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Western Learning and Christianity in China

The Contribution and Impact of
Johann Adam Schall von Bell, S.J.
(1592–1666)

1

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ROMAN MALEK, S.V.D.

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Xu Guangqi.

YANG GUANGXIAN'S OPPOSITION TO JOHANN ADAM SCHALL: CHRISTIANITY AND WESTERN SCIENCE IN HIS WORK *BUDEYI*

EUGENIO MENEGON

The "Calendar Controversy" (1664–1670) between Johann Adam Schall von Bell, his Jesuit confrères and some converts on the one hand, and Yang Guangxian and the muslim astronomers on the other, has already been widely dealt with.¹ Yang's biography and his genealogy back to the Song dynasty have recently been thoroughly researched, and some works of his considered lost have also been brought to light.² The reasons why Yang Guangxian chose to oppose Schall, his religion and his scientific methods have been already stressed. According to a generally accepted thesis, Yang was ideologically committed to Confucianism (i.e., Neo-Confucianism), and saw Christianity as a serious threat against Confucian tradition and values.³ Some scholars, though, have doubted, even in recent years, his ideological purity, recognizing motivations of a more personal kind as the main cause of his attack,⁴ even though they did not go into details about them.

I am grateful to Prof. Huang Yilong [Yinong], National Tsing-hua University, Taiwan, for reading an earlier draft of this paper and giving much valuable advice. Prof. Piero Corradini, Prof. Giovanni Stary and Dr. Isaia Iannaccone were also generous in advice and encouragement.

¹ See Vâth, pp. 295ff.; Fang Chao-ying, "Yang Kuang-hsien," in: *Eminent Chinese*, pp. 889-892; Bernward Willeke, "Schall von Bell, Johann Adam," in: *DMB*, pp. 1153-1157; Young, pp. 77-96; Lin Jian, "Xifang jindai kexue chuanlai Zhongguo houde yi chang douzheng," pp. 25-32.

² See Huang Yilong, "Yang Guangxian jiashi yu shengping kao," pp. 15-28; *id.*, "Yang Guangxian zhushu lunlue," pp. 3-21.

³ See Gernet, *passim* (I refer to the Italian edition, *Cina e cristianesimo* [Casale Monferrato 1984]); John Young, "An early Confucian Attack on Christianity: Yang Kuang-hsien and his *Pu-te-i*," in: *Journal of the Chinese University of Hong Kong* 1 (1975), pp. 155-186; Young, pp. 85-96.

⁴ See Rule, p. 99: "Although the motives behind Yang's attack seem to have been largely personal and his success due mainly to political factors, the *Pu-te-i* also

When, in 1659, Yang began his attack,⁵ he acted on two different levels; on one level he opposed Christianity as a religion, on the other he criticized the geographical and astronomical notions introduced by the missionaries. Both the Chinese critics and the appreciators of the missionaries' work considered the "Heavenly Doctrine" (*Tianxue*) as a whole *corpus* of knowledge. Yang opposed the missionaries because they were the bearers of a different view of the world, and the propagators of a heterodox religion. Yang's goal was the missionaries' defeat and the banishment of all their religious and scientific teachings.

Since the missionaries' freedom to travel in the provinces depended on the ability of the Jesuits in Beijing to influence the court and the government circles, Yang saw Schall as the enemy to fight in order to defeat the Christians once and for all. Paradoxically, the only ground on which Schall could really have been threatened was astronomy. As a matter of fact, Schall's superior scientific knowledge had already allowed him to oppose the Chinese astronomers efficaciously and to pass unharmed through the turbulent period of the dynastic change, obtaining high positions and official acknowledgement. If Yang had been able to deprive him of the sort of "immunity" which protected him, he could have realized his wider plan of getting rid of Westerners for good. Yang knew what had happened in Nanjing in the years 1616-1617, and of the unsuccessful persecution of Shen Que.⁶ He also read the *Shengchao poxie ji* (Collection of Writings of the Sacred Dynasty for the Countering of Heterodoxy, 1639),⁷ or at least Shen Que's writings as he himself states,⁸ and this explains the affinity between Yang's arguments and those of the famous collection of the earliest anti-Christian writings. Well aware that an attack only on religious grounds

mounted a formidable attack on the Jesuit interpretation of Confucianism." On p. 266, note 141: "John D. Young argues the case for orthodox Confucian motivation. ... It is, however, difficult to explain his vehemence and persistence without an element of personal animosity and the *Pu-te-i* is directed quite specifically against Li T'su-po and Schall, with fatal results for the former and near fatal for the latter."

⁵ We suppose that Yang began his attack even before 1659; see Huang Yilong, "Yang Guangxian jiashi yu shengping kao," p. 19; Adrien Greslon, *Histoire de la Chine sous la domination des Tartares* (Paris 1671), pp. 39-40.

⁶ See DMB, pp. 1177-1178.

⁷ See Young, p. 60; for a general survey of the contents of *Shengchao poxie ji*, see Douglas Lancashire, "Anti-Christian Polemics in Seventeenth Century China," in: *Church History* 38 (1969) 2, pp. 218-241.

⁸ See BDY, in: *TZJDCWX*, vol. III, p. 1290.

would not have persuaded the imperial government to forbid the foreign religion, Yang concentrated his efforts on astronomy and astrology.

He was helped by the political climate of the regency.⁹ The astronomers of the *Huihuike* joined him, as well as the officials who had been turned out because of the wrong date they had chosen for Prince Rong's funeral, especially the former President of the Ministry of Rites, Enggeder.¹⁰ These officials were mainly of Manchu origin, and it has been noted how "maybe because he didn't have a good knowledge of the Manchu language, [Schall] was never able to enter the Manchu political circles:"¹¹ no wonder that the Manchus had conceived a dislike for him, also because of Schall's closeness to the late emperor Shunzhi, considered a sinophile, and his regular relations with Chinese officials.¹²

Yang did not wish to become an official of the Astronomical Office: in the 4th month of the 4th year of Kangxi (May - June 1665), after the banishment of the Westerners and the execution of five converted officials, Yang was compelled to accept the post of Director of the Astronomical Office, but in the following months, between the end of May and the beginning of October, he sent no less than five memorials asking to be released from the office on account of his poor health and his age (he was then 68 years old), and because "[he] was familiar only with the principles of the calendar (*lili*), but [he] did not have a good knowledge of its mathematical basis (*lishu*)."¹³ The ultimate decision of the Ministry of Personnel, coming on October 22nd, 1665, compelled him to accept the office.¹⁴

⁹ See Robert Oxnam, *Ruling from Horseback: Manchu Politics in the Oboi Regency, 1661-1669* (Chicago 1975), pp. 146-158; Laurence Kessler, *K'ang-hsi and the Consolidation of Ch'ing Rule* (Chicago 1976), pp. 58-61.

¹⁰ On the political and astrological implications of this case, see Huang Yilong, "Selection of Auspicious Dates and 'Calendar Lawsuit' in the K'ang-hsi Reign Period" (in Chinese), in: *Tsing Hua Journal of Chinese Studies*, NS 21 (1991) 2, pp. 247-280. A list of the prosecuted officials is given on p. 258. An abridged English version of this article is "Court Divination and Christianity in the K'ang-hsi Reign Period," in: *Chinese Science* 10 (1991), pp. 1-22.

¹¹ See Huang Yilong, *op. cit.*, p. 262.

¹² See Oxnam, *op. cit.*, p. 146.

¹³ BDY, p. 1264. I refer to the 1929 edition, edited by Liu Yizheng, a photolithographic copy of the Zhongshe edition of 1799, reproduced in: *TZJDCWX*, vol. III, pp. 1070-1332. Page numbers follow this edition. Another edition, surely one of the oldest, is preserved at the Archivum Romanum Societatis Jesu (ARSI), *Jap. Sin.* 89-90. This copy in two volumes is signed on the front page by the Provincial of China, Father Antoine Thomas, and, under the signature, it is dated Beijing, October 26, 1701. It is punctuated in red ink, and frequently underlined with black strokes: it

It is obvious that Yang considered it his duty to accuse Schall and have him dismissed, to such a degree that he undervalued the consequences of his attack: in Nathan Sivin's words he represented "the very model of a man caught in a trap of his own devising."¹⁵

In this study I will try to show that Yang's opposition to Christianity and to Western geography and astronomy were parts of the same strategy. This can be seen in his essays "Pixie lun" (1659), against Christianity, and "Nie jing" (1662), against Western science. Both represent Yang's widest and most complex contributions, and are therefore undoubtedly valuable as far as the analysis of his opposition to Schall is concerned. Before giving this analysis, I will offer a general view of the contents of *Budeyi*.

