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Stabilizing the Empire: Western Calendric Astronomy as Statecraft during the Kangxi Reign, 1667-1720

Xiaoqiao Xu, University of Connecticut

Introduction

When Michele Ruggieri (1543–1607)¹ and Matteo Ricci (1552–1610)² began preaching during the Ming dynasty (1368–1644)³ in Zhaoqing⁴, China in 1583, they kindled an exchange of knowledge between the Chinese literati and the Jesuits that continued into the Qing dynasty (1644–1911).⁵ Due to Emperor Kangxi’s (reign 1667–1722) engagement in this exchange, the traditional Chinese calendar was recalculated using Western scientific methods and became firmly established in 1669. The new calendar was called the “Temporal Model Calendar” (*Shixian Li*).

The debate on the calendar’s reform can be traced back to the reign of Emperor Wanli (reign 1572–1620) (L. Li 82). Subsequently, Emperor Chongzhen (reign 1627–1644) approved a proposal to reform the calendar with the support of both the Jesuits and the late Ming literati. That proposal ultimately failed to be implemented due to the collapse of the Ming dynasty in 1644. In the aftermath of that collapse, the calendar continued to be an issue of concern for the Qing dynasty. As early as 1645, Emperor Shunzhi (reign 1644–1661) had

¹ Michele Ruggieri was an Italian Jesuit who arrived in the Portuguese-controlled colony of Macao in 1579. Ruggieri played a key role in the early Jesuit mission to China.

² Matteo Ricci was another Italian Jesuit pioneer who arrived in Macao in 1582. Ricci spent his life preaching to the Chinese and introducing the West to the works of the Ming literati.

³ The Ming dynasty was the last to be ruled by the Han people.

⁴ Zhaoqing was a prefecture of the Guangdong province during the Ming dynasty and is a city in the Guangdong province of modern-day China.

⁵ The Qing dynasty was the first and last dynasty to be ruled by the Manchu people in Chinese history.

approved Johann Adam Schall von Bell's (1591–1666)⁶ westernized calendar, which was originally called *Mathematical Astronomy of the Chongzhen Reign* but was later amended to include the words “in accordance with new Western methods” (Elman 144). Although the new calendar remained in effect throughout Shunzhi's reign, its use was classified as heterodoxy several times by the Han intellectual Yang Guangxian (1597–1669), who claimed the new calendar prioritized so-called barbarian methods over those of the ancient Chinese sages. This argument, although not taken seriously by Emperor Shunzhi, received closer attention during the period of the four regents (1661–1667)⁷ in the early years of Kangxi's reign. As a result of the renewed controversy over the reform of the calendar, Schall was placed under house arrest while his detractor, Yang, began to preside over the Astro-Calendaric Bureau. It was not until Emperor Kangxi assumed power that the matter was redressed.

Over the years, the Calendar Case, as it came to be known, has received extensive worldwide scholarly attention. Previous scholars such as Joseph Needham (1900–1995) have regarded the Calendar Case as a component of the larger question as to why China was surpassed by the West in science and technology despite China's earlier successes. Recent scholars, however, tend to recognize more agency within China itself, which allows for more China-centric historical narratives to unfold. Catherine Jami, for instance, criticizes previous scholarship for observing a solely Christian narrative that often focuses too much on the Jesuit perspective. Instead, Jami contends that there are many reasons why Emperor Kangxi

⁶ Johann Adam Schall von Bell was a German Jesuit missionary who entered China in 1622. Schall gained Emperor Shunzhi's trust and worked at the Astro-Calendaric Bureau until he was involved in a power struggle with local calendaric ministers.

⁷ The four regents included Sonin (1601-1667), Ebilun (?-1673), Suksaha (?-1667), and Oboi (?-1669).

adopted the westernized calendar, and scholars should be aware of a more complex Qing China (476). Other scholars have concluded that the Calendar Case was incited by either a power struggle between court officials or disputes amongst them over orthodox ideology. For example, Ma Weihua regarded the controversy as a continuation of an earlier dispute between the Manchu and Han officials in 1652. In that dispute, Schall had sided with Han officials on how the Shunzhi Emperor should treat the fifth Dalai Lama (1617–1682) (109). Litan Swen linked the issue to the Oboi regency, contending that Ferdinand Verbiest (1623-1688)⁸ was a critical figure inside Kangxi's power group during the power transition from the four regents to Kangxi himself (87). Alternatively, Huang Yinong claimed that the Calendar Case was embedded in a controversy over Chinese rituals in which the time and place for the burial of Prince Rong had been miscalculated (248). Still others, such as Zhang Qi and Guo Shirong, recognized the orthodoxy issue in Yang Guangxian's argument (68).

