

# **Report on the conditions under which Leprosy occurs in China, Indo-China, Malaya, the Archipelago and Oceania**

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REPORT

ON

UNDER WHICH LEPROSY OCCURS

IN

MALAYA, THE ARCHIPELAGO

and

OCEANIA

BY

JAMES CANTLIE, M.A., M.B., F.R.C.S.,

HONGKONG

Sent into the National Leprosy Fund as fulfilling the conditions, Nos: 4.5 and 10 of their announcement in the British Medical Journal, Jan: 13th / 1894.

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*Leprosy in China etc* 2  
The following is the notice which led to this Report.

British Medical Journal,

Jan; 13th. 1894.

THE NATIONAL LEPROSY FUND.

)-----(  
*the*

4. On the prevalence of Leprosy in the Islands of the Pacific, and the supposed exemption of certain groups.
5. On the conditions under which Leprosy at present prevails in China, Cechin-China, Batavia, and the <sup>a</sup>M<sub>l</sub>ay Peninsula.
10. The best essay on any subject connected with Leprosy.

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This Report refers to Nos: 4.5 and 10. and is sent in as fulfilling all the conditions for the three essays.  

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*The Plan adopted.*  
*to gain information*

*Bender*

The Method adopted, to obtain information, consisted: in the issue of a notification of the desire of the National Leprosy Fund; an accompanying circular and Post-card; and a schedule of Questions to be answered.

The issue was made in two languages, English and French. The great difficulty of the enquiry consisted in the enormous area of the globe over which information had to be gathered. It was impossible in many instances to ensure the circular reaching its destination in the time allowed, let alone the replies. <sup>at</sup> many islands in the Pacific a boat calls once in ~~the~~ six months, and, unless the reply was ready in a day or two, another six months before a reply even started on its return journey, must intervene. Many of the schedules came in during 1895, and ~~and~~ even as late as the autumn of that year, much valuable information was communicated.

For the guidance of future Inquirers in this field, it is well at the outset to point out a grievous error. In the schedule I forget to ask the very necessary question: "Is there any Leprosy in the district?". In consequence of this serious ~~an~~ omission many sent no reply, until a second communication was made, when a letter of regret was received, stating, <sup>that</sup> "I am sorry I cannot help in the enquiry as ~~there~~ <sup>is</sup> no Leprosy in the district." Leprosy is very far from being universally distributed in even China, where most people believed it was a present evil in well nigh <sup>every</sup> province. A second error was, that the question of the practice of vaccination was not put more definitely. The question ought to have been: "Is vaccination practised; if so how long has it been introduced; what proportion of the people have been vaccinated and whence is the lymph derived?".

The total number of replies received far exceed my most sanguine expectations, and the report actually covers the region, mentioned in the request <sup>made</sup> by the National Leprosy Fund, enormous as that is.

I can only thank those who have supplied information and the blame lies with myself if, from the excellent materials at hand, a report of scientific value is not assured.

Copy of the Circular sent to collect <sup>4</sup>  
information up

**LEPROSY.** *in the Far East*  
1894

**ENQUIRIES.**

- I.—State the Physical Features of your district, noting—elevation, distance from sea, condition of soil, cultivation, rainfall, &c., and density of population.
- II. DISTRIBUTION.—Is leprosy more commonly met with amongst dwellers in plains or hills?
- III. HEREDITY.—Do the natives believe in hereditary transmission?
- IV. CONTAGION.—Do the natives believe Leprosy to be contagious?
- V. FOOD.—Is fish or other food assigned as a cause?
- VI. SEGREGATION.—Is it observed? If so, how?
- VII. TUBERCULOSIS, SYPHILIS AND MALARIA.—Do you observe any connection between Leprosy and any one of these?
- VIII. VACCINATION.—Has Leprosy increased with the use of vaccination?
- IX. TREATMENT.—What do you find the best? Do you know of any reputed native drugs?

*Replies, to be in time for publication, must be sent in  
not later than July 1st, 1894,*

*Dames* General Remarks.  
Preliminary

The attempt to stimulate medical men to record their experience of Leprosy in various parts of the globe is only one of the conceptions which redounds to the credit of the National Leprosy Committee Fund.

*Amongst other points elucidated*

The Report of the Indian Leprosy Commission was useful in many ways. ~~If no other good resulted~~ it helped to furnish an estimate of the approximate number of lepers in proportion to the population.

*done for the Committee  
the / of the disease*

Outside Western Europe and North America, there is nothing more difficult to arrive at than the number of lepers relative to the population, and the very indefiniteness of the number serves but to increase the mystery and actual dread of the disease. Not that the result of the work ~~is~~ *is* to lessen the precautions against ~~its~~ spread by allaying the public mind with assurances, that only a fraction of the community are attacked: far other is the aim of the present endeavour. It is meant to develop a sustained attempt to eradicate leprosy; but it is necessary in the first instance to ascertain the habitat of the disease before farther steps are taken, and it is to elucidate this essential point, in the investigation now in hand, that I have ventured to undertake an enquiry.

The most recent work of any magnitude on leprosy, is contained in Davidson's excellent work on "Hygiene and diseases of Warm Climates". At page 433 is found the following statement: "Leprosy exists throughout the whole of the empire of China". If my enquiry has done nothing more than to prove that statement to be false, it will be of considerable value. That the assertion is false is to be gathered by even a casual glance at the text, for it will be read, and read with interest, that not 1/3 of China is under the ban of Leprosy.

*so/ each /*

//

*Ignorance*

The task I have undertaken is classed under two headings in the list prescribed by the National Leprosy Committee for special enquiry and report. Of course the attempt was made because I have had opportunities of acquiring knowledge in ~~one or more~~ *several* of the countries mentioned. I cannot pretend to personal acquaintance with more than a fraction of the regions; they are ~~widely~~ *widely* apart, of enormous extent; and bearing a population of no less than one fifth of the human race. Added to this, also, is the great difficulty of obtaining information of even meagre exactitude from such a country as China; where a species of social order and an old world habit, defies the enquiries of the foreigner. China delights in throwing dust in the eyes of all who would probe the records of her past, and cloaks her ~~empiricism~~ *empiricism* in the belief that she will thereby establish a renown for wisdom.

Chinese

The knowledge to be gained from the Chinese is that of the individual. At most it extends to mere family tradition, and in no branch of knowledge is this more evident than in that of medicine. The medical man has no training, his potions and nostrums are secrets composed by himself or bought from some unscrupulous person who, more frequently than not, sells a false receipt. He belongs to the most illiterate classes, and his own statement of cures is the only capital he possesses. It is evident, therefore, that enquiry amongst such a class of men is useless; is likely to lead one astray, and is calculated to teach one to reject their statements upon any scientific subject with unfeigned contempt.

proud of /  
under the  
glamour of  
why /

Throughout the Malay Peninsula, throughout the Dutch Indies- Java and Sumatra- the same holds good. There, also, exist people of ancient name; and, of course, who, priding themselves on their antiquity, think to protect themselves, from the penetrating glance of science, beneath the family tree of pedigree, and past deeds of mystical renown.

This is the reason therefore that it is to Europeans settled in the districts named that I have applied for information. The native can tell nothing beyond his immediate ken; the power of generalisation is unknown to him; his government does not require it, nay, ~~rather~~ strangles any attempt to develop it. It will be seen that the persons appealed to are Doctors in general practice, Missionary Doctors, Consuls, Mission bodies, Customs Commissioners, and others scattered throughout the length and breadth of the Far East.

Of 383 appealed to, sent in reports; many short, several lengthy, and a few are full reports. All are valuable, all worthy of record; and the concise reply of "no case known" is perhaps the fallest of all.

might /  
could /

~~The schedule of enquiry sent out by me contained questions calculated to throw light upon leprosy and the leper. It would have been better, to my way of thinking, had the National Leprosy Committee drawn up a list of queries in systematic form so that a common basis of enquiry and answer could have been attainable. As it is, most men who have turned their thoughts to leprosy at all, will have practically put the same questions; so that, by a little sifting, the conglomeration of evidence ~~etc~~ be assorted and turned to useful account.~~

and as though  
all the dim  
centuries, so  
at the close  
of the 19<sup>th</sup> c.

I am grieved to say that I have nothing new in the way of cure to report. The same reply comes "alleviation but no cure," from all corners of the Far East; the West echoes the same; civilised and uncivilised man confront each other with the canker of incurable leprosy in their midst.

The Circular.

The copy of the circular issued from Hongkong to gather

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Knowledge of Leprosy in the Far East & the Pacific Islands, was sent to the following

Place	No of circulars sent	No of Replies
China	186	40
Cochin China	60	3
Corea	23	4
Philippines	3	2
Fiji	7	1
Hawaiian Islands	3	3
Samoa " - - - -	2	0
Society " - - - -	2	
Tonga " - - - -	1	
New Hebrides - - - -	3	
Hervey Islands - - - -	1	
New Britian - - - -	1	
New Guinea - - - -	2	
New Caledonia - - - -	1	
Straits Settlements - - - -	28	
Burmah - - - -	7	
Siam - - - -	3	
Java - - - -	18	
Sumatra - - - -	19	
Borneo - - - -	13	

58/ Out of 382 queries ~~4~~ replied; a very good response, and many more than I anticipated.

Printed circulars as a rule do not command the attention the senders would wish, let the subject be what it may. With this before me, I am astonished at so many replies, and it only tends to show how ~~many~~ persons take interest in leprosy and the leper.

great a number  
of

Conclusions.

18

*L. S. Gyer*

The conclusions arrived at from the study of the evidence brought forward in the following Report are:-

1. Leprosy is a specific disease bearing a close analogy, etiologically and bacteriologically, to tuberculosis; amounting, in some points, to identity.
2. It is not proven that Leprosy is diffused by hereditary transmission; but the evidence is not strong enough to prove that it may not be so distributed.
3. Leprosy may arise in a leprous country independently of personal contagion.
4. Leprosy is to be feared as an inoculable disease, but there is no direct proof that it is such.
5. Vaccination is not believed by any natives of the Far East to be a factor in the spread of Leprosy, except in a few cases where the idea has been suggested by Europeans.
6. Inoculation of small-pox is a common practice throughout China, but the geographical distribution of Leprosy is totally independent of the frequency of the practice.
7. Leprosy in the Far East is centered in the south-eastern provinces of China, Kwantung and Pokien.
  - a. Three fourths of the coolie emigrants from China are from these provinces; and the spread of Leprosy in the Malay Peninsula, the Dutch, Spanish, and Portuguese East Indies, and in Oceania is in all cases coincident and concurrent with the residence of coolies from these provinces.
  - b. In no instance over this vast area has any native race acquired Leprosy, except where Chinese coolies have settled.
  - c. There seem to be no native names for Leprosy in the native languages, except in Malay, over the area named; though there are loan-words.
  - d. The natives ascribe Leprosy to the Chinese immigrants, and in several cases the name used shows the belief in the Chinese origin of the disease.
  - e. Leprosy disappears in some countries with the departure of the Chinese ~~to~~, as in North Borneo.
8. The distribution of Leprosy is independent of any geological, geographical, or climatic conditions.
9. Overcrowding, poverty and bad food, but especially

*coolie/*

the first, render the individual susceptible to Leprosy.

10. The eradication of Leprosy is to be effected by improving the hygienic conditions of the centres of Leprosy.

11. Leper Villages, by which is meant quarters set apart for lepers to find shelter in, but from which they can go at will to beg in the public streets, and engage in work, do not show beneficial results as regards the check of the disease.

12. The British Government would be conferring a great service to humanity were a closer inspection of Chinese emigrants travelling by ~~their~~ ships insisted upon. The shipping lines of other countries, especially German, might be invited to co-operate.

British

13. The British Government, with the co-operation of the French, German, Spanish, Dutch and Portuguese - the powers holding the important possessions in the Far East and Oceania to which Chinese emigrants flock - might effectually ~~stop~~ check, or at least arrest, the spread of Leprosy, by a monthly inspection of coolies on plantations, in coolie quarters, and wherever Chinese congregate.

14. Deportation, and not segregation, is the proper method of dealing with the Chinese leper in (to him) foreign countries.

15. Segregation of Chinese lepers in an asylum in any country free of Leprosy will in time render that country a fresh focus of leprous infection.

16. The great traffic centre of Hongkong ought to be rigorously dealt with as regards Leprosy by the Colonial Government. In the meantime lepers beg in the streets, live in coolie quarters, and dwell in secluded spots in several parts of the Island. In seven years <sup>1868-1875</sup> a minimum calculation shows from 600 to 700 lepers to have been, unknown to the Government, in the Island of Hongkong.

# Notes on the Questions and Answers.

Question I.—State the Physical Features of your district, noting—elevation, distance from sea, condition of soil, cultivation, rainfall, &c., and density of population.

an ordinary

That the physical features of the area of enquiry would be many and various may be guessed when even a cursory glance is taken at a map. From the Amoor River in the North to the Island of Java in the South, includes the region between Siberia in the North and Australia in the South;

It is a fact that the population of the region is beyond the powers of one man in a life time, far less in the six months available, to collect with exactitude information respecting, the haunts and habits, the treatment of Leprosy, and the social ethics, of the Leper.

or to put it more exactly, between Latitudes 53.N. & 5.S., and between Longitudes 100.E. & 140.E. From North to South the region measures 4000 miles; and from East to West ~~6000 or 5000 miles; and bears a population of nearly 200,~~ about 2500 miles; and bears a population of 600,000,000. The enormity of the area and the population renders it beyond the powers of one man in a life time, far less in the six months available, to collect with exactitude information respecting, the haunts and habits, the treatment of Leprosy, and the social ethics, of the Leper.

To deal with the physical features of the continent of ASIA facing the Pacific Ocean is beyond my power; but fortunately I can command the skill of an expert of the foremost rank. Mr S.B.J. Skertchly, F.G.S., F.A.I., late of H.M. Geological Survey, is at present located in Hongkong, and with the zeal of a true scientist has undertaken the task. Hence, the report is from his pen. See Special article pp. ( ) and Map.

Question II. DISTRIBUTION.—Is leprosy more commonly met with amongst dwellers in plains or hills?

The answers are chiefly from dwellers on plains, and the report of Leprosy amongst Hill dwellers is mere hearsay.

The answers are chiefly from dwellers on plains, and the report of Leprosy amongst Hill dwellers is mere hearsay. Dr MacDonal (Fatsan) writes "more common in plains, but extends along the waterways into the hill country as far as Shin Kwan". Dr Vinton (Corea) says "Corea is practically all hills"; and records but one case of leprosy seen during a four years sojourn. At Gensan on the East



# Canton

From Dr. Carrow's report 1881. Chinese Imperial Maritime Customs.

## Thermometric Returns

Month	Day		Night	
	Highest reading Average highest	Lowest reading Average lowest	Highest reading Average highest	Lowest reading Average lowest
1881				
January	75 69	47 57	69 62	42 56
February	79 69	52 62	74 65	55 61
March	78 63	42 56	74 59	42 53

Hardie

coast of Corea, Dr McGill saw no case in fifteen months; but again in Fasan in the South, Dr Tata Shima says it is frequent ~~amongst~~ ~~Coreans~~; he saw twenty cases in two years. From the Malay Peninsula, Dr Grundy Fox writes, (Perak) "commoner on plains, never heard of a case in hills, but evidence is scanty". Wheatley (Johor Bahru), "said to be very common among Jakans in hills". These are the only statements as regards hill lepers in the collection of evidence.

Mr. due, no doubt, to

It is very meagre ~~want of evidence~~ observation, but to the absence of hill districts. Corea is ~~the only~~ ~~an~~ seeming exception; but the Corean does not dwell in the hills; he is too lazy to ascend an elevation of any sort; he grabs in the valleys and maintains a livelihood by the least possible amount of exertion. There is nothing of the hardy mountaineer in his lazy phlegmatic composition.

Dames

Corea is really a country of hills, and fertile, well watered valleys; the Coreans dwell in the valleys; there are no elevated people-bearing plateaus. *Mr. Wheatley's evidence he says is only hearsay.*

This report, therefore, brings no data to light whereby the question of the distribution of leprosy according to elevation of residence can be decided.

