

How the British Fell in Love with Tea

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Tea

Tea is made from the leaves of a camellia – *camellia sinensis*. The Chinese have made tea for thousands of years. Turning camellia flowers into tea involves a long and complicated labour-intensive process. The very topmost couple of leaves of the plant (the “tips”) are plucked whilst still young, before they turn dark and leathery. A tea bush yields suitable tips in a series of “flushes”, once every ten days for a few months each year. An expert tea picker can pick about 10 lbs (four Kg) of leaf per day.

Once picked, the leaves are dried in the sun, fried in a wok and rolled on a table to bring out the essential oils. After processing, that 4 Kg of leaves is reduced to about 1Kg of tea. At the time of writing, Sainsbury’s are selling a box of 160 Gold Label tea bags for £3.60. At 2 grams of tea per bag, a picker will produce enough tea per day for three of those boxes.

Tea from the same plant is graded by the size of the leaf fragments after processing. Large fragments of leaf brew slowly but produce the best result. The next best are the smaller fragments that you see in a packet of loose-leaf tea from a supermarket. The remaining fine powder is known in the trade as “dust”. Tea dust is used in tea bags because it brews quickly, leading to the urban myth that tea bags contain “the sweepings from the factory floor”. Actually, tea dust is perfectly good tea, it’s just a case of good, better, best. Tea bags are more expensive per cup than standard loose-leaf tea, but more convenient.

In the 17th Century China was a mainly peasant farming economy and families all over the country each had a small tea garden producing tea for their own consumption. The quality varied according to the growing conditions. The best tea is grown on high misty mountain slopes in well-drained stony soil. Some areas are best for producing leaves for black tea, other areas are better for green tea.

Tea in Europe

Before we drank tea, most British people drank beer. The brewing process sterilised the water, which often carried diseases, especially in towns. Later we drank coffee.

Tea was bought from China to Europe by Dutch traders in the early 17th Century. The ships carried tea and silk, both luxury products. Tea appeared in coffee houses as a novelty. To compensate for the light weight of the cargo, porcelain crockery was added as ballast. That was handy because European earthenware pottery was not robust enough to brew tea, which needs hotter water than coffee. Chinese porcelain and tea became fashionable in Europe.

Charles II’s wife Catherine of Braganza popularised tea in England but it was an expensive habit, only for the rich. Tea was stored in a special locked box with two compartments, one for green tea and the other for black, and blended by the lady of the house. The box was locked to prevent the servants from stealing the tea.

It’s claimed that Samuel Pepys wrote the first recorded mention of tea in English in 1660: “and afterwards I did send for a cup of tee (a China drink) of which I had never drank before, and went away”.

As tea became a little less expensive, tea-drinking spread across the upwardly mobile classes of Britain and its empire but it was still too expensive for the lower orders.

British tea drinkers tended to find the robust black tea more palatable than the green, adding milk and then West Indies sugar to counteract the bitter taste.

European potters such as Meissen and Spode figured out how to make porcelain, and made their own tea ware.



Ashtead Pottery Tea Service, Leatherhead Museum

The East India Company imported the tea from China and paid for it in bullion. According to Mercantilism, the prevailing economic theory of the time, this outflow of bullion was bad for Britain. (See the useful links below.) In 1839 The Company lobbied the British Government to send in Royal Navy gunboats to force the Chinese to allow the import of opium from India. This was the First Opium War.

The resulting opioid crisis destabilised both the Chinese economy and government but it led to a nice result for The Company. They swapped opium for tea at an advantageous rate of exchange and sent the tea back to Britain. Now the bullion flowed in the opposite direction, tea become less expensive here, although still a luxury, and the market became bigger. At the height of the trade, the British bought 20% of China's tea production and import duty on tea yielded 10% of the British

Government's tax income. The general population of Britain wasn't addicted to tea yet, but the government certainly was, and to the drug pushing that enabled the trade.

Robert Fortune

The end of the opium war in 1842 also opened up China to intrepid British visitors, and the Royal Horticultural Society promptly sent an expedition led by Robert Fortune. Fortune (1812-1880) was a Scottish botanist and plant hunter. His expedition brought back commercial crop plants such as the kumquat (*Citrus Fortunei*) and exotics such as the double yellow rose (Fortune's Double Yellow), the white wisteria and the corsage gardenia that became garden favourites in Europe. Fortune's book "Three Year's Wanderings in the Northern Provinces of China" became a best seller.

