

‘THE TRANQUEBARIAN SOCIETY’

Science, Enlightenment and Useful Knowledge in the Danish-Norwegian East Indies,
c. 1768-1813.

The Danish-Norwegian colony of Tranquebar in southeast India is a little explored case of science and ‘patriotic enlightenment’ in the colonial world of the 18th and early 19th century. In the period c. 1768-1813 Tranquebar emerged as a local South Indian hub of science and improvement. The symbol of this development was the establishment of The Tranquebarian Society, the third learned society east of the Cape of Good Hope. The article examines the unique assemblage of scientific networks, people, instruments, institutions and ideas of local and global origin that converged in Tranquebar, and it investigates the fusion of local problems and radical ideas of enlightenment, education and improvement that united government, mission and merchants in Tranquebar in the quest for ‘useful knowledge’.

Keywords: Danish-Norwegian East Indies, Science, Learned societies

Introduction

In the c. 1768-1813, the small Danish-Norwegian colony of Tranquebar on the Coromandel Coast saw a marked expansion in scientific activity. It was a late blossoming of an older node of scientific research before war, death and financial collapse threw everything to the wind. This development was driven by the convergence of a set of scientific actors and structures in the locality of Tranquebar, and it was

epitomized in the establishment of the ‘Tranquebarian Society’ (TS) in 1788. In this ‘society for enlightenment and industry’, missionaries of the Danish-Halle Mission with their scientific traditions joined government officials and private merchants in search of scientific, technological and social improvement. They devised what they saw as a patriotic scientific programme for improving the colony and enlightening the Tamils to become useful to the colony and the Danish-Norwegian Empire. By connecting information from Danish, German, Dutch and British sources, this article establishes the status of Tranquebar as a local node of science, and examines the TS as the point of convergence for scientific activities in order to reveal how and why science was employed, or intended to be employed, in the quest for colonial improvement.

The study is located in a field characterized by both recent theoretical developments and disconnected national historiographies. Theoretically, the history of science in non-western contexts has seen significant changes in the last four decades. The idea of a unidirectional diffusion of positivist science from European centres to colonial peripheries, represented by George Basalla’s model from the late 1960s, has been replaced by a constructivist view of science as a socially negotiated, produced and situated knowledge, which develops through exchanges and practices in polycentric networks on a local and global scale.¹ Focusing on the practise of science in colonial settings, this approach has emphasised the importance of power relations, and revealed how colonial powers used science and technology as ‘tools of empire’ to serve European interests at the expense of the colonized.² Furthermore, this research has shown that colonial powers utilized science in various ways, which has revealed the need for comparisons between imperial systems and thus for connecting their often isolated historiographies.³ In response to this research agenda, recent research has

suggested that less significant scientific powers like Denmark-Norway often adopted internationally ‘cooperative strategies’ in science, and that on the colonial scene the informal scientific networks of such minor players may have the potential to revise our views of ‘colonial science’.⁴

The problem of isolated historiographies for the comparisons of colonial science is clearly visible in the case of Tranquebar. To begin with, the general historiography of Tranquebar is divided into a Danish and a German part. The Danish part has mainly focused on trade and related politics centring on Danish records.⁵ The subject of science in the Danish-Norwegian colonies has previously received scant attention because of the assumption that the government in Copenhagen was the main force behind all scientific work and that it showed little interest in scientific research in and economic development of the colonies.⁶ However, recent international research has shown this interpretation to be misleading.⁷ The German part of the historiography has focused mainly on the Halle Mission and though aspects of science and medicine has recently begun to be explored, it still relies heavily on German mission records.⁸ If we turn to the extensive British/Indian historiography about colonial India, including its science and medicine, it relies primarily on records of the East India Company (EIC) and the British Raj while focusing on the northern part of the subcontinent and the mid-19th to mid-20th centuries.⁹ The few explorations touching on the scientific contributions of the Halle missionaries and their connections to the EIC have only employed British records.¹⁰ Finally, the general historiography of Dutch activities in Asia, including India, has had its main geographical focus on what is today Indonesia and its thematic focus on economy and policy.¹¹ Regarding science, the geographical focus has been the same.¹²

Informed by the above theoretical insights and historiographical structures, the article examines the colonial science of Denmark-Norway as it manifested itself in Tranquebar c. 1768-1813, revealing its local and global networks of cooperation to other colonial powers, religious institutions, scientists and informants. The article will begin by establishing the status of Tranquebar as a local node of science, and then move on to an examination of the TS.

[Figure 1: Map of South East India]

The Context of Tranquebar, c. 1768-1813

From 1620 to 1845, Tranquebar was the administrative headquarters of first the Danish-Norwegian and later the Danish East Indies. Around 1790, the then Crown colony consisted of the fortified trading town of Tranquebar with approx. 3800 inhabitants and about 50 square kilometres of surrounding lands containing 14 villages and about 20.000 inhabitants.¹³ Apart from Tranquebar, the most important colonies in the period c. 1768-1813 were Serampore in Bengal and the Nicobar Islands.¹⁴

The key factor behind Danish-Norwegian commercial success overseas in the period was neutrality in wars between European powers. Because the warring parties were eager to continue their trade under cover of a neutral flag this was a very profitable high-risk business. In the end, it drew Denmark-Norway into war with Britain and during the French Revolutionary Wars and the Napoleonic Wars British forces occupied all Danish-Norwegian colonies in 1801-1802 and 1807-1815.¹⁵ Trade all but ceased and in Tranquebar the consequence was a devastating economic crisis. In 1845, all the now Danish possessions in India were sold to the British.¹⁶

[Figure 2: Map of Tranquebar]

Internally, Tranquebar did not change much in the period c. 1768-1813. In essence, it remained in the mode of 17th and early 18th century trading colony of the East Indies: geographically small and relying on trade and local agricultural production for its income. The Danish-Norwegian administration remained generally weak vis-à-vis the Indian population and tried to avoid interfering with Indian society.¹⁷

One feature, however, which set Tranquebar apart from other small trading colonies in India, was its status as the headquarters of the Lutheran Danish-English-Halle Mission. The first missionaries of this transnational Pietist mission arrived in 1706. They were mostly Germans from the charitable *Franckesche Stiftungen* (Francke Foundations) in the city of Halle an der Saale, Germany. The missionaries were sent on the behest of the Pietist Danish-Norwegian kings, who supplied the funding and logistics, though increasingly assisted by a network of nobility and pietist-reformist citizens throughout protestant Europe.¹⁸ In Tranquebar, the missionaries quickly established congregations, schools, a printing press and a new church.¹⁹ Soon the mission set up new stations in neighbouring British territory, the first in Madras in 1726. These stations were funded by the *Society of the Promotion of Christian Knowledge* (SPCK) in London, while still relying on ideology and missionaries from Halle, thus making the mission a Danish-English-Halle endeavour.²⁰ From around 1780, the mission in Tranquebar experienced a slow decline because of failing support from Europe, both financially and in terms of personnel. By 1820, it had all but ceased to exist and in 1847 it ended officially.²¹

