SOME NOTES FOR THE HISTORY OF TYPHUS IN ETHIOPIA

bv

RICHARD PANKHURST*

Typhus, though probably less widespread and devastating than Ethiopia's other main epidemic diseases, smallpox¹ and cholera,⁸ may well have accounted for some of the numerous epidemics known to have taken place in the country since early times.³ It is not, however, until well into the second half of the nineteenth century that the greater medical sophistication of historical sources enables any indentification of the disease which thereafter seems to have broken out on a number of occasions. The incidence of infection in this latter period appears to have been particularly acute among Ethiopian and foreign armies operating in the country, thus indicating the appropriateness in Ethiopia, as elsewhere, of the disease's nickname "camp fever",⁴ and conforming to the pattern enunciated by Hans Zinsser, the isolator of the typhus germ, who remarked in his seminal work Rats, lice and history that for hundreds of years "typhus was never absent from the regions invaded by returning soldiers, who lighted fuses of infection that flickered along through villages and cities wherever chance sparked on inflammable material."5 Typhus in Ethiopia was, as we shall see, likewise reported at some prisons, institutions which were of course quite rare in former times, the presence of the disease in such places once again justifying its medieval Latin name "Morbus carcerorum" or its English equivalents "gaol fever" or "jayl fever",6 and causing the present-day German physician K. F. Schaller to remark that typhus, which still constitutes "a grave health problem in Ethiopia," could erupt "at any time, particularly in doss houses and prisons."7

Though it is entirely within the bounds of possibility that typhus was responsible for the "epidemical fever" which the famous Scottish traveller James Bruce reported among a rebel army in Begemder in 1771,⁸ the disease is not mentioned by name in the

*Richard Pankhurst, B.Sc., Ph D., Institute of Ethiopian Studies, Addis Ababa University, P.O. Box 1176, Addis Ababa, Ethiopia.

¹ R. Pankhurst, 'The history and traditional treatment of smallpox in Ethiopia', Med. Hist., 1965, 9: 343-346.

^a R. Pankhurst, 'The history of cholera in Ethiopia', Med. Hist., 1968, 12: 262–268.
^a R. Pankhurst, 'The earliest history of famine and pestilence in Ethiopia and a note on the "Egyptian" deaths" of 17th and 18th century Ethiopia', Ethiopian med. J., 1973, 11:233-234; R. Pankhurst, 'The history of famine and pestilence in Ethiopia prior to the founding of Gondar', J. Ethiopian Studies, 1972, 10: No. 2: 37-64; R. Pankhurst, An introduction to the economic history of Ethiopia, London, Sidgwick & Jackson, 1961, pp. 239-240.

• F. H. Garrison, An introduction to the history of medicine, Philadelphia, Saunders, 1929, p. 403.

^b H. Zinsser, Rats, lice and history, New York, Bantam Books, 1960, p. 201.

• Ibid., pp. 201, 211.

⁷ K. F. Schaller and W. Kuls, *Athiopien-Ethiopia*, Berlin and Heidelberg, Springer Verlag, 1972, pp. 105-106.

⁸ J. Bruce, Travels to discover the source of the Nile, Edinburgh, G. G. A. and J. Robinson, 1790, vol. 4, pp. 146, 197.

literature for another half-century. The earliest such references would seem to be in the notes of the French traveller Arnauld d'Abbadie who suggests that there was an outbreak of *nedad*, or typhus, at the then capital Gondar in 1842 when all the merchants in a caravan from Sennaar died. He also declares that he had heard of other cases of the disease in Enarya and elsewhere. Such evidence is, however, of questionable value as it is by no means certain whether d'Abbadie distinguishes accurately between typhus and other fevers. Emphasizing that the malady was "much feared", he states that some Ethiopians had informed him that there was no cure for it, while others told him of various supposed preventives, including the excreta of the hyena as well as various vegetable medicines and fumigants.⁹