Question III. Do the natives believe in Hereditary Transmission?

Out of the (19) places reported on, (14) state that the natives believe in heredity, and (5) give a negative answer.

people as a whole Clinique

Now there is a great difficulty in settling this point with natives. They believe in heredity in the abstract, but the leper himself gives (in ~~RBI~~ cases), ~~denial~~ <sup>as the reports of</sup> in fact. No leper, of those I have seen, allowed that either father or mother or any relation had leprosy. The opinion of the healthy is contrary to the conclusion to be gathered from the leper himself, nor will a leper voluntarily state that his child is leprous. Where, then, lies the truth? A visit to a leper village ought to settle the matter. A visit to the leper village at Canton, where lepers are allowed all freedom of cohabitation and free ingress and egress, would be the one place, apparently, to declare positively once and for ever whether heredity was a real factor in the disease. But here one is met with by a flood of opinion in another direction. The third generation is without leprosy say the inhabitants; a fine healthy child is shown at the breast of a leprous mother, without blemish or stain. Children in the village are shown at all ages without marks of leprosy, and no leper allows that any of his ancestors had leprosy. ~~On~~ On the other hand, leper children aging from 7 to 15 are seen with leprosy developing; but the leprous parent takes a cheerful view of the fact, because they are under the belief that the children of such will not be

Imported

e/

(37)  
(8)

*of leprosy parents*

*affected*

leprosy. I saw only ~~one~~ <sup>one</sup> grandchild in the Canton village; and certainly he was not leprosy; but that proves nothing. The child was only in arms and leprosy might not develop until puberty or at earliest during the third year.

*sets forth*

It will be observed that this question <sup>eluces</sup> ~~requires~~ an answer as regards native opinion only. The question really annuls the private opinion of the enquirer and ~~requests~~ only the opinion of the native. Perhaps this was wrong; but the belief amongst Europeans so negatives the probability of heredity that the matter seems scarcely worth enquiring into further. Leloir, almost alone, maintains that leprosy is directly hereditary, and all enquirers in the subject of leprosy have written his opinion down. Moreover, after the result of the enquiries into the subject <sup>by</sup> ~~into~~ the Leprosy Commission in India, the question may be regarded as settled;

and although I agree with the conclusion come to by the commission that "Leprosy is not diffused by hereditary transmission"; in the present state of our knowledge it is perhaps better put, that "Leprosy is not proven to be diffused by heredity". The attempt to elicit from the Natives what their belief is, in regard to the hereditary influence of Leprosy, affords evidence of no scientific value. Their belief is for the most part that Leprosy is handed down from parents to their children. A parallel enquiry carried out in any civilised country, as regards the heredity of, say Cancer or Phthisis, would obtain the belief of the Public, but it would not in all probability agree with the scientific opinion. As children ~~are~~ born of leper parents are brought up under the same roof, and suckled by a leprosy mother, contagion comes into the question, and it is difficult to disassociate contagion from heredity.

with what we know or how hard to die a popular belief is.

*Proofs*

23

Question <sup>IV</sup> ~~IV~~. CONTAGION. DO the natives believe Leprosy to be contagious?

Under this heading the subjects of, Infection, Sexual intercourse, and Inoculation are discussed.

INFECTION. The spread of leprosy by casual ~~contact~~ <sup>exposure to the disease</sup> does not require serious consideration. No one, except impressionable women ascribe any dread of passing a leper in the street. No mere touch or brush against an infected person is ever seriously entertained as a means of acquiring the disease. When a leper appears in an out-patient room, he is not particularly avoided, and when he quits his seat, another person will not hesitate to occupy ~~the seat~~ it. ~~Before~~ Before the new-comer sits down, in all probability, he will fan the place where the leper sat; but that is all the precaution taken against infection. Nor did I ever observe any hesitation on the part of ~~stud-~~ <sup>Chinese</sup> students examining leper patients. The present day belief throughout the world generally, is summed up in the action of the Chinaman, when he fans the seat just vacated by a leper, before occupying himself. In other words - Infection is not regarded as playing a part in the spread of leprosy.

Sexual intercourse is believed by the majority of Chinese as a potent factor in the spread of leprosy. On many occasions I have had a leper patient confess that he had connection with a leprous woman. The man at the time did X not know that the woman was a leper, otherwise he would have rigidly avoided her. There is a belief, prevalent in Canton, that a leprous woman can rid herself of the disease by having connection with a healthy man. Leprous women, it is well known, will come out in the dusk in the hopes of ~~seducing~~ <sup>seduc<sup>ing</sup></sup> a man to have connection with them. They select the evening or night so that their condition may not be observed. By connection, they hope to get rid of the disease by handing it over to the man. Besides, there is a still more curious belief prevailing, namely, that ~~sexual~~ sexual intercourse will act as a prophylactic against leprosy.

*and elsewhere*

leprosy, and in the following manner:- A woman has a leprous husband, she may not have any signs of the disease upon her, but as a preventive to infection, she will try to get a healthy man to have connection with her so that she may hand over the disease to him, and thereby lessen her chance of becoming affected at all. This is termed "selling off leprosy" and is a very common practice in Canton.

Men who affirm that they acquired leprosy by sexual intercourse, are most positive in their statements that the disease manifested itself in 3 to 4 months after the date of connection.

he gives,  
none of

date of connection. It may be that the man had acquired syphilis, as the date of the appearance ~~to give~~ of signs coincides with the time secondaries manifest themselves. ~~At~~ the cases, however, I examined, by whom sexual intercourse was stated to be the initial cause, showed ~~no~~ any signs of syphilis.

2  
17  
Dr.

~~In conclusion it may be stated that~~  
In conclusion the present state of our belief may be held to be, that: "Sexual connection is a means of spreading leprosy." As a corollary it may be added, that, even a single coitus when abrasion occurs may be sufficient to convey infection of leprosy.

Ex

Excluding sexual intercourse, leprosy is communicated from the diseased to the healthy, only after prolonged and intimate contact. Few Chinese exclude their relatives from their home, unless leprosy has advanced so far that the leper becomes objectionable, either from the smell emanating from his sores, or from the unsightly appearance of his face or limbs. Not only is this the case with the Chinese, but I have known more than one case of leprosy in a European family, dwelling in the East, in which a leper member of the family was kept in ~~sole~~ seclusion until death occurred. In one family the husband became a leper; in this instance avowed to be the result of a single coitus with a leper woman; but he continued to reside at home with the result that his daughter an only child, developed leprosy when she attained the age of ten. The husband was at one time a resident in Singapore, but when leprosy was advanced he came to England. His wife was afraid to attend him, but his daughter then a child of six administered to his wants, rubbing <sup>in</sup> various ointments and applications which he had obtained in the East. He never called in an English Doctor, in case his disease should submit him to separation from his family. Yet another case occurred ~~in England~~, not so very long ago, in an old resident in the far East had a "boy" - a personal servant - in whom he put ~~great~~ trust, and to whom he had a ~~personal~~ attachment.

whom  
great

Whilst in his service the "boy" developed leprosy, yet his master kept him in his service. The two frequently travelled together by sailing boat - a Chinese junk - and the master and his "boy" were ~~very~~ frequently and intimately associated. So intimately in fact, that, when the weather was cold the two used to sleep beneath the same blanket, even after the "boy" had become a pronounced leper. ~~After~~ the "boy's" death leprosy attacked the master, thereby adding ~~to~~ yet another instance of the effect of prolonged contagion as a means of spreading leprosy.

Subsequent to

*Beard*

Question.5. Food-:Is fish or other food assigned as a cause?

*Fish  
anent*

This question was asked in order to obtain information ~~in support of~~ Mr Jonathan Hutchison's statement ~~concerning~~ concerning fish diet as a cause of leprosy. The result of <sup>the</sup> enquiry can <sup>not</sup> annul that statement, as in the course of the enquiry no people have been described with whom fish did not at some time form part of the diet. Few people have lived to maturity who have not consumed fish in some form. No religious sect that I have heard of disallow a fish diet. Vegetarians we know of; but they became so after maturity, and only when dyspepsia or sentiment got the upper hand. We often hear it stated that Negroes live on pumpkin, that the Chinamen live on rice, and many loose statements of the kind. I can speak for the truth of the ~~statement of th~~ I can at once positively declare that the Chinese do not prefer a ~~rice and~~ diet in which fish does not play a part. No coolie considers that he has had a proper meal unless both <sup>vegetables</sup> fish ~~and~~ <sup>or</sup> pork are supplied. Fish fresh, raw, salted or rotten comes not amiss to him and he thinks he is badly used unless he gets it, be he a dweller by the sea or far inland. On the other hand the Bajews of Berneo live almost entirely on fish; yet there is never a leper amongst them. The question may be reduced to a paradox-: All consumers of fish are not lepers, but all lepers have consumed fish; there the question must be left.

*may cannot live  
on a rice diet*

*By* SALT. The absence of salt from the diet for any length of time, is held to be a factor in the development of leprosy.; and in India, the rise and fall (of rice in price) is popularly believed to play a part in the appearance of the disease. The explanation of such a belief is easily enough interpreted. When any form of food is scarce, especially such an essential as salt, latent leprosy will speedily show itself, and persons before they were deprived of the food in question, were perhaps never suspected of being lepers.

The two chief sources of salt in China are the salt wells in SZ-chuen, and the salt mills near Taku at the mouth of the Pei-ho river. The former may be considered the Southern, and the latter the chief Northern source. Now at first sight it would seem as if there might be something in the theory, for are not Kwang-tung and Fokien maritime provinces far removed from the salt regions? On looking more carefully into it however, cause and effect are not so pronouncedly linked. It is true the hot bed of leprosy namely, Kwang-tung (Canton) and Fokien provinces are between 2 and 3000 miles removed from the salt sources and in the neighbourhood of the PEI-HO river ~~no leprosy is known~~

Led

the district whence salt is exported to the provinces mentioned as most lepreous, no leprosy exists. Further, there is a salt tax in China, which no doubt tends to make the X people look upon salt as a luxury more or less. Sea carriage from even Taku, or far away Sz-chen by river, is a very cheap transit in China, and the salt tax is <sup>not</sup> so heavy as to deprive the fairly well-to-do of the article. That the poor classes may be stinted at times, there can be no denying. On the other hand consider the salt supply of Manchuria; the salt has to be carried from the Pei-ho near the sea coast, first by boats up the river, and then on camels backs many days journey beyond the Great Wall. An expensive and somewhat precarious source, yet there is no leprosy met with in Manchuria. The deprivation of salt cannot therefore be considered to hold good in China as a cause of leprosy; although the want of salt in the diet of lepreous people will no doubt hasten the development of the symptoms of the disease.

~~QUESTION VI. SEGREGATION: IS IT OBSERVED? IF SO HOW?~~  
 Is it observed? If so observed?

Soe Rym

QUESTION VI. Segregation:-:Is it observed? If so how?.

By segregation is meant the voluntary or compulsory dwelling together of lepers. Isolation is often used synonymously with segregation; but isolation implies a complete retirement. Complete isolation is not known. The inhabitants of even the most strictly kept leper Hospital, are in daily contact with the healthy; be they medical men, nurses, attendants, servants or clergymen. No leper community is in this sense isolated from the world. It may fairly be taken as a proof that leprosy is a severe scourge in any district, when a leper settlement is found attached to it; and, it may be taken as a act of self protection, or a mark of higher civilisation <sup>on</sup> the part of the inhabitants, that has induced them to establish the home. The word "home" perhaps best expresses the nature of the settlement, for it must not be imagined that a leper village is, in any sense a Hospital. They are not isolation asylums, but merely refuges, whence lepers who have not the strength to earn their <sup>bread</sup> may dwell. Nor is the idea this statement conveys quite true; for the majority are mendicants who daily go forth to obtain alms. They are to be met with; in shops, in the streets, on the river, everywhere in fact these dwellers in the village, mix with the bustling crowd, handle the food exhibited for sale and pay the cash they carry in ~~their~~ their ~~hands~~ <sup>leprous</sup> hands. The village they dwell in serves merely as a hot-bed of lepreous infection, and the disease will remain ~~an~~ endemic as long as these nests of infection are maintained.

In China

Compulsory segregation is practised by the Portuguese in Macau; that is to say, no leper is allowed to be about in the town, or to dwell in Portuguese territory. Lepers must either leave the colony, or they are seized and sent to the leper island where a settlement is provided for them by the Portuguese government. Here we have perhaps as near an approach to ~~the~~ complete isolation as can <sup>be</sup> attained; a separate island, a separation of the sexes, and no visitors ~~x~~ except the doctor, very occasionally, and the clergyman once a month.

At the present day the feeling is against compulsory ~~segregation~~ segregation, and in favour of voluntary "homes". Were these made comfortable, not only ~~would~~ would the lepers friends wish to send him there, but the leper himself would be attracted towards a retreat where ~~he~~ he would be freed from the gaze of his fellow man.

The effect of such a segregation as that practised at Macau upon the prevalence of Leprosy affords no conclusive evidence one way or another, as the ~~benefit of the colony~~ benefit of the colony is so open to the inroad of lepers from Cina, that removal of a few to the asylum, but creates a vacancy for another leprous mendicant.

QUESTION VII. Do you observe any connection between Malaria, Tuberculosis or Syphilis with Leprosy?

The relation of Malaria to Leprosy has been a burning question, nor is the belief quite dead. The provinces of Kwang-tung, Fokien and Shang-tung are the most Malarial ~~x~~ and at the same time most leprous. Again England when highly malarial was also leprous. On the other hand we find leprosy in many places without Malaria, and Malaria without Leprosy. The Chinese however do associate humid and low lying damp localities with leprosy, and maintain that the association is no <sup>are</sup> mere co-incidence, but actually a cause of the disease. This statement does not imply that leprosy is a sequence of malaria, but that they arise from a common cause. That the one is no protection from the other, is evident from the fact that many lepers suffer from malarial fever. The effect <sup>of drainage</sup> upon the disappearance of Malaria is well established fact; whether or no it has a similar effect upon leprosy cannot be answered. On the West coast of Borneo where the cultivation of rice necessitates a constant swampy condition of the soil, no lepers are to be found, ~~since the Chinese coolies left the place.~~ The present state <sup>of drainage</sup> of knowledge is therefore ~~that~~ that no connection is made <sup>out</sup> between malaria and leprosy, nor can a climate which propogates the one be entertained as a cause of the other.

native



SYPHILIS. No doubt many cases of leprosy and syphilis are confounded, and many of the wonderful "cures" claimed by native practitioners are cases of syphilis. I do not think this is a fitting occasion to enter into the discussion as to whether leprosy is a mere phase of syphilis. To my way of thinking the two diseases are quite apart; and that neither is a protection from the other.

Tuberculosis. This question is so interesting that I have ventured to express my views under a separate heading. Here I will let the subject pass with merely the remarking that the bacillus of each are well nigh identical, if not wholly identical. On this basis leprosy may be discussed as a phase of tuberculosis.

wholly identical

VACCINATION.

VIII

QUESTION. VACCINATION:-Has Leprosy increased with the use of Vaccination?

Brooks  
However

At the first glance at the subject one would imagine that in China we had a magnificent field to study this question. Closer investigation will show that such is not the case, for we have to take inoculation into the argument and the subject becomes more complicated straight away.

Inoculation with the virus of Small-pox was introduced into China as early as the 11th century. It was first practised in the province of Sz-chuen, the knowledge of its power being learned from Central Asia. From Sz-chuen (see Map) the <sup>practice</sup> ~~was~~ travelled all over CHINA. Not that inoculation was ever systematically enforced, but it was, and is still, extensively employed, as a protection against Small-pox, throughout the length and breadth of China.