Science in Tranquebar

The Halle Mission

Science in Tranquebar consisted of an assemblage of institutions, local and global networks, theories, instruments, specimens and individuals. Starting with the institutions, the Danish-Halle Mission (DHM) was the most important. From its early years, the usually university trained missionaries and mission doctors were conducting investigations in medicine, botany, zoology, chemistry, meteorology and astronomy, not to mention their even more influential work in religious studies and linguistics. All these investigations were carried out in close cooperation with local informants and members of the DHM's Tamil and Eurasian congregations. The scientific work reached its first high point during the 1730s and 40s, when the DHM's production of several herbaria with local plants made it a south Indian node for the production and circulation of scientific information. For the DHM and the Francke Foundations science had two key functions. First, it was an integral part of religious instruction in its schools. Second, both scientific information published in the mission reports (*Hallesche Berichte*) and scientific specimens distributed as gifts served to enlist financial and other support for the Foundations and the DHM from a wide network in protestant Europe.²²

In 1768, the scientific tradition of the DHM was revived after having been dormant for some 20 years. At this time, a pupil of Linnaeus, the new mission doctor and royal botanical collector Johann Gerhard König (1728-1785), introduced the Linnaean taxonomical system to the Mission and to India.²³ In contrast to the previous naturalists in the DHM, König was not an emissary of the Foundations but of scientifically minded individuals in Copenhagen, such as Christian Friis Rottböll (1727-

97), Professor of Medicine and Botany at the University of Copenhagen.²⁴ In 1778, König went into the service of the EIC, yet remained a central figure of science in Tranquebar via his prominent position in the group called the ‘Learned Brethren’ or ‘United Brethren’. The Brethren appear to have been an international network of naturalists working in the Tranquebar-Madras area from the 1770s to the 1810s which counted among its members the DHM missionaries Christoph Samuel John (1747-1813), Johann Peter Rottler (1749-1836) and August Friedrich Cämmerer (1767-1837), the mission doctor Johann Gottfried Klein (1766–1818), and the EIC surgeons and botanists Patrick Russell (1726-1805), James Anderson (1738-1809) and William Roxburgh (1751-1815).²⁵ Another member of the group coming out of Tranquebar was Benjamin Heyne or Heine (1770-1819), mission doctor of the Moravian Mission, the second Protestant mission in Tranquebar, and later naturalist of the EIC.²⁶

Because of the inspiration from König and the cooperation with the Brethren, the DHM in Tranquebar re-emerged as a local node of science from the late 1770s until about 1813.²⁷ The long-distance network of the DHM grew to consist of scientists scattered across protestant Europe in places like London, Copenhagen, Berlin, Regensburg and Lund to whom the mission naturalists contributed a great amount of natural history specimens. These exchanges furnished the mission naturalists with honorary memberships of scientific societies and gifts of scientific literature.²⁸ Furthermore, the networks provided the mission with a range of emblematic instruments of 18th-century science, such as air pumps, microscopes, telescopes and electricity machines.²⁹

Regarding the DHM’s regional networks, they included not only the mainly British network of the Learned Brethren. Another much older connection went to the

Dutch colonies in India, Ceylon and Southeast Asia.³⁰ Since a large percentage of the employees of the Dutch East India Company (VOC) were Germans and many of them Lutherans, the DHM had access to an extensive network of contacts throughout the Dutch East Indies.³¹ In the period c. 1768-1813, the DHM's most powerful supporter in the VOC was Johann Gerard van Angelbeek (1727-1799), governor of the Dutch Malabar Coast (1783-1793) and Dutch Ceylon (1794-1796), and a former student of the University of Halle.³² After the turn of the 19th century a third important connection was established with Raja Serfoji II of Tanjore who developed a significant local south Indian centre of science.³³

In Tranquebar itself, the mission naturalists established several scientific facilities. Most important were the collections of botanical, zoological and entomological specimens, the DHM library's collections of scientific literature, and the botanical gardens, all of which attracted both European and Indian visitors.³⁴ Among the prominent European visitors was for instance Frederick North (1766-1827), the first British governor of Ceylon (1798-1805), who visited in 1799.³⁵ Between 1790 and 1810, the DHM's gardens outside the walls of Tranquebar seem to have become a particularly popular place for scientific discussions and experiments involving Tamil Brahmins and doctors and European missionaries and doctors.³⁶ By this time, the gardens of the various stations of the Halle mission in South India constituted a local network, which facilitated exchange and cultivation of useful plants.³⁷

The reasons for the DHM's involvement in science remained fundamentally the same as earlier in the 18th century.³⁸ However, the missionaries' understanding of Nature was increasingly influenced by Natural Theology (Physico-theology). Particularly missionary John became the proponent of this approach to the

understanding of the Christian God through scientific investigation of ‘The Book of Nature.’ Furthermore, he employed the DHM’s scientific instruments in an effort to convince Tamil Brahmins and doctors of the power of western science and, by extension, of the power of Christianity.³⁹

State institutions and other agents

Despite the importance of the DHM for science in Tranquebar and beyond, other institutions, networks and agents were also active in the period c. 1768-1813. As indicated by the example of König, the government in Copenhagen and its local administration in Tranquebar now became involved in scientific pursuits in Tranquebar. In 1785, the metropolitan government established the office of royal astronomer in Tranquebar. This office was part of a larger plan to employ eight astronomical observers stationed in different parts of the empire.⁴⁰ Four of the stations were in fact established, in Iceland (Álftanes, 1780), Greenland (Nuuk, 1786), Norway (Vang, 1789) and Tranquebar.⁴¹

The appointment as royal astronomer in Tranquebar went to the new assistant priest of the local Lutheran Church of Zion, Henning Munch Engelhart (1757-1791).⁴² Engelhart was Norwegian and had studied theology, mathematics, astronomy and geography at the University of Copenhagen. His former professor, Thomas Bugge (1740-1815), who was also the man behind the other observatories, recommended him for the position in Tranquebar.⁴³ After Engelhart’s arrival in Tranquebar in 1787, the local government funded the construction of a new astronomical observatory in the tower of the Church of Zion, which was equipped with astronomical instruments funded by the Crown (transit instrument, telescopes and a clock).⁴⁴ Using these instruments,

Engelhart carried out a series of astronomical observations during the years 1787-1790 to determine the latitude and longitude of Tranquebar, while also making meteorological observations.⁴⁵ As Engelhart's observatory was completed in 1788 and the EIC observatory in Madras was only established in 1792, it appears that the Tranquebar observatory was the first state or company funded European observatory in India.⁴⁶ In fact, the future astronomer of the Madras Observatory, Michael Topping (1747-1796), visited Engelhart and the observatory in Tranquebar in June 1788.⁴⁷