There is moreover uncertainty as to how typhus was referred to in Ethiopia at this time, the more so as the Amharic nomenclature for diseases was by no means standardized. The German missionary linguist Charles Isenberg in his Amharic-English dictionary of 1841 listed the word *nedad*, the term d'Abbadie had cited as the Amharic for typhus, but translated it very generally as "the burning, esp. febrile heat, fever, ague", and also quoted another word, i.e. setema, also somewhat vaguely as "a certain fever, typhus."¹⁰ A couple of generations later Arnauld d'Abbadie's brother Antoine d'Abbadie equated *nedad*, also very loosely, with "a feverish temperature, fever—typhus, malign fever—intermittent fever", and setema with "a kind of fever; typhus." To add to the confusion he quoted two other terms as being applicable to typhus, namely *magana*, which he described as "a kind of very serious illness—typhus?" and badado which he translated from the medical point of view rather awkwardly as "typhus, smallpox".¹¹ Such ambiguities render hazardous any examination of Ethiopian typhus history, the more so as the less medically skilled observers of the past may have applied the term "typhus" to typhoid or other epidemics.

EPIDEMICS AMONG THE SOLDIERS OF THE NINETEENTH CENTURY

The first moderately well-documented epidemic believed to have been typhus erupted in June 1866 among the soldiers of Emperor Tewodros II, then camped at or near Qorata near Lake Tana, as reported by one of the monarch's British prisoners, the surgeon Henry Blanc. The outbreak occurred, typically enough, in a situation of acutely bad sanitation: cholera, the surgeon reports, had recently broken out at the camp, and "hundreds were dying daily", with the result that "the church was so completely choked up with dead bodies that no more could be admitted, and the adjoining streets offered the sad sight of countless corpses, surrounded by the sorrowful relatives, awaiting for days and nights the hallowed grave in the now crowded cemetery." It was at that time that typhus and smallpox were reported to have broken out among the troops, ¹² and resulted, according to the German Protestant missionary J. M. Flad, in many deaths.¹³

• Arnauld d'Abbadie, 'Journal et mélanges', Paris, Bibliothèque Nationale, F.N.A., 21,300, pp. 383, 594–597, 604–605, 608.

¹⁰ C. W. Isenberg, *Dictionary of the Amharic language*, London, Church Missionary Society, 1841, vol. 1, pp. 62, 106.

¹¹ Antoine d'Abbadie, *Dictionnaire de la langue amarifiña*, Paris, F. Vieweg, 1881, cols, 117, 205, 430, 1009.

18 H. Blanc, A narrative of captivity in Abyssinia, London, Smith, Elder, 1868, pp. 167-168.

¹⁸ J. M. Flad, Zwolf Jahre in Abessinien, Basle, Dorffling & Franke, 1869, p. 403.

Following a common Ethiopian practice at times of epidemics,¹⁴ Tewodros ordered his men to make their way to higher land several thousand feet above the lake, but, Blanc claims, the "cholera, smallpox, and typhus fever continued unabated". The emperor, apparently acting on the advice of his European captives, thereupon ordered his men to proceed to still higher land in Begemder, to leave the sick some distance from Dabra Tabor, and to distribute his men "over the whole province, selecting a few healthy and isolated localities where every fresh case that broke out should be sent."¹⁵

Many of the sick reached Dabra Tabor and the nearby hill of Gafat where the Swiss missionary Theophilus Waldmeier reported that his wife, who had accompanied the army, "was seized with a violent attack of cholera, followed by typhus fever, which was so dangerous that she was brought to the very brink of the grave."¹⁶ The migration to higher land was, however, so successful, Blanc argues, that the emperor "before long had the satisfaction of seeing the several epidemics lose their virulence, and, before many weeks, disappear entirely."¹⁷

Another epidemic suspected to have been typhus broke out a few years later, in the early 1870s, this time among the Egyptian soldiers invading Ethiopia from the Sudan. The disease was described as the invaders' "most formidable enemy", and was particularly serious at Keren where the troops lived in close proximity to one another.¹⁸

A renewed outbreak of an epidemic believed to have been typhus occurred only three years later, in the summer and autumn of 1876, among Egyptian forces pushing inland from the port of Massawa into the province of Hamasen. The coming of this renewed epidemic was perhaps not surprising in view of the invaders' failure to take even such elementary health precautions as the speedy burial of the dead.¹⁹ On 9 August 1876, the Egyptian commander Rateb Pasha, reporting on the situation of his troops in Hamasen, declared that "typhus has spread among the soldiers, and 160 of them are hospitalised. Four to six to them die every day: those entering hospital are more numerous than those leaving it. The greater part of these patients are Sudanese." The outbreak was indeed so rampant among the latter that Rateb decided on 20 August to transfer one of his two Sudanese battalions from their base at Kayakhor, south-east of Asmara, to Bahr Raza further north, and replaced them by his healthier contingents of Arab troops at Bahr Raza.

