Chapter 3
Medicine and the Early Modern Galleys

As early as the 16th century, Leonardo Fioravanti (1517–1583), protophysician of the Spanish Imperial Army, sent a letter to the Papal court concerning the health of armies both at sea and on land, in which he argued that their most formidable enemy was undoubtedly disease, which, by killing men and weakening their strength, would cause armies to lose their opportunities for glory.[1] The presence of medical experts aboard vessels was, therefore, essential. When it came to providing medical care for naval forces, these experts had to be capable of addressing any kind of infirmity that might occur while at sea. Contributions by physicians and surgeons were equally significant. Furthermore, Fioravanti asserted that the inability to medically treat the crew was not only a cause of a high mortality rate among soldiers and oarsmen, but also served as a deterrent to enlisting. Knowing that in the case of illness or injury they would not receive the necessary medical care discouraged soldiers and rowers, and further diminished their motivation. Having an experienced and competent medical team was supposed to benefit the soldiers' and rowers' morale, as they became more motivated to fight, knowing that someone was there to care for them if needed.[2] Clearly, this focus on the ship's physician appears partly propagandistic and self-celebratory, for Fioravanti himself had served as a doctor on a Spanish vessel sailing to Africa in 1551.[3] It is therefore reasonable to assume that the letter was written to improve his position in the eyes of the papal authorities, perhaps with the hope of obtaining a place of honor in the papal fleet. This does not, however, detract from its value as a direct testimony to the high regard in which medical care was held, and to the level of despair soldiers must have felt when it was lacking.

Doctors—especially surgeons—have been a constant presence aboard ships. As Fioravanti's testimony reveals though often overlooked by historians, doctors played a central role not only aboard early modern ships but also on land in dock hospitals, and were increasingly held in high esteem by naval authorities.

1 AAV, Fondo Pio, b.112, f.333r.

2 Ibid.: "perché quei poveri soldati amalati et feriti che non hanno de quibus non si trova medici che li voglia guardare non che medicare et cosi li convien morire al suo dispetto et questo è cose che mette tanto spavento al mondo che non si ritrova huomo che ardisca andare a servire in armata, ma quando vi fossi tal hordine ognuno andaria alegramente, sapendo di essere aiutati nelle loro calamità."

3 On the figure of Leonardo Fioravanti see Camporesi, *Camminare il mondo*; Furfaro, *Leonardo Fioravanti*; Gadebusch Bondio, Verità e menzogna.

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This chapter will, therefore, aim to partially fill this gap by attempting to present, as exhaustively as possible, a defined profile of those physicians involved in caring for the *galeotti*, both on land and at sea. First, I will reconstruct their biographical and professional profiles to understand who these medical practitioners were and what their career trajectories entailed. I will then analyze the tasks they were required to perform. Essentially, doctors performed three functions. The first was therapeutic—medicine's primary objective—aimed at maintaining the crew in good health. The second could be described as "inspective," consisting of observing and examining the rowers' physiques for technical, military, but also economic purposes. And, finally, there was an "expert judgmental" intervention, executed *a posteriori*, such as when physicians were asked to ascertain the causes of death or the severity of injuries in the case of murders and fights, to decide on the aggressor's degree of guilt, and thus determine the most appropriate punishment.

1 The profile of a galley doctor

Unfortunately, sources provide little information about the profiles of galley physicians, and generally, all that can be gleaned is the individual doctor's name and, sometimes, their years of service as evidenced by the reading of the crew rolls, or by finding some reports signed by them. In his treatise on the Papal navy published in 1856, Alberto Guglielmotti complained that reconstructing the biographies of these professionals was quite a task, and that no sources on the subject were to be found before the 1550s. Guglielmotti's disapproval is evident: despite the fact that "at all times physicians and surgeons, whether voluntarily or forced, followed the armies on land and at sea: histories and documents only speak of them in a general way."[4]

In the case of the Papal galleys, Guglielmotti was unfortunately right: the archives do not reveal any specific information, apart from a few names. In general, we know that each galley had its own surgeon aboard. Alongside the surgeons, one physician was in charge of the entire fleet. According to Pantero Pantera, this physician had to be "intelligent, capable, and experienced in his field." He could only be employed on the basis of his proven reputation, backed up by certificates testifying to his skills and education. Apparently, he also had to be trained

4 Guglielmotti, *La guerra dei pirati*, Vol. II, p. 202f: "In ogni tempo i medici e i chirurghi hanno seguito, o volontari o condotti, gli eserciti di terra e le armate di mare: le storie e i documenti ne parlano solo per le generali."

in surgery so that he could give instructions to surgeons in the most appropriate way.[5] Ultimately, however, sources testify that surgeons almost always acted without instructions from above. This was especially true when they were on the high seas or in battle, when they had to react as quickly as possible, and were often the sole medical professionals aboard. The lack of control from above should not have posed a problem, since surgeons had to prove their expertise in practice before being recruited. Moreover, in the absence of a physician, the surgeon had to handle illnesses that were theoretically the physician's responsibility. Therefore, it was good practice for the surgeon to have a barber as an assistant, who often happened to be a slave.[6]

Compared with the Papal context, the Tuscan one is much richer in information, and provides a more precise idea of this social category's biographical-professional profile—one that was probably similar, or even identical, in other Italian regions. However, even here, information is fragmentary, as the most detailed records date to the late 17th century, and for the preceding years we have just a few scattered names. It is not entirely clear whether this is due to a gap in the archives, or to less systematic recording in the previous century. Both factors likely influenced the situation. As in the Papal fleets, each Tuscan galley had a surgeon, and a physician was in charge of the entire fleet, serving aboard the *Capitana* during the sailing season. As reported in the rolls of the crews, in 1680,[7] the physician on the *Capitana* was an individual called Clemente di Salvatore Cosci from Livorno, who was in his thirteenth year of service. The surgeon was the 60-year-old Agostino Jacopo Amiconi from Palermo, who has been a medical practitioner for 29 years and previously worked at Florence's Hospital of Santa Maria Nuova, and subsequently in the city of Livorno. Aboard the *Santo Stefano*, the surgeon was Giovan Battista di Lorenzo Barizeni, aged 45. Although he had only been in that position for four years, he was highly experienced, having had the opportunity to train at Rome's Santo Spirito Hospital—a privileged institution for training Roman surgeons—and having already held the position of surgeon at sea aboard merchant ships. Two surgeons were aboard the *Santa Maddalena de' Pazzi:* Carlo Antonio di Gasparo Franceschin from Volterra, aged 43, and Gaetano di Zanobi Pantalino from Livorno, assistant surgeon, aged 24. Franceschin had previously served as a surgeon for 14 years, after having studied at the Hospital Santa

5 Pantera, *L'armata navale*, p. 110.

6 Ibid., p. 126. ASF, MP, 2131, dossier 4, Chapter IV, c.29: It seems that by the late 16th century, surgeons' assistants were always slaves or forced rowers. Since assisting a surgeon was considered a low-skilled job, they did not need to be educated and, as convicts and slaves, they were not paid. For more on the use of slaves in healthcare, see Bono, *Slaves*, p. 167.

7 ASF, MP, 2130, cc. n. n.

Maria Nuova, worked as a town physician [*medico condotto*] in the Maremma, and later in Livorno. Pantalino, on the other hand, began his naval career at a very young age, being the son of one of the Tuscan Navy's boatswains. The surgeon on the *Santa Margherita* was Jacopo d'Antonio Roccatagliata, aged 33. He was trained at the hospitals in Pisa and in Florence and was already in his eighteenth year of service—initially as an assistant, and later as a surgeon.[8] Although this information is scant, it nonetheless allows for some more general assumptions. First, we know that the *Capitana* alone had both a physician and a surgeon aboard, while the other vessels had only one or two surgeons each. Surgeons and physicians must have had a good reputation and been highly experienced, given the importance attached to their role in ensuring the crew's good health. Not only were sick galley slaves and convicts considerably expensive to treat, but they also represented a loss of much-needed manpower, so it was imperative that they remained healthy and fit enough to row. It remains unclear who was responsible for appointing the medical staff. According to archival sources—such as letters and licenses issued to galley doctors—an initial decision was likely taken by the Captain of the Galleys, which was then officially confirmed by the Grand Duke in the form of a license countersigned by him and the Secretary of War.[9]

Despite the challenges involved, the position of fleet doctor was highly coveted, as any physician holding this position was entitled to a fixed salary—which could vary from eight to 25 *scudi* in the 17th century, even reaching 30 to 40 *scudi* in the 18th century. This variation in salaries did not follow a linear pattern, but changed according to contingent factors, such as the urgency of finding new medical professionals in times of military emergency, economic conjunctures, and other circumstances.[10] In addition, holders of this post enjoyed "special honors, privileges and prerogatives," as stated in the fleet doctor's license granted to Dr. Don Diego Galletti in February 1716. He had distinguished himself by his zeal and skill in caring for the Tuscan crew during their stay in Messina on their return from the Levant. As a sign of gratitude and benevolence, Galletti was rewarded with the title of supernumerary physician on the Medici galleys in the city of

8 Ibid.

9 See the manuscript licenses conserved in ASF, MP, 2131, dossier 6, cc. n. n.

10 One *scudo* was equal to one *ducato*, i.e., 7 Florentine *lire*, and weighed 21.231 grams. See Martini, *Manuale di metrologia*, p. 209. The typical monthly salary for a soldier was 3 *scudi*. On this topic, see Goldtwhwaite and Cipolla. For galley doctor's salary, ASF, MP, 2132, cc. n. n. in 1639, a surgeon received 11 *scudi* at month. ASF, MP, 2130, cc. n. n. In 1650, a chaplain received a monthly salary of 3 *soldi*, a captain 29.5 *scudi* and a surgeon 8 scudi. After1680, a surgeon's salary increased to 15.5.9 *soldi*.

Messina.[11] The appointment of galley surgeon was, therefore, viewed as both a privilege and a reward in the eyes of the authorities, as is evident in the following cases. In 1716, as an acknowledgment of his medical skills in Portoferraio, it was proposed to designate Filippo Sampieri, brother of the Sampieri surgeon at the *Bagno*, as galley surgeon. In the same year, the naval authorities also recommended appointing Agostino Giustiniani as assistant to the *Capitana's* surgeon; the latter had been registered in the city's medical college for more than ten years, and who had proven himself as a *medico condotto* in Campiglia[12] and at the Hospital of Santa Maria Nuova. Should Giustiniani not accept the post, the name of Donato Ercolani was put forward as an alternative. Although both surgeons possessed comparable professional experience, Ercolani was regarded as the second choice due to his younger age and his having practiced for only one year, which was perceived as a disadvantage.[13]

Some petitions addressed to the Grand Duke reveal just how prestigious the positions of physician, surgeon, and assistant surgeon aboard the naval fleet were. For example, in 1694, Luigi Montorsi, a physician, pleaded for the position of galley doctor, and was even willing to accept a monthly salary of six *scudi*, compared to the usual twelve.[14] An essential requirement for the position was to demonstrate competence. Thus, in May 1749, following the death of Carlo Springipill, who had served as first surgeon on the *Capitana* for a monthly salary of 33 *scudi*, two applications were submitted to replace him. The first came from Francesco Corona, who had already served aboard the galleys in August 1747, without pay, replacing one of the enlisted surgeons at the time because he was at sea aboard warships. Corona requested to be officially hired by the Tuscan navy. Given his outstanding performance, his certificate of practice in Livorno, and endorsements from other hospital doctors attesting to his abilities [*fede*], he was deemed suitable and duly approved.

However, even more intriguing is the second of the two applications, this one submitted by Dr. Giuseppe Carlesi, who had studied surgery for five years at Pisa's Hospital of Santa Chiara and had practiced as a surgeon in Livorno for three years. He presented all his certifications and declared his willingness to be publicly examined in Florence by any master surgeon lest his credentials appear insufficient. Furthermore, in a bid to substantiate his good reputation, he brought to their attention that one of his older brothers, Tommaso di Francesco Carlesi, had

11 ASF, MP, 2131, c.n.n.

12 On the *medico condotto* [town physician] see Russell, *State Physician*; Mendelsohn/Kinzelbach/Schilling, *Civic Medicine*.

13 ASF, MP, 2110, c.n.n.

14 ASF, MP, 2103, c.n.n.

also previously served on the fleet for seven years—initially as an assistant and later as a surgeon, from 1735 to 1742. Carlesi produced no fewer than five documents in support of his claim. The first was from the Commissioner of the Galleys, certifying his abilities and good health. The second was from the physician and surgeons of the city of Livorno, attesting to his years of service and the success of all his operations. Carlesi also enclosed two letters from his erstwhile professors, one of whom was Giovan Pietro Bernardini, master of theoretical and practical surgery at Pisa's new municipal hospital, in which he stated that Carlesi had always excelled throughout his 39 months as a regular student and his subsequent 20 months as a surgical trainee. The other was signed by Domenico Baofanti, master of theoretical surgery in the same hospital, in which he asserted that Carlesi had consistently been skillful and diligent with the sick. Finally, Carlesi presented a certificate of merit awarded to him by Francesco Maggio, Knight of Santo Stefano, and Rector of Florence's Hospital of Santa Maria Nuova, Pisa's Ospedale Nuovo,and the Spedale del Ceppo in Pistoia.[15]

Notwithstanding his impeccable credentials, Carlesi had no maritime experience, so one might surmise that this was why he was not selected. In any case, the documents accompanying his application show just how demanding the selection criteria for galley doctors were. Not only did they have to be registered and licensed to practice in Livorno, but they also had to train at a prestigious institution, such as the hospitals of Santa Maria Nuova or Santa Chiara. Judging from Carlesi's records, he trained at Santa Chiara's hospital surgical school. The available statements from his professors confirm that he had completed his studies, though there is no mention of a university or a doctorate—the title conferred upon those who finished their university education.[16] The fact that none of those surgeons had a university education, but had all been trained in hospitals or similar institutions underscores how hospitals had become established as educational centers of the highest caliber.[17] After all, hospital practice had long been a critical form of training for surgeons. In these settings, future surgeons not only learned their trade through direct experience but also gained the professional credibility essential for their careers.[18] Over time, this form of training evolved, becoming progressively more disciplined and structured following the creation of dedicated surgical schools within medical institutions. Unfortunately, to date,

15 ASF, MP, 2132, dossier 5, c.n.n.

16 Siraisi, *Medieval Renaissance Medicine*, p.55.

17 On Roman hospital schools, see Conforti/De Renzi, Sapere anatomico.

18 Cavallo, *Artisans of the Body*, p. 146 f.

these schools have not been examined in detail, and their foundation dates and internal organization remain unclear.

Recent studies have highlighted the development of institutionalized medical training in Tuscan hospitals during the Renaissance.[19] This evolution was closely linked to the gradual decline of surgical instruction in the *Studia*, especially following the closure of the Florentine *Studium* in 1472 by order of Lorenzo the Magnificent,[20] and the abolition of the chair of surgery at Pisa after the death of its last holder in 1699: Carlo Vasoli. In Pisa, the transition from university-based to hospital-based surgical training was relatively seamless, as Vasoli also served as a master surgeon at Santa Chiara. After his appointment as a lecturer in 1692, many surgical students followed him to the hospital's operating theatres after his lectures, with some even choosing to reside there. Thus, hospital-based schools made up for the gap in surgical training at universities, offering aspiring surgeons the highest level of both practical and theoretical training.[21] However, scholars such as John Henderson have questioned whether such schools existed before the late 18th century. Informal links between Tuscan hospitals and the medical faculties at Pisa and Florence were certainly evident; many hospital doctors also served as university professors or lecturers.[22] Furthermore, the statutes of Italian universities explicitly stated that medical training required an internship in hospitals, where students worked alongside senior medical staff to acquire hands-on experience. Despite this, there is no definitive evidence of formal collaboration during the 17th century.[23] However, the absence of institutionalization does not necessarily negate the existence of such schools. On the contrary, it underscores their independence from universities. As demonstrated by Carlesi's case, even if these schools were not officially recognized, they were publicly acknowledged by the 18th century as effective training grounds for competent, practically-skilled surgeons. These institutions specialized in preparing surgeons for serving the public.[24] Thus, it is reasonable to conclude that, alongside university education and an apprenticeship with senior surgeons—often taking the form of knowledge transmitted from father to son or master to trainee—there existed a viable alternative

19 In general, see Agrimi/Crisciani, *Edocere Medicos*; Siraisi, *Medieval Renaissance Medicine*; Nardi, Statuti e documenti, pp. 245–248; Sani/Zurlini, *La formazione del medico.*

20 Baldanzi, Nell'Ospedale di Santa Maria, p. 287.

21 Ibid., p. 281f. See also Coturri, Le scuole ospedaliere, pp. 3–8.

22 Ciuti, Il medico e l'ospedale, pp. 63–88; Henderson, *The Renaissance Hospital*, p. 246f.

23 Ibid.

24 On the early modern hospital as a space for educating surgeons, see Baldanzi, Nell'Ospedale di Santa Maria; Cavallo, *Artisans of the Body*; Ciuti, Il medico e l'ospedale; Conforti/De Renzi, Sapere anatomico; Henderson, *Renaissance Hospital.*

that served as a middle path between these two institutional forms of training. As Paolo Savoia observed, the practical reality was more complex, making it possible to identify five distinct profiles for the early modern surgeon.[25]

First, the graduated physician who also devotes himself to surgery—a category into which Savoia includes graduate surgeons; second, one who received some formal teaching, typically in a surgeon's workshop, but who had not graduated; third, a barber-surgeon, who lacked any academic credentials; fourth, one specializing in specific procedures; and, finally, the broad group of professionals who could be categorized under the generic label of "quacks."[26] Galley surgeons primarily fell into the second category, though some could also be classified under a hypothetical sixth category of fully trained surgeons—both practically and theoretically, through hospital-based education. Indeed, hospital training was often preferred over university training when it came to recruiting surgeons for the galleys. At least a year's practical training under a more experienced surgeon was a key requirement for obtaining a license to practice.[27] That all professional training took place in hospitals served as a stronger guarantee of a surgeon's practical skills, further highlighting the critical importance of hospitals in the hands-on education of medical professionals.