The Collection *Budeyi* (1665)

Yang's most famous work is the collection *Budeyi* (I have no alternative, 1665), where the works he wrote between 1659 and 1665 are collected. This title comes from the *Mengzi*, where Mencius himself affirms: "I, too, wish to follow in the footsteps of the three sages in rectifying the hearts of men, laying heresies to rest, opposing extreme action, and banishing excessive views. I am not fond of disputation, I have no alternative [*yu budeyi*]. Whoever can, with words, combat Yang and Mo is a true disciple of the sages."¹⁶

The collection consists of a total of 22 essays, memorials, and prefaces, some of which had an important influence on the anti-Christian movement of 19th century.¹⁷ Yang's most influential work was undoubtedly the "Pixie lun." I will deal with it in the following pages, together with the "Nie jing," after briefly reviewing some other essays which in my opinion are the more important.

must have been carefully studied by a missionary or a convert. For an analysis of the different editions, see Huang Yilong, "Yang Guangxian zhushu lunlüe," pp. 6-13.

¹⁴ *BDY*, p. 1300.

¹⁵ See Nathan Sivin, "On 'China's Opposition to Western Science during Late Ming and Early Ch'ing'," in: *Isti* 56 (1965), p. 202.

¹⁶ See *Mengzi* 3B/9, as translated in D.C. Lau, *Mencius* (Hong Kong 1984), p. 131.

¹⁷ Selections from *Budeyi* are included in many works, among which are the following: Wei Yuan, *Haiguo tuzhi*, 1844; Xia Xie, *Zhong-Xi jishi*, 1851; *Pixie jishi*, 1871; *Pixie shilu*, n.d. See Paul Cohen, *China and Christianity. The Missionary Movement and the Growth of Chinese Antiforeignism, 1860-1870* (Cambridge, Mass. 1963), p. 289.

In the "Plaint against heterodox teachings" (September 15, 1664),¹⁸ Yang accused Schall of using his office at court, which he had obtained thanks to the help of the "heretic" Xu Guangqi, in order to spread his religion and build churches in more than thirty places, which he listed;¹⁹ he attacked the authors of the *Tianxue chuan'gai* (A summary of the spread of the Heavenly Teaching, 1664),²⁰ giving Schall the full responsibility for the work, and just a role of assistance to Li Zubai and others; he denounced the use on the calendar of the words "according to the new Western method" (*yi Xiyang xinfa*) as an attempt to throw discredit on the Qing;²¹ finally, he accused the Christians of meeting more than fifty times a year in order to plot the revolt.

In his "Letter to the censor Xu Zhijian" (April 20, 1664),²² he reproached the censor, with an incredulous tone, for writing the preface of the heretic book *Tianxue chuan'gai*, whose guilty sentences he widely quoted.²³

In the "Criticism to three images of the heterodox religion"²⁴ (since it is successive to the "Letter," it must have been written in the period between April 20, 1664, when the "Letter" was composed, and the winter of 1665, when the *Budeyi* appeared), using three images of Christ's life from Schall's *Jincheng shuxiang* (Images presented [to the Emperor], 1640), Yang denounced Jesus' attempt to revolt. For this attempt he had been

¹⁸ "Qing zhu xiejiao zhuang," in: *BDY*, pp. 1075-1081, partly translated in: Fu Lo-shu, pp. 35-36.

¹⁹ See Fu Lo-shu, p. 36.

²⁰ See David Mungello, "Die Schrift *T'ien-hsüeh ch'uan-kai* (1664) als eine Zwischenformulierung der jesuitische[n] Anpassungsmethode im 17. Jahrhundert," in: *CMSB* 4 (1982), pp. 24-39.

²¹ See *SCC*, vol. 3, p. 449.

²² "Yu Xu shixian shu," in: *BDY*, pp. 1083-1102. The last part is translated in: Gernet (Ital.), p. 142.

²³ The censor Xu Zhijian obtained his *jinshi* degree during the reign of Shunzhi in 1655; following Yang's attack, even though other literati had suggested him to reach a compromise, he refused and had to quit his post in 1665. In 1669 all of Yang's victims were rehabilitated, and Xu could return to Beijing in 1670. It is not known if Xu was a Christian; in his old age he became a Buddhist. In his preface he indicated Christianity as the teaching able to support Confucianism. See Zang Lihe (ed.), *Zhongguo renming da cidian*, p. 1028; *Eminent Chinese*, pp. 876 and 890; Mungello, *op. cit.*, note 23; Huang Yilong, "Kangxi chao sheji 'Liyu' de Tianzhujiao zhongwen zhushu kao," p. 14-15.

²⁴ "Xiejiao santu shuoping," in: *BDY*, pp. 1135-1142.

rightly sentenced to death by a legitimate government. Here is an excerpt from the introductory part of the essay:

After my letter to Mr. Xu had been sent out, I regretted that when my "Pixie lun" was written, I failed to put the pictures printed by Schall at the head of the treatise. The pictures depict how the Hebrews applauded Jesus and how Jesus was nailed to death by law. These pictures would make all people in the world know that Jesus was put to death as a convicted criminal, so that not only would scholar-officials not write prefaces for their writings, but people of the lower classes would also be ashamed to believe in that kind of faith. ... Being unable to reproduce all the pictures, I copy only three pictures and their respective annotations for the present moment. They are the people applauding Jesus, Jesus being nailed on the cross, and Jesus hanging on the cross. This will show all the world that Jesus was not an orderly and law-abiding person, but a subversive rebel leader, who was convicted and executed.²⁵

The first engraving reproduced by Yang (the 28th in the original book by Schall) represented Christ's triumphant entry in Jerusalem on Palm Sunday; the second (42nd in the original) represented the executioners driving the nails into Christ's limbs; the third (43rd in the original), Jesus crucified between the two robbers.

Besides, Yang commented on Schall's explanations. Obviously, these images revealed the scandal of Crucifixion and Christ's rebellious nature, which Ricci had been careful not to talk about. However, an image of Crucifixion had already appeared in Juan da Rocha's *Tianzhu shengjiao qimeng* (Instructions of the Holy Religion of the Lord of Heaven, ca. 1619),²⁶ and in Giulio Aleni's *Tianzhu jiangsheng chuxiang jingjie* (Explanations of images concerning the Incarnation of the Lord of Heaven, 1635).²⁷ Schall's was one of the first tracts to give such a representation. The engravings were copied from those by Hieronimus Wierx in a famous book on the life of Christ by Fr. Jeronimo Nadal, *Evangelicae Historiae Imagines, ex ordine Evangeliorum* (Antwerpen 1594).²⁸ Some scholars state

²⁵ See Hsiang Ta, "European influences on Chinese Art in the later Ming and early Ch'ing period," in: *Renditions* 6 (1976), pp. 152-178 (originally in: *Dongfang zazhi* 27 [1930], pp. 159-160); *BDY*, p. 1135.

²⁶ See Pasquale D'Elia, *Le origini dell'arte cristiana cinese (1583-1640)* (Roma 1939), pp. 67-70.

²⁷ See Joseph Dehergne, "Une vie illustrée de Notre-Seigneur au temps des Ming," in: *NZM* 14 (1958), pp. 103-115.

²⁸ This work of Fr. Jeronimo Nadal S.J. was printed in Plantin type in 1594, with the complete title *Adnotationes et meditationes in Evangelia quae in Sacrosancto Missae*

that Yang Guangxian made use of Aleni's book to accuse the Christians of rebellion against the State.²⁹ In fact, Yang never spoke of Aleni's book, but of Schall's book *Jincheng shuxiang*, printed five years later (1640).