Vaccination was introduced into Canton in the year 1801, the lymph being brought from India, by the East India Company for the purpose, and the art ~~is~~ <sup>originally introduced</sup> is largely employed at the present time. The vaccine matter <sup>is in use still</sup> in use is lymph

The traders of the

and

which has been humanised many scores of times. It is doubtful whether it affords any protection at all. The arm to arm method is exclusively practised, the use of calf lymph not being understood by the Chinese. The vesicles, by the vaccine in use amongst the Chinese, <sup>methods</sup> are of the most bastard description, a small attenuated mockery of a scab; but the Chinamen go through the form without once thinking of the result. <sup>followed</sup> <sup>raised</sup> The art ~~and~~ <sup>of the science alone concerns him.</sup>

Vaccination as practised by the Chinese with their attenuated lymph

Children alone are vaccinated, adults never. There is no re-vaccination practised. With such a condition of things one would expect Small-pox to be rife, and so it is. Small-pox is for ever present, and severe epidemics are the rule. Now we never find leprosy in babies under two years of age, and it is before that age that most are vaccinated. Therefore, for vaccine matter to be a carrier of the leprous bacillus, it is plain that we must believe in the inheritance of leprosy, or in what other way can we

account for the transmission of the disease..The belief in the heredity of leprosy is scientifically dead, and to "the hereditary tendency of the tissues" no one has ever added an inherited bacillus. To the anti-vaccinators this line of argument gives no sleep hole so I must supply them with one. Leprosy is most rife in the provinces of Kwang-tung and Peking and it was in these very provinces vaccination was first introduced. Can anything be more conclusive, or can a better example of the anti-vaccinator line of statement be quoted. But what are the facts; - Leprosy has actually diminished in the town of Canton since vaccination came in. Formerly there were two leper villages where now there is only one, and it contains fewer lepers than did either of the previous hospitals. In many parts of the province leper-retreats are met with where the inhabitants are not lepers, but they still draw the leper allowance granted by government. Further, in the 17th century, the French Mission had a Hospital where ~~some~~ some 300 inmates resided, but now only a very few (two or three) seek shelter there. They have not gone elsewhere, as they are not to be found in fresh leper villages, and indeed we know one such village has actually disappeared. Leprosy is not on the increase in Canton and district, and the pretty argument I made out for the Anti-vaccinators has fallen to pieces. No Chinamen voluntarily attributes to vaccination any implication that it is responsible for the spread or maintenance of Leprosy. This is a great fact to establish as no more astute observers exist; and with a foreign custom under trial, there are no more conservative, not to say biassed, people than the Chinese. These that knew the Chinese, ~~would say~~ that a mere sentiment will bring discredit upon ~~any~~ any "foreign" however salutary.

than the Chinese  
are well aware  
practice

QUESTION X. Treatment:-What do you find the best? Do you know of any native drugs? To enumerate the various means of treatment reported, would be to re-write the communications of each contributor, as every district has something in the way of special treatment to record. The fact is, that leper patients, if looked after and fairly well fed improve ~~upon any thing~~ without medicine, or special treatment of any kind. Ten cents worth of feed daily will do more ~~than~~ than medicines, although iron cod liver oil help materially.

*Franklin*

In the records of Indian investigation, it is to be regretted that when specifics, so called, are being tried, that collateral evidence is not forthcoming, as to the diet on which the leper subsisted. That good food and clothing will not only prolong a leper's life but apparently stay the advance of the disease is abundantly proved. In the leper villages of which I have any knowledge the head man is invariably the longest liver. He is always the best clad, the best fed and the richest man of the leper community. These conditions are the natural outcome of one another; because he is the head man he becomes rich and the others conditions follow. The answers to my questions covers the knowledge of treatment acquired by 1/5th of the human race, and there is nothing new to tell. Many customs and many drugs are recorded but their ineffectiveness is the best evidence if their being ineffectual. Some of the methods are more of the nature of incantations than of rational procedure. From Amoy we have it that lepers are enclosed in the carcass of a freshly eviscerated bullock where he remains an hour or more. A snake, the flesh of a dead child, a cooked placenta (human) are amongst the edibles lauded by the Chinese. Perhaps the most extraordinary method of all is the "Selling off leprosy" by sexual intercourse practised by women in and around Canton. (see Contagion). What does the information amount to: - 1. That no European records a single case of cure. 2. That no native drug has been proved to be curative. This statement need not however stay our investigations even as regards treatment. Many diseases are in the same category as for instance - Phthisis. Consumptive patients are not left uncared for; the victims of syphilis, of malaria, the gouty, the scrofulous, <sup>and</sup> the sufferers from any so called constitutional taint inherited or acquired can all be bettered by care and treatment although the taint can never be removed. So with leprosy the condition can be relieved as decidedly as any of these mentioned, and although cure cannot be secured, symptoms can be relieved and signs <sup>assuredly</sup> ameliorated. ~~assuredly~~ Dr Herder, than whom there is no better authority, remarked to me, ~~that~~ whilst in Pakhei, "I treat my leper patients as though they were consumptives". Dr Herder insists that a leper shall remain in his hospital for 6 weeks at least every year. During that period the leper is mostly confined to bed, he is provided with good food, iron and cod-liver oil are administered, and it may be some of the "specifics" are employed. Under ~~the~~ treatment the leper gains in weight; his ulcers heal; ~~his~~ cough and fever, if there are such, disappear; and he returns to his native place much improved. Dr Herder claims that in this way he can keep lepers alive for an indefinite time, that he can alleviate almost all symptoms, and that no disease is more amenable to simple hygienic laws than is leprosy. With Dr Herder's theory and practise I entirely agree, and his statement offers a rational line of treatment to follow.

Part I

~~A~~

Report  
"on the conditions under  
which Leprosy at present  
prevails in China,  
Cochin China, Batavia  
and the Malay Peninsula."

~~32~~

32

A

Report  
On the Conditions  
under which

Leprosy  
at present  
prevails in

CHINA

*Lockyer*

*China*

*1032*

The Provinces of the Middle Kingdom.

The eighteen Provinces of China are divided as follows:-

Northern Provinces

* Chihli	capital	Peking
* Shan'ang	..	Tsinanfa
* Shansi	..	Taiyuenfa
* Honan	..	Kaifangfa

Eastern Provinces

* Kiangsu	..	Kiangningfa
Neanhwai	..	Ngenkingfa
* Kiangsi	..	Nanchangfa
* Chekiang	..	Hangchaafa
* Fukien	..	Fuchaafa

Central Provinces

* Hapeh	..	Wuchangfa
* Hanan	..	Changshafa

Southern Provinces

* Kwantung	..	Canton
* Kwangsi	..	Kweilinfa
Yunnan	..	Yunnanfa
Kweichau	..	Kweiyangfa

Western Provinces

Shensi	..	Lingnanfa
Kansuh	..	Lanchaafa
* Szechuen	..	Chingtafa

\* *Replies received*

To each of these provinces circulars of enquiries were sent, and those from which replies were received are marked with an asterisk. When it is remembered that Chinese doctors generally belong to the ignorant classes; that they have no qualification save the possession of a few nostrums, as often as not mere magic potions, and that even if asked they would not deign to reply; and farther that European doctors are few and far between, and posts irregular and uncertain, it is not to be wondered at that the information is incomplete, and largely derived from the neighbourhood of the treaty ports.

China Proper (the middle Kingdom)

China Proper lies practically within the parallels of 20 and 44 North latitude, and is bounded on the East by the Pacific Ocean, and extends Westwards from about East longitude 124 to 100.

Its orographical and hydrographical features are very striking, and are illustrated by the accompanying Map, drawn by Mr. S.B.J. Skertchly, F.G.S., late of H.M. Geological Survey, from the best published sources, and from personal observations by himself and Mr. T.W. Kingsmill, C.E.

Its eastern area is the western limit of the vast tableland of High Asia, nowhere sinking below one mile in height, and sending long spurs eastwards, which though somewhat broken in continuity towards the east, divide the country into three great drainage basins - the Hwang-ho in the north, the Yangtse in the centre, and the Si-kiang in the south.

Eastwards of the highlands, and extending to the coast is a vast and generally fertile plain - the Great Plain of China - which expands in the valley of the Yangtse in the central province of Hupeh, forming a secondary plain. Hills reach almost or quite to the coast in the provinces from Fo-kien southwards.

China is practically shut off from all rain-bearing winds except the S.W. Monsoon, which blows from about April to October. This wind flowing in from the hot tropical seas, brings its burden of moisture from the south, and sheds it upon the hill and mountain country of the southern and central provinces. The bulk of that which can get across the Yangtse valley is thrown down against the mountains which separate the basin of that river from that of the Hwang-ho. Hence the winds arrive as fairly dry breezes in North China.

North and west of China lies the vast plateau of Asia, with its colossal ranges stretching east and west, so as to intercept the moisture which might otherwise reach north China.

The result of this configuration of Asia is that China may be divided into two regions, (1) that of the north, or the Hwang-ho region, which is suffering from the secular desiccation of central Asia, and steadily lapsing into desert, and (2) the southern region comprising the basins of the Yangtse and Si-kiang, which enjoy the full benefit of the rain-bearing S.W. Monsoon.

This drying up of the north is inevitable; it is the direct result of the geological growth of the continent, which Skertchly and Kingsmill have shown to be of very recent date. Already the Hwang-ho has lost the drainage of Kashgaria, and the Tarim, once a tributary of the Hwang-ho, is now a continental stream, shut off completely from the sea. The traveller in north China, going west, is vividly impressed with this desiccation. He sees it in dying streams, in dry

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watercourses, in dwindling or deserted towns; and already the desert seems to be knocking at the western gates of Peking. Nor is this gradual decay of fertile land entirely ~~due~~ to secular, and therefore irremediable causes; much of it is due to the wilful destruction of trees by the Chinese. China is practically devoid of forests; the Chinaman cuts down every tree, as though it were a curse; and his dislike of pastoral life, is stripping the land of its grass. Fuel, in spite of the immense coal-fields, is scarce and dear, and the peasantry drag up by the roots every patch of grass they can lay hold of. This is hastening the time when north China will become uninhabitable. This it is which is driving the people coastwards; this it is which is sending them abroad over all the tropical lands, and much of the temperate. Their own country can no longer support them; and with their utter lack of decency and cleanliness, they carry into their new homes the thrift of the trader, ~~and~~ the filth of the savage. One of the evils of this steady migration is the spread of Leprosy. Wherever the Chinese cooly has settled leprosy will be found; and no impartial student of the question can fail to see that in the Pacific and the East Indian Islands leprosy has dogged the footsteps of the Chinese cooly. There may be other causes; this is certainly one. If a trained man of science, say a geologist were to make the circuit of the Pacific islands, this would doubtless be made clear. The dread disease is independent of soil and elevation, independent of temperature and vegetation; but in the Far East it is dependent upon the Chinaman.

not only

but

Dances

The distribution of leprosy in China itself will be dealt with farther on; but in order to form an idea as to whether physical conditions influence the disease, it will be advisable to call attention to another marked distinction between the Hwang-ho area and that to the south. The Map shows that from the borders of Shen-si this great river does not receive a single tributary of note, and moreover, that it does not drain the lands of Shantung.

Again, over the greater part of its course, it flows over porous loess or equally porous sands, which actually absorb a great part of the water. Hence, whereas the Yangtze is a noble river, entering the seas by a majestic embouchure sixty miles in width, the Hwang-ho at its mouth cannot compare with the Thames, and could not be entered by the smallest collier brig.

The climate in this porous northern district is in marked contrast to that of the south. Its summers are hot and dry, so dry that one's skin cracks and peels, unless it is oiled. Farther south, the summer is hot and damp, like an English green-house. The northern winters are bitterly cold; in the south they are only refreshingly cool.

We have, then, in China every variety of climate, elevation, and soil. Hill country and plain alike support the



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thronging millions of China; from mountain fastnesses, over a mile above sea-level, to marshy river-deltas, half swash with brackish tidal waters; from summer air saturated with vapour to summer air dry as a furnace blast. Coast ranges and inland mountains; plains which reach the sea and those lying deep within the land - all are here. Yet when we come to the distribution of leprosy, all we can say is, that it is commoner in the south than the north; that it is rare in the maritime portions of the north; but that it is far from absent from the interior of Shantung.

Different as the two regions are in other respects, they agree in receiving their chief rains during the summer, that is the S.W. Monsoon. But whereas the southern region is fairly open to the influence of the warm monsoon, the northern region is cut off by Korea and Japan from the effects of the northern part of the monsoon. How effectually these mountain lands drain out the moisture is shown by the rainfall of Yaensan in east Korea being 49.37 inches, and that of Chefa only 26.34 inches per year. Farther south, the rainfall is much more excessive, reaching 136 inches at Tamsai, in north Formosa, 107 at South Cape, Formosa, 91 at Hongkong, and 41 as far inland as Ichang in Hapeh, on the Yangtse.

We have, therefore in China an enormous area, differing in every possible way in climate, elevation and soil, but all dependent for its rain on the same source. It thus affords an admirable field for investigating the supposed effects of the conditions of existence upon leprosy.

China

The Province of Chihli.

Chihli, the most northern of the maritime provinces (then called Pechihli, that is North of Chihli, on the map) contains Peking, the capital of the empire.

The Great Plain reaches into this province, forming the whole of the western and north-eastern parts thereof, west as Peking. Here the mountains close in, approaching within a few miles of the city to the west, and thence clinging round to the north and east.

The plain is composed of a sandy alluvium on the surface, formed of re-arranged loess, which peculiar formation of the ground in greater parity, but showing evidence of glaciation, on the west.

Towards Mongolia the massif of the mountains is composed of gneiss and granite, flanked with schists, which are in turn overlaid by rocks of the Carboniferous System, containing valuable coal.

At Taku on the Gulf of Chihli, the Pei-ho falls into the sea. This river receives numerous other streams, of which the Hwei, often called the Grand Canal, is the most considerable. It joins the Pei-ho at the large city of Tientsin.

Agriculture, the manufacture of samsha, a native wine made from sorghum, a little coal mining, and a large manufacture of salt at Taku, with a vast carrying trade, are the chief industries.

The reply concerning leprosy is very full and complete, and is contained on a Post-card. It runs as follows:-

"I should be pleased to answer your questions respecting leprosy in the district of Peh-chihli, but so far as I can gather, it is not known in this part of China. I have not met with a case here.

A. K. Marston, L. K. Q. M. C. P. I., & L. M.

I travelled through Chihli in May 1894, from Taku at the mouth of the Pei-ho to Tientsin, Peking and the Great Wall by road, and returned by the river to Taku, and never saw a case of leprosy throughout the journey, a distance of 400 miles. Along the road many beggars beseeched alms, but no leper was seen. Information obtained at Taku, supplied by Dr. Cheong, a Chinese graduate trained in European medicine at the Tientsin Medical College, confirmed the absence of

Chihli.

Hospital

leprosy in that district. = Tientsin, famed as the centre of medical science in North China, ~~is~~ endowed with a ~~medi-~~ /-/  
eal college, under the immediate patronage of Li Hung Chang, /-/  
distinguished above all other towns in China by the possession of a Medical College for Chinese, /no lepers ~~are seen.~~ contains/  
Were there any within hundreds of miles, they would be attracted thither. So, without further comment, it may be safely stated that leprosy is not endemic in Chihli.

A stray case or two have appeared. In 1887 ~~a case~~ one turned up at the medical clinic, hailing from Chefu. The leper had travelled from that city across the Gulf of Chihli, to seek relief in Tientsin. Another in 1888 came from ~~near~~ the same district- the great plain of Shantung.

Such cases, however, do not make Chihli an infected province. Indeed they point to the fact that the natives are not prone to the contagion. Chihli may be said to be as free from leprosy as the county of Middlesex.

In Peking Dr. Dudgeon confirmed the statement as to the absence of leprosy in that city. Within the city walls are communities of all the northern tribes of the empire- Manchus, Tartars, other Mongolian tribes, and Chinese- still leprosy is not known.

The absence of leprosy from Chihli is not more wonderful than the freedom of the provinces north of Fokien, viz. Chekiang and ~~Kansu~~ Kiangsu; and were it not for Shantung, the entire northern coast would be free from leprosy.

Away to the north of Chihli lie Manchuria and Siberia, of whose leprosy the public have of late years heard so much. But Siberia is a long way off. ~~Vast~~ Elevated plateaus, some of the highest in the world, "antres vast", and snow-capped mountain ranges intervene between China and Siberia; the country is but sparsely populated, and this wide intermediate zone, nowhere less than ten degrees of latitude in width, or the distance between Madrid and London, forms the waterparting of Asia, Siberian rivers flowing north into the Arctic Ocean, China's rivers east to the Pacific. Again, the climate is totally different, Siberia is in the region of variable, China of monsoon, winds. No two parts of the same

Chihli.