The government hospital in Tranquebar was another state funded institution where research took place. The senior surgeon there 1786-1803, Theodor Ludvig Frederich Folly (?-1803), researched Indian medicine and pharmacy.⁴⁸ For instance, in 1792, he tested the plant *Swietenia febrifuga* that Roxburgh had discovered to be active against fever, and exchanged results with both his mission colleagues Drs Klein and Heyne, and the Royal Board of Health (*Sundhedskollegiet*) in Copenhagen.⁴⁹

Parallel to the work in the observatory and the hospital, the local government also supported initiatives in engineering and technology. In 1788, it launched a new survey of the Tranquebar lands because it had gained control of three new districts from the kingdom of Tanjore as mortgage on a loan to the Raja. As the government expected to gain a profit by improving the paddy field agriculture in the new districts, Senior Lieutenant Mathias Jørgen Mühldorff (1750-1836) was put in charge of surveying and reconstructing dams, sluices and bridges.⁵⁰

Moving beyond the spheres of the DHM and the government, yet another institution were involved in science. From 1760 to 1803, the Moravian Church (Unitas Fratrum or Herrnhuter Brüdergemeine) maintained a mission station in the Tranquebarian countryside, which, however, was only intended as a base for mission

and settlement activities in the Nicobar Islands.⁵¹ From at least 1774, the worldwide Moravian mission followed a strategy of collecting natural history specimens for connoisseurs in Europe and for their own natural history collection at the Moravian seminary in Barby, Germany. In Tranquebar, the Moravians followed this strategy with success.⁵² For instance, between 1775 and 1780 they collected and shipped about 500 plant specimens to Sir Joseph Banks, the legendary collector and president of the Royal Society in London.⁵³ The reasons for this strategy seem to have been similar to those of the DHM, i.e. to include knowledge of nature in the religious curriculum and to create a network of sponsors.⁵⁴ Though the Moravians and the DHM were competitors in many respects, there was scientific cooperation between them in Tranquebar.⁵⁵

To sum up the image presented so far of Tranquebar as a local south Indian node of scientific activity in the period c. 1768-1813, it portrays an assemblage of religious and state institutions, networks of global, regional and local range, collections of specimens, instruments and texts, and a transnational group of scientifically minded individuals. For a short time, all these individual factors converged in a new institution, the Tranquebarian Society, which became the emblem of science in Tranquebar. The following analysis of the structure, projects and plans of the TS will reveal the fusion of local problems and radical ideas pertaining to enlightenment, education and improvement that drove science in Tranquebar.

The Tranquebarian Society

The Tranquebarian Society (TS), in Danish *Det Tranquebarske Selskab*, was founded in Tranquebar 15th October 1788.⁵⁶ It was the third learned society founded by Europeans east of the Cape of Good Hope following The Batavia Society of Arts and Sciences (Het

Bataviaasch Genootschap van Kunsten en Wetenschappen) and the Asiatick Society in Calcutta established in 1778 and 1784 respectively.⁵⁷ However, the lifespan of the TS was much shorter than the two former, ending sometime in 1792.⁵⁸ The initiator and secretary of the TS was Engelhart, and according to the bylaws the objective of the TS was to produce new information that was not just *about* India but useful *for* India, and to employ this information for the benefit of the colony of Tranquebar and its inhabitants.⁵⁹ Particularly important was information on the ideal relationship between Europeans and Indians in India, and the means to promote ‘...the colonies’ internal prosperity, strength and the happiness of the peoples in a way corresponding to their nature.’ According to the bylaws of the TS, these needs sprang from two fundamental problems in the European colonies in India. First, Europeans had used their superior level of enlightenment to exploit the benighted Indians. To prevent this and compensate the Indians for this injustice, it was necessary to investigate and establish the true rights and duties of Europeans in India vis-à-vis the Indians. The second problem was that the only desire of Europeans in the colonies was to get rich fast and return to their native country. Thus, their patriotism was directed towards the mother country and not towards the colony. For the colony to prosper and ‘...for the common good...’ this patriotism had to be turned towards the colony itself and be guided by enlightenment.⁶⁰

On this basis, the programme and bylaws of the TS proclaimed its *general* field of interest to be ‘...all useful and applicable knowledge about India, obtained from genuine sources...’, while its *particular* interest was ‘...all that can have a beneficial influence on the Danish [-Norwegian] possessions in India.’ The general field included for instance information on the natural history of the East Indies, on Indian products of nature and culture as objects of trade, on the branches of commerce in India, on

agriculture and manufacture, on Indian constitutions and laws, education and upbringing, languages, history, religions, mores, sciences and diseases. The particular field included, amongst other things, support for the dissemination of useful knowledge ('...nyttig og anvendelig kundskab...') to the Indian inhabitants of the Danish-Norwegian possessions, and investigation, improvement and support of agriculture, fishery, industry and trade in these possessions.⁶¹

[Figure 3: Front page of the first volume of "Det Tranquebarske Selskabs Skrifter"]

A Patriotic Society

Though science and natural history was mentioned within the general field of interest, the bylaws stated explicitly that TS was not meant to be a learned society. The focus was to be on useful knowledge gained from experience and communicated in a straightforward way, as opposed to learned disputations of theoretical issues.⁶² This approach towards usefulness and improvement was similar to that of the great abundance of 'patriotic' societies in Europe at the time, and particularly in the German states.⁶³ In Denmark-Norway, with its strong cultural connections to the German states, the vast majority of scientific and technological research in the 18th century took place in such societies and institutions outside the conservative universities. Among the members of these societies were many of the monarchy's most prominent scientists and officials, for whom science and patriotic usefulness were fused inextricably together.⁶⁴ Following the German model, 'Patriotism' in the Danish-Norwegian societies was a concept with three central aspects: economy (i.e. Mercantilism/Physiocratism and Cameralism), education and civil rights. To put it very briefly, the societies saw it as a

patriotic duty to enlighten the peasant population, which was regarded as stupid, lazy and recalcitrant. This condition was perceived to be the result of outdated structures in society, which deprived the population of the incentive to strive for improvements. Fortunately, reform was possible if the peasants were enlightened via schools, libraries and morally edifying texts, and this was where the patriotic societies placed their largest efforts. The aim was to unlock the productive potential of the rural population for the benefit of the Fatherland (*Patria*) and to this end, the societies also attempted to improve any conceivable aspect of local production. Despite the emancipatory potential of such efforts, however, the intention of the patriotic societies in Denmark-Norway was explicitly *not* to remove anyone from their station in life, but to improve them *within* that station and thus preserve the structures of society. Social equality was not the goal and social mobility between classes was seen as destabilizing the state.⁶⁵

