

Historical Perspectives on China & Macau, and Contacts with Europe during the Ming & Qing Dynasties



Edited by

Carmen Amado Mendes

Isabel Murta Pina



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CHAPTER IX

Antoine Thomas in Macau (1682-1685) and His Role in the Communication between Europe and China*

Noël Golvers

Introduction

In a previous paper I tried to describe (after C.R. Boxer, L.F. Barreto and U. Baldini) the evidence on Macau as a pivotal point in the scholarly communication between China and Europe (see CCCM Symposium 2016). An uncommon way to approach this point of investigation, in particular, consists in focusing on the reported activities of some Jesuits, residing in Macau for some years. Many interesting personalities have passed by, but often the precise length of their stay in Macau – temporary as it was – is under-represented in the sources, and in the modern research. Therefore, interested in the position of Macau in the communication between East and West, I will focus here on a sometimes under-estimated Jesuit, Antoine Thomas, whose stay in Macau has left some substantial traces in the form of books, manuscripts and letters, which exceed the usual evidence, known in the curriculum of most other Jesuits. During this research, also some new documents came on the fore, which could – with certainty or high probability – be attributed to him, such as a (partially preserved) ms. *Astronomia Vindicata*, and

*This is the revised version of my presentation at the CCCM Symposium “Cartography, Circulation, Description” (Lisbon, October 2016). It is the first of a small series of 4 contributions on newly found texts of Antoine Thomas: apart from this contribution, 3 others will deal with: (1) his *Introductio ad Res Mathematicas*; (2) *Demonstratio Iuris Imperatoris Tartari contra Navarretem*; (3) *Astronomia Vindicata*. The abbreviations I used are: AFSI = Archives françaises de la Société de Jésus (Paris-Vanves); ARA (Algemeen Rijksarchief Antwerp); BVE = Biblioteca Nazionale Centrale Vittorio Emanuele II (Rome); JA = Jesuitas na Asia (Ajuda-Lisbon); JS = Japonica Sinica, in the Central Jesuit archives of Rome (Archivum Romanum Societatis Jesu); MPM = Museum Plantin Moretus (Antwerp).

an also handwritten *Demonstratio Iuris Imperatoris Tartaro-Sinici*, the former in the sphere of European astronomy in China and its defense, the latter in that of (European) international (and canon) law, and an absolutely unique piece of Jesuit interpretation of Emperor Kangxi's position. These, and several other traces of his activities in Macau, in the first place in the field of astronomy and navigational cartography, and in that of polemic communication towards Europe, illustrate indirectly how the Colégio da Madre de Deus and its documentary collections (archives; libraries...) was – at least occasionally – really a logistic and scholarly epicenter, and a center of editorial activities, regulating the communication between the Jesuit 'head quarters' in Europe and the missionaries in China, and its various contents.

On several occasions, such as the sessions of the CCCM Simposio of 2015, I have made a tentative analysis of the Macau Jesuit Colégio da Madre de Deus and its 'paper collections'.¹ The inevitable conclusion was that the few and fragmentary data make it very difficult to get a clear idea of the real position and role of this Jesuit center in the scholarly and scientific communication between Europe and China. Of course, there are the Ajuda and Madrid archives, but these speak mainly about the Jesuit mission inside China, and the activities within the Macau College are more rarely represented. For example, what was the curriculum of higher level teaching? What were the holdings of the library, in terms of book titles and authors available? What was the level of the didactical and scientific (scholarly) activities? For the answers to these questions, we mostly have to rely on indirect and fragmentary information, which I collected in my aforementioned presentation. Therefore, I will follow now another way, and I will try to look at the Macau College at one particular moment, through the related activities of one particular Jesuit, who lived there somewhat longer than most of his fellow fathers, who just passed by during some months to half a year, and on whom we have sufficient sources. Looking at the College from his perspective will give an original and complementary view on his Macau context, which by extrapolation could say more about Macau within the perspective of intercultural exchange of knowledge.² After some hesitation, my choice was Antoine Thomas, the Belgian Jesuit who later became Verbiest's 'secretary' and successor in the Imperial Astronomical Bureau ("Tribunal Mathematicum") of Peking, known as the Qintianjian. He lived

¹ Golvers 2018, 179-202.

² For an interesting overview of the Jesuits who temporarily visited the Macau College, see Tang Kaijian 2016, 36 ff. ('Macau and the spread of Catholicism in Mainland China during the Late Ming and Early Qing dynasties'). On mathematical teaching in the Macau College: U. Baldini 2008, 33-79.

for some three years in Macau (July 1682–November 1685), was trained as an active and up-to-date mathematician and astronomer, and was a prolific letter writer, of whose correspondence I could trace – for the period in question – more than thirty, mostly unedited, extant letters.

1. Astronomical observations

When Thomas arrived on the 4th of July 1682 in Macau, he came from Siam, where he had made, among other insights, one considerable astronomical observation. He reported this in a long and detailed letter, sent on 29 June 1682 “ex mari Sinensi”, almost in view of the port of Macau.³ This letter is even more interesting as he explains in it, in clear terms, his instruments, his methodology and his results. Also the books and authors he used are explicitly revealed in detail, viz. Giovanni Battista Riccioli, SJ, *Almagestum Novum* (Bologna, 1651) and *Astronomia Reformata* (Bologna, 1665); Gassendi; Scaliger; the *Tabulae Alphonsinae*; Ismail Bullialdus, *Astronomia Philolaica* (Paris, 1645) and Julius Schiller, *Tabula Fixarum ex nucleorum observationibus composita*, i.e. an appendix of his *Coelum Stellatum Christianum* (Augsburg, 1627). These books he had at hand in Ayutthaya, but it is far less probable that they were part of the newly established local Jesuit residence, than the personal equipment of Thomas himself, who, for that matter, had used most of them also in Coimbra.⁴ As for his instruments, as there was no observatory proper,⁵ they were all ‘portable’ instruments, or instruments ‘fai-da-te’, i.e. all ‘hand-made’ (“construi curavi; construxi”). I think it is most probable that he took both books and instruments with him from Siam to China, and thus also to Macau.

