

## SICKNESS

Most populations, whether in the past or present, are affected with numerous diseases other than those covered in the previous three chapters. The sixteenth century English doctor Andrew Boorde, for instance, compiled a list of diseases of the time, using contemporary terms: diabetes, cancer, pleurisy, consumption, suffocation of the mother, womb diseases and ailments, chafed buttocks, the stone, scabs, St. Anthony's fire, 'hemeroids and pyles', smallpox and measles, dysentery and bloody-flux, worms in the belly.<sup>1</sup> Nearly two hundred years later a similar wide range of diseases were prevalent. In 1729, Short wrote to a friend describing the diseases he had encountered in that year: 'chincough (whooping cough), Rheumatisms, Inflammations and a general scabbiness. All low grounds sore afflicted with obstinate Quartans and Tertians. At Plymouth Rheumatisms, Arthritis, suffocating coughs, fatal to the Asthmatic and Consumptive. In May inflammatory fevers and Chicken Pox, in June Erysipelas and Smallpox; in July a putrid Fever, Itch and Scabbiness, in November a universal catarrh.'<sup>2</sup>

In the same century, Black surveyed many of the forms of pain that afflicted people. There was tetanus; 'dropsy', 'colic',rabies, whooping cough, haemorrhods and many other ailments.<sup>3</sup> Numerous diaries catalogue the almost daily occurrence of various diseases of children and adults. The diary of Ralph Josselin and that of Oliver Heywood provide two of the most detailed and moving catalogues of these constant sources of morbidity and mortality.<sup>4</sup>

Many of these sources of pain and death leave little trace in the historical record, and it is only after systematic study that one notices them even in contemporary populations. Yet their reality and the amount of suffering they cause occasionally reveals itself in curious ways. Morse suggested an interesting index of the most prevalent forms of pain in Japan in the later nineteenth century. Gazing at a Buddhist image, the rubbing of which was supposed to alleviate suffering, he wrote that 'One can study the image and make an estimate of the prevalent diseases in Japan by the amount of wear! Thus the eyes are almost obliterated; the abdominal region is well worn pointing to intestinal troubles; the well-worn knees

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<sup>1</sup>Boorde, *Breviary*, passim

<sup>2</sup>*Comparative History*, 91; quoted in Wrigley, 664

<sup>3</sup>Black, *Arithmetical*, passim

<sup>4</sup>cf *Diary of Ralph Josselin*; article by I.M. on Heywood; two analyses of Ralph Josselin XXX

and back of the image suggest muscular and articular rheumatism!<sup>5</sup>

In the following account I will just look at five examples from the multitude of other diseases. They are all highly contagious being spread for the most part through bodily contact. Their causes are miscellaneous, bacterial, viral, helminths (worms). Yet they are united in being very directly affected by the patterns of living and in particular by intimate bodily contacts, such as embracing, sleeping together and sexual intercourse.

### **Venereal diseases**

The two major forms of venereal disease are gonorrhoea and syphilis. Gonorrhoea is an infectious disease caused by the gonococcus organism, 'a gram-negative diplococcus', and 'sexual intercourse is the principal mode of transmission, but non-venereal inoculation is possible, especially in female infants and children under puberty.'<sup>6</sup> Syphilis, also known as the 'Pox' or 'Great Pox', is caused by 'a motile spirochete' and the disease is acquired 'by sexual (or, occasionally, other close) contact with a person in the infectious stage.'<sup>7</sup>

The historical origins of the major venereal diseases remain obscure. One famous thesis links them to the return of Columbus from America at the end of the fifteenth century. We are told, for instance, that 'In contrast to the New World's abundant skeletal evidence, no bone with treponematoses dating earlier than 1500 has ever been found in Europe, Africa or Asia.'<sup>8</sup> In the eighteenth century, David Hume thought that 'venereal distempers' were 'a new plague diffused everywhere.'<sup>9</sup> This was the conventional eighteenth century European view. For example Black wrote that 'Three hundred years have not altogether elapsed since the discovery of America, and the importation of the venereal disease into the old world.'<sup>10</sup> On the other hand, Zinsser finds it 'quite impossible to assert with confidence that syphilis did not exist in pre-Columbian Europe', though 'if it did, it must have been relatively rare...' (Zinsser, Rats, 70) He believes that 'It is not at all unlikely that a mild form of syphilis occurred all over the world,

<sup>5</sup>Morse, i, 127

<sup>6</sup>Merck, Manual, 1455

<sup>7</sup>Merck, Manual, 1460

<sup>8</sup>Nikiforuk, 90

<sup>9</sup>Hume, Essays, 224

<sup>10</sup>Black, Arithmetical, 229

including China (according to Dudgeon) and Japan (according to Scheube), long before the fifteenth century...<sup>11</sup> A recent survey of the problem sticks to the American origins theory, despite strong challenges.<sup>12</sup>

Whatever its roots, it does seem that a more virulent form of syphilis spread across Europe in the 1490's and was later taken to the East. McNeill claims that it arrived in China and India in 1505 and that its 'demographic impact in these lands seems no different from that in Europe.' That is to say, it started as an epidemic, and then subsided into 'chronic endemicity'.<sup>13</sup> The Chinese called it the "Ulcer of Canton", the city where the Portuguese introduced it. And depending on their mood, the Japanese sometimes blamed the disease on the Chinese or the Portuguese.<sup>14</sup> The latter interpretation was noted at the end of the seventeenth century by Kaempfer. 'The great Pox is not unknown in Japan, and they call it Nambankass, that is, the Portuguese Disease.'<sup>15</sup>