The health situation at Kayakhor was so acute that no fewer than 282 men were in hospital on 2 September; 136 men were admitted and forty-seven died within a week, after which the Egyptian authorities decided on evacuating the sick. Many men, however, continued to fall ill. The incidence of the disease remained greatest among the Sudanese battalion still in the field, this higher degree of infection being due, the Egyptian doctors believed, to the fact that soldiers from the dry and torrid Sudan were not acclimatized to the cold and humidity of the area.

¹⁴ R. Pankhurst, 'An historical examination of traditional Ethiopian medicine and surgery', *Ethiopian med. J.*, 1965, 2:160–162.

¹⁵ Blanc, op. cit., note 12 above, pp. 167–168.

¹⁶ T. Waldmeier, *The autobiography of Theophilus Waldmeier*, London and Leominster, S.W. Patridge, 1886, p. 90.

¹⁷ Blanc, op. cit., note 12 above, pp. 167–168.

¹⁸ J. De Coursac, Le règne de Yohannes, Romans, Imprimerie Jeanne-d'Arc, 1926, p. 224.

¹⁹ W. Mc. E. Dye, *Moslem Egypt and Christian Abyssinia*, New York, Atkin & Prout, 1880, pp. 428-430.

Rateb evacuated most of the sick from Kayakhor early in September, but the situation scarcely improved, for on reaching Bahr Raza seven or eight men were said to be dying every day, and thirty-eight were in hospital there, while at Adi Raza the sick exceeded over 200, of whom 190 were Sudanese. On 16 September Rateb was obliged to report that "all the measures we have taken to arrest this plague have proved fruitless. The Arab battalion has begun to be affected. Even though the number of sick is still small, this disease is spreading more and more among them; it likewise affects the irregulars: three or four of them die each day."

A number of Egyptian troops sailing from Suez to Massawa were meanwhile also falling victim to the disease. On one ship, the *Dessouk*, two men died en route, and twenty-two were hospitalized on landing.

The epidemic among the Egyptian force in northern Ethiopia was by this time so serious that by 19 September no less than 384 Sudanese and seventy-six Arab soldiers had died. Eight to ten men were reported to be dying every day, and 416 men were receiving medical treatment. Faced with this situation Rateb, acting on medical advice, decided on sending the sick to Monkullu, just inland from Massawa, and to order their isolation. 260 patients were accordingly thus separated from their comrades on 23 September. Towards the end of the month an isolation camp was also established at Massawa, the number of cases thus incarcerated rising to no less than 537. For a time the situation seemed to improve, but the epidemic then took a turn for the worse, the sick roll in the Sudanese battalions rising on 1 October to 594.

Respite came, however, towards the end of the month, enabling Rateb to report on 3 November, that "the typhus has disappeared at Massawa." The number of patients at the local hospital fell by 11 November to 215, of whom 123 were Arabs and ninety-two Sudanese, but 144 of the sick were by then already convalescing. Most of the patients had come from Bahr Raza where the situation continued to be serious for some time, it being reported on 13 November that no less than 154 men were in need of treatment.²⁰

The above epidemic, though apparently at first confined to the Egyptian and Sudanese troops, whose illness was the subject of official reports, seems to have soon spread among the local Ethiopian population for whom records are of course far less accurate. It was, however, later asserted by foreign visiting travellers that the assumed typhus outbreak of this period resulted in a high incidence of mortality in Tegre province, i.e. in the area worst affected by the fighting. The Italian traveller Pietro Matteucci went so far as to write in a letter of January 1878 that the country had in the previous year "suffered a terrible scourge of typhus which has destroyed 25% of its population."²¹

Adwa, the capital of Tegre and the principal commercial town in the province, was particularly seriously affected, which was perhaps not surprising in view of the fact that like most Ethiopian towns it was scarcely very sanitary. The British traveller Augustus B. Wylde, no critic of Ethiopian civilization, noted that its streets were "disgracefully dirty", and that almost all houses in the country "swarm with vermin of all sorts and of the worst kinds; and, as I know to my cost, domestic and personal insects are to be got

²⁰ G. Douin, *Histoire du règne de Khédive Ismatl*, Cairo, Société Royale de Géographie d'Egypte, 1941, vol. 3, part I, pp. 1005, 1058, 1061, 1063, 1065, 1067, 1071, 1089.

