The greatest rivers often come from the least springs.

Pehr Osbeck and his voyage to China.

To be designated one of Carl Linnaeus' 'Apostles' was not without its risks. Of some 17 that went out into the world to collect botanical and zoological specimens, seven never made it back. Two of the most famous survivors were Daniel Solander, who with Joseph Banks made up the *Endeavour's* naturalist's complement on Cook's first voyage, and Anders Sparrman who travelled widely to China and Africa, and also with Cook on his second voyage.

The Apostles[1] were students or disciples who studied under Linnaeus as he developed his taxonomic revolution first in the Netherlands and then as he settled into eminence in Uppsala. They were encouraged to travel, often with the Swedish East India Company, collecting botanical specimens and so contributing to Linnaeus' taxonomic work. Linnaeus was a friend with one of the company's Directors Magnus Lagerström and together they ensured that a naturalist was on board many of the Swedish vessels. Lagerström also appears in the China bibliographies, authoring a dissertation on Chinese plants.[2] He had been able to procure plant specimens for Uppsala, and a multi-volume Chinese herbal. A recent major publishing enterprise on all the apostles' travels and collecting has resulted in some eight volumes, in English, comprising journals, letters, papers and travel and collecting accounts, their travel covering all continents and falling within the years 1745 to 1799.[3]

Of the 17, four included China in their destinations, although only three made it. The one who failed was Christoffer Tärnström, sailing as a ship's chaplain, but who died in Vietnam in 1746 on the way to bring back goldfish for Queen Lovisa Ulrika, and tea plant bushes and specimens for Linnaeus.[4] Anders Sparrman, sailed to China in 1765 as ship's surgeon on the *Navarcha*, captained by his cousin Carl Gustav Ekeberg on one of the latter's many voyages there, spending two years collecting and travelling. He later sailed to South Africa in 1772, on the recommendation of Ekeberg, who was also a close friend of Linnaeus. (Ekeberg's account of a visit to China is included in Osbeck's book discussed below.) Sparrman was picked up at Capetown by Cook to be an assistant to the grumpy Johann Forster and his son George. Sparrman published a three volume account of his travels.[5] The only publication from the China voyage seems to be a dissertation by Sparrman, given at Uppsala in 1768, Linnaeus presiding. In that he gives a brief account of his travels and collecting.[6]

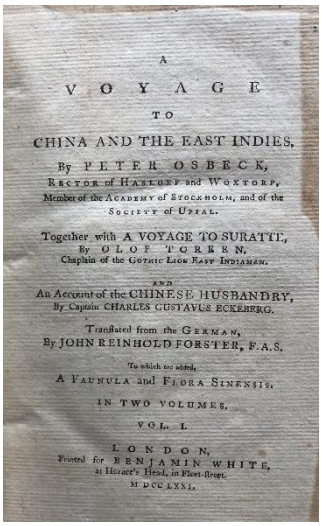
Another Linnaeus student, Olef Torén (1718-1753), also sought tea bushes and brought them back from China, but they didn't survive. He too was a chaplain to the Swedish East India Company and made two voyages east, the first to Java in 1748 and the second to India and China with Pehr Osbeck in 1750. Torén wrote letters back to Linnaeus who published them in 1757 after Torén's death, attached to Osbeck's account of his own voyage. Linnaeus' gratitude for the specimens brought back resulted in Torén being immortalized in the genus *Torenia*. A separate French edition of the letters alone was published the same year.[7]

Pehr Osbeck, Hasslövs church, Halland, Sweden.

The apostle who became a minor botanical hero of the age, however was Pehr Osbeck (1723-1805). He was born in Hålanda in Västergötland in Southwest Sweden and studied for the church, and as a student with Linnaeus, from 1745 to 1750. On 27 November 1750, 27 years old, he set out as chaplain on the Swedish East India Company's ship *Prins Carl*[8] bound for Canton in a voyage that lasted until 26 June 1752. Five years after returning, Osbeck published his book on the voyage, including much on botanical specimens, and including the accounts of both Torén and Erkeberg, providing two volumes crammed with interest on things China.

Osbeck, Peter, Torén Olof, Ekeberg, Carl Gustav. Dagbok öfwer en Ostindisk resa åren 1750, 1751, 1752. Med anmärkningar uti naturkunnigheten, främmande folkslags sprak, seder, hushållning m.m. jåmte 12 tabeller och afledne skepps-predikanten Torens bref. Lorentz Ludwig Grefing (printed by N. von Oelreich), Stockholm, 1757. Cordier 2097, Lowendahl 491[9]

A German translation was published in 1765 ,and later French[10] and English translations in 1771, the English translation from the German by Johann Forster, the naturalist with Cook on his second voyage.


A
VOYAGE
TO
CHINA AND THE EAST INDIES,
By PETER OSBECK,
RECTOR of HARLUFF and WOXTORP,
Member of the ACADEMY of STOCKHOLM, and of the
SOCIETY of UPSAL.
Together with A VOYAGE TO SURATTE,
By OLOF TOREEN,
Chaplain of the GOTHIC LION EAST INDIAMAN.
AND
An Account of the CHINESE HUSBANDRY,
By Captain CHARLES GUSTAVUS ECKEBERG.
Translated from the GERMAN,
By JOHN REINHOLD FORSTER, F.A.S.
To which are added,
A FAUNULA and FLORA SINENSIS.
IN TWO VOLUMES.
VOL. I.
LONDON,
Printed for BENJAMIN WHITE,
at Horace's Head, in Fleet-ſtreet.
M DCC LXXI.

