

# MEDICINE IN MALTA IN 1800-1810

## Contrasts, Concepts and Personalities

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The dawn of the 19th century stands out as a turning point in Maltese history—socially, politically, commercially and culturally.

In June 1798 there occurred an overnight change from the centuries-old conservative and feudal government of the Order of St. John of Jerusalem (1530-1798) to the short lived but hectic, liberal and egalitarian regime of the French under Napoleon (1798-1800).

The Maltese masses were deeply shaken as they were totally unprepared for this abrupt and radical transformation of their political, social and religious life which tore asunder their traditional attitudes and beliefs. The reforms introduced by the French, especially those touching the religious tenets of the Maltese, uprooted the pattern of life of the people, rendered the new masters unpopular and provoked the islanders to rise in arms against them. The outcome was two years of war, disease and starvation and an invitation from the Maltese to His Britannic Majesty George III to place the Island under his protection. Thus was ushered in the British period in our history (1800-1964).

When the French finally capitulated in September 1800 and Great Britain took over the civil and military administration of Malta, the Island was in a very poor

shape. Its economic life was shattered, with impoverishment of the people. The organisation of the medical services that had evolved during the previous two centuries was disrupted and replaced by makeshift hospital arrangements to meet the demand of the unexpected war crisis. The period of readjustment that followed the end of the hostilities was long drawn out and difficult.

The Royal Commissioner, Sir Charles Cameron, who was charged with the administration of the Island was faced with a daunting task. He was inundated with petitions for financial assistance from private individuals and from public officials to make good the losses they had suffered during the French occupation and to tide them over the hard times of the aftermath of two years of war and destruction.

### **The plight of medical men**

The petitions submitted to Sir Charles Cameron included requests for the granting of gratuities for dependents of deceased government employees; for reinstatement to former medical posts abolished by the French; for appointment to vacant offices and for pensions following retirement from the medical organisation of the Order after many years service—even as long as fifty. There were also requests for increases in stipends due to the rise in the cost of living and for the removal of salary anomalies among the same category of medical men. Complaints

on this score were especially heard from the *medici dei poveri* (literally "doctors for the poor") corresponding to the present District Medical Officers.

Some of these physicians had left the towns at the beginning of the revolt against the French and joined the insurgents in the countryside to give their professional services to the poor sick and the men of the Maltese battalions without receiving any salary or any other kind of remuneration (*Ordini e decreti*, 1805).

A case, representative of the situation at this period, is that of Dr. Angelo Pace who had entered the medical service of the Order of St. John in 1760 as a *medico dei poveri* for Floriana. He later joined the navy as a medical officer, serving on the frigates and the galleys, until he was reappointed *medico dei poveri* for Birgu where he remained for twenty-one years. On the advent of the French in Malta his post was suppressed and Dr. Pace threw in his lot with the insurgents and settled at Mdina where he cared for the orphans received into the Seminary and treated the sick admitted to the emergency hospital set up in the Church of St. Sebastian and its adjoining house at Rabat during the fever epidemic of 1800. In December of this year, on the return of peace, he was reinstated as *medico dei poveri* at Birgu but he was not paid a salary until a year later (*Ordini e decreti*, 1805b).

Another instance is furnished by the petition of Giuseppe Stivala "first pharmacy assistant" at the Civil Hospital for men at Valletta. "At the opening of the gates" of Valletta, i.e. on the capitulation of the French forces blockaded inside the fortifications of Valletta and the other towns round the Grand Harbour, the hospital pharmacy was completely devoid of drugs and the administrator of the hospital instructed Stivala to supply the pharmacy with the necessary medicaments which he did "with zeal and exactitude" and at his own expense and without receiving any emoluments for his work for five months.

A further plea for payment came from the *bragherista* of the same hospital, Giuseppe Spiteri, who held the licence of *barberotto* (barber-surgeon). The *braghe-*

*rista* manufactured the hernia trusses under the direction of the Principal Surgeon whom he accompanied in the ward rounds, morning and afternoon. He was always on call for any adjustment needed to the trusses of hospital patients. He was paid six *tari* (one *tari* was equal to about 1½d) for every truss — "as at the time of the old government of the Order" — after the appliance was examined and approved by the Principal Surgeon or his *prattico* (assistant).

At least two medical men suffered a demotion in their careers with the return of peace. One of them was a Dr. Lorenzo Cassar. On the 9th September 1800 he was appointed *medico del palazzo* (Palace Physician) by Sir Alexander Ball in accordance with the usage that had prevailed at the time of the Order of St. John when the Grand Master, who lived at the Palace at Valletta, had his personal physician. On the 19th August 1801, however, Dr. Cassar's post was abolished by H.E. Sir Charles Cameron. The other was the surgeon Antonio Cutajar of Bormla who had been licensed to practise as a physician by the Medical College during the French blockade because all the doctors had left that town to join the insurgents in the countryside. In November 1801 his warrant to practise medicine was withdrawn as in the opinion of the *protomedico* (Chief Government Medical Officer), Luigi Caruana, the three physicians who by then had returned to practise in Bormla were sufficient to meet the needs of the inhabitants (*Ordini e decreti*, 1805c).

### Decline of Hospitals

Frantic appeals for financial help came from the administrators of various hospitals as their bequests and revenues could no longer be counted upon to provide sufficient income for their maintenance.

In September 1801 Dr. Gregorio Bajada, the *economista* (treasurer) of St. John Hospital for men at Gozo, remarked on the financial losses suffered by the hospital and the insufficiency of its funds to meet current expenditure; on the need for the replacement of the beds, planks, linen

and other items of equipment which had been carried away by the French. Money was also required to pay for the medicaments supplied to the hospital by the pharmacist Orazio Aquilina. In short the hospital "had been reduced to such misery that even the issue of the little quantity of wine which is often necessary for the sick has had to be suspended". Dr. Bajada had become so disheartened by these shortages that "a thousand times" he had considered giving up his post because of the difficulties he was encountering in making good the deficiencies of his hospital.

On the 20th July 1802 it was the turn of the Procurator of St. Joseph Hospital at Zebbug, Malta, to complain. During the revolt of the Maltese the hospital "had been obliged to admit and treat all the sick and wounded that were brought to it in great numbers". Mattresses and sheets had been consumed; debts had been contracted for the maintenance of the patients and no funds were to hand to replace its equipment.

The jurats of Mdina, who were responsible for the administration of the Hospital of the Holy Spirit at Rabat, Malta, wrote on the 12th February 1802 that at the time of the insurrection so many patients had been received "that even the church was full of beds". All the linen and clothing had been depleted having either been consumed for the use of the patients or been requisitioned by the French troops of Mdina. It was in need of one hundred sheets and pillows, fifty palliasses and twenty-five mattresses, twenty-five "white blankets for summer" and thirty woollen blankets. The hospital had lost "almost all its silverware — including thirty-eight bowls, twelve plates and other utensils" — which had to be disposed of to help finance the war effort. It had to borrow money to buy the medicaments and pay for the maintenance of the sick but, what was worse, it had not received any interests on the capital invested with the bank of the Municipality of Valletta. In fact it had been reduced to such straits that it was no longer in a position to admit the usual number of patients. No funds could be obtained from

the Municipality of Mdina as this body was burdened with the expense of repairing the road leading to Valletta and the conduits that drained away the waters that would otherwise have accumulated in the valley round Mdina (*Ordini e decreti*, 1805d).