Gonorrhoea and syphilis, spread rapidly. They were a far more serious disease in their new environment than they are now, and led to a rash of medical treatises being published soon afterwards.<sup>16</sup> They caused high death rates in many European countries, for instance in seventeenth and eighteenth century France.<sup>17</sup> As Black described it, 'Europe was alarmed with universal consternation at the rapid inroads of this disease: multitudes, of all ranks, perished in lingering torture, under its corroding ulcers, presenting before death hideous spectacles of cadaverous corruption and deformity.'<sup>18</sup>

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<sup>11</sup>Zinsser, Rats, 70

<sup>12</sup>Crosby, Early History (xerox), passim

<sup>13</sup>McNeill, Plagues, 202/211

<sup>14</sup>Nikiforuk, Fourth, 91

<sup>15</sup>Kaempfer, i, 296

<sup>16</sup>Sry, Philistines, 64-5, 141; Lewinsohn, History of Sex, 168

<sup>17</sup>Ladurie ??, 1065; Hufton, Old Bayeux, 95

<sup>18</sup>Black, Arithmetical, 229

In England, as in much of Europe, 'Syphilis was recruited to the ranks of epidemics at the end of the fifteenth century and ran a virulent course until about 1600, when it settled down into an endemic risk...'<sup>19</sup> It caused serious epidemics in the sixteenth century<sup>20</sup> and was aggravated by the widespread presence of gonorrhoea.<sup>21</sup> Many died of it, and many others suffered its ghastly effects. Just one of the many contemporary descriptions can be quoted to show why syphilis, in particular, was so feared. 'Confirmed pox, in its inveterate and chronic stages, contaminates the whole constitution; erodes the genitals, or anus; ascends to the throat, and excites callous ulceration and dilapidation in the uvula, tonsils, faces, palate, nose; hence hoarse, guttural voice, fetid breath: the patient is variously tormented with chronic gnawing pains in the head, legs, shoulders and hard bones, which are exasperated in bed; with cutaneous eruptions on different parts of the face, trunk or extremities, and dry, scaly, humid, ulcerated, red, yellow, or purple...'<sup>22</sup> Whether we look at the sixteenth century when fifteen out of twenty of the inmates of a hospital had the 'pox' according to one doctor<sup>23</sup> the seventeenth century<sup>24</sup> the eighteenth century<sup>25</sup> or even the early twentieth century, when it is estimated that three-quarters or more of men were infected with gonorrhoea around 1910 and 'at least a tenth of the population of large cities then suffered from syphilis, congenital or acquired' according to a Royal Commission in 1913-1916,<sup>26</sup> the disease in its endemic form continued to be a serious ailment in England up to the twentieth century.

When we turn to Japan, we might expect that historically there would have been a high incidence of venereal disease. The 'floating world' of the pleasure quarters in the cities were famous for their large

<sup>19</sup>Clarkson, 40-1

<sup>20</sup>ibid, 53

<sup>21</sup>ibid, 54

<sup>22</sup>Black, Arithmetical, 231

<sup>23</sup>Emmison, Morals, 31ff; cf also Wilson, Shakespeare Survey, 164; Slack, Plague, 2

<sup>24</sup>cf May, Social Control, 111

<sup>25</sup>George, London Life, 314

<sup>26</sup>Banks, Feminism, 112; Roberts, Hygiene, 90; for general overview, see H. Ellis, Psychology of SEx, 6, ch.8

numbers of prostitutes and, as we shall see later, even small towns and villages had large numbers of brothels. Furthermore there was a notably relaxed attitude towards sexual relations outside marriage.

It has been suggested that while 'Some sources indicate that gonorrhoea and soft chancre occurred in ancient Japan, under the names **rinshitsu, bendoku, and genkan**. However, these terms appear in medical books only from the fifteenth century onward.<sup>127</sup> Others claim that 'Gonorrhoea was an old disease in Japan and presumably had a wide distribution.<sup>128</sup> Syphilis, on the other hand, arrived in 1512, probably brought by pirates from China. It was known as the 'great pox' or the 'Chinese pox' (**togawa**) at first.<sup>29</sup> The situation in the sixteenth and seventeenth centuries is unclear. Europeans were puzzled by the tolerant attitude of the Japanese to this new disease, which did not seem to be associated with sin. Frois, in 1585, wrote that 'Amongst us for a man to become ill with a venereal disease is always a filthy and shameful thing; the Japanese men and women consider this a common thing and take no shame for it.<sup>130</sup> We are told that by 1600 syphilis was a major health problem in Japan's large cities. Sixteenth-century European observers had reported that it was widespread among the Japanese population, and contemporary Japanese writers claimed that in Edo more doctors treated syphilis than any other disease.<sup>131</sup> On the other hand at the end of the seventeenth century, the doctor Kaempfer was puzzled that though the disease was known, it was less widespread than one would expect. 'The Japanese are very great lovers of bathing, and use it every day. I believe that this is the reason why the pox spreads so much less, than it would be otherwise like to do in so populous a country.'<sup>132</sup>

The situation at the end of the eighteenth century is partly indicated by the visiting Swedish doctor Thunberg. He noted the origins and prevalence of the disease. 'The **Venereal** Disease was without doubt imported by the Europeans, who have the superlative merit of having diffused this distemper to many parts of the globe. Venereal complaints are at present very prevalent here, and they are hitherto acquainted with no other mode of alleviating them than the use of decoctions, that purify the bloody.'<sup>133</sup>

