YET MORE ON TEA AND OPIUM

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Notes on tea

In his article on tea and opium Solomon Bard states that during his fateful embassy to China in the late 18th century Macartney 'was allowed to collect shoots of tea plant. These were later carefully transported to Bengal with samples of soil where they flourished and very likely gave rise to present Indian tea'. In his follow-up notes in Vol. 41 of the RAS Journal David Akers-Jones quotes a passage from Macartney's journal about the acquisition of tea plants with the express purpose of transporting them to Bengal 'where I have no doubt that by the spirit of patriotism of its Government an effective cultivation of this valuable shrub will be undertaken and pursued with success'. The plants were delivered to the East India Company's botanical gardens in Calcutta. Akers-Jones notes that some years later 'indigenous tea plants were discovered in Assam and it is tea from these which seems more like the tea we are now accustomed to drink. Whether there was any hybridisation between the two species I cannot say.'

Although tea became hugely popular soon after it was introduced to England in the 17th century details about the tea plant and its manufacture into a beverage remained a mystery for over two hundred years. The price of tea rapidly came down from sixty shillings a pound in 1666 (Leiper p.21) to five shillings a pound in 1750 (Wild p.40), a trend which continued as imports increased dramatically as exorbitant taxes came down and more players entered the field. By 1888 tea imports reached over twenty million pounds a year, 'producing more revenue than the whole of India'. (Wild p.40) There was a desire to unravel the secret of tea and further reduce costs as the beverage evolved from a luxury item of the elite to become the national drink of England. But the merchants who purchased tea in Canton had no opportunity to visit tea plantations and learn about its manufacture; and they seemed to lack any curiosity as long as they could engage in their business. The trade continued as a black box transaction from which the finished product appeared.

In 1763 John Bell wrote, 'Both the green and bohea [black tea]
grow on the same tree, or rather shrub, called by the Chinese tzay.’ (Leiper p.61) This information seems to have been ignored for almost a century. In 1778 Sir Joseph Banks, botanical adviser to the East India Company had recommended importing Chinese bushes. (Goodwin p. 148) Macartney’s effort at agricultural espionage fifteen years later was not the first attempt to find the secret. The race to unlock the secret of tea was an international high stakes event; the Swedes and the Dutch were also in the running. (Kit p.27). It was a very slow race.

In 1823 Major Robert Bruce — a distant relative perhaps of RAS member Phillip Bruce — discovered indigenous tea in Assam but the authorities in India did not appreciate its significance at the time. (Kit p.27) In 1834 the East India Company appointed a Tea Committee to look into the possibility of making tea in India. The secret of tea had become an issue of national importance to a country that was drinking the expensive beverage in ever-increasing quantities.

In his huge 1,079 page two-volume tome with an equally huge title — *China Opened; or, a display of the topography, history, customs, manners, arts, manufactures, commerce, literature, religion, jurisprudence, etc. of the Chinese Empire* — Charles Gutzlaff devoted many pages to descriptions of tea planting and manufacturing he had witnessed. Yet even in 1838 Gutzlaff had not discerned that both green and black tea are made from the same plant. His detailed reports about the growing areas, complete with latitudes and longitudes of tea plantations and descriptions of the manufacture of tea hinted at the secret but it still eluded Gutzlaff. He even provides a chemical analysis of tea (Gutzlaff p. 129). He noted that tea leaves were ‘carefully manipulated, dried in various ways, and then packed’ (Gutzlaff vol. i p. 46) and that ‘It has been repeatedly asserted, that green teas could be converted into black, and vice versa, but that the qualities would thereby suffer.’ (Gutzlaff vol. ii p.125) While this transmogrification of green and black tea is dubious, the following passage is noteworthy for its accuracy in describing the manufacturing process without realizing its significance:

When the green tea leaves have been sufficiently dried, they are three times thatched, picked and rolled, and put into hot baskets, where they are kept, until the time of packing them, when they undergo another roasting. (Gutzlaff vol. ii p.125)
And even after the first Opium War in 1841 the secret of tea remained an enigma. As it became possible to travel in China the Royal Horticultural Society of London sent botanist Robert Fortune to procure ‘the finest varieties of the Tea-plant, as well as native manufacturers and implements, for the Government Tea plantations in the Himalayas.’ (Goodwin p. 12) Goodwin describes the torturous process that resulted in the first Assam tea reaching London in 1839. (Goodwin p. 148) It was not a huge success, mainly because no one in India knew how to process tea.

Finally, in 1848 Fortune determined that green and black tea came from the same plant, the only difference being in their manufacture. The secret was in a process referred to as fermentation, which is entirely unrelated to fermentation of sugars and starches to make alcohol. It is actually manipulation of the leaves to promote the oxidation of the leaves. (Goodwin p. 132/3)

Employing the latest technology — portable greenhouses — Fortune successfully transported tens of thousands of Chinese tea plants to India. (Kit p. 61) Goodwin describes this success as a ‘mummy’s curse’ because Chinese teas crossed with Indian teas to ‘become a shrubby Frankenstein’s monster, popping up all over the place and spoiling the planters’ rest’ (Goodwin p. 121). Despite this unfortunate genetic engineering disaster by the 1880’s Indian teas overtook Chinese teas in the ever-expanding British market. (Goodwin p. 221) Initially Chinese teas were blended with Assam tea but ultimately Assam teas held their own. The massive outbound migrations of Fujianese on tea clippers were a direct result of the collapse of the tea industry in China, as the world markets became less dependent on Chinese tea. Hopefully the current intellectual property issues and trade imbalances between China and the USA will be resolved more amicably than those of the 19th century.

While Chinese were reluctant to divulge details of the tea manufacturing process there were other sources of information. Lu Yu’s Tea Classic of the Tang Dynasty describes the growing and manufacturing process in enough detail for practical purposes. Even if the book was not available in China it was in Japan where it formed the foundation of the tea ceremony. Japan, too, had a thriving tea industry. It is surprising the resourceful tea hunters did not try there.
There is one further chapter to the Assam tea story. In 1907 the Japanese introduced Assam tea to their colony of Taiwan in an effort to protect the Japanese green tea industry. This concern was justified; since the first shipment of oolong from Taiwan to the USA in 1869 Formosa’s tea industry grew rapidly. (Zeng interview) Assam tea is still grown in northern Taiwan and consumed in the Chinese manner and has become a connoisseur’s item for the modern Taiwanese Epicurean item with Fine Aged Assam Tea from Danshui [Tamshui] fetching high prices. (Ho interview)

REFERENCES


Ho Chien, Ye Tang Tea Culture Research Institute, interview 8 Sept 03

Charles Gutzlaff, — *China Opened; or, a display of the topography, history, customs, manners, arts, manufactures, commerce, literature, religion, jurisprudence, etc. of the Chinese Empire*, London, Smith, Elder, 1838. (The Reverend Karl Frederick August Gutzlaff, for whom a street is named in Hong Kong, acted as a translator for Jardine’s opium transactions up and down the China coast in exchange for being permitted to proselytize after hours.)


Zeng Zhixian, author and China Times tea correspondent, interview 8 Sept 03