In Valletta the erstwhile Holy Infirmary of the Knights of St. John was turned into a military hospital by the French. Under British rule the Infirmary continued to be used for the treatment and care of sick troops. At first it received sick soldiers from Egypt and from units of the British Army in Italy under Sir James Craig. It was later (1805-8) reduced to a regimental hospital and to a deposit of hospital stores, the rest of the building remaining unused (Domeier, 1810).

On the conversion of the Infirmary into a military hospital, the male civilian patients were transferred to the nearby nunnery and church of Mary Magdalen which came to be known as the Civil Hospital for men. In 1802 this institution and the Women's Hospital, that dated since the seventeenth century, were reorganised and detailed rules and regulations were published for their better running (*Piano per il regolamento dell'Ospedale di Malta*, 1802a).

When Samuel Taylor Coleridge visited the Civil Hospital during his stay in Malta (1804-5) he was struck by the presence of a child of twelve years lying in the same bed with a man of seventy years in the Venereal Wards and also by the great number of holy images hanging on the walls in "every staircase, by every bedside, in every chamber" (Coburn 1962a). A British Army doctor of the time, Dr. William Domeier, is more informative about this hospital which had to cater for a population of 94,000 souls (Malta and Gozo).

The set up of the hospital came under the censure of Domeier who found it ill-adapted as a healing establishment. In accordance with the ideas held by a section of the profession at that time, the windows were kept closed to exclude fresh air in the belief that air was harmful for surgical patients. Thus surgeons had to dress the sick by candle light even

at two o'clock in the afternoon in summer.

The professional staff consisted of four physicians and four surgeons working on a monthly roster. This system had the disadvantage that patients entering the wards in the last days of the month, passed, after a few days, into the care of a different physician who often altered the whole plan of treatment. It also afforded occasion for rivalry among the physicians and surgeons who, we are told, endeavoured "to acquire practice by contradicting and blaming one another and acting otherwise than their colleagues though no better".

The rest of the professional staff consisted of four assistant physicians and four assistant surgeons; an apothecary, a number of dressers and a "person who only bleeds and cups, even one person who carries smelling bottles at the medical visits for fear that anybody might faint away — and really the atmosphere is, in some wards, in such a state that the fear is not ill founded". Conditions in the Women's Hospital were no better.

Commenting on the results of the methods of treatment employed at that time in these establishments, Domeier makes an observation that still holds good today anywhere in the world: "It is a necessary distinction to be made, whether a patient recovers through the remedy he has taken or only during the time he takes a remedy which is not efficacious enough to prevent his recovery. Physicians are often too much honoured as in both cases the recovery is attributed to their skill".

### British Naval Medicine

Malta's connexion with the British Crown eventually led to the growth of the Island into one of the most formidable naval bases of the Mediterranean. This development not only determined the political orientation in world affairs and the economic pattern of the Island but also brought Maltese medicine, for the first time in our history, in close touch with British medical thought and practice. At this period this influence was exerted mainly by the medical personnel of the navy.

A naval hospital was established in 1800 in the former Armoury of the Knights of St. John at Birgu in *Strada Dietro il Quartiere*. There is no doubt, however, that seamen of the Royal Navy were also received into the Military General Hospital at Valletta. In fact on the 19th August 1803 sick crew on *H.M.S. Madras*, who were suffering from "infectious or inflammatory fevers" were ordered by Lord Nelson to be admitted to the General Military Hospital by arrangement with Major General Villettes, the Officer Commanding the Troops in Malta.

Nelson felt that if Britain was to keep Malta, the Admiralty had to provide "a proper naval hospital". He again returned to the subject on the 7th November 1803 as he did not wish "to have thrown the trouble of attending our seamen on the medical skill of the Army"; so much so that he sent Dr. John Snipe, Physician to the Fleet, to Malta to inspect Villa Bichi with the view of establishing there a naval hospital. Following Dr. Snipe's visit, Nelson declared on the 20th December 1803 that Bichi was "the fittest situation at Malta for a naval hospital".

In the meantime seamen continued to be treated in the Military Hospital under the Naval Surgeon, Mr John Gray, until they were removed to the erstwhile Slave Prison in *Strada San Cristoforo* (St. Christopher Street), Valletta. The date of the transfer may have been the 1st January 1805 as on this day sick naval personnel ceased to be admitted into the Military Hospital (Nicolas, 1845).

In May 1804 Lord Nelson was again pressing for the acquisition and enlargement of Villa Bichi and its conversion into a naval hospital (Nicolas, 1846) but no steps were taken for many years afterwards; on the contrary, sick seamen were re-transferred across the Grand Harbour to the Armoury at Birgu in 1819.

Dr. J. Hennen, Inspector of Military Hospitals (1821-25), describes the place as being "an airy building... well adapted to its purpose". It was capable of accommodating about one hundred and twenty patients but in an emergency there was enough room for eighty or one hundred or more men. In wartime all its beds

were occupied but in peacetime the number of patients rarely exceeded twenty (Hennen, 1830a).

From 1804 to 1827 the hospital was under the direction of Dr. John Allen R.N., the Principal Medical Officer. He had been appointed surgeon to the Navy in 1784, served under Lord Nelson and was superannuated in 1827. He died in Malta on the 14th January 1849 at ninety-four years of age, and was buried in the Msida Bastion Cemetery.

John Allen was renowned for his treatment of gun shot wounds. It has been said of him that his dexterity "in using his knife was equalled by, what is of equal importance, his knowledge of discerning when not to use it". He also enjoyed a good reputation for his treatment of fevers in which he resorted to the lancet, "that minute instrument of mighty mischief", very sparingly (*Malta Times*, 1849)

Sick seamen of the Royal Navy continued to be cared for at the Birgu Armoury until 1832 when Villa Bichi was finally opened as an *ad hoc* naval hospital (Cassar, 1965a).

### Fevers

A survey of the diseases with which naval surgeons of the British Mediterranean Fleet had to deal in the first decade of the nineteenth century reveals that scurvy had become almost unknown among sailors thanks to the "excellent regulations and unceasing care of the Commander-in-Chief in providing liberal supplies of fresh meat, vegetables and lemon juice". Pneumonia and dysentery were endemic but "fever epidemics" constituted the most frequent and most serious conditions that afflicted seamen and civilians alike in the British naval stations of Malta, Gibraltar, Port Mahon (Minorca) and Carthage.

These fevers appeared especially towards the close of summer (end of June and beginning of July) and during autumn. They were known by the name of the place where they prevailed such as Carthage or Gibraltar Fever, etc., although the more generic name of Mediterranean

Fever was towards the end of the decade supplanting the local nomenclature as a more appropriate appellation.