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<sup>27</sup>Kiple (ed), *Diseases*, 375

<sup>28</sup>Kiple (ed), *Diseases*, 388

<sup>29</sup>Kiple (ed), *Diseases*, 383/388

<sup>30</sup>4 ns. in Bowers, *Pioneers*, 11

<sup>31</sup>Kiple (ed), *Diseases*, 388

<sup>32</sup>Kaempfer, *History*, 3, 291

<sup>33</sup>Thunberg, *Travels*, iv, 79

Many came to him for medicine. 'These complaints were frequently either large indurated glands in the neck, and cancerous ulcers, or else venereal symptoms, which had generally taken too deep root.'<sup>34</sup> He tried to introduce the western treatment of mercury, but was at first unsuccessful. 'I had brought with me from Holland a quantity of corrosive sublimate, and during my residence here plainly perceived that this remedy was much wanted, on account of the great number of people that laboured under the venereal disease. Notwithstanding which, I could not sell any of it to the physicians of this country, who were totally ignorant of its use and application of this sure, but at the same time, dangerous medicine.'<sup>35</sup> Later on, however, he found that people 'adopted therefore, both with joy and gratitude, the method, which I had the good fortune to be the first to teach them, viz of curing this disorder with the **Aqua Mercurialis**.'<sup>36</sup>

Moving to the nineteenth century Pompe only mentions it once, commenting that 'Thousands of families are afflicted yearly' with syphilis, 'and the whole human race on these otherwise beautiful islands already shows the characteristics of strong decline.'<sup>37</sup> The most interesting account, which is worth exploring in detail, is that given by the English doctor Willis, who was stationed in the commercial port of Nagasaki and elsewhere.

In a letter dated 15 February 1863 Willis wrote: 'I see a good bit of doctoring one way and another. It is quite awful the amount of Pox and Clap. I must take morning inspections (in the garrison) I fear. The whole, young and old, go with Japanese women of the lowest class, who are diseased as a rule, and the transaction is somewhere between a penny and two pence. It is a perfect nuisance to have such an amount of disgusting disease to treat, but it is only just to the men to say they take it as the most natural thing in the world, and neither see the shame nor disgust of it. There is no peculiarity nor virulence about venereal disease here.'<sup>38</sup> The relaxed attitude which the sixteenth century Portuguese had noticed had obviously continued. In this case he is clearly dealing with the problems of a garrison town. He thought that 'Most of the young fellows seem to have injured less or more permanently their

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<sup>34</sup>Thunberg, *Travels*, iii, 143

<sup>35</sup>Thunberg, *Travels*, iii, 199

<sup>36</sup>Thunberg, *Travels*, iv, 79

<sup>37</sup>Wittermans, *Pompe*, 116

<sup>38</sup>Willis, 60

constitutions with syphilis.<sup>39</sup>

Later he moved to Satsuma (check ???) where he saw 'some very severe cases of syphilis. They resembled those cases described by the earlier writers of this disease. Such cases are now happily rarely met with in Great Britain. I am disposed to think that neglect and unsuitable treatment must have caused such extreme severity. The worst cases run a fatal course in a comparatively short period of time.<sup>40</sup> He believed that 'syphilis in its various forms carries off a large number.'<sup>41</sup> He became very interested in the subject and published a book in 1872, which was translated into Japanese.<sup>42</sup> He also recommended that 'a hospital to accommodate twenty patients suffering from syphilis be erected.' (ibid, 187) He gave some account of the symptoms. 'In this country not unfrequently syphilis attacks the bones of the face and leaves unmistakable evidence of its effects in loss of eyes, nose, hair and general eruptions over the body.'<sup>43</sup>

As to the incidence, his evidence can be read to show either the widespread or the contained nature of the disease. He himself certainly encountered a number of serious cases. 'There were some forty cases of syphilis, of which not a few were of the most severe type...it is estimated that about a quarter of the cases he treated were venereal.'<sup>44</sup> When he generalized, he gave a mixed picture. 'Taking Japan generally, in the country syphilis is rare, but in large towns one third of the men at thirty years of age have suffered from it.'<sup>45</sup> As for those most affected, the prostitutes, 'It is considered that in Edo about ten per cent of the prostitutes are diseased with syphilis; in Yokohama at least twice as large a percentage of disease exists.'<sup>46</sup> It would be interesting to know how this compared to contemporary

<sup>39</sup>ibid

<sup>40</sup>Willis, 141

<sup>41</sup>ibid, 144

<sup>42</sup>ibid, 185

<sup>43</sup>Cortazzi, Willis, 244

<sup>44</sup>Willis, 257, 259

<sup>45</sup>Cortazzi, Willis, 245

<sup>46</sup>Willis, 245, 244

European figures. I suspect that they would have been just as high, if not a good deal higher. The fact that syphilis was 'rare' in the rural areas, which were densely crowded and with access to very large numbers of brothels, is a surprising observation. It is likely that future research on skulls and skeletons will throw light on all this. In relation to the environs of the large city of Tokyo, the archaeological evidence seems to support the high rates reported by Willis. 'Fully 9.64 percent of the human skulls that have been excavated from several Edo period sites in and around Tokyo show cranial lesions caused by tertiary syphilis (8.8 percent male; 5.9 percent female). This rate seems quite high, especially when one considers that the incidents of earlier stage syphilis in the population would have been much higher than the incidence of tertiary syphilis.'<sup>47</sup>

