

In this issue....Andrew Wood writes about the well-known silver mine at Mui Wo on Lantau island. The mine had extensive structures above ground that that might be identified by fieldwork investigation. Perhaps this is an area the group could become involved in at a later stage even if the workings themselves are closed.

As is reasonably well known, the origin of the name Hong Kong is thought to be related to the production of incense in the area. Dan Waters informs us of various locations where water mills ground sandal-wood into powder. I wonder if any of these almost forgotten derelict sites remain above later reclamations and infrastructural developments?

In his second article on rickshaws Fung Chi Ming highlights problems caused by their use from the 1880s through to the 1960s and describes measures undertaken to reduce them.

Indigo dye producing plants were grown in many countries worldwide in the 19th century. Indigo was sometimes referred to as Blue Gold because of its high value as a trading commodity. In this article I briefly outline the history of indigo, production methods and where a sample, sent from Hong Kong in 1876, may have originated from.

As always, feel free to pass on the Newsletter, my name and email address to anyone you feel may be interested.

Best wishes

Hugh Farmer indhkh@gmail.com

*

In this issue

- * The Silver Mine of Silver Mine Bay – Part One Andrew Wood
- * Recollections of a Visit to a Joss-stick Mill in Tsuen Wan Dan Waters
- * In Search of an Improved Industrial Design – The Hong Kong Rickshaw over Time Fung Chi Ming
- * Queries and Answers
- * A Brief Introduction to Indigo Dye and Production Locations in South and East Asia Hugh Farmer
- * Bits and Pieces

*

The Silver Mine of Silver Mine Bay – Part One

Andrew Wood

People in Mui Wo will tell you that Silver Mine Bay, next to the town, is named after a silver mine or mines that closed a century or more ago. They will probably direct you a kilometre or so inland to the Silvermine Cave, on the side of Silvermine Hill, next to the Silvermine Bay Waterfall Garden, on the River Silver. (These places are near to the settlement of Pak Ngan Heung – probably founded in the 16th century – whose name means “white metal” or “silver village”.)

For me, Silver Mine Cave was a disappointment. The tunnel is blocked off about twenty metres into the hillside. There's a small hole in the concrete for bats to come and go, but people have been kept out for several decades. Graffiti covers the walls of the cave.



Silver Mine Cave
www.islandsdc.gov.hk

The information board at the entrance is annoyingly vague. It says newspapers reported that silver was discovered there in 1862, and mined there in the 1880s. And that's a pity, because the story of the silver mine of Silver Mine Bay is much more complicated than this suggests.

Contemporary reports in publications such as the London and China Telegraph, the China Mail, and the Mining & Engineering Journal describe an impressive operation. The Tamchow and Tai-yu-Shan Mining Company started blasting rock in 1886. (Tai-yu-Shan is the Cantonese name for Lantau.)

The man behind the company was Ho Amei (1838–1901). Ho was an entrepreneur who thrived both in Imperial China and the British Empire – not only in Hong Kong, but in Australia and New Zealand too. He worked in the gold fields of Victoria in the 1850s, and later used his knowledge of modern mining techniques and entrepreneurial skills first to reopen an abandoned mine at Tamchow in Canton in 1884 and then to make it profitable again. Then Ho turned his attention to Lantau.

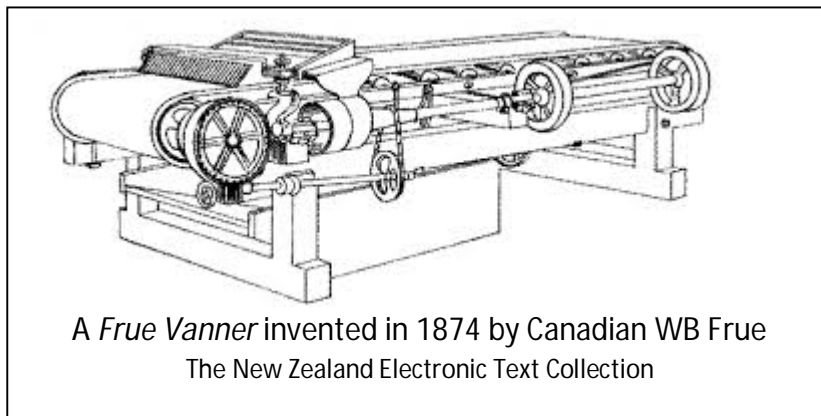
This article focusses on the size and scope of the mine at Mui Wo. There will be more on Ho Amei and the fate of the mine in the next Newsletter.