Despite the privileges associated with the position, being a galley doctor was a difficult and demanding task. First, the doctors themselves had to be in good health. As stated in the doctors' licenses and petitions, it was crucial that they not suffer from seasickness, as medical operations were more likely to be performed during stormy conditions.[28] In cases where a doctor or surgeon suffered from ailments such as ulcers, poor eyesight, sciatica, and other similar afflictions, he would be deemed unfit to set foot aboard ship, and, as a result, would be removed from his position.[29] Moreover, many were the instances of galley physicians and surgeons who, as a reward for their years of service, petitioned to continue serving the fleet on dry land, in the *Bagno*, away from the risks and hardships of constant sea duty. For instance, the aforementioned Luigi Montorsi, who had pleaded for his position aboard the galleys in 1694, requested a waiver from the Grand Duke after 22 years of service, citing severe asthma, which had plagued him for four years and left him unable to sail.[30] Similarly, the case of the surgeon Filippo di Giovanni Sampieri from Livorno, aged 52 and in service

25 Savoia, Early Modern Italian Surgeon, p. 32f.
26 Ibid.
27 Cavallo, *Artisans of the Body*.
28 ASF, MP, 2132, dossier 5, c.n.n.
29 See, for example, the list of surgeons unable to board ship in ASF, MP, 2113, c.n.n.
30 ASF, MP, 2109, c.n.n.

for 24 years—seven as an assistant surgeon on the galleys, nine as surgeon in the city of Portoferraio, and eight as a galley surgeon—illustrates the challenges faced by medical personnel. In February 1722, no longer fit for sea service due to frequent bladder stones, cramps, and blood in his urine, he requested to be relieved of duty and sent ashore. He was replaced by Agostino Giustiniani, who had accepted the position of assistant surgeon in 1716.[31] Sampieri was then appointed surgeon at the Hospital of Sant'Antonio—a medical facility reserved for soldiers and free rowers.[32]

Doctors and surgeons working in the *Bagno's* infirmary shared similar professional and biographical profiles; many of them had previously served aboard the fleets. In 1680, for example, the hospital's doctor was Antonio Francesco Tossi from Livorno. Aged 45, he had served for 20 years and had previously worked as a naval doctor. The *Bagno's* surgeon was Salvator Clemente Cosci from Pisa, aged 69. He had been active for 52 years—38 years as an assistant surgeon, then as a galley surgeon, followed by 15 years on *terra firma.* Unable to set foot aboard a ship due to gout, Cosci petitioned to be appointed as surgeon of the *Bagno* in 1655. As a reward for past services, his request was granted—albeit not without some regret from the authorities at losing such a skilled physician.[33] The position of physician in the *Bagno* was, therefore, even more coveted than that of a galley doctor, not only because it offered better working and living conditions but also entailed the benefit of residing within the *Bagno* compound with one's family.[34] In addition, the doctor of the *Bagno* was often attached to the *Ufficio di sanità* [Health Office] in Livorno, making him responsible for any sanitary measures to be taken within the city in the event of contagion or suspicion of an epidemic.[35]

Among the names of physicians appearing in the sources, two stand out: Francesco Redi and Giovanni Cosimo Bonomo. In 1690, when the physician of the *Bagno*, Romanello Romanelli, fell seriously ill, both Redi and Bonomo were summoned to treat him.[36] Redi (1626–1697) was a physician, naturalist, and a man of letters of great fame: arch-consul of the *Accademia della Crusca*, co-founder of the *Accademia del Cimento*, and first physician to Grand Dukes Ferdinando II (1621–1670) and Cosimo III (1670–1723). His most important works include *Esperienze intorno alla generazione degl'insetti* (1668), in which he disproved

31 ASF, MP, 2112, c.n.n.
32 ASF, MP, 2113, c.n.n.
33 ASF, MP, 2130, c.n.n.
34 Santus, *"Il turco"*, p. 38.
35 Ciano, *La Sanità Marittima,* p. 43.
36 ASF, MP, 2101, c.n.n.

the theory of the spontaneous generation of insects, and *Osservazioni intorno agli animali viventi che si trovano negli animali viventi* (1684), the earliest known extensive and methodical study of human and animal parasites, which is considered the foundation of modern parasitology.[37] Redi had already been in Livorno since 1687, having been summoned to treat Cosimo III, who was recovering from a fever and bouts of vomiting at the Fortress Palace.[38] That a physician of Redi's caliber was summoned to personally cure Romanelli likely indicates how highly he was regarded. Indeed, the two may have been closely connected, for Romanelli's name appears in several of Redi's letters,[39] further underscoring Romanelli's professional and social status.

The figure of Bonomo (1666–1696) is even more intriguing. A native of Livorno, he studied medicine in Pisa, and was licensed to practice in Florence, where he encountered Redi, who soon became his main patron. In 1684, Bonomo began to frequent the pharmacy of the famous naturalist and close collaborator of Redi, Giacinto Cestoni (1637–1718). In May 1684, thanks to Redi's intercession, Bonomo—then in dire financial straits—obtained the position of galley doctor from the Grand Duke, following the naval expedition against the Turks ordered by Pope Innocent XI, an operation that culminated in the landing at Santa Maura (present-day Lefkada). The account of this venture—written by Bonomo and sent to Redi in 1685—confirms the severity of the assignment, as the expedition was plagued by a series of illnesses, infections, and deaths, ultimately decimating the crew, whose numbers fell from 370 to 160 men. Bonomo himself was twice taken ill, with lifelong consequences. The order to return to port at Livorno was a godsend, bringing an end to the extreme hardships of the voyage, which Bonomo thereafter sought in vain to avoid.[40]

Bonomo is still best remembered for discovering the mite-like nature of scabies, based on observations made in the *Bagno.* This discovery—which contradicted the traditional explanation based on humoral theory—sparked a fierce academic controversy, particularly involving physician Giovanni Maria Lancisi (1654–1720). Despite Redi's patronage, Bonomo struggled to establish a practice on land. In May 1690, he set sail again aboard the *Santo Stefano*, bound for Spain, as the ship's physician. According to the report on the selection of the galley doctor, Bonomo was regarded as Livorno's top physician, and his presence aboard

37 Altieri Biagi/Basile, *Scienziati*, pp. 555–561; Bernardi/Guerrini, *Francesco Redi*; Bernardi, Uno scienziato aretino, pp. 17–36; Di Tommaso, The Erudite Pratictioner.

38 Ciano, *La Sanità Marittima*, p. 123.

39 Some correspondence between Redi and Romanelli can be found in Redi, *Opere di Francesco Redi*, p. 103; Redi, *Lettere di Francesco Redi*, p. 182.

40 The letter was published by Pera, *Curiosità Livornesi*, p. 111 f.

was deemed essential.[41] Finally, in March 1691, thanks to the fame he had acquired and Redi's continued support, he was chosen as physician to Cosimo III's daughter, Anna Maria, who was to marry the Elector of the Palatinate.[42]

The overall professional profile that emerges is that of doctors—both physicians and surgeons—who were highly specialized and competent. They had all received advanced education, either at universities or in hospitals (surgical schools), and were licensed by a *Protomedicato.* The need for a healthy crew with skilled rowers was critical for seafaring, military, and economic purposes. This necessity made it crucial to rely on an experienced medical team. The significance of their role was reflected in their monthly salary, which was relatively high for the time. Galley doctors enjoyed respect, honors, and privileges in exchange for providing excellent medical care. It was a highly coveted position, undoubtedly more prestigious than that of the *medico condotto.* However, it should not be overlooked that this role also involved numerous risks and discomforts due to the constant life at sea. When aboard the galleys, doctors were exposed at all times to hardships similar to those faced by the rowers—enduring the elements and being crammed into narrow spaces with poor hygiene. Clearly, the prospect of a stable, well-regarded, and well-compensated job, along with the expectation of professional and social advancement in a highly competitive medical marketplace, likely made these challenging conditions more tolerable.

2 Health and manpower at sea

A healthy crew was crucial for successful seafaring; vessels could not sail without manpower. As Pantera observed, the crew was the "soul of the galley," and it was necessary for oarmen to be at full strength at all times.[43] In this regard, the Battle of Lepanto undoubtedly represented a turning point, as it forced the authorities to confront the inadequate levels of medical care aboard the Italian fleet. A report on the Papal galleys commissioned by Pope Pius V in 1571—written either by a Capuchin friar, or by Domenico Grimaldi, the Papal general commissioner for the galleys[44]—denounced the utterly precarious and inadequate sanitary condi-

41 ASF, MP, f. 2101, c. n.n.
42 Altieri Biagi/Basile, *Scienziati*, pp. 709–712.
43 Pantera, *L'Armata Navale*, p. 130.
44 Civale, *Guerrieri*, p. 113.

tions aboard the ships which, combined with the chaos engendered by sea battles, led to widespread despair.[45]

Space aboard was extremely limited. For example, the dimensions of a typical Venetian galley—which can be regarded as standard for early modern Italian galleys—measured, in the 1550s, approximately 42 meters in length, just over 5 meters in width, and 1,75 meters in height, with between 25 and 30 benches.[46] This space, barely sufficient to accommodate 300 to 350 healthy rowers, made it impossible to provide a separate bay for the sick. Rowers were constantly exposed to the elements, the fatigue of long hours at the oar, and the beatings inflicted by officers. Physically and mentally exhausted, they often fell ill. Common ailments included fever and lung diseases caused by the cold and the sea water, from which they could barely protect themselves, with only a wool shirt and a cloak.[47] Crammed together in dangerously unsanitary conditions, contagious diseases spread rapidly and were practically impossible to avoid.

It is noteworthy that in the literature—however dated—on the galleys, one of the primary causes of illness is attributed to the presence of slaves, as they were believed to have brought contagious diseases with them from across the Levant.[48] In early modern imagery, epidemics invariably came from "outside," and the Ottoman Empire was often identified as one of the major sources of contagion. Slaves were seen as the primary vector of its transmission among the crews.[49] However, the sources I have reviewed provide little confirmation of this accusation, as the diseases recorded were already widespread across the Italian mainland. Consequently, it is plausible that these illnesses could have been introduced aboard not only by slaves, but by convicts as well. Furthermore, when slaves were purchased or acquired from regions impacted by epidemics, they were quarantined in lazarettos before being sent to the galleys.

In any case, the most common illnesses were not of an infectious nature. Rather, they resulted from inclement weather and the grueling physical demands

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45 AAV, Misc. Arm. II, b.110, *Secondo Avvertimenti sopra I disordini delle galere di S. Santità occorsi nell'anno passato 1571 dati da certe religiose persone et da bene con I rimedij necessari et opportuni per emendargli*, f. 385: "Primo disordine fu circa gli infermi, però che molti ne morsero di necessità per non essere sovvenuti pur di cose minime come di pan cotto et c'è di più molti ne morivano disperati, vedendosi così abbandonati, et pregavano d'esser gettati in mare."

46 Aymard, Chiourmes et galères, p. 73 f.

47 Lo Basso, *Uomini da remo*, p. 353. As Lo Basso recalls, the rowers' clothing consisted of a coat, a wool shirt, two light shirts and a pair of trousers made of hemp.

48 Calisse, *Civitavecchia*, p. 143.

49 Harrison, *Contagion*, p. 2 f.

of rowing-conditions that led to ailments such as pneumonia, leg ulcers, blindness, among others.[50] Moreover, sources record that convicts on land fell ill more often, and more easily, than slaves. While confined to port, slaves enjoyed better treatment, as they were unchained and assigned less strenuous work, such as running taverns or managing shops at the docks. Convicts, however, were used for forced labor and endured levels of fatigue and ill-treatment similar to those they faced aboard the galleys.[51]

2.1 Hygiene

One of the most pressing problems encountered aboard the vessels was the poor sanitary conditions. The crews—typically numbering about 300 men—were confined to seafaring crafts usually about 40 meters long and five meters wide. To enhance the galley's speed and balance, the hull was raised only one meter above water level, which meant the galley had virtually no lower deck. Most crew members had to sleep in the open—rowers on their benches and soldiers on the floor. In good weather, an awning could be stretched over the entire length of the vessel to provide some shelter from the sun or rain. However, this was not possible during open sea voyages or in strong winds. Additionally, oarsmen were not permitted to leave the oar room and were forced to live amidst their own excrement.[52]

Disease, therefore, ran rampant due to poor hygiene and the practical impossibility of effectively separating the healthy from the sick, which, in turn, facilitated the spread of epidemics.[53] Fleas and lice were especially prevalent, as rowers were chained to their benches, and the scarcity of fresh water aboard meant that they seldom had the opportunity to wash.[54] On land, conditions were scarcely better. Inside the *Bagno*, for example, the presence of goats and rams meant to feed the rowers only worsened the situation, as the animals' excrement increased the amount of dirt and potential for infection.[55] This might seem surprising, given that one of the reasons for constructing the *Bagno* compound was to improve sanitary

50 See, for example, the records of diseases among rowers hospitalized in Livorno in 1684 in ASF, MP, cc. 639, 644, 708,736,744, etc.
51 See ASF, MP, 2101, 2107, 2115, c.n.n.
52 Civale, *Guerrieri di Cristo*, p. 90 f.
53 Ramazzini, *De morbis artificum*.
54 Civale, *Guerrieri di Cristo*, p. 91.
55 ASF, MP, 2101, c.n.n.

conditions for the rowers, who otherwise were compelled to spend their days and nights crammed into the galleys, even when not sailing.[56]

Among the most widespread contagious diseases were those transmitted by insects—especially fleas and lice, with scabies being particularly prevalent. Bonomo and Cestoni had developed their theory about the etiology of scabies by observing galley slaves and convicts confined in the *Bagno.* Paradoxically, the cramped conditions endured by rowers provided a unique opportunity to develop a medical approach. It allowed physicians to conduct experiments on galley slaves, who, momentarily deprived of their humanity, were observed with what could be called a "clinical gaze."[57] This detailed observation of oarsmen formed part of a wider project championed by Redi and his circle to study contagious diseases, which were common in Livorno due to its role as a commercial and military port. More generally, it was an effort to expand scientific knowledge through first-hand experience and the new "experimental" method of enquiry.[58] The *Bagno*, like the lazarettos in Livorno, represented an exceptional setting for such work, as these were restricted spaces, isolated from the rest of society, where patients could be carefully examined. Although physicians in the lazaretto were strictly controlled by the city's health authorities—leaving them little room for experimentation—Bonomo enjoyed the necessary autonomy to try innovative remedies, supported by Romanelli, who was also part of Redi's scientific circle.[59]

Contrary to Galen's theory—which attributed scabies to a humoral imbalance, particularly due to melancholia—Bonomo argued that it was caused by tiny animals called *pellicelli* that lived under human skin. By closely observing the bodies of those afflicted with scabies, he discovered that the cause of their itching was erythematous vesicles. When one of the vesicles was squeezed and studied under a microscope, Bonomo found "a tiny white body" identified as a small insect—later recognized as a mite. Scabies' contagiousness was thus explained by the transfer of these mites from one person to another, and could even be spread through clothing. The remedy, he argued, was to eliminate these mites through various treatments such as washings, baths, the application of salts, sulfur, vitriol, mercury, and other substances. Ultimately, scabies was recognized as an "external disease," and any remedies dispensed were, therefore, not to

56 Bernardi, *Relazione*, p. 13.

57 This term is taken from Foucault's *Naissance de la clinique.* Without delving into the merits of the criticism of anachronism, I find that the term—coined to denote the dehumanizing medical separation between the patient's body and their identity—serves the concept well here.

58 Altieri Biagi/Basile, *Scienziati*, pp. 55–556.

59 Ciano, *La Sanità Marittima*, pp. 122–124.

be taken orally, as prescribed by Galenic medicine, but rather to be applied externally, directly to the skin.[60]

In June 1687, Bonomo shared his observations with Redi who, despite not being fully convinced by his protégé's discovery, nonetheless decided to publish the findings. The same year, the *Osservazioni intorno a' pellicelli del corpo umano* [Observations on the Hair of the Human Body] appeared in the form of a letter to Redi dated 18 July 1687, in which, however, the discovery of the mite as the cause of scabies and its effective treatment was relegated to a secondary note. Despite Redi's decision to downplay his protégé's hypothesis, the treatise was a model of the experimental "new science." As such, it circulated not only in Italy but also across Europe, aided by its Latin translation in 1692.[61] Far from being a mere academic exercise—often dismissed as incapable of making a meaningful contribution to naturalistic research—Bonomo's discovery had tangible practical applications. By 1717, Romanelli had instructed practitioners to apply sulfur boiled in oil to the skin of inmates with scabies. According to Romanelli's records, those who underwent the treatment recovered.[62]

2.2 Epidemics at sea

During an epidemic, medical vigilance was considered of the utmost importance, not only to ensure the mariners' wellbeing, but, above all, to protect public health. This was particularly true in times of plague. Since time immemorial, the sea has been the primary route through which epidemics entered new territories. The connection between contagion and the sea—or more specifically between contagion and maritime trade routes—had been widely accepted since late antiquity.

After the Justinian Plague of 541–762, the plague was thought to have vanished from the European continent until the Black Death struck in 1347. Tradition has it that this outbreak originated in Asia in 1346. While the exact location re-

60 Bonomo, *Osservazioni intorno a' pellicelli*, p. 3: "Trovammo con facilità il rognoso, ed interrogatolo, dove egli più acuto, e più grande provasse il prurito, ci additò moltissime piccole bolluzze, e non ancora marciose, le quali volgarmente son chiamate Bollicelle acquaiuole. Mi misi intono con la punta d'un sottilissimo spillo ad una di queste acquaiuole, e dopo averne fatta uscire, con lo spremerla, una certa acquerugiola, ebbi fortuna di cavarne un minutissimo globetto bianco, appena appena visibile, e questo globetto osservato col Microscopio, ravvisammo con certezza indubitata, che egli era u minutissimo Bacherozzolino [...] Non ci fermammo a credere, ne ci contentammo di questa prima veduta, ma ne facemmo molte, e diverse altre esperienze in diversi corpi rognosi."

61 Altieri Biagi/Basile, *Scienziati*, p. 710 f.

62 ASF, MP, 2110, c.n.n.

mains uncertain, the hypothesis proposed by McNeill in 1976, which identifies the Khanate of Mongolia as the most likely source, is considered credible. From China, the disease spread along the caravan routes controlled by the Mongols and the Tartars, travelling north to the Caspian Sea coast, south to Azerbaijan, and west to the Black Sea. From there, it reached Europe, following the siege of the emporium of Kaffa by the Mongols of Kipchak Khan Janibeg. The Tartars' siege of the Genoese emporium is often cited as the earliest example of bacteriological warfare *ante litteram.* The Tartars, decimated by the plague themselves, were unable to continue this siege. Before surrendering, they made one final, desperate attempt to infect their enemies by catapulting the corpses of plague victims over the ramparts.[63]

Plague thus entered Europe by sea, introduced by Genoese merchant ships fleeing the Tatars. In the aftermath of this new and devastating epidemic—estimated to have reduced Europe's population by between 33 % and 60 %—plague remained endemic on the continent practically until the mid-18th century, returning cyclically to urban centers, primarily following merchants along trade routes and armies on their campaigns.[64]

The earliest measure taken when a city was declared "infected" was to isolate it geopolitically, leading to a ban or suspension of any kind of relations—primarily commercial—with neighboring cities.[65] At the same time, city gates were closed, lazarettos opened, and quarantines imposed on people, ships, and goods. Numerous epidemics erupted during the early modern period, which, according to the sources, were often caused by ships failing to comply with quarantine regulations or naval officials lying about their contacts with infected ports en route. For example, the plague outbreak that struck Marseille in 1649 was introduced by a ship from the Levant, which presented a forged certificate that falsely indicated that it had not come from an infected region.[66] Similarly, the plague outbreak that struck Naples in 1656 was likely caused by a ship from Sardinia, another vassal kingdom of the Spanish empire—probably a ship carrying troops destined for the Spanish territory of Milan, an area of conflict between Spain and France. Contemporary reports suggest the vessel had evaded quarantine requirements in the

63 Harrison, *Contagion*, p. 2 f.

64 Alfani/Melegaro, *Pandemie d'Italia,* p. 12 f.

65 Cipolla, Crisi di mortalità, p. 198: "Bando si intendeva quando il blocco era decretato dopo che si era accertata la presenza della peste nella città o nel territorio bandito e perciò il bando poteva essere tolto solo dopo che si fosse accertato la fine dell'epidemia. Sospensione si intendeva quando il blocco era decretato solo sulla base di presunzioni o sospetti."

66 Calvi, La peste napoletana, pp. 418 – 421.

port of Civitavecchia and had falsified the official documents certifying that it had undergone quarantine—known as "health licenses" [*bollettini di sanità*].[67]

In this context, doctors' vigilance in recognizing any signs or symptoms of plague, and reporting even the slightest suspicion of infection, was crucial to safeguarding public health. Seafaring ships and coastlines thus became the first line of defense, where vigilance and prompt reporting were essential.