At a time when the physician lacked the refined diagnostic aids of to-day and had nothing to go by except the subjective complaints of the patient, his skill as an observer and his own personal experience, it is not surprising to find that there were great differences of opinion among medical men with regard to the nature and aetiology of these fevers and the criteria to be followed in their prevention and treatment.

Among the physicians who attempted to elucidate these problems was William Burnett — one of the first of a long line of British naval doctors to work in Malta. He was Physician and Inspector of Hospitals to His Majesty's Fleet in the Mediterranean and Honorary Fellow of the Imperial Medico-Chirurgical Academy of St. Petersburg (Burnett, 1816 a). In May 1810 he was appointed Physician to the Mediterranean Fleet which post he relinquished in October 1813 because of ill health.

His accounts of these fevers abound in clinical histories and reports of *post-mortem* examinations. The medical knowledge of the time, however, was still too meagre to allow him to understand the aetiological factors involved and to differentiate among the various specific pathological conditions masquerading under the common phenomenon of fever and to prescribe a rational method of management and therapy.

Burnett's first encounter with the fevers of Malta occurred in May 1799 when units of the British navy came to the aid of the Maltese to blockade from the sea the French troops that had been penned by the Maltese insurgents inside the fortifications around the Grand Harbour. He was then serving in the *Goliath* when the ship's company was attacked by a fever "similar to one then prevalent in the Island". The *Goliath's* boats had been employed in watering at Marsascala, a small harbour to the south east of Valletta, when on account of a strong wind the boat's crew had to remain ashore all night. A few days later several of the men fell

ill with fever which eventually spread to some forty of the ship's company. The most prominent disturbances were nausea and vomiting, headache, thirst and delirium; in two or three instances the parotid glands suppurred. The ship proceeded north to St. Paul's Bay and the sick were landed and placed "in a large castle... where the whole recovered".

In the summer of 1800, Burnett joined the Maltese built ship *Athenian*. While she was being careened and fitted at the Malta Dockyard there were many cases of fever which Burnett was inclined to ascribe to the crew's exposure to the sun; however, "by a proper use of the lancet in the early stages joined to purgation, they all speedily recovered; none died nor was one sent to the hospital during two years" that Burnett was surgeon on that ship which "always continued remarkably healthy".

In October 1810, as Physician to the Mediterranean Fleet, he was sent by the Commander-in-Chief to Sicily and to Malta to examine the state of health of His Majesty's ships and the running of the hospitals ashore. He found that the men of the *Eagle* had been quartered in a barrack while the ship was careening. "They had easy access to spirits and wine", he recorded, "and committed the usual excesses of sailors when on shore. The effects of this were soon visible for about the middle of December a fever made its appearance amongst them and ultimately extended to nearly sixty of her men. The surgeon considered it at first to be purely of a typhoid nature". They were admitted to the naval hospital where they all recovered thanks to the use of early and repeated bleedings, purgation and epigastric blistering.

The frigate *Alceste* and the sloop *Scout* also had many of their men down with fever, involvement of the abdominal viscera and frequent stools but they, too, did well on the same regimen.

In June 1811 it was the turn of the men of the *Pomone* and the *Weazle* to suffer from "the bilious and yellow fever of the Island" characterised by a deep yellow suffusion of the skin, vomiting, pain in the epigastric region, loins and

lower limbs. In 1812, between the 1st April and the 23rd May, one hundred and fifty-three men from the *Victorious* and the *Trident* were treated at the naval hospital for fever with eight fatalities.

Burnett has recorded the symptomatology of the then so-called "bilious remittent fever". His account of it is given in such terms as to enable the medical practitioner of to-day to pick out in it most of the clinical features of brucellosis (Report of the Committee... for the Suppression of Mediterranean Fever, 1909). Burnett has the merit, therefore, of being the first investigator to record the clinical picture of brucellosis or undulant fever. As Burnett's book is not now readily available it is worthwhile reproducing his description at length as it is of paramount importance in the history of human brucellosis.

"The patient", writes Burnett, "complains of considerable headache with nausea and prostration of strength; the eyes are somewhat suffused and the countenance a little flushed; the tongue is white and moist with considerable thirst; the skin is at times moist and the temperature but little increased; at other times it is dry and the heat pungent. The pulse is in some cases full and strong beating at the rate of 120 in the minute; in others it is less so and in some the increase in velocity is scarcely perceptible; there is commonly constipation of the bowels and loss of appetite". This is the symptomatology in the type of fever which appeared in summer.

A more severe form occurred in the autumn. "The patient feels a degree of lassitude and prostration of strength (in some the latter symptom appears very considerable); this is succeeded by a sense of chilliness extending along the spine and lumbar region which is followed by increased heat and severe headache, referred chiefly by the patient to the forehead and temples; and in the severer cases it extends in the course of the longitudinal sinus. A deep seated pain in the orbit is also experienced; the eyes are sometimes unnaturally prominent with a watery inflammatory appearance and impatience of light... There is a sense of uneasiness in

the epigastric region with nausea and, in some patients, a vomiting of a matter resembling bile; pains in the joints, back, calves of the legs, disturbed sleep and constipation of the bowels are amongst the symptoms usually observed. The pulse for the most part is full and hard, though not always, particularly when the gastric symptoms are severe... There is generally a throbbing of the carotid and temporal arteries with great thirst and considerable anxiety. The superior parts of the body are sometimes covered with a profuse perspiration but generally the skin is dry... If the disease be advanced the heat is often pungent and there is through its whole course a loathing of food. Severe rigors, sometimes, but not very commonly, precede the hot stage of the disease. When the attack is violent... the headache is still severe but accompanied by stupor, disinclination to answer questions and indifference to surrounding objects: the eyes have... a slight yellowness; the tongue is now covered with a thick yellow coat or is brown and dry in the middle, the edges having a red inflammatory appearance; the prostration of strength is considerable; the anxiety and pain in the limbs greater; the uneasiness in the epigastric region is urgent; and there is frequent vomiting of a matter resembling bile and most harassing singultus; the pulse under these circumstances is commonly much smaller varying from 100 to 120 and often is more frequent. The skin is at time moist or there are partial sweats and commonly a disagreeable faector is exhaled from the person or linen of the patient... There is occasionally considerable delirium which commonly terminates in a state of coma and death. "The train of symptoms which have been first enumerated will not always be observed in the same patient... In the winter months this disease is often accompanied by severe and evident inflammation of the lungs. In the summer and autumn slighter affections of the lungs are occasionally observed but the patient seldom complains of this unless when asked".

None of the cardinal symptoms of undulant fever has escaped Burnett's at-

tention — temperature and pulse variations, headache, pains behind the eyes, profuse sweating, subicteric tinge, epigastric discomfort, vomiting, constipation, rheumatic pains and "typhoidal" state in the more severe cases. However there is no mention of the physical signs of the disease, elicited by what to-day would be the commonplace method of palpation, such as the enlarged and tender spleen and liver; but he refers to the lung involvement and in fact he did observe, in some of the *post-mortem* examinations he performed, the "lungs inflamed with effusion", "adhesions to the pleura", enlarged liver and, on one occasion, "spleen rather large" (Burnett, 1816 b).

