

Ulrich van der Heyden /
Andreas Feldtkeller
(Hg.)

Missionsgeschichte als Geschichte der Globalisierung von Wissen

Transkulturelle Wissensaneignung
und -vermittlung durch christliche
Missionare in Afrika und Asien
im 17., 18. und 19. Jahrhundert

Geschichte

Missionsgeschichtliches Archiv – 19

2012

Franz Steiner Verlag

THE ECONOMIC AND RACIAL IMPLICATIONS OF THE GLOBALIZATION OF KNOWLEDGE BY CATHOLIC MISSIONARIES IN PORTUGUESE INDIA (16TH-18TH CENTURIES)

Teotónio R. de Souza

This brief essay presents some information that points to the economic and racial implications of the globalization of knowledge by the missionaries. The Gospel order to disciples in Mt. 28:18-20 to go to the end of the world to teach doctrine and baptize is in itself a command that implies globalization of knowledge, even though as it always will be, the knowledge involved was always linked with the interests of the missionary goals which too often got mixed up with the political and commercial interests of the countries to which they belonged or which patronized their activities.

Speaking at a seminar in Goa in 1989 to analyze the role of the Jesuits in Indian History, Walter Fernandes, S J, then Director of the Indian Social Institute, Delhi, defined two major principles that guided the Portuguese expansion into Asia: (1) the close identification between religion and the State. In the feudal age, all commercial and military enterprises had to be legitimized in the name of religious exploits; (2) the right of truth on which colonial occupation and the subjugation of non-European peoples was based. It was presumed that Europe had the truth, it had the right to subjugate other peoples, since those who were not baptized could not be considered fully human. This was defined in the Suarez controversy concerning Europe's right over the indigenous peoples of Latin America. As for India, it was enunciated slightly differently by the Portuguese archivist-chronicler João de Barros with reference to the right of navigation which belonged to Catholic Europe. Following Vasco da Gama's voyage to India, the king of Portugal had declared himself the Lord of Navigation and justified confiscation of goods of all who navigated without his permission.

Afonso de Albuquerque, the military strategist and founder of the Portuguese empire in Asia applied the principle to the Muslims in India, but not to the Hindus whose collaboration he still needed. The religious orders kept reminding the State authorities about the religious legitimization of the conquest and demanded that priority be given to conversions. The State was forced to relent. The right to truth (later "civilizing mission") was ethnocentrism, which in the 19th century of imperialism and the rise of colonial anthropology and ethnology, became tantamount to

racism. The imposition of colonial culture was deemed essential for the maintenance of the system.¹

It is not difficult to draw up lists of the missionary contributions to modern science, but we need to go beyond the orientalist framework in which the European missionaries are presented as the only protagonists in the process, ignoring and forgetting the native sources of that knowledge or without acknowledgement of the native collaboration as an essential partnership. This implies addressing the issues of epistemology of knowledge transfer, and that is where we need to focus our sight.

The research in progress of some Indian scholars like C. K. Raju, Dennis F. Almeida and George G. Joseph, all of them concentrating upon the Indian mathematics, and more particularly calculus, transmitted to the West through the mediation of the missionaries, denouncing the pretended superiority of European knowledge and the racist overtones that accompanied European colonialism. The European missionaries were not entirely free from such attitudes, if not also discourse.

The Jesuits had undoubtedly the lion's share in the subject that is being treated with reference to the Portuguese *Estado da Índia*. The international organization of the Jesuits, the quality of their formation and their participation in the Portuguese imperial expansion gave them a privileged position in the transmission of knowledge globally during the period under study. During the previous century, namely the 16th century, they laid the necessary foundations by learning the native languages that were essential for knowing the local cultures. This was particularly true in the regions where the Portuguese gained jurisdictional and administrative control. In other regions this preliminary phase started later and lasted beyond the 16th century.