As Bernardo Ramazzini wrote in 1700 in *De morbis artificum*, in the event of an epidemic nothing could be done for mariners due to the logistical impossibility of separating the healthy from the sick. As the proverb goes, they were "all in the same boat."[68] Ramazzini was not entirely correct, however, and there is evidence that that this problem could, at times, be overcome. Whenever a vessel was at sea and was suspected of having come into contact with an infected site, traditional remedies against contagion were employed. Medically, plague was believed to be caused by purely "natural" factors, in line with traditional humoral theory. For the Hippocratic-Galenic tradition, plague was considered an "epidemic"—a disease with "universal causes," particularly one linked to the air. As Hippocrates wrote: "When many men are stricken with a single disease at the same time, the cause must be imputed to that which is most common and which we all use first of all; and this is what we breathe."[69]

The prevailing belief was that plague arose from poisonous atoms exuding from decaying bodies or infected individuals. These atoms, once dispersed in the air, would then infect the atmosphere, rendering it "miasmatic" or poisonous. If inhaled, this bad air would cause a general corruption within the body, defined by Galen as "heat against nature," generating symptoms like the appearance of buboes. Plague was understood as a disease of heat and dampness, and in line with the principle of attraction, individuals naturally predisposed to these elements were considered the most vulnerable. This predisposition was referred to as *aptitudo patientis* [the patient's susceptibility].[70] Indeed, while not everyone struck by plague contracted the disease, it had been observed since antiquity that this disease—which theoretically should have affected both sexes and various social strata indiscriminately—often had a greater impact upon certain categories of the population. In an attempt to explain this, Galen hypothesized the presence

67 Fusco, *La grande epidemia*, p. 1. On the *bollettini di sanità,* see Bamji, *Health Passes.*

68 Ramazzini, *De morbis*, p. 388: "Sovente accade che qualche malattia Epidemica s'introduca nelle navi [...] In tal caso non vi è scampo alcuno trovandosi tutti, come dicesi per proverbio, nella medesima nave."

69 Cited in Cosmacini, *Storia della medicina,* p. 20.

70 Stevens Crawshaw, *Plague Hospitals*, pp. 27–29.

of *λοιμοῦ σπέρματα* [pestilential seeds] in the air, which did not affect every individual indiscriminately, but only those predisposed to them.[71]

While the miasmatic theory remained dominant throughout the learned medical world, it was eventually challenged in the 16th century by Girolamo Fracastoro's "contagionist" theory, which significantly influenced how subsequent plague epidemics were managed. Fracastoro (1476–1553), a Veronese physician who studied medicine in Padua, published *De contagionibus et contagiosis morbis et eorum curatione—Libri III* in Venice in 1546. According to Fracastoro, the nature of contagions did not lie in occult properties, as ancient authors believed, but rather in the consensus and dissensus of things [*consensus et dissensus rerum*], expressed as sympathy and antipathy.[72]

The principle of infection was thus linked to putrefaction, the dissolution of the material composition of the body due to heat and moisture from outside the body. The putrefying body would emit imperceptible particles, known as *seminaria* [seeds], which, when hot and moist, could cause decomposition upon contact with a second body. These *seminaria* were the agents of infection, but this process only occurred when the second body began to undergo decay after being infected by the first. However, the contagious process was not indiscriminate. For the *seminaria* to act on a second body, it had to share similar qualities with the body from which the contagion originated.[73] If the two bodies were analogous, contagion could occur through direct contact. If the bodies were not so, however, the object touched would not directly receive the infection, but rather retain the *seminaria*, which could later lead to an infectious outbreak known as *fomes*. If infection occurred at a distance—via the air—it happened because the inherent qualities of the *seminaria* allowed them to move through the air and survive for varying periods even far from the original source of infection.

Thus, sympathy—the principle of contagion—was understood as a purely physical process of transmission, operating according to the elemental qualities of bodies. Contagion could occur in three ways: through direct contact between an infected body and a healthy one; through an intermediary *fomes*—an object carrying the seeds of infection; or through transmission at a distance, as with plague. Fracastoro offered an alternative to the Galenic idea of a "patient's suscepti-

71 Pennuto, *Simpatia*, pp. 425–427.

72 Pennuto, La natura dei contagi, p. 57, Nutton, The Seeds of Disease, p. 22: he suggests that contagion resulted from a corruption in the substance of one body, which then passed to another body via the transmission of imperceptible particles.

73 Pennuto, *Simpatia*, p. 407 f.

bility": the concept of the "attitude of the physical substance" [*aptitudo materiae*], which was grounded in sympathy.[74]

Thus, according to the official miasmatic theory, plague was believed to be caused by atoms that rendered the surrounding air "putrid and corrupt." These atoms were not only highly toxic, but also incredibly viscous. Plague was often referred to as "the sticky disease" [*male appiccicaticcio*], and because of this, anything a sick person touched was deemed "infected" and capable of transmitting the contagion. Not all objects were considered equally dangerous, however; some items, such as bedding and clothing, were, by their very nature, seen as more susceptible to becoming infected, while others, like metals, were not. When confronted with the presence of "infected" objects, two primary solutions were recommended: disinfection, known as "purging," typically carried out through fumigation, or destruction by fire.

Hippocrates recommended lighting fires in city squares at night during the winter, using *herbe calide* such as sage, rue, and rosemary, while in summer, herbs such as yellow sandalwood, roses, cardamom, and camphor were used.[75] It was also considered good practice to wash one's hands, wrists, and face with vinegar as a disinfectant, and to sprinkle clothes with aromatic herbs.[76]

Similar precautions were taken aboard the galleys. For example, during the plague outbreak of 1591–1592, the crew of the Tuscan galley *Santo Stefano*, who had just returned from Marseilles and were quarantining in Portoferraio,[77] were instructed to bathe their wrists once or twice with anti-infection oil and inhale vinegar fumes. In addition, they were ordered to burn rosemary and juniper and frequently wash the vessel and the crew's clothes with seawater.[78] The decision to have the ships take refuge in Portoferraio can be explained as an attempt to avoid any potential contact with Livorno, which was also infected. According to the miasma theory, the only effective remedy against plague was to stay as far away as possible from the infected area.[79]

Thus, whenever a galley with infected or suspected crews docked, it was quarantined like any other seafaring vessel. If anyone aboard was found to be infected, they were immediately locked up in the city's lazaretto. To illustrate this procedure, let us examine the quarantine of the Tuscan galleys in Portoferraio in 1679.

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74 Ibid., pp. 423–428.

75 Benvenuto, *La peste,* p. 107.

76 Ibid., pp. 97–126.

77 Ciano, *La Sanità Marittima*, p. 28.

78 ASF, MP, 2131, dossier 3, *Instrution a voi Pietro Dini di quello che havrete à fare nello sciorinare, et purgare la robba della presa delle Galere,* c.n.n.

79 Bergdolt, The Discourse, p. 378.

As outlined by Livorno's *Ufficio di sanità*, the Grand Duke's galleys, which had just set sail from Civitavecchia, were instructed to stop at Portoferraio before returning to Livorno because they had recently taken aboard a number of slaves from the Barbary Coast, an area then suffering from a plague outbreak. During the quarantines, the galley physicians were relieved of their duties, and it was the lazaret doctors who looked after the crews. The galley physician remained responsible for reporting all details to the authorities in Livorno. According to his reports, plague victims were transferred to the city lazaretto, which was guarded throughout the quarantine period. At the same time, the galleys were searched to ensure that belongings of infected individuals—potential vectors of contagion—were removed and disinfected ashore. The rest of the crew were also placed under quarantine, but remained aboard the vessels, anchored at a safe distance from the shore. No one was allowed to disembark without the doctor's permission.[80] Similarly, on 15 July 1697, Livorno's health authorities ordered the quarantine of the Tuscan galleys in Portoferraio. During their sea voyage, the galleys had attacked two ships from Algiers, where plague was rampant. This precautionary quarantine was further justified because, a week earlier, a slave had died of what appeared to be plague.[81]

The case of Civitavecchia's galleys during the plague outbreaks of 1656–1657 is unique and remarkable for its efficiency in managing galley crews during such an epidemic. The wave of plague that hit the Italian peninsula in 1656 is believed to have originated in Sardinia, where the disease had already been raging since 1652. From Sardinia, it made its way to the Italian peninsula, first surfacing in Naples and Genoa.[82] According to the chronicles, the plague likely arrived in Sardinia via a ship from the Levant or the Berber Coast; it initially erupted in Alghero before spreading to Sassari and Oristano. The earliest reported plague deaths in Naples were recorded as early as March 1656, though the contagion was not immediately recognized as such. The cause of these "sudden deaths," which primarily affected the lower classes, was attributed to the poor quality of food consumed by the population during the previous Lent, particularly cheap salted cod. However, as the mortality rates rose over the following months, and symptoms such as boils and carbuncles—classic signs of bubonic plague—appeared, any remaining doubts were soon dispelled. On 12 May 1656, plague was officially declared in

80 ASL, Magistrato poi Dipartimento di Sanità (1606–1806), b. 71, ff. 389–394.

81 ASF, MP, 2128, c. n.n.

82 Benvenuto, *La peste*, p. 25.

Naples. It then spread throughout southern Italy, sparing only parts of Calabria and southern Puglia, particularly the area around Otranto.[83]

Rome was not unprepared: the *Ufficio di sanità* was immediately reactivated and, on 20 May 1656, an edict was issued prohibiting trade with Naples and its suburbs.[84] Multiple accounts exist regarding how plague arrived in the Papal States. As reported in Cardinal Sforza Pallavicino's memoir, the outbreak was likely caused either by Sardinian or Neapolitan vessels, as they had allegedly evaded controls and quarantine and continued to trade despite the bans.[85] Another version of events is provided by the *Commissario Generale alla Sanità,* Girolamo Gastaldi, who claimed that the contagion had entered the territories of the Papal States via a Roman galley that had docked in Naples without realizing that it was infected.[86] Both these reports converge on one key point: they identify the deaths from plague that occurred in late May 1656 in Civitavecchia as the first outbreak of epidemic in the region.

Regardless of how the plague actually arrived in Civitavecchia, one thing was certain: it came by sea. The first person to contract the disease was a soldier from the Papal galleys who, upon falling ill, was transported to the Hospital of San Giovanni di Dio, only to die five days later. In the typical fashion of the time, the disease was not immediately recognized, and the hospital doctor attributed his death to a combination of venereal disease and malignant fever. His opinion changed some days later, however, when the disease again struck one of the hospital's nurses, Angelo Ferrugio from Sicily, who had developed several boils in the groin area. Nevertheless, the authorities sought to downplay the gravity of the situation in order to prevent public alarm, presenting it as an isolated incident. During the early stages of plague epidemics, physicians usually sought to minimize the issue, fearing that hasty judgments could trigger unnecessary disorder. It was widely believed—not only by medical professionals but also by learned people in general—that fear of the plague could be as dangerous as the disease itself, if not more so.[87] This perspective had its roots in Aristotle, who argued that the imagination's great suggestive power could influence reality, and in Avicenna's belief that fear itself attracted the plague in the first place. While certainly an extreme case, the episode of citizens murdering a doctor who confirmed the presence of the contagion in Busto Arsizio in 1630 is undoubtedly significant.[88] Eight

83 Corradi, *Annali delle epidemie*, p. 184.
84 Gastaldi, *Tractatus politico-legalis*, p. 271 f.
85 Pallavicino, *Descrizione del contagio*, p. 1.
86 Gastaldi, *Tractatus politico-legalis*, p. 25 f.
87 Cipolla, *Il pestifero e contagioso morbo*, p. 113.
88 Ibid.

days later, a lay friar named Stanislaus the German fell ill. He presented similar symptoms to the aforementioned nurse: boils under his left armpit and on his right groin; he died two days later. Realizing the gravity of the situation, the authorities sent a nuncio to Rome from where, on 29 May, an edict was issued banning all trade with Civitavecchia and mandating the disinfection of the galleys and the adjacent coastlines.[89]

A report compiled by one of the galley surgeons of the time, Francesco Casella, provided information on how the penal fleet in Civitavecchia was managed during the epidemic. Written in the form of a letter addressed to the city's protophysician, Giovan Battista Bindi, it is contained in Bindi's *Loemographia Centumcellensis* (1658)—a treatise on plague. A widely established literary genre from the late 15th century onward, the aim of these treatises was to offer patients remedies for achieving and maintaining bodily integrity and good health, usually by prescribing a particular diet and promoting a healthy lifestyle.

Medical treatises on the plague are typically divided into five or six sections: a dedication or preface; an overview of the hypothetical causes of the disease; a section devoted to the signs of the plague (both in terms of symptoms and precursors); a section describing the illness; and a concluding part explaining the methods of purification.[90] In addition to this standard structure found in such texts, Bindi's treatise presents a reconstruction of the plague epidemic in Civitavecchia, where the need to prevent the galley crews from falling ill was considered paramount. The governance of the ships during the epidemic is detailed in Francesco Casella's letter, which stated that after the initial reports of contagion, the galleys sailed away from the coast, maintaining a safe distance in an effort to avoid infection. Isolation proved to be a highly effective strategy; among the five galleys in the Papal squadron, four remained unaffected by the contagion.

The *Capitana*, by contrast, experienced a much higher death toll: within a three-week period 80 cases of plague were reported aboard, 52 of which were fatal. As reported by Casella, the outbreak on the *Capitana* was caused by two *buonavoglia* who had served as undertakers to bury Stanislaus' corpse before setting sail. Despite clear instructions not to touch anything, the two men, tempted by greed, supposedly stole the deceased's personal belongings and sold these items to a fellow shipmate, who hid a belt and a hat aboard the vessel, thus inadvertently allowing the contagion to spread. Faced with the ever-increasing number of deaths among the Papal crews, they resorted to a strategy that was often imprac-

89 Gastaldi, *Tractatus politico-legalis*, p. 25 f.
90 Jones, The Plague, p. 102.

tical to implement in the galleys—separating the healthy from the infected. The *Capitana* returned to dock and the infected rowers were taken ashore and hospitalized in a storeroom—which later became the dock's infirmary. The healthy remained aboard, while those convalescing were isolated on a *galea polmonare*—a hospital galley named *Santa Caterina.*

The remaining four non-contaminated galleys continued their sea-passage, keeping as far away as possible from the infected regions. In mid-September, once signs of infection had subsided, the warehouse was vacated. The convalescents were placed on the *Santa Caterina*, while the rest were accommodated ashore. The *Capitana* was then thoroughly scrubbed and disinfected with fire, sulfur, and lime, and repainted in a bid to remove any traces of infection. The convalescents were then taken ashore and compelled to wash naked in hot vinegar —considered one of the most effective remedies against the plague.[91] A similar account is found in the letters to the Roman Curia written by the lieutenant Stefano Lomellini, who personally intervened to contain the contagion on the penal fleet. It is noteworthy that, while Casella's letter extols his own achievements and those of his medical colleagues, Lomellini's correspondence paints quite a different picture. It describes the reluctance of galley doctors to treat those infected, fearing that they would contract the disease. Lomellini notes how the naval authorities had to constantly monitor medical staff to ensure they provided proper care for the sick rowers.[92]

2.2.1 Floating hospitals: the *galee polmonari* during the 1656 plague epidemic

What, then, was this mysterious *galea polmonare* that played such a crucial role in managing the 1656 epidemic? The cramped conditions aboard the galleys were not only conducive to causing illness, but also symptomatic of a poor medical infrastructure. There was no designated space for treating the sick, making it difficult to provide effective healthcare. Additionally, the vessels often lacked the medicines and utensils needed to treat the sick, with the apothecary being located only aboard the *Capitana.* As noted in Grimaldi's report, the lack of medical staff and tools posed significant problems for the other galleys, as, in emergencies

91 Bindi, *Loemographiae Centumcellensis*, pp. 12–16.

92 AAV, Segr. Stato, Particolari, b. 34, ff. 254, 269, 271, 304, 327, 398.

such as sea battles or bad weather, the medical team could not move easily from one vessel to the next to obtain medicines or access surgical instruments.[93]

To address this pressing issue, the naval authorities of the Holy League, in the aftermath of the Battle of Lepanto, proposed to the Pope the idea of converting a galley into a floating hospital. These *galee polmonari* [hospital-galleys] were to be unarmed, lacking both oars and weapons. Two planks would be laid across the galley from stern to bow, with only a narrow passageway left open. Mattresses were placed between the planks to accommodate up to 400 sick men. The galley was to be fully equipped with everything necessary to care for and feed the sick: an apothecary, a storeroom, and a kitchen. Its medical staff would consist of a physician, a surgeon, and someone to prepare the required medicines. Additionally, ten *buonavoglia* could be deployed as servants to provide for the galley's needs, such as water, wood, and so on. A crew of forty was deemed sufficient to operate this hospital galley, and they could be recruited from among the oarsmen, without burdening the navy with additional costs.

A galley was chosen over a regular ship for several key reasons. Economic considerations were foremost. A ship was simply more expensive to maintain. The risk of infection also played a decisive role. On a ship, the sick would have to be accommodated below deck, in enclosed and likely cramped spaces, heightening the risk of contagion. Additionally, logistical factors favored the galley. Unlike a ship, which would have struggled to keep up with the fleet, a galley could easily navigate along the coasts or function without wind.

The use of these galley hospitals proved to be invaluable to the army. By providing a designated space for caring for the sick, they allowed for more effective treatment and helped prevent the spread of illness among the troops. Furthermore, ensuring an efficient medical system aboard was seen as a way to boost morale and motivate the soldiers to continue fighting—or, at least, that was how the authorities viewed it.[94] The term *galea polmonare* or *pulmonare* was derived from

93 AAV, Misc. Arm. II, b. 110, *Secondo Avvertimenti sopra i disordini delle galere di S. Santità occorsi nell'anno passato 1571 dati da certe religiose persone et da bene con i remedij necessari et oportuni per emendargli,* ff. 385–386.

94 AAV, Misc. Arm. II, b. 110, *Secondo Avvertimenti sopra i disordini delle galere di S. Santità occorsi nell'anno passato 1571 dati da certe religiose persone et da bene con i remedij necessari et oportuni per emendargli*; *Rimedio facile et utile à sani et infermi e di poca spesa pare saria questo,* ff. 387–389.

the Italian word *polmoni or pulmoni* used to refer to those unfit for labor, thus aptly naming the galley designed to take care of the sick and the infirm.[95]

The project was not realized in 1572, likely due to difficulties encountered in arming a new naval squadron. The pontiff thus opted for a more traditional solution, financing the Venetian initiative to construct a hospital for each member of the League in Corfu.[96] However, some *galee polmonari* were established at a later stage, as confirmed by the case analyzed above, as well as by contemporary naval treaties, such as the *Armata Navale* by the naval captain Pantero Pantera. The pages the captain devotes to these galleys are noteworthy, as these vessels' hybrid nature—part hospital and part prison—is clearly evident. As the captain observes, these galleys required both trained medical staff and guards "not only to help them [the galley rowers] with their infirmities, but also to prevent their escape."[97] Despite the undeniable utility of the *galee polmonari*, I could not find any traces of their systematic use after 1660, the year the Hospital of Santa Barbara was opened in Civitavecchia's harbor dock. It is likely that this type of galley was no longer used because, by the late 17th century, all major ports had hospitals where seafaring crews could be treated. In any case, the absence of specific documents on the subject does not rule out the hypothesis that a galley could still have been used as a hospital in the event of an emergency.

Throughout the early modern period, the systematic presence of the hospital galley was only observed in the Papal States. However, it was not an early modern Roman invention, as evidence exists of the presence of special hospital ships dating back to the Peloponnesian War, during which a trireme called *Therapia* operated in the Athenian fleet. Similarly, in Roman naval squadrons during the imperial era, ships called *Aesculapius* or *Asclepius*, evidently intended for medical purposes, are often mentioned.[98] As for the Tuscan case, I found only two references to the practice—the first, dated October 1556, describes how, during a sea voyage to Naples, it was decided to cast off hundreds of sick rowers onto an unarmed galley in the port of Genoa. Judging by the polemic debate it provoked among naval officers about its effectiveness, this practice was clearly not the

95 Guglielmotti, *La guerra dei pirati*, Volume Secondo, p. 149: "Pulmonara è la galera che serve per infermeria: ed è detta così, come si dicono pulmoni gli uomini inetti alla fatica: perché è galera dimessa e poco atta alla navigazione."