Osbeck, Pehr, Toréen, Olof / Ekeberg, Carl Gustav. A Voyage to China and the East Indies by Pehr Osbeck. Together with a voyage to Suratte by Olof Toreen. And an Account of the Chinese husbandry by Captain Charles Gustavus Eckeberg, translated from the German, by John Reinhold Forster. To which are added, a Faunula and Flora Sinenses. Two volumes. London, printed for B. White, 1771.
Pp. xx, 396; (ii), 367, (1) + index (32). With 13 engraved plates of which 11 are of plants. 8vo. Cordier BS 2098. Lust 350; Lowendahl 558.

There are 13 plates, all in Vol. 1, of which 11 are of plant specimens, including the eponymous *Osbeckia chinensis*. There is one plate with a fish, jellyfish and a couple of Chinese implements, and another plate is a chart of characters for different teas. The plates are as in the original Swedish edition, except that the table of tea characters is absent from that first edition. The tea character table is in the German edition, presumably added by Osbeck in his revision. The Swedish edition also does not contain the Faunula and Flora Sinensis section, and neither does the German translation. This was added by Forster.

Plates
Fig 1. Holothuria *Physalis;* Fig 2. Gasterosteus *Ductor*; Fig 3. A Chinese pair of tongs; Fig 4. A Chinese roller or callendar.
Chinese characters for tea.
Carpesium abrotanoides.
Osbeckia chinensis, from hoeang Loaa or Golden feathers.
Rhamnus Lineatus
Trichomanes chinense
Barteria cristata
Clerodendrum fortunatum
Gerardia glutinosa
Baeckea frutescens
Fig 1. *Pteris semipinnata*; Fig 2. *Utricularia bifida*
Helicteres angustifolia
Pteris vittata

The drawings are presumably by Osbeck himself. Ekeberg was a good draughtsman and the first plate which includes the fish may have been his. There are no natural history plates in Ekeberg's own book based on his 1770-1771 China voyage.

The dedication by Forster is to Thomas Pennant (1726-1798), gentleman naturalist and writer. We think we scientists are very connected these days, but here we have serious scientists and collectors such Linnaeus, Buffion, Banks, Forster, Solander, Sparrman, Osbeck

all linked, often through intermediaries such as Thomas Pennant, and drawing in others from a wider sphere such as Voltaire, Gilbert White and Thomas Berwick. Translations were important in this network, since English was still not the common language of science. Forster translated both Osbeck and Sparrman, and travel works by two other apostles, Pehy Kalm's *Travels into North America*, and Pehr Löfling's *Travels through Spain and Cumana in South America,* using all this to help get his appointment on Cook's second voyage.

Pennant became a friend and long time correspondent of Linnaeus, and was duly elected a member of the Royal Swedish Society of Sciences. In subsequent years he travelled in Europe meeting Voltaire, the French naturalist Buffon, and the explorer and travel writer Peter Pallas. That central figure in 18th C science Joseph Banks was well within Pennant's orbit, the pair meeting in 1771 after Banks' return from Cook's first voyage. In his dedication to Pennant, Forster says: *'This work was taken with your approbation, enriched by you with many important additions, and has often been the subject of our conversation'*. Forester thanks Pennant for introducing him to '*a number of munificent and worthy friends…*' and ends with '*..may you continue to have in your country the honour and pleasure of being a father to the afflicted and necessitous.*' Pennant seems to have had some impact on Forster's life in England.

Forster then writes an '*Editor's Preface'*, giving a boost to Osbeck and Ekeberg, and provides some provenance for his translation, noting it was from the German, as translated from Swedish by Godlier Georgi, under the supervision of Daniel Schreber, a friend and pupil of Linnaeus. Forster notes that the German edition was revised and enlarged by Osbeck himself. This is followed by Osbeck's *Preface* from the original 1757 edition. Osbeck here says he was chosen to perform the functions of Chaplain in the ship '*that is, to read prayers in the morning and evening, to confess the people, to administer the Lord's supper, to catechise, to visit the sick, to bury the dead, and to preach on Sundays and holidays*.' Then '*so tedious a voyage required some amusement*' and for this he turned to natural history, perhaps with some relief. Linnaeus, the hovering eminence, gets his due through sending him specimens, '*how express my obligations so well as by specimens of natural histo*ry'. He says he kept a journal and in letters between himself and Linnaeus on his return, the latter urged him to publish, and so he does, *'The following sheet however ought to be considered as written at first merely for my own amusement*.' As is often the case, a journal written without an initial eye on publication, usually provides a more entertaining read. He lastly notes that he has added the letters of the recently died Olof Torén.

And so in November 1750, Osbeck sets out, first landing in the Faroes, where his description details a fairly grim life where: '*It is said, that they catch a great many whales; that they eat dry cod-fish instead of bread; and that they put their sheep-tallow under ground, in order to use it afterwards as butter or oil.*' After 6 weeks they reach Cardiz, the important southern Spanish port

used as a staging post for Swedish ships enroute to Canton. Here they needed to trade northern goods for Spanish silver that could be used for trade in China. According to the Company's charter they were unable to carry and trade with Swedish silver.

Osbeckia chinensis, from Hoeang Loaa or Golden feathers. Tab 2.