Comparisons with the Societies of Batavia and Calcutta

Returning to the TS, many of the features of the patriotic societies are recognizable in its bylaws.⁶⁶ In fact, the very arrangement of the bylaws is almost identical to that of one of the main patriotic societies in Denmark-Norway, the Royal Danish Agricultural Society (*Kongelige Danske Landhuusholdnings-Selskab*).⁶⁷ Still, the simple fact that the vast majority of the population in the colony was not European and the physical environment very different from northern Europe generated other kinds of needs and questions. In this respect, the TS resembled The Batavia Society. The aim of this society was to support agriculture, trade and prosperity in the Dutch East Indies, including the study of natural history, ancient history and the old customs and traditions in the native population.⁶⁸ Patriotism was a leading motive.⁶⁹ However, while the Batavia Society

and the TS were very alike in their goals, the third and more well-known society of the East, the Asiatick Society in Calcutta, had a different profile. It was deliberately founded without laws, whereas the two other societies were born with full sets.⁷⁰ Regarding the purpose of the Asiatick Society, the patriotic agenda seems to have been much less pronounced. In his guiding 'Preliminary Discourse' the first president, Sir William Jones (1746-1794), did not refer to patriotism, nation, empire or anything of the sort.⁷¹ Though the 'Discourse' did mention a range of sciences, the contributions in the society's journal, *Asiatick Researches*, show a greater favour towards literary and linguistic studies, i.e. a more learned and less practical approach.⁷² Nonetheless, the EIC and Britain as a colonial power were in fact very interested and actively involved in science and improvement for the sake of empire and nation, a cause championed by Banks regarding botany.⁷³

On this basis, the Batavia Society and the TS seem to have followed a different tradition than the Asiatick Society with their strong focus on improvement of agriculture and industry through technology and science, combined with a patriotic duty towards the colony and its inhabitants. Accordingly, the inspiration for the society in Tranquebar most likely did not come from the establishment of the Asiatick Society only four years before 1788, as suggested by recent research, but from the existing patriotic societies in Denmark-Norway and the Batavia Society.⁷⁴ Furthermore, the Batavia Society was well known in Tranquebar among some of the founding members of the TS. In 1780, Johannes Hooyman (1741-1789), the preacher of the Lutheran congregation in Batavia and member of the Batavia Society, published a chapter on the missionaries in Tranquebar in the journal of the Batavia Society in which he mentions his correspondence with them.⁷⁵ From 1782, the missionaries of the DHM in Tranquebar

were corresponding members of the Batavia Society and they retained this position until 1790.⁷⁶ Governor Angelbeek was also a member of the Batavia Society.⁷⁷ By contrast, connections between the DHM missionaries and the Asiatick Society appeared somewhat later. The missionaries may have known of the society from its first year through Dr König who was a member.⁷⁸ Only in 1793 did missionary John become an honorary member, a status he retained until at least 1810.⁷⁹

The Members

The members of the TS numbered only 33 (1789), against the 192 of the Batavia Society (1779) and the 93 of the Asiatick Society (1784-1789).⁸⁰ As was usually the case with such societies there were no female members, nor any members belonging to the groups the society wanted to enlighten and reform, in this case the Tamils. Membership included virtually all European men of any consequence in tiny Tranquebar, regardless of nationality. It ranged from the Governor Peder Anker (1749-1824), the society's protector, down to ordinary government clerks. The members came from all the different branches of the colony's European elite; councilmen, customs officers and the priest of the Lutheran State Church (Engelhart), officers of the army, the royal head surgeon (Folly), merchants of the Danish Asiatic Company (Asiatisk Kompagni), private merchants, and three members of the DHM (John, Rottler and mission doctor Johann David Martini (?-1791)). Outside the TS, these individuals and groups were often involved in bickering and infighting, but the concerns of the society succeeded in bringing them together.⁸¹

The occupational profile of the members in the TS was much like that of the Batavia Society, but again different from that of the Asiatick Society. The two former

had clergymen, i.e. priests, and in the case of Tranquebar also missionaries, among their founding members and officers.⁸² By contrast, the Asiatick Society did not have a single clergyman among its first members (1784-1789).⁸³ Only after the renewal of the EIC's charter in 1813, which opened India to missionaries, did clergymen begin to take up important offices.⁸⁴ This difference might be part of the reason why the Batavia Society and the TS had a stronger focus on education and social issues, since these fields were usually the domain of the clergy.

Tranquebarian Concerns

Several of the main objectives of the TS were not just inspirations from elsewhere but closely connected to urgent political and economic problems in Tranquebar. First, the aim to investigate the laws and customs of the Indians probably reflects serious caste disputes that took place in Tranquebar in 1787-1789.⁸⁵ Such disputes were not unusual in colonial settlements in South India in the 18th century. The dispute in Tranquebar concerned the abuse of customary rights and duties connected to the lucrative office of government *dubash* (interpreter and negotiator). The result was an extensive desertion of the Indian population from the town of Tranquebar into non-Danish-Norwegian territory. This forced the government to intervene and thus to go against its own ideal of non-intervention in Indian affairs, but the government was always too weak to intervene militarily and had to resort to negotiation in accordance with 'established custom'.⁸⁶ The problem in this situation was to establish the uniform and stable body of Indian custom that the government assumed existed, and hence the TS's aim to find or establish an account of these customs. Interestingly, at exactly the same time the British

administration in Calcutta was struggling with similar problems of establishing a stable body of Indian laws.⁸⁷

Another central aim of the TS was to improve trade and agriculture in Tranquebar. Regarding trade, the immediate background was the recession in trade after the end of the global American War of Independence 1776-1783. During the war, trade had flourished in Tranquebar under the protection of Danish-Norwegian neutrality, but with the return of peace, most of the trade went elsewhere. In addition, the production of cotton textiles in South India, traditionally the main trade article in Tranquebar, had suffered greatly from the Second Anglo-Mysore War 1780-1784. Since most of the Society's members were involved in trade, either legal or illegal, there was good reason for them to want investigations of new possibilities of trade and industry.⁸⁸

Concerning the aim to improve agriculture, the reason was the government's abovementioned acquisition of three districts from the kingdom of Tanjore. This was a substantial increase of the colony's agricultural lands and the government was very optimistic about the prospects of improving agriculture in these areas to create a new and much needed base of income.⁸⁹ Agriculture was all the more important at this time, because famine struck the Coromandel in 1782 and 1789.⁹⁰ Furthermore, the ideas of agricultural improvement may well have been fuelled by the fact that the 1780s was a time of large-scale agricultural reforms in Denmark, which greatly improved the country's production potential.⁹¹ Accordingly, there were plenty of reasons for the government members' focus on agricultural reforms and new techniques.