By 1888, Ho's engineers had driven at least four adits – horizontal tunnels – deep into the

granite. The adits led to several winzes – vertical shafts inside the mine – that were 100 feet or 30 metres or more deep. A dam 2000 feet (600 metres) up on the hillside supplied hydraulic power to operate the mine's pumps and lifts. The technology had only just been patented. The workings followed deposits of argentiferous galena – a mineral that mainly contains lead, but mixed with smaller amounts of silver.

An aerial ropeway took the ore from the mine over rice fields and a hill to a smelting works near the seashore 3000 feet (900 metres) away on the north side of Silver Mine Bay. A British company, Messrs Robey & Co of Lincoln in eastern England, supplied the structure's cast-iron columns, its roof and most of the machinery. The works were 240 feet long, and designed to process 40 tons of ore a day, not just from the Lantau mine, but also from the company's other mine at Tamchow in Canton.

After travelling on the aerial ropeway from the Mui Wo mine, the ore arrived on the upper level of the building. A 50-horsepower (37 kW) boiler drove three pairs of rollers, eight jiggers and a stone-breaker to crush the rock. Two buddles washed the ore as it descended to the ground floor along a trough. There four Frue vanners – large rubber belts that shook the ore and squirted it with water – separated the heavier particles containing metal from the lighter rock.



Next came the furnaces. There were four Scotch hearths for refining lead, two reverberatory calcining furnaces, a reverberatory smelting furnace and an English cupelling furnace. A 30-hp (22 kW) boiler on the ground floor provided steam to various engines to operate

the aerial ropeway, the vanners, a lift to the upper storey, and force air into the blast furnaces. The fumes must have been unpleasant to the point of danger, as the smelting works had a sixty-foot tall chimney. Flues took the exhaust gases to a condenser, and then to the chimney that was a further one hundred feet up on the hillside. The Belgian consul at Shanghai visited the mine in 1889 and said that there was even a small railway connecting the smelting works to a jetty on the north side of Silvermine Bay.

The location of the smelting works is unclear. A line drawn on a map 3000 feet to the east of the silver mine ends at the modern village of Wang Tong (also known as Mang Tong). There is

flat ground here close to the sea and next to the hillside. So the refining works might have been at this place roughly where the Mui Wo Holiday Inn and the Seaview Holiday Resort are today.

But personally I think the building might have been a little further along the beach, on the lowermost part of the site of what is now the Silvermine Bay Outdoor Recreation Camp. (After all, 3000 feet is a conveniently vague number. The rules of arithmetic I was taught say that 3000 feet could have been as little as 2500 feet, or as much as 3499 feet.) There is a flat piece of ground approximately 300-foot long there, just before you get to Tung Wan Tau. The 240-foot long smelting works would have fitted in nicely. Furthermore, there is a stream from which water for the steam boilers could have been drawn.

And most importantly, there is a group of rocks that stretch 30 to 50 metres southwards, and at right-angles to the shore, out to sea. That I think could be the remains of the jetty that brought in coal and ore from the other mine at Tamchow. I've looked at the rocks. There are several lumps of concrete, containing rusted metal among them. But nothing conclusive, I'm afraid.

The chimney outlasted the mine by many years. US naval navigation manuals mentioned it as a landmark as late as 1938.

The mine closed sometime in the 1890s. One report said that bandits and smugglers used it as a hideout after it had been abandoned. The reasons – and the exact date – for the mine's demise are unclear, but will be explored in the second part of this article in the next Newsletter.

*

Recollections of a Visit To a Joss-stick Mill in Tsuen Wan

Dan Waters

The manufacturing of Joss Sticks in Hong Kong is believed to go back at least four centuries. It has also been suggested that the primary industry in incense trees gave Hong Kong its name -- namely *Heung Kong*, meaning 'fragrant harbour'. But there are few incense trees left in the territory today although good specimens may be seen in the Tai Po Kau Nature Reserve.

Originally, the making of joss sticks was carried out with large stone hammers operated by water power generated by hill streams. Just after the New Territories was ceded from China to Britain, in 1898, in a report by J. H. Stewart Lockhart, Colonial Secretary, sandal-wood mills worked by water power were operating in the various valleys of Tsuen Wan (James Hayes, RASHKBJ, V.16, 1976, P.283). Large stone 'hammers' pounded fragrant wood into incense powder. The industry remained prominent in Tsuen Wan up until the 1950s.

In the early 20th century at least two sandal-wood mills were active at Pak Kiu Tsai, between Pun Chung and Wun Yiu, outside Tai Po Market. There were also such mills at Heung Fan Liu just outside Tai Wai in Sha Tin. None of these survived into the 1920s.