Cases of fevers of various descriptions remained the bugbear of the physician for a very long time. One sixth of all admissions to the military hospitals from 1816 to 1823 were fever cases with a mortality of one in forty-five. The most frequent was the "common continued fever" which included the "idiopathic" or "summer fever". This was so called because it made its appearance with the onset of hot weather (July to September) and subsided as the heat diminished. It was marked by severe headache, suffused eyes, acute pains in the chest, tenderness in the upper abdomen and bilious vomiting. It lasted six days.

Among the civilian population fever cases also formed a good proportion of admissions into the Civil Hospital constituting one-seventh of all admissions in 1821-23 (1300 out of 8736) while among those treated at home deaths from fever bore to deaths for all other diseases the proportion of one to ten, the villages of Mosta and Naxxar being the most heavily hit by this mortality (Hennen, 1830 b).

### Aetiological theories

The influence of offensive exhalations or miasma arising from marshy grounds was invoked to explain certain outbreaks of fevers in Port Mahon and in Malta. With regard to Malta, an extensive marsh did exist at the Marsa or upper part of the harbour during the previous centuries at the time of the Order of St. John; so

much so that the inhabitants of the nearby *Casal Nuovo* (Raħal Ġdid, literally "New Village") had been obliged to abandon the village on account of the unhealthiness of the area. At the beginning of the 19th century this marshland was almost completely drained during the government of Sir Alexander Ball but apart from distilleries established there by British merchants the Marsa was still deserted.

Sir William Burnett wrote that it had been observed that ships fitting at the dockyard in the Marsa part of the harbour "are more subject to attacks of fever than those lying out at their anchors; and in moving a ship, where it was prevalent, into Bighi Bay (i.e. near the mouth of the harbour) the disease has uniformly ceased". It is not unlikely that the crews of these ships were victims of malaria. In fact it was discovered, very much later, that mosquitoes of the genus *Anopheles* occurred in Malta and it is probable that when affected ships were moved out of the range of flight of the insects no further cases appeared.

Apart from the factor of terrain, it was also believed that attacks of fever were precipitated by such "exciting causes" as intemperance in the use of wine and spirits, exposure to the sun and to night dews.

Controversies as to whether these fevers were of a "contagious" or "infectious" character were rife. "Contagious" diseases were those believed to be caught by contact; "infectious" illnesses were those communicated by the atmosphere. Apart from the personal animosities with which they were conducted, these disputes had practical implications of a social and economic kind. If these fevers were declared "contagious", quarantine measures were imposed with such attendant hardships as isolation of patients and contacts, the burning of their bedding and furniture and the suspension of social and commercial communications. If, on the other hand, they were "non-contagious", quarantine restrictions with their irksome consequences to the individual and the community were not enforced.

Among the opponents of Burnett's

epidemiological ideas concerning the nature of the various fevers of the Mediterranean was Dr. (later Sir) William Pym (1772-1861). Pym had studied medicine at Edinburgh University and, after a brief period in the navy, had joined the army. In 1794 he was in the West Indies where he became familiar with the manifestations of yellow fever during an outbreak in Martinique (1794-96) when 16,000 troops died of the disease. He then served in Sicily (about 1806), Malta and Gibraltar. Here he was Superintendent of Quarantine at a time when it was suspected that yellow fever had gained a foothold from Cadiz and Malaga. In 1811 he was back in Malta as President of the Board of Health. He went to England the following year but volunteered to return to Malta in 1813 when plague broke out in the Island. In 1815 he published the *Observations upon Bulam Fever* which has been acclaimed as the first clear account of the disease also known as yellow fever. He died on the 18th March 1861 (Dictionary of National Biography, 1896; Hennen 1830c).

Pym favoured the adoption of quarantine measures while Burnett held the view that the fevers of the Mediterranean were "non-contagious" and that, therefore, quarantine could not prevent their dissemination. This provoked a reproach from Pym who, referring to Burnett's publication, stated that "there never was a book had a more mischievous tendency". Subsequent medical investigations, however, proved that Burnett was right.

### Treatment

Therapy consisted in bleeding, blistering, purgation, oral medication and "antiphlogistic" measures.

Bleeding was resorted to for lowering the temperature, relieving the headaches and promoting sleep. Great reliance was placed on early and liberal blood-letting. Sometimes as much as ninety ounces of blood were removed over a period of six hours with the recovery of the patient; occasionally up to two hundred ounces were taken with "the most marked advantage"; more commonly bleeding was repeated hourly with the removal of



thirty to forty ounces each time. The operation was sometimes followed by syncope. The surgeon, therefore, kept a watch on the patient's pulse and when this showed signs of sinking the bleeding was stopped.

Burnett was enthusiastic about the beneficial results of bleeding which far from "inducing extraordinary debility and a protracted convalescence" produced a "speedy restoration to perfect health". The patients themselves, far from resenting it, asked for it! Burnett states that many of the patients felt its beneficial effects while the blood was flowing and quotes one such patient as saying: "Sir, I am as strong as ever; I am quite well; I feel the pain running out with the blood". Burnett continues: "So sensible were they of this that on a recurrence of the headache they directly sent for the assistant surgeon to have more blood taken from them".

When less profuse bleeding was desired, leeches were employed. From three to twelve of them were applied to the temples in severe headache or to the epigastric region when gastric symptoms were troublesome. To ensure a continuous flow of blood, a cupping glass was applied over the orifices made by the leeches by which means up to twelve ounces of blood could be procured.

Blistering was attended "with great success". Favourite plasters were *emplastrum epispasticum*, *emplastrum cantharidis* and *emplastra vesicatoria*. They were applied to the region of the stomach, between the scapulae, on the temples, on the forehead and on the nape of the neck. Great store was laid on brisk purgation, sometimes aided by clysters for which *Pulv. Jalap cum submuriis hydrarg.* was prescribed. Hardly any faith was placed on drugs. Peruvian bark, antimonial powder, emetics and sudorifics were considered to be ineffective by some physicians or decidedly harmful by others. The "antiphlogistic regimen" consisted in giving the patient tepid or cold baths; in sponging his body; in the use of as few bed-clothes as possible to cover him; and in prescribing *pediluvium* (footbath) to soothe the pains of the lower limbs.

### Rev. William Pargeter

Another British physician flits across the medical stage in the very early years of the century in the guise of a clergyman. This elusive figure was Dr. William Pargeter (1760-1810). He studied at St. Bartholomew's Hospital and graduated M.D. from Marischal College, Aberdeen in 1786. In 1795 he abandoned medicine for the church and entered the Royal Navy as a chaplain. He was at the Battle of the Nile on the *Alexander* (1798) and subsequently served in Malta as Chaplain of the Garrison. In 1801, on the occasion of the burial in Malta of Sir Ralph Abercrombie, Commander-in-Chief of the British Forces in the Mediterranean, Pargeter delivered the funeral oration at the Protestant Chapel of Valletta. He extolled the military greatness and the "private virtues" of Abercrombie and the "noble exploits" of the British Army in Egypt; reminded his listeners of the uncertainty and transitoriness of human life and exhorted them "to put on the whole armour of God" to ensure their triumph over death. Pargeter retired from the navy in 1802 and died in Oxfordshire in 1810 (Hunter & Macalpine, 1963 and 1965; Leigh, 1961).