The *Jincheng shuxiang*³⁰ was printed by Schall on the occasion of the gift to the emperor Chongzhen in 1640 of a fine collection of images of Christ's life, which Fr. Trigault had received from the Duke of Bavaria, Maximilian I, before his return to China in 1620.³¹ The engravings in the book were reproductions of those contained in the album received by Trigault. The date of the publishing, as reported in Schall's preface to the *Jincheng shuxiang*, is December 1640.³² In the same preface he explains why he decided to write the book. In the spring of 1640 the emperor had ordered a harpsichord brought to court by Ricci in 1601 to be repaired. On the instrument there was a sentence written in the Western alphabet which had attracted Chongzhen's curiosity.³³ The emperor had ordered Schall to translate it; on September 8, 1640 (23rd day of the 7th month of that year), Schall, together with his translation had also offered "a Western book from my country [Germany] translated in Chinese, as well as a collection of images of the Heavenly Lord."³⁴ It was Maximilian of Bavaria's gift, *Vita Domini Nostri Iesu Christi* ..., 1617.³⁵ He then added "he had written a

Sacrificio toto anno leguntur, cum Evangeliorum Concordantia historiae integritati sufficienti ... The edition I refer to (Biblioteca Nazionale Centrale "Vittorio Emanuele II," Roma, 8.42.G.15) was printed in Antwerpen by Nutins (1596?); the Roman printer Zanetti added to it a commentary in Italian by Fr. Antonio Vivaldi S.J., *Meditationi sopra li Evangelii che tutto l'anno si leggono nella Messa e principali misterij della Vita e Passione di Nostro Signore* (1594). According to D'Elia, *op. cit.*, p. 78, Nadal's work was probably already in the possession of the Chinese mission in 1605. [Cf. also P. Rheinbay, S.A.C., "Nadal's Religious Iconography Reinterpreted by Aleni for China," in: T. Lippiello - R. Malek (eds.), pp. 323-334. - Ed.]

²⁹ See Dehergne, *op. cit.*, p. 112; Dunne, pp. 276-277.

³⁰ I refer to a copy preserved at the Biblioteca Nazionale Centrale "Vittorio Emanuele II," Roma, Fondo Gesuitico, 72.B.299, 3 + 50 pp., 48 engravings. Another copy is at the Bibliothèque Nationale, Paris, Courant 6757.

³¹ See Edmond Lamalle, "La propagande du P. Nicolas Trigault en faveur des missions de Chine (1616)," in: *AHSI* 9 (1940), pp. 49-120.

³² "One of the last days of the first winter month of Chongzhen's 13th year," that is, one of the first ten days of December 1640.

³³ The sentence was the following: "Laudate Dominum in cymbalis benesonantibus, laudent Nomen eius in tympano et chora psalant ei." See Bernard, "L'Encyclopédie astronomique," p. 496.

³⁴ *Jincheng shuxiang*, preface, p. 1b.

³⁵ The complete title is the following: *Vita Domini Nostri Iesu Christi Filii Dei, Filii*

short explanation of the book and of the images" to complete it. Here is then the genesis of *Jincheng shuxiang*.³⁶ The booklet was intended to illustrate the contents of the collection for a wider public. The first engraving is on a pliable paper, and reproduces one of Schall's gifts, a wax sculpture of the Magis' adoration: some other engravings³⁷ are taken from Nadal's book, maybe because some evangelical episodes were lacking in the *Vita Domini*.

The "Draft of Memorial for the safety of the Country" (January 1660)³⁸ criticized the use of the words reported on the calendar, "according to the new Western method," inasmuch as "a big country does not subdue to the rules of the calendar of a small country"³⁹ (that is, the Qing cannot accept Western calendar). These words worried Yang mostly because of the threat to the imperial power represented by the foreigners' calendar, and for the modification introduced in the calculation of the intercalated months. The memorial, presented to the Ministry of Rites in 1660, was not accepted.

The short essay "On Constellations in the Meridian" (n.d.)⁴⁰ asserted the value of the ancient cosmological systems which had been adopted for more than four thousand years, particularly the notion of "constellations in the Meridian" (*zhongxing*) found in the *Shujing*, section "Yaodian." Yang maintained that accepting Schall's astronomical methods, giving up those recommended by Confucius would cause the subversion of the rules of civilization.

Virginis et sacrosanctis quatuor Evangelii delibata et maximo potentissimoque Sinarum Imperatori et Monarchae transmissa a Maximiliano Comite Palatino Rheni utriusque Bavariae Duce, anno Domini MDCXVII. See Lamalle, *op. cit.*, p. 104; Vāth, pp. 35-36. After a delay of twenty years, the collection was presented at court, together with a wax figure representing the three Magis' adoration: Schall himself tells us in his *Historica Relatio* how these objects had been exhibited in a hall to allow the ladies of the palace to admire them; see Bernard, *Lettres et Mémoires*, pp. 46 and 48.

³⁶ We have a confirmation of the fact that the *Jincheng shuxiang* is the reproduction of the *Vita Domini*: Schall wrote an explanation in order to describe the title-page, and reported line by line the original Latin title translated in Chinese. The date reported was, however, 1618 instead of 1617. See *Jincheng shuxiang*, p. qian 3.

³⁷ Numbers 17, 18, 20, 21, 22, 23, 24, 29, 30. See also D'Elia, *op. cit.*, p. 124, where I detected some mistakes.

³⁸ "Zheng guoti chenggao," in: *BDY*, pp. 1143-1155.

³⁹ *BDY*, p. 1143.

⁴⁰ "Zhongxing shuo," in: *BDY*, pp. 1157-1161. The constellation which is situated in the observer's meridian at the moment of observation is called *zhongxing*.

The essay "On the selection [of Prince Rong's burial date],"⁴¹ completed in June-July 1659 and presented successfully to the Ministry of Rites between the end of 1664 and the beginning of 1665, was the conclusive charge which put Schall, Buglio, Magalhães, Verbiest, and their Chinese collaborators under inquiry. As it has been noticed, Yang did not think that this was the work which would be so important in causing the foreigners' fall.⁴²

Equally conclusive was the work "The ten propositions to reveal falsity" (1659),⁴³ where Yang made a list of ten astronomical mistakes of the Westerners, blamed the giving up of the old calculation methods and the abolition of the Muslim Department, and declared lese-majesty for the issue of a calendar only two hundred years long. With regard to this, Yang quoted Mencius: "In spite of the height of the heavens and the distance of the heavenly bodies, if one seeks out former instances, one can calculate the solstices of a thousand years hence without stirring from one's seat."⁴⁴ Why were the foreigners, otherwise so expert in calendrical affairs, able to calculate a calendar of merely two hundred years? Both these works were presented, together with the "Plaint," to the Ministry of Rites in September 1664.

Finally, in the works "Criticism of the mistaken temporal prevision of eclipses"⁴⁵ and "Test of the heavenly phenomena of eclipses,"⁴⁶ he criticized the new methods of forecasting eclipses, comparing the new calculations of Chinese and Western schools with the actual calculations of an eclipse of January 1660. In the "Test" is included this famous sentence:

Would that China have no good calendar, than that China have Westerners. Having no good calendar is no worse than the Han astronomers who, not knowing the method of apposition [between sun and moon],

⁴¹ "Xuanze yi," in: *BDY*, pp. 1163-1167.

⁴² See Huang Yilong, "Selection of Auspicious Dates ...," *op. cit.*, p. 265 and "Court Divination ...," *op. cit.*, p. 13, where Yang's words are reported: "fortunately this divination was used to bury a prince only a few months old [i.e., without progeny]. Had it been used for an official household, there would be no way to express the harm done!"

⁴³ "Zhai miu shi lun," in: *BDY*, pp. 1169-1179.

⁴⁴ *Mengzi*, 4B/26. See D.C. Lau, *op. cit.*, p. 169.

⁴⁵ "Rishi shike bian," in: *BDY*, pp. 1245-1246.

⁴⁶ "Rishi tianxiang yan," in: *BDY*, pp. 1247-1253.

predicted all solar eclipses on the last day of the month. Still [the Han] enjoyed four hundred years of prosperity.⁴⁷

The "Pixie lun" (1659)⁴⁸

The essay „Pixie lun“ is divided in three parts; the first (*shang*) was completed on July 4th, 1659; the second (*zhong*) has no date, while the third (*xia*) should date back to the first days of October 1660.⁴⁹

This essay is indeed the sharpest ideological attack on Christianity in Yang's production. It is not by chance that it more than once raised the reaction of the Christians.⁵⁰ Besides in the definitive version of *Budeyi* in 1665, the "Pixie lun" had already been included in Yang's *Ju Xi ji* (Collection for repelling the West, 1662–1664[?]),⁵¹ and in the *Shixin lu* (Records of Shixin, 1660), now lost.⁵²

⁴⁷ BDY, p. 1249; translated in George Wong, "China's Opposition to Western Science during Late Ming and Early Ch'ing," in: *Isis* 54 (1963) 175, p. 34.