Six water wheels were in operation in Tso Kung Tam, Tsuen Wan, up until the 1930s and it is believed one was still operating in 1952-1953. Large electrically operated grinders were however introduced in the 1960s and three mills, so powered, were still operating, according to Chan Ka Yan (RASHKBJ, V. 29, p.101) in 1987. The construction of the Shing Mun (Jubilee) Reservoir and its associated water channels, completed in 1936, probably affected the force of water in the streams used to power the mills. In the 1940s a new machine had been introduced to make incense coils of the kind you see suspended and smouldering inside temples today.



I had the pleasure of going on a Royal Asiatic Society Hong Kong Branch outing led by Dr James Hayes, in 1976. At the time, Dr Hayes was a government administrative officer in charge of Tsuen Wan New Town. Our group started from the main road half a mile beyond Tsuen Wan and we walked for about five minutes up a picturesque lane in a valley leading up the lower slopes on Tai Mo Shan. By that time, with grinding done by electrical power, I recall inside the mill, everywhere was thick with incense dust. I have recently corresponded with my good friend James, and he says he remembers the visit very well, and indeed I do too.

As an aside, in January 1955, not long after I had arrived in Hong Kong, I drove around the New Territories for the first time. We were returning to the urban area and I remember looking for Tsuen Wan only to realise we had

already passed it! In those days Tsuen Wan was a small market centre largely serving the surrounding villages. The transformation of the New Territories with the development of new towns, over the last half century, has been truly amazing.

In the middle of the 1950s enough rice was grown in Hong Kong to feed the then Crown Colony for one month of the year. Soon after there was a rapid change to the growing of vegetables.

One of the local industries to disappear was of course the making of joss sticks, and the mills in Tsuen Wan were demolished (RASHKBJ V. 19, 1979).



Although the joss-stick industry came to a virtual end in Hong Kong the trade in selling quality sandal-wood fans was active especially in the 1960s and 1970s. On my desk as I type this I have a beautifully carved, fragrant, sandal-wood fan which, for me, conjures up memories of the sandal-wood industry.

I thank Dr James Hayes for his valuable comments on my paper.

Bibliography:

Hayes, James, *Growth of a New Town, Tsuen Wan and its People*, OUP, 1993, pp. 8, 20 and 21.
Sheung Wan, ed. Sidney C. H. Cheung, Chinese University of Hong Kong, 2012, PP. 79 and 81.

Articles published in the journals of the Royal Asiatic Society Hong Kong Branch.

Chan Ka Yan, 'Joss Stick Manufacturing: A Study of a Traditional Industry in Hong Kong', V. 29, 1989, PP. 94 –120.
Hayes, James, 'Sandal Wood Mills at Tsun Wan', V. 16, 1976, PP. 282—283.
lu, Kow-Choy, 'The Cultivation of the Incense Tree (*Aquilaria Sinensis*)', V. 23, 1983, PP. 247—249.

In Search of an Improved Industrial Design – The Hong Kong Rickshaw over Time

Fung Chi Ming

The rickshaw, as westerners pronounce it, originated in Japan where it is known as *jinrikisha* – *jin* (man) *riki* (power) *sha* (carriage). Its basic design includes a carriage resting on two large-diameter wheels, a pair of long parallel poles joined by a crossbar, in addition to a removable hood which can be lowered or raised to protect the passenger against the burning sun or rain. It is hand-pulled and foot-run by the strength of one man who works in the front part, with the passenger sitting behind.

There were two main categories of rickshaws in Hong Kong: those used by private individuals and those for public hire. The private rickshaws – then a prestige form of travel – were of the same standard design as the rickshaws for public hire; however, they were not all the same as they were made for each customer's needs as per required specifications. The quality of the rickshaws for public hire also varied. Therefore, rickshaws of different styles were used around Hong Kong at any one time.

The rickshaw made its first appearance in Hong Kong in January 1874, when one was imported from Japan for Mr. S. L. Heinemann – a shipbroker of Heinemann & Co. who had an office in Bank Buildings, Queen's Road (*The Chronicle & Directory for China, Japan, & The Philippines*,

1874). This rickshaw was designed to make it practicable for two adults to sit together. A report in *The Hong Kong Times* for 23 January 1874 reads as follows:

"A NOVELTY was witnessed yesterday in our drives—a spanking new "Jini-riksha," from Japan, brought down for Mr. Heinemann. The back and sides are done to death with native outlandish figures &c. It seems a comfortable little vehicle, capable of holding two light weights, with American fashion wheels, which we think will not be much improved by an acquaintance with our macadamized roads of which we are so proud!"