Pargeter is one of the early British psychiatrists of the modern era and the first British psychiatrist to come to Malta. We do not know, however, whether he took any interest in the medical affairs of the Island and particularly in the management of the insane. In his time the mentally sick were kept in the basement of the Civil Hospital at Valletta where Pargeter must have gone pretty frequently to minister to sick troops. Did Pargeter ever visit this basement in the Civil Hospital where the more dangerous patients were chained to the wall? If he did he would not have been scandalised by this scene as the same conditions prevailed in England where not even very highly placed personages were spared rough handling. The case of King George III, the first British monarch to rule over the Maltese Islands, is notorious. He suffered from recurrent attacks of mental disorder and was severely treated and even knocked down during his long illness.

Pargeter was one of the early reformers of management of the insane in England. In 1792 he published the *Observations on Maniacal Disorders* in which he showed that the physical restraint of mental patients, then in common use, was unnecessary. He stressed the importance of *rapport* between the physician and the mentally sick as a salutary influence in tranquillizing patients and leading them towards recovery. This was the emergent idea that gave rise to the so-called "moral treatment or management" of the insane which pervaded psychiatric therapy during the rest of the 19th century.

Conditions in England began to improve in 1827 when two acts of parliament provided "asylums" and regulated the care of "pauper and criminal" mental patients (Hodgkinson, 1966). In Malta the humane treatment of the insane was ushered in ten years later when Dr. Thomas Chetcuti, the pioneer Maltese psychiatrist, set patients free from their chains and abolished the use of the stick to subdue excited patients (1838) (Cassar, 1949).

### Vaccination

Two other British physicians — Dr. Joseph Marshall and Dr. John Walker — passed through Malta in the very early years of the century. It is very likely that they met Pargeter but, in contrast to him, they have left an indelible mark on Maltese medical history.

Not long after Edward Jenner discovered vaccination against smallpox in 1798, the British Government took steps to introduce it to its naval and military forces and its possessions overseas. Malta was thus one of the first territories to benefit from this policy.

In the early days of July 1800 Dr. J. Marshall and Dr. J. Walker left England for the Mediterranean. Both of them were friends of Jenner and had obtained the vaccine lymph from him. When they reached Malta smallpox had broken out in the fleet and Sir Alexander Ball ordered all men in the squadron based on Malta to be vaccinated.

Dr. Walker eventually departed for Egypt with the fleet under Sir Ralph Aber-

crombie (20th/21st December 1800). Dr. Marshall remained in the Island to enable the inhabitants to avail themselves of the occasion to vaccinate their children. An Italian translation of Jenner's *A Continuation of Facts and Observations* was published in Malta, probably as a form of health propaganda, and a number of children were inoculated in the presence of Dr. Luigi Caruana, the *protomedico* or Chief Government Medical Officer, and Dr. Lorenzo Cassar, the Palace Physician and Principal Physician of the Civil Hospital. The experiment was a success and from then onwards vaccination against smallpox became standard public health practice in the Maltese Islands (Bellet, 1801; Cassar, 1965b and 1969).

Dr. Walker was present at the battle in which Sir Ralph Abercrombie was fatally wounded. He returned to England in 1802 and was made resident vaccinator of the Royal Jennerian Society. A breach between him and Jenner led to his resignation from the Society in 1806 but he continued to vaccinate until his death in 1830. Dr. Marshall was later appointed Physician Extraordinary to George III (Fisk, 1959).

### Maltese Civilian Practice

Glimpses of the state of Maltese civilian medical practice at this period may be gleaned from Dr. William Domeier's *Observation on the Climate, Manners and Amusements of Malta* published in London in 1810. Dr. Domeier (1763-1815) spent a few years in the Island in the medical service of the British Army as Physician to Foreign Troops, probably from 1805 to 1808 (*Almanacco*. 1807). He was a German from Hanover who graduated doctor of Medicine in 1784 at the University of Gottingen. After his turn of duty in Malta he was admitted a Licentiate of the College of Physicians of London (1809) where he settled. He died in 1815 (Munk, 1878).

He was favourably struck by the mild climate and the satisfactory state of the public health of the Island so much so that he considered it eminently suitable as a resort for invalids and convalescents such as those suffering from consumption,

dropsy, rheumatism and chronic dysentery. He found the Island to be free of the "yellow fever of the West Indies and North America", of the "malignant intermittent fever" of Italy and of the ophthalmia and elephantiasis of Egypt. The only epidemic that occurred during his residence here was one of smallpox which, however, was easily checked by a general inoculation with the vaccine.

Domeier was rather critical of local professional standards. In his opinion the best Maltese physician was Dr. Cleardo Naudi from Axiaq (1780-1837). Naudi was "acquainted with literature and a friend of natural history" and, what was rare in those days, had a good command of the English language. In fact he translated several religious and biblical writings for the Wesleyan Missionary Society from English into Maltese (Cremona, 1940). From 1801 he studied physics and mathematics at the Malta University (*Acta*, 1800-32a). When the Chair of Experimental Chemistry and Natural History was instituted in June 1805, Naudi was chosen to fill the post (1805-34).

In October 1806 he delivered an oration in Italian at the Church of the University on the occasion of the opening of the academic year. He reviewed the origins and gradual growth of various branches of science including astronomy, navigation, physics, chemistry and medicine from the earliest times to the dawn of the nineteenth century; and records the foundation of a "school of practical chemistry" and of a Botanic Garden with specimens from "the four quarters of the world" for the use of the medical students of the Malta University (Naudi, 1806).

Some years after Domeier left the Island, Naudi was sent to London by the Government (April 1812) "for the purpose of making himself better acquainted with the regulations of the schools of medicine in that country and of the hospitals." He stayed there for twenty-one months attending lectures in medicine, surgery and chemistry at St. Thomas's and Guy's Hospitals; a course of comparative anatomy and of botany at Brook's Museum; and courses in midwifery, dentistry and

ophthalmology as well as "experiments in philosophy".

Naudi resigned the professorship in 1834 and died three years later in his 57th year "in consequence of the exertions made by him in attending patients" during the cholera epidemic of 1837 (*Despatches* 1836-37; Malta Government Gazette 1837).

Another "man of talents" was Dr. Luigi Caruana, Chief Government Medical Officer, who was in charge of the Lazzarett and the "Medical Police" but who spoke no English and only "very broken French".

The practitioner with the widest practice was Dr. Francesco Leone Gravana, one of the physicians on the staff of the Civil Hospital. He was a "reasonable good man". He later became Chief Government Medical Officer and a member of the Council of Health. He was carried off by the plague of 1813 (Henner 1830d).