By mid 17th century the religious Orders, including the Jesuits in Goa no longer favoured the promotion of the native vernacular language. This problem became more serious in the next century and prior to the suppression of the Jesuit Order, and subsequently of all religious Orders in Portugal and its empire. It was provoked by the native clerics who had grown in numbers and competence to challenge the discriminations in promotion and the domination of the white Religious. That is when the racist overtones became manifest, and they even led to an attempted conspiracy to revolt in 1787, known as the Conspiracy of Pintos. It was suppressed most violently, and nearly a dozen of native clerics involved were deported to Portugal and kept there without any judicial hearing.²

From the 17th century and later we find a greater influx of the non-Portuguese missionaries, particularly Italians, Germans, French, whose links with the Collegio Romano of the Society of Jesus, and the prominent Universities of the time,

1 Cf. Fernandes, Walter: Jesuit contribution to social change in India (16th to 20th century), in: de Souza, Teotónio R./Borges, Charles J. (eds.): Jesuits in India. In Historical Perspective, Macau 1982, pp. 159 ff.

2 Cf. Borges, Charles J. (ed.): Goa and the Revolt of 1787, New Delhi 1996. With Introduction by Teotónio R. de Souza, pp. 1 ff.

motivated them to combine their missionary activity in Asia (Estado da Índia) to participate in the intellectual pursuits of the Renaissance and Enlightenment in Europe, and of their home countries in particular. Safe navigation had been crucial for the European expansion, but there were still many problems to resolve, particularly connected with calculation of latitudes, essential for the astronomical or star-guided high-sea navigation. The Portuguese, Pedro Nunes, professor at Coimbra University, had made some notable innovations. His disciple Christopher Clavius (1537–1612), when appointed professor of mathematics and astronomy in Collegio Romano, applied his newly gained knowledge for reforming the Julian calendar by taking away the accumulated days in a solar year to avoid the celebration of Easter from falling into Summer! Curiously, this preoccupation was limited to Easter in Europe! When St. Francis Xavier suggested a change of Lenten season and Easter for the Indians (or rather to the Portuguese in India) his request was bypassed!³ The Tridentine universalism had to prevail! Or rather, the European particularism had to become universally valid.

Matteo Ricci (1552–1610), Johan Schreck (1576–1630), Antonio Rubino (1578–1643) were some of the prominent Jesuits trained by Jesuits Christopher Clavius and his successor Christopher Grienberger (1561–1636). The Collegio Romano had become a hub of mathematical and astronomical skill and authority, and it sought mathematical and astronomical books from India. As a faithful student, Rubino wrote from Chandrapur, the seat of the Raja of Vijayanagar, to Clavius in 1609 as follows:

"I am in the great Kingdom of Bisnaga, attempting to procure the conversion of these souls, but for the moment *clausa est ianua*, we are waiting for the Lord to open it, so that many souls will be saved from going miserably to hell. The Brahmins, who are the literati of this kingdom, are very given to the cognition of the movements and conjunctions of the planets and stars. [...] Your Reverence will be amazed at how they predict the hour and minute of eclipses of the sun and the moon, without knowing the way in which eclipses occur. I have attempted many times to make them state the way in which they derive the conjunctions of the planets, but I was never able to get them to declare it, and they don't wish to teach the things they know to others, except in secret to their relatives."⁴

Madhavacharya (1340–1425) was particularly known as an Indian mathematical genius who evolved the derivations for the infinite series and trigonometric functions. He preceded by nearly two and half centuries Leibnitz and Newton, regarded as inventors of calculus in Europe. Bhaskara's *chakravala* method in *Beej Ganita* preceded John Wallis (1655) by five centuries. The Jesuit motivation to import knowledge from India was connected with interest in calendar and astronomy which were essential for computing the dates of the creation of the world, dating Biblical deluge and fixing the festivities of the Church liturgical calendar. That was how in mid 16th century they discovered an error in the existing Julian

3 Cf. Costeloe, M. Joseph (ed.): The Letters and Instructions of Francis Xavier, Anand (Gujarat) 1993, p. 57, p. 59, p. 182.

4 Rubiés, Joan-Pau: The Jesuit discovery of Hinduism. Antonio Rubino's account of the history and religion of Vijayanagara (1608), in: Archiv für Religionsgeschichte, Nr. 1, Boston MA 2001, pp. 210 ff., my emphasis.

calendar. The true solar year was c. 11,25 minutes less than the assumed 365,25 days, causing a cumulative error in the date of Easter.