⁴⁸ "Pixie lun," in: BDY, pp. 1103–1134. Hereafter abbreviated as PXL.

⁴⁹ This date was found by Huang Yilong in Yang's *Ju Xi ji* (Collection for Repelling the West, between 1662 and 1664), a work considered lost; see Huang Yilong, "Yang Guangxian zhushu lunlue," *op. cit.*, p. 5.

⁵⁰ On the works written by missionaries and converts during the "Calendar Controversy," see Huang Yilong, "Kangxi chao sheji 'Liyu' de Tianzhujiao zhongwen zhushu kao," pp. 12–27. Among the most important works are Ludovico Buglio's *Budeyi bian* (Criticism to 'I have no alternative'), published in 1665 and reproduced in: *TZJDCWX*, pp. 225–332. Buglio's *Budeyi bian* was devoted to counter the religious and philosophical contents in Yang's collection, in particular his essay "Pixie lun" and the "Criticism to three images of the heterodox religion" (n.d.), "Plaint against heterodox teachings" (1664), and "Letter to the censor Xu Zhijian" (1664). See Young, pp. 97–108. Another important apologetical book was Ferdinand Verbiest's *Lifa budeyi bian*, reproduced in: *TZJDCWX*, pp. 333–463. It was published by Ferdinand Verbiest after 1670, and refuted the astronomical objections contained in Yang Guangxian's *Budeyi*. It includes an explanation of the notorious sentence "according to the new Western method," a criticism to the "Ten Errors" raised by Yang Guangxian and to other of his astronomical writings, in all 23 parts. Some years later (1672), the convert He Shizhen wrote the *Chongzheng bibian* (A due criticism [to safeguard] the Venerable Truth), with a preface by Buglio. In this book are listed 54 "errors" contained in Yang Guangxian's works, and described in detail the circumstances of Yang's death, owing to a fit of "subcutaneous ulcers" in Dezhou, Shandong. See Pfister, p. 241; Xu, pp. 237–238; Huang Yilong, "Kangxi chao sheji 'Liyu' de Tianzhujiao zhongwen zhushu kao," *op. cit.*, p. 19 and "Yang Guangxian jiashi yu shengping kao," *op. cit.*, p. 20.

⁵¹ See Huang Yilong, "Yang Guangxian zhushu lunlue," *op. cit.*, p. 6.

⁵² *Ibid.*, p. 14, and BDY, pp. 1181–1186.

The three parts are of different length and they are different in content and source of inspiration, too. The first part (about 3,200 characters) is a summary of some of the contents of the Catholic doctrine (God's attributes; the creation; heaven and hell; the incarnation); a criticism follows, backed by quotations from the Classics, and aimed mainly at demonstrating the formal contradictions of the evangelical tale. The history of the Passion is then given, followed by the charge of Christ being nothing less than a criminal, rightly sentenced for the crime of revolt against the State; next comes a criticism of Christian books; finally, the converts are set up against a series of exemplary figures of the Chinese tradition of opposition to heterodoxy, in particular Mencius. The book from which most of Yang's information for this part of the essay had been taken was Schall's *Jincheng shuxiang*.

In the second part (about 1,400 characters), the debate turns more specifically philosophical. Yang denies the identity proposed by Ricci between *Tian* (Heaven) and *Shangdi* (Sovereign on High), recalling the theories of the *Yijing* developed by Cheng Yi and Zhu Xi about the origin of the universe, and ridicules Christ's presumed "merits." As for the Christian doctrines about God, the main source is Ricci's *Tianzhu shiyi*.

Finally, in the third part (about 1,050 characters), the targets are Ricci's work, the spread of Christianity and the internal organization of the Catholic Church in China (which Yang considered to be similar to the Chinese secret societies of White Lotus or *Wu wei*, ready to revolt), as well as the Western presence on the Southern coast and Western astronomy.

Johann Adam Schall in the "Pixie lun"

The ideological implications of this work have already been studied.⁵³ Here I will limit myself to tracing the references to Schall's religious activities and Yang's charges of a political and personal nature against Schall.

Yang introduced himself at the beginning of the first part as the true disciple of the sages, particularly Mencius': just as the master had opposed Yangzhu and Mozi, so Yang wanted to fight against the Christians' heterodox doctrines (*yiduan*). He then started to describe the creation of the world and of the ancestors of mankind, Adam (*Yadang*) and Eve (*Ewa*), by the Lord of Heaven (*Tianzhu*). These notions, as well as those concerning *Shangdi* and *Tian*'s identities, which were to be confuted in the second part, came from Ricci's *Tianzhu shiyi*, and probably also from treatises on

⁵³ See Gernet and Young.

the origins of the world such as Giulio Alenis' *Wanwu zhenyuan* (The true origin of the world, 1623) and Schall's *Zhujiao yuanqi* (The origins of the Religion of the Lord, 1643).⁵⁴ In the introduction of his *Budeyi bian* (Criticism to 'I have no alternative', 1665), Ludovico Buglio suggested to the readers these same texts for further investigation on the Christian doctrines.

Yang revealed that the tale of the episodes of Christ's life came from *Jincheng shuxiang*. He described the intrigues of the Synedrion presided over by Caifas (*Gaifa*), Jesus' triumphant entry in Jerusalem acclaimed by the crowd and his subsequent arrest in the Garden of Gethsemane during the prayer. He then dealt with the Passion, describing the humiliations which Jesus received from the Roman soldiers (the mantle, the crown of thorns and the sceptre), the trial in front of Pilate (*Bila*) and, finally, the Crucifixion. This is how Yang concluded his tale:

We Chinese have never been able to verify the truth of these facts, nor the orthodoxy of their doctrines: yet the number of those who believe and are converted is growing and growing! ... His followers are very careful not to define all the facts [of the Passion] as proof of an attempt of revolt, although they make themselves a list of them in the *Jincheng shuxiang*!⁵⁵

Yang was particularly struck by the scandal of Crucifixion, and he talked about Ricci's "betrayal":

In his books, Ricci had merely said that Jesus' merits lay in saving the world through his Resurrection and his ascent to Heaven, taking care not to mention the fact that he had been sentenced to death; this is how he was able to attract the officials of the empire, who have all been deceived. This is Ricci's great betrayal!⁵⁶

This charge of Yang's was not so different from the one moved by the Franciscans and the Dominicans against the Jesuits. As a matter of fact, Ricci had not mentioned the Crucifixion in the *Tianzhu shiyi*. In 1935 Fr. D'Elia published a manuscript of Ricci's dating back to the period between 1583 and 1586, in which he made an explicit reference to the Crucifixion.⁵⁷

⁵⁴ See Vāth, pp. 361-362. I refer to a copy in the Biblioteca Nazionale Centrale "Vittorio Emanuele II," 72.B.365.

⁵⁵ PXL, pp. 1114-1115.

⁵⁶ PXL, p. 1129.

⁵⁷ See Pasquale D'Elia, "Il domma cattolico integralmente presentato da Matteo Ricci ai letterati della Cina," in: *Civiltà Cattolica* 86 (1935)2, pp. 35-53; see also D'Elia's

Nevertheless, since it was mainly the *Tianzhu shiyi* that was spread among the cultivated classes, this work of Ricci's represented one of the few possibilities for non-Christians to learn something about Christianity. In the years following his death, Christian works containing clear references to Christ's passion and death on the Cross multiplied. In fact, talking about Schall, Yang had noticed:

Adam Schall, being inferior in knowledge to Ricci, revealed completely the truth concerning Jesus in his *Jincheng shuxiang*.⁵⁸

Yet the scandalous images in Schall's book had not been enough to awake the conscience of many men of letters:

There are also some gentlemen who are inspired by Jesus' teachings. They have read the *Jincheng shuxiang*, the catechism and the lectionary, and yet they have not even given a look to the still consistent number of works [of that religion].⁵⁹

The high social position of some converts, as well as the religious fervour of many Chinese Christians, made them suspect of being "cultural betrayers." The fact that they signed the introductions to the Jesuits' books or wrote apologetical Christian works themselves scandalized the literati. Yang did not hesitate to define Xu Guangqi "a heretical courtier,"⁶⁰ and also attacked the censor Xu Zhijian for writing the preface to *Tianxue chuan'gai*. Moreover, the support the missionaries had obtained at a high level made them even more suspect than the traditional heterodox sects, whose influence was usually restricted to the popular classes.