This paper attempts to find alternative explanations for Kangxi's decision to adopt a westernized calendar during 1667–1720.⁹ I argue that we need to investigate Kangxi's motivations for engaging with the Calendar Case rather than simply relating details of its historical unfolding. I contend that Kangxi regarded the reform of the calendar as statecraft to stabilize his rule through two aspects: agriculture and cosmological significance. A more accurate calendar could improve agricultural production and enhance the legitimacy of the

⁸ Ferdinand Verbiest was a Flemish Jesuit missionary who entered China in 1659. Verbiest mostly took over Schall's work and worked at the Astro-Calendaric Bureau. He had a close relationship with Emperor Kangxi, which was regarded as the Manchu master-slave relationship by Swen (92).

⁹ Although the Emperor Kangxi began his rule in 1661, it was not until 1667 that he assumed control of the government. Prior to that, the four regents held the reins of power. This paper focuses on the period between 1667 and 1720 since it was during those years that Kangxi actively engaged with Western knowledge.

Qing dynasty, which was ruled by an ethnic minority. The calendar had the potential to position the Qing emperor as a being of celestial origin and thus underscore his legitimacy with a mandate from heaven. This paper will first discuss Kangxi's use of Western calendric astronomy in reforming the calendar. It will then establish how the calendar is linked to the concept of cosmological significance. Lastly, it will demonstrate how Kangxi changed his attitude toward a westernized calendar after searching unsuccessfully for a local alternative. The switch in Kangxi's attitude demonstrates that his adoption of the westernized calendar was for practical reasons—to boost agricultural production, to establish himself as the foremost sage of the era, and to stabilize the Qing empire. With both English and Chinese secondary sources, this paper attempts to incorporate overlooked context from Chinese primary texts, which may provide a more comprehensive picture of the Calendar Case.

A Boost for Agricultural Production

1. The Significance of Agriculture

Historically an agrarian society, Chinese rulers have traditionally paid close attention to agricultural production. For example, Guan Zhong (c.723–645 B.C.E), also known as Kuan Chung, admonished Duke Huan (?–643 B.C.E) of Qi State (1122–221 B.C.E)¹⁰ to encourage the peasantry to undertake agricultural production by stating that “when people serve in agriculture, fields will be well cultivated. If fields are well cultivated, the grain will become plentiful. If the grain is plentiful, the state will prosper” (177). Since the peasantry historically determined a dynasty's rise and fall, their well-being was closely correlated to the

¹⁰ Qi State is now the northern part of Shandong province.

continued success of the ruler's reign.

Kangxi's situation was even more tenuous. As a newly established dynasty ruled by the ethnic minority Manchus, the Qing dynasty was unable to stabilize its empire during the first 23 years of its rule. The largest threat was the Southern Ming dynasty (1644–1683), which controlled the southern provinces in China proper, where Ming loyalists were resisting the Qing army. Such confrontations continually undermined the agricultural production in southern China, which was a vital rice-producing region. Meanwhile, natural disasters such as locust plagues and drought also threatened agricultural production.¹¹ When Kangxi assumed control of the government in 1667, he was confronted with an empire in domestic turmoil and a population facing starvation. In line with his belief in Cheng-Zhu Confucianism, Kangxi must have learned from Chinese history that agriculture was the foundation of an empire, and it was the ruler's responsibility to encourage agricultural production.¹² To consolidate Manchu power, Kangxi issued numerous tax-reduction measures aimed at pacifying the agrarian peasantry. He also paid close attention to land management, urging no waste of land.¹³ Furthermore, Kangxi held services in honor of the agricultural god, who is believed to be able to protect the populace from or relieve the potential harm caused by natural disasters such as drought, flood, and hail. According to *The Veritable Records of Emperor Kangxi (Shengzu ren huangdi shilu*, hereinafter referred to as

¹¹ See *Shilu*, volume 21.

¹² Kangxi worshipped Cheng-Zhu school especially, praising Zhu Xi for his discovery of a universal *li* in Confucianism (X. Liu 54). Such recognition was further enhanced by the imperial civil service examination.

