ON THE ABSENCE OF COW’S MILK FROM JAPAN; ITS BENEFICIAL CONSEQUENCES. 1

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One of the most striking features of that most curious of countries, Japan, is the singular scarcity of domestic animals. There you will never find the fields dotted with oxen or horses drawing the plough; for the Japanese are hardly acquainted with that time honored tool and symbol of agriculture. Even to serve under the saddle does not come natural somehow to the Japanese horse; “a grudging, ungenerous animal, trying to human patience, with three movements (not by any means to be confounded with paces), a drag, a roll, and a scramble.” 2 Horses and cows are only seen in cities, and on the roads as pack-animals; there are no pastures sweet. Silence is here really a striking magnificent feature of the rus bordom. The cone-shaped mystic Fushiyama rises, dimly seen, in the midst of an awful quietness. No lowing heard west of the sea; the barn-yard fowl’s is almost a voice clamantis in deserto. He reminds the farmer, but only in the morning, that, even under these stagnant circumstances, time flies. Here and there, however, a dog howls: that is all.

The animal life of the land is set apart, concentrated, and taken care of, as in a kind of common preserve, a general park or reservation, in the interior of the land; where it browses and prances and bellows and reproduces itself, contaminating as little as possible that high type of eastern humanity which is now making ready for the baptism of western civilization.

But let me say, in passing, that what the European in Japanese fields misses, I believe, more than anything else, is the music of those silver bells, Falling at intervals upon the ear, With cadence sweet. 3

I intend here only to speak of one of the consequences of this quaint absence of animal features, of something not poetical at all, but practical in the highest degree. The cow, in Japan, is not wanted for her milk; otherwise she would lift her voice more boldly in the landscape. Milk, being an animal product, falls under the general condemnation which excludes everything that has pertained to a living body from the alimentation of man. Now, it is true this latter rule has a strange exception, for the animals of the chase are eaten. Let us not shrug our shoulders at the apparent inconsistency; the Oriental mind understands itself. Thus it happens that, as Japan may not use cow’s milk, the Japanese mothers are compelled by stress of circumstance to suckle their babes themselves; and these delicate dwarfs have become the most perfect, the most successful Alaeus Mates of the world.

Artificial lactation is altogether unknown. The children are suckled until the sixth year, and you may hear them ask for the breast in a language as correct as that of adults. But it must be said that the mother’s milk is not the only food of the little Japanese. River fish enter for a large part into their diet; after the first year some other elements of general alimentation are added to their bill of fare. But the mother’s milk always remains the plat de résistance. Nature and society have endowed this notable mother with some great and peculiar advantages. Here menstruation returns only a year and a half after birth. Moreover, rules dating back to time out of mind insure the young mother a long time of especial attention on the part of the husband and her whole household. The existence of the concubinate is also, strange as it may appear, a considerable relief to the Japanese matrons. All that must tell favorably on the health of the children. Even the infantile minds find themselves in a wholesome, pleasant medium. Nowhere are children so constantly, so lovingly taken care of. Japan, it has been said, is the very paradise of childhood. Nowhere are the adults so well qualified to enter into the nascent ideas of the infant, to play with him; for the nature of the Japanese contains an extraordinary proportion of simplicity and childlike.

The principal food of the mothers, besides the everlasting rice, is fish, shrimps, sea-weeds, and other products of the sea. No wine or beer enters into the diet of a lactating non-lan. The great reward which Japan reaps from this meritorious care of motherhood and childhood is the absence of rachitism. All observers have referred to the fact, and to the absence of rachitic pelvises, which is the consequence of it; hardly any difficult confinement, and a very small percentage of deaths in child-birth. Now, I think I am not wrong in affirming that the chief and central source of these great sanitary blessings is the absence of cow’s milk.

It is a remarkable fact that Japan, which, according to Dr. Brush, 4 ought to be exempt from tuberculosis, is very far from being so. It is probably well known to you, that, according to the observer, tuberculosis passes from the cattle into the human organism. In Japan, this disease exists mainly in the upper classes where, evidently cow’s milk has nothing to do with it, and, where it is easily explained by a systematic custom of close inter-marriage, a system of, according to our ideas, incestuous inbreeding, which has endured for many centuries; this is the same process by which the disease is developed in cattle, according to Dr. Brush. It seems, therefore, that there is no necessity of transmission, and that the human organism worked, upon by the same causes will show the same effects. Strange to say, the mountaineers, who have the most intimate relation with the isolated Japanese cattle, on their breeding ground, are practically free from tuberculosis. There is also an historic fact which goes much against Dr. Brush’s theory: much were introduced into Japan, from China, in the third century, and tuberculosis is known to have existed there in that same high-bred class from times immemorial. The aristocratic disease, tuberculosis, was certainly communicated to the common people through a very extensive concubinate; and I am equally convinced that it was the milk of the mothers that preserved the lower orders from destruction.