96 Civale, *Guerrieri di Cristo*, p. 96 f. AAV, Brevi, Registri, b. 20, f. 320r–v, *Breve per la costruzione di un grande ospedale a Corfù per tutti i membri della Lega, Roma, 12 febbraio 1572*.

97 Pantera, *L'armata navale*, p. 111 : "sarà necessario deputare alla cura loro persone, che non solamente gl'aiutino nelle infermità, ma gli custodiscano ancora, accòche non possano fuggire."

98 Aymard, Chiourmes et galères, p. 73 f.

norm.[99] According to Aurelio Scetti's diary, we learn that, in 1575, the author was aboard a "galley for the sick crew" anchored in the Arno in Pisa, possibly near the dock of Porta a Mare.[100] This appears to contradict the regulations, which explicitly stated that unarmed galleys should not be used as hospitals. However, we can infer that these regulations referred to a later period.[101] For less serious infirmities, sick oarsmen had to be treated aboard the galleys while at sea, where they could rely on an experienced surgeon.[102] Salvatore Bono also recalls that the practice of using an unarmed galley as a hospital was attested even in Genoa in 1559.[103]

2.3 Dock hospitals

The lack of space to care for rowers conflicted with the need to ensure their good health. For this reason, in the 17th century, hospitals were constructed in the docks of both Civitavecchia and Livorno, designated exclusively for treating slaves and convicts. These medical facilities served a dual purpose: providing effective medical care while ensuring that rowers did not escape under the pretext of illness. It is noteworthy that while every rower was guaranteed medical and hospital care, the cost for such treatment was borne by the rowers themselves,[104] leading to a situation where they accumulated debts they were unlikely to repay, at least in the short term. The establishment of medical facilities and the high level of care they provided not only had the merit of keeping the crew healthy, but also served to provide a place where they could be contained and controlled in the event of illness. Additionally, by fostering a state of indebtedness, these institutions ensured workforce continuity.[105]

In Livorno, references to a dock hospital for treating galley oarsmen can be found in the reports and letters on galley management as early as the late 16th century.[106] No further details are available, nor do we know the specific type of hospital it was, or whether it was solely used to treat galley crews. Considering that

99 ASF, MP, 2078, c.n.n.

100 Monga, *Aurelio Scetti*, p. 152.

101 ASF, MP, 2082, c.n.n.

102 ASF, MP, 2100, c.n.n.

103 Bono, *Schiavi*, p. 218

104 Lo Basso, Condannati alle galere, p. 124. This is also supported by the receipts of expenses for each rower conserved in ASF, MP.

105 As mentioned in Chapter 2, in the case of debts to the navy, convicted rowers were not released at the end of their sentence, but were usually employed as *buonavoglia* aboard galleys until they fully paid off their debts.

106 ASF, MP, 2131, dossier 3, c.n.n.

the earliest medical facility at the *Bagno* compound was located outside the walls, we can assume that this hospital mentioned in the 16th century was its original nucleus. Perhaps it was a garrison hospital, or a warehouse repurposed as a medical unit, as happened in Civitavecchia during the 1656 epidemic. The first hypothesis seems more plausible. In any case, whether the same hospital or a different one, we may turn to the hospital designated for crews after the construction of the *Bagno* between 1598 and 1604, as recorded by Father Filippo Bernardi.

One of the primary reasons for constructing the *Bagno* was to ensure the hygiene and care of the convicts and slaves. Initially located outside the *Bagno*, Cosimo III relocated the medical facility to a site beyond the *Bagno*'s warehouses. Ultimately, in 1697, to address the growing religious "promiscuity" within the hospital, the Capuchins decided to build a special, similarly-sized medical unit to care for Muslim slaves, adjacent to the Immaculate Conception of Mary Hospital, which was designated for Christians. Both facilities were equipped with their own apothecary, along with all the essentials to treat the sick as efficiently as possible. The attending doctors were mandated to visit the sick every morning, ensuring they received the care, medicines, and provisions necessary for their recovery.[107] The Commissioner of the Galleys was responsible for overseeing that doctors, surgeons, and their assistants treated the sick with diligence and charity, and that the necessary medicines were always available and properly administered. Medical staff were also required to send the Commissioner of the Galleys a daily updated list of rowers admitted to the infirmary, detailing the nature of their illnesses and the treatments they were receiving. This directive to register all the sick, as well as all those entering and leaving the hospital, had a twofold purpose. First, therapeutically, to acquire a better understanding of the illnesses suffered and the treatments given. Second, for monitoring purposes, to ensure no one could escape unnoticed, as might happen if the exact number of patients in the facility were not known.[108]

There were also twelve medical attendants, all of whom were forced *galeotti*. The most experienced worked as nurses, while the others served as cooks or orderlies. They were required to stay in the medical unit at night, both to care for the sick and ensure they did not escape. While the hospitalized rowers were under constant supervision, cases of successful escapes were not unknown. Two or three attendants worked in the Turkish infirmary, where they were joined by one or two *vigilanti di Maria*, who were responsible for checking that no criminal or blasphemous behavior occurred and, if it did, for notifying the nurse or

107 Bernardi, *Relazione*, p. 21.

108 See the aforementioned lists of hospitalized rowers preserved in ASF, MP, 2099–2118.

medical warden so that appropriate action could be taken. Naturally, working as a servant in the hospital provided an improvement in the convicts' living conditions. If they failed to perform their duties properly, these privileges could be revoked and the offenders returned to the *Bagno*'s dormitories.[109]

While designed as a highly rationalized space, sanitary conditions were extremely poor even within the *Bagno*. This was particularly evident in the Muslim medical unit, as noted by Father Filippo of Florence. In contrast, he praised the cleanliness of the Christian hospital, which appears to have been spacious and airy, with sixty beds whose sheets were regularly changed.[110] Despite the large number of beds, conditions within the Christian hospital were far from ideal. Records reveal that the number of inpatients frequently ran into the hundreds, especially during the winter months. The fact that there was only one medical facility for forced rowers often led to overcrowding, as no one could be refused access if they had been prescribed treatment by a doctor. Despite the directive that slaves and convicts were to receive care indiscriminately, there were clearly practical differences in their treatment. The lesser zeal applied to the care of the Turks is further evidenced by the fact that, when space had to be made for foreign troops, it was precisely the Muslims' medical unit that had to be vacated. For instance, in 1736, imperial soldiers were housed in a wing of the Turkish hospital while the Turks themselves were temporarily accommodated in a room next to the hospital.[111]

This comparatively limited—albeit minimal—care for the slaves may seem surprising, given that the official directives discouraged mistreatment and prescribed charitable treatment. Yet the Grand Duke had a vested interest in ensuring the well-being of the Muslim captives, in line with the rationale of reciprocity that governed Mediterranean captivity. News of any abuse could result in the immediate retaliation against Christian captives held in the Levant.[112] Although Bono's theory of Mediterranean "reciprocity" remains compelling, the sources suggest that in practice, the logic was far from absolute: slaves were often neither released nor repatriated.

A medical facility to care for convicts and galley slaves in Civitavecchia was established relatively late. Although the idea of establishing a hospital to maintain healthy crews had been considered several times, the fear that galley slaves might view hospitalization as an opportunity to escape the drudgery of rowing had prevented the project from being implemented. Numerous cases were reported of

109 Bernardi, *Relazione*, p. 42.
110 Ibid., p. 21.
111 ASF, MP, 2118, c.n.n.
112 Fiume, *Schiavitù*, p. IX; Santus, *"Il turco"*, pp. 49–51.

convicts feigning illness or infirmity to obtain better treatment or to be excused from oar duty. Their complaints were frequently not taken seriously, as they often pretended to be crippled or ill. When they fell ill for real, they were often left untreated, and many died as a result.[113] The high mortality rate, exacerbated by the plague outbreak of 1656, made it necessary to address the issue. In 1660, the Hospital of Santa Barbara was opened, with the stated goal to "cure, assist, and control them in every possible way."[114]

To prevent fraud, no rower could be admitted to the hospital without prior evaluation by the galley physician and surgeon. Once the severity of the illness had been confirmed, the rower was registered on a special list of the sick. The chain that shackled him to the bench was removed, and another was placed on his feet to prevent escape. He was then taken to the infirmary for as long as necessary. Once in the infirmary, the chain was removed to avoid further injury. Armed guards were stationed at the entrance day and night to restrain patients from escaping.

As in Livorno in May 1684—when the Capuchins were appointed to oversee the hospital and care for the sick "with devotion and sacrifice"—Christians were housed in a separate sickbay from Muslims, even on separate floors.[115] This segregation aimed to avoid religious promiscuity, although the therapeutic needs of both groups were similar. For rowers sentenced for a fixed duration, their hospital stay had to be recorded to prevent it from being counted as part of their sentence—which otherwise would have been reduced. This measure was introduced to avoid fraud, with severe consequences, especially in cases involving slaves.[116]

Doctors were instructed to visit the sick daily, or multiple times in cases of serious illness, and ensure proper care and treatment. The Papal authorities insisted that physicians, rather than medical assistants such as barbers, look after the

113 AAV, Misc. Arm. IV/V, b.54, f. 38: *Ordini per la nuova infermeria di S. Barbara nella Darsena di Civitavecchia:* "Quante volte s'é pensato, è parlato sopra al curare in terra l'infermità della Gente di catena delle Galere Pontificie, altrettante se n'è dismesso il pensiero, e discorso per le frequenti invenzioni, che ella è stata sempre mai solita usare à fine d'haver trattamento migliore, & esimersi dal Remo talmente; che altri apparire impediti de' membri, ò destituiti da forze sono col tempo riusciti stroppiati da vero, ò per altro inabili, altri per fingersi febbricitanti sono appresso ammalati effettivamente, e morti ancora."

114 Ibid.

115 Angioni, Leone, *La Guerra di Morea*, p. 19.

116 AAV, Misc. Arm. IV/V, b.54, f. 38: *Ordini per la nuova infermeria di S. Barbara nella Darsena di Civitavecchia.*

sick, as the latter lacked proper training and the required medical skill set.[117] Additionally, assistant barbers were often forced rowers or slaves, raising concerns about their reliability.[118] The physician was assisted by a surgeon and a chaplain.[119] The five galley surgeons helped the physician during daily rounds, remaining in the infirmary for a week, even overnight, to assist the surgeon.

One of the key issues was how to feed the sick, as the authorities knew that the nutrition aboard galleys was neither healthy nor balanced, often contributing to various illnesses. This was particularly true of the water, which was frequently left to stagnate. Although it was impossible to provide fresh and plentiful food, especially meat, for the entire crew, such foodstuffs were still necessary for the recovery of the sick. Their diet consisted of fresh meat, eggs, and bread, as well as hot soups made with rice and noodles, since a well-balanced, rich diet was essential to stimulate the healing process.[120]

Despite the hospital's establishment, sources indicate that hygiene and sanitary conditions improved only slightly, remaining largely unchanged from those in Livorno—too many sick people in a space that, while larger than the galleys, was still cramped. At times, the infirmary was so overcrowded that many could not be admitted, leaving many to suffer in agony on the decks of ships. Writing about their missions, the Jesuits even described the galley hospital as "hell on earth."[121] This lack of space became an urgent problem whenever an epidemic struck. In 1716, during a suspected contagious diarrheal epidemic,[122] it became necessary to separate the healthy from the sick, who were housed in a warehouse adjacent to the hospital. As we learn from Governor of Civitavecchia Niccolò Maria Lercari's letters to Cardinal Paulucci, the convalescent were later sent back to the galleys, where they were served a soup with sheep's blood [*sangue ircino*] to help

117 Ibid., f. 85; BCR, 34B13, *Raccolta di notizie e scritture diverse sopra le galere pontificie, armamento di vascelli, fatto dal papa Alessandro VII per soccorso di veneziani contro il turco, fortezza e porto di Civitavecchia*, f. 337 f.

118 ASR, Camerale III–Comuni, b. 846, *Capitoli per l'assento dello spedale delle galere*, f. n.n.

119 ASVR, Atti della segreteria, b. 74, *Giurisditione dell'e.mo vicario sopra le galere pontificie ed, in Civitavecchia, sopra l'ospedale di S. Barbara e su di alcune chiese (1722—1773), Breve relazione di quel ch'è seguito nell'esercizio della giurisdizione spirituale dell'E.mo Vicario di Roma sopra le galere pontificie, l'Ospedale di S. Barbara ed alcune Chiese di Civita Vecchia*, ff. 57v, 68v–69r.

120 Ibid., ff. 67r–68r.

121 ARSI, Rom. 132.I, *Breve relatione della Missione fatta alle Galere Pontificie in Civitavecchia da quattro padri della compagnia di Gesù l'anno 1649*, ff. 248–249.

122 It is possible that it was a typhus outbreak. The directive to find and dispose of all bad salami suggests an infectious disease like typhoid. However, the high number of hospitalizations and the fact that it coincided with the cold season suggest that another viral disease migh have been circulating alongside typhoid.

them regain their strength. According to Dioscorides, an ancient medical authority, consuming fried sheep's blood was an effective remedy for dysentery and abdominal pain.[123]

In addition to traditional medicinal remedies and pharmacopoeia, physicians also relied on the authority of prominent contemporary writers. As Lercari explicitly noted, the strategies for maintaining good health were grounded in the "physical-political reflections" proposed by Giovanni Maria Lancisi.[124] Serving as the first physician to Popes Innocent XI and Clement XI, Lancisi authored several works on how to contain and eliminate epidemic diseases, focusing on street cleaning, combating stagnant water, and separating the sick from the healthy. As the pope's personal physician, Lancisi held the highest medical authority of his time, and his influence was especially strong, particularly in the territories of the Papal States. While it is unclear which of Lancisi's works Lercari was referring to, it could have been either *De subitaneis mortibus*, published in 1707 after the epidemic that struck Rome in 1706, or *Dissertatio de Nativis*, published in 1711, which analyzed the issues of air quality after the catarrhal influenza outbreak that struck Rome in 1709[125]—or perhaps both. Regardless, the ongoing high number of sick people, which showed no signs of abating, made it necessary to repurpose the *Annona* warehouse—typically reserved for storing public grain—into a hospital.[126]

In 1716, Jesuits documenting their galley mission described hospital wards as filthy, desperate spaces.[127] This situation persisted well into the 1730s, when there was still a severe shortage of beds for sick rowers, forcing them to share the limited space. This overcrowding not only caused great discomfort, but it likely also facilitated the spread of diseases.[128] By 1770, the infirmary had not yet been expanded, and the solution to overcrowding was to quarter the sick in adjacent rooms. These additional sickbays, however, had to be outfitted with the full provisions required for proper treatment.[129]

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123 Dioscoride, *Della materia medicinale.*

124 AAV, Segreteria Stato e Prelati, b. 129, f. 48

125 Donato, *Morti improvvise*, pp. 64–68.

126 AAV, Segreteria Stato e Prelati, b. 129, f. 71.

127 ARSI, Rom.138, *Breve relazione delle missioni fatte in Civitavecchia il 1716 per ordine di nostro signor papa Clemente XI. Missione alle galere pontificie*, ff. 61–63.

128 BCR, 34D18, *Memorie e scritture diverse appartenenti alle galere Pontificie e condannati nelle medesimo Principalmente in tempo del tesorierato di mons. Lorenzo Corsini poi cardinale, e papa col nome di Clemente XII*, f.33.

129 ASR, Serie Bandi, b. 100 (1770, I semester), *Bando e Ordinazioni Pel buon regolamento delle Galere Pontificie nel tempo che sono in Darsena, e del loro Spedale, Ordini e provvedimenti per lo Spedale*, f. XIV.

2.4 Curing the body, purifying the soul

The coexistence of lay and religious professionals in the oversight of galleys could foster collaboration and tension. In general, whenever a chaplain intervened, it was often perceived as an intrusion into a sphere beyond his competence. In particular, serious disputes arose with the galley officers. As noted in a directive concerning the administration of the papal galley crews and land-based hospitals in the 18th century, chaplains were even accused of meddling in shipboard operations—punishing or ordering the punishment of criminals as though they themselves were naval commanders, while neglecting their assigned pastoral duties.[130] In contrast, within the context of Livorno, there is no explicit criticism of the chaplains' work, although several letters to the Grand Duke reveal a certain irritation toward Friar Ginepro's managerial choices regarding the inmates in the *Bagno*—at times deemed excessively harsh, at others overly lenient.[131]

During the early modern period, physical and spiritual care were closely intertwined, making collaboration between lay and religious personnel in hospitals inevitable.[132] Since their establishment in late antiquity and the early Middle Ages as places of refuge for travelers and pilgrims, hospitals had primarily been centers of religious devotion.[133] Within their walls, fluctuating dynamics of cooperation, competition, and conflict between medicine and religion are evident—both in the overlapping care of body and soul, and in the coexistence of lay and clerical medical and administrative staff.[134] Caring for the body and caring for the soul were seen as two sides of the same coin, even if the spiritual aspect usually took precedence over the physical aspect. Although the early modern period represented a moment of progressive secularization for the medical profession, its independence from religion was still a long way off.[135] One need only consider how certain areas of life remained off-limits for doctors, as evidenced by their obligation to yield to the priest when a prognosis of certain—or even presumed death—was given, so that the patient could receive Extreme Unction.

During the Counter-Reformation, religious oversight over medicine grew even stronger. Not only were medical staff expected to follow Catholic doctrine and

130 BCR, 34D18, *Memorie e scritture diverse appartenenti alle galere Pontificie e condannati nelle medesimo Principalmente in tempo del tesorierato di mons. Lorenzo Corsini poi cardinale, e papa col nome di Clemente XII*, f.33.

131 ASF, MP, 2107 etc.

132 See Henderson, *Renaissance Hospital.*

133 Nutton, *Late Antiquity and the Early Middle Ages*, pp. 77–79.

134 Donato, *Medicina e religione*, p. 27; Tomassetti, Dentro e fuori l'ospedale, pp. 118–123.

135 Ibid.

morality,[136] but hospitals themselves were conceived as spaces designated not only for physical recovery but also for the moral re-education of the sick. Illness was viewed as divine punishment, and the body could not be healed unless the soul was first purified.[137] Medicine itself was believed to be a gift from God, and doctors were seen merely as His instruments. In particular, St. Augustine promoted the image of *Christus medicus*—Christ as a divine physician concerned with healing humanity's spiritual illnesses. Unlike the human physician, the Almighty Physician was infallible[138]; thus, medical practitioners were expected to recognize their inherent limitations, especially in the face of death, where their power ended and they had no choice but to invoke divine help and defer to priestly authority.[139]

Pastoral care became even more urgent when it came to institutions dedicated to the care of slaves and convicts, who were highly immoral and often blasphemous individuals. The report on the disorder aboard the galleys during the Battle of Lepanto emphasized the urgent need to send eight or ten Capuchin friars to oversee the infirmary and to rely on a devout lay medical staff.[140] Once the Hospital of Santa Barbara was established, Pope Innocent XI entrusted both the management of the hospital and the sick's spiritual care to the Capuchins of the Roman Province with the Bull *Cum nos ad spiritualem militiam,* issued on 15 May 1684.[141] As a result, the hospital fell under the jurisdiction of the Vicar of Rome.[142] That it was entrusted to the Capuchins is unsurprising, given the Order's strong tradition in hospital care. The initiators of the Capuchins' Reform, Matteo da Bascio (1495–1552) and Ludovico di Fossombrone (c. 1490–1560), had distinguished themselves in caring for plague victims during the epidemic that struck Camerino in 1523. This influence was so strong that the earliest testimonies regarding the Capuchins outside the Marche region were recorded within the *Ospedali degli incurabili* [hospitals for the incurables] in Rome (1529), Naples, and Genoa (1530). Finally, in the Order's Constitutions of 1535–1536, it was stated

136 Pastore, Errori e peccati, pp. 775–797.

137 Minois, *Il prete e il medico*, (translation) p. 22 f.

138 Henderson, *Renaissance Hospital*, pp. 113–117.

139 See, for example, Zerbi, *De cautelis medicorum*, p. 61 f.

140 AAV, Misc. Arm. II, b. 110, *Secondo Avvertimenti sopra i disordini delle galere di S. Santità occorsi nell'anno passato 1571 dati da certe religiose persone et da bene con i remedij necessari et oportuni per emendargli, Rimedio facile et utile à sani et infermi e di poca spesa pare saria questo*, ff. 387—388.

