The Sino-European Map ("Shanhai yudi quantu") in the Encyclopedia Sancai tuhui

[O mapa-mundi sino-europeu ("Shanhai yudi quantu") na enciclopédia *Sancai tuhui*]

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I

The "Shanhai yudi quantu" 山海輿地全圖, or "Complete Terrestrial Map", in the influential late Ming compilation *Sancai tuhui* 三才圖會 (prefaces 1607 and 1609), is one of several Chinese cartographic works with strong Jesuit influence. Jesuit map-making in China has been the subject of many academic studies, but these inquiries are mostly concerned with the editorial history of individual pieces and the European sources on which the Jesuits had based their art. The present contribution will not exclusively focus on editorial problems; instead, it will mainly look at certain geographical issues common to many of the maps in question – especially the "Shanhai yudi quantu".

Before going into further details, some general observations should be offered here. The major works of Jesuit cartography in China include a number of printed world maps by Matteo Ricci (1552-1610), Giulio Aleni (1582-1649) and Ferdinand Verbiest (1623-1688). To this may be added the earliest extant Chinese terrestrial globe, probably produced by Manuel Dias (1574-1659) and Nicolò Longobardi (1565-1654), and certain other pieces, usually in the form of manuscript copies. Here we shall mainly deal with the "early" material, i.e., with maps by or associated with Ricci, because the *Sancai tuhui* map falls into this period.

Matteo Ricci, it is well known, produced several maps. Their editorial history is extremely complicated and cannot be discussed here. Only a few general remarks will be made. These follow earlier research, particularly by Hong Weilian 洪煨蓮, Kenneth Ch'en (Chen Guansheng) 陳觀勝, Pasquale M. d'Elia, John D. Day, and recent Chinese scholarship.² According to Day, Ricci prepared eight

¹ Wang Qi 王圻(comp.), *Sancai tuhui*, 6 vols. (Taibei: Chengwen chubanshe, 1970), I, dili j. 1, here especially pp. 101-102. For a short description, see, for example, Wolfgang Franke, *An Introduction to the Sources of Ming History* (Kuala Lumpur: University of Malaya Press, 1968), pp. 312-313 no. 9.2. Furthermore Pasquale M. d'Elia, *Il mappamondo cinese del P. Matteo Ricci S.J.* (Città del Vaticano: Biblioteca Apostolica Vaticana, 1938; now *Mappamondo*), p. 198 n. 46 (some doubtful points).

² Hong Weilian, "Kao Li Madou de shijie ditu" 考李馬竇的世界地圖, *Yugong (banyuekan)* 禹 貢半月刊 (*The Chinese Historical Geography, Semi-monthly Magazin*) 5.3/4 (April 1936), pp. 1-50; Chen Guangsheng (Kenneth Chen), "Li Madou dui Zhongguo dilixue zhi gongxian ji qi

world maps in all: (1) an early woodblook print (1584); (2) a map carved on a stele (1596); (3) a revised version of the latter (1600); (4) a larger "edition" of the 1584 map, in six panels, printed in Beijing (1602); (5) an eight panel version of that piece (1603); (6) a booklet based on the map of 1600 (issued in 1604); (7) twelve copies of a new version presented to the Ming emperor (1608); (8) and a map in two hemispheres (1609). Most of these maps are now lost, only of (4) and (5) several original copies are known to exist.³ One copy of the 1602 print, preserved in the Vatican, was published by d'Elia in the form of a beautifully-arranged book (1938). This modern work also contains Italian translations of the colophons on the map, and a catalogue of all toponyms, plus detailed notes regarding their identification.⁴

Other than the above pieces, a number of later prints ultimately going back to the 1602 version have survived as well. Furthermore, there are different manuscript copies. Their history is extremely difficult to reconstruct, partly because these works are scattered over a number of archives worldwide, including Korea and Japan, and partly because there is very little internal and external evidence to suggest when and under what circumstances they were drawn. For more on this, readers are again referred to earlier research, especially by Day, who has arrived at some useful conclusions concerning their possible transmission and "parent maps". ⁵

A few more details may be added: First, the title of the 1602 map is "Kunyu wanguo quantu" 坤輿萬國全圖 (now KYWGQT), the one of 1603 is usually

yinxiang" 李馬竇對中國地理學之貢獻及其音響, ibid., pp. 51-72, and "Matteo Ricci's Contribution to and Influence on Geographical Knowledge in China", Journal of the American Oriental Society 59 (1939), pp. 325-359, 509; Mappamondo, especially chapters 3 and 4 (editions), and d'Elia's "Recent Discoveries and New Studies (1938-1960) on the World Map in Chinese of Father Matteo Ricci, S.J.", Monumenta Serica 20 (1961), pp. 82-164; John D. Day, "The Search for the Origins of the Chinese Manuscripts of Matteo Ricci's Maps", Imago Mundi 47 (1995), pp. 94-117; Cao Wanru 曹婉如 et al. (eds.), "Zhongguo xiancun Li Madou shijie ditu yanjiu" 中國現存李馬竇世界地圖研究, Wenwu 文物 331 (12/1985), pp. 57-70; the same et al. (eds.), Zhongguo gudai ditu ji. Mingdai 中國古代地圖集. 明代 (Beijing: Wenwu chubanshe, 1994), especially plates 57-59, 77-79, English texts, pp. 26-28; Chinese Academy of Surveying and Mapping (comp.), Treasures of Maps — A Collection of Maps in Ancient China (Harbin: Harbin Cartographic Publishing House, 1998), pp. 137-139 (plate 92); Nicolas Standaert (ed.), Handbook of Christianity in China, Vol. 1: 635-1800, Handbook of Oriental Studies / Handbuch der Orientalistik, section 4, vol. 15.1 (Leiden, etc.: Brill, 2001), pp. 754-755.

³ Day, "The Search", pp. 96-98, appendix pp. 111-112. Earlier, Hong Weilian, "Kao Li Madou de shijie ditu", p. 28, established a list of twelve items, which differs considerably from Day's findings. That also applies to Cao Wanru, "Zhongguo xiancun", p. 59.

⁴ *Mappamondo*. For earlier English translations of some of the colophons, see, for example, Lionel Giles, "Translations from the Chinese World Map of Father Ricci", *Geographical Journal* 52 (1918), pp. 367-385; and 53 (1919), pp. 19-30.