This letter, auto-determined as “*Epistola astronomica*”, was addressed by Thomas to Alexandre de Bonmont, SJ (1632–1718) in Douai who, during the following decades, remained his reliable ‘agent’ in Europe for the acquisition of the necessary books he continually requested, and also for his contact with the scholarly scene in France. Indeed, although Thomas had spent two years as a mathematics teacher in the Colégio das Artes in Coimbra (1677–1679), and had produced in Coimbra the manuscript of his *Synopsis Mathematica* – an all-

³ See a photograph of the text in: *The Far Eastern Catholic Missions, 1663 – 1711. The Original Papers of the Duchess d’Aveiro*, Tokyo, 1975, vol. III, no. 64, 17; 18; 27.

⁴ See for an overview of his sources: Golvers 2017, 140 ff. (referred there are Riccioli, Gassendi; Bullialdus; (Julius Caesar) Scaliger).

⁵ In Ayutthaya Thomas made his observations from the Portuguese Jesuit house, probably from its veranda or the courtyard: Wayne Orchiston, Darunee Lingling Orchiston, Martin George & Boonrucksar Soonthornthump 2016, 25–45, especially 29 and 32.

-compassing course of mathematical science(s)⁶ – Paris, and more precisely the Jesuit Collège de Clermont and L'Observatoire were, and remained, for Thomas the 'reference point', especially after his two meetings with Jean de Fontaney (1643–1710), the mathematician of the said College, and the mission's procurator Antoine Verjus (1632–1706) in the Professed House. It was through De Bonmont – and Thomas Gouye (1650–1725), member of the Académie des Sciences – that Thomas's results were also communicated to, and discussed in the sessions of the same Académie, by, among others, Dominique Cassini (1625–1712) and Philippe de La Hire (1640–1718), the main astronomers in France of the period, and were published in the *Journal des Sçavans* of 1679. It is therefore clear that Thomas was a professional observer, and one of the first Jesuit observers in China in that era. This background, and his personal connections with De Bonmont and Paris were a logical incitement to pursue his observations in Macau.

In order to remain informed on the research in the field in Europe, and on the most recent observations, Thomas asked De Bonmont, in a letter from Macau of 14 December 1684, to send over the current issues of the *Journal des Sçavans*. It was from this period onwards, indeed, that the distribution of European scholarly periodicals started to be a part of the communication with China, so that in the mid-18th century there were about twenty-five different periodicals circulating simultaneously in China. The impact of this specific journal we can in all probability recognize, for instance, in the information on the "machine de Römer", a particular engine for the prediction of eclipses, constructed and demonstrated in Paris in 1681, and described for the first time in the *Journal des Sçavans* in the issue of 1682 (Amsterdam, 1683), that arrived in Macau in 1683 or 1684.⁷ Ferdinand Verbiest apparently received the information in Peking in the summer of 1684. This connection can only be understood by assuming that Macau was between 1682 and 1684 the turning point, with Antoine Thomas – thanks to his Paris connections and his astronomical activities – as the personal intermediary.

Precisely for his astronomical activities in Macau (and afterwards in Peking) he requested to the same 'agent' to send him 'as quickly as possible' 'quaecumque nova de astronomia prodierint', referring to recently published books and tables. From his letter of 17 May 1685 to the Duchess of Aveiro, Maria de Guadalupe (1630–1715), who was his and the Mission's Portuguese benefactress of the Jesuit Missions in the East and West-Indies, and who was then residing in Madrid, we know that it was she who paid the bills, as she did for the publication of his *Synopsis Mathematica*.

⁶ With the exception of algebra. See on this *Synopsis*: Bosmans 1924-25, 170-179, and Golvers 2017, 121-185.

⁷ On the evidence see Golvers 2013, 63-73.

What do we really know of Thomas's observations in Macau? They started already in the second half of 1683. Indeed, on 31 October 1683, in a letter to the Dutch physician Andreas Cleyer (1634–1697/8) in Batavia, Thomas not only asked for observations made in Batavia and elsewhere, which would have been very welcome, but before all, described his own observation of the total solar eclipse of 24 July 1683. It was immediately clear for Thomas that this was an important observation, in view of the correction of the current astronomical tables and the location of the ascending (or North) lunar node,⁸ which he discovered at another place in the cosmos than that indicated in most of the tables circulating in Europe, including those of Giovanni Battista Riccioli (1598–1671), the 'chief' Jesuit astronomer of that period. There follows the entire description, not only of the process of the phenomenon itself, but also of his working method:

when (the eclipse?) could be very precisely caught on a sheet of paper, imposed on the telescope and connected (?) to it with a particular machine, and when with this mobile telescope the distance between the Moon and the center of the Sun could be determined, and from this the latitude of the moon, i.e. its distance from the ecliptic (circle), it was impossible to NOT locate where the 'nodus' was, in his point of the ascending or Northern lunar node.⁹

He explains his method in more detail in a recollection in a letter written from Nanking, on 7 October 1685.¹⁰ From this letter, we learn also that he used as his territorial base (for lack of an observatory proper) the "arx" of Macau, certainly the Monte Norte – next to the Jesuit College, with the fortress (the "Fortaleza do Monte") built in the 1620s with the collaboration of Jesuits such as Adam Schall von Bell – and a sub-urban Jesuit property on a nearby island, to be identified, I suppose, as the Ilha Verde, where the Jesuits had until 1759 a "quinta".¹¹ For this purpose, Thomas used a telescope with lenses with a focal length of seven Roman feet.¹² He explicitly expressed his intention to communicate these results – which

⁸ Bosmans 1924-25, 201.