³¹ C. Cesari, Viaggi africani di Pellegrino Matteucci, Milan, Edizioni Alpes, 1932, p. 213.

either in the king's palace or in the peasants' huts."²² The town, Matteucci notes in his memoirs, was at this time almost deserted, and he comments: "What was the cause of so much misfortune? A typhus epidemic, terrible in its consequences, had struck Abyssinia and especially Tegre."²³

The effect on the town was also noted by another Italian traveller, Pipo Vigoni, who remarked that the epidemic had resulted in "true carnage", and added: "it is calculated that more than two-thirds of the population of Adwa perished; and walking round the streets one saw signs of it everywhere. . . . One meets almost no one, the greater part of the streets are deserted, in them one sees misfortune, death."²⁴

Matteucci and Vigoni, writing a generation or so before the significance of the louse and other insect vectors of typhus was discovered in the early twentieth century,²⁵ naturally had little precise knowledge as to the mode of diffusion of the disease, and therefore explained the epidemic in unscientific albeit interestingly graphic terms. Thus Vigoni remarks that "a terrible famine united to the miasma produced by the thousands of Egyptian corpses left unburied, resulted in a typhus epidemic", ²⁶ while Matteucci, putting the blame on the numerous livestock which had earlier perished of cattle plague, opined: "In the rainy season there rose over the city an atmosphere corrupted by the fermentation of so many animal bodies apparently dried by the rays of the summer sun, and there developed a typhus epidemic which caused carnage without regard to age or condition. In many places the corpses were not buried and became the home of new infections: the abandoned houses in great part collapsed, as if moved by pity that the human bodies lay there without honorable burial."²⁷

An epidemic of unidentified fever, also possibly typhus, occurred a few years later as mentioned by the Italian Roman Catholic missionary Guglielmo Massaia who states that it led to mortality at the then capital, Ankobar, and elsewhere.²⁸

A further epidemic said to have been of typhus was reported a decade or so later during the Great Ethiopian Famine of 1889–1891.²⁹ This disease was reported to have seriously affected Emperor Menilek's army which was then returning from Tegre to Shoa. The ruler's Swiss adviser Alfred IIg wrote to a friend at this time that the force which was estimated at 24,000 men, had "lost a good 15 per cent" of its number who had perished of dysentery, smallpox, typhus and bronchitis. "I have never seen so much misery in such a short time," IIg declared, "and as long as I live I will think of the present expedition."³⁰ Typhus may well also have been the cause of the high mortality reported at this time among Menilek's armies then marching through the southern

¹¹ A. B. Wylde, '83 to '87 in the Soudan, London, Remington, 1888, vol 1, p. 272; A. B. Wylde, *Modern Abyssinia*, London, Methuen, 1901, p. 231. See also R. Pankhurst, 'Some factors influencing the health of traditional Ethiopia', J. Ethiopian Studies, 1966, 4, No. 1: 43-59.

²² P. Matteucci, In Abissinia, Milan, Fratelli Treves, 1880, p. 83.

⁸⁴ P. Vigoni, Abissinia, Milan, Ulrico Hoelpi, 1881, pp. 96-97.

²⁵ A. Castiglioni, A history of medicine, New York, Alfred A. Knopf, 1947, p. 278.

²⁶ Vigoni, op. cit., note 24 above, pp. 96-7.

¹⁷ Matteucci, op. cit., note 23 above, p. 83.

¹⁸ G. Massaia, *I miei trentacinque anni di missione nell' alta Etiopia*, Tivoli, Società tipografica A. Manuzio, 1928, vol. 10, pp. 129–134.

¹⁹ R. Pankhurst, 'The great Ethiopian famine of 1888–1892: a new assessment,' J. Hist. Med., 1966, 21: 95–124, 271–294.