At a superficial and impressionistic level, I have not come across venereal disease mentioned in books of advice, diaries, novels, poems, plays, nor in the standard accounts of Japanese history. Alcock, Pompe, Morse, Griffis and the other normally keen observers of all matters to do with health are silent on the subject, as is **Silk and Straw**. (check all these authors XXX) Given the openness of the Japanese on matters to do with the body, and the assiduousness of the foreign observers, it seems unlikely that this was covered up if it existed as a serious problem. It is again significant that Jannetta's work on Japanese epidemics does not note 'gonorrhoea' or 'venereal disease' in its indexes. The only reference to 'syphilis' is in connection with the common name for the disease in England. (p.63)

### **Leprosy**

One of the diseases which has caused most horror among humans is leprosy. This is largely due to the often horrific symptoms of the disease, which are described as follows. 'In the tubercular form the earliest recognizable change consists in the appearance of reddish-brown spots on the skin, usually of the limbs, tender to the touch, and somewhat swollen...Ultimately the skin of the face becomes thickened, puckered, and modulated, giving a 'peculiar, heavy, morose expression'; the hands and feet become similarly affected; some of the modulated spots form into deep intractable ulcers; owing to changes in the cornea the sight is dimmed or lost; the mucous membrane of the mouth and throat become thickened, and the voice reduced to a hoarse whisper. In the anaesthetic form certain of the nerves are chiefly affected, and before any visible changes occur sensation is lost in the area of skin supplied by them. Mutilation of the fingers and toes often occurs, the bones being destroyed, or the whole parts dropping off, often without pain.'<sup>48</sup>

Like most diseases, the history of leprosy is full of mystery. Leprosy is caused by an 'acid-fast rod, **Mycobacterium leprae**', first discovered by Hansen in 1874 and is hence now widely known as Hansen's Disease.<sup>49</sup> The mode of transmission is obscure, although infection by direct skin contact

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<sup>47</sup>Kiple (ed), *Diseases*, 388

<sup>48</sup>Chambers, *Encyclopedia*, s.v. Leprosy

<sup>49</sup>Merck, *Manual*, 847



appears likely.<sup>50</sup> It is now found predominantly in subtropical Asia, Africa and South America where up to 15 million people are infected with the disease.<sup>51</sup> Up to the fifteenth century it was found widely in Europe, including England. Yet it decreased dramatically during the fourteenth and fifteenth centuries in England as in most of western Europe. It had disappeared 'almost completely' from Europe in the sixteenth century.<sup>52</sup> No one knows why, though there are theories that the decline was somehow related to the prevalence of plague, or the rise of tuberculosis to which it is somewhat linked.<sup>53</sup> It is also suggested that it may have declined as a result of a change in living conditions, particularly clothing. 'By dressing better, historian William McNeil speculates, "Europeans may very well have interrupted old patterns of skin-to-skin dissemination by Hansen's Disease (leprosy)".<sup>54</sup> More generally, Nikiforuk writes that 'the unwashed, the undernourished and the ill-clothed' are more susceptible, hence 'Leprosy has mostly been a disease of the poor.'<sup>55</sup>

It is clear that leprosy was known in Japan from the eighth century at least. We are told that the oldest statutory law, of 718 A.D. mentioned leprosy. It was called **rai** or **rei** or else **tenkei-byo** which means literally 'disease of heavenly punishment'. Although lepers were regarded as untouchables and had to be strictly separated from the healthy population, a Buddhist legend has it that Empress Komyo (701-60) while cleaning pus from a leper's body, discovered that the man was Buddha.<sup>56</sup> The disease may have become more widespread in the early centuries. **Raibyō** as it was now called, 'gained new prominence in the era from 1050 to 1260' and 'seems to have become a serious social problem in the thirteenth century.'<sup>57</sup> As with a number of other diseases in Japan, it then seems to have declined in importance. Kaempfer and Thunberg do not mention leprosy and the fact that those two most observant of foreign

<sup>50</sup> *ibid*

<sup>51</sup> Kiple (ed), *Diseases*, 834

<sup>52</sup> Dubos, *Adapting*, 234

<sup>53</sup> Kiple (ed), *Diseases*, 839

<sup>54</sup> Nikiforuk, *Fourth*, 30

<sup>55</sup> Nikiforuk, *Fourth*, 30

<sup>56</sup> Kiple (ed), *Diseases*, 375

<sup>57</sup> Kiple (ed), *Diseases*, 382

visitors in the nineteenth century, Edward Morse and Isabella Bird, never mention leprosy is significant. That leprosy does not appear in the index to Jannetta's book, nor in the text, suggests its relative unimportance in Japan.

Yet there is also evidence that it was present in the nineteenth century. In the 1860's the English doctor Willis noted in a letter 'I saw two persons affected with leprosy on the journey...it is not common, all spoke of the disease with great abhorrence. I was told that people affected with this disease become beggars and go into distant provinces.'<sup>58</sup> When he came to work in Satsuma in the south, he came across a number of cases of leprosy. He 'continued to be concerned about the prevalence of leprosy in the province' and 'wished to collect information about the better treatment of leprosy which is of common occurrence in this province.'<sup>59</sup> Unfortunately, however, we do not know what 'common' means; certainly, having never encountered the disease in England and during his training, Willis was eager to learn more about it.