⁹ "Cum exactissime possit sumi in charta, tubo objecta eique per certam machinam adhaerente, et cum ipso tubo mobili distantia lunae a centro solis et ex eo praecisissime latitudo lunae sive distantia ab ecliptica determinari, latere non poterat in suo praecise eclipticae puncto nodus versaretur": cf. A. Thomas's autograph, now in Paris= AFSI, Brotier, 117.

¹⁰ Autograph in the same file, in AFSI, Brotier 117.

¹¹ Ibid.: "Locus observationis fuit domus nostra suburbana, sita in exigua insula, quae uno minuto distat ad septentrionem ab arce Macaensi. In ea observavi altitudinem poli anni 1682 22° 15'.

¹² Ibid.: "Ad huius observationis apparatus annexa erat firmiter tubo astronomico 7 pedum Romanorum cista oblonga chartacea, in qua adhaerebat carta, tubo perpendiculariter obversa, et in 12 digitis accurate divisum erat illud spatium, quo de eo (?) tempore recepta imago solis obtinebat. His ita praeparatis, et machinâ volubili ad orientalem ianuam obversa, erectus est magnus

contradicted those expressed in the tables of Riccioli, the most authoritative at that moment in Europe (“multum recedunt Tabulae Ricciolianae”) – to Cleyer and to his own European Jesuit colleagues. Indeed, according to his letter of 8 December 1684, he had sent at least one copy to Alexandre De Bonmont, his ‘agent’ in Douai.¹³ Through the latter and Thomas Gouye, his results arrived in Paris, and were afterwards published in the *Mémoires de l’Académie des Sciences*, Tome 7, 2me part, p. 696. At the same time Thomas repeated again his request for “aliquid novi de motu planetarum, item de eclipsium calculo”, and he hoped to dispose in the near future of the calculation of other eclipses in China, to verify his results and to correct them (“ut illos conferam cum meis, et hos illis emendem et perficiam”). Already before, on the 14th October 1684, he had written to Antoine Verjus, the ‘Procurator missionum Orientalium’ in Paris with a more precise demand, viz. to send over “des nouveaux livres qui sont renommées dans les mathématiques, principalement traitant de l’astronomie”,¹⁴ and he entrusted Verjus to procure some lenses with a focal length of ten and twenty feet from Jacques Borelly (d. 1689), a chemist and accomplished manufacturer of lenses, who had been since ca. 1670 a member of the Académie des Sciences and famous producer of lenses for the Observatoire de Paris.¹⁵ These lenses would have been very useful for him, so he could replace the superior lenses of fifteen feet of Giuseppe Campani – the top-lense producer of Rome,¹⁶ which he brought with him from Europe and had at his disposal in Macau, but which he was expected to offer to the Emperor on his imminent arrival in Peking. As late as March 1685, Thomas could indeed observe – with a fourteen or fifteen Roman foot lens made by Giuseppe Campani – the rings of Saturn with its greatest satellite, and on the 17th of June he could determine the polar height of Macau, and observe on that very day a lunar eclipse.¹⁷ On this

quadrans astronomicus, secure exhibens singula minuta”. Interesting is a comparison with the description of similar observations made by Verbiest on the Peking observatory in March 1669, acc. to the report transmitted by G. Gabiani, 1669, 228-233.

¹³ See the contemporary copy, now in ARA (Fl.-Belg. 3398, f. 126-130): “Credo quod Reverentia vestra iam acceperit observationem eclipsis solis, quam hic feci in arce, ex qua evidenter cognovi locum veri nodi Borei contra sententiam P(atris) Riccioli”.

¹⁴ Same letter.

¹⁵ See on him: Chabbert 1970, 203-227.

¹⁶ Bedini 1961, 18-38.

¹⁷ For this observation Thomas received the support of Juan de Yrigoyen, SJ (1646-1699): “Lunae quoque unam eclipsem observavi Macai, adiuvante P(atre) Iohanne de Yrigoyen, astronomiae apprime perito”. I have not been able to trace any particular information on his astronomical experience. On 6 February 1685 he had returned from the Fuzhou mission to Canton, on his way to Manila, after he had refused to submit the ‘oath of obedience’, and in March he apparently passed by Macau, which is not mentioned by J. Dehergne (1973, 130). I do not know what this support may have implied in concreto, but the positive assessment (“apprime perito”) in the words of the professional Thomas suggests that Yrigoyen’s level was more than simply average. This is again proof that some basic information on the Jesuit’s individual competences and practices escapes

occasion he also made references to some European books, viz. Honoré Fabri, SJ, *Synopsis Optica* (Paris, 1667), Prop. 24 and Christian Huygens.¹⁸ His way of referring to them is such that we may conclude that he had these books directly at hand, either from the local library, or – more probably – from his own equipment. It is not clear whether he ever made the observation of the satellites of Jupiter, as he announced in his aforementioned letter to Cleyer, the results of which were important for the correction of the longitudes of places in China, itself one of the desiderata for better maps, a project prepared by the French *Académie des Sciences*.