Fortune also settled part of the mystery of tea, discovering that black tea and green tea are produced from the same plant *Camellia Sinensis*. Some terrains are better for producing black, some better for green and some plants produce better results than others, but the essential difference is in the processing.

Industrial Espionage Part One

The British suspected that the Chinese planned to grow their own opium poppies to break the East India Company's monopoly. Meanwhile, Europeans had already figured out how to make porcelain and the Chinese became suspicious that they would like to grow and make their own tea. Both suspicions were correct.

Camellia Sinensis already grew in the Assam province of India and the East India Company had enticed a few Chinese tea makers to run tea gardens there, but the result were not very good. The best quality plants were in China, in mountainous areas hundreds of miles from the safety of the treaty seaports such as Shanghai.

To create a viable tea industry in India quickly, the Company needed 30,000 high-quality plants suitable for green tea plus a few thousands seeds and the same again for black tea. They also needed to steal the secrets of tea processing. That would be a dangerous mission. The Chinese Government would execute anybody they found trying to do it. In any case, the Chinese Empire was in the early stages of its eventual breakdown and a foreigner with money is always in danger of kidnap and murder in bandit country.

Fortune was the obvious man for the mission so he received an offer he couldn't refuse. If he survived the trip and brought back the tea plants, he would be paid a handsome fee. He would also own the rights to any other plants he collected and The Company would pay for the transport home for him and his plants, a major expense for a plant hunter.

In 1848 he arrived at the British Concession area of Shanghai and his first tea expedition began. The party consisted of Fortune and two Chinese, one described simply as "Wang", acting as translator and fixer and a labourer who carried the collecting equipment and the plants. Fortune's report just called him "the Coolie".

Fortune spoke some Chinese, but it's a vast country with many local dialects so he needed a translator. His size and facial shape marked him out, but he dressed in Chinese clothes and pretended to be a mandarin from a distant province where the people were reputed to be very tall. The locals had never seen foreigners of any kind, so the trick worked.

The team headed for Wang's home territory which was good green tea country. Despite Fortune stopping every few hundred yards to dig up a newly-discovered plant for his own collection, five months later they were back in Shanghai with the required tea plants, seeds and knowledge to kick-start a green tea industry in India. Fortune found out the complex process of turning leaves into green tea through a cunning plan – he walked into a tea factory and asked how it was done.

He also discovered that tea for the European trade was dyed to keep it nice and green on its long sea voyage. The manufacturers used a blue and a yellow pigment, both poisonous. (Blue printing ink is called Cyan because it used to contain cyanide.) The East India Company made much of this later on their stand at the Great Exhibition.

Transporting plants across thousands of miles of ocean had been difficult to impossible but the new Wardian cases made it more feasible. According to Wikipedia “The Wardian case was the direct forerunner of the modern terrarium and vivarium and the inspiration for the glass aquarium. It is named after Nathaniel Bagshaw Ward (1791–1868) of London, who promoted the case after experiments.”

A Wardian case is an airtight glass and metal box containing soil, some plants and a tiny amount of water, providing a closed ecosystem. The glass lets in sunlight and a plant can survive in there indefinitely as long as the seal is not breached. On the deck of a ship, the case also keeps out the salty air.

Fortune had Wardian cases made up and dispatched the plants and seeds to Calcutta , dividing the cargo across four ships for safety. The whole consignment arrived intact a few months later and was shipped along the Ganges and by ox cart to the mountains of Assam.

Unfortunately, the East India Company bureaucracy could be relied on to snatch defeat from the jaws of victory. Cases were broken on the journey and, against all instructions, others were opened to check the plants and then given a good watering before being sealed up again and sent on. Only a few plants survived and the botanist who received them in Assam used the wrong growing conditions and killed them. The tea seeds rotted on the trip as well, so as far as the Company was concerned, Fortune's first journey was an expensive washout. Fortune was happier - he had the plants that he had collected for his own benefit and would make good money out of them once he got back home, but there would have to be another expedition to green tea country.