Without correction the Easter would eventually fall in Summer instead of Spring. The French mathematician François Viète's controversy with Clavius and his critique of the Gregorian calendar reform referred to Indian calendrical term "tithi", one thirtieth of lunar month or an epactal day as different from solar day. It may be noted that Fr. Johan Schreck had worked with Viète, and after his death with Galileo-Galilei, before joining the Society of Jesus. In astronomy, the Indian planetary model of the Mathematician Nilakantha was adopted by Tycho Brahe, and Kepler adopted the 10th century Indian lunar model of the astronomer Munjala.⁵

While the French Jesuit missionary contributions to Orientalism have gained wide publicity,⁶ and obviously the later English missionary and non-missionary studies, the scientific information that was transmitted via the Portuguese or the Portuguese *Padroado* missionaries considerably earlier have remained largely ignored or forgotten. These covered areas that were of particular interest to the State and the Church alike, namely the areas of agriculture, geography and medicine, in addition, of course, to languages and cultures which the missionaries needed to know for the missionary penetration.

With particular reference to agriculture, the Jesuit pioneering efforts to create food resources for their mission areas in Portuguese India were noteworthy and they raised much envy of the native elites in Goa.⁷ Most of the Jesuit missions in Asia and even East Africa depended upon exchange of food supplies from the palm groves and rice fields the Jesuits had acquired in Goa, Bombay and the so-called Northern Province. The takeover of this Northern province by the Marathas in 1739 was a serious blow to the Jesuit economy. The ownership and sharing of these resources by different mission areas of the Jesuits were also a source of many internal quarrels among the Jesuit administrators of those missions.⁸

A classic piece of geographic tracking was produced by the Jesuit António Monserrate, attached to the Jesuit mission at Akbar's court, but it remained unno-

5 Cf. Bien, Reinhold/Duke, Dennis: Viète's Controversy with Clavius Over the Truly Gregorian Calendar, in: *Archive for History of Exact Sciences*, no. 1, New York et al. 2007, pp. 39 ff.

6 Cf. Raina, Dhruv: French Jesuit Scientists in India. Historical Astronomy in the Discourse on India, 1670–1770, in: *Economic and Political Weekly*, Mumbai 30.1.1999, pp. 30 ff.; idem: The French Jesuit Manuscripts on Indian Astronomy. The Narratology and Mystery Surrounding a Late Seventeenth – Early Eighteenth Century Project, in: Bretelle-Esabet, F. (ed.): *Looking at it from Asia. The Processes that Shaped the Sources of History of Science*, New York 2010, pp. 115 ff.; Forbes, Eric G.: The European astronomical tradition. Its transmission into India and its reception by Sawai Jai Singh II, in: *Indian Journal of History of Science*, no. 2, New Delhi 1982, pp. 234 ff.

7 Cf. de Souza, Teotónio R.: *Medieval Goa. A socio-economic history*, Panaji 2009, p. 58, fn. 22 – the three vilages of Assolná, Velim and Ambelim that yielded yearly 2010 xes in 1578, when they were handed over to the Jesuits, by 1635 the Jesuit industriousness had raised the yield to 5.500 xes. A manual about cultivation and care of coconut trees was produced by a Jesuit in Goa in mid 17th century and can be read online in googlebooks at <http://books.google.com/books?q=arte+palmarica&btnG=Search+Books> (consulted on 20.8.2010).