At any rate, in 1684 Thomas's reputation as a mathematician had reached Peking through the internal Jesuit communication network, and Verbiest had mentioned his name to the Emperor, as a potential successor, who had to be 'invited' to Peking as his collaborator. For the same reason, Verbiest explicitly asked the Japanese Provincial in Macau, Tomé Vaz (1628–1696) on 11 January 1685 to 'engage' Antoine Thomas, and other young Jesuits present there at that time – including the poet and convert Wu Li – in copying, and transcribing ("tresladar") the unpublished manuscript of Adam Schall's "Min li pu zhu" (Peking, 1662?), in order to confront him with the 'electio dierum', that highly contentious aspect of the Chinese calendar, which consisted of the selection of propitious and inopportune days for particular activities, and therefore part of Thomas's future commitments as a collaborator at the *Qintianjian*.¹⁹ Earlier already, in May 1683, Verbiest had sent two of his (Chinese) apologies to Filippucci, who resided at that

from our knowledge, for instance, when these occupations fall beyond the 'normal', 'streamlined' curriculum, as reflected in the official provincial Catalogi.

¹⁸ C. Huygens is quoted by Thomas after he arrived in Peking, from the Xitang residence, on 7 December 1685, with regard to the 'inclination of the ring of Saturn' ("inclinatio plani illius (Saturni) annuli ad planum aequatoris"). Huygens discussed this theme both in *De Saturni Luna Observatio Nova*, Hagae Comitum (The Hague), A. Vlacq, 1656, in-4° and in *Systema Saturnium sive de causis Mirandorum Saturni Phaenomenon, et Comite eius Planeta Novo*, ibid., A. Vlacq, 1659, in-4°. Criticisms on the latter title he countered in *Brevis Assertatio Systematis Saturnii Sui*, published as part of Eustachius de Divinis Septempedanus (= Honoré Fabri), *Brevis Annotatio in Systema Saturnium Christiani Hugenii (...) unâ cum Christiani Hugenii Responso*, Hagae Comitum: Vlacq, 1660, in-4°.

¹⁹ JA 49-IV-63, f° 14r., in a letter to Tomé Vaz (Cf. Golvers 2017, 614 (n° 79): "Peço a V(ossa) R(everência) q(ue) la tomê este trabalho de tresladar em lingua Europaea a<s> explicações da 2a parte do Calendário nostro Sinico, id est q(ue) olim p'u chu o P(adre) João Adamo comigo tem feito em lingoa e letra Sinica. Os padres novos e principalmente o P(adre) Antonio Thomas poderá ajudar a V(ossa) R(everência) em escrever e pôr-me limpo, p(or)q(ue) eu aqui não tenho lugar e ninguem está mais no cazo † querão (?)† litteras Sinicas e esto neg(oci)o deste livrinho q(ue) V(ossa) R(everência). Este he hum ponto de grande importancia, e suposto q(ue) nossa missão totalmente depende deste tribunal e do calendario, convem que cada hum por sua parte ajudê a consertar e aparelhar as cozas deste modo, q(ue) os padres presentes como os passados fiquem limpos, e q(ue) os bispos não tenham q(ue) possam embirar <n>e<m> contra Superiores, como se no examinassem estas couzas, nem contra os prefeitos de Mathematica, seus subditos, como se nuncam as tivessem explicado".

time in the Macau College, to be translated into Latin (“Lingua Europaea”), and he added for the reprint of Schall’s “Min li” a new prologue composed by Shao Taiqu, a collaborator at the *Qintianjian*, dated the first decade of the first month of Kangxi 22 (27/01/1682–5/02/1683).²⁰

Some months later, at the end of 1683, another colleague of Shao Taiqu and a specialist in ‘puzhu’ (“electio dierum”) had also been for a while in Macau. With my reading of the poorly transmitted name ‘Lieu So Cum’ being correct, we know that he was Liu (Yunde) Sugong, or Blaise/Bras Verbiest (1628–1707), once a collaborator of Verbiest during his preparations of Yixiangtu, and a specialist in fengshui as well.²¹ In this way Thomas was informed by professional specialists on the ‘true meaning’ of this particular aspect of the calendar already when he was in Macau. What is more, several other Jesuits around him in the Colégio, such as the very elderly Andrea Lubelli (d. 2 November 1685) and Francesco Saverio Filippucci (who stayed in the College at least from December 1680 until December 1683) were equally involved in this ‘apologetic offensive’, which had been started in view of the imminent arrival in China of the Apostolic Vicars and François Pallu (1616–1684).

Already earlier, after his first ‘Tartary-journey’ (1682), Verbiest added to his long and detailed report a ‘Catalogus’, with a precise list of places and distances, for the benefit of ‘someone in Macau who had more “otium” (‘leisure time’) than himself, in order to make with this highly original evidence a new map of Liaodong Province, as a correction of Martino Martini’s’.²² For the aforementioned antecedents, it is very probable that he was thinking here again of Antoine Thomas. This can even be confirmed from another letter, written after his 2nd Tartary journey

²⁰ JA 49-IV-63n. 51r./v. (Golvers 2017, 474): “Com esta occasião envio <a> V(ossa) R(everência) dous livrinhos <...> sobre algumas materias, q(ue) trat[t]ão do Tribunal da matematica. Peça V(ossa) R(everência), q(ue) tem tanta noticia da lingua Sinica, faça caridade de tresladal-los em lingua Europaea, // (f. 51v.) para dar conta aos Bispos Vigarios, q(ue) muito pedem enviar nestas materias, se não estão bem informados: e aqui estou ocupadissimo (com os padres companheiros), e este para o bem comum (...). Envio t(am)bem hum novo prologo sobre o nim hoe pu chu kim goe, o qual t(am)bem se pode applicar aos livrinhos, que vão com esta. Este prologo he feito por nostro Kun fo xao, o qual [he] chamado nesta Corte como cabeça de todos que correm com fum xui (chen xu), etc. Peça t(am)bem V(ossa) R(everência) tomê trabalho de tresladal-lo, por q(ue) servê muitissimo a nosso proposito”.