³⁰ C. Keller, Alfred Ilg, Frauenfeld and Leipzig, Verlag von Huber, 1918, pp. 43, 89.

provinces, though clinical information on the subject is once again woefully lacking.³¹ Traditional Ethiopian military camps, it should be emphasized, were essentially unhealthy, as was recognized by Wylde, who, writing after the battle of Adwa, opined: "The remains of an English camp is never a very cheerful sight, but that of an Abyssinian camp is still less; and here were the remains of unburied humanity, dirt, filth and corruption at every step."³²

The alleged typhus epidemic of this period was by no means confined to the army, but seems to have spread far and wide. A visiting Italian doctor, Vincenzo Ragazzi, reported in August 1889 that "the country of Shoa, and in general all Shoa." had been struck by a "murderous typhus epidemic,"³³ while a subsequent French traveller Sylvain Vignéras remarked that the population of Burka in the Harar area had suffered greatly from "famine, followed by smallpox, typhus and finally by cholera."³⁴ Ilg's biographer Conrad Keller likewise tells of "countless persons" falling victim to smallpox and typhus.³⁵

Yet another outbreak generally diagnosed as typhus is stated to have occurred among the soldiers of one of Menilek's principal chieftains, Ras Walda Giyorgis, who occupied the province of Kaffa in 1897. The disease is said by the Italian physicians Carlo Annaratone and Lincoln de Castro to have been subsequently introduced into Addis Ababa by the troops returning from Kaffa, probably early in the twentieth century.³⁶

Cases of typhus were also reported early in the Italian occupation of Eritrea, notably at Massawa in the years immediately after its seizure in 1885,³⁷ and elsewhere in the colony in April and May 1896.³⁸

THE EARLY TWENTIETH CENTURY

The first early twentieth-century reports of a typhus epidemic in Ethiopia are those of the French missionary Monseigneur Jarosseau who asserted in May 1906 that the disease had then been raging in the Harar area for several months, and that one-third of those affected had died.³⁹ Typhus, as we shall see, continued to be reported with some frequency in the decades prior to the Italian fascist invasion.

The disease was by now generally referred to in Amharic as *tasbo*, a term recorded early in the century by the Ethiopian linguist and intellectual Afawarq Gabra Iyasus,⁴⁰ though it is clear that there was still much lack of linguistic precision. It is noteworthy that one French lexicographer of repute, the missionary Joseph Baeteman, should have

¹¹ Martial de Salviac, Les Galla, Paris, H. Oudin, 1901, pp. 305-306.

** Wylde, Modern Abyssinia, op. cit., note 22 above, p. 168.

²² V. Ragazzi, 'Lettere del Dott. Vicenzo Ragazzi', Boll. Soc. Geografica Italiana, 1889, p. 965.

²⁴ S. Vignéras, Une missione française en Abyssinie, Paris, Armand Colin, 1897, p. 84.

⁸⁵ Keller, op. cit., note 30 above, pp. 43, 89.

³⁴ C. Annaratone, In Abissinia, Rome, Enrico Voghera, 1914, p. 479; L. de Castro, Nella terra dei Negus, Milan, Fratelli Treves, 1915, vol. 1, p. 367.

⁵⁷ A. Pasquale, 'Sul tifo a Massaua', *Giornale Med. del R. Marina*, July 1891; F. Rho, G. Petella and A. Pasquale, *Massaua. Clima e malattie*, Rome, Tipografia nazionale di G. Bertero, 1894, pp. 102–103, 135, 149, 154.

** L'Africa italiana al parlamento nazionale, Rome, Ministero degli Affari Esteri, 1907, p. 507.

** Les Missions Catholiques, 1906, p. 256.

⁴⁰ G. J. Afevork, *Grammatica della lingua amarica*, Rome, Tipografia della Accademia dei Lincei, 1908, p. 25.

translated typhus as *yehadar besheta*, i.e. illness of the Ethiopian month of *Hedar*, thus confusing it with the deadly epidemic of "Spanish influenza" which hit the country during the month of *Hedar*, i.e. November-December 1918, though he also equated the latter term with "influenza" and "influenza—typhus".⁴¹ The medically impossible correlation of typhus with the epidemic of *hedar* was similarly made in an Amharic-Italian dictionary compiled by the well-known Italian Ethiopicist, Enrico Cerulli as late as 1940.⁴²