A 'two-seater' rickshaw, Hong Kong circa 1880s. Note the "indentation in seat" on one side of the cushion

(Image courtesy: Historical Photographs of China Collection, University of Bristol, England)

Rickshaws catered for the public for the first time on 22 April 1880. They became a popular form of transport which was nearly as convenient as that provided by taxis nowadays. Within two years of its advent, the public rickshaw appeared in great numbers which grew from "30" in 1880 to several hundred in 1882. In addition, an unknown number of private rickshaws were running around (*The Hongkong Daily Press*, 1 May 1880; *The Hongkong Government Gazette*, 3 November 1883).

Troubles occurred when it was found that the narrow wheels of rickshaws caused physical wear and tear to the roadway. The whole of Queen's Road was cut up into deep ruts and, with every shower of rain the road was made almost impassable by the accumulation of mud. In the 24 January 1890 edition of *The Hongkong Daily Press*, a journalist recalled the early years of rickshaw traffic: "Until jinrickshas were introduced Queen's Road was always clean, even in the wettest weather. As soon, however, as these little vehicles came into use, the state of things was entirely changed."

To address this matter, the Government took firm measures to put a limit to the number of public rickshaws registered, at the same time requiring rickshaws to have wider wheels and to have a smaller body with which it could carry no more than one adult. A newspaper, from its correspondence with the Government, revealed details of just what the differences were between the old and new types of rickshaw:

"The new machine is expected to be much more suited to the traffic, and is an improvement on the old in several respects. Its dimensions are: diameter of wheel, 3 ft. 6 in., being two inches less than the diameter of the wheels at present in use; breadth between the wheels 3 ft., about a foot less than in the old machines; width of seat 21 inches, instead of from 34 to 36 as at present; height of cover from seat 43 inches; length from seat to the front foot board 23 inches, five or six inches more than in the old ones; and breadth of tyre one inch, in place of $\frac{5}{8}$ and $\frac{3}{4}$ of an inch as is the case with those in use." (*The China Mail*, 12 August 1882)

The new version of the rickshaw was said to be far superior to the earlier type both in comfort and riding qualities and, in particular, it would seem that there was an awareness of the strain caused to the coolie pulling a rickshaw with two adults in it:

"The broader tyre will cause the work of pulling to be slightly heavier, but as there can be no possibility of there being more than one occupant at a time, the coolies' work will be easier than it frequently is at present. The back of the seat is higher, and gives more comfort than

those of the present vehicles. The springs are of the latest and most approved description, and the whole machine is preferable to the one now in use." (*The China Mail*, 12 August 1882)

After the new rickshaws came into service, there certainly was a change for the better but a great improvement had not been made. The re-macadamized Queen's Road was still not strong enough to withstand the cutting action of rickshaw wheels, and during the 1880s and 1890s there were newspaper comments and questions in the Legislative Council on the needs for improvement. The editor of *The Hongkong Daily Press* commented on 24 January 1890: "An attempt was made to mend matters in the first instance by a regulation that licensed vehicles should have wheels of a certain thickness. Might not another step of a similar kind be taken and all jinrickshas be required to have rubber tyres similar to those of bicycle wheels?"

It will be seen that an improvement of the rickshaw services was no easy journey and Hong Kong moved rather slowly to replace wooden-wheeled rickshaws with new models to be fitted with rubber-tyred or pneumatic-tyred wheels.

The new electric tramway system came into service on Hong Kong Island on Saturday, 30 July 1904. Since the tramcar was faster moving than the rickshaw, it "had a busy time taking passengers to and from the Race Course" on the day (*The Hongkong Daily Press*, 1 August 1904). As tramcars appealed to many commuters around town and took a big slice out of rickshaws' receipts, it became more difficult to get proprietors to upgrade their rickshaws. In 1907, when Mr. E. Osborne asked the Government to state what their policy was in regard to the introduction of public rickshaw of an improved type, he was told that:

"The Government after careful investigation are of the opinion that, owing to the large decrease in the demand for rickshas incident upon the opening of the Electric Tramway, the licensees [the holders of ricksha licences, that is, ricksha proprietors], if called upon to provide a better type of rickshaw, will not have sufficient inducement to carry on their business unless the scale of fares is raised or the licence fee is reduced. It is considered not expedient to make either of these concessions." (*Hongkong Hansard*, 6 June 1907)

The rickshaw strike on 6 January 1908 is a telling example of the "money factor" as an obstacle to rickshaw upgrade. Some 2,000 coolies refused to ply for hire for several hours owing to a rent rise on rickshaws. The police, who mediated the dispute, questioned a number of proprietors who stated that they had to introduce new rubber-tyred rickshaws and they felt the coolies ought to share this extra expense with them. Later in the day, the coolies returned to work after the proprietors promised to withdraw their demand for a rent increase. (*South China Morning Post*, January 7 1908)

In May 1914, the Governor F. H. May and his aides "suggested that the question of providing by Regulation that all jinrickshas must have rubber tyres should be referred to the Captain Superintendent of Police." (Minutes of Hong Kong Executive Council, read and confirmed by Mr. M. J. Breen, Clerk of Council, 23 May 1914). The next month, the Captain Superintendent of Police arranged with rickshaw proprietors to operate ten rickshaws with pneumatic-tyred wheels for public hire as an experiment. After three months' use, the new rickshaws were worn out and taken off the city streets.