141 Calisse, *Civitavecchia*, p. 412.

142 ASVR, *Raccolta di notizie di vario genere sui Diritti, giurisdizione e prerogative del vicariato di Roma, 1650—1740*, tomo 55, f. 652.

that the Capuchins must be at the service of the sick, even if this meant risking their lives, particularly during outbreaks of plague.[143]

By order of the Vicar of Rome, pastoral care was provided in Civitavecchia once the sick were admitted to the Hospital of Santa Barbara, where they had to confess prior to receiving treatment. The chaplains visited them daily—in the morning for Communion and in the evening for Confession. In addition to these regular sacraments, a chaplain always slept in the hospital in case of an emergency. This ensured that the sacraments could be administered even at night, if necessary.[144] There was also a chapel within the hospital, taking up the entire ground floor of the building, as can be seen from the map preserved in the archives of the Vicariate of Rome.[145]

Spiritual care was also provided in the Turkish infirmary by a Turkish minister called the *Papasso*, a name typically used to refer to mosque workers. The hospital's religious staff vehemently opposed the presence of this figure, as he was perceived as an obstacle to converting slaves to Christianity. However, based on the logic of reciprocity that characterized Mediterranean captivity, they were also aware that preventing "Turks" from practicing their religion would have meant that Christian slaves in the East would suffer a similar fate. Thus, the *Papasso* was tolerated.[146] Despite the great attention paid to the pastoral care of convicts and slaves, both on land and at sea, reports indicate negligence by both doctors and chaplains. In particular, the sacraments were often not administered, especially at the time of death. This occurred, for example, with Francesco Loggietti, a galley convict on the *San Benedetto.* Delirious from his illness, he was brought to the hospital for treatment. After being diagnosed as insane, he was refused admission, as no medical treatment could help him. He was then taken back to the galley, where he died without the assistance of a priest and without receiving Extreme Unction.[147] It is likely that such poor pastoral and medical care stemmed from the sheer volume of sick individuals and the scarcity of those able to tend to them.

143 Criscuolo, *I Cappuccini*, p. 71.

144 ASVR, Atti della segreteria, b. 74, *Giurisditione dell'e.mo vicario sopra le galere pontificie ed, in Civitavecchia, sopra l'ospedale di S. Barbara e su di alcune chiese (1722–1773), Breve relazione di quel ch'è seguito nell'esercizio della giurisdizione spirituale dell'E.mo Vicario di Roma sopra le galere pontificie, l'Ospedale di S. Barbara ed alcune Chiese di Civita Vecchia*, f. 68r.

145 Ibid., f. 76v–r.

146 Ibid., ff. 57v–58r.

147 Ibid., f. 178.

With regard to ministry to the sick in the *Bagno's* medical unit, records refer to a relatively late period, as the arrival of the Capuchins marked a significant development. In 1697, the hospital for galley crews was divided into two sections: one for Christians and one for Muslims. The reason for this separation was not medical: it was religious. As Father Bernardi indicates, it was blasphemous to Father Ginepro that "a priest should commend the soul of a dying Christian while, at the same time, blasphemous words from the Koran were being pronounced by a Turkish minister over a dying Muslim next to him."[148] Consequently, if a slave converted to Christianity, he was likely to be sent to the Christian hospital. However, if he disrespected the Christian religion, he was immediately transferred to the Turkish medical unit, as occurred in 1699, when a baptized "Turk" admitted to the Christian hospital was heard blaspheming the Pope.[149]

The following anecdote illustrates religion's key role in the spatial organization of medical care and the importance of providing space for Muslims to practice their faith unhindered. Apparently, in 1698, a scene depicting the Grand Duke's army was painted on the entrance door to the Turkish hospital, and a crucifix was also placed there. This fresco must have caused quite a stir. The Grand Duke was asked not only to remove the cross to avoid offending the "Turks" in the Barbary States, but also to officially state that the cross was not meant to mock the slaves who had been hospitalized.[150]

As in Civitavecchia, chaplains were specially appointed for pastoral care in the *Bagno* and, by extension, the hospital. Three in total, they lived in the hospice next to the hospital. The Muslims also had a religious minister, known in Tuscany as the *Coggia*, who was responsible for comforting sick slaves and assisting them at the moment of death.[151] In Livorno, the chapel in the *Bagno* was not adjacent to the hospital and, since it was either impossible or extremely difficult to move patients, Mass was celebrated both in the chapel and in the hospital.[152] For the same reason, the oil used in Extreme Unction was kept in a shrine above a tabernacle in the hospital, next to the convicts' beds, so that it would be readily available when needed. This sacred oil remained there for a long time, until, in 1749, a request was made to transfer it to the chapel. Keeping it within reach of the convicts

148 Bernardi, *Relazione*, p. 21: "un abuso del tutto medesimo tempo, un Sacerdote raccomandasse l'anima di un moribondo Cristiano, ed all'altra parte il Ministro Turco borbottasse tra denti parole scomunicate dall'Alcorano per aiuto di qualche Maomettiano agonizzante."
149 ASF, MP, 2104, c.n.n.
150 Ibid.
151 Bernardi, *Relazione*, p. 22.
152 Ibid., pp. 42–43.

seemed disrespectful, as they were criminals who could easily be blasphemous, or might even dare to steal it.[153]

2.4.1 The exorcism of Volumnio Maria Merucci in Livorno

The complex relationship of part-cooperation and part-competition between medicine and religion is most evident in supernatural cases such as demonic afflictions and exorcisms. Cases of demonic possession among galley rowers were not common, or at least, not many records have survived. However, in the correspondence of Romanello Romanelli, Vittorio Vitolini, Scribe of the *Bagno*, and Giuseppe Prini, Minister of the *Bagno*, several letters concerning one particular case of exorcism have been preserved. Why it was kept is unclear. Perhaps it was due to the length of the exorcism, which lasted almost a year; or because of the involvement of prominent figures, such as the Archbishop of Pisa. Alternatively, and perhaps more likely, it was because the authorities mistrusted the credibility of the affliction, which necessitated increased vigilance in managing the situation.[154]

On 11 May 1712, Dr. Romanelli sent a letter to Prini informing him that a Sienese convict, Volumnio Maria Merucci, who had been hospitalized at the Christian Hospital for tuberculosis, was suspected of being demonically possessed.[155] The suspicion, the doctor wrote, arose from various reported signs, considered by the hospital's chaplains to be "obvious" indications of possession. While the specific signs remain unclear, it is recorded that although Merucci was physically weakened, he showed no signs of spiritual submission. He fiercely resisted and refused the chaplains' exorcisms. It appears that the Capuchins were only temporarily able to confine the evil spirit from relocating from the body's upper organ—perhaps the heart or the brain—to its lower regions such as the feet. During these brief moments of freedom from the demonic spirit, the captive experienced some relief and regained a limited ability to move or respond. He apparently declared to the chaplains that he had entered into a pact with the devil, selling both his body and soul until his death. The exorcisms were most likely conducted at the behest of the Capuchins, who would have recognized Merucci's signs of demonic possession during their daily visits to the sick.

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153 ASF, MP, 2132, dossier 5, c.n.n.

154 All the letters by Vitolini, Prini, and Romanelli analyzed here are conserved in ASF, MP, 2108, cc. n.n.

155 See "*possessione demoniaca*" in Lavenia, *Dizionario Inquisizione*, pp. 549–554.

The question arises as to whether Romanelli's opinion was sought on the matter. While Romanelli provides a direct account, he appears to have been a passive observer, recording what he had witnessed and reporting it to his superiors, as expected of someone in his position. He did mention that, by nature, he was not inclined to believe in diabolic possessions, but he seemed to accept the Capuchins' judgment without much questioning, as they were convinced that the possession was genuine. The Capuchins continued to exorcise Merucci every morning and night.[156]

The *Bagno*'s authorities, however, were less certain and took precautionary measures to prevent the patient from escaping. Alongside preparations for the exorcism, an inquisitorial style investigation was launched to gather information about Merucci's past, character, and any potential motives for faking his condition to avoid his sentence at the oars. In fact, the chaplain at the Stinche prison, where Merucci had been held before his transfer to Livorno, confirmed that the convict had a reputation for swindling, and described the "very bad qualities of such a man, including deceiving others."[157] He also revealed the prisoner had previously sought to have his galley sentence commuted. His questionable nature led some to believe that he might have succumbed to the devil's temptations. The chaplain advised that exorcism should be delayed until the prisoner had been properly converted, confessed, and received communion, noting that "exorcisms have little effect on those with a guilty conscience who fail to perform the good and holy acts prescribed by the authors for the liberation of spirits."[158]

Despite these concerns, the initial exorcisms apparently had some effect, with Merucci appearing to be freed from the demon. Five days later, however, Romanelli informed Prini that the demon had once again possessed him. The second possession was preceded by what initially seemed to be a series of accidents but, in the eyes of the Capuchins, constituted unmistakable signs of demonic presence. Upon arriving at the hospital, the monks discovered not only an apple tree, which they had planted in a pot, smashed on the floor, but also a cage containing a live goldfinch—its wings and tail missing.

As in his first letter, Romanelli does not explicitly articulate his opinions, though a note of skepticism can be detected, especially in light of the aforementioned omens, which, as he observed, could have been caused haphazardly by

156 ASF, MP, 2108, cc.n.n, letter by Romanelli to Prini: "Io sono di natura di non credere cosi facciano queste cose, ma essendovi puntualmente mattina e sera, mi convince crederlo tale."
157 Ibid., letter by the Stinche's chaplain to Prini: "delle pessime qualità di un tal huomo, tra le quali una del rigirare e aggirare le genti."
158 Ivi: "Gl'esorcismi poco vagliono in quegli che hanno cattiva coscienza e non esercitano quegli atti buoni e santi richiesti dagli autori per la liberazione de i spiriti."

the wind, or even a cat. In one revealing sentence, which cautiously asserts a sense of professional caution, he tentatively takes a stance by arguing that Merucci's apparent demonic possession was at least partly faked, and at least partly due to the devil's intervention.[159] Romanelli, therefore, holds belief and doubt in suspension, demonstrating that credulity and skepticism are not necessarily incompatible, and that fiction and truth are not merely opposites. Conversely, throughout history, there have been frequent oscillations between these two positions, such as the outright rejection of the miraculous, on one hand, and the belief that it can never be called into question, on the other.[160] After all, to entertain doubt surrounding demonic affliction did not equate with denying the devil's existence, and like any other doubt, it could always be dispelled. In any case, given the involvement of the supernatural and the supposed possession that took place in the hospital, Romanelli took a step back, declaring that the case would have been better entrusted to the Inquisition.[161] Days passed, and while the Capuchins became increasingly convinced of the devil's presence, Prini remained equally skeptical and, so as not to be deceived, had Merucci wear the ring and iron sock he had removed upon admission to the hospital. The ring and the iron sock were the most common forms of punishment inside the *Bagno* compound. The ring [*anello tondo*] was the chain attached to the foot, while the iron sock [*calzetta di ferro*] could be described as a type of shin guard made of iron, with a varying number of meshes, generally between twelve and eighteen, depending on the prisoner's constitution. It was placed on the calf under the ring to limit the physical damage caused by the chain.

The use of chains as a punishment is unsurprising, given that oarsmen were usually not chained inside the *Bagno*. This penalty was even harsher when applied to slaves, as it meant depriving them of their privilege to step outside the *Bagno* to carry out their commercial activities in the city. As Romanelli noted in another letter, the exorcist—the parish priest from the church of Santa Maria del Giudice in Pisa—arrived at the *Bagno* on 9 June. The exorcism took place in front of the altar in the hospital, with great theatricality: the spirit inside Merucci began to defy the priest's incantations, causing the convict to fall to the ground, groaning like an animal. Within half an hour, he was reportedly free of the demon. The hospital chaplains claimed, however, that the exorcism had been so effective due to

159 Ibid., letter by Romanelli to Prini: "Quanto a me crederei ci fosse del briccone, molto del furbo, e parte del demonio."

160 For more this subject, consult Veyne, *Les grecs ont-ils cru à leur mythes?*

161 ASF, MP, 2108, c.n.n, letter by Romanelli to Prini: "e dalla Santa Inquisizione potrebbesi credo io assicurarsene meglio."

their preliminary work, which had led Merucci to confess twice and receive communion three times.

As Prini wrote, the exorcism's successful outcome was interpreted as confirmation of its veracity. Further validation came in the form of some "obvious signs" which, it was claimed, had gone unnoticed—such as a scar on the convict's left arm from which blood had allegedly been drawn to seal a pact with the devil. It is difficult to believe that these scars appeared suddenly, and even harder to accept that they had gone unnoticed, given that doctors were required to thoroughly inspect the patient's body during their evaluations. More likely, the medical staff had not been consulted in advance about such signs and scars, or the convict had acquired them later. Prini, too, admitted that this could be a genuine case of diabolic possession, yet suspicion lingered that Merucci was feigning affliction in his bid to avoid being sent back to sea. The most suspicious aspect, in Prini's view, was that the convict persistently requested alternative duties rather than a return to the galleys.[162]

Volumnio Merucci's exorcism appeared to be a closed chapter until February 1713, when the Archbishop of Pisa visited the *Bagno.* After celebrating Mass and distributing communion to nearly all the convicts, the Archbishop was taken to the sacristy to speak with Merucci, who—once again allegedly possessed—underwent two exhausting exorcisms, one lasting an hour and the other three and a half hours. Finally, on 3 March, Romanelli noted, Volumnio was officially and definitively freed—by chance, it seems—after being threatened with chaining and flogging.[163] Though Romanelli offered no commentary on the matter, it is reasonable to suspect that the convenient timing of this deliverance may have fueled lingering doubts about the authenticity of this possession. In any case, the affair closed on a positive note for all concerned: the chaplains could claim to have vanquished the devil, while Merucci was assigned the role of caretaker in the *Bagno's* main chapel, in the hope that proximity to a sacred space would protect him from future diabolic interference.

162 Ibid., letter by Prini to Vitolini: "due però sono i miei sospetti, e forse gran cosa lontani uno che abbia pattuito con il demonio e che vi sia qualche promessa di cavarlo dove si ritrova, e l'altro sia per astenersi dalla navigazione, e quest'ultimo me lo fa credere perché ora va cercando di qualche impiego per levarsi d'ozio, e da potersi esercitare nella pena, o vero in qualche cosa altro pure che resti franco dal remo."

163 Ibid., letter by Romanelli to Prini: "si crede liberato dopo averlo minacciato di catena e bastone."

2.4.2 The physician and the exorcist

Volumnio Maria Merucci's exorcism is noteworthy for our analysis of the relationship between medicine and religion because it illustrates how a doctor's opinion, which in theory should have been sought in hospitals, was not always deemed necessary. This was especially true when "spiritual diseases" were involved.

Diabolic possession—the presence of malignant forces within a body—was solely within the authority of the Church.[164] Nevertheless, inquisitorial practice was required to be extremely skeptical toward those claiming possession, often relying on medical consultation before determining its authenticity. In practice, with the affirmation of the doctrine of *discretio spirituum*—the ability to distinguish between someone possessed and someone ecstatic, or between the possessed and sainthood—recourse to medical advice became secondary, primarily serving to validate the theological diagnoses.[165]

The likelihood that certain diseases could be attributed to the devil had been discussed since ancient times: Galen claimed that Hippocrates rejected the possibility that some afflictions might have non-natural causes. The term "divine" was often understood not as supernatural but as celestial, implying that sudden changes in the air could affect temperatures and the humoral balance. Throughout the 15th and 16th centuries, this controversy gained renewed momentum, with the medical, theological, and legal worlds divided between those who accepted the possibility of the existence of "spiritual" diseases—and, by extension, medicine's limits—and those who categorically rejected the idea that diabolic forces could influence the natural world.

A notable example of supernatural causes of occult diseases and miracles is found in *De incantationibus* (1520) by the philosopher Pietro Pomponazzi. In this work, Pomponazzi attributes occult diseases and miracles to the power of the stars and the *vis imaginationis* [the suggestive power of the imagination]. Drawing on Galenic medicine, he argued that phenomena attributed to the devil were, in fact, natural effects caused by an imbalance of black bile. This imbalance, when it became melancholic, could affect individuals to the point of altering their imagination.[166]

Despite—or perhaps because of—the dissenting voices of many physicians, since the papacy of Pius V, the Church sought to regulate medicine, not only by

164 Lavenia, I diavoli di Carpi, p. 94.
165 Brambilla, *Corpi invasi*, p. 95.
166 Lavenia, La medicina dei diavoli, pp. 163–169.

requiring physicians to report suspected heretics before treating them, but also by fostering the convergence of official medicine and exorcism.

One of the most influential treatises advocating for this convergence was Codronchi's *De Christiana ac tuta medendi ratione* (1591). Initially a skeptic, Codrinchi began to believe in sinister influences after one of his daughters became possessed. Even doctors who supported the belief in diabolic possessions did not advocate for excluding medicine in such cases, as the body of the possessed person was still viewed as a natural body. The theory of humoral imbalance was not rejected, but instead linked to the devil's involvement. Medicine's role remained crucial, as the physician had to determine the reality of demonic intervention.[167]

Even Zacchia, though fundamentally skeptical of the numerous possessions and miracles documented at the time, acknowledged their likelihood by mediating between natural and supernatural causes. According to the Roman physician, those possessed were individuals suffering from melancholia, a true *instrumentum diaboli* [devil's instrument] that enabled possession. Zacchia's skepticism was not about the existence of the devil and the possibility of curses, but rather about how to recognize them, criticizing the excessive credulity and superstition of the masses.[168] According to the Candido Brugnoli's definition in *Alexicacon, hoc est opus de Maleficiis et Morbis maleficis* (1668), the *maleficium* [curse] was defined as an "an evil operation on the body, carried out by diabolical power as a result of a tacit or explicit pact between man and the Devil, involving the use of natural substances and the individual's collaboration, allowing the expression of his inclination toward evil."[169] While this curse had physical consequences, in the case of demonic possession, the treatment had to begin with the spiritual: the soul needed saving before the body could be healed.

As demonstrated by the case of Merucci's possession, the hospital doctor emerges as a largely passive observer. While he recorded events as they unfolded, he offered no explicit opinion. Yet the issue is not whether Romanelli believed in the possession, but that his input was never solicited—precisely because this was an instance where spiritual purification was considered a prerequisite to physical healing. Ultimately, the episode reveals a broader institutional tension: even if the

167 Ibid., pp. 180–182.

168 Brambilla, *Corpi invasi*, p. 99 f.

169 Biondi, *Tra corpo ed anima*, p. 407: "maleficio è operazione malvagia sul corpo, realizzata per potere diabolico, a seguito di un patto tacito o espresso intervenuto tra l'uomo e il diavolo, tramite l'applicazione di cose naturali e collaborazione dell'uomo stesso a sfogo della propria inclinazione al male."

doctor appeared to play a marginal role, his presence and documentation were essential to preserving the memory—and perhaps the legitimacy—of the event.