⁵ Day, "The Search", especially pp. 98 et seq. Also see, for example, Pang Tongin 方東仁, *Han'guk chido ûi yoksa* (Seoul: Sin'gu munhwasa, 2001), pp. 167, 175; Yi Ch'an 李燦, *Han'guk ûi ko chido* (Seoul: Pomusa, 1991), pp. 348-349, 380-381, 409, and Minako Debergh, "La carte du monde du P. Matteo Ricci (1602) et sa version coréenne (1708) conservée à Osaka", *Journal asiatique* 274 (1986), pp. 417-454.

given as "Liangyi xuanlan tu" 兩儀玄覽圖. Earlier and later versions often bear different names. Item 2, for example, is called "Shanhai yudi tu" 山海輿地圖. Another map, engraved by Wu Zhongming 吳中明 and dated 1600 by Hong Weilian, Cao Wanru and others (this map seems to be identical with map 3 in Day's list), is usually referred to under the name "Shanhai yudi quantu". The same name also occurs with the version of 1604, engraved by Guo Zizhang 郭子章. Furthermore, it is also the name given to the map in *Sancai tuhui*.

Second, some of Ricci's maps were printed in large numbers and circulated in many parts of China. This also led to several "adaptions". A number of these adaptions were included in late Ming book compilations, such as *Tushu bian* 圖書編 (begun in 1562, completed in 1577 or 1585; printed in 1613), *Fangyu shenglüe* 方輿勝略 (probably printed in 1610), and *Sancai tuhui*.

The Tushu bian, to begin with, contains several maps which clearly show Ricci's influence, but they are difficult to date because we do not know at what point in time they entered the Tushu bian.8 Chapter 16 of that compilation contains a world map in two hemispheres. This is the "Haotian hunyuan tu" 昊天 渾元圖. It shows the different continents, but their shapes are very rough and there are no names at all. The next map, called "Yudi shanhai quantu" 輿地山海 全圖 (not "Shanhai yudi quantu"!), is found in chapter 29; its projection is the same as the one used for the famous KYWGQT. The following names and terms appear on the "Yudi shanhai quantu": those for the continents (the characters for "Europe" are missing), China, Da Ming 大明 (for the dynasty), jingshi 京師 (for the capital), shisan sheng 十三省 ("thirteen provinces", i.e., the Ming provinces; the two metropolitan regions not included), Niluo he 泥羅河 (Nile River), Heiren guo 黑人國 (along the East African coast), Yin he 銀河 (Rio de la Plata), and the names for five oceans (or segments of oceans). Again, the outlines of the continents are very rough; China, for example, appears to be located on two islands.

Both the "Yudi shanhai quantu" and the "Haotian hunyuan tu" show the equator (the second map also has the Arctic and Antarctic Circles, the Tropic of Cancer and the Tropic of Capricorn), as well as longitudes and latitudes, but there

⁶ Hong Weilian, "Kao Li Madou de shijie ditu", especially p. 28; Cao Wanru, "Zhongguo xiancun", p. 59.

More cases are discussed, for example, in Marcel Destombes, "Wang P'an, Liang Chou et Matteo Ricci. Essai sur la cartographie chinoise de 1593 à 1603", in Actes du IIIe Colloque International de Sinologie. Appréciation par l'Europe de la tradition chinoise à partir du XVIIIe siècle. Centre de Recherches Interdisciplinaires de Chantilly (CERIC), 11-14 septèmbre 1980 (Paris: Les Belles Lettres, Cathasia, 1983), pp. 47 et seq. The case of the so-called Wang Pan 王 map is particularly interesting. – For the Tushu bian and Zhang Huang 章潢, who compiled this work, see, for example, L. Carrington Goodrich and Fang Chaoying (eds.), Dictionary of Ming Biography 1368-1644, 2 vols. (New York and London: Columbia University Press, 1976), I, pp. 83-65. Zhang Huang was in touch with Ricci.

⁸ Zhang Huang, *Tushu bian*, 24 vols. (Siku quanshu zhenben, wu ji edition, vols. 244-267), especially IV, j. 16, 61a-b; VII, j. 29, 42b-49a; Joseph Needham et al., *Science and Civilisation in China*, Vol. 3: *Mathematics and...* (Cambridge: At the University Press, 1959), pl. XC after p. 582; Cao Wanru, "Zhongguo xiancun", p. 58 and n. 4.

are no numbers associated with these lines. This does not apply to two further maps (also contained in chapter 29 of *Tushu bian*), which project the northern and southern halfs of the globe from the two poles (in Chinese: "Yudi tushang, chidao yi bei" 輿地圖上, 赤道以北 and "Yudi tuxia, chidao yi nan" 輿地圖下, 赤道以南). These maps are more elaborate; they carry figures for latitudes and longitudes, the equator, and the arctic circles, and they also list a large number of place names. We shall return to some of these names further below, because they also appear in *Sancai tuhui*. The maps in chapter 29 of *Tushu bian*, it may be added here, are accompanied by some explanations, of which similar versions can also be found in other texts.

The editorial history of the *Tushu bian* being all but clear, only some very general remarks can be made in regard to the possible dates of the above maps. The "Yudi shanhai quantu" could be a very early product based on the lost Ricci map of 1584. The "Haotian hunyuan tu" may be related to another projection in two hemispheres, found in *Fangyu shenglüe*, but all further details remain uncertain. As to the "polar maps", similar versions can be found on the upper and lower left corners of Ricci's KYWGQT (1602). Perhaps, then, the ones in *Tushu bian* were drawn after 1602 and added to the text just prior to its being printed.

Here we can turn to the next work, the *Fangyu shenglüe*. The map in this book is particularly important because it presents the world in two hemispheres and is much more elaborate – and realistic – than the "Haotian hunyuan tu" in *Tushu bian*. Surprisingly, the *Fangyu shenglüe* map is again called "Shanhai yudi quantu" (like the Ricci maps of 1600 and 1604), its alternative name(s) being "Dong / Xi (liang) banqiu tu" 東 / 西 (兩) 半球圖. It is accompanied by various explanations, which bear the title "Shanhai yudi quantu jie" 山海輿地全圖解, and an annotated list of toponyms with latitudes and longitudes ("dufen biao" 度分表, now DFB).

The *Fangyu shenglüe* map, the explanations and the geographical coordinates were already studied in the 1930s, namely by Kenneth Ch'en and also by Hong Weilian. The map itself seems to be the same as number 8 in Day's list, above. Furthermore, and more important still, it is assumed to be identical with or directly based on a map prepared by Ricci in 1601 (engraved by Feng Yingjing 馮應京, i.e., "Fomimchim" in Ricci's texts). Day's list does not mention the piece of 1601, but Hong Weilian, Cao Wanru and Yee refer to it. Its name is usually

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⁹ Ibid., pp. 58-59.