Mr. S. H. Dodwell, a leading businessman and representative of the mercantile community, asked in the Legislative Council in 1918: "Cannot steps be taken by the Government that will lead to a gradual, if not immediate, improvement in the local jinrickshas?" to which the Colonial Secretary replied, "There has been a steady improvement in the local jinrickshas during the past ten years. More comfortable vehicles have been introduced, with rubber tyres, covers for the seats and backs, and improved aprons; while better uniforms for the pullers have also been provided.... Improvements cost money, and such compensatory increase in the fares as might be required would not be popular with the public." (*Hongkong Hansard*, 31 December 1918)

On 30 January 1919, Mr. P. H. Holyoak was asking in the Legislative Council: "Will the Government arrange for a supply of pneumatic-tyred modern rickshas for the Colony?" The same year, the Government appointed a committee of six men (chaired by the Captain Superintendent of Police) to select a new type of rickshaw to be put into service. The committee met on 31 March 1919, and five different types of rickshaws were submitted for their inspection. They selected what they considered to be the best features of each type and a complete vehicle was constructed in accordance with this selection. This vehicle was put on view in the compound of the Central Police Station and all rickshaw proprietors were informed that in future only rickshaws of this type would be passed by the police for service. (*Hongkong Legislative Council Sessional Papers*, No. 6/ 1920)



Two rickshaws in the eye of the camera, Hong Kong 1930s
Note that the rickshaw on the right is fitted with pneumatic tyred wheels
(Image courtesy: Hong Kong Museum of History)

During the interwar period, the old-fashioned rickshaws with wooden wheels were gradually replaced by more effective rickshaws with pneumatic-tyred wheels. In 1939, a report was prepared by the Inspector General of Police, who said: "About 60 % of the public rickshas have been fitted with pneumatic tyres, and the remainder will be so fitted in 1940." (*Hongkong Administrative Report, 1939*)

This short article is about the efforts made to modify the design of the rickshaws used in Hong Kong, so as to make this means of travel smoother, more comfortable, and more suited to the local traffic. In this discussion, we have viewed many of Hong Kong's "first" in history, such as who first introduced the rickshaw to the city of Victoria, the first type of rickshaw with a seating space of up to two adults, and the first of a type of rickshaw fitted with pneumatic tyres which continued in use until the 1960s when the traffic authorities decided not to issue any new licences and to renew existing ones until the man concerned no longer wished to continue his trade. By then, the rickshaw was on the way out overtaken by more modern means of transport.

Queries and Answers

1. *P&O Steamship Company, Shipwright and Engineering Department, Hong Kong 1854*

A request was made asking for more information about Kwok Acheong (b? Canton d1880 Hong Kong) who had considerable business interests in Hong Kong. In particular, his involvement in early Hong Kong shipbuilding, and particularly taking over the 'shipwright and engineering department' from the P&O Steamship Company in 1854.

Susie Cox, Curator of the P&O Heritage Collection, London, has responded. She can find no mention of the sale of this department in the P&O Annual Report for 1854 or mention of Kwok Acheong in F.R. Kendall's letters (Kendall was an employee of P&O from 1856-1906 and worked in Hong Kong during the early part of his career). Ms Cox suggests the most likely source of any information would be either Board Minutes for the period and/or agency reports or unpublished research notes compiled by Freda Harcourt in the process of writing "Flagships of Imperialism".

7. *Indigo in Hong Kong*

James Chan asked where the indigo sent by post from Hong Kong in 1876 might have come from. Hugh Farmer's research suggests one of three places. He has expanded this information into an article included in this Newsletter.

9. *Bicycle Rickshaws in Hong Kong*

George Fogh, Denmark, read Fung Chi Ming's article in Newsletter Seven about hand-pulled rickshaws and asks if there were ever bicycle (also known as tricycle, trishaw and pedicabs) rickshaws in Hong Kong and if so were any manufactured here. Fung Chi Ming will respond in the next Newsletter.