Library, collection and botanical garden

Right from its foundation, the TS began to establish its own set of research facilities including a library, a natural history collection and a botanical garden.⁹² The same three facilities were also part of the Batavia Society from the very beginning.⁹³ However, The Asiatick Society again took another line, as it did not begin to consider such facilities until 1796 and only got its library in 1808 and its museum in 1814.⁹⁴

The botanical garden was probably the most ambitious project of the TS and it may serve to give an impression of the extent of its ambitions in botanical improvement. The proposal for the garden came from missionary John. He argued that it was one of the most important means to further ‘the common good’ and envisioned a place to bring together not only plants from all parts of India and beyond but also people from all walks of life with knowledge of plants. European knowledge and Tamil experience (‘erfaring’) could improve plants for commercial use as food, dyes, textiles, spices and medicine.⁹⁵ This notion that Tamils only had experience and not theoretical knowledge bears a striking resemblance to ideas among the British Orientalists in the Asiatick Society around the same time.⁹⁶ Moreover, the garden could be a place of entertainment and education for the Tamil population, which could encourage them to cultivate new plants. Finally, the garden could be a store of specimens for scientists in Europe.⁹⁷

The TS approved the proposal and the government granted a piece of land for the purpose.⁹⁸ It was a piece of barren land covering an area of some 32.5 hectares along the coast north of the town of Tranquebar. The area was divided between 16 members of the society, surrounded by dykes against the sea and planted with trees.⁹⁹ As superintendent of the garden the TS chose missionary Rottler, an obvious choice as he was a botanist and had been in charge of the Halle Mission’s botanical gardens in Tranquebar since at least 1785.¹⁰⁰

The Quest for Patronage: The transactions of the Tranquebarian Society

The continued existence of the TS depended on financial and political support of not just the local government, but also of the metropolitan government and learned societies. In this, the TS followed the same pattern as the Batavia Society, which was closely linked to the government of the VOC and affiliated to the *Hollandsche Maatschappij der Wetenschappen* (Holland Society of Arts and Sciences) in Haarlem, the Netherlands.¹⁰¹ In contrast, the Asiatick Society had a much less formalized connection to the EIC and London.¹⁰² In order to obtain the necessary sponsorship, secretary Engelhart petitioned three well-connected and ‘patriotic’ men in Copenhagen to act as ‘consultants’ and promoters of the society.¹⁰³ First, Thomas Bugge, the professor of astronomy at the University of Copenhagen, leader of the Trigonometric Survey of Denmark, 1775 member of the Royal Danish Academy of Sciences and Letters, 1773-1783 president of the Royal Danish Agricultural Society, 1788 member of the Royal Society in London, and 1789 member of the Society of Natural History in Copenhagen.¹⁰⁴ Second, Abraham Kall (1743-1821), Professor of History and Geography at the University of Copenhagen, 1780 member of the Royal Danish Academy of Sciences and Letters, and 1785 founding member of the Society for Civic Virtue (*Selskabet for Borgerdyden*) in Copenhagen.¹⁰⁵ And third, Heinrich Friedrich Schlegel (1749-1822), a high government official in the Board of Commerce (*Kommercekollegiet*) and 1781-1797 in charge of the German Secretariat to which the East India Office (*Ostindisk kontor*) belonged.¹⁰⁶ Besides the consultants, it appears the TS acquired more members in Copenhagen, for instance the veterinary and botanist Erik Nissen Viborg (1759-1822), lecturer at the botanical garden.¹⁰⁷

As part of the promotional strategy, Engelhart sent the first, second and fourth volume of the Transactions of the Tranquebar Society (*Det Tranquebarske Selskabs Skrifter*) to the three consultants in order to have them printed in Copenhagen.¹⁰⁸ This might seem surprising, as the DHM press in Tranquebar was an old centre of printing in South India.¹⁰⁹ However, as the *Skrifter* was written in Danish the intended audience was clearly in Scandinavia, and a crucial part of the needed support was precisely to cover the cost of printing the transactions.

Of the three volumes Engelhart claimed to have sent, only volume one was printed.¹¹⁰ It contains the history of the establishment of the society, a list of questions for its price competitions, a list of its founding members, an appendix containing its bylaws and ten short research articles. A closer examination of the articles reveals that the missionaries contributed most of the research: eight articles was by missionary John, of which three were translations of Tamil texts on ethics and five on different species of snakes, one article by Rottler on a species of palm tree and one by Engelhart on the design and apparatus of his astronomical observatory.¹¹¹ Eight of the ten articles can be found in a German, manuscript version in the missionaries' correspondence or in print in the mission reports.¹¹²

Beside the research articles, the members of the TS also produced at least four theses to answer price subjects put forward by the society. Two of them came from merchant Peter Bættger; one investigating the possibility of constructing a breakwater into the open road off the coast of Tranquebar to create a safe harbour for small vessels during the monsoon season, and the other proposing a general plan to improve the trade to, in and from Tranquebar.¹¹³ Nothing seems to have come of these proposals but they reflect ideas about improvement held by the government during these years, the focus of

which were mainly on security for merchants, reductions in customs and support of trade and factories.¹¹⁴ A third thesis was proposed by the senior priest of the Lutheran Church of Zion, Svend Bredstrup (-1791). The title was ‘On the national character of the Malabars or Tamils’ and it was explicitly written as an attempt to answer the twelfth of the twenty-one price subjects put forward by the society. The text only survives as an unfinished manuscript but it presents an attempt to categorize the Tamils according to the ancient European theory of the four temperaments and the influences of the environment on the body and psyche.¹¹⁵

Engelhart’s thesis: ‘Thoughts on the diffusion of Enlightenment among the Indians’

If the TS’s interest in ‘improving’ the Tamil population seems insignificant in the facilities, articles and theses mentioned thus far, it was brought to the fore in the fourth thesis submitted by secretary Engelhart.¹¹⁶ With the title ‘Thoughts on the diffusion of Enlightenment among the Indians’ (*Tanker om Oplysnings Udbredelse blandt Indianerne*) it was a response to the fourteenth price subject.¹¹⁷ Here, Engelhart employed many of the central ideas of the patriotic societies in a discussion of how to improve the prosperity of the Tamils when their main characteristics were ‘...laziness, negligence and intrigue’, as it was phrased by another member of the TS, Lieut. M.J. Mühldorff.¹¹⁸ Still, Engelhart and Mühldorff agreed that these characteristics were not special to Tamils as they were exactly the same as those of the peasant population in Europe. Accordingly, the remedy for this condition was also the same, i.e. enlightenment, yet in India only Europeans possessed this great boon. However, since Europeans had mistreated Indians for centuries, a fact Engelhart had learned through research in the government archives in Tranquebar, the only proper compensation was

for them to grant the Indians enlightenment.¹¹⁹ Engelhart believed that this could save the Indians from ‘...the shackles of despotism...’ and ‘...the terrible darkness of superstition...’ in which they lived.¹²⁰ In other words, the main problem of Indian moral, society and religion was its outdated structures, not something inherent to Indians. Moreover, these structures were not static but changeable.¹²¹ To ‘save’ the Indians through enlightenment, Engelhart argued it was necessary to make a new constitution for India that made Europeans and Indians equal. The Indians had to be raised to the level of Europeans by informing them of their human rights.¹²² Engelhart also believed enlightenment would make it easier for Indians to understand Christianity. In his opinion, the reason why Christianity had not been more successful in gaining converts in India was that Europeans had just preached Christianity and failed to prepare the way with information useful to the Indians. Through enlightenment with useful knowledge, the Indians could eventually come to see the ultimate truth at the centre of enlightenment, i.e. (protestant) Christianity.¹²³ According to Engelhart, the categories of information best suited for this enlightenment of the Indians were:

1. Their rights, duties and advantages as citizens according to a new printed corpus of all their laws and customs, produced and ‘improved’ by the help of Europeans.
2. The true history of India printed under the guidance of Europeans according to facts and not fables or superstition.
3. Indian religion in its ‘original purity’, i.e. without the superstition supposedly created by the Brahmins.
4. Astronomy, mathematics and natural history.
5. Some European history.¹²⁴

These categories are strikingly similar to the preoccupations of the British Orientalists around the same time with Indian laws, history, religion and sciences.¹²⁵

Concerning the best way to disseminate this ‘enlightened’ curriculum to the Indians, Engelhart advised against employing the existing system of DHM schools because they were religious. In his opinion, it was better to establish a kind of ‘University’ with Indian teachers but under European management.¹²⁶ Again there is a striking resemblance between the structure and focus of what Engelhart was suggesting and the Madrassa (Muslim law school) established in Calcutta in 1781 by the British Governor-General Warren Hastings (1732-1818) and the Sanskrit College at Benares established in 1791 by Superintendent Jonathan Duncan (1756-1811).¹²⁷ Accordingly, Engelhart was at this time thinking along the same lines as the British Orientalists regarding education, though there is no indication if he knew of their discussions.

Despite Engelhart’s rejection of the DHM schools as vehicle for his enlightenment programme, his relationship with the DHM was quite close. He taught mathematics in one of the DHM’s schools and his idea of Christianity as the core of enlightenment and reason corresponds well with John and Rottler’s perception of The Book of Nature as tool for evangelization.¹²⁸

The Decline

Engelhart’s thesis was never published and his university never built. He died in April 1791 on a government mission to the Nicobar Islands to make surveys and research the local natural history.¹²⁹ With the death of its secretary and most active member, the TS suffered the fate of so many societies of its kind; it quickly disintegrated, despite missionary John’s efforts to keep it going.¹³⁰ With the collapse of the society and the

outbreak of the global French Revolutionary Wars in 1793, the attention of government and merchants again turned to the old, lucrative strategy of trading under Danish-Norwegian neutrality.¹³¹ The DHM continued its production and distribution of scientific objects and information, but the support for the mission from Europe was dwindling. With the Napoleonic Wars and British occupations, the neutrality-trade in Tranquebar collapsed, and when missionary John died in 1813 this late blossoming of Tranquebar as a local hub of science ended.

Conclusion

By connecting isolated national historiographies of Tranquebar, this paper has established that the colony not only had a long tradition of scientific enquiry connected to the Halle Mission, but that the scientific activities reached a highpoint in the period c. 1768-1813. This development was the result of a temporary convergence of old religious and new state institutions, networks of global, regional and local range, collections of specimens, instruments and texts, and a transnational group of scientifically minded individuals. It was epitomized in the establishment of the Tranquebarian Society, the third learned society east of the Cape of Good Hope.

The TS became the forum for local European interests in science and improvement inspired by the patriotic societies in Europe and the Batavia Society. The overarching aim of the TS was to improve the productivity of the colony and its Tamil inhabitants through the application of new, enlightened knowledge, education and research facilities – for ‘the common good’. Inspired by contemporary ideas of Orientalism and patriotic improvement, the Tamils were perceived as in need of enlightenment, but also as capable of it, and, indeed, in title to it. Like the Orientalists of

the Asiatick Society in Calcutta, the TS focussed on the investigation of Indian laws, history, religion and sciences, and harboured ideas of setting up a school (university) to communicate a version of this knowledge edited by Europeans. Furthermore, the writings of the TS reflect Orientalist ideas that Indians did have practical experience but little theoretical understanding. All of these notions corresponded well with the patriotic agenda of improving productivity through training and education.

Finally, the paper has shown the diverse networks, actors and forms of cooperation that characterised the scientific activities of one of the minor colonial powers in the late eighteenth century. At a time of looming decline, when both the local government and the DHM needed to find new tools for prosperity, science became the remedy. Science funded by the metropolitan government and situated in state institutions joined the revived tradition of science in the DHM. This meant, that science in Tranquebar added a new objective. It was no longer just for the sake of the Protestant God, but for the patriotic improvement of the colony. As the emblem of this development, the TS focussed on enlightenment, not mission. In this atmosphere, science bloomed in Tranquebar before war, death and financial collapse threw everything to the wind.

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² Harrison, 'Networks', 193–6.

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⁴ Sörlin, 'Science', 466; Harrison, 'Science', 62–3.

⁵ Rasch, *Dansk Ostindien*.

⁶ Kragh, *Natur, Nytte og Ånd*, 226–228, 346–51.

⁷ See Oslund, 'Nature in League'; Sivasundaram, 'A Christian Benares'; Hopkins, 'Peter Thonning'; Sterll, 'Life and Adventures'; Jensen, 'Making it'; Rastén, 'Encountering'.

⁸ See Bergunder, 'Auswahlbibliographie'; Gross, Kumaradoss, and Liebau, *Halle and the Beginning*, vol. 3, part VII; Trepp, 'Von der Missionierung'; Liebau, Nehring, and Klosterberg, *Mission und Forschung*, Chapter 3.

⁹ See Harrison and Pati, 'Social history of health'; Arnold, *Science*, 1–18.

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- ¹⁰ Desmond, *The European discovery*, 39–41; Harrison, *Medicine*, 134–37; Chakrabarti, ‘Empire and Alternatives’; Chakrabarti, *Materials and medicine*, 113–126; Nair, *Raja Serfoji II*.
- ¹¹ Stevens, ‘Koloniales geschiedenis’, 364.
- ¹² See Zuidervaart and van Gent, ‘A Bare Outpost’; Groot, *Van Batavia*.
- ¹³ Rasch, *Dansk Ostindien*, 13–14.
- ¹⁴ Struwe, *Dansk Ostindien*, 106, 162–96, 227–35; Olsen, *Dansk Ostindien*, 149–50.
- ¹⁵ See Feldbæk, *India Trade*.
- ¹⁶ Rasch, *Dansk Ostindien*, 197–246.
- ¹⁷ Brimnes, *Constructing*, 239–45.
- ¹⁸ Gross, ‘Part I: Background and Context’, 3–6.
- ¹⁹ Jeyaraj, ‘Missionsalltag’, 77, 83.
- ²⁰ Gross, ‘Part III: The English-Halle Mission’, 291–2.
- ²¹ Gross, ‘Part II: The Danish-Halle Mission’, 144–46.
- ²² Jensen, ‘Making it’, 327–31.
- ²³ Hommel, ‘Naturwissenschaftliche Forschungen’, 162–179. König is also spelled Kønig and Koenig.
- ²⁴ Archive of Die Franckeschen Stiftungen, Halle an der Saale: ALMW/DHM8/14:28 (20 November 1765); ALMW/DHM9/17:45a (17 November 1766); AFS/M1F2:118 (14 November 1767); AFS/M2E38:1 (25 November 1767); ALMW/DHM3/3c:32 (4 March 1768); Sterll, ‘Life and Adventures’.
- ²⁵ Hoppe, ‘Von der Naturgeschichte’, 158–66; Sterll, ‘Life and Adventures’, 114–15, 119.
- ²⁶ Jensen, ‘The Medical Skills’, 498.
- ²⁷ Hoppe, ‘Kulturaustausch’, 149.
- ²⁸ Hoppe, ‘Von der Naturgeschichte’, 158–66.
- ²⁹ Danish National Archive (DNA), Archive of the Board of Missions (BM), Cases concerning the mission in the East Indies, 1781–1792, box no. F39-7, 1784, letter no. 8; AFS/M1C27:4 (27 January 1786); AFS/M1C29b:17 (4 April 1787).
- ³⁰ Liebau, *Die indischen Mitarbeiter*, 273–75.
- ³¹ van Gelder, *Das ostindische Abenteuer*, 42–45; Bruijn, *Ship’s Surgeons*, 125–67.