They are held in quarantine and *'we put a goose upon our fore-topmast , which is a of a ship's keeping the quarantine.'* The goose, or gooseneck, in this instance being an inanimate iron shackle. Osbeck writes many pages on Cadiz and all things Spanish, even including a Spanish alphabet and pronunciation guide which Forster decided would be only useful for Osbeck's countrymen, and so omitted it. Amongst the livestock and food it seems that the Ibérico jamón pata negra ('black hoof') is already prized: '*Swine are kept in whole herds by a man who feeds them with acorns, which are commonly sold at Cadiz and at other places . The swine are very large, thin haired, and black as jet. It is probable they came originally from Africa, as I am told that this sort of hog is very scarce higher up in the countr . It would be worth while for an economist to get a breed of these swine; but they must also be fed as they are here, and have some exercise every day, which keeps them from growing too fat, and makes them taste well.*' Forster includes a wry footnote with no authorship since it doesn't include the 'F' Forster used for his own footnotes, nor the 'D.S.' denoting his prior German translator Daniel Schreber. : '*In England no man tries to prevent his hogs from growing too fat*.' The footnote is not in the Swedish or German editions, and its not too hard to believe that it is Forster, not known for his sense of humour, having a little dig at his adopted Englishmen.

They stay ten weeks in Spain, Osbeck also making a collection of plants, described in his pages. Then to the Canary Islands and on south. In the midst of much close and scientific observation, occasionally you are reminded that things are not always scientific in these enlightened times. Osbeck records finding a swallow at sea: '*It is somewhat extraordinary, that it should be met with at so great a distance from Sweden, and in so different a climate. I do not pretend to affect, that it came yesterday from the bottom of the sea as it was taken so near the Canary islands.*' Prompting a footnote from Forster: '*Our author, with the northern naturalists, takes it for granted, that swallows retreat under-water when they disappear in autumn; there is good evidence that many of them migrate from Europe to Africa;…..*'. Forster's northern naturalist was predominantly Olaus Magnus who wrote in 1555 that swallows hibernated in the winter under water or in the mud.[11] This, originating in a theory by Aristotle, was promulgated by leading naturalists such as Linnaeus and even Gilbert White in the 18th C. The same Olaus Magnus must have got something right with birds, since his comments on duck husbandry were used by the pioneer China commentator Juan Gonzalez de Mendoza in 1585 to make a comparison with the practice in China.[12]

Osbeck reaches the Cape of Good Hope at the end of May, and eventually Java on 12 July 1751. They spend the next few days sailing along the coast, Osbeck recording birds and insects settling on board as avidly as plants when gets on to land. He meets the locals, exchanging used clothing for food and bedding: '*they offered us their cocoa - nuts, plantains, chicken, beer, buffaloes, tortoises, and bed-mats; which latter were either double, that is, such as*

have larger meshes on one side; or single, which are always brought here and used as sheets on account of their coolness. In payment they received Spanish silver money, or wares, such as old shirts, handkerchiefs.'

On August 22, they finally steered to the Chinese coast after a couple of weeks wallowing in the South China sea, '*having made a collection for the poor of 334 dollars in copper'*. Who were the poor? Those less fortunate on board? Forster calculates this as about 7 pounds sterling, close to £2000 in today's money. They enter the Bocca Tiger, a comprador and mandarins come aboard, and after five months and four days from Cadiz, anchor in Whampoa. It's a busy place with 17 European ships at anchor, two Swedish, one Danish, Two French, four Dutch and nine English. All but the Dutch had on-shore factories (the Dutch were being punished for bringing in cannons hidden in water tubs, discovered when the tubs broke apart.

Osbeck's entry for the 1st September carries a Forster footnote: '*Here our author has inserted an history of China, extracted from books in the hands of most English readers; we have omitted it as uninteresting*.' He describes all that he sees, and much that has become familiar from the dozens of books describing the same scenes. Naked children fishing from the boats in the river and collecting anything that has been thrown overboard. '*There is nothing so filthy but what these people will use as foo*d', recounting that Chinese on board the European ships try to feed hogs with pepper, since they believe this will kill them, and when thrown overboard, provide a ready meal. This is thwarted by the Europeans sinking their dead animals. Then there is ubiquitous human excrement stored in vats for fertiliser, something European visitors never got over in hundred's of years.

Osbeck give a good description of the factories, Canton, and soon is into listing local plants and their used, porcelain, umbrellas, gold and precious metals, and then tea. He describes some 15 types, and Forster adds his notes on whether they are from different species, heading toward the later realisation that the different types are more about how tea is processed and drunk. Osbeck provides a lovely full page table of the Chinese characters for teas, as beautiful in its ways as any botanic illustration. There is much on tea, including forcing the product into chests with sweat and blood: '*A Chinese gets into these chests, and treads down the tea as it is emptied out of the baskets; this is very hard labour; and throws the treader, who is almost naked, into a profuse perspiration. Though great care is taken to prevent any thing from coming into the tea, yet it is hardly to be avoided: and sometimes their feet are wounded and bleed. But the tea has already passed through so many dirty hands, that those who use that drug have no reason to be disgusted with this last mark of indelicacy in the package*.'