²¹ JA 49-V-19, f. 473r.: Golvers 2017, 526-527 (no. 62): “Quanto as outras, em que V(ossa) R(everência) me pede alguma explicação sobre os termos e sentido de p’u chu. Tendo ouvido que, depois de escritas estas o nosso Lieu (?) So Cum esteve lá presente com V(ossa) R(everência) em Macao, nam me apressey de responder, me persuadindo que o So Cum muy facilmente e mais claro de boca poderia dar satisfaçam e explicação conveniente, ao menos conforme o sentido Sinico das letras...”. On his career, see Pina 2011, 392-394.

²² For the text of Verbiest’s 1st Tartary journey, see: Golvers 2017, ff., and, for the appended catalogus, 460-461. The autographed version of Verbiest’s report was received in Macau before 4 December 1682, as on that date Thomas already summarizes details from this letter (JS 149, f. 497v.).

the following year (1683), of which I found a transcription in the archives of the former Officina Plantiniana in Antwerp.²³ There Verbiest describes his methods for measuring the height of mountains from a distance and the meridian line, all part of an early, and shortly thereafter aborted or interrupted, project of mapping Tartary, and asked at the same time Thomas' advice for improving his method. Thomas, however, preferred to forward a copy of Verbiest's letter to De Bonmont in Douai, although he had himself treated some aspects of these problems in his *Synopsis Mathematica*.²⁴ The same intention to communicate with Europe in a scholarly way, which we already found as the motif behind Thomas' 'epistola astronomica' and again in this forwarded letter from Verbiest, inspired him also to transcribe "manú propriâ", or personally, Verbiest's 1682 Tartary letter, which is found among the papers of his sponsor, the Duchess of Aveiro – the Thomas transcription is now in a Japanese private collection.²⁵

From this combined, fragmentary evidence, it emerges that Thomas was in Macau also active in other than astronomical enterprises, and that his engagement also spanned the terrain of geographical, geodesic and/or cartographical projects concerning China, in close collaboration with Peking on the one hand and – when necessary – with European specialists on the other.

Despite the relative density of all this information, there is not the slightest direct reference to the *Colégio* itself, in which his activities took place. Thomas had to ask for recent books and tables in Europe, which suggests they were not available in Macau; he was using instruments he had brought himself from Europe; he observed from the 'arx' for lack of a real observatory on the spot; and his network of correspondents seems to have been his main source of information. All in all, these indirect pieces of evidence suggest that he did not find in the Macau College the necessary conditions for this kind of work. It lacked an updated astronomical library, there were no adapted instruments and no instructed observatory either, simply nothing more than he had found in Ayutthaya. As far as I know, in Macau for decades, and more precisely since the second decade of the seventeenth century, with Johann Ureman in Macau between 1616–1620, no more systematic, original observations had been made, or at least been mentioned in our sources, except from some casual observations.²⁶ It appears that Thomas' arrival, with his

²³ See Golvers 2017, 516 ff. and in 2000, 86-102.

²⁴ See on the various techniques of measuring the height of mountains in his *Synopsis*, vol. I, *Tractatus III: De geometria practica*, 171 f.

²⁵ Copy of Verbiest's letter among the Aveiro papers: see *Bibliotheca Asiatica*, part II. Catalogue 455, n° 1333, Maggs Bros, London, 1924 and photographs in: *The Far Eastern Catholic Missions*, vol. III, 185 ff.

²⁶ Such a casual observation of the comet of 1668 is reported in the ms. diary of Luis da Gama: see my note in Golvers 2018, 88-99.

particular Douai – Paris – Coimbra background, ‘rekindled’ for a short while the astronomical work on the spot. The information we have shows that, despite the circumstances, he was more or less in line with the best of the contemporary observers in Paris.

Thomas would pursue these observations from Peking, but in another perspective. In Macau they happened for scientific purposes, while in Peking they had an additional, more particular target, namely to predict the eclipses in a reliable way, producing in advance reliable eclipse maps, so as to counter Chinese opposition towards the ‘European (calculation) method’.²⁷

2. Nautical affairs

Thomas also had nautical materials in Macau, mainly with regard to Japan. From his letter of 3 December 1683 to Francisco de Távora, Vice-Roy of India,²⁸ we know that the Jesuit *Colégio* had “insignes mappas nauticas ac instructiones necessarias ad navim certo et infallibili cursu Nangasaquium dirigendam”, or ‘excellent nautical maps and necessary instructions, in order to conduct a ship to Nagasaki with a certain and infallible rhumb’. These materials will have been related, among others, to the ‘Great ship of Amacon’.²⁹ Still in the middle of the 18th century, i.e. nearly seventy years after Thomas’ testimony, the Macau College library was ‘praised’ by the French Jesuit Antoine Gabil (1689–1759), who was albeit not an eyewitness, as he had never been in Macau, for its large collection of materials about Japan.³⁰ This was because Macau was the institutional base of the Japan Province of the SJ, and the idea of a Christian ‘reconquista’ (so to speak) of Japan was, at Thomas’ time, and in his own convictions, still very vivid. This position of Macau, and its commercial relations with Japan meant that, after a century of maritime / nautical practice between Macau and Japan, all this experience and practical information on Japan had been accumulated in Macau.

²⁷ Letter of 7 October 1685 (AFSI, Brotier 117): “Quoniam vero, reiectâ astronomiâ Sinicâ, nunc Europaea viget in Imperio Sinarum, ideoque non desunt aemuli non pauci qui aegre admodum ferunt kalendarîi imprimendi curam ad Europaeos devolutam esse, partâ scilicet de nefario Yanguangsiens aliisque adversariis victoriâ, ideo in eclipsibus praesertim ingens cura adhibenda est ne error surrepat qui, licet parvus, ab adversariis mirum quantum extolleretur ad nos deprimentos. Quare rogo R.V. (= De Bonmont), si quid novi hac in re detexerit, pluribus viis ad me mittat atque ita adiuvet ad conservandos partos ab aliis triumphos”.