Domeier found that Maltese surgeons were chary of performing serious operations and only undertook to carry out bleeding, cupping and blistering. Dr. Giuseppe Speranza, however, was "the best of them". There were no dentists.

Pharmacists, too, received Domeier's strictures as they had "little knowledge of chemistry, pharmacy, botany and mineralogy". There was only one English chemist's shop but even this was "far from being perfect as it was run by two army surgeons who, besides selling medicines at a high price, generally understood little of pharmacy". There were other army surgeons of whom some did midwifery such as Mr. Iliff, the hospital mate, who had the largest practice in this line.

### Public Medical Controversies

A feature of the medical world of those days were the medical disputes in which members of the profession publicly engaged with one another in print — disputes which were often spiced by personal rebukes and coloured with bitter words. An instance of such a controversy among Maltese physicians is furnished by the polemic on the Brunonian System between

Dr. Lorenzo Cassar and Dr. Gio Batta Saydon .

In 1780 John Brown (1735-1788) of Scotland propounded a medical theory in his *Elementa Medicinae* according to which disease was the result of either too much stimulation or lack of it, especially the latter. He, therefore, classified all diseases into sthenic or asthenic and the treatment consisted of giving stimulating drugs in large doses. The theory caused a stir in the United Kingdom, Germany, France and Italy. It found adherents and opponents also in Malta where a polemic dragged on for a number of years between the two physicians already mentioned.

After studying philosophy and the "medical institutions" (*istituzioni mediche*) for two years in Malta, Dr. Cassar continued his studies at Naples University. He did his clinical practice at the *Spedale degli incurabili* and at the end of a course of three years obtained the doctorate of medicine of the University of Salerno in 1789. He specialised in teaching "the mutes to speak" and after practising at the Holy Infirmary of Valletta was granted the warrant to practice in September 1790 (Archives 1196.RML). On the 9th September 1800 he was nominated Palace Physician by Sir Alexander Ball and by the beginning of 1802 he had become Principal Physician of the Civil Hospital of Valletta.

In the same year he wrote a paper, in which he criticised and opposed the Brunonian System as John Brown's medical ideas came to be called. He read it at a "solemn literary public meeting held in the Great Hall of the Maltese Hospital in the presence of H.E. the Royal Commissioner, Sir Charles Cameron, on the 10th June 1802". Among the audience were the Presidents, professors and colleagues. It was later published in pamphlet form in 1802 and again in 1808 (Cassar, 1802).

He exposed the "errors and irrationality" of the Brunonian concepts and professed himself a follower of the "venerable ancient Hippocrates and his successors" whose teaching was the "genuine result of experience and not of selfishness and bizarrerie" as happens with propounders of "systems". He declared himself

to be an admirer of William Cullen (1710-90) and of Thomas Sydenham (1624-89), "luminaries of the English Medical Faculty" (Guthrie, 1947).

Dr. Gio Batta Saydon, born in 1773, studied medicine at the University of Salerno. During the insurrection of the Maltese against the French he attended the members of the Zurrieq battalion free of charge. In 1801 he was *medico dei poveri* at Bormla and during the plague of 1813-14 was made Principal Physician of the emergency hospital set up in Villa Bichi for the plague stricken.

It has been claimed that he was the first doctor in Malta to recognise hydrophobia. He wrote a *Relazione dell'idrofobia accaduta in Malta l'anno 1809* (Report on Hydrophobia as it occurred in Malta in the year 1809) which remained in manuscript form and has been lost. He treated the sick during the smallpox epidemic of 1830 and the cholera outbreak of 1837. He died on the 1st October 1841.

Saydon was a strenuous exponent of Brown's theory which he defended against the criticism of Cassar in a pamphlet entitled *Il sistema di Brown difeso da varie imputazioni e calunnie del Dr. Lorenzo Cassar* (Brown's System defended against the various accusations and calumnies of Dr. Lorenzo Cassar) published in Messina in 1808. As in other such doctrinal disputes of those days, Saydon's rejoinder does not go beyond abstract arguments and personal reproaches directed against Cassar who maintained that clinical experience coupled with the understanding of the nature of disease constitute "the true system, the most reliable guide and the true mariner's compass of the prudent physician in traversing the stormy ocean of medical practice" (*Il Globo* 1841; Mifsud Bonnici, 1962). However, in spite of Cassar's condemnation of Brown's theory, Brunonian medicine had not yet disappeared from Malta twenty years later (Hennen, 1830e).

#### Academic standards

Domeier found that the teaching staff of the Medical Faculty of the University consisted of only one lecturer — Dr. Lu-

dovico Abela — who taught all subjects for two hours a day. To understand how the University had been reduced to such a state it must be borne in mind that Napoleon had suppressed the University in 1798 and tried to replace it by a Central School where medical subjects were not to be taught at all. He decreed, however, that courses in anatomy, medicine and midwifery were to be held at the Civil Hospital. When the Maltese rose against the French, all academic activities ceased from September 1798 to September 1800 when the French capitulated and left the Island.

One of the first acts of Sir Alexander Ball, who was then President of the Maltese Provisional Government, was to reopen the University on the 6th November 1800 with Faculties in Law, Theology and Medicine.

The students of medicine entered upon the academical course proper after a preliminary study of the humanities, philosophy, mathematics and physics (Cassar Pullicino, 1958). The study of botany, and of anatomy and surgery did not figure in the medical curriculum and Domeier remarked upon the neglect of botanical studies and the absence of a Professorship in Anatomy and Surgery.

At a time when pharmaceutical remedies were mainly of a vegetable kind, a knowledge of plants was rightly considered essential both for pharmacist and physician. In fact botany was being taught in Malta as early as the close of the 17th century and a Botanical Garden was planted in 1690 in the ditch of Fort St. Elmo near the Holy Infirmary for the use of medical students. It was entrusted to Dr. Joseph Zammit, Teacher of Anatomy and Surgery. The garden fell into disuse in 1798 during the turmoil that followed the advent of the French to Malta. Napoleon, however, mindful of the necessity of a Botanical Garden had decreed that such a garden was to be established in the vicinity of Valletta. This project was carried into effect during the succeeding British domination when the Rev. Fr. Carlo Giacinto was appointed to the Chair of Botany in our University by Sir Alexander Ball in 1805.

The new garden was set up at Floriana adjacent to Sarria Church on the site of the present Government Elementary School. In 1806 was published the first catalogue of plants under the name of *Index Plantarum Horti Botanici Melitensis* (*Storia della società medica d'incoraggiamento*, 1845; Cremona, 1967).

It is obvious from this short account that Domeier's stay in our Island (1805-8) coincided with the initial phase of the revival of the study of botany in Malta.

With regard to the study of anatomy and surgery, there is undoubted evidence that these subjects were being taught at the Civil Hospital of Valletta, after the revival of the University in 1802. This was, in a way, a continuation of the policy laid down by Napoleon two years previously.

