceeded with his task. The master was admitted to the Lazzaretto after being immersed three times in sea water, dried and placed in a bed. He was then given "sugared water in a quart of wine" to drink and allowed to sleep for three hours. On waking he had his bubos incised and drained.

We have not been told whether the patient recovered or not. We do know, however, that the surgeon's hazardous experience had a happy ending for he came out of it safe and sound and was still alive in 1812 and professionally active as surgeon to the Hospital of the Holy Spirit at Rabat near the old capital of Mdina. (9)

While master Rugoni was undergoing treatment at the Lazzaretto, the Council of State of the order of St John was deliberating as to whether the ship was to be deputed and then returned to its owners; or whether it should be towed to the open sea at a safe distance from the Maltese coastline and destroyed by setting fire to it and all its cargo. This second proposal was approved by the Council and carried into effect with the consent of the Venetian government. This, however, was not the end of the story for the episode had serious political repercussions and finally led to armed conflict between Venice and Tunis.

The owners of the cargo claimed compensation for the loss of their merchandise but the Order of St John declined to pay any indemnity on the grounds that (a) in destroying the ship and its cargo it had acted in a manner that any 'civilised government' would have adopted; and (b) the Order had informed all governments, with which it had relations, including the Doge of Venice, of its actions and they had approved the Order's conduct.

The Bey ignored these arguments and continued to insist on compensation for his subjects. He made it clear that if this was not forthcoming within three months he would declare war on Venice. This is what, in fact, happened. Venice reacted

by sending a 'powerful fleet' to bombard Tunis and reduce it to dust. On its way to La Goulette this fleet, under the command of Admiral Angelo Emo, called at Malta in July 1786 and was joined by galleys of the Order (10). The expedition, however, failed and the fleet withdrew on account of the enemy's concentrated fire from its artillery defences. The Venetian government had no other choice but to pay the compensation asked for (11).

DISCUSSION.

The Maltese health authorities of the eighteenth century did not possess, as we do, the bacteriological and medical knowledge regarding the origin and spread of plague that became available only one hundred years later towards the close of the nineteenth century. Indeed it was only then that the threat of plague ceased, after a stretch of five centuries, to dominate the routes of maritime trade and communications in the Mediterranean. This was due to the discovery, between 1894 and 1897, of the roles of the bacillus *Yersinia pestis*, the *Rattus rattus* and the *Rattus norvegicus* and the fleas of rodents and humans *Xenopsylla cheopis* and *Pulex irritans* respectively in the causation of plague.

In the late eighteenth century, therefore, our predecessors still lived in an unenlightened phase of the march of medicine. What they were aware of was that an outbreak of plague could wipe out half the population of a city or country within a few months (12). Although they were ignorant of the indirect link between a plague-infected rat and the ship as its habitat, experience had shown them that there was a cause-and-effect connection between outbreaks of plague and shipping and that the surest way of eliminating the focus of the malady was the destruction of its carrier. Hence their resort to a quick and radical solution which was the burning of houses, furniture and clothing since at least 1495 and even to ships (13). This policy was in conformity with the practice of other Mediterranean ports, so much so that the burning of ships had been resorted to in Corsica in 1579, in Barcelona in 1586, in Santander in 1597 and in Marseilles in 1720 (14).

Unless some other records come to light, it appears that Rugoni's was the last plague-infected ship to be burned in

Malta. In fact towards the end of 1786, Grand Master Emanuel de Rohan wrote to the sanitary port authorities of Marseilles to enquire about the measures applied by that port for the 'conservation of the public health' without, at the same time, disrupting commerce by 'an excessive rigour' in the imposition of safeguards for the security of the public health. The authorities at Marseilles informed the Grand Master about the measures they took in the case of ships with suspected and foul bills of health but they made no reference to plague-infected ships. Likewise the regulations for the Malta Lazzaretto issued on the 24th December 1786 - that is six months after the Rugoni episode - do not deal with the subject (15).

The smooth functioning of the quarantine system in Malta depended upon an efficient and disciplined lay and medical staff at various levels of the government organisation - starting at the lowest rung with the reconnaissance and checking of all ships entering harbour by the guard posted at Fort St Elmo; the constant alertness of the Captain of the Port and his staff in investigating unusual occurrences; the determined application of the sanitary regulations by the Sanitary Commissioners at the Barriera; the scrupulous surveillance of persons detained at the Lazzaretto by the Health Guards; the self-abnegation of physicians and surgeons sent to the Lazzaretto to treat the plague-stricken; the reliance on the military forces to set-up sanitary cordons to seal off areas exposed to the 'contagion'; and finally ascending to the highest government officials responsible for prompt decision-making including the Grand Master on whom as the Head of State rested the final responsibility for all actions taken by subordinate individuals at the various levels of the sanitary system.

Though motivated primarily by the urge for self-preservation the destruction of a plague-infected ship was justified in the Order's view because it safeguarded not only the immediate Maltese health interests but it also provided an effective means of protecting the public health of neighbouring countries and of marine navigation by averting a possible widespread epidemiological disaster. In fact the Order of St John in justifying the burning of plague-infected ships and their cargoes declared that in destroying the

Venetian vessel it had acted 'in the general interests of humanity.' (16)

One last reflection. Malta to-day has attained widespread repute for promoting, on an international level, the general welfare of mankind in such special areas as the programme on ageing under the auspices of the United Nations (17); the common heritage of the sea-bed and the fight against the trafficking of addictive drugs (18); its stand against nuclear armaments (19) and atmospheric pollution (20); and its support for the protection of the ozone layer (21). Members of our generation think that these Maltese endeavours in 'the general interests of humanity' had been unthought of in the past; but a glance backward in time will reveal, as shown in this paper, that the concept of 'the general interest of humanity' was already recognised and motivating the international policy of Malta in safeguarding the regional health and welfare of mankind as long ago as the eighteenth century.

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