*the*

continent could be more distinct orographically, hydrographically, climatologically, or ethnologically. The great deserts of Gobi and Shamo completely cut off the Mongoloid tribes of Siberia from their cousins in China., and to crown all these ~~deserts~~ are rainless, so that the very vegetation fails to pass from the one region to the other.

I cannot pretend to any knowledge of Siberia, save that I visited Vladivostock in June 1894, and made enquiries concerning leprosy. But no leper was known there. The native population which the Russians found there has disappeared. The present inhabitants of Vladivostock are government officials, soldiers and sailors, and a few commercial men from the Baltic provinces of Russia or the shores of the Black Sea. Amongst these specially selected men leprosy is not likely to be met with. Even the coachmen and others who ~~are~~ style themselves Siberians are free from leprosy, and no case is known in the district. Chinese are engaged as labourers on the railway, and they come from the contaminated provinces; but I heard of no lepers among them.

In Saghalien, again, there are no lepers; doubtless for the same reason, namely, the absence of natives, and the presence only of selected Russians from Europe.

Saghalien is the great political prison, but no leper is likely to be sent the long journey from Europe thither.

Still more interesting is the fact that the Siberian town of Alexandrovitch, near the mouth of the Amur River is free from leprosy. Here is a Russian station of some importance- so important, in fact, that were any lepers living along the lengthy course of the Amur, they would have drifted towards the capital for treatment.

Eastern Siberia, then, may be held to be free from leprosy, if the meagre details I have been able to gather from a visit to the region, the extensive enquiries I have made, are to be relied upon.

*Davis*

Reports on the prevalence of LEPROSY in the Province of CHIHLI. *ital*

*personally,*

1. PEKING. Dr DUDGEON the leading practitioner in the city, and of long experience, informed me, in May 1894, that Leprosy did not exist in Peking, nor in the neighbourhood.

2. Dr MARSTON, of the China & Inland Mission writing from Peking, May 30th, 1894, reports: "I should be pleased to answer your questions respecting Leprosy in the district of Peh-Chihli but so far as I can gather it is not known in this part of China. I have not met with a case here."

3. TIENTSIN. This is a large city over 1,000,000 inhabitants, in the Province of Chihli and some 80 miles from Peking. It is the seat of the Capital and the ~~centre~~ <sup>centre</sup> for an enormous traffic to the interior.

~~I. Dr. J. G. L.R.C.P.~~

1. Dr J. G. L.R.C.P. etc. writing from Tientsin, Province of Chihli, China, states "No Leprosy exists in this Province".

2. CHUNG, a graduate of the Tientsin college of Medicine, and now House-Surgeon to the Alice Memorial Hospital in Hongkong, informed me that during his five residence in Tien-tsin only one case of leprosy was seen in the clinic of the native Hospital. The case was from the infected province of Shan-tung, not from Chihli.

3. PERSONAL ENQUIRIES made by myself during my visit there in May 1894 failed to elicit any other reply than that "Leprosy is unknown in the neighbourhood."

REMARKS:- How are the above statements to be reconciled with those quoted by Dr Newman in the ~~prize~~ <sup>NOT</sup> ~~prize~~ <sup>essay</sup> issued by the National Leprosy Fund. At page 81 De Little's remarks on the leper Hospital at TIENTSIN. "There are two large asylums, or places of refuge and of residence, at Tientsin, for the wretches who are taken with leprosy located on the outside of the city near the east and west gates. Two or three hundred lepers live at each of these asylums." A long report of this asylum is given. I can offer no explanation of this conflict of opinion. My information was obtained from medical men European and Chinese dwelling on the spot, and I went personally to Tientsin ~~to~~ to gain information, with the same negative result I received by the written records.

*There should be small caps*

*(Tae)*

*39a 39b*

4. TAKU. The fortified entrance to the Peiho river at TAKU is surrounded by a populous city. Here Dr CHEONG, a graduate of the College of Medicine at Tientsin informed me that "No Leprosy is met with in the neighbourhood".

In the excellent prize essay written for the National Leprosy Fund by Dr. George Newman he quotes at pp 81082 a long extract from "Doolittle's Social Life of the Chinese pp 524-527 on two large leper asylums at (the) Tsientsin'.

I may say at once this is a mistake there are no leper Hospitals at Tsientsin. My reasons for stating thus positively are as follows:-

- 1<sup>st</sup> I personally visited Tsientsin in 1894 & made extensive enquiries as to the prevalence of leper, & leper Hospital - I found neither the one nor the other
- 2<sup>d</sup> The positive written statement of resident medical men, <sup>English & Chinese</sup> well acquainted with Tsientsin that no

Leper Hospital exist there

39<sup>b</sup>

3<sup>rd</sup>. As I was not acquainted with  
'Doolittle's' statement, and having  
seen D. Newman's report until  
after my arrival in this country,  
I wrote D. Jewin of Tientsin to  
make <sup>further</sup> ~~further~~ enquiries as to  
the presence of ~~Leper~~ Leper  
Hospitals at Tientsin, & asked  
him to telegraph <sup>his</sup> reply. He sent  
in reply to my query "are there  
leper Hospitals at Tientsin" "None".

~~From~~  
From all these cogent proofs I can  
conclude that the statement that  
Leper Hospital exist at Tientsin  
is a misrepresentation or  
a mistatement & that Chihli  
is free of Leprosy.

(72)  
China

40

The Province of Manchuria.  
(by Dr. J. G. ...)

Manchuria of the maps, and Manchuria as understood in China express two different ideas. The former is the Manchurian province of Tsitsihar, lying between the main Amar River and its important tributary the Sungari: it therefore has no seaboard. But the Chinese include two other provinces as belonging to Manchuria, Shinking or Liao-tong stretching from the Gulfs of Liao-tong and Korea northwards to the river Liao-ho, and Kirin which lies between Shinking and Tsitsihar. It is with the <sup>e</sup> Shinking district, in which in fact the capital of Manchuria, <sup>h</sup>Moakden, is situated that my enquiries deal, as no information is forthcoming from the interior.

Manchuria forms the south-eastern part of the great table-land of Asia, but as we are only concerned with Shinking, that province only will be described.

It is a mountain region, broken by the valleys of two rivers, the Yaloo and the Liao, both of which have broad alluvial flats bordering the water and many miles in width.

The rocks are chiefly igneous and volcanic, with tracts of Archean and Carboniferous rocks.

The plain of the Liao, on which Moakden is situated, is over fifty miles wide, undulating, and rising towards the interior, so that Moakden, 100 miles in a direct line from the coast, is only 300 feet above sea-level. 5/

The hills are well wooded, and the climate extreme and dry, the high lands of Korea cutting off the rain-bearing winds to such an extent that only about 27 inches fall in the year, as compared with 60 inches at Pusan in south Korea. Other details are given in Dr. Christie's report.

(The writer)

I very fortunately met Dr. Christie at Chefoo in May 1894, and learning that he came from Manchuria, availed myself of an interview with him on the subject of leprosy. oo/

He told me that endemic leprosy seems to be unknown in Manchuria; the few cases seen ~~were~~ <sup>were</sup> ~~from the~~ Chinese ~~provinces~~. The occurrence of a few cases during an experience of

from the South (Canton)



Manchuria.

many years does not, however, proclaim the country infected, any more than ~~does~~ the case of the London butcher renders England a leper centre; nay, not so much, for the patients seen in Moakden were not even Manchus, but were as much foreigners to Manchuria as Norwegians are to England.

*ern* — Manchuria has no infected sea-board, nor can it get infected from the north considering that Eastern Siberia is free from the disease, as shown under the heading of Chihli. North Manchuria drains in the opposite direction to the flow of the rivers in Shinking, and the water-parting is a range of high mountains, so that there seems <sup>no</sup> liability of infection from this source, even if leprosy <sup>did</sup> occur~~x~~ there, of which there is no proof.

Manchuria must, therefore be declared free of leprosy, and the Manchus, the reigning dynasty of China, as a whole are non-leprous.

Locker

Report by DR Dugald Christie L.R.C.S., L.R.C.P., ED:  
Moukden.

Leprosy unknown Manchuria.

Leprosy seems to be unknown in Manchuria, I have met with a few cases in Moukden, but they came from other parts of China. The larger part of the country is comparatively flat. ~~Moukden~~ Moukden the capital of the <sup>Province</sup> ~~country~~ though about 150 miles from the sea, is not more than 300 feet above sea level. The wide undulating plains are fertile, well watered, and for the most part densely populated. The soil is chiefly loam. In the east there are extensive mountain ranges; some precipitous with deep narrow gorges; others rounded, wooded to the summits, and intersected by broad well cultivated valleys. There is but little large vegetation in southern Manchuria except on the hills; but wide stretches of forest are met with in the far north. The climate of Manchuria is distinctly continental and not influenced by oceanic currents. There is no shelter from the cold winds which in winter sweep across the Siberian and Mongolian plains, and the temperature falls to 28°F below zero in Moukden. The thermometer often stands at 97°F in summer; but the atmosphere generally is clear, dry, and bracing, so that the ~~thermometer~~ <sup>senses</sup> do not indicate such extremes.

The total rain fall for 1893 was 27 inches, of which, on the two occasions every 3 inches fell in 24 hours. There is ~~little~~ little or no moist, damp weather.

Until the floods of 1888, when large stretches of country were under water, Malaria was very rarely met with in Manchuria; but since then it has become more common. From 1882 until 1888 only 23 cases were treated at the Moukden Medical Mission Dispensary. During 1893 over 400 came under observation.

(102)  
*China*  
The province of

43

Shantung.  
*Leprosy is prevalent.*  
*Occurs mostly inland.*

10 The northern maritime province of Shantung—the Eastern Hills—is washed by the waters of both the Yellow Sea and the Gulf of <sup>Pea</sup>Chihli, and through it now passes the lower course of the Hwang-ho. The capital, Tsinanfu stands near the Hwang-ho, and from this district eastwards and southwards ran, with many spurs and outliers the sacred range of Tai-shan. These mountains, as may be seen by the Map, rise above the great plain of the Loess and other recent marine and freshwater beds. They consist of Archaean rocks to the east, overlaid westwards by rocks of Carboniferous age, of which the Mountain Limestone is a most important member, forming fine mountain ranges. The ~~underly~~ coal-fields occupy the depressions in the Mountain Limestone. For details of the geography and geology, with an account of the present and past meteorology the reader may be referred to a paper by Messrs Skertchly and Kingsmill in the Journal of the Geological Society. *cl*

The drainage is carried out by numerous small rivers, rising in the mountains, and the Hwang-ho, dwindled by absorption to a third rate river enters the Gulf of Chihli. To this extraordinary river, aptly called "China's Sorrow", Shantung owes the desolating floods, which periodically waste so much of the otherwise fertile Loess land.

The summers are hot and very dry, the winters are cold and bright, and the whole province shows unmistakable evidence of steady deterioration from desiccation. The plains grow vast crops of corn and millet, and every tree has been destroyed, save the ornamental willows and other trees around the towns and villages. The population is large, but almost confined to the plains. Most of the inhabitants are agricultural labourers, but there is a small population of miners who feebly scratch out a little of the vast stores of coal with which the country abounds.

7 Dr Watson reports that there are many cases of leprosy in the province, chiefly in the inland parts. In almost every village of any size lepers may be seen, who are regarded as outcasts, with whom the people refuse to mix.

The Dr. knew one case of a boy becoming a leper by sleeping with a younger brother.

~~(73)~~

~~Shanghai~~

~~The natives ascribe as a cause marshy ground and damp  
roads. Report by Dr. J. R. Watson~~ *Chefoo* *China.*  
*Leprosy Prevalent*

Dr. Watson, of the Baptist Mission, passed through Hong-kong in April, 1894, on his way home after a sojourn of ten years in the province. The field of his labours is the district around Wei-hsien, far inland on the great plain at the foot of the hills. Some of this district is water-logged and travellers hurry past it, for it has an evil reputation for malaria.

Every village of any size, and they are very numerous, has its one or two lepers, who are regarded as outcasts by the natives, and compelled to dwell apart.

Dr. Watson recorded a case of a boy who acquired leprosy through sleeping with a younger brother who was a leper. Here the question of heredity versus contagion crops up. As a brother he may have inherited it; as a bed-fellow he may have acquired it; and thus it ever is and will be with persons living under the same roof. That leprosy is communicable by dwelling with lepers is an established fact, and this must obscure the evidence of heredity.

The leprosy is ascribed by the natives to marshy ground and damp houses; and when we remember how often this district is whelmed in the floods of the excentric Yellow River, some colour of reason is given to the local belief.

It is interesting to note that after an interval of pretty nearly 1,000 miles of coast-line, from Fuchow to Che-fu, leprosy again appears, and again the natives assign marshy ground and damp houses as the cause. In the provinces of Kwantang and Pokieu we found the same causes assigned, and all the Chinese outside these provinces ascribe the prevalence of the disease to these causes.

Dr. Watson farther stated that leprosy seemed more prevalent inland than on the coast. Here again is a <sup>seeming</sup> refutation of the world-wide belief that the disease is more common on the sea-board, and of the corollary ~~that~~ usually added "owing to the large consumption of fish by the dwellers by the sea. The inland dwellers however consume salt fish freely

Shantung

notes from information personally conveyed by  
E. W. von Tunzelmann, M.B., Lond.  
Chefu.

Franklin

Leprosy rare

The writer visited Chefu in May 1894, and made personal enquiries as to the prevalence of leprosy. Dr Van Tunzelmann stated that leprosy was very rarely met with at that port, and referred me to other medical men who had a few cases under treatment. Leprosy, however proved to be a very rare disease, and the cases came from inland, from the great loess and marine-sand plain above described.

It was fortunate that Dr. von Tunzelmann & Dr. Watson's reports came to hand

I was fortunate in meeting Dr. Watson, and also in happening to visit Chefu when I did; for not having received replies to my questions from Shantung. I might otherwise have committed the grievous error of declaring the coast of China, north of the Formosa Channel, as free from Leprosy. Here however the bold Promontary of Shantung arrests attention, and we find the purity of the coast somewhat soiled.

North of this again the leper disappears, so that Shantung stands isolated among the coast provinces of northern China as being a leper-bearing land.

How did the disease reach this province? The great, but here sadly diminished, Hwang-ho or Yellow River here flows into the Gulf of Peichihli, through the great plain. Is it along the valley of the river that the disease has travelled? I can give no answer: I have no information. The Europeans dwelling along its banks have sent no replies to my queries. It is an interesting point to follow up. The mightier Yangtse rather neglected the water-carriage of the disease, considering its absence from Shanghai, and so we have no proof that leprosy is brought down stream. Yet how else, except by water is leprosy to reach the coast of Shantung? A possible answer may be found in the constant stream of caravans from far away ~~into~~ Tibet, that is always flowing through Shantung.

if there are any

Perhaps the consideration of leprosy in Korea, <sup>Japan</sup> the coasts immediately opposite Shantung, may throw some light on the subject.

(107)

ChinaThe province of  
Kiangsu.*Leprosy rarely met with  
not indigenous.*

The maritime province of Kiangsu is intersected by the great river Yangtze, whose waters, carrying their burden of yellow mud into the sea, give origin to the name Yellow Sea. The land is for the most part level, consisting largely of delta and other recent deposits of the Yangtze and the bay that the river has filled with its alluvium. To the west, hills and mountains rise from the plain like islands from the sea- and islands they once were. Large lakes and ir reclaimable marshes abound, but the climate is considered healthy, and the land yields large crops of grain, cotton and tea. Nanking, Suchau and Shanghai are the chief cities.

Shanghai is important not only as being the largest of the treaty ports, and the natural outlet of the vast wealth that pours down the Yangtze from far beyond the limits of even this great empire, but also from its proximity to the great and ancient cities of Suchau and Nanking, cities whose history dates back ~~was~~ of thousands of years.