8 Cf. Borges, Charles J.: *The Economics of the Goa Jesuits 1542–1759*, New Delhi 1994, pp. 41 ff.

ticed for nearly two centuries. On his journey from Surat to Fatehpur Sikri in 1580 he noted the latitudes, and on the basis of these observations prepared a small map of about 5.5" x 4.2" giving a more precise idea of Himalayas and the upper course of the Punjab rivers, despite the error of placing four degrees too far to the east.⁹ The French Jesuits followed this pioneering exercise with more dependable results. Fr. Jean-Venant Bouchet, sent to Siam in 1687, was one of the "mathematicians of the king" Louis XIV. Following the political difficulties in Siam, the French Jesuits moved to Coromandel Coast and under the protection of the French settlement at Pondicherry. The collaboration of Fr. Claude S. Boudier and Pons, based at Chandernagore, with Sawai Jai Singh of Jaipur in 1733/34 was an important example of scientific collaboration. Following their ill-health and early retirement from Jaipur it was the Portuguese viceroy in Goa that persuaded two German Jesuits Anthony Ganbelsberger and Andrews Strobel, based at the Jesuit mission at Agra, to replace them in 1740. The death of Sawai Jai Singh in 1743 ended the project. But on the basis of the information provided by the French Jesuits D'Anville produced his famous *Carte de L'Inde* in 1752.¹⁰

Closing the Jesuit missionary performances in India, we find Joseph Tieffenthaler (1710–1785) who survived the suppression of the Society of Jesus in Portugal in 1759 and by the Papacy itself in 1773 by working under the British auspices at Lucknow. Born in Austrian Tyrol he joined the Portuguese *Padroado* and arrived in Goa in 1743. He was meant for the Jaipur Observatory, but following the end of that project remained attached to the Portuguese Agra mission of the Jesuits. He travelled throughout North India making astronomical observations and surveys. Most of his collected data he sent to a Danish scholar Prof. Kratzenstein in Copenhagen and to the French orientalist and geographer Anquetil Duperron, who was on a research visit to India between 1755–1761. The work of Tieffenthaler, as well as of the French Jesuits, was incorporated by Rennell in his map of 1788. So did Thomas Call in his *Atlas of India*.¹¹

Finally, the medicine was a prized missionary tool in imitation of their divine master Jesus, who is mentioned in the New Testament as going around preaching and healing all those who approached him with faith. The Jesuit ran their own college dispensaries, and in Goa the Jesuit brother Gaspar António had become particularly famous for his *pedras cordiais* which were much sought as antidote against poison, just like the *bezoar* stones, and was an important source of income for the Goa Jesuits. It is said to have fetched them nearly 50,000 *xerafins* annually.¹²

The Jesuit reputation for dedication, efficiency and knowledge also made the State administration thrust them with the running of the Royal Hospital in Goa

9 Cf. Kochhar, R. K.: Secondary Tools of Empire. Jesuit men of science in India, in: de Souza, Teotónio R. (ed.): Discoveries. Missionary Expansion and Asian Cultures, Delhi 1994, p. 177.

10 Cf. Forbes, Eric G.: The European astronomical..., op. cit., pp. 238 ff.; Kochhar, R. K.: Secondary Tools..., op. cit., p. 178.

11 Cf. ibidem, pp. 179 ff.

12 Cf. da Silva Gracías, Fatima: Health and Hygiene in Colonial Goa 1510–1961, New Delhi 1994, p. 282. The Jesuits offered or sold it to some neighbouring rulers who always feared poisoning by their rivals or enemies. It served therefore also as a good diplomatic tool.

since 1579. The description of the Hospital under the Jesuit administration by the French traveler Pyarard de Laval at the opening of the 17th century calls it the best in the world. But they also maintained a hospital for the poor natives where *mestre* Pedro Afonso provided excellent medical service from 1560 till about 1578. For the Jesuits it was also means to wean the natives from the influence of the Hindu *vaidyas* (panditos), some licensed by the city municipality, who usually recommended devotional or votive offerings to Hindu deities, a practice considered by the Church as particularly harmful for the spiritual health of the recent converts.¹³

Garcia da Orta, the Portuguese physician who produced in 1563 the first published book in Goa, namely *Colóquios dos Simples e Drogas e cousas medicinais da Índia*¹⁴ on Indian botany and medicinal plants¹⁵ maintained a Hindu *vaidya* in his service and probably learnt much from him and other *vaidyas* and *hakims* in India.¹⁶

The fame of Goan doctors persisted among the neighbouring rulers, including the powerful Marathas who threatened the Portuguese jurisdiction, and as mentioned earlier, conquered in 1739 the Portuguese Province of the North while keeping up a strong pressure on Goa during a prolonged period. In 1771 the Maratha prince Madhav Rao wrote to the governor in Goa about the services rendered to him by the Friar Leandro de Madre de Deus,¹⁷ and who had recommended a priest doctor from Goa. In response to the request, the governor sent a

13 Cf. de Souza, Teotónio R.: *Medieval Goa...*, op. cit., p. 120.

14 da Orta, G.: *Colóquios dos Simples e Drogas da Índia*, 2 vols., Lisboa 1987, facsimile of 1891 edition.