¹⁰ Hong Weilian, "Kao Li Madou de shijie ditu", for example p. 1; Chen Guansheng, "Fangyu shenglüe zhong geguo dufenbiao zhi jiaoding" 方輿勝略中各國度分表之校訂, Yugong 5.3/4 (April 1936), pp. 165-194. Also see in that same issue of Yugong: Li Jinhua's 李晉華 "Fangyu shenglüe tiyao" 方輿勝略提要, on pp. 159-164, and the appendices — all on pp. 195-203. Furthermore Mappamondo, illustrations after pp. 166 and 168, plus text. More recently also Cao Wanru, Zhongguo gudai ditu ji. Mingdai, nos. 224 and 225, and Cordell D. K. Yee, "Traditional Chinese Cartography and the Myth of Westernization", in J. B. Harley et al. (eds.), Cartography in the Traditional East and Southeast Asian Societies, The History of Cartography 2.2 (Chicago and London: The University of Chicago Press, 1994), pp. 175, 178-179.

given as "Yudi quantu". If these assumptions are correct, then we are looking at three projections in two hemispheres: the original Ricci piece of 1601, the *Fangyu shenglüe* map, and the *Tushu bian* map. Since the latter is so poorly drawn, there may have been another "prototype", or parent map, for the third piece, possibly a very early sketch even predating the drawing of 1601.

The map in Sancai tuhui, which shall be examined as the next piece, raises a new set of questions. It bears exactly the same title as the Fangyu shenglüe piece (i.e., "Shanhai yudi quantu"), but both maps differ from each other in many respects. First, as was said, the latter belongs to the "class" of hemispherical projections, while the former presents the world in an oval form, somewhat similar to the "Yudi shanhai quantu" map in Tushu bian and the KYWGQT; but the projection in Sancai tuihui is so "condensed" that it could also be placed in a category of its own. Second, the Sancai tuhui piece shows no lines for latitudes and longitudes, although the equator as well as the Tropic of Cancer and the Tropic of Capricorn are alluded to by placing their names in small boxes at the left side of the globe. Regarding the Arctic and Antarctic Circles, their positions and names are vaguely indicated, but no lines are drawn from one side of the globe to the other. Third, in terms of shape, the five continents on the Sancai tuhui map vary considerably from those on the other maps. Fourth, there are more toponyms on the Sancai tuhui map than on the "Yudi shanhai quantu" in Tushu bian, but less than on the Fangyu shenglüe map or the KYWGQT. In sum, although the Sancai tuhui map and the Fangyu shenglüe are referred to under identical titles - "Shanhai yudi quantu" -, they have little in common and are thus unlikely to stem from one and the same source. This also implies that the Ricci map of 1601 cannot have functioned as the parent map for the one in Sancai tuhui.

Having thus excluded the 1601 map as a possible source for the *Sancai tuhui* map, we still have to look at the other pieces usually called "Shanhai yudi quantu". This mainly involves the maps of 1600 and 1604, but possibly also the one of 1584, which is normally referred to as "Shanhai yudi tu". Unlike the *Fangyu shenglüe* map, these three were not divided into hemispheres. Moreover, according to the lists compiled by Hong Weilian and Cao Wanru, the maps of 1600 and 1604 were probably improved versions of the original 1584 piece. This means they all had to do with each other – and perhaps also with the *Sancai tuhui* map. But of course the details can no longer be established because the earlier pieces are missing.

In view of these uncertainties, different suggestions were offered in regard to the origin and date of the *Sancai tuhui* map. Hong Weilian thinks it may be a an "abridged" version of the 1600 map, prepared in Nanjing. But he concedes that it may also have been made earlier, i.e., at some point in time between circa 1596

Hong Weilian, "Kao Li Madou de shijie ditu", p. 28; Yee, "Traditional Chinese Cartography", p. 175; Cao Wanru, *Zhongguo gudai ditu ji. Mingdai*, nos. 224 and 225, and "Zhongguo xiancun", p. 59.

¹² Hong Weilian, "Kao Li Madou de shijie ditu", p. 28 and passim; Cao Wanru, "Zhongguo xiancun", p. 59.

and 1600.¹³ D'Elia suggests it was drawn after the map of 1584 or the one of 1600.¹⁴ Wang Qianjin 汪前進 simply calls it "a poor abbreviation of the world map done by Matteo Ricci", but gives no date.¹⁵ Yee classifies it as "a rendition of the second edition of Matteo Ricci's world map (1602)", the first being the one of 1600.¹⁶ If so, this would imply a date after 1602 – and no direct link to the earlier versions. Whichever way it was – at present there is no further evidence that would enable us narrow the date to any particular year or period. Nor do we know anything about its author. One point should be made clear, however: Since the shapes of the continents are drawn in a highly distorted manner, for example the outlines of Africa and the Middle East, it is unlikely that this map was prepared by Ricci himself, not even as a preliminary sketch for some of the larger pieces.

Here we can continue with a different issue. As was said, the *Fangyu shenglüe* carries a number of technical explanations, called "Shanhai yudi quantu jie". This text is reproduced in the journal *Yugong*.¹⁷ The map in *Sancai tuhui* is also followed by a set of almost identical explanations, but the internal arrangment is slightly different and the title is missing. The explanations found in *Tushu bian*, as a kind of appendix to the "Yudi shanhai quantu", are shorter, although they are again partly identical with those in the other two texts. Hong Weilian tried to disentangle the possible transmission of all these textual elements. Among other things, he concluded that the ones in *Sancai tuhui* were probably taken from the colophons on the 1600 map engraved by Wu Zhongming. By contrast, the text found in *Fangyu shenglüe* is usually assumed to be based on the 1601 map.¹⁸ Considering both maps and texts, it would thus seem that the *Sancai tuhui* contains earlier (or simplified) material, while the *Fangyu shenglüe* is more accurate.

The text in *Sancai tuhui* and the "Shanhai yudi quantu jie" in *Fangyu shenglüe* explain the system of latitudes and longitudes. They also refer to the poles, the equator, the Tropic of Cancer, the Tropic of Capricorn, and so on. Furthermore, they list the different oceans and continents. The last sections return to the problem of latitutes and longitudes, adding various details, for example, that the calculation of longitudes should be based on the position of the "Fortune Islands" (Canaries; Fudao 福島). Thus, in *Sancai tuhui*, the position of Nanjing is given as 130 degrees east of Fudao (in the "Shanhai yudi quantu jie" as 128 degrees east!),

¹³ Hong Weilian, "Kao Li Madou de shijie ditu", p. 39.

¹⁴ Mappamondo, p. 198 n. 46. Also see pp. 70-71 n. 4, there (on Feng Yingjing, who is said to have prepared two small maps. Could the one in Sancai tuhui be one of these two?). – Pasquale d'Elia also cites E. R. Hughes, The Invasion of China by the Western World (Oxford, 1937), which shows the Sancai tuhui map as well.