Notwithstanding the immense and continuous influx of visitors from all parts of China, and indeed all parts of the world, Shanghai is not afflicted with a leper community, indeed Mr Skertchly two years ago visited all the hospitals, native and foreign, and enquired of the medical men in the vain hope of finding a solitary leper, for the edification of a medical visitor.

Nor is it likely that leprosy is indigenous in any district within many miles- many hundred miles- along the Yangtze waterway. Lepers travel enormous distances to see foreign doctors. ~~He~~ in <sup>his</sup> own experience a leper from the shores of Lake Tsep-chi, in Yunnan, a distance of 300 miles as the crow flies. He came to Hongkong because a man passed through his village on his way inland, whom I had operated upon for a huge lymph scrotum. The leper, failing in obtaining a cure from his native doctor, found his way down the Canton river, and after months of travel reached Hongkong. Therefore Shanghai, with its wealth of medical men, could attract lepers from yet more distant regions, did leprosy abound in the area drained by the Yangtze.

The conclusion may be fairly drawn, therefore, that in this vast area, in the words of Dr. Jamieson, "leprosy is the rarest of rarities."

*The writer had*

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Letter from <sup>(the late)</sup> ~~Dr. R. A. Jamieson~~ D. R. A. Jamieson  
Shanghai

May 24<sup>th</sup> 1894.

"I should be very glad to answer your questions respecting leprosy, if there were any specimens of the disease to be found here. It is the very rarest of rarities in Shanghai - so rare that I should be afraid to say how few cases I have seen in the twenty six years during which I have been without interruption connected with large hospitals for natives."

Nothing could be more to the point than Dr. Jamieson's statement. Shanghai is so great a centre of commerce & traffic & so well supplied with European Doctors of wide spread reputation that were any lepers in the province of Kiangsu they would be <sup>sure</sup> to congregate there either for alms or for treatment by the 'Foreign' Doctors. Kiangsu may be pronounced free of the disease.

Letter from Dr. Burge  
Shanghai

May 22<sup>nd</sup> 1897.

"I am sorry I have very little experience as regards Leprosy. My ~~fracta~~ ~~li~~ ~~is~~ ~~at~~ ~~most~~. I will however see if I can collect a little information on the matter."

Dr. Burge's statement bears out Dr. Jamieson. It is evident that Leprosy had not been seen in Shanghai by either of the observers, so that it may be conclusively stated that Leprosy is not indigenous to the province of Kiang-Su.

Darius

(113)  
China

48

The province of Hupoh.

*Leprosy occurs in isolated parts of the district*

The central province of Hupoh takes its name (North of the Lakes) from the maze of lakes which lie within the central plain, as may be seen on the Map. Its area is about 50,000 square miles, the southern half of which is alluvial plain, the northern mountainous, for here the Kia Long Mts terminate.

The Yangtse flows through it from west to east, and into this mighty stream falls the Han river flowing from the north. At the confluence stand the united cities of Hanyang and Hankow, and across the Yangtse, here a mile wide though it is 600 miles from the sea, is the city of Wuchang, the capital of the province. To Hankow come the largest ocean steamers, for this is the very centre of the tea district.



Chinese  
The People's Republic of  
Hubei

49

Report by S. R. Hodge M. R. C. V. S. etc.

Hankow

Province of Hubei  
China.

Leprosy no great scourge  
no segregation

Hankow is situated on a flat alluvial plain on the left bank of the Yangtze some 600 miles from the sea. The soil is constantly damp & the whole country highly malarious. The summers are short but intensely hot & during the spring & autumn sudden variations of temperature are the rule. The country is thickly populated & rice fields are everywhere.

Distribution. There are no hills within 100 miles of Hankow.

Heredity. The natives are very decided in the opinion that leprosy is hereditary.

Contagion is only <sup>believed</sup> dreaded to a moderate extent. The ordinary intercourse of daily life is not feared but they will not sleep with a leper. If a girl is betrothed to a man & subsequently it is found he is leprosy, the match is broken off.

Still the direct & positive ~~proved~~ <sup>contagion</sup> of leprosy is not quite admitted - a <sup>native</sup> ~~leper~~ confessor (to Dr. Hodge) that he knew a man leprosy for 5 years but that his wife never took it.

Food. Some associate leprosy with eating bad fish; others blame the eating of reptiles.

Segregation not observed in Hankow.

Vaccination:- no information. The Chinese practice inoculation for small pox here.

Treatment. Amelioration but no cure can be obtained by some one or all of the present day methods of treatment.

The Chinese have several reputed 'curing drugs'.

Report by A. Morley L.R.C.V.S.

Teh Njan

near Hankow

September 1887

Distribution Leprosy rare

I have carefully gone through my note book & I can find only 10 cases of which I was certain of my diagnosis.

Heredity. The Chinese seem to find a special connection between scabies & leprosy. They deny that leprosy is hereditary but consider that scabies in their ancestors predisposes to leprosy. ~~Two~~ two lepers stated that their fathers died of the disease; ~~one~~ a third stated that father & uncle were both lepers, & a fourth that his uncle died of leprosy.

Contagion is not believed in.

Food. The Chinese lepers here ~~do not~~ <sup>do not</sup> ascribe leprosy to fish.

Segregation not practised.

Treatment. The cases I have seen came to me apparently for diagnosis; consequently I have never had an opportunity of treating cases.

Extract from Letter sent by Herbert Brady Esq<sup>r</sup>  
 H. M.'s Acting Consul  
 Ichang

Septera unknown

June 12<sup>th</sup> 1894

"From enquiries which I have made it appears that the disease is not endemic here. Dr. Aldridge of the I. M. Customs, who has had charge of the Church of Scotland mission dispensary - the only (native) Hospital in the city - for some years past informs me that he has not met with a single case & I notice that the disease is not mentioned in any of the Customs medical reports which go back to the year 1877.

*Brooks*

*China*  
*The Province of*  
*Szechuan*

*Leprosy rare*  
*Leprosy does not follow the Yangtze course*

1,500

The western province of Szechuan is the largest of the eighteen provinces of China, having an area of no less than 107,000 square miles. It is essentially a highland province, none of it being below ~~2,400~~ feet and much of it over 5,000 feet above sea level, as a glance at the map will show. Its name - the Four Rivers - indicates that it is a province of valley-plains as well as of hills and mountains, and its plateaus and many of the hillsides are under cultivation. Unlike most of China, it is well wooded, large forests of pines clothing the mountains, especially in the east. The mountains at several points overtop by some thousands of feet the snow-line.

*Insert!*

The ~~Yangtze~~ Yangtze flows through it, its huge volume receiving large additions from several considerable rivers, and a multitude of smaller streams.

Rice, wheat, barley, millet, sugar-cane, tobacco, and of late potatoes are largely cultivated. *It is moreover the district which yields the chief supply of Chinese medicines.*

The Chinese inhabitants are less jealous of foreigners than usual in China, and generally more civilized, as shown by their roads, which though not good in an European sense, are much better kept than elsewhere in China. Yet even here famine lays its gaunt hand upon the land, as it always will till China perceives the value of facilitating the means of communication between her provinces.

On the hills, and in the mountain fastnesses the aboriginal race, usually called by the collective name of Man-Tze, still exist in considerable, though steadily diminishing numbers. They are Chinese in feature, but with more regular teeth, and Gill makes the almost incredible statement that they are dirtier than the Chinese. They speak dialects of the Tibetan language.

My information from this far off province is represented by a communication from Dr. Cecil Davenport, of the London Mission. During a three and a half years' sojourn he has seen at most but four cases of leprosy, and this too at a Hospital where from 7,000 to 8,000 patients have been

*to be above!*

*The rocks are mostly sandstones and limestone, and coal seams of Carboniferous age, overlying Archaean gneiss and schists, which with granite, crop out on the flanks <sup>into cores</sup> of the highest ranges.*

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53

Szechuen.

treated during that time. Leprosy cannot, therefore, be considered a severe scourge in his district.

*however*

*in Szechuan*

From the Headquarters of the French Mission, in Hongkong I learn that their missionaries state that leprosy is frequently met with ~~with~~ so much so that they have written to Headquarters for money to build a refuge for the lepers.

On the other hand, the city of Ichang, near the border of Szechuen, but in the province of Hapeh, is free from leprosy, according to the statement of Mr. Brady, the British Consul. Ichang, like Chang-king whence Dr Davenport writes, is on the Yangtsekiang. Ichang therefore, intervenes between Chang-king in the upper reaches of the Yangtse and Hankow 844 miles lower down. At Hankow and its neighbourhood leprosy is known, and it is absent from Shanghai which may be considered as practically at the mouth of the Yangtse, 600 miles from Hankow. In a distance of 1,500 miles from the mouth of the river upwards we thus have centres of leprosy at Hankow, 600 miles, and Chang-king, 1,500 miles, with hundreds of miles between free from the disease. It may hence be reasonably inferred that leprosy does not follow the flow of the river

Franklin

54

Extract from letter sent by  
Dr. Cecil Davenport  
Chung-king  
Szechuan

June 27<sup>th</sup> 1894.

" Leprosy very rare.

"I am unable to give any information concerning leprosy for I have seen only 3 or 4 cases among the 7 or 8000 out patients ~~cases~~ I have seen during my 3 1/2 years here. I had one case in my hospital which did very well under creolin dressing (20min-31) & the internal administration of tonics, Iodide of Potassium &c. I am sorry I cannot tell you more facts, but glad that there appears to be so little of the disease in this district

Extract from letter sent by  
Dr. C. H. Fuich

Sui-fu  
Szechuan

July 4<sup>th</sup> 1894.

Leprosy very rare

"During a three years residence here I have seen very little leprosy in this district. I hope to be able to answer your questions in another 12 months."

Communication with Szechuan is of course very infrequent & is difficult.

to get information

Verbal Report by French Missionaries  
from Sze chuen  
Sept 1857.

The Head Quarters of the

Report by French Missionaries

Min Lin Shien

Szechuen

Nov: 27<sup>th</sup> 1894

(56)

Lepers occasionally seen.

No Lo-los (aborigines) are lepers.

Leprosy confined to the Chinese.

Where vaccination practiced no leprosy.

Physical Features: - The district in question is in the Southern part of the Province of Szechuen, not far from the source of the river Kein-Chang, one of the affluents of the Yang-tse & not far from the borders of Thibet. The district is very mountainous & devoid of marshes or swamps.

Rain from end of March to the beginning of July. Heat <sup>is</sup> intense during summer, very cold during winter. Population <sup>is</sup> very sparse. Rice fields <sup>occupy</sup> the plains.

Distribution. The hills are occupied by the Lo-los the aboriginal inhabitants who never intermingle with the Chinese & who are not lepers. Leprosy is only met with amongst the Chinese. Heredity. The natives believe leprosy to be hereditary but they take very few precautions in their marriage contracts.

Contagion is ~~the~~ not considered as a ready means of propagating leprosy.

Food. Fresh fish is not obtainable & salt fish is used but very sparingly. The ordinary food is rice vegetables & pork. Generally lepers are to be found only in the parts of the district where food is hard or insufficient.



Segregation is not observed.

Vaccination is not practised in other parts of the district but here & Leprosy is observed only in Min-din-chin.

Treatment: Several native drugs are used but none are reliable. Modern <sup>European</sup> drugs have been used in this district only quite recently.

N.B. It is significant that by the presence of Lepers in the district that my information was gathered from a French Missionary from Sze-chuen who had come to Hong Kong to get the necessary funds wherewith to build a Leper Hospital.

(139)  
China  
Province of Chekiang.  
No Leprosy

57

The maritime province of Chekiang is the smallest of the eighteen into which China is divided, being only about 39,000 square miles, or about ~~the size of Kentucky~~ 7000 square miles, larger than Ireland.

Situated in the south of the Great Plain, its surface is level except in its southern portion where the Nan Ling range terminates. It is very fertile, densely populated, and the cities of Hangchow and ~~Szechuan~~ among the richest in the land.

It is drained by numerous small rivers, and is one of the centres of the silk and cotton industries.

Immediately the northern frontier of the province of Fokien is crossed leprosy seems to well-nigh, if not entirely disappear. The town of Wenchow, situated on the coast but a few miles from the southern frontier, and Dr. Lowry, well-known as a careful observer of ~~the disease~~ in Pakhoi and Wenchow, makes the statement that no cases of leprosy have been seen by him, and that the Chinese deny all knowledge of its existence.

Dr. Molyneux declares Ningpo and its environments free from lepers, the only case he reports being from a distant inland town, ~~but for which he found no evidence~~.

The fact of the cessation of the prevalence of leprosy is interesting, and further interest attaches to Dr. Molyneux' statement that while the sea-board is free from lepers, the disease prevails inland. This is contrary to the almost universally prevalent belief that leprosy is most widely spread along the sea-board. We shall see the same fact in the case of Shantung in the extreme north. It is so difficult to obtain any information even from a few miles inland from the coast of China, that the statement that lepers find their way from inland towards the sea coast, from an infected to a clean district, bears a significance one might dwell upon at length.

Davis

58

Letter from Dr. Lowry

Wenchow

Chekiang

July 15<sup>th</sup> 1894.

No Leprosy

"I am sorry I cannot help you in your leprosy enquiry. During my 3 years residence here no cases have crossed my path & from enquiries among Chinese it does not exist in this district."

Dr. Lowry is so well known for his excellent researches on Leprosy in Pakhoi, that this statement is of great value as any leprosy in his district would be sure to have found his way to ~~the~~ Dr. Lowry.

Wenchow is a town on the sea board & only a short distance north of the borders of the Fokien province. It is interesting to note the abrupt limit of leprosy in this region.

Letter from Dr. Molyneux

Ning Po.

Chekiang

Oct: 16<sup>th</sup> 1894

Leprosy Not Indigenous.

"There has come under my notice no case of Leprosy from Ning Po & its adjacencies, & I hear of no cases from the priest, or the itinerant medical missionaries. The only two cases I have seen came from Show Shing - many miles <sup>inland</sup> ~~inland~~ from here."

It is interesting to note that on the sea shore no leprosy is known. The two cases reported by Dr. Molyneux coming from the far inland town of Show Shing likely - Show - Ning of the maps.

(146)  
China

59

Province of Fokien.

Leprosy a scourge

The maritime province of Fokien lies between Kwantung on the south and Chekiang on the north, and faces the Formosa Channel.

Fokien is essentially a highland province, the hills in most places reaching to the coast, and continuing ~~to~~ <sup>into</sup> the islands that flank it. This mountainous mass is broken through by two rivers and their tributaries; the Min on which the treaty port of ~~Fuchow~~ <sup>Foo-chow</sup> stands, and the Keu Lung at the mouth of which is the treaty port of Amoy.

The mountains, at least near the coast, where alone Mr Skertchly has examined them, belong to the same series of granites and volcanic rocks of Carboniferous age, which extend southwards through Kwantung. Inland, in all probability, the usual Archaean and Carboniferous rocks will be found.

The country produces rice, barley and wheat, but not in sufficient quantities for home consumption. Tea is largely grown inland.

The climate is like that of Kwantung.

I class the province of Fokien with Kwantung as the cradle of leprosy in China. Mr. Sadler's short statement that "Leprosy is mostly found in Fokien and Canton provinces, and little in the north", is most comprehensive and telling. He therein announces a great truth, and one of which I was not aware until I commenced this enquiry.

In regard to vaccination he mentions that there is a fear that leprosy is spread by wrong lymph; but he does not say if this is the belief of the natives or of Europeans. If the fear ~~is~~ exists among the Chinese, it is the only record we have that vaccination has ever been thought of in connection with the subject; though one or two cases in the Fatshan report gave vaccination as a possible cause of the disease. ~~Enquiries made by myself in Fuchow showed that the natives never heard of the suspicion even.~~

Dr. Burno writes in Spanish from Lampilao, in the south of the province, about eight miles from the coast, and 2,000 feet above sea-level. He gives some interesting details.

*[Handwritten signature]*

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Fukien.