2.5 Unmasking those who feign infirmity

As indirectly evidenced by the numerous provisions instructing doctors and surgeons to exercise extreme caution in ensuring that only seriously ill rowers were exempt from duty and allowed to recuperate in the hospital, the practice of simulating diseases must have been quite common among galley crews. In March 1703, a letter arrived in Livorno from the *guardiano* of the crew working at Portoferraio, stating that six forced convicts had attempted to escape during the night by digging a tunnel beneath the dormitory floor. The leader of the escape, Agostino Bianchi from Rome, had feigned a severe toothache to remain in the dormitory, and while the others were out working, he dug a hole in the floor and prepared the escape. The six were ultimately caught and punished by having the ring placed on their feet with the iron sock, effectively shackling them as they would have been aboard the galleys.[170]

While feigning illness was prevalent in both the Tuscan and Papal fleets, more extensive legislation can be found regarding this issue for Civitavecchia's galleys. As evidenced by the edict for the construction of the Hospital of Santa Barbara, the project was deferred for as long as possible due to concerns that hospitalization would be used as an excuse to avoid serving in the galleys, resulting in an excessive number of inpatients, only a small proportion of whom were actually ill.[171] Once the situation became unmanageable for the opposite reason—too few patients and an alarmingly high mortality rate among oarsmen—it was finally decided to open the facility. However, access was only granted after the ship's doctor or surgeon had conducted a thorough examination and issued a medical authorization. Anyone who left the galleys without permission or on false pretenses was punished with a ten-year sentence in the galleys.[172]

Despite the fact that these orders and their associated punishments were renewed annually, the situation did not improve. Even in the late 18th century, action was still required in this regard. As late as 1770, it was still decreed that no convict could be unchained on account of being ill without first being seen by

170 ASF, MP, 2113, c.n.n.
171 AAV, Misc. Arm. IV/V, b. 54, f. 38.
172 Ibid., f. 85.

the doctor or surgeon assigned to the galley in question, and without a written report validating the illness and its specific characteristics. No rower could be allowed to enter the medical facility without such a certificate. Upon recovery, a discharge certificate was required and had to be submitted to the sailors on watch or the sub-guard, who were also required to inspect the recovered person to ensure that he had not stolen any items or food from the hospital.[173] Such directives were once again renewed in 1784 because, according to the Commissioner of the Galleys, rowers continued to exploit the status of "infirm" with extreme malice to avoid the drudgery of rowing and remain in the hospital for two or three extra days at the institution's expense.[174]

Even though all the edicts treat the simulation of disease as a matter of urgency, there are not many accounts of rowers feigning illness. This suggests that it was a common practice, and the authorities did not consider it important to record every single case. Likewise, it is plausible that most attempts to simulate illness occurred during the rowers' initial medical assessment, and therefore did not interfere with naval operations. More common, however, than feigned illness, are the documented cases of another form of deception: disguise.

In 1714, for example, reports surfaced of two escape attempts by a convict and a slave, who were found by the guards in possession of clothes, hats, and wigs. Particularly interesting is the case of the slave Ametto di Alì, sentenced to serve in the house of a Jew, who was caught stealing jewelry, gold, and silver worth 250 *pezze*. The slave had made a deal with two German soldiers who, in exchange for the loot, promised to help him escape and gave him a skirt and a woman's girdle to wear so that he would not be noticed. Unfortunately for them, all three were discovered, and the slave was sentenced to the gallows.[175]

Feigning illness was a pressing issue for early modern medicine and jurisprudence. In particular, the authors of the *Methodus Testificandi* noted how often convicted or suspected criminals simulated illnesses in court to avoid punishment. Aboard galleys, given the danger and harshness of sea voyages, there was a constant fear that rowers might feign illness to escape an uncertain and painful fate. In this regard, Chapter IX of the fourth book of the *Medicus-Politicus* by the Portoguese physician Rodrigo de Castro is noteworthy.[176] This chapter is entirely dedi-

173 ASR, Serie Bandi, b. 100 (1770, I semestre), *Bando e Ordinazioni Pel buon regolamento delle Galere Pontificie nel tempo che sono in Darsena, e del loro Spedale, Ordini e provvedimenti per lo Spedale*, f. XII.

174 ASR, Camerale III—Comuni, Civitavecchia, b.846, *Editto concernente il governo delle galere pontificie*, 1784, f. VIII; *Capitoli per l'assento dell'ospedale delle galere*, f. n.n.

175 ASF, MP, 2109, cc. n.n.

176 De Castro, *Medicus Politicus*, p. 251.

cated to the theme of simulating diseases and describes how, in 1588, de Castro himself was instructed to visit several Portuguese sailors accused of feigning illness to avoid the order to sail with the Spanish Armada and fight the English fleet. These sailors' desperation was so great that some of them were even willing to injure themselves in a manner that involved bloodshed to make their deception more credible.[177]

The naval captain Pantera, in his writings on galley management, also advises his readers to remain alert to the possibility that sick convicts were feigning illnesses to avoid active duty—or worse, escape. He recalls how many convicts were vagrants, condemned to serve in the galleys because they were accused of simulating diseases to shirk work. In particular, physicians were instructed to be extremely vigilant in this regard, for they were the only ones who, thanks to their knowledge, could ascertain whether an illness was real or not.[178]

3 The rower's physical examination

The galley doctor's responsibilities extended beyond treatment; he also had an oversight role, being tasked with examining the physical condition of the rowers to assess their fitness for duty. Rowing was an arduous activity, demanding good health prior to embarkation and throughout the voyage. Ultimately, only a physician could determine whether someone was healthy enough, and, therefore, capable of manning the oars.

A medical assessment was requested at the time of conviction to determine the condemned person's suitability for galley service. This involved a thorough physical examination—including observation, auscultation, and palpation—typically carried out by surgeons, who were, at least in theory, the sole medical practitioners permitted to perform hands-on procedures. For convicts, this moment was pivotal: if declared unfit, an alternative punishment had to be arranged. In such cases—due to missing limbs, lameness, blindness, or old age—the sentence would specify a substitute for galley service: imprisonment, forced labor, banishment from the city or for the gravest crimes, execution.

In general, a sentence was commuted to imprisonment for a period considered equivalent to that spent at sea, or to forced labor either aboard the galleys,

177 Ibid.: "Anno 1588. Quo in gens illa classis ad versus Angliam Olisippone parabatur, naturae & milites plerique data opera lecto decumbentes testimonium ex me petiere, ut à praefectis veniam impetrarent domi manendi, aut maris aut belli taedio, aut quia exitum praeviderant, & ad majorem fidem sanguinem sibi mitti nonnulli curarunt."

178 Pantera, *L'armata navale*, p. 111.

for example as a cook, or on land, in the city's dockyard. For instance, in 1756, Giuseppe Puleggi from Soriano was sentenced to seven years in the galleys for theft. Due to his advanced age, he was not assigned to manning the oars. However, given that he was still in good health and fairly robust, it was decided to send him to work in the Annona warehouses, transporting stones to the masons working there. The following year, in May 1757, Puleggi managed to escape from Civitavecchia by exploiting the very infirmity that had spared him from rowing duty. His condition—a source of suffering and humiliation—now became his unexpected ally. Due to his advanced age, Puleggi lagged behind the others and was always the last to return from the stores to the galleys. One day, taking advantage of being left behind, he escaped. Five months later, he was found by the guards on one of his farms outside Soriano, arrested, and taken back to Civitavecchia, where he was tried by the City Governor. When asked how he managed to escape unobserved, Puleggi explained how he had concealed the iron chainmail on his foot by loosening his trousers and had covered his shaved head with a handkerchief, as travelers were wont to do. Disguised in this way, he pretended to be chasing some pack animals and managed to slip out of the city through Porta Corento.[179]

Turning to the broader practices established in the late 17th century in the Papal States, following the establishment of the *Carceri Nuove* [new prisons], the convict's preliminary medical examination was conducted in the *galeotta*—the room where convicted rowers were held before transport to Civitavecchia.[180] According to Aurelio Scetti's diary, there was likely a similar room with the same function in the prison in Pisa during the late 16th century. However, no mention is made of a preliminary examination, suggesting that such an assessment may not have been required in the early years of galley punishment.[181]

Enslaved rowers underwent a thorough physical inspection at the time of their capture, during which they had to be "inventoried with details such as their names, surnames, homeland, age, height, hair, face, and body markings."[182] Similar to convicts, the decision whether to employ a slave aboard was predicated upon the surgeon's medical opinion, as he was tasked with determining whether they were "useful" or "useless" for rowing duty. Those deemed healthy and robust

179 ASR, Tribunale poi Governatore di Civitavecchia (1589–1913), b. 640, dossier 9, f. n.n.

180 Calzolari/Di Sivo/Grantaliano, *Giustizia e criminalità*, pp. 31–32.

181 Monga, *Aurelio Scetti*, pp. 35–36.

182 ASF, MP, 2131, dossier 3, *Ordine, che si ha da tenersi dal commissario delle Galere, e da gl'altri offitiali di esse da qui avanti, non ostante qual'si voglia altro uso in contrario et prima,* c. 25r.

were assigned as oarsmen, while others were either put to forced labor or sold off, along with women and children.[183]

Thus, for example, in the inventories of the galleys in 1555, we find the entry: "Saim Granatino of Algiers, aged 35, is blind and cannot row."[184] In another case, in a 1620 letter addressed to the captain of the galleys, it is noted that the young 20-year-old slave Abdi, captured while fleeing Naples, had never served in the galleys "for having always been ill, and is now convalescing in the *Bagno*." Abdi's infirmity was marked by visible signs on his body, particularly his face, which was "pitted by smallpox."[185]

Likewise, a surgeon's assessment was required when it was necessary to ascertain an infirmity incurred during duty. If a rower was certified as unfit due to an incident while in service, he was relieved from galley duty. If his inability only prevented him from rowing but did not hinder him from performing other duties or sea voyages, he would still be assigned to work either on land or on the galleys, until his sentence was completed.

For example, in 1621, Candio di Horato Bellieri from Genoa served the last two years of his sentence as a deckhand in the stern of the *Santa Maria,* after completing his forced labor sentence—begun in April 1615—as a rower in the Tuscan galleys. Master Antonio, the hospital surgeon, reported that Bellieri was "forty-and-a-half-years old, of good stature, and crippled in the legs. He has a blunderbuss wound that passes across his body from one side to the other, causing discomfort to his soul."[186]

In the same year, Girolamo Ferrini, surgeon of the *San Carlo* galley, recounts how Lorenzo di Bastiano Mazzieri from Florence, bound in chains since 16 May 1600, aged about 37, after having rowed for ten years on the *Santo Stefano*, had spent two years as a cabin boy in the bow chamber due to liver pain.[187] Similarly, in 1728, there is a record of a forced oarsman Lorenzo Stefanini, who, because he was "broken on both sides"—though the exact ailment is unclear—was no longer able to row and thus served as a nurse at the *Bagno*'s hospital.[188] Those who were totally incapacitated—especially the elderly—were often confined to prisons. In

183 Ibid., c. 30r–v.

184 ASF, MP, 627, c. 63r.

185 ASF, MP, 2083, c.n.n.

186 Ibid., c. n.n: "d'età d'anni 40 mezzo, statura giusta di buona vita e rotto dalla parte da basso, et ha una archibusata nel corpo a banda dritta che passa da l'altra banda, che li da fastidio al'Anima, che tanto referisce mastro Antonio cerusico dello spedale."

187 Ibid., c.n.n.

188 ASF, MP, 2114, n.n

the Papal States, this meant the prisons of Rome,[189] while in Livorno, they were sent to the *Bagno.* In some cases, declining health could even result in freedom. In the end, an unfit rower became a financial burden, and it was considered more economical to release or reassign him.

In 1697, 120 convicts were released from the Papal galleys as part of a clemency act; all were deemed too old or otherwise no longer viable for service and were either freed or reassigned to public works. Among them was Marc'Aurelio Benedetto Fabri, whose life sentence was commuted to exile. As he was considered unfit due to his failing eyesight and advancing age—69 years old—Fabri was not sentenced to the galleys but instead was banished from the region where he had committed the crime. Bernardino di Giovanni Paolo from Rieti, who had been sentenced to perpetual galley service, was released due to his disability. Bernardino d'Antonio Colarroni, alias Tuccio from Terni, had his ten-year galley sentence for theft and escape—which commenced on 12 May 1697—commuted to forced labor until his sentence was completed, due to a debilitating injury to his left hand.[190]

Despite the harsh living and poor sanitation conditions to which they were subjected, many rowers lived to a ripe old age. Clearly, a 50-year-old man was considered elderly at the time. Yet, the sources reveal a surprising number of rowers in their 60s, 70s, and even 80s, often describing them as "decrepit old men."[191] Medical care for galley rowers was relatively good, especially compared with the situation in public hospitals. In Livorno, for instance, on 3 August 1710, some 30 slaves were freed by an act of clemency because they were old and infirm; most were blind and frail, however, and rarely left the *Bagno* except to go to the hospital.[192] More than an act of mercy, this decision to free these slaves was motivated by practicality. As long as they remained in the *Bagno*—where they were entitled to daily treatment, food, and clothing—they were a financial burden. Furthermore, given that they would never recover, admitting them to hospital only meant that they took up space and beds that could instead be allocated to younger slaves who might recover. Finally, given that these elderly patients and

189 See, for example, ASR, Tribunale Criminale del Governatore di Roma (1505—1871), Congregazione della visita alle carceri (1528–1870), b. 140, f.4.

190 BCR, 34D18, *Memorie e scritture diverse appartenenti alle galere Pontificie e condannati nelle medesimo Principalmente in tempo del tesorierato di mons. Lorenzo Corsini poi cardinale, e papa col nome di Clemente XII, De' forzati Liberati da Innocenzo XII—e aggraziati di commutazione, e diminuzione di pena*, ff.129–197.

191 Bono, *Schiavi*, p. 122. As Bono reminds us, age was a determining factor in setting the price of a slave, and individuals were considered "old" at the age of 60.

192 ASF, MP, 2107, c.n.n.

inmates were unable to move, they apparently washed themselves even less than others, contributing to the accumulation of filth and the spread of disease.[193]

Of note among these freed slaves are Alì of Ametto from Biserta, Ametto of Califfa from Giggieri, and Said of Alì from Tripoli. The first two were 76 and 80 years old, respectively, and had been slaves for 35 and 40 years, never leaving the *Bagno* because they were crippled and blind in both eyes. The 80-year-old Said was also blind.[194]

That there are more references to old, frail slaves than to forced convicts can be explained by the fact that the slaves were, in many ways, better suited to rowing. The assumption that Turks were more suited to life in the galleys is not to be understood as implying a difference based on the anachronistic concept of "race" as theorized in the 19th century.[195] Indeed, as outlined in Chapter 2, Pantera's naval treatise distinguishes between various categories of slaves—Turks, Moors, and Blacks—suggesting that a concept of race may have already existed. This racialization, however, would appear to be based on geographical and religious grounds rather than genotypic.[196] Pantera's position on the supposed superior suitability of Turkish slaves for maritime labor is, in fact, the opposite. He argued that Turks were unsuited to life at sea and were employed as oarsmen not for their nautical skills but for their presumed docility, which made them more likely to obey orders.[197] Most Turks aboard the galleys, however, had been captured from Ottoman ships, and so, if not sailors, were at least familiar with life at sea.[198]

The *forzati*, by contrast—many of whom came from the Italian mainland—were convicted of various crimes and may never even have set their eyes on

193 Ibid.

194 Ibid.

195 For a provocative discussion on the significance of "race" in the early modern times, see Heng's *The Invention of Race*.

196 We must not forget that, according to Galenic medicine, the human body was composed of a specific temperament, often influenced by climate and habitat. This personal temperament not only shaped the personality of each individual but also determined their susceptibility to certain diseases.

197 Pantera, *L'Armata navale*, p. 131.

198 See, for example: BAV, Stamp.Ferr.IV.8532 (int.4), *Fedel relazione mandata dall'Illustrissimo Signor Balio di Cremona C. Bernardo Vecchietti generale delle Galere della Sacra Religione Gerosolimitana Del viaggio, e presa delle tre Galeotte, Fuste, e vascelli d'Infedeli. Fatta dalle medesime Galere in Levante*, in Roma, appresso Ludovico Grignani, 1641: "Si rinforzerà la Religione, ché oltre a 36 ebrei assai ricchi, ci sono parimenti molti Turchi mercanti, conseguentemente di buon riscatto [...] si rinforzeranno anco le Galere, per esse molti dell'altri assuefatti al remo."

the sea.[199] Many were sentenced to the galley for fixed periods, and when they continued rowing after completing their sentence, they did so as *buonavoglia*, until they had repaid their debts. It is difficult to determine how long they lived after release, or how the harsh conditions they endured as galley oarsmen affected their health. Yet, a comparison of the death records of convicts and slaves preserved in the archives gives the impression that the slaves lived longer. Furthermore, daily life for convicts on land was far harsher than for slaves—who, when not at sea, were unshackled and were allowed to run workshops and taverns in the port districts. They could also learn trades such as cooking and surgery, the income from which was put toward their ransom and their eventual emancipation. Convicts, on the other hand, remained chained at all times and were assigned to strenuous labor, requiring greater physical exertion, exposing them more acutely to disease and bodily decline.[200]

A more thorough physical examination took place during what was known as the *taglio degli schiavi*—the formal appraisal of a slave's condition used to determine his market or ransom value.[201] If slaves were treated as commodities, then their state of health had to be assessed accordingly. The use of medical expertise to evaluate a slave's health was an ancient and integral practice in buying and selling—or redeeming—slaves. Like any other transaction, the exchange of slaves was not only an economic act involving a calculated price, but also the transfer of rights and property. To guarantee fairness and confirm the validity of such transfers, medical practitioners were frequently called upon to examine the slaves before the sale.[202] The same applied in cases of ransom, to ensure that captives were not released for a sum below their assessed worth.

Undoubtedly, this physical inspection was one of the most discriminatory moments for slaves, as it further deprived them of their humanity and underscored their status as commercial commodities.[203] While the slave trade was practiced in both the Christian and the Muslim Mediterranean, practical manuals on how to physically examine the enslaved body were initially drafted by doctors of Muslim origin. One such example is the *al-Kitāb al-Malikī* by the Persian physician Haly Abbas (930–994). Thanks to the Latin translation by Constantine the African, the work was known in the West by the 12th century under the title *Liber Pantegni*,

199 Lo Basso, *Uomini da remo*, pp. 344, 355 f. The same applied to contracted rowers, many of whom were poor people from the countryside who had signed up in search of an income, see p. 20 f. This thesis is also accepted by Bono, *Schiavi*, p. 219.

200 ASF, MP, 2108, c.n.n.

201 Chizzolini, *The "taglio degli schiavi"*.

202 Barker, *Precious Merchandise*, pp. 98–104.

203 Ibid., p. 92.

though it enjoyed little success.[204] An apparent exception to this Arab monopoly was the *Cirugia Universal* (1597) by the Spanish royal surgeon Juan Fragoso and the aforementioned *Medicus Politicus* by Rodrigo de Castro.

These two treatises are notable for several reasons. First, they are unique for the period in which they were written. To our knowledge, there are no other medical treatises produced by Europeans during the 16th and 17th centuries that address the topic of physically examining slaves—even if only in a specific chapter. Furthermore, Fragoso and de Castro, while both drawing on earlier Arab authors, differ from them in that the Arab manuals were not intended for surgeons, but rather for those buying slaves, who were expected to perform the physical examination. One possible hypothesis is that these two authors wrote their treatises to systematize a body of knowledge that had been passed down from the Arab world and that had become established in the Mediterranean at that time. This is particularly significant in the case of de Castro. Although originally from Portugal, de Castro published his work while in Hamburg, and the intended medical audience was likely that of the Hanseatic port, which was probably not yet familiar with the practice of examining slaves as was common in the Mediterranean. Indeed, from the Thirty Years' War (1618–1648) onward, Germany, along with France and England, became involved in the slave trade between Africa and Brazil.[205] De Castro was familiar with Fragoso's work, as both hailed from the Iberian Peninsula, and the texts are nearly identical in content, with both simply repeating the teachings of Arab authors.