²⁸ JS 148, f. 83r.–86v., more precisely on f. 85r. (see photograph in: *Jesuit Missions in Japan*, no. 150, 135).

²⁹ Boxer 1963.

³⁰ A. Gabil, 1970, 763 (25 October 1753): “Je ne say si les jésuites de Macao continuent à travailler à mettre en ordre une infinité de beaux mémoires qu’ils ont sur le Japon dans leur collège”.

It included, apart from a “carta hydrographica” and / or “geographica” of Japan he made with the help of some Japanese ‘visitors’,³¹ ‘sea maps’ and “*instructiones nauticas*” for the Nagasaki-line. In addition, in the same library, or perhaps archives, of the Macau College there were meteorological and other, e.g. magnetic, observations and reports, made on the ‘Carreira da India’ between Europe and Goa – Macau, and the ‘instructions’ circulating, and since the early seventeenth century also printed for the benefit of the ‘pilotos’ of the “Carreira”,³² since this “Carreira” had its natural and inevitable terminus in Macau. It was there that the ships arrived, and the information was temporarily stored there, and probably also copied and held in some archive before being dispatched to Europe with the return fleet (“*torna-viagem*”). Among this information were the magnetic observations made in 1618/9 by the Jesuits Longobardo, Kirwitzer, Terrentius, and others, on their way to Macau, which in the end returned to Europe and finally arrived in the Collegio Romano, where Athanasius Kircher found them, when he succeeded Grienberger.³³ In the same way, also Antoine Thomas’ observations on typhoons, made ‘in mari Sinensi’ arrived at Macau and were shortly discussed in a lost letter, which is mentioned in a later letter of October 1685.³⁴

³¹ JS 149, ff. 504r.-505v. (18 May 1685): “Nuper invitati sunt ad collegium nostrum. Duci non potest quam laeti et hilares apud nos versati sint. Post prandium eis ostendi chartam hydrographicam, quam ipse delinearam pro ipsorum reditu: super qua, variis interrogationibus factis, ostenderunt se non ignaros esse navigationis, cumque insuper eis ostendissem chartam geographicam laptoniae, // (f. 504v) in ea singularum civitatum et regionum nomina digito signantes proferebant eo situ, quo singula erant depicta. Civitatem suam, quae est Uxe, mihi ostenderunt haud procul Ozacâ, ad quam ex urbe Yendo navigantes, ut aiebant, vi tempestatis huc sunt delati. Cum eos duxissem ad templum, sponte se summâ veneratione prostrarunt ante Venerabile Sacramentum. Creduntur aliqui eorum esse Christiani”.

³² Mota 1974.

³³ Kircher 1643, 380: “Inter caeteros vero, qui praeter multa alia magneticas quoque declinationes observârunt, fuere Patres Jacobus Pantoia, Pantaleon Kobizeus (i.e. Kirwitzer), P. Johannes Terrentius, insignes in Regno Sinarum mathematici (...)”.

³⁴ Paris, AFSI, Brotier 117: “Ea quae in priori epistola scripsi de typhonibus Sinici maris variae postmodum experientiae confirmarunt. Etenim, quod ignes subterranei, insolito modo fervescentes, concurrant ad excitandam eam exhalationum multitudinem, quae ingentes illos ventos gignit, infallibilis experientia monstrat, ante typhonem aquâ maris modo admodum sensibili fervescente. Praeterea, aer ita est sulfureis exhalationibus plenus ante eius principium, ut caelum veluti aereâ crustâ obductum videatur, quae solis et stellarum aspectum eripit, licet alioqui nubibus non obtegantur. Ea est eorum ignium vis, qui sub hac regione latent ut, saeviente admodum borealibus ventis hieme, aqua maris praesertim in syzygiis quasi tepida videatur, licet sit frigidissimus aer”.

3. Naturalistic interests

Outside the field of astronomical, and related geodesic, geographical and magnetic, observations, Thomas sent on 20 January 1685 from Macau a series of naturalia to the Antwerp printer Balthasar III Moretus (1646–1696), in return for his involvement in dispatching Jesuit mail from China throughout Europe.³⁵ A loose sheet, signed 15 February, 1682 (to be corrected into 1683, as in 1682 he was not yet in Macau) accompanied the letter. It contains the description of the ‘virtues’ (“virtutes”) of stone crabs (“caranguejo”) from the island of Hainan; the healing qualities of the ‘snake stone’, called ‘piedra de cobra’ (colubra?) or ‘lapis serpentinus’; a bezoar from Borneo ‘where there are the real ones’; two samples of the ‘pedra cordial’, also called ‘Pedra de Goa’ or ‘Pedra de Gaspar António’, prepared in the Jesuit college of Goa, and some other products. This is an unexpected extension of our knowledge on what was imported, produced and used in the ‘botica’ of the Macau College, on which we have, so far, only very fragmentary information. It clearly shows the College was to some extent a ‘meeting point’ for Western and Indo-Chinese (recipes and) medical practices.³⁶

4. Thomas as a polemist

Passing over his other responsibilities, such as taking care of the Jesuit mail between China and Europe – a really ‘strategic’ commitment within the China–Europe relations indeed – his involvement in the building of a chapel for Holy Mary ‘da Guia’ outside Macau, his learning Chinese, etc., I would return to his activities as a polemist to the benefit of the Jesuit mission in China. Earlier, we already found Thomas as a ‘treslador’ (transcriber) – on Verbiest’s instigation – of a Chinese apology for the ‘puzhu’-aspect of the Chinese almanac, and thus for the position of Adam Schall at the head of the Imperial Astronomical Bureau, or *Qintianjian*. However, he was also himself a prolific composer of apologies for the mission and its methods, for which he used a library, which in all probability was the one of the *Colégio*.