The number of lepers he has seen is very few, only three in twenty three years. However the natives seem well posted in all the dangers of leprosy, which they would not be were they not aware of its encroaches. This is very different from the way the natives of northern China regard it, for they dub the disease Tai Ma, or Large Itch, signifying that it is regarded with no dread, but only as a severe and lasting form of Scabies.

The Chinese have evidently anticipated science when they think "that it is caused by a microscopic animal that flies unseen."

Dr. Wong I Ek, a graduate of the College of Medicine for Chinese, Hongkong, ~~says~~ states that leprosy is very prevalent in F<sup>oo</sup>chow.

*Confirms the statement*

Franklin

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Letter from B. D. Paton B.A., Lond.; M.B. Cam. (Edin)

Tsoan-chow-foo

Fokien

Leprosy not prevalent? June 24<sup>th</sup> 1894

"I am sorry I have not the information necessary to answer your questions respecting leprosy in this district"

This remark that Dr. Paton has not the information means to say that there is but little material to gather information experience from. Where Tsoan-chow-foo is I cannot locate, but I infer it is an inland town somewhat up country from Amoy.

Extract

Letter from Mr. Sadler's report.

Amoy Fokien.

Leprosy a scourge July, 1894.

Distribution Leprosy is mostly found in the Fokien & Canton Provinces but little in the North. It seems to occur both amongst the dwellers in the plains & hills.

Heredity. The natives say that three out of ten cases of leprosy are transmitted.

Contagion is considered a likely way of acquiring leprosy. Food. Improper food is believed to cause the disease.

Segregation is observed. There are separate abodes in some places.

Cause. It is thought that the disease sometimes arises from evil sores, & taking wrong medicines.

Vaccination. There is a fear that by the

use of wrong lymph the disease may increase. It can be spread by lymph taken from a leper.

Treatment. Tai fung tz is most used by the natives.

Translation from the Spanish of a  
Report by <sup>Rev</sup> Fr. G. Burno O.P.

Campulao

Amoy.

May 25<sup>th</sup> 1894.

Name.	Age.	Address.	Disease.	Vol. and Page.
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# Lampilao

Letter from The Rev. F. G. Burno R.C. Church.  
 Lampilao near Amoy  
 Province of Fokien.

Leprosy uncommon.  
 Vaccination not remarked upon

Physical Features: - The district of Lampilao is situated at about 1000 feet above the sea level & 2 hours journey inland from Amoy - the Sea Port. The district consists of a narrow valley surrounded by mountains. Nine years ago the mountains were covered with pine trees, but they are now quite bare, the trees having died in consequence of a 'worm' - the "moakatai" of the natives.



Name.

Age.

Address.

Disease.

Vol. and Page.

The soil is very rich, but frequently there are droughts originating, it is believed in the absence of trees. Population very dense, distributed mostly in villages.

Distribution: - There are no villages in the mountains. I have seen few lepers, in spite of their houses being full of water during the rainy season. In 23 years I have seen three lepers only.

Heredity: - I know two Christian families (Chinese) ~~in~~ in another district in which leprosy has been transmitted from the grandfather to the children and grand children. In some it appears when young, in others when they are about 40 years old.

Contagion: - The Chinese believe leprosy

Name.

Age.

Address.

Disease.

Vol. and  
Page.

to be contagious & have great fear of contracting it, as according to their theory it is caused by a microscopic animal, that flies unseen.

Food:- I have never heard the Chinese say that fish or other food may be the cause of leprosy. They declare that after having drunk Samshu (Chinese wine) it is dangerous to fall asleep in a draught in case of developing leprosy.

Segregation:- There are no attempts made at isolation, the lepers girls are ~~not~~ engaged as servants & allowed to do all household duties as if nothing was the matter.

Tuberculosis, Syphilis & Malaria:- No observations recorded.

Province of Kwantang.

*The cradle of leprosy.*

From this province replies were received from Canton, Patshan, Swatow, Pakhoi, Hainan, and our own observations in Hongkong and Macao, which geographically belong to Kwantang.

Kwantang is one of the southern maritime provinces, and is about ~~half~~<sup>twice</sup> the size of England. It is for the most part hilly, becoming mountainous to the north, on the borders of Hunan and Kiangsi, but is broken by the broad and fertile valley of the Pearl River, the common discharge of the Si-kiang and other streams. This alluvial tract, with the delta, supports a vast population, both on the land and on the water. The coast and adjacent islands consist chiefly of granite and associated volcanic rocks of Carboniferous age, farther inland Archaean rocks occur, which in turn are overlaid unconformably by the Mountain Limestone and other rocks of the Carboniferous Series.

Kwantang is intersected by the Tropic of Cancer, and its products are those of warm countries. Rice is largely cultivated in the low ground, and this province is the northern limit of the cocoanut palm. The people are, as is usual in China, mostly agricultural, the mineral wealth being entirely neglected. The carrying trade supports a large floating population, and traders are numerous.

The summer is hot, moist and rainy, the winters cool ~~the~~  
~~winters~~ from November 1<sup>st</sup> until March 1<sup>st</sup> are dry & bright.

Sanitation is unknown in China, and this province is not worse than others. The Chinese, high and low, are utterly devoid of the sense of decency, and in habits are filthy as Eskimo, without their excuse.

First among my correspondents in Kwantang is Dr. Kerr, whose answers are entitled to all respect and consideration. He has spent well-nigh forty years in Canton, and has been a careful observer of many points of scientific interest, and is engaged in daily Medical and Surgical work in the Hospital at Canton.

The province of Kwantang is so densely populated, and so large a centre of leprosy, that many opportunities exist for observation. Perhaps no more advantageous opportunity is offered than the city and surroundings of Canton afford to get at the connection between Vaccination and leprosy. Vaccination was introduced into Canton by the East India Company about the year 1801, since when it has been extensively practiced. The importation of lymph to a region so remote as Canton was a great and serious difficulty to the continuance of the practice.

*Brooks*

Lymph was brought across South America from Spain, and thence to the the Philippines, a Spanish possession in the China Seas. The East India Company sent continual supplies from Calcutta, and so a supply was kept up. In time, as the practice was carried farther afield into China, human lymph was used time after time, recurrence to the original source being impossible. The lymph at length became attenuated, and the small vesicles raised by the native lymph were mere abortions, and the protective power of vaccination against smallpox almost nil.

In spite of this the Chinese, and they are astute observers, never assert that leprosy has increased with vaccination; and not only so, they declare leprosy to be less prevalent now than a hundred years ago.

Dr. Kerr has never heard a whisper to the effect that leprosy has spread with vaccination; and I can bear testimony to the same effect in Hongkong. Dr. Kerr, however, words his answer with scientific caution, when he says, "No data exist by which ~~an~~<sup>an</sup> answer to this question can be given."

*scientific*

The reply from the French Mission in Canton is most comprehensive and valuable. The statement that the natives of Kwantung and Fokien believe those provinces to be the centres and hot-beds of leprosy, is fully borne out by all the reports. Lepers have a peculiar knack of always belonging to somewhere else than the place at which they are encountered. Many of the reports from outside Kwantung testify to the truth of this statement; and few of the hundreds of lepers I have seen, ever admitted having seen another case of leprosy in the place of their nativity. I am convinced that the two provinces of China bordering on the China Sea, Kwantung and Fokien, are the chief seats of leprosy in China. The Chinese outside these provinces ascribe this to the heat and damp. This is a mere coincidence; but later on this fact will be fully dealt with.

*The itinerant in Hong Kong*

The records of the French Mission go back to the 17th century; before the introduction of vaccination into China, and the answer given to the question of any connection between vaccination and leprosy is, "I have never heard that vaccination increased leprosy."

*in/*

Leprosy seems to be diminishing according to their report, for ~~at~~ two old Leper Hospitals dating from the 17th century which used to shelter seven to eight hundred lepers, only a few cases are now met with.

Kwantang.

Swatow, (Kwantang). Swatow is a treaty port in the northern part of Kwantang, on the River Han, which must not be confounded with the greater river of that name which flows into the Yangtse at Hankow. It has only achieved importance since the British established it as a trading port for the city of Chow Chu some thirty miles up the river. Previous to this only a few Chinese inhabited the place.

Dr. Coasland states that the Chinese affirm that leprosy has increased within the last thirty years or so; but there is no evidence to show that vaccination has had anything to do with it.

He makes the interesting statement that the first lepers brought the disease back with them from Anam and Siam, where they had been resident for some years. Whether this is the mere natural tendency to ascribe leprosy to a foreign source will be discussed afterwards.

Dr. Anna Scott also testifies to the prevalence of leprosy around Swatow. The all-important question concerning vaccination receives very careful attention from Miss Scott. All the members of the Mission Station with which this lady is connected have been forced to the conclusion that leprosy has increased among children, and they ascribe it to arm to arm vaccination, as practised by certain Chinese "doctors." Dr. Anna Scott also remarks upon the prevalence of phthisis among leper children.

(49)

Kwantang.

Fatshan, (Kwantang).

Fatshan is practically a suburb of Canton, and is situated on the same alluvial plain.

The apology with which Dr. Mac Donald's report opens is surely not required. The careful clinical records he sends of 122 lepers is, perhaps, the most valuable contribution to the study of leprosy which ever emanated from the Far East. It will be found in another part of this essay.

Dr. Mac Donald is inclined to believe that an increase of leprosy has been due, or may be partially ascribed, to Chinese vaccination.

(270)

Lockyer

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Kwantang.

h/ Pakhoi, (Kwantang). Pakhoi, the most southerly treaty port of China, is a great focus of leprosy. Dr. Horder personally related to me in Hongkong his treatment of lepers. c. He has an admirable Hospital, maintained at an infinitesimally small cost, and thither lepers come for treatment.

He is convinced of the possibility of relieving leprosy of its worst features. He insists on the lepers coming to the Hospital at regular intervals, say for a month or two every year. Good food, rest, cod-liver oil, and the application of some of the medicines recommended for external use invariably afford relief.

Dr. Horder is of opinion that a leper, if not too far advanced, can be kept alive, and not only so, but that the disease can be well-nigh arrested by submitting the leper to much the same treatment as a patient suffering from chronic phthisis requires.

/ie In this I entirely agree with him. We see, as a rule, only neglected lepers- outcasts, beggars, or those of the cool class, who are poorly fed at all times, and who when they become lepers practically starve. Is this to be wondered at? Leprosy is ~~is~~ not a more frightful or deadly disease than is neglected syphilis. Neglected phthisis gallops its victim to the grave, and could the leper be relieved, even to a limited extent, he would be in no worse a plight than is the subject of phthisis, cancer or neglected syphilis, except that he is avoided as a source of infection.

Kwantang.

Hainan, (Kwantang). The island of Hainan lies close to the southern coast of the province of Kwantang, of which it is a separate department. It consists of a central mountain system rising from a plain. The Chinese inhabitants are chiefly descendants of emigrants from Fokien, but the true natives, who live in the hills, belong to a different branch of the Chinese group, and have little communication with the people of the plains.

The report of Mr. Parker shows how much knowledge upon such subjects as leprosy can be supplied by educated men endowed with keen powers of observation. I am deeply grateful for the information from this outlying island.

Mr Parker's observations tend to show that the Chinese of Hainan believe leprosy to be hereditary, and that the disease can be acquired by connection or inoculation, ~~and by~~ Vaccination or inoculation for smallpox has never been suspected of conveying leprosy by the Chinese.

Evidently leprosy is very prevalent around Hoihow, from what I have learned from other sources.



Extract from Report by J. G. Kerr M.D., D.D.

Canton

Kwantung  
August 1897

Leprosy a scourge

Physical Features: - South and Southwest of Canton is a large well watered Delta with its tidewater mark. The soil is alluvial, rich and well cultivated, yielding fine crops of rice vegetables and fruits. North and east of Canton is hilly with well cultivated valleys along the river courses. Rainfall in the Spring months is usually abundant, the atmosphere being charged with moisture. During summer months, showers are frequent. The Autumn and winter months are usually dry.

METEOROLOGICAL REGISTER.  
FATSHAN near Canton

1887.	Mean Height of Barometer.	Minimum Temperature.	Maximum Temperature.	Mean Temperature, at 4 p.m. in shade.	Ds. Web Bulb.	Amount of Rain-fall.	Number of Rainy days.
	in.					in.	
January, .....	30.15	40	73	56.2	54.6	9	11
February, .....	30.16	40	73	57.0	53.5	4	8
March, .....	30.08	52	79	64.0	62.4	6	12
April, .....	29.98	55	86	73.8	69.6	6½	9
May, .....	29.48	69	90	79.0	77.3	7½	14
June, .....	29.85	70	91	84.5	81.5	4½	11
July, .....	29.75	72	92.6	85.0	80.8	6	19
August, .....	29.85	72	93.3	85.6	80.8	6½	14
September, .....	29.01	75	93	84.5	81.3	8¾	11
October, .....	30.08	62	86	77.2	72.0	2¼	1
November, .....	30.49	55	81	69.8	65.0	¼	2
December, .....	30.22	44	76	64.0	59.9	¼	3
Total, ...	..	..	..	..	..	58¼	115

J. G.  
Report by B. Kerr L.S.D., M.D., Canton

Distribution: - Leprosy is met with chiefly amongst dwellers in the plains.

Hereditiy: - The Chinese believe leprosy to be hereditary. In the betrothal of children great care is taken to be sure that no taint of leprosy exists in the family of the other party.

Contagion: - The belief that leprosy is contagious is not definite. In many instances lepers are allowed to remain in the family, while in others they are not. They are allowed to pass to & fro in the streets without interference.

In our outpatient rooms at Hospital a patient will fan the seat just vacated by the leper so as to blow away any emanations from the previous occupant.

It is a general belief that the disease runs out in the third generation.

Food. Fish, both fresh & salted is in universal use as an article of food which would not be the case if it were considered the cause of a disease so much dreaded as leprosy.

Sexual intercourse: - The Chinese believe sexual intercourse is one of the chief causes of propagating the disease.

Sequegration. There is a leper village a mile or two outside the east gate of Canton. The inmates go and come

without any restriction, & are engaged in begging or some kind of light work during the day, & return to spend the night.

Some lepers live on boats & go about on the river begging.

Tuberculosis, Syphilis & Malaria:- I have not observed leprosy in tuberculous or syphilitic cases. The leprous cachexia seems to be antagonistic to these two forms of disease. I am not prepared to say that there is no connection between leprosy & malaria, but I have not seen marked malarial diseases in leprous patients.

Vaccination:- No data exist by which an answer to this question can be given.

Treatment:- No treatment is curative; spontaneous cures are said to take place in which the disease is supposed to descend from the upper parts of the body & gradually go out at the lower extremities.

Palliative measures consist in giving the patient good sanitary surroundings. Nutritious food, & removing as far as possible anxiety of mind. Arsenic as a tonic and alterative is the drug which I use most. Iron & other tonics may be useful. There is a snake species of snake which is considered by the Chinese very efficient in the cure of leprosy.

Extract from Report by a member of  
The French Mission  
Canton

November 1897.

Translated from The French

Physical Features :- as above - in addition we read :-

"The principal cultivation is rice, & the plains, covered with rice fields, are under water during the summer.

Sugar cane is largely grown & so are pistachio nuts, sweet potatoes, tobacco, millet & indigo chiefly on the higher sandy soil. The mulberry abounds only in the Delta of the Canton <sup>(The Pearl)</sup> river.

In these regions the population is very dense. The mountainous country is but little cultivated, some few plantations of tea are to be found with stunted pines & coarse grass. Here the population is very insignificant.

Distribution :- Leprosy is most frequent in the humid plains. The Chinese declare that the Provinces of Kwang-tung & Fukien are <sup>alone</sup> affected on account of the heat & damp.

Heredity :- The Chinese do not doubt the effect of hereditary transmission, nevertheless there are admittedly certain exceptions, as for example when one of the parents only are contaminated. Leprosy tends to purify itself; thus we have two old leper Hospital in Canton dating from the 17<sup>th</sup> century which contained 7 or 8 hundred lepers; today there are only a few rare cases which spring up from time to time.

Contagion. The Chinese admit that leprosy is contagious, especially during sexual intercourse; but even by external contact, & by the effluvia from the patient is the disease considered communicable.