The traditional Ethiopian practitioners of this period were not without ideas on the treatment of *tasbo*. Popular cures for the disease, as recorded in the notebook of a *debtera*, or lay cleric, of Begemder, included the roots of *waginos* (*Brucea antidysenterica*) or alternatively those of *gumaro* (*Capparis tomentosa*), gisewa (Withania somnifera), zamato[?] and tult (Rumex steudelii), and the shoots of the sycamore.⁴³

The prevalence of typhus in pre-war Addis Ababa was noted by Christine Sandford, a British resident of the period,⁴⁴ while an Italian traveller, Pietro Jansen, remarked that it was a "curse" which affected the little-washed inhabitants of the capital where it was a danger also to the European population.⁴⁵ The diffusion of the disease in the provinces was also mentioned by Stuart Bergsma, an American Protestant medical missionary,⁴⁶ and by Adrien Zervos, a Greek author who described it as "endemic" and the cause of "high mortality,"⁴⁷ while an outbreak at one of the gold mines on the Birbir river in Walaga was mentioned in the late 1920s by its British engineer Captain E. J. Bartleet who stated that deaths were as a result "almost a daily occurrence".⁴⁸

Typhus was also reported in pre-war Eritrea. An epidemic, whether of this disease or not is the subject of discussion, broke out in 1920, and was followed by two epidemics generally accepted as typhus in 1927 and 1933.⁴⁹

Probably the last of the pre-war epidemics was reported at Harar on the eve of the Italian invasion of 1935, by the British novelist Evelyn Waugh, who was informed in the autumn of that year that at the town's overcrowded prison "three or four deaths occurred weekly, I am informed, from typhus."⁵⁰

THE ITALIAN FASCIST OCCUPATION

The Italian fascist occupation of 1936–1941 witnessed several further typhus outbreaks which, perhaps on account of the preventive action taken, failed to reach

⁴¹ J. Baeteman, *Dictionnaire amarigna-français*, Dire-Daoua, Imprimerie Saint Lazare, 1929, French-Amharic section, cols. 216, 412, Amharic-French section, col. 428.

⁴³ I. Guidi, *Supplemento al vocabolario amarico-italiano*, Rome, Instituto per l'Oriente, 1940, col.6. On the *hedar* epidemic see R. Pankhurst, 'The *hedar bašita* of 1918', *J. Ethiopian Studies*, 1975, 13, No. 2: 103–131; C. F. Rey, *Unconquered Abyssinia*, London, Seeley Service, 1923, p. 48.

⁴⁹ M. Griaule, Le livre de recettes d'un dabtara abyssin, Paris, Institut d'Ethnologie, 1930, pp. 10, 79.

44 C. Sandford, Ethiopia under Haile Sellassié, London, J. M. Dent, 1945, p. 63.

⁴⁵ P. G. Jansen, Abissinia di oggi, Milan, Omero Marrangoni, 1935, pp. 171-172.

⁴⁶ S. Bergsma, *Rainbow empire*, Grand Rapids, Mich., W. B. Eerdsmans Publishing Co., 1932, p. 106.

⁴⁷ A. Zervos, *L'empire d'Ethiopie*, Alexandria, Imprimerie de l'Ecole Professionnelle des Frères, 1936, p. 253.

48 E. J. Bartleet, In the land of Sheba, Birmingham, Cornish Brothers, 1934, pp. 101-102.

⁴⁹ G. Bucco and A. Natoli, 'L'organizzazione sanitaria nell' Africa italiana', Italy, Ministero degli Affari Esteri, *L'Italia in Africa*, serie civile, Rome, Istituto poligrafico dello Stato, 1955, vol. 1, pp. 61–74, 244.

⁵⁰ E. Waugh, *Waugh in Abyssinia*, London, Longmans Green, 1936, p. 135.

major epidemic proportions.⁵¹ The first of these outbreaks was stated by the Italian publication *Gli Annali dell' Africa Italiana* to have occurred in the prison in Adigrat in December 1936 whence it spread to Asmara as a result of the transfer of prisoners there.⁵² The governor of Eritrea thereupon issued a decree for the compulsory inoculation of Italian officials, civil servants and soldiers in contact with the "native population" who were considered a typhus risk, as well as of all persons, "metropolitan" or "native", connected with hotels, restaurants, cafes, drinking houses, cinemas, brothels, or public or private transport.⁵³ The majority of the Italians in the area were thereupon inoculated, in order, *Gli Annali* avers, to prevent them from carrying the disease back with them to Italy on repatriation.⁵⁴