10. *The Elm Tool and Die Company*

Newsletter Seven mentioned American Louis Marx's Hong Kong "The Elm Tool and Die Company", established in 1952 and managed by a David Yea. (However, another source suggests this company was registered on 15th November 1958 and dissolved on 2nd March 1991.) It appears this was a toy company as Mr. Yea was destined to become owner and CEO of Universal Matchbox Toys. Further investigation into Marx's involvement in Hong Kong, the Company or David Yea's connection to it has provided nothing further. Can anyone take us forward?

A Brief Introduction to Indigo Dye and its Production in South and East Asia

Hugh Farmer

Indigo dye is an organic compound with a distinctive blue colour. Historically it was a natural dye extracted from a variety of plants and was economically important worldwide because blue dyes were once rare. Nearly all indigo produced today, several thousand tons annually, is synthetic and is probably best known as the colour in blue jeans.

It is claimed that natural indigo was used as far back as 5000 BC. The word is sometimes used to indicate the particular colour and a variety of plants, both temperate and tropical, have provided this throughout history. Elsewhere indigo is used to specifically highlight the tropical *Indigofera tinctoria* variety which was domesticated in India, the earliest major centre for its production and processing. The dye was exported from there to Europe during the Greco-Roman period probably by Arab merchants and initially as a luxury product. The same dye is found in the woad plant *Isatis tinctoria*, which for a lengthy period was used as the main source of blue dye in Europe until it was replaced by "true indigo" as these trade routes developed.



Indigofera tinctoria also known as True Indigo

The association of India with indigo is reflected in the Greek word for the 'dye', which was *indikon* (ινδικόν). The Romans used the term *indicum*, which passed into Italian and eventually into English as the word *indigo*.

A common alternative used in relatively colder subtropical locations such as Japan's Ryukyu Islands and Formosa (Taiwan) is *Strobilanthes cusia*. In Central and South America

the two species *Indigofera suffruticosa* and Dyer's Knotweed (*Polygonum tinctorum*) have been cultivated although the *Indigofera* species yield more dye.

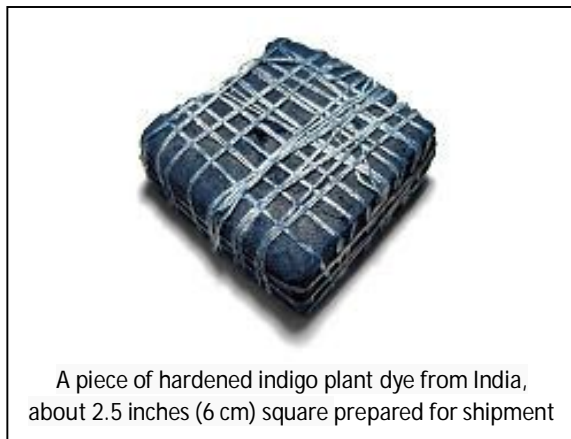
Natural indigo has been grown in Africa, Indonesia, the USA, Central and South America.

In 1897, 19,000 tons of indigo were produced from plant sources. Largely due to advances in organic chemistry, production by natural sources dropped to 1,000 tons by 1914 and continued to contract. These advances can be traced to 1865 when the German chemist Adolf von Baeyer began working on the synthesis of indigo. It was not however until 1897 that two

German companies devised a cheaper and purer synthetic substitute in quantities suitable for marketing.

As much as 20 tonnes of leaves are needed to produce just 45 kilos of pigment and unlike other natural dyes, indigo is not present in the plant. Only the chemical precursor of indigo is present, and the leaves need to be processed to produce the indigo powder.

The process of obtaining the dark blue dye liquor from Indigo plants started with fermentation in a tub filled with an alkali solution. The dye liquor would harden and be cut into hand-size chunks. Cases of these chunks were sold to Indigo dyers who would grind it to a powder. At this stage it was soluble in water. The mixture would be boiled, then cooled and stirred removing any extraneous materials like twigs that would affect the printing. Next the mixture was put into the vat with the cloth; copperas and lime were added, making the dye bath yellow in color.



After a time, the cloth also turned yellow. It wasn't until it was lifted from the vat and oxygenation took effect (after about 12-15 minutes) that the cloth turned blue, and the indigo was insoluble again.

Now, to attempt to answer James Chan's Queries and Answers question 7. *Indigo in Hong Kong*, asking where indigo sent by post from Hong Kong in 1876 originated from. I can find no record of

indigo being produced in the territory itself.

Here are the three main suspects:

Formosa. (Taiwan) Here is a report from 1885. "Grass-cloth fibre and jute are... exported [from Formosa] in small quantities. The first is exported to China to be woven into summer grass-cloth. Manufactured grass-cloth and other cloths are sent to Formosa to be dyed with the fresh Formosan indigo, famed throughout China for its bright and durable tints. The northern districts produce indigo, which, packed in large tubs, is shipped in the liquid state, to Amoy [Xiamen] and Shanghai principally." And perhaps to Hong Kong in hardened blocks?