This occasions a couple of footnotes from Osbeck, one noting that '*this disgusting circumstance remarkably attends the bagging or treading of hops into their bags.*.' and also to treading wine, or sugar or raisins. The other goes on to muse that '*The veins on the feet of some Chinese are very strong, and run in extraordinary directions. The bamboo sticks, upon which they carry tea chests and other heavy things, make deep impressions on their shoulders.'*

Osbeck goes on at length listing the various plants uses, rice, camphor, and in particular rhubarb. There was long a belief in China that all the English were interested in obtaining from China was tea and rhubarb, well known for its medical benefit, though why rhubarb achieved this status in Chinese diplomatic thinking is not always clear. Osbeck says that while the plant was not said to grow around Canton, he saw plenty being dried. *'The marks of its goodness are, that it is dry, old, and as it were marked with oriental characters. The Chinese doctors never use rhubarb by it-self, but prescribe it always fresh, and mixed with other medicines. They cut the root into slices and put it into a cullender over a boiling kettle, that it may imbibe, the steam of the boiling water. These slices are then exposed to the sun for six hours together: this is nine times repeated. The Portuguese at Macao boil it in water, and drink it as a stomachic.'* Its health-giving properties were not universal however, Osbeck adds a footnote, saying that the Jesuit missionary Martino Martini died from half an ounce of it. Martini was a 17th C missionary stationed in Hangzhou, establishing a church there, still extant, becoming a pioneer geographer for the mission, and writing the first history of the Manchu war that ended the Ming dynasty, was published in Europe in 1654.[13] While it unlikely that half announce of rhubarb was fatal, perhaps it helped in postmortem preservation, since his body was reputed not to have decayed 20 years after his decease. His grave still exists in Hangzhou.

Chinese rhubarb. Illustration from Michael Boym's Flora Sinensis, 1656.

The appearance of the Chinese is described, a little strangely: '*The inhabitants of this country, whom we call Chinese, are quite white, excepting those who are tanned by the sun. Most of them look alike;....*' and '*In conversation they are civil; in their demeanor gentle; in social life diligent, having genius for trade in particular: but they are likewise talkative, inquisitive, loving to take presents; are obstinate, proud, and suspicious*.' And as usually the case with Europeans observing the features of indigenous people, there is an explanation for all those differences: '*The mothers, who always educate their own children, tie them to their backs, that they may not be troublesome to them in working: and as the children often knock their noses against their mothers backs, it is probable that this is the cause of their broad noses, which are a general characteristic of this nation.* '.

The clothes are minutely described, and not surprisingly, *'....a Chinese is never seen to wear a wig, cravat, sleeve buttons, gloves, garters, knee buckles, and buckles in the shoes; and seldom walks with a stick. Instead of these things, their tobacco-pipe, tobacco-bag, and purse, hang down to the knees by long strings. In winter they frequently put on thirteen or fourteen garments one above another, or get them lined with furs. Instead of muffs they carry a live quail (Tetrao coturnix[14]) in their hands*.' It seems unlikely that Osbeck observed hand-warming quails. There was a legend current that early Emperors used quails that would retreat into the sleeve when not needed. What is verifiable is that ceramic or bronze handwarmers containing coals and scented material, many beautifully carved and decorated, were carried to keep the hands warm. Perhaps quails are mentioned in Du Halde's history of China[15], which Osbeck had at hand and occasionally referred to. It is likely that Osbeck leaned more heavily on Du Halde than he let on, likewise, the French Jesuit Louis Le Comte is often cited, even though the latter's work appeared about 60 years earlier.[16]

The admiration for China found here is that same admiration that had been catalogued since the early 17th C and would continue well into the 19th. '*Their observations on the heavens and earth, and their history, are remarkable on account of their antiquity. Their morals are looked upon as a master - piece; their laws are considered as excellent maxims of life; their medicine and natural history are both of them founded on long experience; and their husbandry is admired for the perfection it has risen to. But the want of the true knowledge of the Supreme Being is an imperfection which out-weighs all their other knowledge*.' The only blemish thus being the absence of Christianity. This belief that if only they could be converted, then they would be the ultimate model race persisted from the earliest Portuguese and Spanish missionaries through to the protestants of the mid 19th C. The Jesuits stood out for their understanding that Confucianism offered something similar for public and personal ethics, if you excluded ancestor worship and the absence of the Supreme Being.

Gerardia glutinosa. Tab 9.

There is much on religion, Osbeck quoting a text from Le Comte describing an old man who tells Le Comte that his priests (bonzes) have said that he will continue to serve his emperor in the next life, though not necessarily as a man. The old man is disturbed, dreaming that he will become a horse, starting at the feel of the saddle and first lash of the whip. Osbeck continues through weddings, young women's deflowering being offered to the highest bidder, calendars, husbandry and food. Much of what he describe is not very new, and at this stage you wish for more personal experience and observation. However, it is the plants which take up his greatest interest, and there is a nice picture of Osbeck the botanist back in Sweden pottering in his garden: '*Pease of several kinds are sown here, and likewise two species of beans, which are not usual in our country, for they require more warmth than our climate affords. I have perfected some however in Sweden by a hot-bed.*' The carrots are no good, and he was successful in bringing back to Sweden yams which he grew. He talks also about a Chinese potato, identified as a Spanish potato, *Convolvulus batatas*, now the sweet potato *Ipomea batatas* and introduced into China (Fujian) from the Philippines in the late 16th C following local crop failures.

The rest of Volume 1 and the first pages of Volume 2 are about plants, with the plates of specimens, and occasionally Osbeck emerges in person. It seems that a keen European botanist might be an easy target. On the 9th of November: *'Camellia Japonica, (its Chinese name is Fo-kai), a tree which was carried about and exposed to sale in the streets. I bought one of a blind man in the street, which had fine double white and red flowers. But by further observing it in my room, I found that the flowers were taken from another tree, and one calyx was so neatly fixed in the other with nails of Bamboo, that I should scarce have found it out, if the flowers had not begun to wither. The tree itself had only buds, but no open flowers. I learned from this instance, that whoever will deal with the Chinese, must make use of his utmost circumspection; and even then must run the risk of being cheated.'*

On January 1 1752, Osbeck's ship completes its loading of cargo: including amongst other goods, potatoes, turneps, yams, carrots, leeks, cabbages, and other garden sluff; tea in some thousands of chests and cannisters; silk, mother of pearl, rhubarb; 6 tons of arrack; 222

chests, 70 tubs, 52 lesser chests, and 919 packs of porcelain. Unsurprisingly, the ship was twenty-one feet ten inches behind, and twenty feet five inches before, in the water. On the 4th of January Osbeck is ready to sail home, and they seemed pretty happy about it too: '*After a stay of four months and ten days in China, our ship and the other Swedish ship began their voyage home. Every one leaped for joy,.....*'.