¹³ *Ibid.*

shilu), Emperor Kangxi proceeded to the Temple of Heaven to pray for rain in lunar April

1671:

諭禮部、今已入夏、亢暘不雨、農事堪憂…朕心晝夜焦勞、不遑啟處。茲虔誠齋戒、躬詣天壇祭告、懇祈甘霖速降、以濟生民。上親詣天壇禱雨。雨。(vol. 35)

The Emperor ordered the Board of Rites since the long-lasting drought this summer has endangered agricultural production. His Majesty was concerned about this all day long and was unable to find peace of mind. To support his prayers for rain, His Majesty abstained from meat and wine and went to the Temple of Heaven in person. After His Majesty prayed for rain, rain arrived the next day. (my trans.; vol. 35)

Taken together, these arguments demonstrate that Emperor Kangxi attached immense importance to agricultural production. It is within this context that Kangxi decided to reform the calendar after Ferdinand Verbiest accused Wu Mingxuan (dates unknown), who was serving as the Vice Director of the Astro-Calendric Bureau at the time, of wrongly projecting the leap months and the Spring Equinox in 1668.

2. The Concern of Agriculture in the Calendar Case

The Calendar Case also depicts concerns about agriculture. In *shilu*, the first instance of this was when Schall wrongly projected the Beginning of Spring:

又康熙三年立春日候氣、先期起管。湯若望謊奏、候至其時、春氣已應。(vol. 14)

In the third year of Kangxi's reign, Schall removed the Houqi¹⁴ earlier than the actual Beginning of Spring. Schall subsequently lied to His Majesty by stating that the Beginning of Spring had arrived and his removing of the Houqi was correct. (my trans.; vol 14)

Schall's mistake could have had grave consequences since the Beginning of Spring served as an important guideline for the agrarian peasantry in determining when to plant their fields.

This influenced the four regents' response to Yang's criticism:

如此言之，并未核实立春时分者显见。每当具报节气，宜报当年之丰欠，民生之休戚，此事事关重大。(Zhang and Guo 69)

It is of crucial importance that the officials of the Astro-Calendric Bureau report the solar terms related to yearly agricultural production accurately since they are vital for the peoples' livelihood. Nevertheless, Schall failed to confirm the phenomenon of the Beginning of Spring. (my trans.; *ibid.*)

Accordingly, the regents were concerned about how the calendar may affect the determination of traditional solar terms (*Jieqi*), especially the exact beginning date of spring, which was connected to agricultural production and the people's well-being. In fact, fallacies about solar terms accounted for almost half of the charges in Yang's *Ten Fallacies of the New Calendar* (*Zhaimiu Shilun*): the second, third, fourth, and ninth fallacies were all about the solar terms. The second fallacy was that lunar January had three solar terms, the third fallacy

¹⁴ Houqi refers to a traditional Chinese method of measuring solar terms. In this technique, a flute or similar wind instrument is filled with burnt reed ashes and placed in a sealed room. When spring begins, it is said the ashes would fly out of the instrument because the temperature of the room changes. Modern science considers this practice to be pseudoscience. See Needham, pp. 390-408.

was the length of time between the summer solstice and winter solstice, the fourth fallacy was about the sun moving more slowly on the day of the summer solstice, and the ninth fallacy pointed out the erroneous technique of using the plane of the ecliptic to measure solar terms.¹⁵ In light of the four regents' decree and Yang's accusation, it can be concluded that the issue at stake in the Calendar Case was the arrangement of traditional solar terms, which also retained the imperial gaze. When Kangxi reviewed the Calendar Case in 1667, his reassessment demonstrated his concern for agriculture because of its importance in determining the fate of the empire.

3. The Rehabilitation of the Calendar Case

After Ferdinand Verbiest criticized Wu Mingxuan, the then assistant of Yang Guangxian, for ignorance and incompetence in managing the Astro-Calendric Bureau, Kangxi commanded twenty court officials to review the matter. Kangxi did not, however, immediately pass final judgment on the matter after the officials reported that Verbiest was correct in projecting celestial phenomena. Instead, Kangxi demanded that the court officials confirm their findings through consultation with other relevant officials:

楊光先前告湯若望時、議政王大臣會議、以楊光先何處為是、據議準行、湯若望何處為非、輒議停止、及當日議停今日議復之故、不向馬祐、楊光先、吳明烜、南懷仁、問明詳奏。乃草率議覆。不合。著再行確議。(shilu, vol. 28)

¹⁵ The original Chinese version is “二繆：一月有三节气之新；三繆：二至二分长短之新；四繆：夏至太阳行迟之新；九 繆：黄道算节气之新” (Zhang and Guo 68).