Japan. In the 19th century Shikoku island, in particular the Awa region (present day Tokushima prefecture) became the centre of indigo production in the country due its rich soil, abundant water supply and beneficial climate. Before the development of synthetic indigo the region was one of the wealthiest in Japan as the country's dominant area for indigo leaf production. The Ryukyu islands were another centre for indigo production in Japan.

India. The largest producer and exporter of indigo in the 19th century. The demand for indigo in the late 19th century is indicated by the fact that in 1897, about 7000 square kilometers in the country were dedicated to growing indigo plants. At its height, the industry employed about one million people there in either production or in preparation for transport to Europe. In 1895-1896 111,714 cwt (5,675 metric tons) were exported from Calcutta (Kolkata). The principal market was England from where it was re-shipped to other parts of the world. There was huge demand to supply the textile industries of the industrialised countries – or example the USA where more commercially valuable cotton had replaced indigo in the 18th century. In particular it was used to dye European military uniforms.



An Indigo factory, Bengal, India 1867

It is possible but unlikely that the indigo would have been shipped from India to Hong Kong and then back to Italy as mentioned in the *China Mail* 1st May 1876. Therefore Japan or Formosa

would appear to be the most likely sources. However, it would be good to hear from anyone who could narrow the field further.

Indigo did not just pass through Hong Kong. Here is a very brief part of an oral history provided in 2010 by Lai Yiu Kai who in 1972 started working for the Kam Kee Fabric Company as a fabrics quality controller. "The fabric company decided on the dyeing and weaving plans according to the characteristics of different fabrics. In [the] case of denim, the yarn instead of the fabric was dyed. The first step was to import cotton yarn from the mainland.....The imported yarn was sent to a dyer in Kwai Chung. The dyer would dye it in indigo, only the warp not the woof. The dyed yarn was then sent to the weaver." It would be interesting to learn more about its use in Hong Kong.

http://www.hkmemory.hk/collections/oral_history/All_Items_OH/oha_32/records/index.html#p55764

Sources

- * Plantation Science: Improving Natural Indigo in Colonial India, 1860-1913, *British Journal for the History of Science*, 40: 4 : 537-565 (Dec 2007)
- * *Indian Journal of History of Science* 19 (3) pp218-219 (1984)
- * Colquhoun, A.R., and J.H. Stewart-Lockhart. "A sketch of Formosa." *The China Review* 13 (1885): p184
- * http://rsb.mukogawa-u.ac.jp/~ushida/e_ai_exp.htm
- * <http://academic.reed.edu/formosa/texts/lbis1876.html>
- * <http://info.fabrics.net/madder-minerals-and-indigo-cotton-dyeing-in-the-18th-19th-century/>
- * http://www.kew.org/plant-cultures/plants/indigo_history_indigo_independence.html
- * http://www.sewanee.edu/Chem/Chem&Art/Detail_Pages/Projects_2000/Leopold/History.html

*

New Subscribers

Here are those who have expressed interest in our group since the last newsletter:

Prof Hugh Baker
Prof Sidney Cheung
Philip Cracknell
George Fogh
Tony Lam
Gary Liddell
Andrew Wood
Humphrey Yuen

General Sources

* <http://www.royalsocietypublishing.org/journal/rsos/130505>

* <http://www.hkmemory.hk/index.html> a multi media web site that gives free and open access to digitalized materials on Hong Kong's history, culture and heritage

* <http://hkgro.lib.hku.hk/exhibits/show/hkgro/toc> Hong Kong Government reports 1842-1941 online

* http://www.hkpl.gov.hk/sc_chi/services/services_rlr/files/oldhk.pdf old maps of Hong Kong

* http://commons.wikimedia.org/wiki/Category:Old_maps_of_Hong_Kong

* http://lxml.ust.hk/mp/mp_search.pl?smode=SEARCH&sfield=PLACE&skeywords=Hong+Kong
HK University of Science and Technology Library – old images of Hong Kong

*

Bits and Pieces

Biography – GB Gifford Hull

Additional information about Mr G Hull's time in Hong Kong following his mention in the article *Needle Hill Tungsten Mine*, Newsletter Seven.



Gordon Burnett Gifford Hull was born in the UK on 29th January 1885 and died on 15th September 1969.

He arrived in Hong Kong in 1932 from Singapore to take up a new appointment with Messrs. Binnie & Partners as Chief Resident Engineer on the construction of Shing Mun reservoir dams. Very unusually he was given complete authority on both expenditure and construction. This was hailed as a revolutionary decision which worked so well that the whole project was completed 15 months ahead of time with, apparently, "HKD1.5 million handed back unspent". In Hull's own words, "At least in one case a Colonial

Government waived its rules to meet a special and unusual need".