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- ³² Tielke, *Biographisches Lexikon*, 20–22. AFSt/M1B72:19 (23 January 1781); AFSt/M1B73:4 (16 October 1782); AFSt/M2A6:3 (13 October 1785); AFSt/M2E20:8f (1787); AFSt/M1C30c:10 (4 October 1788); AFSt/M1C31a:30 (20 January 1790); Nair, *Raja Serfoji II*, xxx.
- ³³ Nair, *Raja Serfoji II*, xvii-xli.
- ³⁴ Regarding collections see Nehring, 'Natur und Gnade', 221. Regarding libraries see AFSt/M1C33a:28 (25 January 1792); AFSt/M1C42b:90 (28 April 1799). Regarding mission gardens, by 1785 Rottler had transformed two schoolyards (Schulehöhe) in Tranquebar into gardens of botany and pleasure, see DNA, BM, box no. F39-7, 1785, letter no. 33 (15 October 1785). See also AFSt/M1C29b:30 (10 October 1787); John, Cämmerer and Rottler also had individual gardens outside of town, see AFSt/M1C36b:63a (18 October 1795).
- ³⁵ AFSt/M1C42b:90 (28 April 1799).
- ³⁶ AFSt/M2E27:6 (1793); Nair, *Raja Serfoji II*, 93–4.
- ³⁷ Liebau, *Die indischen Mitarbeiter*, 333.
- ³⁸ Peterson, 'Science', 175–217.
- ³⁹ Hommel, 'Physico-Theology', 1115–33.
- ⁴⁰ DNA, Danish Chancery (DC), Rolls of the Chancery's submissions to the King 1773-1799, box no. F3-13, extract dated 28th October 1785; DNA, DC, Drafts and submissions for letter books 1773-1799, box no. F42-168, document nos. 2180 and 2269. I thank Dr P.S. Ramanujam for these records.
- ⁴¹ Bricka, *Dansk biografisk Lexikon*, vol. 3, 244; Pedersen, *Lovers of Learning*, 128.
- ⁴² Rasch, *Dansk Ostindien*, 188. Engelhart is also spelled Engelhardt.
- ⁴³ Jørgensen, 'Henning Engelhardt'; Bricka, *Dansk biografisk Lexikon*, vol. 3, 243–45.
- ⁴⁴ Letter from Engelhart to Bugge. Danish National Library (DNL), NKS 1304 V, folio, no. 6 (1787-90); See also *Det Trankebarske Selskabs Skrifter* (hereafter *Skrifter*), 78–80.
- ⁴⁵ DNL, NKS 1304 V, folio, nos. 1a, 2a, 3, 4, 6 and 7.
- ⁴⁶ Ansari, 'Early Modern Observatories', 351–52.
- ⁴⁷ DNL, NKS 1304 V, folio, nos. 1a and 6.
- ⁴⁸ Jensen, 'The Medical Skills', 489–515.
- ⁴⁹ Chakrabarti, 'Empire and Alternatives', 78; DNL, Add. 761a, quarto.
- ⁵⁰ Brimnes, *Konstruktion*, 71–83.

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- ⁵¹ Ruhland, 'The Moravian Brethren', 743–66.
- ⁵² Römer, *Geschichte der Brüdermission*, 37.
- ⁵³ Gascoigne, *Science in the Service*, 183.
- ⁵⁴ Bravo, 'Mission Gardens', 49–65; Augustin, 'Das Naturalienkabinett', 697; Bossart, *Kurze Anweisung*.
- ⁵⁵ Missionary John received meteorological observations from the Moravian missionary Christian Ludwig Schumann (1749-1794), see AFSt/M1C33a:28 (25 January 1792). Römer, *Geschichte der Brüdermission*, 76–7. For the original manuscript, see AFSt/M2B2:6-17 (1789-1791). The data has been published in Walsh, Glaser, and Militzer, 'The climate of Madras'.
- ⁵⁶ Alternative names: *The Tranquebarian Society for Indian Enlightenment and Industry* [Det Tranquebarske Selskab for Indisk Oplysning og Flid], see DNL, NKS 1304 V, folio, letter no. 1a, 4 (27 January 1789); *Society for the Promotion of Indian Knowledge and Industry* [Gesellschaft zur Beförderung Indianischer Kenntnisse und Industrie], see AFSt/M1C31a:26 (20 January 1790); *The Learned Society of Tranquebar* [Die Tranquebarische Gelehrte Gesellschaft], see AFSt/M1C31a:53 (15 February 1790).
- ⁵⁷ Zuidervaart and van Gent, 'A Bare Outpost', 20; Kejariwal, *The Asiatic Society*, 29–75.
- ⁵⁸ AFSt/M1C32b:22 (3 August 1791); AFSt/M1C33a:28 (25 January 1792); AFSt/M1C36b:18 (no date).
- ⁵⁹ *Skifter*, 5–7; AFSt/M1C33a:28 (25 January 1792).
- ⁶⁰ *Skifter*, 1–5, 22.
- ⁶¹ *Skifter*, 24–5.
- ⁶² *Skifter*, 14.
- ⁶³ McClellan, 'Learned Societies', vol. 2, 371–77; Lowood, *Patriotism*, 205–61.
- ⁶⁴ Kragh, *Natur, Nytte og Ånd*, 55–60, 79–81, 89.
- ⁶⁵ Engelhardt, 'Patriotism', 205–23.
- ⁶⁶ *Skifter*, 10 §IX, §X, §XI; *Skifter* 11 §XIV, §XV.
- ⁶⁷ *Det danske landhuusholdnings-selskabs Love*.
- ⁶⁸ Groot, *Van Batavia*, 93–5.
- ⁶⁹ Groot, *Van Batavia*, pp. 63, 105, 118–19, 124–25.
- ⁷⁰ Steadman, 'The Asiatic Society', 466–67.
- ⁷¹ *Asiatick Researches*, vol. 1, ix–xvi.