A long blame game followed between India and Shanghai, with Fortune circulating scientific papers describing how a wardian case is supposed to be handled.

Industrial Espionage Part 2

Fortune's next expedition was to black tea country with another fixer called Sing Hoo. Once again, they collected tea plants and seeds of the best quality and stole the manufacturing process for black tea. (It's similar to green tea but some stages of the process are done for longer). Meanwhile Wang was sent back home to collect more seeds for green tea production.

Fortune sent the results to India but this time he put the seeds into Wardian cases as well as the plants, so they germinated on the journey and survived. On his advice the haul was planted in the Calcutta Botanic Garden and only the offsprings were sent to the mountain tea gardens. He also recruited more Chinese overseers to run the operation. So began the industrial producing of tea in Assam and Darjeeling.

Looking back, the whole plan looks pretty unlikely. Send a plant-hunter into a dangerous and hostile country to collect thousands of best-quality tea plants and steal the secret processes which made them valuable. Why did it succeed at all? Partly because Fortune pretended to be a mandarin. Most Chinese people were still very respectful of authority and if a government official turned up at your tea plantation wanting a few tea plants and asking all sorts of questions about what to do with them, you were happy to oblige. Also, I'm guessing, the other members of Fortune's team knew the areas they visited and managed to keep him out of trouble. They knew that if he got himself killed, they would probably be next, so they quietly guided him away from danger.

Fortune also hid in plain sight. Apart from tea, the plants he collected were indigenous – weeds in other words. When the Chinese saw a well-dressed man of the upper classes digging up weeds and writing notes on them, they probably thought he was just insane and ignored him.

Wardian cases were vital to the operation, along with the techniques that Fortune developed to use them. Other plant hunters learned the same techniques from his books, which led to an explosion in the availability of exotic species in Europe and produced the huge range of garden plants that we know today.

As the Indian tea gardens became established, Indian tea became steadily cheaper. Tea became the respectable alternative to alcoholic drink for all classes, leading to the mass market tea industries of Assam and Darjeeling. Tea was also cultivated in other parts of the British Empire, in Africa and notably in Ceylon (Now Sri Lanka).

The British in India also picked up the habit of Tiffin, a light meal in the middle of the afternoon. In India tiffin involves spicy finger food such as samosas. The British version became sandwiches, cakes and, of course, tea. The word tiffin survives here as a chocolate biscuit.

Fortune's Fortune

Robert Fortune continued plant hunting all over the world, and writing books on horticulture. He made a good living selling the results to gardeners. He died in 1880 leaving over £40,000 to his wife and six children – millions in today's money.

The Tea Clippers

In the 19th Century consumers became more demanding about the quality of their food and a two-year journey from the plantation to the consumer was no longer acceptable. From around the 1840s that led to the creation of the Tea Clipper, a small fast sailing ship designed to transport a light, valuable cargo quickly – cargos such as tea, opium and spices. Tea importers competed to get the first consignment of the new season's crop from China to London. In the Great Tea Race of 1866, three tea clippers sailed from China on the same tide, travelled 15,800 nautical miles to London in 99 days and docked on the same tide within an hour of each other.

The clippers were faster than the early steam ships, but when the Suez Canal opened in 1869, that advantage was lost. The canal shortened the journey from India and China to Europe for everyone but sailing ships had to be towed through it, which slowed them down. From then on it was quicker to transport tea to Europe by steam.

How to serve tea

Robert Fortune also gave us the recipe that we use to make tea: warm the pot; add a teaspoonful of dry tea per cup; use freshly-drawn water (boiling water repeatedly removes the oxygen, which is needed for the brewing process); bring the water just to the boil but not to a rolling boil; bring the pot to the kettle, not the kettle to the pot (to keep the water hot); pour the water over the tea; brew for a time depending on the grade (dust brews quickly, large leaf tea takes a few minutes); relax and enjoy your tea. The Chinese make their tea directly in the cup. We use teapots and add an extra spoonful of tea “for the pot”. Some of us add milk and sugar.