It is fascinating to see the polemist Thomas working simultaneously with and almost physically next to another great Jesuit polemist, who remained temporarily in the Jesuit college, Francesco Saverio Filippucci (1632–1692), who during his

³⁵ The role of Moretus in the letter transmission between the missionaries in China and their European base is illustrated, among others, by a series of (cover) letters once in the family archives; see my overview in *Golvers* 2007.2, 205–248.

³⁶ See on this point, a.o., *Boxer* 1991, 155–169, and *Amaro* 1992.

term as Provincial of the Japanese Province had left his base in Canton and lived in Macau. In 1682 and 1683, he composed the never printed “Praeludium” (ms. signed on 25 Nov. 1682; 2 March 1683), and “Sagitta Retorta” (ms. signed 13 August 1683), after the many other ‘censuras’, etc. he already had made on De Navarrete’s *Tratados* (1680). As a polemist, Thomas wrote an “Apologia in India Orientali Evangelium praedicantis adversus accusationes Romae factas a missionariis apostolicis S(anctae) Congregationis de Propaganda Fide”, dated in Macau, 2 (and not: 20) December 1682.³⁷ It was, according to his own words, only a draft, and which was approved by the Visitor and the Provincial, both residing in Macau, but which he sent with the ships of the next return fleet to De Queirós and Sebastião de Almeida in Goa for revision.³⁸ The following year 1683, for the same reason again in the month of December (3 December), he composed a *Liber* (elsewhere: *Libellus*) *rationum*, in which he analyzes the strategy for a rekindled ‘Japan-project’, which was afterwards, probably with the budgetary support of the Duchess of Aveiro, printed “in Universitate Complutense de Madrid”. While interesting, I will focus here however on a text which I found among the papers of the former Officina Plantiniana in Antwerp. It is in the same file which contained Verbiest’s aforementioned letter on his geodesic operations in Tartary, and another unpublished letter to Balthasar III Moretus. It concerns a local transcription of a “Demonstratio Iuris Imperatoris Tartari contra Navarretem”, or a defense of the Chinese-Manchu Emperor’s rights on the Chinese Empire. It is an anonymous text, in 8 folios, dated Macau 20 April 1684.³⁹ I attribute it to Thomas, for several reasons. Firstly, reasons of place and date; secondly, because the only other plausible candidate, Filippucci, had on that date already left Macau and returned to Canton; and thirdly, because the ms. was addressed to De Bonmont, Thomas’ virtually exclusive agent in Europe. As the title indicates, it is one of the many ‘refutations’ the Jesuits wrote against De Navarrete’s *Tratados historicos, politicos, ethicos y religiosos de la Monarchia de China. Descripcion breve de aquel Imperio*,

³⁷ In view of the departure of the next fleet, which left Macau normally in late-Dec. or January-February.

³⁸ JS 148, f^o 31-66. On this document, see Thomas himself, in JS 148, ff. 71r./v., of 20 December 1682: “Tertio, multa hâc occasione cognovi, quae mihi servierunt ad apologiam brevem et cursim scribendam his ultimis diebus, quam mitto per P(atrem) Candoni ad R(everend)am Pat(ernitatem) V(est)ram. Illam magnopere probavit R.P. Visitor ac Provincialis, nec // quidquam habet, nisi quod authentice possit probari, vel potius iam sit probatum. Ceterum curavi, ut Goae quoque a R.P. de Queiros ac R.P. Sebastiano d’Almeida revisatur. Opus est impolitum, utpote paucorum dierum, sed quod deinceps paulo melius ordinabitur, ut saltem eius varia exemplaria manuscripta, quae dispergentur honorem huius Provinciae a calumniis utcumque vindicare possit. Mihi enim cor exulcerat infamia, temere huic Provinciae iniecta”.

³⁹ The local copy – made by one of the ‘correctores’ of the Officina Plantiniana after its arrival – is now in MPM M 30.

y exemplos raros de emperadores, y magistrados del. Con narracion difusa de varios sucessos, y cosas singulares de otros reynos y diferentes navegaciones (Madrid, 1676), a copy of which had arrived in the Canton-Macau area in 1680 and had offered to the Jesuits enough reasons for their polemic writings.⁴⁰ In this treatise, the point of discussion was ‘whether it was (according to the canonical right) allowed to baptize the Chinese-Manchu Emperor (and his officials) during his so-called ‘occupation’ of China. The backlash regarding this question is the dilemma which confronted the Jesuit missionaries in China since the Manchu conquest in the 1640s. It was a conflict between loyalty to the defeated Ming dynasty which had shown itself receptive towards Christianity, as opposed to the ‘newcomers’, the Manchus. The dilemma which was, as is well known, ‘solved’ at the level of the individual missionaries present in China at that time, in different ways. In this treatise, the answer, presented in the form of a scholastic dispute, explains that firstly the ‘Manchu’ emperor was not, and did not act as a ‘tyrant’,⁴¹ and secondly was the ‘legitimate’ possessor, who brought order and stability. In consequence, de Navarrete’s idea that the Chinese-Manchu Emperor could not be baptized, unless he abdicated, was pernicious and should be refuted. The question does not need more comments here, to illustrate that, in this sense, this treatise ‘eliminated’ a thorny problem for the Jesuit strategy in the China mission, which precisely tried to ‘convert’ China through the Emperor.