In the second book, entirely devoted to the different types of declarations surgeons had to make after their examinations, Fragoso laid out instructions on how to determine the sale price for a slave in the paragraph *Como se ha de aver el Cirujano en la declaracion y examen de un esclavo que se vende* [How the surgeon should proceed in the declaration and examination of a slave being sold]. As the author explicitly states, he primarily drew upon the teachings of the Arab physician al-Razi (865–925).[206] First, the slave's skin color had to be examined to ensure

204 Ferragud, Role of Doctors, p. 146.

205 Rissel, Hamburg in the Atlantic Slave Trade, pp. 75–96; Mallinckrodt/Lentz/Köstlbauer, *Beyond Exceptionalism*. The sources I analyzed also mention slaves sold by German merchants. In 1710, for example, there is a reference in the *Bagno* to a slave named Macameto di Calilla di Marasci, aged 66, who arrived from Germany in 1694 (ASF, MP, 2107, c.n.n.). The presence of the British and French in the Mediterranean slave trade has been well documented by Massimo Bomboni in his paper *Northern Experiences of Mediterranean Slavery in the Tuscan Sources*, presented at the international workshop *Captivities: Experiences and Institutions of Slavery in the Early Modern Mediterranean*, Bologna, 18–19 May 2023.

206 Fragoso, *Cirugia universal*, p. 570 f.

that there were no signs of disease, such as white spots [*aluarazos*] or ulcers, especially in areas that could be concealed, such as the armpits and groin. A poor skin color or paleness could suggest liver or stomach disease, or very bloody hemorrhoids. The examination continued with a hearing test. The slave's speech and behavior were acutely observed to assess his overall health and character. What followed was an eye test to evaluate the size and condition of the eyes. Special attention was given to the color of the sclera; brown suggested leprosy, yellow pointed to liver disease, and red indicated inflammation. If the eyelashes moved heavily and with difficulty, or if they were thick or rough, it was more likely a sign of leprosy.

From the eyes, the examination moved to the nose and mouth. The surgeon had to ensure that the slave's breath did not emit a foul odor. The nostrils were then examined in sunlight to detect fistulas, and the mouth was opened to inspect the teeth, which needed to be straight, strong, and clean. Small, fragile teeth that could easily be lost were considered a sign of bodily weakness.

The neck and throat were then inspected for any signs of swelling or previous swelling. If dry, these areas could easily develop into ulcers. The chest was then examined to determine whether it was large and fleshy, as a small, thin chest with protruding spinal bones could suggest that the slave might eventually suffer from typhus. Thin, excessively protruding hips, and frequent bleeding were also symptomatic of typhus.

The surgeon then inspected the abdomen by touching or lightly squeezing it with his fingers, palpating for any tumors or pain, especially in the area of the liver and spleen, as well as the pylorus. The slave was asked to walk to assess the strength of his steps. He was instructed to squeeze something so that the surgeon could determine how much force he could exert. This would help assess the state of his nervous system. The slave was then asked to run so that the surgeon could observe whether he was coughing or breathless at the end, possibly due to asthma or choking. In addition, the hands and feet were observed to see whether they had good proportions, with neither being larger than the other. Finally, the surgeon examined the legs to check for thick and wide veins, as these were often symptoms of varicose veins or leprosy.[207]

In the fourth book of de Castro's *Medicus Politicus*, devoted to various types of medical examinations, Chapter XIII focusses on the physical assessment of slaves to determine their sale price: *Declarandi ratio circa emptitios servos* [The procedure for declaring the purchase of slaves].[208] A slave's physical evaluation was

207 Ibid.

208 De Castro, *Medicus Politicus*, p. 263 f.

akin to an ordinary medical check-up. The doctor's first step was to carefully examine the slave's complexion in the light to assess his overall condition. Next, the skin color and condition had to be analyzed to rule out the presence of diseases such as scabies, leprosy, or elephantiasis, as well as other infectious diseases. Any deviations from "normal" skin color indicated poor nutrition and could be divided into three types: white, black, and reddish, depending on the predominant hue.

Although the procedures described by de Castro often mirror those found in Fragoso's manual, they are presented with greater clinical specificity and applied in a broader diagnostic framework. Where Fragoso's approach centers on legal declarations, de Castro's text integrates more active testing-posture, muscular exertion, and ocular responsiveness—suggesting a shift toward functional evaluation.

This shift is particularly evident in the detailed examination of physical symptoms where de Castro looks beyond mere observations to diagnose specific conditions. For example, the presence of varicose veins on the back might indicate "melancholic blood." Sparse and loose hair, especially in the eyelashes and eyebrows, combined with a hoarse voice and a flushed face, could suggest the onset of leprosy. Venereal diseases might be diagnosed through hair loss and weakness in the extremities and joints. To evaluate a slave's overall strength, de Castro recommended doctors monitor their posture and movements, as well as the way they held objects. The next step was to test their hearing and eyesight. Doctors had to ensure their teeth were both healthy and complete. The eyes, in particular, required close examination, for blindness would render a slave completely incapable of working. The pupils had to be equal in size, the eyeball had to be white, free from secretions or redness, and the movement of both eye and eyelid had to be normal. Breathing should be unobstructed, and no discharge should be expelled from the mouth or nose. The assessment concluded with palpation of the slave's abdomen and chest, whereby he was positioned on his back to detect any tumors or other irregularities.[209]

Unfortunately, no evidence of price fixing or negotiations for the ransom of slaves from the Papal galleys have been found. There are several sources for the Tuscan context, however. Here are just a few examples: In October 1682, it was decided to ransom the slave Asano of Usaino from Biserta, who had served for six years. He was described as having brown hair, of strong build, two scars from a stab wound on his left arm and a small burn on his wrist, and a "large flower"—perhaps a birthmark or a hemangioma—on his right arm extending to his shoulder. Despite a ruptured intestine on his right side, he was relatively

209 Ibid.

young at 35 and strong enough to row. More importantly, since he had been a Janissary at the time of his capture on the Turkish galley, his ransom was set at 500 gold *scudi.*[210]

An exchange that took place in July 1696 illustrates the extent to which the ransoming of slaves was primarily driven by economic motives. At that time, a ransom had been offered for the slave Amor Muccio, registered in the *Bagno* under the name of Amore of Abdallà from Tripoli, commander of the galley on which he had been captured off Capo Spartivento on 10 July 1688. He was 65 years old, and blind, as confirmed by his pupils' dilation and opacity, according to Romanelli's account. Muccio had never undergone the aforementioned *taglio*, but it was clear that, given his state of health, his ransom price would have been very low.

At the same time, however, a slave named Macametto of Amore from Tripoli submitted a memorial in which he claimed to be Amor Muccio and offered 250 pieces of 8 *reali* for his freedom.[211] This relatively low price was due to the fact that, although he was only 35 years old, he had been unable to man the oars for three years due to sciatica in his left leg, as confirmed by the galley surgeons' reports.

The *Bagno* authorities decided to accept the exchange and finally released him upon payment of 290 *pezze.* Given that the nerves in his leg were damaged, he was unable to row and, by extension, was considered worthless as a laborer. However, Macametto's better health and younger age allowed for a margin of profit, as the price paid for Amor Muccio would have been even lower due to his poor health.[212] Such considerations continued to determine ransom decisions over the following decades. Thus, in August 1702, the slave Durach of Amida from Cavalla was freed for a mere 40 *pezze.* It was impossible to ask for more for a man who

210 ASF, MP, 2099, c. 441. The Janissaries were slaves of Christian origin who were forcibly conscripted as young men and taught the Muslim religion. As a result, many of them became the most fanatical followers of Islam and were considered the best military corps in the Ottoman army. See the positions expressed in BAV, Stamp.Cappon.V.683 (int.93), *Breve relatione dell'imprese fatte contro Turchi delle galere di Malta della Religione di S. Giovanni. Et dalli Galeoni dell'illustruissimo & Eccellentissimo Sig Duca d'Ossuna Vice Rè di Sicilia. Dove s'intende la presa fatta nell'Arcipelago di due Vascelli Turcheschi, e d'altri quattro nel porto della Goletta, con la presa, e morte di molti Turchi, e liberazione di molti schiavi Christiani,* in Viterbo, 1616: "360 schiavi, la maggior parte sono Giannizzeri, che sono li migliori, & più bravi soldati che habbia il Gran Turco."

211 The price of the ransom in Livorno was usually fixed in *pezze da 8 reali*, a silver coin weighing 4.032 grams, minted by Duke Ferdinand II in 1656. See Martini, *Manuale di metrologia*, pp. 209, 283 f.

212 ASF, MP, 2103, c.n.n.

had been enslaved for 43 years, had no teeth, and had spent all his savings on alcohol.[213] Similarly, in April 1728, the ransom demand for the slave Mustafà of Abdallà from Stanchio was accepted for 80 *pezze*. Given that he was 74 years old and in imminent danger of dying, the Tuscan authorities hastened to accept the ransom to avoid losing even that modest sum.[214]

Paying as low a price as possible was a priority when buying slaves. There were slaves aboard the galleys who were not captives of war, but had been purchased to man the oars. In 1549, the Grand Duke ordered the purchase of slaves for his galleys. They had to be between 18 and 35 years old, not older than 40, free from incurable diseases, and in good health. They could be of Turkish or Morlach origin, provided the cost of buying and transporting them did not exceed 35 gold *scudi*.[215]

In August 1702, a French vessel arrived in Livorno from Cagliari with some slaves for sale. One of them, Ali of Salem from Morocco, was 25 years old, and described by the surgeon Franceschini as "of olive complexion, rather tall, and handsome." While the ring finger on his left hand had been crippled by a bullet wound, he could still row well, according to the surgeon, who had found him strong and robust, with no other physical defects. He had been bought in Cagliari for the sum of 105 *pezze* of 8 *reali*, and sold to Livorno's navy for 110 *pezze* of 8 *reali*.

Another slave, whose name is unknown, was young and strong, though he had a blemish on his cheek. Fearing it might be a sign of disease, the galley surgeon suggested that they wait before acquiring him and re-examine him a few days later. As the blemish had not changed, the surgeon concluded that it was a birthmark, recommending the purchase of the slave. This recommendation was particularly compelling, as even the French must have believed the birthmark indicated a disease, and had set their price at just over 40 *pezze*. After all, the surgeon wrote, it was better to acquire a slave for 42 *pezze* than to pay a salary to a free rower.[216]

4 Controlling the crew: crime, punishment, and medical expertise

In Chapter 1, I discussed the central role of medical action *a posteriori*—not aimed at providing treatment, but rather at assessing the health status and judging

213 ASF, MP, 2105, c.n.n.
214 ASF, MP, 2115, c.n.n.
215 ASF, MP, 2077, c. 333r.
216 ASF, MP, 2105, c.n.n.

whether a disease or injury had already occurred and, in particular, emphasizing the importance of medical expertise in court proceedings, the obligation to report suspicious cases, and the function of post-mortem examinations.[217] While the galleys and the docks were distinct social settings—somewhat removed from official society—similar dynamics in judicial prosecution and in the roles assigned to doctors in cases involving prosecuted *galeotti* were observed. As previously mentioned, these tasks centered on the belief that the doctors could reveal conclusive truths by examining physical evidence, particularly in post-mortem cases. In instances of murder or violent injuries, medical examinations aimed to assess the severity of the injuries and determine the causes of death, establish the accused's innocence or guilt, and evaluate the degree of their culpability to decide on punishment. Punishing transgressions was essential for maintaining discipline among slaves and convicts, serving as a deterrent against excess and disorder. While the primary purpose of medicine was therapeutic, one of its greatest potentials emerged when healing was no longer possible, and the focus shifted to evaluation.

4.1 Injuries as evidence

The directives governing the management of crews on Papal and Tuscan galleys prohibited various forms of behavior aboard, including altercations and other aggressive acts. Regardless of whether the violence was in response to an offense or in self-defense, any form of violent assault was strictly forbidden, and anyone committing a violent act was to be severely punished—either through exemplary fines, corporal punishment, or both.[218] Those who witnessed a confrontation and failed to notify naval officers were subject to punishment. The threat faced by trained medical officers onboard was even more severe. Barbers aboard the Papal galleys could be sentenced to up to five years at the oars if they treated rowers showing signs of violence on their bodies without reporting the injuries to the authorities.[219]

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217 De Ceglia, *Body of Evidence*; De Renzi, La natura in tribunale; Pastore, *Il medico in tribunale*; Watson, *Forensic Medicine.*

218 ASF, MP, 2131, dossier 3, *Instrution a voi Pietro Dini di quello che havrete à fare nello sciorinare, et purgare la robba della presa delle Galere*, c.n.n.; AAV, Misc. Arm. IV/V, b. 54, f. 85.

219 AAV, Misc. Arm. IV/V, b. 54, f. 85, *Frà Vincenzo Rospigliosi generale delle galere pontificie, governatore di Civitavecchia, Sovraintendente generale delle fortezza e Torri marittime di tutto lo Stato Ecclesiastico:* "7. Li Signori Capitani, Comiti & altri Officiali siano tenuti, e debano far mettere in catena qualsivoglia persona, che rissasse, ò tumultuasse, ò alterasse di parole in Galera alla presenza loro con darne à Noi subito parte afinche li Delinquenti venghino castigati sotto

Before analyzing some trials initiated for altercations between enslaved and convicted rowers, it is important to note that most of these trials involve fights that took place ashore, rather than at sea. Even when violent skirmishes occurred aboard, they always took place during breaks from sailing on the high seas. This is hardly surprising, for rowers—free or enslaved—were chained to their decks during sea voyages. Consequently, it would have been more difficult to commit acts of violence at sea, given their severely restricted movement. If such acts did occur, there would likely have been no means to properly prosecute them during the voyage. Furthermore, even if such prosecutions had been possible, there was neither the time nor the interest. For example, in 1600, a notary aboard the Tuscan galleys was specifically tasked with prosecuting knights, soldiers, and officers while at sea. None of the recorded trials mention slaves or convicts, however.[220] In contrast, many trials took place on land, especially in Livorno, where slaves and convicts were not shackled and could move about freely, particularly within the *Bagno*. Furthermore, slaves had even greater freedom of movement, as they were unshackled during non-sailing periods, and could work in the city's dockyard. As a result, they had access to and from the *Bagno* compound, which increased opportunities to get involved in violent altercations, even with the general population of Livorno.

Let us analyze a few cases of violent assaults and murders where medical advice was required, starting with the Tuscan context. The sources examined fall into two categories. The first consists of reports from trials for assault and murders committed by galley rowers, found in a legal booklet titled *Liburnensis Iurisdictionis*, dated 1733, and signed by the lawyer Giovanni Fei. The pamphlet, designed as a tool for the Commissioner of the Galleys to assert his authority over the Governor's intervention in cases of violent behavior between rowers, first presents a series of examples in which the two jurisdictions intersected, followed by a summary in which the surgeons' reports are documented for each case.[221] The second category consists of a series of criminal trials held by the Governor. In some instances, it has been possible to locate the criminal trial corresponding to the cases described in *Liburnensis Iurisdictionis*.

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pena à chi trasgredirà di scudi 100 & altre ad arbitrio &c | 8. Li Comiti, Sottocomiti, Agozzini & altri respettivamente debano, succedendo alcun delitto ò scandalo, denunciarlo alla nostra Corte subito sotto pena di scudi 50. E di anni cinque di galera, & altro ad arbitrio &c nelle quali pene incorreranno li Barbieri delle Galere, loro Barbierotti & altri che cureranno feriti, stroppiati, e altri offesi non li denunciando nel modo suddetto." For the Tuscan galleys, see ASF, MP, 2131, dossier 3, n.n, *Ordini da osservarsi nelle Galere del Ser.mo G.Duca di Toscana.*

220 ASF, MP, 2082, c.n.n.

221 ASF, MP, 2132, part II, dossier 8, *Liburnen. Iurisdictionis*, cc. n.n.

On 1 August 1650, Casone of Gimillo, a slave on the *Santa Vittoria*, was wounded in the throat while in the bow room. The surgeon reported that he had severed an artery. Due to the severity of the injury, the aggressor faced the maximum penalty. As Casone was unable to speak, he could not identify his attacker. A search was conducted among the rowers, and Bastiano Petrini, a forced rower, was found with a knife smeared with blood. The discovery of the weapon, combined with witness testimony stating they had seen Petrini with bloody hands shortly after the attack, was considered evidence of his guilt. Petrini's crime was deemed extremely grave, not only because it involved attempted murder, but also because it occurred within the galleys. As punishment, Petrini was sentenced to imprisonment with the "iron sock" in the *Bagno*, plus five years of galley service.[222]

In March 1651, a murder trial was held before the court of the Governor of Livorno, following the death of the slave Amet of Persia—known as Ciuff—who, on his return to the *Bagno* at night after a day working in the dockyard, encountered Orazio di Domenico Vitali, a woodcutter from the town.[223] The two quarreled and Ciuff, who insulted the boy by calling him *bardassone*—a depraved sodomite—was wounded below the rim of his right eye. Although initially the attack appeared to have caused a minor bruise, four days later, the slave began to suffer from "acute fever and chest pains" and died.

To determine whether death had occurred as a result of the beating, and hence whether Vitali should be considered guilty of murder, the court relied on the report by the doctor who had examined and treated the slave: the surgeon of the *Bagno*, Salvatore Cosci. While the surgeon argued that death had been caused by chest pains, the fever, which certainly worsened the condition, was probably linked to the head wound. Since Vitali was a legally considered a minor—he was 25 years old—the trial concluded with him being sentenced to six months in exile. Should he refuse to go into exile, he would be sent to Florence's Stinche prison.[224]

This trial is notable because it triggers reflection on another duty of doctors, inextricably linked to assessing the severity of wounds or performing autopsies: the duty to notify. In fact, during the trial, the Governor, who had intervened as the attack took place outside the compound, claimed to rule not only on the woodcutter's presumed culpability, but also on that of the surgeon, who was accused of "not having made the usual report" to the Governor, as required by

222 Ibid., *sommario* 7.

223 Chizzolini, Medici a Livorno, pp. 86–88.

224 ASLi, Capitano poi Governatore poi Auditore Vicario, 1550–1808, b. 3082, f. 112 r–v; b. 3233, f. 14 r–v.

law. Medical practitioners were obliged to report any case of violence they treated so that controls could be tightened and violence reduced both at sea and on land. Ultimately, however, the surgeon was acquitted because the slave's death was not directly caused by the wound he had sustained. Although he had not reported the incident to the Governor, he had informed "those who administer justice in this *Bagno*," specifically the Scribe, as was required.[225]

As reported in *Liburnensis Iurisdictioni*s, in February 1652, a forced convict by the name of Francesco di Lorenzo was recovering in the *Bagno* infirmary. According to the surgeon's report, he had been "wounded in the lower abdomen below the ribs with a penetrating wound" after having been stabbed by another forced rower during an argument. Given that di Lorenzo was "in danger of [losing] his life," the aggressor—the friar Giovanni Battista Allegrini de Servi—had to be punished in an exemplary manner and was subsequently sentenced to an additional five years in the galleys.[226]

In 1657, Macometto of Ali from Tituano was sentenced to 200 lashes for having wounded Rais Mostafà of Macometto of Malvagio—a slave on the *Capitana*—by cutting the nerves in his neck. The attack was reportedly motivated by Mostafà's doctrinal beliefs, which did not seem to be entirely in line with the precepts of the Muslim religion.[227]

In another case, brought in 1657, Barca of Suleiman from Algieri, a "black" slave in the *Bagno*, was accused of having wounded a certain Ametto of Saide from Gerba with a knife. Ametto's injuries left him with a crippled middle finger, rendering him unable to row. Barca was therefore condemned to have his nose and ears severed.[228] Amputation of ears was a punishment generally reserved for thieves. Thus, to deprive the fleet of a skilled oarsman might be considered a form of theft. The reference to *denasatio* [cutting off the nose] is notable, especially when considering the particular symbolic meaning, closely linked to the sphere of personal identity, that this practice carried in the Middle Ages. As early as the 13th century, Albertus Magnus claimed that cutting off someone's nose symbolized the unmasking of moral deformity, a corruption that persisted even without its physical material form.