¹⁵ In Cao Wanru, *Zhongguo gudai ditu ji. Mingdai*, no. 222.

¹⁶ Yee, "Traditional Chinese Cartography", p. 175, and text under fig. 7.5 on p. 176.

¹⁷ Yugong 5.3-4 (April 1936), pp. 196-198.

Hong Weilian, "Kao Li Madou de shijie ditu", pp. 35, 39; Cao Wanru, *Zhongguo gudai ditu ji. Mingdai*, nos. 224 and 225. – The KYWGQT carries almost the same text, see *Mappamondo*, pls. V, VI (Italian translations).

and 32 degrees north of the equator. The Jurchen were located at 140 degrees to the east these islands, Birma at 110 degrees, and so forth. ¹⁹

In the case of the *Sancai tuhui* text, the technical explanations are not really supported by the way in which the map is drawn. Indeed, early seventeenth century readers had no way of relating the text to what they saw on the map (unless they had access to additional sources that would fill the gap). Recall, the map omits all latitutes and longitudes, although the equator and the two Tropics are vaguely indicated near the left margin, and the Arctic and Antarctic Circles are also alluded to. But the horizontal lines and the necessary numbers (found on other maps) – and essential for identifying locations – were not provided.

The arrangement in Sancai tuhui seems to be even more bizarre if the four brief inscriptions around the map are considered because, once again, readers were certainly unable to relate them to the map itself:²⁰ (1) "The three outer spheres of the celestial sphere determine the extent of heaven, the length of day and night, and the seasons." (2) "The inner circle of the earth gives a rough idea of the division of the five continents." (3) "The 36 horizontal and vertical squares in the map cover ten degrees each." (4) "The longitude and latitude lines of the earth divide all quarters and are used for degree-checking." – The "outer spheres" are not shown. The phrase "36... squares..." is based on a misunderstanding of Ricci's original ideas: there should be intervals of ten degrees each between any two adjacent longitude or latitude lines, which gives 36 x 18 (ten-degree) lines, and thus a total of 648 squares. Finally, the squares are not indicated on the map, as was mentioned. There thus arises the question why these four inscriptions were added to the map at all. The answer can only be that the editor did not proceed carefully, or that his understanding of Ricci's system was incomplete, and that he had no means to verify what he had read elsewhere.

To sum up: The map in *Sancai tuhui*, the four inscriptions around it, and the text following the map are not in full harmony with each other. The text is not too different from the "Shanhai yudi quantu jie", but seems to present an earlier version of that piece (possibly, the text on the 1600 map). The map in *Sancai tuhui* bears the same name as several earlier maps – "Shanhai yudi quantu" –, but has little in common with the *Fangyu shenglüe* projection in two spheres. Its oval (or nearly round) shape also differs from the forms of certain other maps. Nevertheless, it could be a rough imitation of the 1600 map, or some earlier piece. The conclusion is that, in all likelihood, both the text and the map were organized by someone not fully understanding Ricci's art, or, alternatively, the text was prepared, or rather copied, by one hand, while the map was drawn by a second person. Whether this involved Wang Qi, the general editor of *Sancai tuhui*, is not known.²¹

¹⁹ *Sancai tuhui*, pp. 102-103.

²⁰ This follows the translation in Cao Wanru, *Zhongguo gudai ditu ji. Mingdai*, no. 222.

²¹ For an English biography of Wang Qi, see Goodrich and Fang, *Dictionary of Ming Biography* 1368-1644, II, pp. 1355-1377. – Wang's son was involved in the compilation of *Sancai tuhui*, but that may not matter very much.

II

We shall now look at the *Sancai tuhui* map itself. There are some seventy toponyms / terms / short phrases, of which over twenty refer to the oceans, or parts of them. Strangely, some of the names on the map do not occur in the text, while several names in the text – for example Birma and even Fudao – are not on the map. Below is a list of all names on the map, with explanations, where needed, and references to other works:

Continents

- (1) Bei Yamolijia 北亞墨利加 North America
- (2) Nan Yamolija 南亞墨利加 South America
- (3) Yaxiya 亞細亞 Asia
- (4) Ouluoba 歐羅巴 Europe (the character *ba* is erraneously printed in such a way that it seems to form a compound word together with the character *cha*, in Fogancha 佛敢察; see no. 40 below)
- (5) Liweiya 利未亞 Africa
- (6) Mowalanijia 墨瓦臘泥加 Magellania (then current for Antarctica)

Countries, Islands, Regions, Groups, etc.

- (7) Shiren guo 食人國 "Land of Cannibals" (shown where Brasil is; *Mappamondo*, pls. V, VI; also on some European maps, for example by Sebastian Münster; the *Zhifang waiji* [of 1623; now *ZFWJ*], p. 132, speaks of cannibals with respect to the Aztecs)²²
- (8) Hanhe 寒河 not identified (shown to the east of North America; *Mappamondo*, pls. VII, VIII, and in DFB, p. 169)²³
- (9) Xiangfeng 香峯 not identified (also to the east of North America; *Mappamondo*, pls. III, IV, DFB, p. 169)
- (10) Yawaima 亞外馬 not identified (in the northwestern section of North Amercia; *Mappamondo*, pls. VII, VIII, DFB, p. 172)
- (11) Baifeng 白峯 not identified (on Antarctica, opposite of Argentina; *Mappamondo*, pls. IX, X; DFB, p. 182)

²² See, for example: Ai Rulüe 艾儒略 (Giulio Aleni; author), Xie Fang 謝方 (comm. and ed.), Zhifang waiji jiaoshi 職方外紀校釋, Zhongwai jiaotong shiji congkan (Beijing: Zhonghua shuju, 1996). For Aleni, also see, for example, Tiziana Lippiello and Roman Malek (eds.), "Scholar from the West". Giulio Aleni S. J. (1582-1649) and the Dialogue between China and Christianity, Monumenta Serica Monograph Series 42 (Nettetal: Steyler Verlag, 1997); Bernard Hung-Kay Luk, "A Study of Giulio Aleni's Chih-fang wai-chi", Bulletin of the School of Oriental and African Studies 40 (1977), pp. 58-84; Hartmut Walravens, "Father Verbiest's Chinese World Map (1674)", Imago Mundi 43 (1991), p. 31.

²³ DFB: this refers to the list in Chen Guansheng, "Fangyu shenglüe zhong geguo dufenbiao zhi jiaoding".