Griffis in the 1870's noted that 'Leprosy, or elephantiasis, is known' in Japan.<sup>60</sup> In the early twentieth century Geoffrey wrote that 'Leprosy is also comparatively common in Japan, and though the Government maintains leprosariums in which it tries to isolate all lepers, yet the people, not unnaturally, object to being immured for life, and one often sees lepers on the street.'<sup>61</sup> It may be that the authorities were unusually tolerant because it was a mild strain. Doctor Baelz inclines to the opinion that the disease, as a rule, is not violently contagious here, and assures me that he would rather share the apartment of a leper than that of a consumptive patient.<sup>62</sup> These silences tend to suggest that leprosy was relatively uncommon, though perhaps, as Willis suggested, pockets of the disease were to be found in remote areas of Japan.

### **Worm infestation**

Infestation by the different kind of 'worms'(helminths), the most notable of them being ringworm, tapeworm, thread-worm and round-worm, has and still continues to cause massive suffering and debilitation around the world. To take just one kind of worm, hookworm, in 1989 'it was estimated that

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<sup>58</sup>Cortazzi, Willis, 130

<sup>59</sup>Cortazzi, Willis, 197, 203

<sup>60</sup>Griffis, Mikado, i, 570

<sup>61</sup>Geoffrey, Immigrant, 50

<sup>62</sup>Fraser, Letters, i, 180

perhaps as many as one billion people, most of them living in tropical and subtropical regions, are affected to some extent with hookworm infection...<sup>63</sup> In the 1960's, one estimate was that 'the population of China alone harbours some 130,000 tons of intestinal worms.'<sup>64</sup> The numerous types of worm are well described by Clegg.<sup>65</sup> Many believe that up to a third of the nutritional value of foodstuffs in some populations is absorbed by worms.

That the English suffered in the past from numerous kinds of worm infestation is well known. Treatises by doctors in the sixteenth and seventeenth centuries described in graphic detail the numerous worms that affected everybody, but particularly children.<sup>66</sup> One description from the large literature will suffice. The **Compleat Housewife** of 1753 described some remedies 'for the worms which breed in human bodies, and with which vast numbers of people of all ages and both sexes are afflicted, and some of them very severely, especially children...' There are 'divers sorts of worms that breed in the body, and take up their residence therein', causing numerous symptoms including fever, vomiting, 'gnawing in the stomach, gripings and rumblings in the bowels, like the colic; in children, a dry cough, and sometimes screaming fits and convulsions, with white lips, and white urine...faintings and cold sweats' and so on.<sup>67</sup> It was believed that 'Worms infest most in infancy and childhood', but 'seldom until after ablactation', in other words until after weaning. 'The principal species of human worms are the rotunda, or lumbricalis, the taenia or lata, the cucurbitina, and the minute ascarides; these are again, but with superfluous subtility, subdivided by nosologists.'<sup>68</sup>

It is not easy to know how widespread worm infestation was in Japan. The **Ishinpo**, a collection of extracts from Chinese medical texts compiled in Japan in 984 A.D. lists nine helmiathic parasites, among which tapeworm, roundworm and pinworm can be identified; in ancient Japan all three were called **suhaku**.<sup>69</sup> More recent investigations suggest contradictory findings. One study showed that

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<sup>63</sup>Kiple (ed), *Diseases*, 784

<sup>64</sup>quoted in Dubos, *Adapting*, 69

<sup>65</sup>Clegg, *Man Against*, ch.10

<sup>66</sup>e.g. Phaire, *Book*, 49ff; Boorde, *Breviary*, 117

<sup>67</sup>Compleat House, 339-40

<sup>68</sup>Black, *Arithmetical*, 172

<sup>69</sup>Kiple (ed), *Diseases*, 374

'According to stool examinations, only 10 per cent of all persons examined were afflicted with intestinal parasites of any sort, and that even the most common (eight cases) and easily transmitted parasite, **Ascaris** or pinworm, was discovered in no more than one person of any household.' Other studies, however, showed parasitic infection rates of 60 per cent, rising to 90 per cent in some rural and urban communities, with pinworm and hookworm present.<sup>70</sup> According to ??? in ??? 'farm children were infested with roundworms, hookworms, pinworms, and tapeworms.'<sup>71</sup> Other studies have shown infection rates for hookworm varying from 1.9 percent up to 54 percent.<sup>72</sup> Given the known connection between certain worm infections, particularly hookworm, and the keeping of animals and use of night-soil, the Japanese case would be a particularly interesting one to examine further.<sup>73</sup>

The one 'worm' infestation which did strike visitors, presumably because its symptoms are very visible, was ringworm. This is not, of course a 'worm' at all. **Tinea capitis** (ringworm of the scalp), 'is common in children, especially in cities. It is highly contagious and may become epidemic. Infections usually are produced by *Microsporum*.' In other words, it is a form of fungal infection, which can now be cured by anti-biotics. Alcock wrote in the 1870's that 'among the children, scald-head is very common; a disease generally held by the faculty to have some association with dirt.'<sup>74</sup> Isabella Bird described how 'Children with scald-head...swarmed'; noting the 'naked children covered with skin-disease, or with scald-head or ringworm.'<sup>75</sup> Again it seems to have been particularly associated with children.