There was one casualty. Everyone wanted to bring a tea bush back to Europe, not least Osbeck: ' *and my Tea-shrub, which stood in a pot, fell upon the deck during the firing of the canons, and was thrown over-board without my knowledge, after I had nursed and taken care of it a long while on board the ship. Thus I saw my hopes of bringing a growing tea-tree to my countrymen at an end; a pleasure which no one in Europe has been able as yet to feel, notwithstanding all possible care and expences. Some have brought tea-nuts as they get them from the Chinese; but in case they could get them fresh (which I very much doubt), they are spoiled on the voyage: others have bought tea-shrubs in pots, which they commonly get in flower just before their departure from China, but they withered about the Cape of Good Hope.'*

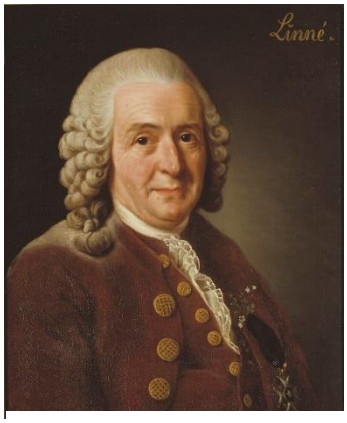
Tea plant, Camellia sinensis, from Linnaeus' Amoenitates Academicae, Vol. 7, 1769.

The Chinese were unhappy about their tea plants being taken out of the country. It became illegal, a law transgressed by Robert Fortune in the mid 19th C. It also took the development of more sophisticated methods of transporting plants by sea, particularly the Ward's cases, enclosed glazed cases which kept plants moist and protected from sea water during a voyage, before cuttings and while plants could be more successfully transported. It seems with Osbeck, that Europeans could only obtain tea plants from their factories in Canton, and not go gathering seeds or cuttings for themselves, '*but without this they can only get shrubs (in the factories) in little flower pots, with too little earth, or with such as is not fit for their tender roots*.' Carl Ekeberg, whose account of husbandry is in Osbeck's book, successfully brought back tea plants for Linnaeus in 1863.

By January 19, they had reached Java and took on water at an anchorage at New Bay, Osbeck spending some days collecting and describing plants and fish, all listed in his account. He provides no record of them putting to the Cape of Good Hope, and on 17 March, they are sailing near St Helena, and on the 4th April they anchor at Ascencion island where they capture 31 tortoises, (the green sea turtle *Chelonia mydas*). Despite the abundance of turtles, and you have to watch them since one of the sailors had a finger bitten off, Osbeck '*never saw a more disagreeable place in all the world than this island.*'; hot, dry, no trees, rocky, and dangerous to walk on, and full of rats, originating from Dampier's ship[17]. The Island doesn't look a lot better today.

They left on April 8, after Osbeck had collected and described just about everything living and dead, right down to the lichens, on stones which were too hot for him to carry with him. They sail through the sargasso sea, well described, meet an English ship with make and female slaves aboard, the sail along the south coast of England, go ashore at Diver to stock up, the on to Gothenburg, arriving on the 26th of June 1752. '*We lost eight men on the voyage:*

of these one died of a dysentery, one of the pleuresy, three of agues, and three lost their lives by accidents. But thanks be to God, who has so successfully brought 124 men back to their own country.'



Carl von Linné, artist Alexander Roslin, National Museum, Stockholm,1774.

Immediately after Osbeck's account, there is short letter to Osbeck from Linnaeus. Osbeck is complimented for travelling '*with the light of science, you have named every thing of precisely, that it may be comprehended by the learned world; and have discovered and settled tied both the genera and species. For this reason, I seem myself to have travelled with you, and to have examined every object you saw with my own eyes. If voyages were thus written, science might truly reap advantage from them.'* Osbeck is the model Enlightenment and enlightened traveller, bringing order and classification to the natural world following the master's systems. And indeed, his account is quite different from many preceding it in the scientific nature of the recording and describing of plants and animals, perhaps not bettered until the Cook voyages with their accomplished naturalists that commenced about 10 years later. That might be a large claim, but Osbeck should be reassessed in this light.

How much a of a model of the new science Osbeck was, can be seen in the next two documents which celebrate his admission to the Swedish Academy of Sciences on 25th February, 1758. Osbeck gives a speech on '*What should be attended to in Voyages to China*'. His opening lines are an eloquent declaration of what a scientist should be and do in this age of discovery: '*The greatest rivers often come from the least springs; and so the least causes may produce the most considerable effects. The ablest men in all sciences therefore pay great attention even to the minutest information, which is despised by persons of inferior abilities: they expect no fruit without a preceding flower, no scientific knowledge without simple but fundamental principles, and no experiments without previous introductions*.' Linnaeus couldn't have been more pleased.