Various methods of communication are reported from time to time. A missionary is stated to have been beaten with a stick maliciously smeared with the blood from a leper & to have died subsequently of leprosy. Herms of ~~and~~ children is used as a medicine in several ailments by the Chinese, & the wine of a child tainted with leprosy is stated to have been the means of infecting a healthy person.

Food. Neither fish nor other food has been assigned as being the cause of leprosy. ~~Damp~~ Damp, sweat, emanations from the soil, contagion & hereditary transmission are held to be the principal causes.

Nevertheless an individual, the member of a tainted family, must practise severe ascetism if he does not want to incur the risk of developing leprosy. Heating foods particularly beef & ~~or~~ chicken, are prohibited.

Segregation :- All large towns in this Province have leper settlements, some where in their outskirts. The Imperial Government grants an allowance which is paid at certain times of the year for the maintenance of the lepers; lepers who desire to enter ~~or~~ one of these communities must pay a fixed sum to the head man.

It has happened that when a case of leprosy has declared itself the parents after having dragged the patient living

him alive. Usually the leper is sent to a leper village, but the richer ~~members~~ of classes keep them privately in their own homes.

Varieties. The Chinese admit 32 kinds of leprosy, but the moist & dry are the two chief classes; these practically correspond to the tubercular & ~~leuc~~ anasthetic types.

Treatment. The best is a regular life, & to have no intimate connections with the outcasts of tropical countries whose morality is proverbially very low.

Although the Chinese boast of being able to cure leprosy, I do not believe in the efficacy of their remedies; the virus remains at least in a latent state & any imprudence makes it break out afresh. They have certainly some remedies which ~~attract~~ retard & relieve the symptoms but none which radically cure. They use Datura Stramonium, arsenic Sulphur, mercury & a number of secret remedies.

The Tongquiere praise highly the Wang-nam the bark of a tree which is found in the forests of Annam. The same drug is used in France for the treatment of several skin diseases.

(1911)  
The Leper Village. Canton.

77<sup>00</sup>

The leper village is situated  $1\frac{1}{2}$  miles outside the east gate of the City. On the way thither lepers are met with, some begging, some pursuing their course citywards to beseech alms.

In front of the village is a large pond surrounded by tall trees; around these the inmates despatch themselves, & engage in such useful pursuits as rope-making, straw braid plaiting & such like occupations.

The Community turned out to meet my party, (my wife, a guide & a student - <sup>San yat Sen</sup> interpreter) & was surprised to find that we meant to enter.

A brick wall faced the village & we entered the door way, to find a roughly paved lane with low houses, all of brick & lime.

Many of the inmates could only, by immense strength to crawl to the doors of their abode to gaze on the foreigners; but the rest of the community, ~~men~~ <sup>men</sup>, women & children accompanied us, & conducted us to what answered the purpose of a town hall or reception chamber. The utmost excitement was evident; children



(192) 77p.  
rampaging & calling on their playmates to  
look at us, & their mothers stood round, most  
of them with a broad good natured smile on their  
faces. Not all were lepers; not by any means.

I believe not one half are lepers. The inhab-  
itants say less than half of the 650, or 500  
only, are accredited with leprosy. It seems  
that a village existed on the spot, before the  
lepers were driven thither by command of  
the Cantonese authorities. The village aborigines  
refused to move, & further, they did not object  
to the lepers coming; it increased their trade.  
Thus, with the usual divine nonchalance  
of the Chinese, they dwelt side by side with  
the lepers. Again, during the last big  
rebellion in China - the Tai Ping - several  
'taunted' families, sought refuge in the village,  
& the authorities either lost sight of them there,  
or did not care to follow them to their leprous  
den of hiding. This adds further testimony  
if such were needed to the statement, that  
although the Chinese declare leprosy to  
be contagious & so forth they practically  
ignore the belief.

February 3 1844

Dear Mother

Page 3 + 14

They made statements which refute all our notions of leprosy. They declared that not one of the non-leper residents ever contracted leprosy. This cannot be believed; but from what I saw personally, many of the men & women had escaped. Non-leperous people there certainly were & my audience informed me that the majority had gone out to their work. One woman, hale & hearty, I saw [who had had three leperous husbands, yet she was not a leper. Healthy children were seen at the breast of leperous mothers; boys & girls, of eight & ten were romping about, healthy, in every respect, whilst in others of the same age, leprosy had laid its foul hand. This village life is in no sense segregation, it is merely a refuge; the leper inmates cohabit with the healthy; the leperous & non-leperous children play together; the adults sally forth to beg in the streets of Canton & enter the shops to claim food. Perhaps the most interesting feature in the village, was the fact, that

5  
65

1. The head man, <sup>(194)</sup> through whose <sup>77d</sup> fingers <sup>77d</sup> all  
the money passes, had been in the asylum  
in that function twenty two years -  
the longest lived leper in the community.  
He was reputed to be a rich man, he was  
certainly well dressed in fur & silk, it  
was January, heavy clothing was requisite.  
He smoked a wonderfully decorated pipe  
he wore jade ornaments, in fact gave  
evidence of being a man, well off. His  
fingers however were fewer than they  
had been; his ears were cropped close;  
his left eye stared when his right was  
closed, & his face & neck bore signs of  
old leprous sores. Still he was fairly  
strong & all this after being a leper for  
a quarter of a century. It shows what  
good food & clothing do for the leper;  
it is the key note of all treatment.  
In 1873 Dr. Hony, the well known Clinician,  
man, who was educated in medical  
science in England, & practiced in

1. Canton, stated that there were two leper <sup>1957</sup> asylums near Canton. <sup>770</sup> One having about seven or eight hundred inhabitants & the other over a thousand," & adds "the greater proportion of whom however, are merely descendants of lepers, with little or no trace of the disease upon them."

At the present moment <sup>100</sup> No. 1594 there is but one village for lepers near Canton, ~~with~~ a distinct proof of the clearance of the disease around Canton.

In addition to the lepers met with in the village, from time immemorial, several hundred lepers dwell on the river in boats. —

Report by Roderick I. J. Macdonald M.D. Edin:

Fatshan

near Canton

May 18<sup>th</sup> 1894

Leprosy a scourge  
Probably increasing.

Physical Features: - Fatshan is distant from Canton only 14 miles & the physical features of the ~~district~~<sup>town</sup> are practically similar.

Fatshan is on a creek of the Pearl river which is tidal up to beyond the city. The plain is everywhere diligently cultivated. The population is very dense.

Distribution: - Leprosy is more common in the plain, but it is met with along the water-ways ~~side~~ extending into the hilly country in the north of the province as far as Shinkwan to my certain knowledge.

Heredity: - Hereditary transmission is believed in. Some say leprosy dies out in the third generation, some at the fifth. I have not been able to learn whether they believe that the third generation secures immunity from the possibility of contracting leprosy or not.

Contagion: - ~~There~~ Belief in the contagiousness of leprosy is proved by their action in driving lepers out of home & home & refusing to live with them. In country districts the Chinese are more careful to insist on segregation than in the towns. The Chinese say leprosy is contracted by sexual

intercourse; by continuous contact with lepers, or by 'Fung Shui' (spiritual) influence.

Food. ~~At~~ Many kinds of food are mentioned as favouring the development of leprosy.

Shrimps, mussels, dog, duck, wild fowl beef, spirits, goose etc. are all regarded with suspicion by tainted families. Handling manure (human), sleeping on an infected pillow, witchcraft, measles, small pox, dead men's 'breath', night dew & bathing are among the numerous alleged causes.

Segregation: Lepers are segregated in villages or leper boat communities. In Fatsan lepers are allowed to be in the streets & handle food on the stalls. As these leprosy being less evident is not subjected to segregation or in fact nowhere is segregation sufficiently strict to be effective.

Allied diseases: - I cannot prove any connection between leprosy & any other disease.

Vaccination: - I think leprosy is on the increase with the increasing population of the country, & that vaccination is a slight factor with the increase. Lack of efficient segregation however accounts for most of it.

Treatment: - I know of no native specific. Lepers have a notion that eating the flesh of a dead child will cure them. Lepa women believe they can get rid of the disease by having connection with a healthy man. All modern European remedies have prove unsatisfactory.

*Leprosy*

# The District & port of

Swatow.

The port of Swatow is situated at the <sup>w</sup> mouth of the Han river and serves as the place of embarkation for the enormous coo-lic trade of the densely populated regions of the <sup>part of the</sup> province of ~~Pei~~ <sup>Pei</sup> Next to Canton it is the port from which the majority of Chinese ~~start~~ <sup>set out</sup> on their voyage to Southern fields of labour, in the Malay peninsula, the French provinces of Indo-China, the Dutch Settlements in Java and Sumatra, Borneo, and the islands of the Pacific generally. It is important therefore to be thoroughly well acquainted with the Physical features of this region, as the ~~district~~ <sup>districts</sup> is one of the two ~~provinces~~ <sup>districts</sup> where Leprosy is endemic; and from whence it is spread by the numerous emigrants.

Physical Features:- (gathered from the reports of Dr Cousland and Dr Anna Scott) The Prefecture of Swatow in the Province of ~~Fukien~~ <sup>Fukien</sup> extends along the coast of China for a distance of 150 miles, and extends inland about 80 miles. The elevation of the plain is only a few feet above sea level; inland the hills ~~reach~~ <sup>reach</sup> a height of some 5000 feet. The plain consists of Delta <sup>of</sup> riv-

ers, and is wholly alluvial. Vegetable mould is almost unknown, and the soil requires constant manuring. The contents of cess-pools are extensively used for this purpose. Every scrap of land that can be cultivated is most carefully utilised. Rice is the chief crop, but sugar-cane, sweet potatoes are extensively grown. The population of the plain is very dense, but no correct estimate can be formed. The rain fall is similar to that of ~~Hong~~ Hengkeng, and the seasons are the same (see Hengkeng). The Cultivation of rice (paddy) necessitates irrigation and the humidity of the district is no doubt largely affected thereby.

~~DISTRIBUTION OF LEPROSY~~ Dr Cousland's report ~~DISTRIBUTION OF~~  
DISTRIBUTION OF LEPROSY:- The Chinese are of opinion that leprosy is much more common on the plains, proportionately to the population, than on the hills.

HEREDITY:- Belief in heredity exists to some extent. A native before adopting a child ~~is~~ is very chary about taking a child either of whose parents are lepers.

CONTAGION ~~they~~ <sup>is</sup> not believed in, so long as the leper is not actually offensive from Ulcers or discharging sores.

FOOD:- No food is assigned as a cause throughout the entire region; but it would seem as though each locality had its own ideas; e.g., in one place one must not give a child certain kinds of Fish, grain, fowl or flesh for 4 months after Vaccination, measles or ~~Small-pox~~ <sup>Small-pox</sup> ~~as they should develop~~ <sup>for fear of developing leprosy</sup>.

~~There~~ There is no general agreement as to these articles; indeed, in one place, the only kind of fish forbidden, is the only kind allowed in another. Coarseness of texture seems to be the one thing to be avoided.

SEGREGATION:- Lepers are allowed to move about freely; retreats for lepers are not maintained now-a-days. Formerly segregation

*Kwang-Tung*

*district of Swatow*

*Kwang-Tung*

*reach*



was in a all probability observed, for there are still villages called Leper settlements, the inhabitants, few of whom are lepers are drawing a certain amount of rice from the public funds. They also possess prescriptions and secret concections for the treatment of leprosy.

TUBERCULOSIS, SYPHILISIS and MALARIA:-I have not observed any connection between leprosy and any of these diseases. Leprosy is not more common in malarious districts.

Vaccination:-The Chinese affirm that leprosy has increased within the last 30 years or so; but there is no evidence to show that vaccination has anything to do with it. Vaccination was introduced about 40 years ago. Whether the increase of leprosy is general or not it is difficult to say; of the increase in some towns there is no doubt.