15 Cf. Walker, Timothy: Acquisition and Circulation of Medical Knowledge within the Early Modern Portuguese Colonial Empire, in: Bleichmar, Daniela/Huffine, Kristin/De Vos, Paula (eds.): *In Science. Power and the Order of Nature in the Spanish and Portuguese Empires*, Stanford 2009, p. 252. Much of the original material was translated into Latin by the prominent botanist Charles Lecluse, who in 1567 printed an unauthorized edition of da Orta's text in Antwerp. Incomplete editions in English, French, and Italian followed, pirated from Lecluse's abridged Latin text. Lecluse also appropriated and reprinted work from the Spanish Jesuit physician and botanist Cristobal da Costa, whose *Tractado de las drogas y medicinas de las Indias orientales* (Treatise on the Drugs and Medicines of the East Indies), published in Burgos, Spain, in 1578 followed da Orta's work closely, but expanded upon and corrected some of da Orta's information. Thus, through translations and appropriation, Garcia da Orta's original treatise achieved a very broad circulation.

16 Cf. Gracias, Amâncio: Médicos europeus em Goa e nas cortes indianas nos séculos XVI a XVIII, in: *O Oriente Português*, no. 23, Bastorá 1939, pp. 335 ff.

17 This Capuchin friar was a confidant of the governor D. João José de Melo, sent to the court of Pune in 1770. His presence in the court was used by him to gather political and commercial information, which in 1772 he gathered into a comprehensive manuscript with description of trade routes, commodities and prices throughout the main ports from Western India to Macau. Numbered as Ms. 18 in the Central Library, Panaji, it is entitled *Notícias Particular do Comércio da Índia*, and its contents have been described by Walker, Timothy: A commodities price guide and merchants' handbook to the ports of Asia. Portuguese trade information-gathering and marketing strategies in the Estado da Índia (circa 1750–1780), in: Borges, Charles J./Pearson, M. N. (eds.): *Metahistory. History questioning history. Festschrift in honour of Teotónio R. de Souza*, Lisboa 2007, pp. 569 ff.

“physician of the convents”, Francisco Manuel Gonçalves to the court of Pune, and even granted to the family of the doctor a pension of 40 *xerafins* while the doctor would be absent from Goa in official State service.

As Timothy Walker has pointed out, the renewed interest in examining how Europeans, be they missionaries or other colonial agents attempting to advance their colonial enterprise, learned medical techniques through cross-cultural interactions with indigenous peoples. It can also permit to learn exactly what healing methods Europeans ultimately took away from such collaborations. With this approach, the differences between European and non-European concepts of medicine, health, and illness are not as important as assessing what medicines and methods contemporary European colonizers deemed important to absorb from indigenous healing systems, understanding why Europeans found these remedies attractive, and determining how they put native medicine to work toward their own ends, both within the colonial context and at home in the metropolis. Medicine was a tool of empire from the earliest days of European expansion; understanding how Europeans appropriated and employed healing wisdom – from any place and in whatever form – is a key to understanding the imperial process.¹⁸

By way of conclusion it is important to notice the hangover of the western imperial and orientalist superiority, which benefitted from the native sources and knowledge providers much more than it is honestly acknowledged, as Filipa Lowndes Vicente states in her *Outros Orientalismos*.¹⁹

18 Cf. Walker, Timothy: *Acquisition and Circulation...*, op. cit., p. 270.

19 Cf. Lowndes Vicente, Filipa: *Outros Orientalismos. A Índia entre Florença e Bombaim 1860–1900*, Lisboa 2009, p. 36.