- (12) Dajiang 大江 not identified (same sources as 11)
- (13) Huodi 火地 Tierra del Fuego (wrongly on Antarctica, southwest of Chile; same sources as 11)
- (14) Gou guo 狗國 "Land of Dogs" (at the eastern edge of Siberia, perhaps Kamchatka; also on the northern projection in *Tushu bian* and other maps, for example *Mappamondo*, pls. XI, XII, also nos. 147 and 159; DFB, p. 187)²⁴
- (15) Shanhushu dao 珊瑚樹島 "Coral Tree Island(s)" (in the sea, south of Gou guo; same on northern projection in *Tushu bian* and *Mappamondo*, pls. XI, XII. Ricci adds a short explanation: corals grow in water, when taken out with an iron net, they became hard and red; this reminds of earlier Chinese descriptions²⁵)
- (16) Riben 日本 Japan
- (17) Gaoli 高麗 Korea
- (18) Nüzhi 女直 the Jurchen area (northeast of Korea)
- (19) Wu cheng 五城 "Five Cities" (near Sungari, north of Korea, in the tenth century a kind of tribal capital; *Mappamondo*, pls. XV, XVI, no. 292; DFB, p. 188)
- (20) Liaodong 遼東 the southern part of modern Liaoning (the peninsula is not shown)
- (21) Daning 大寧 an important military region and garrison (*Mappamondo*, pls. XV, XVI, no. 274; DFB, p. 182)
- (22) Dada 韃靼 Tartary (north of Liaodong)
- (23) Da Ming guo 大明國 the "Great Ming Empire" (the characters are not larger than, for example, those used for Dada or Gou guo; whether this should say something about the relative size of China, cannot be told)
- (24) *shamo* 沙漠 "desert" (a long "diagonal" area found on many traditional Chinese maps; an item taken over by Ricci from Chinese geography)
- (25) *Xifan 西番 "Western Barbarians" (this term and the next two, shown from east to west, appear in Central Asia, indicating the area of modern Xinjiang and beyond)
- (26) *Huihui 回回 Muslims
- (27) *Xiyu 西域 "Western Regions"
- (28) Xingsu hai 星宿海 lake in Qinghai (in early times often regarded as the source of the Yellow River; *Mappamondo*, pls. XV, XVI, no. 201; DFB, p. 190)
- (29) Kunlun 崑崙 the famous Kunlun mountain range at the southern rim of Xinjiang
- (30) Annam 安南 Annam (then used for the northern part of Vietnam)
- (31) Chancheng 占城 Champa (the central part of Vietnam)

²⁴ Humans with dog heads are a well-known theme in "anthropological" literature. See, for example, R. P., "Die Andamanen und Nikobaren nach chinesischen Quellen (Ende Sung bis Ming)", *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 136 (1986), p. 352 and sources in n. 26.

²⁵ See, for example, R. P., "Notes on the Word 'shanhu' and Chinese Coral Imports from Maritime Asia, c. 1250-1600", *Archipel* 39 (1990), pp. 65-80.

- (32) Liuqiu 琉球 either the Ryukyu chain or Taiwan (several islands are indicated to the east of the China mainland; it is impossible to determine which island is meant by Liuqiu)
- (33) Hainan 海南 then also called Qiongzhou 瓊州 (to the northwest of Hainan another name is shown, but unfortunately it cannot be identified)
- (34) Sanfoqi 三佛齊 Srivijaya (wrongly placed on the Southeast Asian mainland; note, there are no names in connection with insular Southeast Asia, except for the next two)
- (35) Mu Zhaowa 木爪哇 Java Major (*mu* is wrong for *da* 大; *zhao* looks like *gua* 瓜, as in no. 36; an unnamed island is placed between Java Major and the Southeast Asian mainland; the distinction between Java Major and Java Minor follows European conventions of the late sixteenth century, one usually standing for Sumatra, the other for Java "proper")
- (36) Xiao Zhaowa 小爪哇 Java Minor, very close to Antarctica
- (37) Yingdiya 應帝亞 India (squeezed between the Bay of Bengal and what appears to be the the Gulf)
- (38) *Xi Tianzhu 西天竺 Western India (north of Yingdiya)
- (39) Wolandiya dazhou 臥蘭的亞 Greenland
- (40) Fogancha 佛敢察 France (the only European country shown; also see no. 4, above; the second character is printed very badly, carrying radical 26 on its right side; probably it should read *lang* 郎)
- (41) sanshi yu guo 三十餘國 "more than thirty countries" (on the Iberian peninsula; this phrase can be associated with "Hispania": the ZFWJ, p. 78, says, "Yixibaniya" 以西把尼亞 had more then "twenty major dependencies": shuguo dazhe ershi yu 屬國大者二十餘)
- (42) *tianxia ci shan zhigao* 天下此山至高 "the greatest mountain of the world" (placed in the northwestern section of Africa; from the *ZFWJ*, p. 107, it becomes clear that the Atlas in Morocco is meant)
- (43) Yingge di 鸚哥地 Terra Psittacorum ("Parrot Country"; opposite of South Africa, on Magellania; this also follows early modern European conventions; perhaps penguins were implied and confused with parrots; on the map *ge* carries R 196, which is rather unusal)
- (44) Xin Runi 新入匿 New Guinea (on Magallania; the shape of Australia and the Torres Strait were not known to Ricci, hence New Guinea was linked to the southern land mass)
- (45) ci nanfang di ren zhi zhe shao, wei shen qi wu 此南方地人至者少, 未審其物 "Few have reached these southern regions, [therefore] the things [related to them] are not explored yet" (this explanation appears on Magellania)

Oceans and Seas, Sections of Oceans, Rivers

(46) Heyuyanuo cang 河 ? 亞諾滄 — for *oceano* (the second character is not in the dictionaries, but looks similar to no. 12683 in *Zhongwen da cidian* 中文大辭典; it is usually read *yu* and is certainly wrong for *zhe* 摺; *hezheyanuo* 河摺亞諾