Northern oiks like me are supposed use mugs, not cups and saucers, and put the Milk In First (MIF). Some say that this is because we used cheap pottery that would break if hot tea was poured straight onto it - Milk In Last (MIL) being a sign that you can afford proper China crockery. That changed in the early 1960s when nicely decorated China mugs appeared, making them respectable. (Actually my family still used cups and saucers when I was young. Mugs were for the factory canteen. We remain diehard MIFs though.)

In the 1970's, British Rail experimented with the Max Pak in their buffet carriages, a paper cup with tea dust glued to the bottom. Pouring on hot water melted the glue and released the tea leaves. About the same time Douglas Adams described a machine-made drink that was "almost, but not quite, entirely unlike tea".

In India they make chai. They add spices to black tea and brew it for a few minutes in a pan using a mixture of milk, water and sugar at a rolling boil, producing a strong sweet result that works well in hot weather. In the film *Slumdog Millionaire*, the main character gets a job in a call centre and becomes the “Chai Wallah”, bringing regular doses of chai to the call centre workers.

In North Africa they serve mint tea, one version of which is a Lipton's Yellow Label teabag and a large sprig of mint stewing in hot water.

At Leatherhead Museum we celebrate the Goblin Teasmade, a combination of an alarm clock and automatic tea maker patented in 1933 and manufactured at the Goblin works in Ermyn Way. Geographically that's in Ashted, just beyond the edge of Leatherhead, but the postal address was Leatherhead. (Apparently, Ashted had its own sorting office but it couldn't cope with the amount of mail sent to the Goblin Works, so its post was routed through Leatherhead.) So, the Teasmade was manufactured in Leatherhead or Ashted, depending on your definition.

To use a Teasmade, you put tea leaves into the pot and water into the kettle, set the alarm and go to bed. In the morning, the kettle starts up and the steam forces the boiling water into the teapot. The alarm goes off and you are woken up with a nice cup of tea ready at your bedside. The Teasmade was a popular wedding present.

The Goblin Works operated from 1938 to 1984. Our Museum has a collection of Teasmades and other Goblin products. Swan acquired the trademark and still sells retro versions – now manufactured in China.



A Teasmade, probably a 1950s model, Leatherhead Museum

Real English Tea

The Tregothnan Estate in Cornwall has grown camellias for centuries. They host some of the national collections. A few years ago, the owner went to a Darjeeling tea garden, decided that the landscape at home was similar and brought back some tea bushes. Since 2005 the estate has produced a small crop of very good quality, very expensive tea. You can buy Tregothnan Tea by mail order.

Books

“For All the Tea in China” by Sarah Rose, pub Hutchinson 2009:

<https://www.penguin.co.uk/books/388777/for-all-the-tea-in-china-by-rose-sarah/>

“The Wardian Case: How a simple box moved plants and changed the world” by Luke Keough, pub Chicago University Press 2020:

<https://press.uchicago.edu/ucp/books/book/chicago/W/bo51203699.html/>

The Tea Clippers: Their History and Development, 1833-75 (Conway's History of Sail) by David R. MacGregor pub 1983. (Out of print but available second hand.)

Useful Links

Robert Fortune: https://en.wikipedia.org/wiki/Robert_Fortune

The wardian case: https://en.wikipedia.org/wiki/Wardian_case

Melvyn Bragg's radio 4 programme "In Our Time" on Mercantilism, the economic theory that persuaded the British Government to start the opium Wars:
<https://www.bbc.co.uk/sounds/play/m001k0zv/>

A long article in The Guardian about the Opium Wars:
https://www.theguardian.com/society/2023/may/23/out-of-our-minds-opium-imperial-history-opium-wars-china-britain?utm_source=pocket-newtab-global-en-GB

The Tregothnan Estate: <https://tregothnan.co.uk/>

The Goblin Works: <https://www.leatherheadlocalhistory.org.uk/miscellany/potted-history-43.pdf>

The Swan Teasmade: <https://shop.swan-brand.co.uk/collections/teasmades>

My favourite online tea store is High Teas: <https://highteas.co.uk/>. If you can afford it, I recommend their Bukhial single estate tea.

Drury also sells tea online: but they're aimed at commercial customers and they have an extra charge for small orders: <https://www.shopdrury.com/> If you're in central London, their shop in New Row near Leicester Square is well worth a visit.