Osbeck goes on rather fulsomely: '*Follow me therefore, Gentlemen, over the foaming waves to the Spanish shores, and over a boisterous sea to the riches of the Indies: but we shall here mention only a small part of what will gratify a laudable curiosity, and confine ourselves to domestick œconomy and natural history,..'.* He then charts his voyage, down to Cadiz: '*the Spanish meat is (at least about this time) very bad*', and then on to Canton, reminding his Swedish audience that '*Foresight is necessary against the suspicion of the Chinese, and even the least opportunity ought not to be missed. A silent company is here necessary*.' Osbeck briefly recounts his collecting and some of the notable things such as porcelain, and precious minerals. He ends: '*Many other articles there are, worthy our attention: but I need not try your patience any longer, Gentlemen; and what is here omitted may be supplied by the accuracy of the traveller.'* Perhaps they should read his book.

There follows a reply by the President of the Academy, John Frederick Kruger. There has been a sea change in Sweden (and elsewhere in Europe) with the combination of exploration and science: '*A nation which does no honour to science, arts, and trade, can expert nothing but foreign fopperies from their travellers: for how can they be inquisitive in other countries*

about those things which are despised in their own? or, why should they with a great deal of trouble acquire such notions abroad, as will not be regarded or adopted at their return? And this is the principal reason of the little benefit which Sweden has formerly reaped from its travellers. But, since science has been equally esteemed both by high and low, we can boast of those travellers, whose sole view has been to improve their knowledge by fresh experience.' He praises Osbeck: '*Give me leave however to say, that the public thankfully acknowledges the courage you have exerted amidst so many difficulties, for the enlargement of knowledge, and reckons you among the small number of travellers, who have opened a field, (which before had never been attended to) and in a country too whose natural history has lain till this time in the greatest obscurity*.', and congratulates him on his attaining a place amongst the members of the Academy.

Torenia asiatica, named after Olef Torén by Linnaeus. From L'illustration Horticole, 1854-1896. Edited by Charles Lemaire.

Eight months before Osbeck set sail, his fellow Linnaean Olef Torén left Gothenberg on April 8 1750, for China on another Swedish East India Company vessel, the *Götha Leijon* (translated by Forster as *Gothic Lion*). The vessel made three voyages to China in all, this the second, under Captain Daniel Shierman, returning on June 26, 1752. Torén spent a similar amount of time in China to Osbeck, and the latter mentions meeting him, though only once and they didn't seem to have much connection. After his return, Torén wrote his letters to Linnaeus, giving his account of his travels. According to the preface, the letters were written between November 20 1752 and May 3 1753; he died in August of that year. This collection of seven letters was then published in Osbeck's book. In fact, this voyage was Torén's second.[18] He had visited China as chaplain on the Company's ship *Hoppet* from 26 January 1748 to 11 July 1749. However, he seems to have left no record of this voyage.

He starts his first letter with an excuse: '*You will be so kind as to excuse my not complying sooner with your desire of seeing some account of my East India voyage. The causes of my delay have been owing to a necessary attendance on my own affairs and those of my family, and the bad state of my health.*' They were supposed to have left on April 1 but weather delayed them, '*The wind made April fools of us; for we were forced to return before Skagen, and to anchor at Riswesiol*', occasioning a footnote from Forster in his adopted Englishness: '*It hence appears that the same practical wit of duping people on the first of April obtains in Sweden, as among our wags in England*.' This first letter ends at the Cape of Good Hope.

On the 16th of September, they anchor in the port of Surette. This is Surat on the Tapi River on the West Coast of India, then a major trading post, particularly for the English and the Dutch . The next three letters concern Torén's time in Surette, and they eventually sail back down the Indian west coast and across to Malacca which they reach on May 13, 1751. At the end of Letter IV, they reach China and have anchored at Whampoa on July 7.

Perhaps more than any other country, there is, through the 18th C, still the sense of a new world being revealed for travellers. '*A person who for the first time visits this country, thinks he has a new world before him; for almost every thing looks different from what he has seen in other places, unless where climate renders some simularity of customs necessary*.' He describes the country as they sail up to Canton and the factories. And repeats Osbeck's observation on the

physical characteristics of the people, including a theory: '*The people differ very much in size, but are seldom tall. The men have a yellowish skin; the ladies are fair, but the common women tawny. The bone above the eyes projects very far, and forms a triangle with the chin. Most of them never quite open their eyes: and I am told, that the custom of bearing the children at their backs, with their heads hanging down, occasions as it were a swelling of the eye-lids; for the orbits are the same with them as with other people. Their noses are somewhat flat: their lips middling; and their looks, when they hope to gain any thing, as sweet as possibly can be*.'

The 7th and final letter begins: '*Though I have taken care not to mention what I have already found well described in other authors, yet I fee from the Stockholm gazette, that I have either relied too much on my memory, or on the heads in the English collections*.' This seems to suggest that Torén's letters had been published in Sweden prior to their assembly in Osbeck's book. Despite his association with Linnaeus, there is not much botanical in the letters, nothing like the professional work of Osbeck, though he does mention his failed attempt to bring back tea '*We took two tea shrubs with us on our return: both of them died, notwithstanding all our care,....*'. On the 21st January 1752, he departs, as with Osbeck calls in at Ascension Island, and is back in Gothenburg on June 26. In all, we don't learn much about Torén, nor much that is new on China.