Since Shen Que's memorials in 1617, the charge against Westerners of threatening the safety of the empire had been regularly repeated in anti-Christian works. In the last part of his essay, Yang reiterated with a particular vehemence these charges, giving a list of places where Christian activities had been reported. According to Yang, thanks to their technical abilities and their assignments at the court, the missionaries had been able to gain a certain immunity which allowed them to move as they liked and without control around the empire; they had also been able to organize a network of conspirators, whose identification marks were the Cross and

translation of part of de Pantoja's *Pangzi yiquan*, "La passione di Gesù Cristo in un'opera cinese del 1608-1610," in: *AHSI* 22 (1953), pp. 276-307.

⁵⁸ PXL, pp. 1129-1130.

⁵⁹ PXL, p. 1118.

⁶⁰ *BDY*, p. 1076; see Fu Lo-shu, p. 35.

other holy objects, worthy of the Chinese secret religious sects. And the fact that there was economical support from abroad suggested that they were backed by Western powers, which had already conquered Luzon and had tried to expand to Japan. Macao was nothing but the fortified den of the foreigners, who were waiting for the internal revolt before acting. Here are Yang's words:

Schall asked for men belonging to that doctrine to come to China to reform the calendar, and under this pretext they have occupied Macao again. Their countries are 100,000 *li* away from China, and it takes ten years to come and go from there; but it takes them just three months. It is clear, then, that they are based in China, not in their countries! Nor is it known in which year, according to which ordinance and through which place these people have managed to get into China. If there are no residence permits, then they have violated the interdictions. ... The coasts are not safe yet, so controls must be strict and the court must issue precise rules: we must not accept a compromise with these outlaws, attracting misfortune in the future!⁶¹

Also Schall's sacerdotal and celibate state raised Yang's criticism. To the priesthood and celibacy of priests Ricci had dedicated a whole chapter of his *Tianzhu shiyi*.⁶² As a matter of fact, according to the Chinese, chastity meant going against nature and depriving oneself of offspring; this was what Confucianism abhorred most, because of the great value Chinese set

⁶¹ PXL, p. 1134.

⁶² In *Tianzhu shiyi*, the Chinese scholar asked the Western scholar: "What is the idea behind life-long chastity and the life-long forbidden marriage? It must be difficult to refrain completely from what is natural to living creatures. Love of life is the very foundation of the nature of the Sovereign on High. Can I cut off what has been handed down to me by my ancestors over hundreds and thousands of generations?" (*Tianzhu shiyi*, n. 527). Ricci answered that it was difficult to maintain celibacy and chastity but that priests were bound to it because "if a man bears both responsibilities [family and Church responsibilities], it is bound to result in the neglect [of certain of his duties] connected with the rites and ceremonies of worship. When a man serves his sovereign he must practice a certain ruthless self-denial; should not a man then deliberately curtail his passions when he enters the service of the Sovereign on High? ... Those concerned for the salvation of the world feel deep pity for the situation in the world today, and have therefore made chastity and celibacy rules of my humble Society. ... Is it not unfair that we few friends should be censured when, due to our work for the Sovereign on High, and so that we might conveniently travel throughout the world in order to transform all men, we have no time to concern ourselves with marriage?" (*Tianzhu shiyi*, n. 532, 534, 536). See Douglas Lancashire et al. (eds.), *T'ien-chu shih-i. The True Meaning of the Lord of Heaven* (St. Louis, Miss. 1985).

on the veneration of ancestors. To Yang, the fact that Schall maintained this state made him a homosexual. Moreover, Schall had gained advancement and, according to Yang, this went against the very rules of his religious order, which preached poverty;⁶³ if he didn't respect even the law of his country, how could one expect he would respect Chinese law?

According to the great rules of that religion, he who follows its precepts must not marry, nor can he gain advancements as an official. Well, Schall maintains celibacy and is therefore homosexual; then, if one takes into consideration the prohibition to gain advancements, one can see he has obtained the office of Commissioner of the Office of Transmission, getting, moreover, an appanage of second rank, with an advancement of two classes; and he also keeps his post in the Astronomical Office.⁶⁴ But then he does not respect the doctrine he says he believes in! If he does not respect the law of his country, he shall not respect those of the empire of great Qing for sure!⁶⁵

Yang's argument in the following years was to be grounded on astronomy rather than on philosophical ideas. In "Pixie lun" we find just a brief mention of it: the words "according to the Western method" found on the imperial calendar were but a sign of what the foreigners were plotting.⁶⁶ They wanted to take possession of China and had begun to declare their superiority starting from the calendar. Here are Yang's words:

In the Book of Odes we read: "When there is going to be a fall of snow, there is first the descent of sleet."⁶⁷ The words "according to the new Western method" are nothing else but this "sleet".⁶⁸

⁶³ Also from within the Company of Jesus and other religious orders, some criticisms had been raised against Schall and Verbiest because of their government appointments. See Vâth, pp. 267-294, particularly pp. 279-287; Dunne, p. 329.

⁶⁴ Schall was appointed to the post of Director of the Astronomical Office (*qintianjian jianzheng*), rank 5a, in 1644; Vice-Minister of the Court of the Imperial Study (*taipusi shaoqing*), rank 4a, in 1646; Chief Minister of the Court of Imperial Sacrifices (*taichangsi qing*), rank 3a, in 1651; Commissioner of the Office of Transmission (*tongzhengshi si*), rank 3a, in 1657; Grand Master for Splendid Happiness (*guanglu daifu*), rank 1a, in 1658. As a matter of fact, his advancement from Director of the Astronomical Office to Commissioner of the Office of Transmission raised Schall's post by 2 classes (*ji*).

⁶⁵ PXL, pp. 1132-1133.

⁶⁶ On Verbiest's rebuttal of this charge, see Bernard, "L'Encyclopédie astronomique," p. 477.

⁶⁷ *Shijing*, "Xiao Ya," in: Legge, vol. II, Part II, p. 391, Book VII, Ode IV, Stanza 3.

⁶⁸ PXL, p. 1133.

In Yang's opinion, the Westerners' attempt to conquer the empire would shortly follow the introduction of the new calendar.

The "Nie jing" (1662)

The essay "Nie jing" (Mirror of Evil) closes the second part of *Budeyi* and, together with "Pixie lun," is the longest of the collection.⁶⁹ It is the natural complement of "Pixie lun": while the former deals with philosophical, religious and political matters, the latter criticizes the astronomical and geographical notions introduced by the Westerners. The essay is dated January 20, 1662. The title refers to magical mirrors which allowed the disclosure of human sins. Yang explained:

The aim of "The Mirror of Evil" is to disclose the falsity of the new Western method. When men come to the world they commit any kind of sin and wickedness. Unfortunately, it happens that the officials who act according to the law are unjustly punished, while true criminals are considered disciples of the law. He who strongly opposes falsity is rarely found! Luckily, when one arrives in front of the infernal king Yanlo his sins are revealed. ... The roll of war drums does not spread everywhere in China yet. Xi and He's⁷⁰ deserted doctrines must be revived, and these doctrines, together with the Two Classics⁷¹ and Confucius' teachings, must be respected. In order to set our hopes on the support of the great gentlemen (*junzi*) of the world, we must hang this "Mirror of the Evil."⁷²

In the preface Yang also lamented the fact that nobody had the scientific knowledge to oppose the Westerners: "Not only those who do not know anything about the calendar believe them, but even those who are experts in the calendar and its principles do not dare not to believe their theories!" (NJ, p. 1195). He then proposed himself as the only one able to oppose efficaciously the Westerners (NJ, p. 1195):

As their teaching is spreading through China, I [have decided] to defend the great laws of the country using the calendar (*lifa*), to protect the teaching of the Sages with the principles of the calendar (*lili*): these principles are refused by that heterodox doctrine: how is it possible not

⁶⁹ "Nie jing," hereafter abbreviated as NJ, in: *BDY*, pp. 1193-1244.

⁷⁰ Two mythical astronomers, who were ordered by Emperor Yao to superintend astronomical activities. Here they represent Chinese traditional astronomy, as distinguished from Muslim and Western astronomy. See *SCC*, vol. 3, p. 188.

⁷¹ It refers to the "Yaodian" and "Shundian" sections of *Shujing*.