### **Skin diseases.**

Much of the perennial suffering in many societies is caused by irritating skin diseases. In ??? for instance, some 29% of the children suffer from skin diseases.<sup>76</sup> As yet I know little about how common

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<sup>70</sup>Beardsley (ed), *Village Japan*, 61

<sup>71</sup>quoted in Hane, 44

<sup>72</sup>May, *Ecology*, 244

<sup>73</sup>Kiple (ed), *Diseases*, 784-6, 1035-6

<sup>74</sup>Tycoon, 2, 144

<sup>75</sup>Bird, *Tracks*, 81, 99

<sup>76</sup>Myrdal, *Asian*, 3, 1609

these skin diseases were in England.<sup>77</sup> What is clear is that the middle and upper class Europeans who travelled to Japan in the second half of the nineteenth century thought that they were even worse in that country.

Sir Rutherford Alcock gave a fairly detailed picture of the type and prevalence of the diseases. At first he reported but did not give an opinion on the 'salubrity, freedom of the people from disease (especially skin diseases, on account of the sea-weed eaten)...<sup>78</sup> He noted that in fact '...there is not the exemption from skin diseases which has been asserted. On the contrary, among the working classes, various forms of cutaneous eruptions are common' which he thought 'perhaps to be accounted for by their habit of washing together in crowds.'<sup>79</sup>

Other travellers agreed. Morse noted that 'skin diseases are common, especially the contagious forms'<sup>80</sup>, but gives no further details. Isabella Bird wrote that 'It is painful to see the prevalence of such repulsive maladies as scabies, ...and unwholesome-looking eruptions'; 'children covered with skin-diseases....men exhibiting painful sores.'<sup>81</sup> Willis noted that 'Skin diseases are also prevalent, in many cases arising from inattention to cleanliness or from the use of overheated baths. There is still a widespread belief that during disease the skin should not be cleansed at all.'<sup>82</sup> He was amazed at their diversity and gravity. 'I must say the skin diseases are beauties such as one never meets with in England. It is awful beyond description some of the cases.'<sup>83</sup>

The worst disease seems to have been scabies, or the 'Itch' as it was known. An early description of the disease indicates how painful it can be. 'Itch, or Scabies, a skin disease produced by a minute mite (*Sarcoptes scabiei*) which burrows in the epidermis of most parts of the body, but especially about the hands. Its presence is marked by a small scaly elevation of the skin, by eruptions as the papillae of the

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<sup>77</sup>e.g. Nikiforuk, Fourth, 93

<sup>78</sup>Tycoon, i, 189

<sup>79</sup>Tycoon, 1, 190-191

<sup>80</sup>Morse, i, 40

<sup>81</sup>Bird, Tracks, 81, 130, 99

<sup>82</sup>Cortazzi, Willis, 260

<sup>83</sup>ibid, 213

cutis are perforated, and by the irritating itching sensation....(when the mites enters the skin)...they do not leave it, but form tortuous burrows, through openings in which the mbrryos escape. Thus scabies is 'a transmissible parasitic skin infection', caused by the itch mite, which is seldom found 'in a good hygienic environment'. The female mite burrows into the skin and the larvae hatch and 'then tend to congregate around hair follicles.' The disease is easily transmitted by intimate contact with an infected individual. The treatment includes a prolonged hot bath, with vigorous cleansing, followed by applicates of benzyl benzoate emulsion. The traditional sulfur ointment is less effective.<sup>84</sup>

Willis noted that 'there is a violent sort of itch which by neglect of cleanliness becomes very bad and seems to be the cause of many deaths; in as much as it is considered that all efforts to get rid of the disease are mischievous it is allowed to invade the whole body, and by degrees wears out the strength. It is a common belief that this disease is an effort of nature to throw internal disease to the surface.'<sup>85</sup> Alcock noted that 'Itch, too, is a common malady - very common to a distressing degree - and inveterate beyond anything known in Europe! It is almost impossible to get a domestic servant free from this loathsome disease, or keep him so.' This was 'a very inveterate form of itch, which Dr. Pompas (Sic) in Nagasaki assured me was not to be cured by the ordinary treatment in Europe - yellow soap and sulphur it defies; and it is disgustingly prevalent...'<sup>86</sup>

Another skin disease was a kind of childhood eczema. This can take a number of forms. The one most vividly described was probably seborrheic infantile eczema or a variant, a form of dermatitis which consists of 'a yellowish scaling and crusted area in the vertex of the scalp.'<sup>87</sup> Chamberlain noted the symptoms. 'The unpleasant appearance of some Japanese children's heads is simply due to a form of eczema. The ailment is one by no means unknown in Europe, and is easily curable in a week. But as popular superstition invests these scabby heads with a health-giving influence in later life, no attempt is made to cure them.' Chamberlain suggested that it may have been related to the particular way of treating children's hair. 'Probably shaving with dirty razors has something to do with the disease; for it generally ceases when shaving stops, and has noticeably diminished since the foreign custom of allowing children's hair to grow has begun to gain ground.'<sup>88</sup> Bacon thought that 'many babies in Japan are afflicted with disagreeable skin diseases, especially of the scalp and face-troubles which usually

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<sup>84</sup>Merck, Manual, 1412

<sup>85</sup>Cortazzi, 244

<sup>86</sup>Tycoon, 191, 144

<sup>87</sup>Merck, Manual, 1424

<sup>88</sup>Things, 93

disappear as soon as the child becomes accustomed to the regular food of the adult.<sup>89</sup> Thus she believed the diseases were due to infant diet. Another possible factor is sleeping habits.