The book titles and sources the author – in my opinion Thomas – adduces are, in alphabetical order: Alfordus, i.e. Nicolas Griffith, *Historia Ecclesiae Anglicae*;⁴² Ancharanus, i.e. Pietro d’Ancarano;⁴³ Augustinus’s *Confessiones*; Azor, *Inst(itutiones) Mor(ales)* (Cologne, 1602, etc.); Bartholus, *de Tyrannia*;⁴⁴ Bellarminus, *De laicis*;⁴⁵

⁴⁰ A first copy of this book had arrived in Macau and was forwarded to Canton early in 1680, where Filippucci excerpted it: cf. his letter of 14 March 1680 from Canton to the Vice-Provincial, in Maggs Bros., Cat. 455 [1924], 25; a photographic reproduction is in *The Far Eastern Catholic Missions*, I, 192: “El libro del P(adre) Navarrete que V.R. nos hizo favor de embiarnos, lo tube por 15 dias y lo lei todo, notando lo que puede, y lo notado embiè a la Corte al P(adre) V(ice) Prov(inci)al: por que el libro lo remiti al P. Visitador”. It is not clear but probable that the notes are to be identified with the undated ms. annotations of Filippucci on De Navarrete, found in BVE, FoGes., 1249 / 9, f. 580ff. (“Notae super opera P. Fr. Dominici Navarrete”); these consist of a Nota in caput XIm Tractatus XIII et alia loca libri, cui titulus est ‘De Historia Sinica in lucem editi Matriti anno D.ni 1676’ (P° 589).

⁴¹ Despite the picture of the Manchu conquest in Martini and De Rougemont.

⁴² M. Alford, pseudonym of N. Griffith, 1663, a church history of England in the 5 first centuries, written as a ‘complement’ to Baronius.

⁴³ Pietro d’Ancarano (ca. 1333–1416), 1405, never published but widely circulated as manuscript, or his commentaries on Gregorius’s Decretales.

⁴⁴ Bartolo da Sassoferrato (1313–1357), unknown edition (the indication: ‘in principio’ [‘in its beginning’] is very vague, and stems probably from a reference by memory.

⁴⁵ It refers to a treatise: “De Membris Ecclesiae Militantis, Clericis, Monachis et Laicis Libri III”.

Gregorius, *Lib. II Moralis*; Molina, *de Iustitia*;⁴⁶ Doctor Navarrus = Azpilcueta, In Cap(u)t 'Novit. Notab. 3 num. 167 de iudiciis';⁴⁷ Francisco Suarez, with various titles, viz. *Tractatus de charitate; de Defensione fidei contra Anglicae sectae errores*⁴⁸ and *De bello*, Sect. 8 n. 2; Thomas Aquinas (2a 2ae; *De Regimine Principum*). These basic texts need further research, in order to ascertain the precise arguments the author borrowed from them. The concentration of these specialized titles illustrates the good juridical knowledge and background of the author, something we also found in the case of Ferdinand Verbiest. It also demonstrates the presence of a series of juridical works, in what was almost certainly the library of the Macau College, and some of them correspond to the titles in the library of bishop Diogo Valente, residing in Macau, who died in 1633, and whose approximately two hundred and eighty books had been transferred to the College library.⁴⁹

Another source was, according to the same text, a Ms. of Adam Schall, kept in the Macau archives. This may have been the ms. of his *Historica relatio*, about which we know with certainty that it was brought to the archive of the Macau College.⁵⁰

Some concluding observations

Returning now to my starting point, and my intention to learn more about Macau in the communication between China and Europe, when seen from the early 1680s and the position of Antoine Thomas, we learn that astronomical observations found no 'up-to-date' base on the spot, nor any adapted equipment. These were therefore almost certainly not a feature of common practice. Also the fact that Thomas forwarded Verbiest's letter to France for advice on a more advanced and efficient geodetic method, instead of answering it himself could mean that there was no up-to-date mathematical library present to answer the question on the spot. Yet, in another field, there was a 'botica' where Chinese and Western recipes 'crossed' each other, and a library, which offered considerable materials on Japan, including nautical maps and maritime 'instructions'. As the institutional

⁴⁶ Molina 1614.

⁴⁷ This refers apparently to an edition of the *Relectio c. Nouit de iudiciis non minus sublimis quam celebris, pronunciata an. 1548 coram frequentissimo, eruditissimo, ac maxime illustri auditorio in inelyta Lusitaniae Conymbrica. Per Martinum ab Azpilcueta, Romae: apud Iosephum de Angelis, 1575.*

⁴⁸ *Defensio fidei Catholicae et Apostolicae adversus Anglicanae Sectae Errores* (...), Coimbra, 1613 etc.

⁴⁹ Cf. on his library: Golvers 2006, 7-43.

⁵⁰ This was transcribed in the mid-18th century, and was sent to Lisbon, where it is now in Ajuda, JA 49-V-14, f. 376-471: see Cunha Leão 1998, *Jesuitas na Ásia. Catálogo e guia*, vol. I, n° 4996.

basis of the Japanese Province, the *Colégio* was also, at least in this period, a center for apologetic productions, where five or six treatises were produced over a period of two years. As such, the Macau College appears to have been in the middle of a network of communication which spanned, apart from China itself, Siam, Batavia, Goa, and Europe. Therefore, books, other sources of information, objects, and practices from various origins met and crossed one other in Macau — medicines from Goa, and observations from Batavia, Japan and Peking. During the presence of Thomas, the Colégio became a part of a network through which circulated astronomical observations from China to European scholars, mainly in Paris. As for Thomas himself, when he arrived late in 1685 in Peking, he pursued most of these activities, including the writing of apologies, and more specially also one on the position of ‘astronomy’ within the mission. This emerges from a new text, entitled ‘Astronomia Vindicata’, which he mentions in a letter of 30 November 1691, and of which a large part is anonymously kept in the Municipal Library of Évora, waiting for further analysis.

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