The third author to appear is Carl Gustav Ekeberg (1716-1784). Ekeberg was a major Swedish maritime figure, and close friend of Linnaeus. He made some twelve voyages to China for the Swedish East India Company, five of them as captain, but was also trained as a chemist and physician, and became an accomplished artist and naturalist. In 1773, he published an account of a 1770-1771 voyage on the *Finland*, his last to China, in a series of letters to Pehr Wargentin, the Secretary Royal Swedish Academy of Sciences, of which he became a Fellow in 1776. [19] His book was dedicated to Carl Scheffer, a much decorated diplomat and politician, and contains fine engravings from Ekeberg's own sketches of Whampoa, the Bocca Tigris and Canton itself. Ekeberg's drawings have been linked to the foundation of the Chinese export art trade.[20] Although there were German translations of 1785 and 1807, the work doesn't appear to have been translated into English.

Ekebergia capensis sparrm.

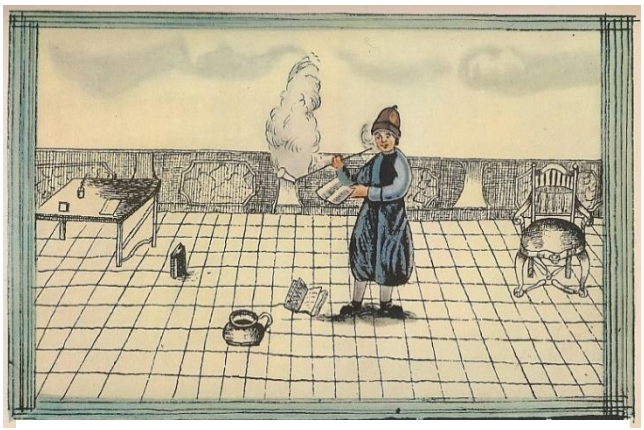
Prior to this, Ekeberg had written an account of Chinese husbandry presented to the Swedish Academy in 1754,[21] appearing in 1757 bound with Osbeck's work, with a French translation published in 1771.[22] The account begins with a paen to China and its advantages and self-sufficiency: '*Few countries can boast the possession of such a variety of different natural advantages, as not to stand sometimes in need of the assistance of others.*
This imperfection seems to be the only tie by which civil societies are kept together: but in China nature seems to have followed a different mode, for of this empire we may justly say, that it can exist by itself.' He gives a short account of the state of the country, then sections on agriculture, the soils, water, rice fields, weather, arable land and crops, kitchen gardens, trees and tea, and gardens for diversion. Then beasts and birds. They don't like beef and there are plenty of fish, ducks and hogs, '*Whose flesh they eat daily in great quantity and with great relish*,' some things unchanging over the centuries. And that's it, a nice, short and fairly accurate summary coming from someone with a practical eye and more immune than most from fanciful stories. While Osbeck and Torén had genera named after

them by Linnaeus, Ekeberg was immortalised by his friend and cousin Anders Sparrman with the genus Ekebergia. It was Ekeberg also who managed to get a living tea plant back to Sweden.

The final part of the book is the *Faunula Sinensis: or, An Essay Towards a Catalogue Of the Animals of China*. This was presumably added by Forster, along with an accompanying *Flora Sinensis*. These are taxonomic lists based on Linnaeus' system with little commentaries by Forster and many references to Du Halde. The animal list starts, a little unfortunately, with Primates: *Homo 1. SAPIENS monstrosus, macrocephalus, capite conico, Chinensis: thus does Dr. Linnaus rank men amongst the animals, and calls the Chinese with their large conic heads, monstrous men.* There is the dog and the cat, both of whose '*flesh his eaten in China*', and some sort of tiger without a tail (a lynx or mountain cat?) which Forster also saw in Her Majesty's Elephant House in St Petersberg. The birds, fish and insects are more scientifically done.

The plant list is extensive, with longer entries on plants such as Gardenia and of course tea, where Forster recounts the success of Ekeberg: '*Captain Eckeberg brought a little tea-shrub, the third of October 1763 to Sweden; which is the first that ever came to Europe, for all sorts of trees die on the voyage: but the way to obtain them is to put the fresh seeds into pots in China, a little before the ship sails. And as a tea tree, according to Kaempher's, account, attains its full growth of about six feet high in seven years, it is probable that Dr. Linnaeus's tree is now in full vigour. He intends to multiply this fort of tree, and to expose it then to the open air as the tea-shrub grows as high as the latitude of Pekin in the open air, where the winters are far more severe than in England and in the south of Sweden. It is therefore highly probable that this attempt succeed.*' It all ends with an index, not all that common, but a pleasure for the enquiring reader.

What happened to Osbeck's plant collection? There has been much written on it and Linnaeus' use of the specimens, and those brought back by his other apostles, in his landmark publication *Species Plantarum* of 1753.[23] Bretschneider[24] added things up and records that Osbeck described 244 Chinese plants, already with Linnean names, or new ones. Linnaeus described some 55 Chinese plants in his Species Plantarum, only 37 from Osbeck's collection. Many of Osbeck's plants already named had been attributed as Indian plants by Linnaeus, including Torén 's *Torenia asiatica*, although it was probably collected at Canton. Some 600 of Osbeck's specimens are held in the Linnean Society in London, and others in Sweden in the Swedish Museum of Natural History and Bergius Herbarium both in Stockholm, and the Botanical Museum at Lund University.[25]



Jacob Wallenberg. From Min Son på Galejan, 1781.

And a postscript. Not many explorers and naturalists got to be the subject of satire, unless they made things up, which was more common than supposed. On Ekeberg's ship *Finland* there was a chaplain, Jacob Wallenberg. He has become much more famous that his captain since he wrote a rollicking, comic travelogue, published in 1783 two years after Wallenberg's death, and which quickly becoming an 18th C Swedish literary classic. It was titled *Min son på galejan*, or *My Son on*

the Galley (translated into English in 1994[26]), the title alluding to Moliere's play *Les Fourberies de Scapin*. Wallenberg parodies the rather humourless accounts and observations of explorers and naturalists such as Osbeck and Torén, while being, with them, part of the Swedish East India Company's highly profitable enterprise.[27] They seemed to have weathered the storm.