Thus it would appear that the absence of cow’s milk, though not a blessing in the sense of Dr. Brush, has had in another way an exceedingly beneficial influence on the general health of the race.

Racial immunities, or the natural resistance of a race to certain diseases, are at least partly transmitted by the mother’s milk. It is thus, as I said, that this race is free from rachitism. And there is another privilege of the same kind transmitted through the milk to the sucking. The iodized sea-foods, more especially sea-weeds and the fats and oils of fishes, which have for so many centuries formed a considerable proportion of the 2 See "The Relationship Existing between Human and Bovine Tuberculosis," by E. F. Brush, M.D., Mount Vernon, N. Y. Read before the New York Academy of Medicine April 28, 1888 (V. Y. Med. Jour., June 15, 1889). Also "On the Coincident Geographical Distribution of Tuberculosis and Dairy Cattle," by E. F. Brush, M.D. Read before the Medical Society of the State of New York at its eighty-fourth annual meeting (N. Y. Med. Jour., March 8, 1890). Also "Consanguineous Breeding in its Relations to Scrofula and Tuberculosis," by E. F. Brush, M.D. Read before the Society of Medical Jurisprudence and State Medicine, March 20, 1890 (N. Y. Med. Jour., June 29, 1890).
diet of nursing mothers, have without doubt helped to build up the
racial resistance to their national inheritance, syphilis and
tuberculosis.

In the case of tuberculosis this resistance is so efficient that
even the child of a tuberculous mother, fed on what might be
supposed to be tuberculous milk until the sixth year, in the ma-
jority of cases remains unaffected. Now, if a tuberculous cow's
milk transmits the disease to the human organism, why should not
the tuberculous mother's milk transmit it? Even we do not
object to the suckling done by our own tuberculous women,
which indeed extends generally over but one year, yet their off-
spring, for the most part, are unaffected by the disease, at least
in childhood; now it is more than likely that, if there were a
contagion through milk, its effects would be apparent in the
children. All these benefits would, of course, be cut off by the
substitution of a foreign element to the natural means of trans-
mission.

While I was in Japan, I conceived an idea quite satisfactory,
at least to my own mind, of the manner in which the iodized
food renders its great service to the Japanese race. It is
generally supposed that the contagion of tuberculosis is com-
unicated by the inhalation of particles of sputum or some other
matter in which they are mixed. It is my firm conviction that this is not so. I
believe that these germs of disease are swallowed with the saliva,
and alter the nutrition through the chyle and mesenteric glands.
In an organism fed directly or indirectly by iodized substances,
the poison meets and is neutralized by its own antidote. The
Japanese mother, as by an instinct, never kisses her child on the
lips. Indeed, the whole institution of kissing (except in the
sexual act) is practically unknown in Japan. It is even formally
censured because the Japanese know that the kiss is the carrier
of tuberculosis and syphilis. I have no doubt but that the careess
of the sick have added enormously to our own statistics of tuber-
culosus, and have caused much of the mischief which Dr. Bruck
would attribute to cow's milk.

None of the following has struck any other observer,
or if I am the first to call attention to it. There is another,
an occult and insidious danger which Japan escapes by letting
cow's milk alone. If they drank it as we do, it is very probable
that they would drink it as we do, nolentes volentes, mixed with
a noxious fluid. Now, thanks to the rice plantations, the water of
Japan is by no means the best of things; it is even the worst, for
it is pregnant with typhoid germs, being continually polluted with
human excrements and swarming with the brood of the distoma.
Total abstinence from cold water, an inverted teetotalism, has
been the salvation of Japan. Water is only drunk boiled with
tea; the boiling kills the typhoid germs and the eggs of the dis-
toma.

THE ETRUSCAN RITUAL BOOK.

By Daniel G. Brinton, M.D., LL.D.

The discovery by Professor J. Kroll of the fragments of an
Etruscan book, written in the time of the Polymes, and pre-
served in the swathing of an Egyptian mummy, is an epochal
event in archaeology and cannot fail to excite the liveliest interest
in learned circles. It has just been issued by the Vienna Academy
of Sciences, and in a manner entirely satisfactory to the most ex-
acting critics. The mummy bands on which the inscription is
written are reproduced photographically with the greatest care,
and the judicious text and commentary by the editor are just what
are needed, and no more than are needed, to place the material
for a thorough study of the document in the hands of the reader.
The circumstances of the discovery of the mummy and the in-
scription have been already briefly referred to in Science, Sept. 23.
The first who noticed the writing was Professor Brugsch, in 1888;
but he did not consider it of Etruscan origin, and so did Captain
Maximus, who published a portion of it in 1879, although that versatile
writer was the author of a book on Etruscan remains. Professor
Kroll, in February, 1891, was the first to make this remarkable identification.

1 Die Etruskischen Mumienblenden des Academischen National-museums. Be-
scbreibungen und herausgegeben von Prof. J. Kroll. Wien, 1892. In commission
bei F. Tempsky.