Another outbreak of typhus took place in the autumn of 1937 when the disease was said to have been located in at least three areas, namely between Addis Ababa and Dabra Sina, at Fitche, and around the Omo. There were fears that Italian military operations against the Ethiopian patriots, and the movement of population generally, would result in the wider diffusion of the epidemic.⁵⁵ The Italian governor-general, operating, as was then customary, in racist terms, at once ordered resolute action to prevent the disease from "endangering the physical integrity of nationals," i.e. Italians, and "as far as possible to reduce the illness among the natives." He specified two goals: (1) "to preserve nationals from infection," and (2) "to prevent anyone, with the disease already in incubation, from escaping health control."⁵⁶ The anticipated epidemic seems to have been checked.

Fear of typhus indeed played a major part in Italian medical thinking throughout the occupation. This fear prompted the invaders to establish disinfection squads soon after their occupation of Addis Ababa,⁵⁷ and was later a major factor in the development of racial segregation, finding expression in an Addis Ababa order of 21 September 1938, which prohibited Italians and other Europeans from entering the New Market or Takla Haymanot area which was reserved for "natives".⁵⁸ The prevailing medico-racist attitude was expounded by Giocomo Mariani, himself a distinguished physician and authority on typhus, in a study 'La lotta contro le Rickettsiosi umane nell' A.O.I', i.e. the struggle against human *Rickettsia*, or typhus, in Italian East Africa, which appeared in an official publication of 1939. He there argued that the control of the disease could not but be "based on the principle of the separation of national citizens and foreigners from natives, a separation which must be absolute and constant," and urged the need (1) to place the dwellings of "native servants" far from those of their "white" masters; (2) to separate "the white element" from the "native" in offices, shops, schools, places of work and prisons; (3) to prevent the "promiscuous"

⁵⁷ 'I servizi sanitari', op. cit., note 52 above, pp. 813–815. For photographs of these squads see Mariani, op. cit., note 53 above, illustrations between pp. 56 and 57.

58 Corriere dell' Impero, 23 September 1939.

⁵¹ R. Pankhurst, 'The medical history of Ethiopia during the Italian fascist invasion and occupation', *Ethiopia Observer*, 1973, 16, No. 2: pp. 110, 115.

⁵² 'I servizi sanitari', Gli Annali dell' Africa Italiana, 1940, 3, No. 1: p. 765.

⁵⁸ G. Mariani, 'La lotta contro le richettsiosi umane nell' A.O.I. Africa Orientale Italiana, Opere per l'organizzazione civile in Africa orientale italiana, Addis Ababa, 1939, p. 66.

^{54 &#}x27;I servizi sanitari', op. cit., note 52 above, p. 775.

⁵⁵ Ibid, pp. 774-775.

⁵⁶ Mariani, op. cit., note 53 above, pp. 63-64.

transporting of "whites" and "natives" on both public and private vehicles, and to create exclusive transport services for "natives"; (4) to disinfect and inoculate "whites" obliged by their work to have frequent contact with "natives"; and (5) to remove "natives" from the large urban centres to the countryside, as well as to construct more hygienic "native" housing. Emphasizing the serious character of the disease, Mariani also advocated continuous precautions, including research on the first cases among the "native population", especially in crowded areas, work camps and among the troops, early diagnosis of "nationals" believed to be contaminated, and the inoculation of "all national citizens and foreigners" exposed to the dangers of infection.⁵⁹

An Italian health commission for Addis Ababa, which likewise looked on medical questions in racist terms, similarly recommended "the utility of extending inoculation to all nationals present in the Empire and of also initiating inoculation among the native population, the source of the diffusion of infection." The commission urged that the "white population" be given Weigl vaccine, which was "efficacious and not harmful", while the "natives", who, under fascist racism, were consistently treated as inferiors, should receive "the easiest" vaccine to prepare.⁶⁰

Italian medical propaganda also devoted considerable attention to typhus, one Amharic leaflet issued at this time declaring: "The most dangerous enemy of man is the louse because it transmits two serious diseases: typhus and relapsing fever. The man who does not have lice on his body, in his clothes or in his house, can be sure of not being contaminated by these two diseases, even if he is in contact with the persons affected...".⁶¹