The regulations of the Civil Hospital issued on the 20th March 1802 make references to (a) four students of Physic (*allievi di fisica*) who bled patients, did cupping, applied vesicants, fomentations, cataplasms and inunctions under the direction of the Master of Physic (*Maestro di Fisica*); they accompanied the Senior Physician on his rounds; (b) five Licensed Students of Surgery (*allievi patentati di chirurgia*) and (c) an unspecified number of Supernumerary Surgical Students (*allievi supranumerari di chirurgia*). All these categories of students received a salary of 15 to 20 *scudi* a month (one *scudo* = 1s. 8d.)

The following extracts from the hospital regulations give an indication of the nature of the students' training and duties:-

(a) The Senior Surgeon was allowed to entrust a few of the dressings to the cure of some "good students to train them in the practice of surgery".

(b) The Junior Surgeons were enjoined "to supervise the surgical students so that they do not absent themselves from the ward round or leave hospital when on duty"; to make sure that they carried out all their work and to report defaulters to the hospital authorities; and finally to instruct the students in the medication and bandaging of patients.

(c) The Junior Surgeons on duty

was to perform "anatomical dissection for study purposes with the help of the surgical students".

(d) The students had to "attend the daily ward rounds, morning and afternoon, to carry out the orders given them by the Principal Surgeon. They were also to follow the directions of the Junior Surgeon and medicate the patients suffering from ringworm (*tigna*).

(e) All the Students of Physic and of Surgery had to attend the daily lesson in anatomy and surgery. The lecturer had to draw up a list of absentees every week and submit it to one of the Presidents (two of whom formed a sort of lay hospital management committee). The Presidents decided upon the punishment to be awarded to the offender including dismissal from employment.

(f) The surgical students administered internal medicines in conformity with the prescriptions of the Senior Surgeon.

(g) They were taught the "obstetric art" by a Master of Obstetrics (*Maestro di Ostetricia*) both "orally and in writing".

(h) They were on call during the night according to a roster (*Piano per il regolamento dell'ospedale di Malta, 1802 b*).

The first men to qualify from the newly restored Medical Faculty were Aloysius Gravagna and Alexander Vella. After undergoing a private examination by three examiners and sustaining a thesis in public in the Church of the University, they had the degree of Medical Doctor conferred upon them in August 1804. A total of eleven medical men qualified between August 1804 and July 1812. The studies were subsequently interrupted temporarily by the plague outbreak from May 1813 to October 1814 (*Acta 1800-1832 b*).

Shortcomings in medical studies and practice were not limited to Malta at this period. They coincided, to a certain extent, with what was happening in England. In fact the practice of physicians, surgeons and apothecaries was still unorganised except in London; so much so that in 1806 the College of Physicians tried to tackle this problem by formulating a scheme which aimed at raising the

educational standards of the profession by laying down requisites in age, training and qualifications for the different categories of the medical profession. The aims of the College were only partially achieved at this period with the passage of the Apothecaries' Act in 1815 (Holloway, 1966).

In Malta the gaps in the academical teaching of the University were filled towards the end of the decade by Dr. Agostino Naudi, the brother of Dr. Cleardo Naudi already alluded to.

Born in 1783 Agostino Naudi at first meant to study civil and military architecture but at twenty years of age he turned to medicine. He pursued his medical education at the Medical Academy of Naples qualifying as physician and surgeon at the University of Salerno, being the first among three hundred students.

On his return to Malta he taught anatomy and dissection in the cemetery of the Civil Hospital of Valletta in substitution to Dr. Aurelio Badat who had given up teaching because of senile mental decay (1810). Naudi had to suspend his lectures and demonstrations during the plague epidemic of 1813-14.

Following the death of Dr. Ludovico Abela, Professor of Medicine (1800-15), Naudi taught medicine privately, his students receiving the doctorate of the University of Malta in 1819. From 1820 onwards he substituted Dr. Stefano Grillet, Professor of Medicine (1815-31) who had become chronically ill. He also taught botany, physiology, pathology and surgery.

He is alleged to have been the first to discover and describe the middle meningeal nerve for which he was commended by the Academicians of Paris and granted the diploma of *Insigne maestro di anatomia umana* (Outstanding master of human anatomy) by the Academy of Rome.

He wrote an account of the plague of 1813-14 in Latin. He submitted it to the Medical Academy of Montpellier by which "he was judged worthy of special and honorific mention". Dr. L. Barthelemy declared it to be "a masterpiece of pathology, therapy and preventive hygiene". The manuscript was still extant in 1864

but cannot now be traced. From sketchy references to it in contemporary medical literature we know that it dealt with the atmospheric phenomena and the state of public health prevailing immediately before the outbreak such as the mildness of the weather, the increased incidence of sudden deaths which excited "public observation and alarm", the remarkable frequency of hydrophobia and of intestinal infestation with ascarides and earthworms which were "never so general and so numerous in the memory of man" (Hennen, 1830 f).

In 1827 Naudi published a treatise on the cultivation of the silkworm to encourage the Maltese farmer to undertake this form of industry.

In the following year he wrote a brief review, which remains in manuscript, of the history of yellow fever. This disease had been causing considerable anxiety to the health authorities of Malta since October 1804 when it occurred on an epidemic scale at Gibraltar. Mortality was high. Two-thirds of the inhabitants left the Rock to escape the disease and some of them, mostly Jews, came to Malta in the early days of the outbreak. The quarantine regulations of Malta were tightened against ships coming from infected places. Samuel Taylor Coleridge, who was then in Malta, states that a ship from Ragusa with its crew dying of yellow fever was forced to sea from the Island (Sultana, 1969; Coburn, 1962 b).

Gibraltar was declared free from the disease on the 1st January 1805 but the dread of the importation of the infection into Malta persisted for many years afterwards.

In his account of the history of yellow fever, Naudi traced its outbreak in Pennsylvania in 1740 and its subsequent appearance in Gibraltar with which Malta was then in close and frequent communication by sea. He quoted the observations of Robert Lind on the disease and expounded his own ideas about its spread from an "infected" place to a healthy one by means of atmospheric air.

Dr. Agostino Naudi died on the 11th November 1830 (Camilleri 1831; *Malta*

1907; Naudi 1827 & 1828).

A Professorship in Anatomy and Surgery was set up in 1822 with the appointment of Dr. Gavino Patrizio Portelli (1795-1865) to the Chair (*Malta Government Gazette* 1822). In the first decade of the 19th century, Gavino Patrizio Portelli, though still a youngster, was already serving in the Military General Hospital at Valletta under Sir William Franklin, the Inspector of Military Hospitals, who took the boy under his patronage and encouraged the boy's parents to send him to study medicine in London — which they did. In London he studied under Constantine Carpue and then joined the 10th Infantry Regiment as Assistant Surgeon. In December 1813 he took part in the expedition under Sir Thomas Graham against the French in Holland and was in the front line during the attack on the fortress of Bergen-op-zoom when he was slightly wounded. In 1816 he was made a member of the Royal College of Surgeons. He remained with his regiment until 1818 when he was called from Corfu by Sir Thomas Maitland to occupy the post of Principal Surgeon at the Civil Hospital of Valletta (*Corriere mercantile*, 1865).