As the Venetian Penal Code of 1443 postulated, a man's face was the mirror of his honor: to damage it was to dishonor his person. In a society such as the European one—where honor and reputation were paramount, anyone without a nose

225 Ibid., f. 14 r–v.
226 ASF, MP, 2132, part II, dossier 8, *Liburnen. Iurisdictionis*, n. 16, *sommario* 8.
227 Ibid., n. 17, *sommario* 9.
228 Ibid., n. 18, *sommario* 10.

was instantly recognizable as belonging to a specific social category: criminals. Losing one's nose meant a loss of face, and therefore, a loss of honor.[229]

Such was the gravity of the offense that, though there were legal provisions for it, amputating someone's nose was used more as a threat and only executed in exceptional cases—unlike cutting off someone's ears, which held less symbolic significance. Amputation was an extremely grisly punishment, likely reserved for the gravest offenses as an alternative to capital punishment, in order to prevent the navy from being deprived of able-bodied men.

Thus, in August 1701, it was decided to cut off the nose and ears of the slave Macometto of Fesso Manetta because he had wounded Cosimo of Alì from Mes, the *spalliere* of the *Padrona* galley,[230] by stabbing him in the arm. Macometto had previously wounded a slave and killed the chief slave trader, for which he had already been sentenced to ten years in prison. Wounding Cosimo only worsened his predicament. Cosimo was considered the best of all available slaves, and the loss of such a skilled oarsman was regarded as a great blow to the fleet.[231]

Similarly, in October 1674, Mustafà of Ibraino from Tunis was sentenced to 160 lashes, and had his nose and ears severed for stabbing Giuseppe—the son of the Captain of the *Bagno*—in the back.[232] Evidently, Mustafà had come to work in the biscuit shop drunk. After repeated disturbances and bouts of insolent behavior, he was slapped by Giuseppe, who told him to get back to his cell and sleep off his drunkenness. As Giuseppe was about to leave the *Bagno*, Mustafà jumped on him. Striking him on the back, Giuseppe managed to shake off the slave, but when he started walking again, the slave pounced on him, stabbing him. He would have struck again had the other slaves not intervened. Once again, the slave blamed his actions on alcohol and begged for forgiveness. Drunkenness, however, was clearly not a mitigating factor.[233]

Notwithstanding, it is reasonable to assume that, in addition to alcohol, a voluntary element of hatred and opposition to superiors played a role in such violent

229 As written by Gadebusch Bondio, I denasati e i medici, p. 159: "In quanto parte prominente del viso, il naso è strettamente connesso all'individualità e alla dignità della persona [...] La *scissio nasi* o *denasatio* appare però anche tra le punizioni fisiche previste dalla legge tra il Quattrocento ed il Cinquecento proprio perché si prestava meglio di altre a distruggere l'immagine della persona segnandola per sempre." For a general reflection on physical marks as identifying signs —such as cutting off ears and nose—see the works of Groebner, *Defaced* (translation), pp. 68–86; *Storia dell'identità personale* (translation.), pp. 92–100.

230 Lo Basso, *Uomini da remo,* p. 31. These rowers, positioned on the first two stern benches, were tasked with timing the rest of the crew.

231 ASF, MP, 2105, c.n.n.

232 ASF, MP, 2132, part II, dossier 8, *Liburnen. Iurisdictionis*, cc.n.n.

233 ASLi, Capitano poi Governatore poi Auditore Vicario, 1550–1808, b. 3082, trial n. 335.

outbursts. Altercations between slaves, forced oarsmen, and officers were common. For instance, in July 1705, Francesco Mosti, a forced rower, was tried for injuring Zaccaria Bertelli, another convict and *vigilante*, after preventing him from entering the *Bagno di San Giuseppe* a week earlier. Although Francesco Mosti was not housed in that wing of the *Bagno*, it did house Raffaello Braccini, with whom he had been caught sodomizing at Christmas—an offense for which both had already been flogged. In revenge, Mosti struck Bertelli seven times, inflicting six life-threatening wounds, including fractures and bleeding, as reported by the surgeon Giuliano Cini.[234]

As already noted by Cesare Santus, alcohol seemed to be the primary cause of violence within the *Bagno.*[235] Given that wine was part of their daily diet, it is not difficult to imagine that many of the *Bagno*'s inmates abused alcohol in an attempt to render their appalling living conditions more bearable.[236] Inside the compound, desperation was so prevalent that even cases of self-inflicted violence were common. From the sources, it appears that it was primarily slaves, rather than convicts, who attempted suicide.[237]

The higher percentage of suicides—an extreme act of courage and desperation to escape slavery—among Muslim slaves, as compared with Christians, had been noted by Salvatore Bono.[238] This can be explained by the stricter condemnation of suicide in Christian teachings. In *Summa Theologiae* (1265–1274), Thomas Aquinas places suicide among the gravest sins an individual could commit. In contrast, in Roman culture—thanks to the influence of Stoicism—suicide was forgivable, tolerable, and even recommended as an act of great nobility. According to Christian theology, however, the act was considered contrary to the work of the Creator. Suicide was stringently condemned as a violation of natural law, and thus to the principle of self-preservation, of civil law, insofar as the individual was part of the community; and of divine law, as human life was a gift from God to humankind.[239]

Among the trials analyzed, one particular murder-suicide case is notable. In 1674, the slave Casagno of Ametto from Tunis—a cabin boy on the *Capitana*—was tried for the murder of Abassisi of Ametto from Tripoli, also a slave. On the pretext of wishing to shave his private parts, Casagno, managed to obtain a razor, with which he slashed Abassisi's throat, and then attempted in vain to

234 ASLi, Capitano poi Governatore poi Auditore Vicario, 1550–1808, b. 3087, c. n.n
235 Santus, *"Il turco"*, pp. 122–123.
236 Bono, *Schiavi*, p. 185.
237 Some cases of suicide are reported in ASF, MP, 2102, 2113, and 2114.
238 Bono, *Schiavi*, p. 291.
239 On suicide see Barbagli, *Congedarsi dal mondo.*

kill himself by slashing his own throat twice. Due to the cruelty of the act, Casagno was sentenced to death, ironically achieving the goal for which he was punished.

What is noteworthy about this case is the absence of any apparent motive for such a brutal act. The authorities could not fathom what had led Casagno to commit such violence, since both he and Abassisi were comrades who ate together and had never been seen fighting.[240] The murder was neither caused by enmity nor by alcohol. We cannot offer a definite answer, but we can speculate—even indulge in some conjecture. The trial records suggest that Casagno's actions stemmed from sheer desperation. He may have either realized the gravity of his act in a moment of madness or premeditated it as a means of escaping the painful and inhumane conditions of slavery.

In Civitavecchia, due to the lack of onshore facilities for confining slaves and convicts when not at sea, all the trials related to riots and murders took place aboard the galleys. Unfortunately, the surviving trial records for the Papal fleet are sparse and mainly pertain the mid-18th century. Nevertheless, the procedures followed were similar to those used on land under normal conditions. The key difference from the Tuscan case, however, lies not only in the smaller number of extant trials, but also in the reportedly less rigorous manner in which offenders were prosecuted. Most trials held by the court under the authority of the Governor of Civitavecchia did not result in custodial sentences. It remains unclear whether this indicates that the trials were left unresolved, or whether the judgments are preserved in an as-yet unidentified archive. Given that some of the surviving trials do involve a sentence, the former hypothesis seems more likely. Furthermore, the alleged leniency of the punishments seems to be corroborated by the testimonies of those involved. In 1745, for instance, galley captains complained that armed fights were still breaking out too frequently aboard ship. To address this issue, they asked the Governor to replace the ineffective beatings—punishments that clearly failed to instill fear—with harsher measures such as the *strappado*—a method of suspended torture that dislocated the arms.[241]

In any case, what is of particular interest here is that, in the event of a brawl or murder, a surgeon's expertise was always required. In March 1760, Nicola Cuchiarelli from Benevento and Francesco Savero Ciolli, both life-sentenced rowers on neighboring benches, were prosecuted by the Governor of Civitavecchia. Allegedly, after an argument, Cucchiarelli struck Savero on the right ear with an axe, and Savero retaliated by stabbing him in his left side with a knife. Seriously injured, both were taken to the Hospital of Santa Barbara. According to the gal-

240 ASLi, Capitano poi Governatore poi Auditore Vicario, 1550–1808, b. 3082, trial n. 47.
241 ASR, Tribunale poi Governatore di Civitavecchia (1589–1913), b. 650, dossier 1, f. n.n.

ley surgeon, Domenico Siri, both men were in mortal danger. Cucchiarelli had a wound three fingers long and half a finger wide in the lower ribs on his left side, while Savero had a wound two fingers long, extending from his temporal bone along the length of his ear and down to the bone, with torn muscles and nerves.

When asked what had happened, Cucchiarelli claimed that Savero had started the fight and that he had simply acted in self-defense, though he could not recall whether he had struck Savero with a wooden or an iron stick. He insisted that he had been the one to receive the first blow. On the other hand, Savero claimed that Cuchiarelli had attacked him out of anger because Savero had sided with a certain Guerrino, whom Cucchiarelli had previously insulted. The two men began to fight and when Cucchiarelli realized he could not win with his bare hands, he grabbed the axe.[242]

While the exact sentence is unknown, the court records suggest that the Governor believed Savero's account. If the absence of a verdict indicates an unresolved trial, it can be surmised that no punishment was deemed necessary, as neither man died. Furthermore, both convicts were already serving life sentences in the galleys, and imposing corporal punishment would have risked losing valuable rowers.

In July 1763, a trial was initiated against Francesco Verzelli, a cabin boy on the *San Prospero.* He was accused of fatally wounding the convict Giuseppe di Marco in the left arm with a gunshot from a harquebus while the vessel was entering the port of Anzio. The bullet shattered bones, tore muscles, veins and arteries, and the galley surgeon was forced to amputate the arm in an attempt to control bleeding and prevent infection.

Upon admission to Santa Barbara, di Marco was asked who had injured him and why. He identified Verzelli as the assailant, but could not provide a clear explanation for the attack. According to the testimony, on 25 June di Marco was carrying some onions when one fell into the storeroom below, where he found Verzelli holding a harquebus. When di Marco inquired what Verzelli was doing with the firearm, Verzelli shot him without apparent provocation, as the two had never quarreled. While the motive remains unclear, it is plausible to conclude that the shot was accidental.

Despite the amputation, di Marco succumbed to a gangrenous infection on 5 July, which spread from his arm to his chest, neck, and shoulder blade. Verzelli denied firing the shot, claiming he was merely in the wrong place at the wrong time. He asserted that he had been asleep in the room, and was awakened by the

242 ASR, Tribunale poi Governatore di Civitavecchia (1589–1913), b. 655, dossier 11, f. n.n.

sound of the gunshot. Testimony, however, from other sailors who had seen Verzelli holding the harquebus contradicted his account, leading to his conviction. As a result, he was sentenced to wear a double chain.[243]

4.2 Uncertain deaths: medical examinations and post-mortem judgments

Closely linked to assessing the severity of injuries was the task of examining bodies where the cause of death was uncertain and, where necessary, performing an autopsy. Identifying the cause of death was primarily a question of determining whether it was natural or violent. In the event of a natural death, it was necessary to find out whether the death resulted from some unknown disease, and, if so, whether it was contagious, so that appropriate precautions could be taken. Should the cause of death be violent, however, it was crucial to establish whether it occurred as a result of an accident or an act of aggression. In cases where death was the result of someone else's actions, it was essential to identify the perpetrator so that the most proportionate punishment could be applied.[244]

In the correspondence between Vittorio Vitolini, Scribe of the *Bagno*, and Giuseppe Prini, Minister of the *Bagno*, it is noted that, in 1709 a convict died in Livorno after complaining for three years of a pain beneath his right clavicle, at the level of his first rib. He had been hospitalized multiple times, but treatments proved ineffective, until he suddenly developed a high fever, difficulty breathing, and began coughing up blood. He died shortly thereafter. The attending medical staff were unable to determine the cause of death, as the patient had never previously exhibited any fever or signs of wasting. At Dr. Romanelli's request, the corpse was dissected, revealing an enlarged and inflamed pulmonary lobe, with a nodule that had grown so large that it occupied half the lung's surface. The nodule was fleshy and difficult to cut, with pulmonary gangrene observed underneath it. Although the exact diagnosis is not recorded, it seems reasonable to assume that the cause was a lung abscess, likely due to a tumor. Notably, there were no signs of tuberculosis, and no preventive measures were thought necessary.[245]

"Carbuncles" [*anthrax*] and tumors were particular concerns for medical staff. They were widely recognized as the most obvious symptom of plague after the emergence of buboes. These black-crusted tumors were often confused with or re-

243 ASR, Tribunale poi Governatore di Civitavecchia (1589–1913), b. 656, dossier 20, f. n.n.
244 De Ceglia, *Body of Evidence;* Park, Criminal and Saintly Body; Pastore, *Il medico in tribunale,* pp. 30–36, 81–87;
245 ASF, MP, 2107, c.n.n.

sembled *petechiae*—small red or purple spots caused by subcutaneous bleeding. Whenever inmates died with these symptoms, a post mortem was conducted to ensure that the cause of death was not bubonic plague. For instance, in March 1731, the superintendent of the galley warehouse informed the Commissioner of the galley squadron that a slave had suddenly died in the *Bagno*'s infirmary due to a tumor in his throat. Whereupon, the hospital's two doctors and four surgeons were ordered to perform an autopsy, suspecting it might be a case of a "poisonous disease." Ultimately, the precaution proved unnecessary, as the medical team determined that the tumor was not indicative of anything malignant, but rather the consequence of *erysipelas*—a dermatological condition already recognized as non-contagious at the time.[246]

Post-mortem examinations were also crucial in determining the cause of violent deaths. On 9 March 1650, aboard the Tuscan galley *San Francesco*, a dead body was found in the *scandolaro*—a storeroom at the rear of the craft. The body was that of a man about 30 years old, with red hair, and dressed as a sailor. As noted by Giovanni Battista di Vincenzo Mugrone, the assistant surgeon of the galley, the body displayed multiple wounds: one above the right breast extending "six fingers" (approximately 11–12 cm) toward the right arm; another caused by a bullet to the right elbow; and a third on the left ribs. A final wound extended from above the left shoulder all the way down to the kidneys. The description of these wounds matched those on a mariner named Tommaso Napoletano, who had been treated five days earlier after a fight with another oarsman named Giuseppe di Giovanni. According to Mugrone, the wounds on Napoletano's arm and chest were so deep that they were likely fatal. The autopsy report confirmed that Napoletano had died from these two penetrating injuries. Della Bordigliera was subsequently found guilty of homicide and sentenced accordingly.[247]

On 16 November 1654, the *aguzzino* on the Papal galley *San Pietro* was awoken at around five a.m. by convicts shouting, warning him that one of their companions had thrown himself overboard. After searching all the benches, he discovered that Giuliano Careso was missing. Shortly thereafter, Careso's body was found, tossed by the waves against the stern of the galley *Padrona.* The body was immediately pulled aboard, but it was too late: Careso had already drowned. His corpse was laid out on the bow, with his clothes stripped off, no hat, no shoes, and his chains still in place. The galley surgeon was called to examine him. The *aguzzino* reported:

246 ASF, MP, 2116, c.n.n.

247 ASF, MP, 2132, part II, dossier 8, *Liburnen. Iurisdictionis*, *sommario* 4, n.n.

> There was a dead man, whose name I do not know, lying on the ground with his face to the sky, a blackened face with blood in his mouth and nose, all swollen, and even frothing. He had two shackles on his right foot, one of which had a chain with fourteen links, with the last link broken… I cannot say by what instrument the chain was broken, nor can I determine the cause of death. However, because he is swollen, I'd say that he had drowned.[248]

The report from Francesco Parentanio, the surgeon authorized to voice an official opinion, confirmed the *aguzzino*'s suspicions:

> I can clearly see this dead man, who, having neither bruises nor wounds, is entirely bloated, his face blackened. I judge that he drowned, because I observe it is unusual for a man to be so bloated […] I judge, in [good] conscience, as far as my knowledge allows.[249]

Once the cause of death had been determined, the next step was to understand how Careso had managed to escape from his bench while still wearing his shackles. To assist in this, two blacksmiths were summoned to examine the chain. Both agreed that it had neither been cut nor sawn through, and that it was in perfect condition. They concluded that someone must have loosened it, as Careso could not have escaped otherwise. Suspicion soon fell on Vincenzo, a *mozzo*—a trusted sailor or auxiliary—who had unfastened Careso a few days earlier. Vincenzo had been ordered the previous Monday to replace Careso's chain. Careso's fellow benchers were all questioned and each confirmed that they had seen Careso bribing Vincenzo to change his chain during the night. They reported that both men had been drinking together around half past midnight, on the night before Careso's death. Despite Vincenzo's denials that he had replaced Careso's chain with a lighter one or had any dealings with him, the testimony of the entire crew pointed to his guilt.[250] As a result, Vincenzo was found guilty not of causing Careso's death —which appeared to be accidental—but rather of bribery and of releasing a convict without authorization from his superiors. This was considered a serious

248 BCR, 34B13, *Raccolta di notizie e scritture diverse sopra le galere pontificie, armamento di vascelli, fatto dal papa Alessandro VII per soccorso di veneziani contro il turco, fortezza e porto di Civitavecchia*, f. 320: "che v'era un huomo morto, che il nome io non lo so, disteso in terra con la faccia verso il cielo, quale era con la faccia negra e sangue nella bocca e nel naso tutto gonfio facendo anco la schiuma et li aveva due maniglie al piede diritto, una de quali maniglie haveva una catena di maglie 14 e ultima maglia rotta… non posso sapere con che strumento sia stata fatta detta rottura, e di che sia morto io non lo posso giudicare ma perché è gonfio dico che si sia affogato."

249 Ibid., f. 323: "Io vedo benissimo questo morto che non havendo botte ne ferito e tutto gonfiato con la faccia negra giudico che sia affogato perché colgo esser difforme d'un huomo per essere tutto gonfio […] giudico in coscienza per quanto s'e rende il mio sapere."

250 Ibid., ff. 320 – 329.

crime, punishable by corporal punishment, removal from office, and often incurred the same sentence as the convict: service in the galley.[251]

Finally, it should be noted that among the numerous sudden and violent deaths, several resulted from the rowers' dissipated lifestyles, which, even if unintentionally, brought about their own demise. In March 1709, the slave Macametto of Abdala from Constantinople and known as "Stambuli," was found dead inside the *Bagno*, lying on a table where he had been sleeping. According to the surgeon Franceschini, the cause of death was the slave's excessive alcohol intake and constant smoking.[252] In this instance, there was no one to punish, only a dead slave whose fate elicited pity.

251 AAV, Misc. Arm. IV/V, b. 54, f. 85: "28. Nessuno di qualsivoglia stato, e conditione ardisca far'sferrare Forzati, ne altro huomo di catena senza ordine del Sig. Proveditore i quale non lo doverà fare se prima non li viene ordinato da Noi, ò dal nostro Luogotenente generale in nostra assenza, sotto gravi pene corporali ad arbitrio, e privatione dell'offitio [...] 45. Che niuno di qualsivoglia conditione ardisca far sferrare, e sferri, ò disponga de forzati, ne di altri huomini di catena senza licenza nostra sotto pena di pagare quel che fuggisse à nostro arbitrio, e se sarà con dolo, & a mal fine la pensa sarà della galera e a vita."

252 ASF, MP, 2107, c.n.n.