Busvine suggests in relation to scabies that 'Bed sharing, indeed, seems to be the only social factor responsible for increasing infection.<sup>90</sup> The best chances of scabies spreading are, for example, 'where children sleep together or with their mother.<sup>91</sup> The custom of infants sleeping with the mother for at least a year after birth, and the constant carrying of infants by parents and older siblings may have been important in spreading the itch mite to almost all of the Japanese population in their infancy. That it continued as a problem was noted some twenty years later by Geoffrey: '...nor could the smoky atmosphere hide the scalps crusted with eczema of the numerous children who clustered around me...'<sup>92</sup> It may also have been related to scabies; 'Owing to the constant scratching induced in the later stages of scabies, secondary skin infections are common. Conditions such as ecthymata, impetigo or eczema may obscure the typical signs of scabies.'<sup>93</sup>

### **Eye troubles.**

Eye infections cause a tremendous amount of hardship and pain, often leading to blindness, in many developing countries. Burnett estimated that '20 million of the world's blind are victims of trachoma and nearly half a **billion** people are chronically infected.'<sup>94</sup> A similar estimate of 400 to 500 million affected has been given for the 1980s,<sup>95</sup> that is about one in ten of the world's population. Something between 20 and 50 percent of the population are said to be infected in Burma, Pakistan, India, China, Southwest Asia, Indonesia and Borneo.<sup>96</sup> Trachoma may well have been very serious in early Europe. We are told

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<sup>89</sup>Japanese Births, 10

<sup>90</sup>Busvine, Insects (xerox), 281

<sup>91</sup>ibid, 278

<sup>92</sup>Immigrant, 253

<sup>93</sup>Busvine, Insects (xerox), 282

<sup>94</sup>Infections, 111

<sup>95</sup>Kiple (ed), Diseases, 989

<sup>96</sup>idem

that 'Medieval Europe was poorly prepared to confront trachoma when it appeared in epidemic forms, often accompanying returning Crusader armies from North Africa or the Middle East (Cornand 1979).<sup>97</sup> Yet by the later twentieth century it was 'practically extinct' in central and northern Europe.<sup>98</sup> It would be interesting to know more about its history between these two periods.

During his tour round Japan in the 1790s, Thunberg noted that 'a great many, and particularly old people, were affected with red, sore, and running eyes.'<sup>99</sup> Elsewhere he also observed that 'Red and inflamed eyes also were very common in these provinces, especially among the poorer sort of people, as well among such as were advanced in years, as among young children.'<sup>100</sup>

European doctors in the nineteenth century expanded this first insight. Mohnike (in ???) was struck by the 'prevalence of diseases of the eyes...'<sup>101</sup> and Willis developed 'quite a reputation for his treatment of eye disease', including cataracts.<sup>102</sup> Pompe, in the middle of the century, gives the fullest account. 'Eye diseases also occur quite frequently in Japan. Nowhere in the world does one find so many blind people, which to a large extent has to be attributed to a complete ignorance of ophthalmology. Many diseases, had they initially been treated correctly, would soon have been cured, but now end up with complete loss of sight. Diseases of the retina are particularly frequent, also cataracts; I saw a few cases of granulation (trachoma), but not an epidemic.'<sup>103</sup> He gave further details, describing how '...there was a lot of material for operations. As I have mentioned, in no other country in the world are there as many eye diseases as in Japan, and if I had to supply statistics, I should say, on the basis of my experience in Nagasaki, that approximately 8 per cent of the population suffer from diseases of the eye. This will surely be different in other places, but eye diseases do occur with great frequency throughout the nation.'<sup>104</sup> In the second half of the nineteenth century, Alcock noted that 'As

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<sup>97</sup>Kiple (ed), *Diseases*, 902

<sup>98</sup>Kiple (ed), *Diseases*, 898

<sup>99</sup>*Travels*, ii, 144

<sup>100</sup>*Travels*, iii, 215; cf also iv, 76

<sup>101</sup>Cortazzi, Willis, 10

<sup>102</sup>*ibid*, 185

<sup>103</sup>Pompe, 109



we moved through town after town, and village after village, in our daily journeys, I observed a good deal of ophthalmia; blind people not infrequently also.<sup>105</sup> This high level of trachoma in Japan, with rates of nearly ten percent of the general population suffering from the disease in 1954, and particular rates of over fifty percent in particular prefectures, is indeed a puzzle.<sup>106</sup>

Trachoma is a 'chronic contagious viral conjunctivitis' which 'is most contagious in its early stages and may be transmitted by direct contact with trachomatous material or indirectly by handling contaminated articles (e.g. towels, handkerchiefs).<sup>107</sup> There may be more indirect methods of transmission, however. It may possibly be spread by flies.<sup>108</sup> Furthermore, 'Trachoma transmission may also occur by direct touch, by the contamination of clothing or bedding, possibly, by bathing in pools in which people swim and wash, and by sexual means.'<sup>109</sup> More generally, eyes may be affected by 'winds and dust, along with smoke in unventilated huts' which 'further irritate the eyes' and exacerbate bacterial infections such as bacterial purulent conjunctivitis.<sup>110</sup> Against these theories we may place those of the various foreigners who tried to explain the very high levels and seriousness of eye infection in Japan.