- is the transciption of *oceano*; this name appears in *ZFWJ*, p. 147 [with the addendum *canghai* 滄海], where it seems to be used exclusively for the Atlantic; on the *Sancai tuhui* map it is shown twice, to the east of Central America and to the west of Africa; interestingly the name Da Xi yang 大西洋 again the Atlantic Ocean is also mentioned, see below no. 69)
- (47) Keluotuo hai 客羅陀海 not identified (apparently on the eastern side of North America; the northern projection in *Tushu bian* shows a similar name ?-luota hai 羅它海 of which the first character is not legible; also *Mappamondo*, pls. VII, VIII, there Moluoto hai 默羅陀海, north of the "Corte Real Land")
- (48) Yinhe 銀河 Rio de la Plata (correctly positioned in Argentina)
- (49) Bing shui 冰水 "Ice Sea" (beyond North America, i.e., the Arctic Ocean; obviously it was perceived as being different from Bei hai, see next)
- (50) Bei hai 北海 "Northern Sea" (at the northern exit of the Bering Strait; the "Yudi shanhai quantu" in *Tushu bian* indicates the same location; the northern projection in that source places the name Beihai more or less where the East Siberian Sea should be)
- (51) Dong Hong hai 東紅海 Gulf of California (the Gulf is not depicted on the map, but from other evidence this identification is clear; see, for example, *Mappamondo*, pls. IX, X; the "Mar Vermejo" on European maps, by Abraham Ortelius, etc.)
- (52) Da Dong yang 大東洋 "Great Eastern Ocean" (the eastern Pacific, off the west side of Central America; on the "Yudi shanhai quantu" this sea extends to the south, beyond the equator)
- (53) Bailu hai 白露海 "Sea of Peru" (also part of the eastern Pacific, but placed too far south, i.e., not in front of Peru; also on the southern projection in *Tushu bian*; in other sources, for example, *Mappamondo*, pls. IX, X, and *ZFWJ*, p. 147, this sea is called Bolu hai 孛露海)
- (54) Cangming zong 滄溟宗 not identified (in the central eastern section of the Pacific Ocean; perhaps "ensemble of the blue and vast [seas]" or "ensemble [of islands in] the blue and vast [seas]")
- (55) Dongnan hai 東南海 "Southeastern Sea" (to the northwest of Bailu hai; *Mappamondo*, pls. IX, X; southern projection in *Tushu bian*)
- (56) Mowalani hai 墨瓦臘泥海 "Sea of Magallania" (southwest of the Bailu hai, at the western end of the sea between South America and Antarctica; note, the character *jia* 加 as given correctly in the continent's name is missing; see no. 6)
- (57) Ning hai 寧海 "Peaceful Sea" (to the west of Mowalani hai, obviously part of the South Pacific; perhaps an earlier "version" of Taiping yang 太平洋; also, for example, on *Mappamondo*, pls. IX, X, and as "Mare pazificum" several variant forms! on European maps, such as the ones by Sebastian Münster and others)
- (58) Xiao Dong yang 小東洋 "Small Eastern Ocean" (to the southeast of Japan; note, this is more or less on the same latitute as the Da Dong yang; the same arrangement occurs on the northern projection in *Tushu bian*)

- (59) Da Ming hai 大明海 "Great Ming Sea" (to the east of the Ryukyu-Taiwan chain; on other maps either to the west of that chain [hence the East China Sea], or directly placed in the area)
- (60) Banggela hai 旁葛臘海 Bay of Bengal (correctly placed to the east of India)
- (61) Xiao Xi yang 小西洋 "Small Western Ocean" (the Persian Gulf or, alternatively, the northwestern part of the Indian Ocean; very unclear; almost on the same latitude as the Xiao Dong yang; on the "Yudi shanhai quantu", the Xiao Xi yang points to the Arabian Sea, but it also extends beyond the equator)
- (62) Xi Hong hai 西紅海 Red Sea (drawn very inaccurately)
- (63) Yalapi hai 亞蠟皮海 Arabian Sea (too far south, as on the southern projection in *Tushu bian*, where this sea is placed between Madagascar and Mozambique and spelled differently; see also *ZFWJ*, p. 147)
- (64) Xi'nan hai 西南海 "Southwestern Sea" (the southern section of the Indian Ocean, as on the southern projection in *Tushu bian*)
- (65) Nan hai 南海 "Southern Sea" (betwen Java Major, Java Minor and New Guinea; similar location on the southern projection in *Tushu bian*, but also shown on the northern projection, where it is placed in the area of the Arabian Sea; less clear on "Yudi shanhai quantu")
- (66) Beigao hai 北高海 Caspian Sea
- (67) Da hai 大海 Black Sea (or Tai hai 太海, first character unclear)
- (68) Dizhong hai 地中海 Mediterranean
- (69) Da Xi yang 大西洋 "Great Western Ocean" (the Atlantic, coexisting with no. 46, above)
- (70) Liweiya hai 利未亞海 Gulf of Guinea (literally "Sea of Libya", the name being derived from the continent; also in other sources)

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The above list can be compared to the set of names found in the DFB catalogue, and the toponyms on the northern and southern projections in *Tushu bian*, Ricci's KYWGQT, Aleni's maps in *ZFWJ* and the text parts of that book (which, however, is of a later date, namely 1623). The general results are these: (1) The number of toponyms in *Sancai tuhui* is considerably smaller. (2) Some items such as the ones listed under 25, 26, 27 and 38 are perhaps not "typical" for Ricci's maps; rather, they seem to reflect traditional Chinese geographical conventions and probably were added by the editor(s) for the sake of the Chinese readership. (3) Hong Weilian has pointed out correctly that the number of names for the oceans and seas is unusually high.²⁶

The last point is of particular interest here. To understand the "maritime dimensions" of the map, we shall look at the "Yudi shanhai quantu" in *Tushu bian* first. There, the number of toponyms is reduced to a bare minimum and the

²⁶ Hong Weilian, "Kao Li Madou de shijie ditu", p. 39.

arrangement is somewhat different from the one on the Sancai tuhui map. Furthermore, the names of the continents and the two rivers (Nile and Rio de la Plata) are all derived from their "usual" Western equivalents; the names of the oceans are essentially Chinese. Next, the distribution of all names on the map is almost symmetrical: Yaxiya and Liweiya are on one side of the globe, Bei Yamolijia and Nan Yamolijia on the other side. China (Da Ming guo), the thirteen provinces and the imperial capital are near the center. The Nile appears in the northwestern section, the Rio de la Plata in the Southeast. Regarding the seas: (1) Bei hai and (2) Nan hai are on the same longitudes. Between them, in the central part of the Pacific, one finds the (3) Xiao Dong yang. Its "counterpart", the (4) Xiao Xi yang, washes the Indian west coast. The (5) Da Dong yang, near the American west coast, however, has no "counterpart" - obiously the editors forgot to place the name Da Xi yang on the map.²⁷ Or, alternatively, the five oceans / seas were to represent the five directions (east, south, west, north, center). Other oceans, or sections of the sea, are not named. Finally, the characters for Bei hai and Nan hai are smaller than the ones for the three yang, or "oceans", which seems to underline that the oceans were vaster than the seas.