Despite such efforts to curtail the disease, many cases affecting Italian nationals were reported in the first part of 1939 in the Italian province of Amhara, i.e. the north-west of the country with its capital at Gondar, as a result of which the provincial governor issued a decree on 3 May ordering mass inoculations.⁶²

Italian concern with typhus also led to the establishment of a Laboratorio per la Profilassi e lo Studio delle Rickettsiosi (laboratory for the prophylaxis and study of *Rickettsia*), which was constructed on the confiscated premises of the Sudan Interior Mission, subsequently, after the Liberation, the Netherlands Embassy.⁶³ Typhus research was carried out partly at that institute and partly at the Duca degli Abruzzi colonial hospital as the pre- and post-war Menilek hospital was then called.⁶⁴ A number of scientific studies of the disease were published in this period, or shortly afterwards,⁶⁵ notably by the aforementioned Mariani, as well as by C. D. Ignazio, E. Borra, F. Sofia, O. Spandoro, F. Pistone, V. Cimmino and G. Ferro-Luzzi, and several other Italian physicians.⁶⁶

⁴⁴ C. D'Ignazio, *Memorie di un medico in Etiopia*, Teramo, Cooperative tipografia Ars et Labor, 1950, pp. 13–15; Pankhurst, op. cit., note 51 above, pp. 110, 115.

⁴⁵ D'Ignazio, op. cit., note 64 above, p. 7.

⁴⁴ Bucco and Natali, op. cit., note 49 above, pp. 61–74, 244; Schaller and Kuls, op. cit., note 7 above, pp. 105–106.

⁵⁹ Mariani, op. cit., note 53 above, pp. 59-60.

^{••} Ibid., pp. 65-66.

¹ Ibid., p. 67.

⁶² Bucco and Natoli, op. cit., note 49 above, pp. 61-74, 244.

⁴⁴ G. Mariani, 'Il laboratorio per la profilassi e lo studio delle Richettsiosi', Africa Orientale Italiana, op. cit., note 53 above, pp. 69–73. See also photographs between pp. 72 and 73.

Anti-typhus inoculations employing Weigl vaccine began in 1938,⁶⁷ and 13,500 inoculations had been given in Shoa province, the principal site of operations, by 31 March 1939, the latest date for which information is available to the present author. The objective of this programme was, as *Gli Annali* frankly affirmed, above all "to preserve nationals from infection, and to prevent colonials returning to Italy from introducing the disease there."⁶⁸

Though typhus, as a result of the above measures, was stated to have been less serious than heretofore, the Italian medical practitioner Camillo D'Ignazio records that it led to numerous cases of infection among the Italian population, the number of known cases being sixty-nine in 1937, 251 in 1938, 127 in 1939, forty-two in 1940 and 217 in 1941.⁶⁹ No statistics were, however, published for Ethiopians affected, though it must be presumed that the number must have been far higher.

SUMMARY AND CONCLUSIONS

The above examination of the scanty, and admittedly often medically imprecise, data of former times suggests that typhus was one of the major epidemic diseases of Ethiopia. The inadequacy of the sources makes it impossible, however, to identify the disease before the second half of the nineteenth century, and thereafter often with some uncertainty. The available information nevertheless indicates that epidemics, as in other countries, were particularly acute at army camps and prisons. The first outbreaks reported as typhus were at the camp of Emperor Tewodros in 1866, among the invading Egyptian army in the 1870s from which the infection is said to have spread to the population of Tegre, and during the Great Ethiopian Famine of 1889-1891. The disease appears to have struck again several times in the first decades of the twentieth century, notably at the prison at Harar in 1935. Typhus was also a major preoccupation during the Italian fascist period when the health authorities, much afraid of possible contamination from the "natives", succeeded in containing several minor epidemics. The evidence of the past, and more recent reports, which lie outside the scope of the present study, suggests that the disease still constitutes a potential health hazard in Ethiopia today.

^{•7} D'Ignazio, op. cit., note 64 above, pp. 7, 13–15.

- ** 'I servizi sanitari', op. cit., note 52 above, pp. 774-775.
- ⁴⁹ D'Ignazio, op. cit., note 64 above, pp. 13–15.