TREATMENT:-~~is~~ The best internal treatment is Arsenic; patients at the Hospital are given a month's supply of Asiatic pills. These consist of 1/8th of a grain of Acid: Arseni:

~~~~~ with Black pepper, administered thrice daily. Many patients have taken these pills for a number of years with much benefit to their health.

In one town, 25 years ago, there were 19 lepers; 4 years ago there were said to be 390. In my chief assistant's town, 40 years ago, there were 19 lepers met with; now there are 10 at least. The people say that leprosy was brought to the district by coolies coming back from Siam and Annam where they had been resident for some years.

Dr Anna Scott's Report.

PHYSICAL FEATURES:-See above.

DISTRIBUTION:-On the hills the population is rather scanty and leprosy is said to be more rare proportionately to the numbers than on the plains where it is very rife.

HEREDITY:-The natives believe in hereditary transmission, but admit that the exceptions are numerous, and ask why it is that the children of leprosy parents so often escape the disease.

CONTAGION:-This is believed in to a certain extent only. Sleeping in the same bed, using the same towels, combedes etc. The Chinese do not as a rule fear living in the same house, sitting at the same table or handling the same articles. They often buy food prepared by lepers and have no fear of contagion. They also hire lepers to care for their children and seemingly have no thought of danger.

*are considered the means of infection*

FOOD:-The more ignorant class of natives assign as a cause of leprosy the eating of the Lin fish, the fighting cock, the laying hen and the flesh of geese. The better class say food has nothing to do with it.

SEGREGATION:-To a very limited extent is segregation observed. I knew of only two or three places where a dozen or so of lepers are separated from the people. The manner of segregation is very imperfect, the lepers being allowed to make purchases and sell their products at the common stores and vegetable stalls.

TUBERCULOSIS, SYPHILLIS and MALARIA:-I have thought I could trace a connection between leprosy and tuberculosis. The children of lepers are often consumptives.

VACCINATION:-I answer a most emphatic "Yes" to this question. The increase of leprosy among children is frequently *remarked upon* by our (Mission) people and I have been forced to the conclusion that the vaccination from arm-to-arm, practised by a class of Chinese (quack) Doctors, has caused this very marked increase.

TREATMENT:-Arsenic and Iodide of Potassium internally; Gurjun oil and Salicylic ointment externally have seemed to relieve and retard development. I knew of no remedy either foreign or native that produces permanent good. The native drug most in use, in this neighbourhood, is the Mugwort and it is prepared from the leaves of Artemisia Chinensis. This woolly substance is burnt into the tendons of lepers and the children of lepers with the purpose of preventing the contractions of leprosy.

Macao

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Part of Kwangtung Province  
Leprosy villages

The little Portuguese settlement of Macao, the oldest European settlement in China, having been occupied since the year 1557, is situated on a rocky, granite peninsula, at the entrance to the Canton river.

I visited the leper establishment of Macao in January 1891, and forwarded a Report to the National Leprosy Fund, but have heard nothing of it since.

1. In the settlement of Macao, in connection with one of the Churches, a small leper hospital is maintained for Portuguese only. Here never more than three or four inmates have been secluded at a time, and this may be considered to represent the actual number of Portuguese afflicted with the disease. The entire Portuguese population is estimated at 4,476, and taking the maximum number of lepers as four, the proportion would be just under 1 per 1,000.

alone

This must be considered a very small number, when one considers that the Portuguese settlers, largely Mongoloid in feature, and yellow skinned through intermarriage with the Chinese. They dress in European style, live for the most part in European houses, but live on almost the same food as the Chinese, namely, pork and rice.

are  
dwell

2. The male asylum for Chinese lepers is situated on an island, some three miles by sea from Macao. The village is out of the road of all sea traffic, and is admirably isolated. A shelving, shallow, sandy shore renders landing in anything but a skiff unpleasant, and at times impossible, ~~except by a long wade.~~ Hence the very character of the coast acts as a natural barrier against leper deserters.

generally  
inaccessible

The village consists of some twenty huts of bamboo and palm leaves, snugly pitched on flat ground, surrounded by a girdle of hills. These again serve as a prison wall, as the lepers say they have not strength to scale the heights. That they are not neglected by the Clergy I had personal proof, for a service was being conducted by a native (leper) pastor during my visit. The Bishop, or one of the priests from Macao visits the settlement once a month, ~~to~~ celebrate Mass, and supplies them with stores, and such luxuries as tobacco, &c.

low

The lepers at that time varied in age from 10 to 63 years, the total number being 40. This is the nearest attempt at complete isolation I have seen, and unless the leper is confined in a high-walled asylum, it is the nearest approach to perfect isolation one could obtain from the "village" form of seclusion.

A plot of ground testified to the meagre powers of cultivation, owing, the lepers say, to physical weakness on their part.

Isolation may be desirable, nay imperative, but

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Macau.

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depressing scene never to be forgotten, and a more pitiable picture, than that presented by the few lepers who could walk the ~~one~~ hundred yards or so to see my boat leave their shore, has never been painted.

3. The female village is also upon an island, but separated both from Macau and the male village island by a strip of sea some three miles in width.

Here the inmates are isolated by the natural surroundings, and housed in a well-built stone building. All necessary steps are taken by the Portuguese authorities to promote their comfort. The only danger to which the inmates are exposed is a raid of thieves, who do not hesitate to break into the asylum and steal blankets off the patients. ~~This indicates to what depths a Chinese thief will sink.~~ This is especially the case at the beginning of winter, when blankets are served out. It illustrates to what depths a Chinese thief will sink, and it also bears witness to the fact of how little the Chinese fear contact with the leper or his clothing.

The separation of the sexes has only been enforced since 1885, before which time they dwelt together, but the increase in population demanded intervention.

Dr. Silva's statement as to numbers and admissions is interesting and very useful. Thirty nine inmates were in the male village when he sent in his record, and the average annual admittance is 15.

Taking 40, the number of inmates at the time of my visit, as the average, it gives as the mean life of a leper (after admission) as 15 : 40, or an average of 12 years and 8 months. *The lepers sent into the Asylum are all far advanced in the disease before admission.*

The number of females was 25, with an average admission of 6, a statement which suggests several queries.

- a) Do females live longer than male lepers after being attacked?
- b) Are female lepers secluded at an earlier stage of the disease than males?
- c) Is the proportion of female to male lepers always so small?
- d) Are the habitations and food of a better description in the female than in the male village?

These questions will be discussed in the sequel.

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MACAU.  
THE LEPPER VILLAGE.  
Answers to questions X  
by

Dr James da Silva

Colonial Surgeon.  
ANSWERS.

QUESTIONS.

1. What is the average number of males in the settlement?
2. What is the average number of females in the settlement?
- ~~3. Does the place where the lepers are settled belong to China or~~
3. Does the place where the lepers are settled belong to China or to Portugal.
4. How are the lepers maintained?
5. Is money sent?
6. Is food & clothing sent?
7. What is the average cost?

1. At present ~~there exist~~ there exist 39. The annual average of admission is 15.
2. At present there exist 25. The annual average of admission is 5.
3. The territory is in dispute.
4. A boat sent weekly by the Portuguese government to the establishments carries food for every patient.
5. No.
6. Yes.
7. About \$20 (twenty dollars or £2) per head, per annum.

REMARKS.

Before 1885, the patients, male and female, were dwelling together, but the population beginning to increase, not only by addition of admitted patients, but also by children born to the settled ones, the government was obliged to interfere and separate the sexes. Since then Males stay at D. Jesus island, where they live in matched houses; Females inhabit a stone building on the island of Colewan some three miles away.

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Macao. (Kwantung Province)

Letter from Mr. E. P. Werner H.B.M. Vice Consul. Macao.

Lockyer

Leprosy prevalent.  
Segregation practised. (see Leprosy village)

Macao, a rocky granite peninsula ~~belonging to~~  
~~Portugal~~ at the mouth of the Canton river, belongs  
 to Portugal. It is peopled by the Portuguese  
 a half caste. The Portuguese, <sup>now</sup> a half caste  
 people to the number of some 7000, represent  
 the European element of the 70,000 occupants.  
 The island is undulating, here other <sup>low lying</sup> ~~low lying~~  
 with cultivation of vegetables & rice. ~~E~~  
 Average summer temperature 84°. Winter 66°.

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conditions, e.g. during assumption of the squatting attitude.

Sexual intercourse will transmit the disease.

Food: - No modern food has acted as a cause. Leprosy originated in ancient times and present cases have all been transmitted from previous ones.

Segregation: - Separation ~~of~~ asylums and separation of the sexes rigidly maintained. This endeavour to segregate

leprosy in Macao is the most complete attempt of the kind in China

Tuberculosis, Syphilis & Malaria: -

There is no connection of leprosy with any of these disease according to Chinese beliefs; they consider all these as new diseases but leprosy is from ancient times.

Macao.

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Distribution: - The Chinese lepers met with in Macao are sent to the leper asylums, one for males & one for females, on separate islands off the littoral of Macao. There they are maintained in food and clothing by the Portuguese authorities. There is a home for Portuguese lepers in the city of Macao under the care of the R.C. mission. Two or three Portuguese lepers ~~are~~ usually occupy the house.

Heredity: - The natives believe that the disease is inherited for three generations only.

Contagion: - The Chinese do not fear contagion, but owing to the belief in the presence of numerous germs (called 'worms' by the Chinese) in the lepers surroundings, infection is possible under certain



# Macao

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Vaccination: - No information as to the connection of Leprosy with the use of vaccine matter.

Treatment: - The flesh of the Hung she a very rare snake, dissolved in strong wine, and internally, is said to be a cure for the disease.

Observations. The number of Lepers in Macao it is well nigh impossible to estimate, as their numbers are continually being altered owing to the free intercourse with China. In the male asylum during my (the writer's) visit in 1891, there were 49 males & 32 females. This however cannot be used as a estimate of the relative prevalence of Leprosy to the healthy population as Lepers are beggars & migrate freely, & some come to Macao when very feeble in purpose to get sent to the Asylum.

Mucos.

90 3

Name.

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Lower classes of the  
of the Portuguese mingle freely with the  
Chinese in every day life, & their habits of  
life, ~~food & dress~~ almost identical  
with the Chinese. The whole class are more  
~~the~~ Mongolian, <sup>than European</sup> in appearance.

| Name. | Age. | Address. | Disease. | Vol. and Page. |
|-------|------|----------|----------|----------------|
|-------|------|----------|----------|----------------|

Macao.

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|-----|
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| 3   |
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Letter from Dr. Gomes da Silva  
 Colonial Surgeon.  
 October 1894.

Leprosy

Extracts:-

The climate of Macao is considered to be healthy, instances of longevity are frequent. The highest land in the island does not exceed 400 feet. Rice is cultivated in the plains outside the city. Formerly large numbers of Chinese lepers were allowed to beg in the streets of the city, but now they are all removed to an island which is under the Portuguese jurisdiction, or are sent back to their native places.

Many Chinese mendicants affected with the disease live in the neighbourhood of Macao. Cases of Leprosy are sometimes

Name.

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seen amongst the Portuguese.

The summer ailments of Macao are: -  
malarial fever, diarrhoea, dysentery &  
hepatic troubles; during the winter months  
the ailments of more temperate climates are  
met with.

The medium temperature of Macao is 73°F,  
the maximum & minimum being res-  
pectively 96°F. & 42°F.

The climate is very damp & foggy during  
certain seasons of the year; the hygro-  
meter marking sometimes 100°.

Island of Hainan  
Part of Kwantung Province

92

Extracts from REPORT of E.H. PARKER Esq: H.B.M.'s Consul.

Bladen

HOIHOW

Island of HAINAN. ~~CHINA~~  
China.

having  
Hoichow  
as its  
principal  
Seaport.

PHYSICAL FEATURES:- HAINAN is an island off the <sup>w</sup>estern coast of China in lat: 18 N. Inland it is mountainous, but around ~~the~~ Hoichow the country is a rather flat rolling plain. The town is on all sides subject to salt water influence. Soil light and of the nature of sandstone. Cultivation everywhere; graves exceedingly numerous; population thickly spread over the plain. Good water <sup>in the town</sup> rare, and must be brought in from the country. The Chinese inhabit only the northern and western shores of this island. The aboriginal tribes are of two classes

the semi-civilised--the Shu-li and the wild--the Sheng-li. The Chinese settlers came from the province of Kwang-tung where Leprosy is rife. The aboriginals are allied if not identical with the Laos of northern Siam, a mixed Caucasian ~~and~~ and Mongolian race at one time of great prominence.

So far as is known the Chinese alone are ~~the~~ leprosy; the aboriginals never mixing by marriage with the Chinese on the coast.

HEREDITY:- This is believed in universally. Sometimes the ~~the~~ disease does not manifest itself, but eating corrupt food especially fowls, and consorting to excess with even healthy women is said to "bring it out".

CONTAGION:- The Chinese believe leprosy to be contagious only by having connection with a leper. Leprosy women think they can "sell leprosy" i.e., get rid of it, when slightly attacked by getting a healthy man to have connection with them.

FOOD:- No food is considered to <sup>be</sup> an initial cause; bad food only serves to "draw it out".

SEGREGATION:- It is observed strictly for sleeping purposes. Lepers are made to sleep in villages apart; if in towns they have to sleep in the streets. Further it is not believed that ~~the~~ sleeping together will contaminate; there must be contact as by sexual intercourse, kissing or contact of parts naturally or unnaturally. Moreover lepers are free to beg and to hawk goods during the day.

VACCINATION:- I have never heard it suggested that vaccination in any way affects the spread of Leprosy.

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Island of Formosa.

The "continental" island called Formosa (The Beautiful) by the Portuguese and Tai-wan (Great Bay) by the Chinese is 200 miles long, and varies in breadth from 20 to 80 miles. Through the centre runs a fine mountain range, culminating in Mt Sylvania, 11,300 feet high. The 'steep-to' side is the eastern, where the coast often presents magnificent precipices. To the west the slope is more gradual, and leads to a fine plain, as shown on the Map. Its area is about half that of Ireland; the tropic of Cancer cuts ~~its southern portion~~ <sup>its southern portion</sup>, and it is separated from the coast of Kwantung and Fokien by the Formosa Channel, which has an average width of 100 miles.

Of ~~the~~ geology little is known, but the usual granitic and volcanic rocks, Archaean beds, and Coal Measures of the adjacent mainland are known to extend into Formosa.

It is even more tropical in its fauna and flora than the adjoining mainland, and the rainfall on the east side is excessive, being 74 inches at Tamsui in the north, and 95 at South Cape in the south. Otherwise the remarks upon the climate of Kwantung apply very well to it, with one exception. Along the east coast of Formosa the winter is the wet season, especially where the mountains are so high that the strong North-east wind is forced to ascend quickly. In China, July ~~comes to be~~ the wettest month of the year.

on the other hand

The inhabitants belong to two races; the Chinese and the aboriginal Igorotes. The Chinese are settled on the low lands, where they have been for centuries, ~~at~~ the mountains and the east coast still remain to the natives, who live in deadly feud with the Chinese.

while /

[Since this was written in 1894, Formosa has passed into the hands of Japan 1896]

The aborigines are of Malay stock, and still speak a dialect of the Malay language. They are distinguished by the Chinese as the Cheng Fan, or savages, and the Shu Fan, or Pe-po Fan, who are half "civilised", wear the Chinese dress, and alone form the bond of ~~connection~~ <sup>connection</sup> between the Chinese and the wild Cheng Fan. They dwell along the foot-hills on the western side of the island. The Shu Fan keep to their mountain fastnesses, and very little is known of them.

or Pe-po Hoans / intercourse

The only Chinese who have shown courage enough to cope with the aborigines are the hardy Hakkas, who of late years have been interposed between their less-warlike compatriots

# Korea.

Lock 96

~~The mountain chain~~

Leprosy in South:

Diminishes towards North:

Not a great scourge.

Koreans possess a Caucasian strain

The mountainous peninsula of Korea forms the Eastern boundary of the Yellow Sea. Down the centre of the peninsula runs a chain of high mountains, descending abruptly to the East, & more gently to the West. In this they are like those of Shinkiang (see Manchuria) which they probably agree with in structure. They average over 5,000 feet in height.

Except along the valley of the Yalu river, Korea has practically no stretch of low lands. Numerous streams flow to the west & south; on the east there are many small mountain rivulets.

Korea stretches from  $35^{\circ}$  to  $43^{\circ}$  N. lat.

(885)

Formosa.

and the daring natives, and have proved themselves a ~~war~~ resolute foe.

Locky

*The aboriginal* The Chinese in Formosa number about 2,500,000; the ~~amount of~~ *amount of* ~~native~~ population is unknown.

We have in Formosa the spectacle of the Chinese, chiefly from the cradle of leprosy, face to face with a people of entirely different race and habits, and it is interesting to try and trace the spread of leprosy under such conditions.

Dr. Angeans's letter from north Formosa brings to light the fact that leprosy was carried thither, as to so many other countries, by the Chinese. He states that the cradle of leprosy in Formosa is on the west coast, at a point where Chinese from Fokien would naturally land.

*for*

I was very anxious to establish as a fact whether or no the aborigines had leprosy in their midst; but except for Dr. Angeans's statement that it is not known among the Pe-pohans, the semi-civilised natives, I have little else to go upon. Neither Dr. Myers nor Dr. Cairns, whom I interviewed on the subject, have any data to give. Surgeon-Major James, A.M.S., ~~who~~, who travelled some distance into the interior from the south, observed no lepers ~~amongst the many faces~~, even amongst ~~the~~ the beggars.

*amongst*

*and*

Now the "civilised" aborigines would be more likely to contract leprosy than their wild brethren, seeing that they must have mingled with the Chinese to acquire their mode of culture. ~~It~~ *If* they are free from leprosy, after such exposure, it might reasonably be inferred that their small susceptibility ~~stands~~ *stands* in good stead as a factor in the attempt to prove that leprosy is unknown among the savage aborigines. Such I believe to be the case, and though the evidence might be stronger, we may fairly look upon Formosa as a place to which leprosy has been carried by the Chinese, *but that the enmity between the races has forbidden inter course thereby saving the aborigine from the curse of Leprous infection.*



~~Dr Angear Tamsui, Formosa~~

Communications

I Dr Angear, writing from Tamsui, north Formosa, Nov: 1894 reports:-  
 "Leprosy does exist with us amongst the natives (Chinese) who ~~reside~~ reside ~~chiefly~~ along the West coast. In fact almost every case comes to Hospital from a place some ten miles from here; the disease is endemic in this quarter, ~~and the locality is~~  
 The locality <sup>consists</sup> consists of a large fertile plain, <sup>and</sup> populated by Chinese, and a few of the inhabitants migrate to other parts of the island. This ~~locality~~ <sup>region</sup> ~~is~~ <sup>was</sup> ~~reputed to be~~ one of the first places occupied by the Chinese, now some three hundred years, when they descended on the Formosan coast after the expulsion of the Dutch. The Immigrants came from the mainland opposite, that is the province of Peking. Among the Peop-leans (civilised aborigines) leprosy is not known to exist."

II Dr Meyer, writing from Takow, south Formosa Oct: 1894 reports;-  
 "Leprosy does occur in South Formosa, but is, comparatively, very rare. Both varieties are met with; <sup>in the</sup> tubercular I have ~~found~~ found Ideform <sup>in</sup> pills have a most marked and beneficial effect, and so has Phillippe of Jamaica, whose attention I called to it, and he reported to the B.M.A. branch in most enthusiastic terms." ~~Dr Murray Cairns~~

III Dr Murray Cairns of Tainanfu, south Formosa Jan: 1896 ~~sends~~ <sup>sends</sup> a full report.  
 Physical features:- Sea-beard. Soil very sandy. Most of land ~~is~~ under cultivation (rice paddy). Rainfall the usual ~~is~~ tropical conditions. Population dense in cities: large rural population.  
 DISTRIBUTION:- The hill population being aboriginal opportunities of observation have been almost nil.  
 Heredity:- I have not heard any expression of ~~such~~ belief <sup>in heredity</sup>.  
 CONTAGION:- The natives may believe in it, but judging by the freedom of social intercourse between the affected and unaffected, the belief would not appear to give rise to any special ~~isolation~~ <sup>isolation</sup> society.

~~is assigned as a cause.~~  
~~of segregation has come under my ob-~~  
~~every where, which~~  
~~who well~~  
~~case of~~  
~~il,~~