⁷² NJ, pp. 1193 and 1198.

to despair and cry? Is not defending the truth the great responsibility of Confucius' disciples? Then we must use the science of the calendar to face them; unfortunately, the men of letters who know it deeply are too few. ... In the ancient times everybody recognized Xi and He's authority, and this is why I wrote "Zhai miu shi lun." Yet, although I was in the van, at the end I have been left alone. There is nobody who dare exorcise this sort of diabolical possession using the science of calendar!

Finally, in the last part of his preface Yang complains that astronomy had become a widely studied subject, and that the court had asked the collaboration of several experts.⁷³ Those so-called experts were just ambitious people who wanted to gain advancement. However, their very incompetence had caused them to be removed from their offices, and because of that the Westerners and their methods had gained access to the Astronomical Office. A possible solution, according to Yang, was the limitation of the astronomical studies, following the example of the "enlightened ancestors" (NJ, p. 1196):

The astronomical observation of the stars and of the *qi* and the determination of good and bad auspices are enough to corrupt and upset the people's hearts. In ancient times, when the science of the calendar was forbidden, wise emperors and enlightened kings respected Heaven and administrated the people with rectitude: should not the science of the calendar be forbidden? If it were forbidden, the Examination Hall would emanate rules to prevent a great number of experts being employed. On the contrary, the Court has asked for several astronomers, who just go after fame.

As a matter of fact, at the beginning of the Qing dynasty there was a certain number of independent scientists in China who researched by themselves and maintained between them a relationship of reciprocal information; every now and then some of them were called to be part of the Imperial Astronomical Office.⁷⁴ Anyway, it was thanks to the favourable political climate of the regency, that Yang was allowed to replace Schall at the direction of the Astronomical Office.

⁷³ As Ho Peng-Yoke remarked, during the Ming dynasty "there was such a shortage of competent calendar-makers in the Astronomical Bureau that in the year 1611 the Ministry of Rites had to ask the emperor permission to make a country-wide search for calendar experts." See Ho Peng-Yoke, "The Astronomical Bureau in Ming China," in: *Journal of Asian History* 3 (1969) 2, p. 148.

⁷⁴ See Jonathan Porter, "Bureaucracy and Science in Early Modern China: The Imperial Astronomical Bureau in the Ch'ing Period," in: *Journal of Oriental Studies* 18 (1980), 1-2, p. 63.

In the central part of the essay we find a more detailed explanation of Yang's objections and theories. The essay was conceived as a debate: to every "evil" (*nie*) corresponded the real image reflected in the "mirror" (*jing*); that is, to each error of Schall's corresponded Yang's confutation and the exposition of the true doctrine. The essay opens with a long preface (*yin*), and it is followed by an addition ("Jing yu," Addition to the Mirror): this probably means that the "Nie jing" had been originally diffused separately as a booklet.⁷⁵

Yang's first criticism concerned the "World Map printed by Schall." Yang talked about a map on twelve sheets whose title was *Yudi tugong* (World Map). He might have meant Ricci's "Map of the World" which Schall had edited in 1628.⁷⁶ But, since it is reported that this edition was in eight sheets, and Pasquale D'Elia refuses to believe in the existence of a map of Ricci's in twelve sheets,⁷⁷ we do not know which edition Yang is referring to. After describing the "twelve sheets," each 30 degrees wide, and quoting the most important toponyms in each sheet, Yang noticed that "the western and eastern ends of Brazil [at the two extremes of the sheet] met." On the first sheet of Ricci's map was written:

⁷⁵ This is also Huang Yilong's hypothesis; see "Yang Guangxian zhushu lunlue," *op. cit.*, p. 6.

⁷⁶ See Vâth, p. 370; Minako Debergh, "La carte du monde du P. Matteo Ricci (1602) et sa version coréenne (1708) conservé à Osaka," in: *Journal Asiatique* 274 (1986), pp. 417-454. Debergh translated the preface of the Korean World Map of 1708. According to it, Schall's map consisted of eight sheets: "En la première année de l'ère Tch'on Tch'eng [Chongzhen, 1628], sous la dynastie des Ming, un Occidental nommé T'ang Yak-mang [Tang Ruowang] fit une carte céleste et terrestre sur huit feuilles. Cette carte fut imprimée et montée sur paravent, puis introduite au pays de l'Est (Corée)" (pp. 434-436). Debergh concludes: "L'original de l'oeuvre du P. Schall qui constitue ce chaînon post-riccien n'a pas encore pu être retrouvé. Mais, grâce à la copie coréenne d'Osaka, et aux allusions textuelles, nous pouvons reconstituer la carte du P. Schall" (p. 447).

⁷⁷ See *Mappamondo*, p. 95. On p. 103, note 2, d'Elia categorically denies the existence of Schall's 1628 World Map, reprinted in Korea in 1708. He concludes: "... no one ever thought to consider Schall the author of any World Map, and ... in 1628 he certainly was not in Peking, since in the summer or autumn of 1627 he went to Sian, where he remained till the second half of 1630. There, he was busy with apostolate, not with scientific work." But see also M. Debergh, *op. cit.*, pp. 434 and 438. An hypothesis could be the following: twelve wooden matrixes had been used to print the six sheets of the widespread 1602 edition of Ricci's map; the edges of the twelve parts did not fit properly, and Yang might have been under the impression that there were twelve squares.

The earth and the sea are, to tell the truth, round in shape, and together they make a globe, placed in the centre of the heavenly globe, just as the yolk is in the egg white. When somebody says the earth is square in shape, they just mean its fixity and stillness, not its shape.⁷⁸

In his answer Yang attacked the theory of the spherical shape of the earth:

If it is so, then the four continents, all the nations, the rivers and the mountains are but a big sphere. ... Then, the inhabitants of the higher hemisphere stand opposite to the inhabitants of the lower hemisphere. They have indeed a confused theory about heaven, and they want to confuse also the vision of the earth. ... Man has his head toward heaven, and his feet rest on the earth: I have never heard of somebody standing perpendicularly to the earth or upside down. Only snails can move perpendicular to a wall, and only flies can rest upside down. Man, birds, terrestrial animals, and fish cannot. ... If you took a building, for instance, and I stood on the ceiling, and in the meanwhile Schall were able to stand upside down under the ceiling, only then I would believe in the existence of the antipodes!⁷⁹

Since the earth, according to the Chinese cosmological theory, floats on water, Yang could not understand how a spherical earth could keep water on its surface:

The water which is at the end of the earth has got a flat surface. This is the nature of water: it runs on an inclined plane, it stands still on a straight plane and overflows when it fills [a container].⁸⁰ If the earth were spherical, therefore, the water of the world would pour down. Schall should be asked if among the strange phenomena of his doctrine there is spherical water, or water which adheres to walls, or floating on high without pouring down. ... If there are countries immersed in the water in the lower hemisphere, then the Westerners are fish, and Schall is not a human being!⁸¹

The Westerners' strategy was to present themselves as defenders of orthodoxy, while they were actually preparing the ruin of the traditional sciences (NJ, p. 1204):

We Chinese understand their falsities and oppose them. He who wishes to fight them must act on the same ground and test their lies. At the be-

⁷⁸ Italian translation in: *Mappamondo*, Tables III-IV.

⁷⁹ NJ, pp. 1200-1202. Also quoted by Jacques Gernet, "Chinese and Christian Visions of the World," in: *Chinese Science* 4 (1980), p. 12.

⁸⁰ Reference to *Mengzi*, 6A/2.

⁸¹ NJ, pp. 1203-1204.

ginning we thought to rule them without [a tight] control. But they plan to arrive gradually to the ruin of Xi and He's doctrines, writing books without foundation and deceiving everybody. In order to lead the next generations into mistake, they cannot but declare themselves orthodox: they proclaim themselves defenders of *dao* and of orthodoxy, and talk about the virtues of Heaven and Earth.

Yang then expounded the classic cosmological theory of the Chinese (NJ, pp. 1206 and 1208-1209):

Schall does not know that one of the [two] *qi* of Heaven, emerging from chaos, took the shape of two fitting bowls. Above is a vacuum, below is the water, and in the middle of the water dry land. ... Schall is unaware of all that, and says that the earth is similar to a sphere.

Schall's second affront to the tradition was the wrong position China had in his map (NJ, p. 1209):

In observing the map, the Chinese can just admire the precision of the division in degrees and palaces. But they have not taken the trouble to control the position of their own country in the map. The Chinese yearn to know where other people live, just as they would yearn after a precious jade disc to keep in the Audiences' Hall! Perhaps they don't realize that Schall the outlaw secretly laughs at them?