The first of these was Thunberg in the late eighteenth century. He thought there were two causes for the prevalence of red, sore, eyes. One was 'the smoke from the charcoal within the houses.'<sup>111</sup> The other was the 'stench from the jars of urine, which are in all the villages near every house.'<sup>112</sup> He

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<sup>104</sup>Pompe, 117

<sup>105</sup>Alcock, Tycoon, 2, 144

<sup>106</sup>see May, Ecology, 289

<sup>107</sup>Merck, Manual, 497

<sup>108</sup>Burnett, Infections, 111

<sup>109</sup>Kviple (ed), Diseases, 898-99

<sup>110</sup>Kiple (ed), Diseases, 809

<sup>111</sup>Travels, iii, 215; iv, 76

<sup>112</sup>Travels, iii, 215; iv, 76

described the careful storage of urine to put as a fertilizer on the fields, whose 'intolerable vapours, to which the people has gradually accustomed themselves', ruined their eyes.<sup>113</sup> Certainly too much ammonia may have been one factor but others pointed to further causes.

Pompe, in the nineteenth century, thought that 'it is more the pattern of living of the people than the climate which gives rise to eye diseases.'<sup>114</sup> The fact that 'there is hardly any eye disease one can think of that does not occur', he explained in a number of ways. 'In part I attribute their cause to excessive drinking, to the hot baths during which the whole head is kept dry and which therefore give rise to many congestions, to abdominal full-bloodedness as a result of insufficient exercise (walking for pleasure without a specific aim is almost unknown in Japan), to sexual debaucheries, and to intestinal worms which abound.'<sup>115</sup>

Morse noted the poor state of people's eyes. 'The prevalence of eye trouble...becomes very noticeable as one rides through the country; cataract, inflamed eyes, and loss of one eye are seen as well as many blind people.'<sup>116</sup> Indeed, the blind were institutionalized into special guilds of musicians and entertainers in Japan. (ref:) Morse gave one suggestion as to the cause of some of the eye trouble. Both men and women's faces were constantly being shaved. 'The entire face is shaved; even women have their noses, cheeks, and all the surface of their face shaved.' He believed that the widespread eye troubles were 'due in part to these travelling barbers...'<sup>117</sup> Another local custom was put forward as an explanation of some eye disease by Alcock. This was 'the practice which prevails among the people of having their eyelids daily turned inside out - of which you may see an example as you pass that barber's shop - and then rubbed over, titillated, and polished by a smooth copper spatula' which 'must, I should think, be eminently conducive to disease of one sort or other.'<sup>118</sup>

A similar account, and some other reasons were given by Isabella Bird. 'It is painful to see the prevalence of such repulsive maladies as...sore eyes...'; 'children blinking with eyes infested by flies and

<sup>113</sup>Travels, iii, 144

<sup>114</sup>Pompe, 110

<sup>115</sup>Pompe, 109-110

<sup>116</sup>Morse, i, 53

<sup>117</sup>Morse, i, 53

<sup>118</sup>Alcock, Tycoon, i, 463

nearly closed with ophthalmia...'; 'children with...sore eyes swarmed...'; 'eye cases are unfortunately very numerous.'<sup>119</sup> She received an explanation from a Dr. K. who "attributes their extreme prevalence to overcrowding, defective ventilation, poor living, and bad light".<sup>120</sup>

That the eye complaints were something more than the result of mere infection caused by dirt, being caused by specific and highly contagious diseases, does not seem to have been widely recognized until quite late. It was not until the 1920s (???) that Geoffrey noted that 'trachoma' was 'widespread among the Japanese' and is the bugbear of foreigners, as its germs lurk everywhere.' She noted that 'Uneducated Japanese suffer fearfully from this scourge, as they do not seem to grasp the principles of the spread of infection and its prevention.'<sup>121</sup> It may well be that the eyelid cleaning practices which Alcock described were one of a number to try to keep away trachoma - but most likely increased it, particularly through the use of the spatula, unless it was sterilized between each client.

### **Conclusion.**

From this small cross-section of other diseases, it would appear that while the Japanese managed to avoid most of the epidemic diseases which afflicted Europe, they possibly suffered as badly, if not worse, from the debilitating contagious diseases. Many of these were related to bodily practices - infant care, bathing, sharing of cloths, sexual and sleeping habits. When we come to consider these, it will be important to remember their effects on the many diseases that can be passed on by bodily contact.

It is also worth reminding ourselves of the fact that diseases which lead to death only constitute a very small fraction of the total burden of pain that afflict all populations, but particularly those living in a world where there is little protection or cure for most illness. Historians and others have become more interested recently in the proportion of sick and disabled as well as the gross figures of mortality. For example it has been calculated that in sixteenth century England about one in thirteen of the 'poor' were, at any time, suffering from sickness or disablement.<sup>122</sup> Most sicknesses never reached a physician. When they did, 'As a rule of thumb, physicians sometimes assume a ten to one ratio between cases of sickness and deaths, apparently generalizing from Blane's experience in the 1820s in private practice with 3,816 cases, of whom 384 died.'<sup>123</sup> The vast bulk of illness does not lead to death. Thus we must

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<sup>119</sup>Bird, Tracks, 81, 99, 130, 163

<sup>120</sup>Bird, Tracks, 163

<sup>121</sup>Geoffrey, Immigrant, 49

<sup>122</sup>Pelling, Illness (xerox), 281-6

<sup>123</sup>Riley, Disease (xerox), 538

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treat the recorded death rates with caution. For example, we are reminded that 'The small number of deaths recorded from diarrhoea in late-Victorian England...were merely the tip of an iceberg of morbidity that has largely escaped records. Peters, for instance, found that 338 persons had suffered 407 distinct attacks in one season, though there were only two deaths, both infants.'<sup>124</sup>

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<sup>124</sup>Guha, *Decline* (xerox), 111