This simple and rather straighforward arrangement can be compared to traditional Chinese perceptions of the seas. Already under the Yuan, there emerges a kind of double segmentation between a western and an eastern sphere. The Nanhai zhi 南海志 (1304) and Daoyi zhilüe 島夷誌略 (1349/50) are cases in point.²⁸ Both texts draw an imaginary line through Southeast Asia, which divides the maritime world into an eastern and a western part. In the first text, the Da Dong yang can be loosely associated with the Java Sea and its eastern extensions, the Xiao Dong yang is more or less identical with the Sulu Sea (or the "Sulu zone"), and the Xiao Xi yang with the sea off the Malayan east coast. The Da Xi yang is not mentioned (as on the *Tushu bian* map), but – intuitively – it should be equivalent with the northern half of the Indian Ocean. The division between east and west is thus near the Sunda area. The second text pushes this line to the Singapore area. Both works do not refer to the Bei hai and Nan hai, but that does not matter very much because in all likelihood these two seas were considered as subordinated entities and certainly not as important for navigation as the eastern and western oceans.

A similar picture emerges under the Ming. Zheng He 鄭和 sailed to the Xi yang. The books by Fei Xin 費信, Ma Huan 馬歡 and Gong Zhen 鞏珍 (all

Although the Da Xi yang is mentioned in the explanations following the map; see j. 29, 42b.

²⁸ R. P., "Südostasiens Meere nach chinesischen Quellen (Song und Yuan)", Archipel 56 (1998), especially pp. 17-25, and "Chinesische Wahrnehmungen des Seeraums vom Südchinesischen Meer bis zur Küste Ostafrikas, ca. 1000-1500", in Dietmar Rothermund and Susanne Weigelin-Schwiedrzik (eds.), Der Indische Ozean. Das afro-asiatische Mittelmeer als Kultur- und Wirtschaftsraum, Edition Weltregionen (Wien: Verein für Geschichte und Sozialkunde, and Promedia Verlag, 2004), especially pp. 46-48. Also see Liu Yingsheng 劉迎勝, "Wang Dayuan de Dong yang zhi hang – Dong yang yu Xi yang gainian chansheng de lishi beijing zhi tansuo" 汪大淵的東洋之行 – 東洋與西洋概念産生的歷史背景之探索, Nanyang xuebao 南洋學報 56 (2002), pp. 30-44.

early 15th century) also refer to that sea, which began somewhere near Melaka or Sumatra. The *Dongxiyang kao* 東西洋考 (1617/18) moves the borderline between the eastern and western spheres back – to an imaginative line running through Kalimantan.

Elsewhere I have demonstrated that this East / West segmentation can be related to the existence of two major trade arteries between China to Southeast Asia: the so-called xi hanglu 西航路 (western route) and the dong hanglu 東航 路 (eastern route). Ships sailing along the first route went from Fujian and Guangdong to Hainan and Vietnam, passing the Paracel Islands on their western side; from Vietnam they proceeded to the Malayan east coast and finally around the peninsula's southern tip to Melaka and the Indian Ocean; a further link connected the southern tip of Vietnam to Cape Datu; from there vessels could follow the Kalimantan coast down towards Java. The second route ran from Fujian – via the southern tip of Taiwan – to Luzon; from Luzon one would then go through the Sulu Sea to Brunei or, via the Sulu Islands and Celebes Sea, to Sulawesi, Maluku, Ceram, Timor, and so forth. The existence of this double route system is related to a very special geographical feature: the central part of the South China Sea was considered dangerous due to its many shoals and reefs. Consequently, ships had to avoid that region, either by sailing along the Vietnam coast, or through the Philippines. Therefore, in the spatial perception of Yuan and Ming authors, when going south, one would first enter the Xiao Xi yang or the Xiao Dong yang, respectively – and then proceed to the larger and more distant "entity", either the Da Xi yang (Indian Ocean), or the Da Dong yang (the Java Sea and other easternly seas).²⁹

The concepts of Xi yang and Dong yang were thus related to traditional sailing routes, the smaller (*xiao*) oceans being closer to China than the larger (*da*) ones. It seems that this concept was understood and modified by Ricci, who placed several traditional Chinese names on his KYWGQT, and certainly also on his earlier maps. Perhaps this was a kind of concession to his Chinese friends.

Here we can return to the *Sancai tuhui* map. Many traditional Chinese names for the oceans are also found on this map, as was said, although their geographical position is not always the same as in Yuan and early Ming sources. Thus, the Xiao Dong yang and Da Dong yang were pushed from their original location in Southeast Asia to the Pacific regions (as in the case of the *Tushu bian* map), and the Xiao Xi yang marks part of those areas which, in former days, were associated with the Da Xi yang, or, more simply, with the Xi yang (without attribute).

²⁹ See sources in previous note. Furthermore: R. P., "The Coral Islands in the South China Sea according to Chinese Sources (Song to Ming)", in Avelino de Freitas de Meneses (coord.), *Portos, escalas e ilhéus no relacionamento entre o Ocidente e o Oriente. Actas do Congresso Internacional Comemorativo do Regresso de Vasco da Gama a Portugal. Ilhas Terceira e S. Miguel (Açores), 11 a 18 de Abril de 1999, 2 vols. (Lisbon: Comissão Nacional para as Comemorações dos Descobrimentos Portugeses; Ponta Delgada: Universidade dos Açores, 2001), II, pp. 337-358, and "Jottings on Chinese Sailing Routes to Southeast Asia, Especially on the Eastern Route in Ming Times", in Jorge M. dos Santos Alves (coord.), <i>Portugal e a China. Conferências nos encontros de história luso-chinesa* (Lisbon: Fundação Oriente, 2001), pp. 107-131.

Generally however, the idea that the "smaller" (*xiao*) entities should be nearer to the center than the "larger" (*da*) ones, is retained (as on the *Tushu bian* map); consequently, the term Da Xi yang is used for the Atlantic Ocean.

Other interesting observations can be made in regard to the "pairs" Bei hai / Nan hai, Xi'nan hai / Dongnan hai, and Xi Hong hai / Dong Hong hai. As the name suggests, the entity called "Bei hai" is located in the extreme north, while the Nan hai is found off the Antarctic coast. Bei hai and Nan hai are thus placed at opposite ends of the map, in a symmetrical fashion (similar to the arrangement in *Tushu bian*). The same applies, albeit with less rigidity, to the other four names. This kind of layout seems to follow traditional ideas, although the last two toponyms are of course derived from Western names.

More "symmetries" and "parallelisms" can easily be discovered. Here are some examples: (1) At the "outer edges" of the *Sancai tuhui* map, i.e., at the left and right margins, we find three names / terms in each case: Da Xi yang, *oceano*, Liweiya hai – Keluotuo hai, *oceano*, Rio de la Plata (alternatively, if the La Plata, as a river, is not counted: Bing hai, Keluotuo hai, *oceano*). (2) The number of seas and oceans to the east and west of the "Great Ming Sea" (Da Ming hai), located near the center of the map, is identical as well (if the Rio de la Plata is included): there are exactly twelve toponyms on either side of that sea. (3) Furthermore, there occurs a cluster of four names off the East African and Indian coasts (Xiao Xi yang, Xi Hong hai, Yalapi hai, Banggela hai) and another such cluster near the coast of Chile (Dongnan hai, Bailu hai, Mowalani hai, Ninghai); in each case one toponym can be associated with traditional Chinese terminology, while the other names are of foreign origin.