The map was divided in twelve "palaces" (*gong*), corresponding to the twelve Earthly Branches. Schall's fault had been to put the West in the Wu Palace (Wu *gong*), corresponding to the South, the emblem *qian* and the force *yang*: this series was characteristic of the lord (*junzi*). China was, on the contrary, in the Chou Palace (Chou *gong*), corresponding to the North, the emblem *kun* and the force *yin*: this second series was characteristic of the subject (*chen*). It was clear, therefore, that Schall considered his country *jun* and China *chen*. The people, confused by these notions, would not know any longer who was ruling them. Yang concluded like this (NJ, pp. 1211-1212):

The Christians wish the Heaven, supreme Lord of the universe, were just a subject of Jesus; they wish they dominated over all the other countries, placing themselves on high and everybody else down. ... Moreover, with the words "according to the new Western method" they clearly affirm they want China to adopt the Western calendar. In order to protect the people, Schall's followers should be put to death: this is the best protection!

Also the terrestrial and heavenly measures given by Schall were not correct: if, as Schall maintained, each degree of the vault of heaven corre-

sponded to 250 *li* on the terrestrial surface, then, according to the Western map, China was about 40,000 *li* away from the West. This contradicted what the missionaries themselves had said about the length of their journey, i.e., 80,000 *li*: was their aim just to evade Chinese custom law, or perhaps the equivalence 1 degree/250 *li* was completely arbitrary?

Moreover, basing himself upon Schall's map of stars published at the end of the Ming dynasty by Xu Guangqi, *Jianjie zongxingtu* (General map of the Visible Stars),⁸² Yang had noticed how some of the *xiu*, the 28 partitions of the sky in Chinese astronomy, had been moved by some degrees with regard to the traditional maps. This caused them to trespass into other *xiu*, where they did not belong, so that the stars and the twelve animals of the Chinese zodiac (*shengxiao*) did not match any more;⁸³ the consequences of this fact would be catastrophic for China as well as for all the tributary countries, which adopted the Chinese calendar. Yang also gave a concordance diagram between the positions of the *xiu*, as regards the Ecliptic and the Celestial Equator, according to the Western method and to the traditional method *datong*, introduced by Guo Shoujing.

It also happened that the two neighbouring *xiu*, *zi* and *shen* had their determinative stars changed by Schall, and this caused their interverson.⁸⁴ Yang must have ignored the fact that the position of constellations varied in time owing to the precession of equinoxes.⁸⁵ Anyway, this intervention also caused serious consequences on the astrological setting.

Yang then charged the Westerners of plagiarizing the Muslims' theories and methods of calculation (NJ, pp. 1227-1229):

Matteo Ricci is said to be the beginner of the new method. He bought the Muslim Department (*Huihuike*) with a large sum of money. ... The old officials of the Chinese department have not taught their old methods for 17 years now. The Chinese doctrine is in ruin, and only Muslim doc-

⁸² This map was a sheet of 0.64 m. x 1.28 m., with an internal diameter of 0.54 m. It has been noted that "given the small space available ... it was evident that ... [it] could not represent the true aspect of the heavens with sufficient clarity." See Pasquale d'Elia, "The Double Stellar Hemisphere of Johann Schall von Bell S.J. (Peking 1634)," in: *Monumenta Serica* 18 (1959), p. 338.

⁸³ See SCC, vol. 3, pp. 258-259, in particular note "a." On the twelvefold series, see *ibid.*, p. 404.

⁸⁴ See Huang Yilong, "Qing qianqi dui zi, shen liang xiu xianhou cixu de zhengzhi," pp. 71-94; SCC, vol. 3, p. 251; Leopold De Saussure, *Les origines de l'astronomie chinoise* (Paris 1930), pp. 142-148.

⁸⁵ See Huang Yilong, "Qing qianqi dui zi, shen liang xiu xianhou cixu de zhengzhi," p. 86.

trine still holds on. Schall wants both schools to be completely destroyed. After that, the New Method will be the only one to be spread everywhere in China. The doctrine he is most envious of is the Muslim one. In the Muslim method each degree is divided in 60 minutes, and each minute in 60 seconds. ... So, the Western and Muslim methods are equivalent. The Westerners fear the sages will find out the weakness of their 'purchased' knowledge. They want to destroy [the Muslims], just like a cruel concubine who takes the place of the legitimate wife in order to enter the women's apartment alone.

In the final part of his essay, Yang charged the high government officials with protecting and helping the Westerners against the Chinese and Muslim astronomers. The abolition of concurrent astronomical departments had allowed the Western Office (*Xiju*) to obtain the monopoly of astronomical knowledge, and to avoid the comparison of astronomical data between the different schools, which had always been a characteristic of the Astronomical Office. People like Xu Guangqi, Li Zhizao, and Li Tianjing had therefore acted the role of "puppeteers" as regards Schall and the Christians of the Office (NJ, p. 1238):

A well-handled puppet seems to have a soul, and everybody thinks it is a miracle; on the contrary, a puppet without strings looks like a corpse, and everybody thinks of it as a failure. This is why the New Method is considered a success, while the two departments [Chinese and Muslim] are considered a failure!

Two years later, mainly because of the arguments of a divinatory character contained in the "Xuanze yi," Yang would succeed in charging Schall and his collaborators. After adopting the *Datongli* and *Huihuili* methods of astronomical calculation one after the other, with the collaboration of Wu Mingxuan, Yang also tried to renew the ancient and already abandoned theory of "Watching for the Ethers." This choice of Yang's of adopting a method of forecast of the *qi* (the 12 months of the tropical years)⁸⁶ already considered inadequate before the Jesuit's arrival, is very significant in understanding the spirit which had pushed him since the beginning, and which was characterized by his prejudicial opposition to Western doctrines and by his respect for tradition and ancestral precedents.

⁸⁶ The 12 months of the tropical year (*qi*) were divided into 24 fortnights, of which 12 were "*qi*-centres" and 12 were "*qi*-nodes" (*jieqi*). See SCC, p. 404.

Contrary to what was thought,⁸⁷ the practice of observing the *qi* through pitchpipes filled with ashes, known as *houqi*, did not end with the Ming dynasty,⁸⁸ but was revived by Yang Guangxian at the beginning of the Qing dynasty. In the preface of "Nie jing" (NJ, p. 1194), Yang had already made a hint to his wish to renew the *houqi* method. Even more explicitly, in the famous memorial where he charged Schall with "ten astronomical mistakes" ("Zhai miu shi lun"), he complained that the observation of ashes for the determination of *qi* had been given up; in his opinion this was a complementary method which consented to make the time measured by clepsydras and the cycles of the Heaven and the Earth agree (*BDY*, pp. 1169-1170). We do not know precisely if Yang was able to realize concretely a chamber for the observation of the *qi*: in the *Qingshigao* two extracts from Yang's memorials of 1666 and 1668 are quoted,⁸⁹ where he explicitly asks for research of experts of the *houqi* method to be carried out on a national scale:

In the spring of [Kangxi's] 5th year [1666], Guangxian sent a memorial which said: "The *houqi* method has not been transmitted for a long time, and the *zhongqi* of the twelve lunar months do not correspond." This is why I ask the court for the authorization to gather scientists expert in calculation, so that they can work together on making devices for the measurement of *qi*; and I ask the Court to order the Ministry of Rites to provide bamboo from the mount Jinmen of Yiyang,⁹⁰ black millet from the mount Yangtuo of Shangdang,⁹¹ and pith of reeds from Henei⁹²."

⁸⁷ See Derk Bodde, "The Chinese Cosmic Magic known as Watching for the Ethers," in: *Studia Serica Bernhard Karlgren Dedicata* (Copenhagen 1959), pp. 14-35.

⁸⁸ See Bodde, *ibid.*, pp. 32-34, where two failed attempts to re-establish the *houqi* system at the end of the Ming dynasty are reported, in 1539 and in 1581-1582, respectively.

⁸⁹ *Qingshigao*, juan 272, liejuan 59, biography of Yang Guangxian (Zhonghua shuju ed., vol. 33, p. 10023).

⁹⁰ A mountain in the south-western part of Henan province, near Luoyang, famous for its bamboo which is suitable for making pitchpipes. Because of this it was known as the "Mountain of the Pitchpipes" (*Lüguan shan*). See Zang Lihe (ed.), *Zhongguo gujin diming da cidian*, p. 542.