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- ⁷² Arnold, *Science*, 29.
- ⁷³ Drayton, *Nature's Government*, 117–22.
- ⁷⁴ Desmond, *The European discovery*, 39.
- ⁷⁵ de Bie and Loosjes, *Biographisch woordenboek*, 297–98; *Verhandelingen*, vol. 2, 312.
- ⁷⁶ Groot, *Van Batavia*, 101; AFSt/M1B71:3 (13 October 1780); AFSt/M1B71:4 (14 October 1780); AFSt/M2E27:3 (10 October 1785); AFSt/M1C33a:28 (25 January 1792); *Verhandelingen*, vol. 5, 63.
- ⁷⁷ *Verhandelingen*, vol. 5, 38.
- ⁷⁸ *Asiatick Researches*, vol. 1, 439; Hoppe, 'Von der Naturgeschichte', 159, note 64.
- ⁷⁹ AFSt/M1C33a:28 (25 January 1792); AFSt/M1C39a:19 (3 February 1798); DNA, BM, box no. F39-8, letter no. 11 (30.01.1798); *Asiatick Researches*, vol. 5, 427–28; *Asiatick Researches*, vol. 11 (list of members, no page no.).
- ⁸⁰ *Skrifter*, 22–3; *Verhandelingen*, vol. 1, 49–70; *Asiatick Researches*, vol. 1, 437–40.
- ⁸¹ Nørgaard, *Mission*, 190–93, 202–06.
- ⁸² *Skrifter*, 7, 13, 22–3; *Verhandelingen*, vol. 1, 6, 49–70; *Verhandelingen*, vol. 5, 37–64.
- ⁸³ *Asiatick Researches*, vol. 1, 437–440.
- ⁸⁴ Porter, *Religion*, 68–75; *Asiatick Researches*, vol. 15 (Serampore, 1825), appendix 5, xlii–xlvi.
- ⁸⁵ *Skrifter*, 10 §XIII; *Skrifter*, 25 §2.1.c.
- ⁸⁶ Brimnes, *Constructing*, 103–24.
- ⁸⁷ Raj, *Relocating*, 125–38.
- ⁸⁸ Rasch, *Dansk Ostindien*, 29–51, 108–19.
- ⁸⁹ Brimnes, *Konstruktion*, 71–83.
- ⁹⁰ Rasch, *Dansk Ostindien*, 26.
- ⁹¹ Jespersen, *A History*, 52–7.
- ⁹² *Skrifter*, 8, 16–17, 38–9.
- ⁹³ Groot, *Van Batavia*, 123–8.
- ⁹⁴ Sen, 'The Asiatic Society', 35–7.
- ⁹⁵ *Skrifter*, 15, 17, 41–3.
- ⁹⁶ Harrison, 'Medicine and Orientalism', 58.
- ⁹⁷ *Skrifter*, 41–3.

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- ⁹⁸ AFSSt/M1C30c:24 (20 January 1789).
- ⁹⁹ Schlegel, *Statistisk Beskrivelse*, 496–7.
- ¹⁰⁰ DNA, BM, box no. F39-7, letter no. 33 (15.10.1785).
- ¹⁰¹ Groot, *Van Batavia*, 70–4.
- ¹⁰² Kejariwal, *The Asiatic Society*, 49–64.
- ¹⁰³ DNL, NKS 1304 V, nos. 1a, 2a and 5.
- ¹⁰⁴ Bricka, *Dansk biografisk Lexikon*, vol. 3, 243–5.
- ¹⁰⁵ Bricka, *Dansk biografisk Lexikon*, vol. 9, 84–6.
- ¹⁰⁶ Hodne, ‘Danske embetsmenn’, 17.
- ¹⁰⁷ Schlegel, *Statistisk Beskrivelse*, 496; *videnskabernes-selskabs skrifter*, vol. 6, viii; Bricka, *Dansk Biografisk Lexikon*, vol. 18, 514–21.
- ¹⁰⁸ DNL, NKS 1304 V, folio, nos. 1a and 2a.
- ¹⁰⁹ Liebau, ‘Translocal Networks’, 496–518.
- ¹¹⁰ *Skrifter*.
- ¹¹¹ *Skrifter*, 44–80.
- ¹¹² AFSSt/M2B7:5 (1789); AFSSt/M2B1:5d (1792?); AFSSt/M2B1:5a and 5b (1792?); AFSSt/M2B1:5c (1792?); *Neuere Geschichte der evangelischen Missions*, vol. 43, 655–6; AFSSt/M1C29b:106 (no date); *Neuere Geschichte der evangelischen Missions*, vol. 43, 654; AFSSt/M2B7:6 (1789); DNL, NKS 1304 V, no. 6.
- ¹¹³ *Skrifter*, 20–21; DNA, Board of Commerce (BC), The collections of Commander Christian Ewald, 1801–1816. box no. 2137. Folder no. VI. A. 12. ‘Litra C: Negociant P. Bættgers Plan til Handelens Forbædring i Tranquebar’. I thank Lise Groesmeyer for this manuscript.
- ¹¹⁴ Brimnes, *Constructing*, 68–71.
- ¹¹⁵ DNA, BC. box no. 2138. Folder no. VI. B. 3; *Skrifter*, 10.
- ¹¹⁶ Kragh, *Natur, Nytte og Ånd*, 26–36.
- ¹¹⁷ DNL, NKS 425, folio; *Skrifter*, 11.
- ¹¹⁸ Brimnes, *Konstruktion*, 71–83.
- ¹¹⁹ Engelhart catalogued the government archives and wrote an account of the history of Danish-Norwegian trade in the East Indies 1616–1679. Rasch, *Dansk Ostindien*, 188.

¹²⁰ DNL, NKS 425, folio, 2–5.

¹²¹ DNL, NKS 425, folio, 14–17.

¹²² DNL, NKS 425, folio, 11–13.

¹²³ DNL, NKS 425, folio, 29–30.

¹²⁴ DNL, NKS 425, folio, 32–7.

¹²⁵ Arnold, *Science*, 34–6; Raj, *Relocating*, 119–138; Cohn, *Colonialism*, 45–7, 57–75.

¹²⁶ DNL, NKS 425, folio, 38–40.

¹²⁷ Cohn, *Colonialism*, 47; Dalmia, ‘Sanskrit Scholars’.

¹²⁸ AFSt/M1C29b:34 (18 October 1787).

¹²⁹ Rasch, *Dansk Ostindien*, 188.

¹³⁰ AFSt/M1C33a:28 (25 January 1792).

¹³¹ Rasch, *Dansk Ostindien*, 53–8.