Concepts of symmetry also seem to underly the distribution of certain land areas. Here is one example: on the eastern hemisphere we find Hanhe and Xiangfeng in the north, and Baifeng and Dajiang in the south – one "cape" / "peak" and one "river" in each case. These last four toponyms cannot readily be identified, as was already mentioned; but since they also occur on the KYWGQT, they were probably introduced into the cartographic art by Ricci himself.

A very different observations relates to the shape of the African continent. Its southern half is not as wide and round as, for example, on the "Yudi shanhai quantu" in *Tushu bian*. On the contrary, in *Sancai tuhui* southern Africa is presented as a long and pointed land mass, somewhat similar to its depiction on a comparable chart in the famous *Guangyu tu* 廣興圖 atlas (printed in 1555) and on yet another map in *Tushu bian* which is called "Xi'nan hai yi tu" 西南海夷圖 (j. 51). These two drawings are ultimately based on the works of the famous Yuan geographer Zhu Siben 朱思本(1273-1337)and, consequently, were not influenced by European cartography. Unfortunately, Zhu's maps are now lost, but the ones in *Guangyu tu* and *Tushu bian* give an impression of what geography was looking like in the Yuan period.³⁰

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³⁰ See, for example, Joseph Needham, *Science and Civilisation in China*, Vol. IV:3: *Physics...* (Cambrdige at the University Press), especially p. 500, and Vol. III, quoted above, pp. 551-554; Walter Fuchs, *The "Mongol Atlas" of China by Chu Ssu-pen and the Kuang-yu-t'u. With 48*

Maps in the Zhu Siben tradition also allude to the existence of a southern land mass, similar to the idea of Magellania, but the coast lines of these southern lands are not as curved as in the case of many European maps. Furthermore, the shapes of India and Southeast Asia are very distorted in traditional Chinese works. The *Sancai tuhui* seems to aim at a kind of compromise between such concepts and Ricci's views. Here are some examples: Of the Southeast Asian toponyms two were located near the southern land mass of Magallania (Java Minor and Java Major). The outlines of the Malayan Peninsula are alluded to, a feature not found with any of the traditional Chinese maps (the only known exception is the so-called "Zheng He hanghai tu" 鄭和航海圖³¹). Much of Southeast Asia consists of larger islands; the *Guangyu tu* map and similar works only show a set of place names in that area, without specifying the shapes or sizes of the islands associated with them. The outlines of Europe and the New World mirror Ricci's influence, but they were distorted, or rather simplified, probably to adjust them to the Chinese reader's expectations.

The above examples may suffice to show that the *Sancai tuhui* map tries to bring together two entirely different concepts. Traditional Chinese elements are particularly important for the maritime sphere – some of these elements were probably taken over from old *lishi dili* 歷史地理 sources –, while European "dimensions" become more clearly visible in the terrestrial context. By and large, this also applies to the "Yudi shanhai quantu" in *Tushu bian*. However, in the second case, the bizarre outlines of the continents are so phantastic, indeed, that one is almost immediately reminded of certain geomantic drawings; clearly, the *Sancai tuhui* map looks very different – more realistic at least, and thus more advanced.

In concluding these lines the following may be said: the map examined in this short note reflects an intellectual dilemma frequently encountered in late sixteenth and early seventeenth century China, namely the question of how to combine Chinese cosmological principles – to which certain geographical issues were always subjected – with humanist ideas imported from the "Far West". Different proposals were made to that effect, the *Sancai tuhui* map being an important case

Facsimile Maps Dating from about 1555, Monumenta Serica Monograph 8 (Peiping: Fu Jen University, 1946), pp. 43, 44 (maps); Zhang Huang, Tushu bian, XI, j. 51, 17a, etc. Further examples of maps in the Zhu Siben tradition may be found in Mao Yuanyi's 茅元儀 Wu bei zhi 武備志, 22 vols. (originally 1621; Taibei: Huashi chubanshe, 1984), XXI, j. 223, and in Huangyu kao 皇域考 (1557).

There are several modern editions. One is: Haijun haiyang cehui yanjiu suo, Dalian haiyun xueyuan hanghaishi yanjiushi 海軍海洋測繪研究所, 大連海運學院航海史研究室 (ed.), Xinbian Zheng He hanghai tuji 新編鄭和航海圖集 (Beijing: Renmin jiaotong chubanshe, 1988).

³² For old European maps on Southeast Asia, the following modern works are particularly useful: Thomas Suárez, *Early Mapping of Southeast Asia* (Singapore: Periplus Editions (HK) Ltd., 1999); Carlos Quirino, *Philippine Cartography* (1320-1899) (2nd ed. Amsterdam: N. Israel, 1963); Luís Filipe F. R. Thomaz, "The Image of the Archipelago in Portuguese Cartography of the 16th and early 17th Centuries", *Archipel* 49 (1995), S. 79-124.

in point. By placing China in the center of his maps and by taking over certain toponyms and other features from Chinese sources, Ricci had of course paved the way for these kind of compromise solutions, but their further elaboration rested in the hands of China's own academics. Since some of the latter's works enjoyed a wide circulation, these men carried an enormous responsibility. As mentioned above, the *Sancai tuhui* was one of the most popular *leishu* 類書 under the Ming and even became known in Korea, where cartographical works acquired from Jesuit and Chinese geographers, usually through Chosôn envoys visiting Beijing, were hotly debated in intellectual circles and the Korean Court.³³ Thus, in spite of its preliminary nature and all its shortcomings, the map discussed here must be considered as one of the most important "hybrid" pieces of its time.

³³ For the Korean context, see, for example, Gari Ledyard's "Cartography in Korea", in Harley et al. (eds.), *Cartography in the Traditional East and Southeast Asian Societies*, or Soon Mi Hong-Schunka and Roderich Ptak, "Die koreanische Weltkarte in St. Ottilien: ein Beitrag zur Kartographie des Ferdinand Verbiest", *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 154.1 (2004), pp. 201-218, and relevant works cited there. – The *Sancai tuhui* also left its traces in Japan. See, for example, Kazutaka Unno, "Cartography in Japan", in Harley et al., p. 407, and Goodrich and Fang, *Dictionary of Ming Biography*, I, S. 84.