⁹¹ According to the district records of Lu'an (*Lu'an fuzhi*), a district corresponding to the present-day Changzi district, in the province of Shanxi, the mountain was well known for the production of black millet. During the reign of Jiajing of the Ming dynasty (1521-1566), this black millet was used to regulate the pitch of the pitchpipes. Shangdang is the ancient name of the region. See Zang Lihe (ed.), *Zhongguo gujin diming da cidian*, pp. 47, 338, 1176.

⁹² Corresponding to present-day Qingyang, in northern Henan, north of Luoyang. See Zang Lihe (ed.), *Zhongguo gujin diming da cidian*, p. 513.

Two years after the first request, in 1668, Yang sent a second memorial (*Qingshigao*, p. 10023):

In [Kangxi's] seventh year Guangxian sent another memorial: "The measure of pitchpipes is reported in *Shiji*, but how to use them has not been handed down. The search for people able to use the *houqi* method has been unsuccessful so far. I am ill, and I am not in a position to understand the principles [of the method]." In his answer, the Ministry of Rites asserted that Guangxian, as Director of the Astronomical Office, was not allowed to invent an excuse, and he ordered again a search for experts of the *houqi* method.

Ferdinand Verbiest testifies in his memorial of August 16th, 1669 (20th day of the 7th month of the 8th year of Kangxi), that the Ministry accepted Yang's request, but that he did not succeed. Verbiest wrote:

The Ministry of Rites decided that the bamboo, the pith of reeds and the black millet had to be provided to Yang from the places he had indicated. But the *qi* have been observed for two years, without results. Actually, he does not know the *houqi* method, and he presented his memorials improperly, and state funds have been spent uselessly.⁹³

In the same year Ferdinand Verbiest succeeded in demonstrating Yang and Wu's incompetence, and the young emperor Kangxi ordered Yang to go back to his native place.

Conclusion

From this short survey of Yang's work a few facts are apparent.

First, since the beginning (1659), Yang had made a clear distinction between the missionaries' religious doctrines and their scientific knowledge. In the "Pixie lun" and in the "Criticism of three images of the heterodox religion," he analysed religious works of Ricci (*Tianzhu shiyi*) and Schall (*Jincheng shuxiang*) in order to identify elements of incompatibility between Christian and Chinese thought (particularly the *vexata quaestio* of the identity between *Shangdi* and *Tianzhu*), and then aimed at horrifying Chinese readers with the description of Christ's passion and death. This disgraceful death had of course political implications: like their master, the Christians were rebels ready to revolt and to support an invasion from the Western powers. In the meanwhile, Yang started criticizing the Western astronomical innovations, mainly when they upset the most traditional cosmological beliefs (for instance, about the spherical shape of

⁹³ See pp. 122-123 of the collection *Xichao ding'an*, in: *TZJDCWX*, pp. 71-225.

the earth), or when they produced changes in the traditional astrological framework. Again, scientific concerns were not parted from political implications (the role of China and the Qing dynasty's prestige), and Yang was defending the most ancient astronomical notions, particularly those of the "Yaodian" as well as the astrological beliefs that had been consolidated in time and were then predominant.⁹⁴ In Yang's opinion, subverting this tradition meant subverting society and the Confucian foundations it rested on, with important social consequences. The success of Yang's attack from an astronomical point of view outshone the interest in the religious side of the argument; in my opinion, it did not happen because Yang was less interested in the philosophical and religious side, but because it was the astronomical, astrological, and divinatory field which actually gave him an unexpected success.⁹⁵ As a matter of fact, only the ideological contents of "Pixie lun" survived in the anti-Christian movement of the 19th century. In his colophon to *Budeyi* of 1799, the scholar and lexicographer Qian Daxin wrote (*BDY*, p. 1300):

Mr. Yang was not an expert of calculation, nor was he sufficiently helped; therefore, in the end, he had to give up. However, he denounced Jesus' heterodox religion and prevented its diffusion, and this cannot be defined but meritorious for the renowned doctrines. In the judgement of posterity, then, Yang's merit lay more in his opposition to Christianity than in his opposition to Western science.⁹⁶

Secondly, a certain contempt for Schall is apparent in Yang's work. He judged him inferior to Ricci in discernment for disclosing the "secret" of Crucifixion: then, he had violated the rules of his own order accepting public offices, and he was not a "real man" inasmuch as he did not have children and was celibate. As far as astronomy was concerned, his criticism was founded on arguments of a scientific character but were also directed against Schall himself, against whom he used not very flattering epithets, although relatively mild if compared to the obscene invectives of most of the anti-Christian propaganda of the 19th century. However, the attack was not personally directed against Schall, but rather against the

⁹⁴ See Huang Yilong, "Yesuishi dui Zhongguo chuantong xingzhan shushu de tai-du," pp. 5-23.

⁹⁵ See Huang Yilong, "Selections of Auspicious Dates . . .," *op. cit.*, p. 265.

⁹⁶ A rare praise of Yang's denial of the spherical shape of the earth was advanced by Jiao Tinghu, son of the famous philosopher and classicist Jiao Xu. See John Henderson, "Ch'ing Scholars' Views of Western Astronomy," in: *HJAS* 46 (1986) 1, p. 139.

position he held, which allowed the Chinese Christian community to flourish and the missionaries to travel freely. Attacking him meant attacking the whole Church of China as well as the Company of Jesus. Such a violent offensive was motivated by his almost obsessive respect for Confucian tradition, not by professional jealousy. The above mentioned adoption of the obsolete *houqi* method also bears witness to his traditionalism.⁹⁷

Yang was in a position to understand the difference between the religious and scientific aspects of Christianity, and he considered the Heavenly Doctrine equally dangerous in both of these aspects. The rising hostility against Schall at the court, fomented by the Muslim astronomers and by the Manchu officials fallen into disgrace because of the case of the selection of auspicious dates, found a favourable ground in the political climate of suspect of Oboi's regency, as well as in the Manchu shamanic religious background; and it brought Yang's anti-Jesuit party to victory. However, the dismissal of the Western astronomers did not represent for Yang a goal in itself, but it was just a step towards the final banishment of the missionaries' cultural, religious, and scientific influence in China.

⁹⁷ In January 1669, Yang sent a memorial to the throne, trying his last defence of Chinese astronomical and cultural tradition: "Your subject humbly thinks that the principles of observation of the stars and of calculation of time is the hereditary method of Yao and Shun. Since the throne Your Majesty holds is the throne inherited from Yao and Shun, and the authority Your Majesty enjoys is the authority handed down from Yao and Shun, then the calendar promulgated by Your Majesty should be that of Yao and Shun. Everything that Your Majesty decrees is in accordance with Yao and Shun, why to behave differently for the calculation of time? Verbiest believes in the teachings of the Lord of Heaven: is it possible to follow at the same time the doctrine of Yao and Shun and those of the Lord of Heaven? Verbiest wants to destroy the astronomical instruments of Yao and Shun, replacing them with European instruments. ... If the instruments of Yao and Shun are to be destroyed, then also the Book of Odes, the Book of Documents, the Classic of Rites and of Music, all our literary heritage, the laws and the institutions established after the epoch of Yao and Shun are to be destroyed!" See Huang Bolu, *Zhengjiao fengbao*, vol. 1, pp. 46a-b; translated in Serafin Couvreur, *Choix de Documents* (Hokien-fu 1894), p. 85; Wong, *op. cit.*, p. 34.

杨光先反对汤若望：《不得已》内的基督教与西方科学

1659年夏天一个名叫杨光先的江南人开始尖刻地攻击汤若望，那时已67岁的汤若望任钦天监监正。杨光先自幼是一个相当独断的人。1659年他在北京出版的“辟邪论”——一篇很有名的文章。这篇文章对于反基督信仰的知识分子无疑有很大的吸引力，也影响了十九世纪的敌视西方的学术著作的思潮。

该文章的目的是借新儒家哲学，揭露基督信仰的缺点，同时明确地指出中国与基督教世界之间在意识形态的和争持和争论。

杨光先的所有著作1664年被收集在《不得已》一书中，其中的孽镜篇最详细地描述了杨光先对西方科学的态度。按照他的看法，由传教士引入的新天文学是试图推翻自尧舜以来的传统。杨光先反对地圆说，支持中国的传统历法。

至今我们不能确定杨光先攻击汤若望的动机是出于个人还是出于世界观的不同。