Hull was later involved in the construction of Tai Lam Chung reservoir which opened in 1957.

HF

*

Shiu Wing Steel Limited, Hong Kong

The only steel rolling mill currently in Hong Kong is Shiu Wing Steel located at Tap Shek Kok, Tuen Mun. The mill is capable of producing a 700,000 tonnes per year of high-grade reinforcing bars for local and regional construction industries.



EBROS in action at the steel mill

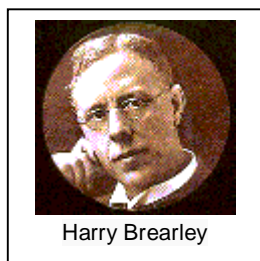
EBROS the “Endless Bar Rolling system” which welds billets together by the flash welding method capable, the company says, of creating an infinitely long billet that can be sub divided into any length its customers demand.

HF

*

100th Anniversary of the First Casting of Stainless Steel

On the 20th August 1913, metallurgist Harry Brearley made his first arc furnace cast of stainless steel in Sheffield, UK.



Harry Brearley was born on Feb 18th 1871 and by 1907 was in charge of the Brown-Firth Research Laboratory in Sheffield, UK. The lab was investigating ways to eliminate rust in gun barrels, when by accident, Mr Brearley noticed a discarded steel sample from an earlier test was not rusting, while other samples were. The result was a chrome alloy steel,

much more rust resistant than seen before. The date was June 4th, 1912. Two months later, on August 20, 1912, stainless steel was cast for the first time.

However, French scientist Leon Gillet had documented the constitution of stainless steel in 1904. While Gillet noted the composition and properties of his alloy mix, he failed to recognize the corrosive resistance of the material. In 1911 a German, Philip Monnartz, published the first detailed work on the corrosion resistance of stainless steel. And shortly after in 1912, two German's at the Krupp Iron Works, Eduard Maurer and Benno Strauss, patented the first austenitic stainless steel of a 21% chromium and 7% nickel combination. Brearley patented the first martensitic stainless steel in 1913. Thus while Brearley is generally given credit for the discovery of stainless steel, many historians feel this is disputable.

HF

*

Dan Waters wrote in Newsletter Seven about changes in the construction industry in Hong Kong since the 1950s. He mentioned bamboo scaffolding. Below is information regarding contemporary bamboo scaffolding.

An 11th March 2013 SCMP article "Why is Hong Kong the last frontier for bamboo scaffolders?" mentions that more than five million bamboo rods, each six to seven metres long are used every year by the construction industry. There are 1,751 registered bamboo scaffolders according to the Construction Workers Registration Board, and about 200 scaffolding companies.

Bamboo used in Hong Kong originally came from the Xiaoxing area in Gouandong. It matures after three years to a naturally wide diameter which is perfect for scaffolding. However over the last two decades firms have had to look to Guanxi and Guilin. The report says that the industry fears that one day supplies will be blocked from China for environmental reasons and export embargoes. Attempts to import bamboo from Thailand or switch to synthetic or plastic bamboo have so far proved unsuccessful.

So Yu-hang, who is director of Wui Fai Holdings, a member of the Hong Kong and Kowloon Scaffolders General Merchants Association, and scaffolder for over 30 years laments,

"If we don't appreciate the skill and knowledge, it will one day disappear."

<http://www.scmp.com/news/hong-kong/article/1186476/why-hong-kong-last-frontier-bamboo-scaffolders>

And from the past... In 1939 scaffolders were paid HKD 1 to 1.5 per day
male labourers HKD 0.60 to 0.80 per day
female labourers HKD 0.40 to 0.50 per day

HF

*

Manufacturing Paper Lanterns



This delightful photograph comes from the HK Public Records Office Archives. It was issued by Government Information Services in 1959 in a document providing information about Chinese lanterns. The caption reads, "*Lanterns made by Chinese craftsmen in the British Crown Colony of Hong Kong differ little from those which fascinated the first European voyagers to the Far East. They are made of paper, silk, or geuse [sic, gauze?], and decorated with butterflies, fishes, lobsters, wizards and a host of legendary figures from Chinese mythology....In recent years the lanterns have also become popular with visitors to Hong Kong. this has resulted in an increased demand for the lanterns overseas and in the first quarter of 1959, export business was worth more than HKD\$50,000.*"

Geuse is the name of a strong Belgian beer. An unlikely material for Hong Kong lanterns but you never know.

HF