By the time Portelli became Professor of Anatomy and Surgery in 1822, the academic standards of Maltese medical men had risen considerably. Pharmacists, also, had become "expert in the various pharmaceutical operations". In fact a British physician serving in Malta, Dr. John Hennen, Inspector of Military Hospitals, declared that "physic and surgery are not on a lower footing in point of respectability in Malta than among the continental nations in the neighbourhood". It is true that surgeons were still somewhat conservative in treatment compared with their British counterparts but part of this fault lay with the patients who were "so wedded to old practices and established usage that the physician who should attempt any innovation in this respect would assuredly be left without any subjects to practise upon". However, "modern medical and surgical practice" was ably taught and demonstrated in the Civil Hospital (Hennen, 1830 g).

## Epilogue

The medical highlights of the decade 1800-10 are Burnett's clinical description of Undulant Fever; the introduction of vaccination against smallpox; the revival of the University with its Medical Faculty; the initiation of the Government's policy of sending Maltese medical men for post-graduate studies to the United Kingdom and the beginning of the first contacts between British and Maltese medicine.

On the debit side we find that academic training in medicine was modest; surgical practice was limited in scope; the running of hospitals was inspired by the medieval concept of "charity" towards the indigent and not by the idea of service to all members of the community; "fever cases" taxed the physician's time and efforts but their causation still eluded him; treatment, consisting mainly in bleeding and purging of the patient, was ineffectual; time and energy were dissipated in abstract theorising and sterile controversy.

In assessing the men and ideas of the period under review in Malta we must remember that we are judging them from the vantage point of the twentieth century. To be fair to them we must bear in mind that the pattern of their lives mirrored the European intellectual and medical scene of their days and it is within this framework of time and state of knowledge that we must judge them to give them a fair trial. Whatever their deficiencies, those men did not live in an isolated cultural backwater but were always in the main stream of Western thought and events.

The world in which they were brought up and trained was being swept away by a quarter-century of war sparked off by the French Revolution of 1789 and ending at Waterloo in 1815. In 1810 they were unaware that they stood on the threshold of a new era when budding scientific and medical ideas would bear fruit in the following decades. The physiology of respiration would be understood thanks to Lavoisier's contribution on the role of oxygen in the processes involved; the value of Jenner's prophylactic vaccine

against smallpox was being widely recognised; Corvisart was propagating the use of percussion in the diagnosis of diseases of the chest and heart (1808); James Carrie (1756-1805) introduced the clinical thermometer; Laennec invented the stethoscope in 1816; and a new more rational approach to the management of the mentally sick was being adopted.

All these advances lay in the future path of our professional ancestors — British and Maltese — at the close of the first decade of the 19th century but before they were to taste these benefits they were called upon to bear the full weight of the most dreaded medical calamity of all times — the plague that descended upon them and sorely tried them in the Malta epidemic of 1813-14; but that is another story that has already been told.

## APPENDIX I

Doctoral College  
in the Faculty of Medicine  
(*Collegio Dottorale*  
*nella Facoltà della Medicina*)  
1805

Dr. Luigi Caruana  
Dr. Giovanni Agius  
Dr. Francesco Dimech  
Dr. Francesco Leone Gravagna  
Dr. Stefano Grillet  
Dr. Giuseppe Ciaja  
Dr. Giuseppe Dingli  
Dr. Gabriele Pullicino  
Dr. Aurelio Badatt

Master of Anatomy and Surgery  
(*Maestro di Anatomia e Chirurgia*)  
1806

Dr. Aurelio Badatt

Master of Obstetrics  
(*Maestro di Ostetricia*)  
1806

Dr. Francesco Buttigieg

(*Diario, lunario e calendario delle isole di Malta e Gozo per l'anno 1805*, Malta, p. 17; *Almanacco delle isole di Malta e Gozo*, Malta, 1806, p. 29).



## APPENDIX II

Doctors graduating from the University  
from 1804 to 1812

Aloysius Gravagna — 1804

Alexander Vella — 1804

Joannes Franciscus Falzon (Mosta) — 1806

Salvatore Saydon (Zurrieq) — 1807

Lucas Borg (Balzan) — 1809

Xaverius Micallef (Qormi) — 1809

Paolo Antonio Azzopardi (Siggiewi) —  
1810

Felix Brignone — 1812

Joseph Galea — 1812

Gregorius Gatt (Birkirkara) — 1812

Albinus Borg (Balzan) — 1812.

(Acta Academiae Melitensis 1800-1832, fols. 18  
to 52).

## APPENDIX III

Women's Hospital Medical Staff  
1802

Dr. Giuseppe Ciaia (sic)

Dr. Stefano Grillet

Dr. Giuseppe Dingli (*supranumerario*)

Men's Hospital Medical Staff  
1802

Dr. Francesco Dimech

Dr. Francesco Leone Gravagna

Dr. Leopoldo Bernard

Dr. Lorenzo Cassar

1805

Senior Physicians  
(*Medici primari*):

Francesco Dimech

Dr. Francesco Leone Gravagna

Dr. Giuseppe Ciaja

Dr. Stefano Grillet

Dr. Lorenzo Cassar

Dr. Giuseppe Dingli

Junior Physicians

(*Medici secundari o pratici*):

Dr. Emanuele Locano

Dr. Salvatore Cutajar

Dr. Giuseppe Schembri

(Senior) Surgeons  
(*Chirurgi*):

Dr. Aurelio Badatt

Dr. Giuseppe Speranza

Angelo Ventura

## Junior Surgeons

(*Chirurgi secundari*):

Antonio Casha

Giovanni Andreotti

Carlo Grech

Pharmacist

(*Aromatario*):

Giuseppe Farrugia.

(*Piano per il regolamento dell'ospedale di Malta.*  
Malta, 1802, pp. 1 & 2; *Diario, lunario e calendario*  
*delle isole di Malta e Gozo per l'anno 1805*, Malta,  
pp. 17-18; *Almanacco delle isole di Malta e Gozo*,  
Malta, 1806, p. 29).

## APPENDIX IV

Naval Hospital Medical Staff  
1803-4

Surgeon in Charge:—

Mr. John Gray — appointed 25th No-  
vember

Surgeon's Mate or Assistant Surgeon:—

Mr. John William Ellice — appointed  
22nd December

Governor and Superintending Officer:—

Lieut. William Pemberton — appointed  
21st December.

Physician:—

Dr. Leonard Gillespie (1758-1842)

He was the first physician to be  
appointed to the Malta Naval Hos-  
pital. He joined the *Victory* as  
Physician to the Fleet in January  
1805.

1807

Surgeon:—

Mr. John Allen

Assistant Surgeons:—

Mr. John Regnell

Mr. Lorenzo Zammut (sic)

(Nicolas, N. H. *The Despatches and Letters of*  
*Vice Admiral Lord Viscount Nelson*, Vol. V, London,  
1845, pp. 294, 322 & 325; Gordon Pugh, P. D. Nel-  
son and His Surgeons, Edinburgh, 1968, p. 26;  
*Almanacco delle isole di Malta e Gozo*, Malta, 1808,  
p. 41).

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