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[1] https://bioresurs.uu.se/wp-content/uploads/2016/03/Linnelektioner_Linnaean_lessons_apostles.pdf
[2] Linné, Carl von. Chinensia Lagerströmiana. (Dissertation, resp. Johan Lorentz Odhelius). Holmiae, Jacob Merckell, 1754. Cordier 390, Lowendahl 469.
[3] https://www.ikfoundation.org/books-and-art/linnaeus-apostles-full-set/
[4] Queen Louisa Ulrika (1720-1782) was the largely unloved Queen from 1751 to1771, wife of King Adolf Frederick and sister of Frederick the Great. At the time of Tärnström's voyage she would have been Crown Princess.
[5] Sparrman, Anders. Resa till Goda Hopps-Udden, södra pol-kretsen och omkring jordklotet, samt till Hottentott- och Caffer-landen, åren 1772-76. Stockholm, Anders J. Nordström, 1783; Carl Deleen, 1802 – 1818. An English translation of the first and second parts was made by Johann Forster and published in 1785.
[6] Sparrman, Andreas. Iter in Chinam quod praeside D.D. Carl von Linné proposuit Andreas Sparrman, Uplandius. Upsaliae, 1768. Cordier 390, Lowendahl Supplt 1659.
[7] Torén, Olof. Voyage de Mons. Olof Torée aumonier de la Compagnie Suedoise des Indes Orientales, fait à Surate, à la Chine &c. depuis le prémier avril 1750. jusqu'au 26. juin 1752. publiépar M. Linnaeus, & traduit du Suedois par M. Dominique de Blackford. Milan, Les Freres Reycends,1771. Cordier 2098, Lowendahl 559.
[8] The *Prins Carl* made 6 voyages to Canton between 1750 and 1766. Carl Lehmen was Captain on Osbeck's voyage. https://gotheborg.com/project/ships/skepp17.shtml
[9] See: https://archive.org/details/dagbokofwerenost1757osbe/page/n463/mode/2up for a digitised copy.
[10] See Cordier 2097,2098; Lust 349,357; Lowendahl 538, 559 for details.
[11] Magnus, Olaus Historia de gentibus septentrionalibus. Romae M. D. L V. [1555]
[12] Sola, D. The chronicler of China. Juan González de Mendoza, between mission, empire and history (Sixteenth to Seventeenth centuries). London, Routledge, 2024. Tr. D J Govantes-Edwards, Hakluyt Society Studies in the History of Travel. p. 181.
[13] Martini, Martino De bello tartarico historia. Editio altera, recognita & aucta. Antverpiae, ex officina Plantiniana Balthasaris Moreti, 1654
[14] The common quail, classified as such by Linnaeus in 1758, but later as *Coturnix chinensis*.
[15] Du Halde, Jean Baptiste, The General History of China: Containing a Geographical, Historical, Chronological, Political and Physical Description of the Empire of China, Chinese-Tartary, Corea and Thibet. London, John Watts, 1736.
[16] Le Comte, P. Louis Nouveaux Memoires Sur L'etat Present De La Chine. Paris, Jean Anisson, Paris, MDCXVI [1696]
[17] Dampier's ship *HMS Roebuck* foundered on Ascension Island on 21 February, 1701, during his second voyage round the world and he was marooned there until rescued on April 3 by a returning East Indiaman.
[18] https://www.ikfoundation.org/ifacts/oloftoren.php
[19] Ekeberg, Carl Gustav. Capitaine Carl Gustav Ekebergs Ostindiska Resa, åren 1770 och 1771. Beskrefven uti Bref til Kongl. Svenska vet. Academiens Secreterare. Stockholm, Henr. Fougt, 1773. One large folding engraved map and five engraved folding plates. 8vo. [viii], 170pp. Cordier 2098; Lowendahl 569.
[20] Choi, Kee Il, Carl Gustav Ekeberg and the Invention of Chinese Export Painting. The Magazine Antiques, March 1998, pp.426-437.
[21] Bretschneider, Vol 1, p61.
[22] [Ekeberg, Carl Gustav] Kort Berättelse om den chinesiska landt-hushådlingen. Stockholm, Lor. Ludv. Grefing, 1757. Lowendahl 489; Pécis historique de l'économie rurale des Chinois. Milan, Les Freres Reycends, 1771.Cordier 2098, Lust 1235.
[23] See for example, Hansen, C, Maul A F. Pehr Osbeck's collections and Linnaeus's Species Plantarum (1753) Botanical Journal of the Linnean Society, Volume 67, Issue 3, October 1973.
[24] Bretschneider, E. History of European Botanical Discoveries in China. Zentral-Antiquariat der Deutechen Demokratischen Republik, Leipzig, 1981 (reprint). Vol. 1. Pp 58-63.

[25] https://www.ikfoundation.org/ifacts/pehrosbeck.php
[26] Wallenberg, J. My Son on the Galley. Tr. Peter Graves. Norwich, Norvik Press, 1994.
[27] Rose, Sven-Erik. The Funny Business of the Swedish East India Company: Gender and Imperial Joke-Work in Jacob Wallenberg's Travel Writing. Eighteenth-Century Studies 33(2):217-232, 2000.