After Yang Guangxian pressed charges against Schall, the Deliberate Council of Princes and High Officials decided that Yang was right and passed Yang's suggestions while rejecting Schall's. The Deliberate Council should now ascertain why they made that previous decision and why the matter was reopened for discussion. Princes and high officials should interrogate Ma Hu, Yang Guangxian, Wu Mingxuan, and Ferdinand Verbiest to find the truth. What the council decided previously was rash and should be reexamined. (my trans.; *shilu*, *ibid.*)

It was only after the definitive inquiry that Kangxi decided to close the matter in lunar January 1669. Despite accepting Western calendric astronomy and promoting Verbiest to the position of vice director of the Astro-Calendric Bureau, Kangxi forbade the preaching of Catholicism and ordered the Jesuits not to distribute *A Study on the Heaven* (*Tianxue chuangai*), bronze statues, or any other religious paraphernalia. Meanwhile, except for Verbiest and a few other court officials, no other Catholic presence was tolerated.¹⁶ Kangxi was concerned the spread of Catholicism might threaten the Qing empire. In banning it, Kangxi reveals his perspective—retain that which can be useful in managing the empire while rejecting that which can threaten it. Only Verbiest and his calendric knowledge were allowed to remain in the imperial court: under the control of Manchus, the Jesuit missionaries “became part of the long-term political designs of the Manchu elite” (Salvia 86).

¹⁶ The original Chinese version is “伊等聚會、散給天學傳概、及銅像等物、仍行禁止...其天主教、除南懷仁等、照常自行外。恐直隸各省復立堂入教。仍著嚴行曉諭禁止。” (*shilu* vol. 31)

Thus, Kangxi rehabilitated the Calendar Case for the purpose of bolstering agricultural production, which serves to secure a dynasty's longevity. Regarding the Western calendric astronomy as statecraft, Kangxi utilized it to stabilize the peasantry and the Manchus' hold on power in his early reign. Yet this westernized calendar had another important function for Kangxi: an authentic calendar enhanced the emperor's cosmological significance and helped to convince the populace that the emperor had a mandate from heaven.

Cosmological Significance for Kangxi

Beyond instructing agriculture, an accurate calendar also presents the emperor as an ordained ruler and hence enhances his power. The Chinese name of the Astro-Calendric Bureau, *Qintianjian*, which conveys additional meaning beyond denoting the job of the bureau to perform astronomical observations and formulate the calendar. The *tian* in Chinese is not equivalent to the English heaven, as the former implies ancient beliefs in cosmological power that can, when rulers comply with the will of *tian*, confer favors like nationwide peace and high agricultural production. Rulers not in compliance with *tian* may be faced with revolts and natural calamities. Since Chinese emperors are called Sons of Heaven (*tianzi*), *Qintianjian*, consisting of three departments, with each responsible calendar, astrology, and time service (L. Liu 114), is responsible for both demonstrating that the emperor has been ordained by the *tian* and accurately projecting the calendar, which suggests fortunate dates for important ceremonies or events. Hence, the calendar helps the ruler establish his authority and stabilize the empire.

Scholars have discussed this significance in their research. Jami, citing Gabriel de

Magalhães (1610–1677), noted the English translation for *Qintianjian* is the “College for the Veneration of Heaven” (476). Brockey also recognized that an accurate calendar could help the emperor with the calculation of auspicious and inauspicious days for ceremonies, including marriages, funerals, and other notable events (127). For instance, in previously mentioned literature, scholars remarked that one reason for Schall’s fall was his miscalculation of Prince Rong’s funeral date. Furthermore, important ceremonies like praying for rain at the Temple of Heaven require auspicious days to demonstrate that the ceremony is effective (or effective to some extent), which further underscores the emperor’s connection with heaven and his ability to manage the empire.

Kangxi was a domineering ruler in the early part of his reign, in part due to the unstable nature of the empire he encountered. Although the four regents had been forced out, there were other threats, one of which was posed by the Ming loyalists. The majority of the Ming loyalists were Han literati (*shiren*) and they disapproved of the so-called barbarian power of the Manchus. Wu Sangui (1612–1678)¹⁷ used such hostility to garner the political support of the Han people (Y. Zhang 29). Additionally, the Ming loyalists refused to participate in Qing politics. Gu Yanwu (1613–1682), a famous late Ming literatus who was appreciated by the Qing court, declined Kangxi’s invitations to take over an official function three times (26).¹⁸ Hence, Kangxi required an accurate calendar to demonstrate that the Qing

¹⁷ Wu Sangui was a former Ming general who surrendered to the Manchu despite later conspiring against them for his own political reasons.

¹⁸ Gu Yanwu, in his second refusal in 1678, replied that he would never pursue court life in any other dynasty except Ming and was determined to hold onto this thought. The original Chinese version is “无仕异朝,” “耿耿此心，终始不变” (Y. Zhang 26).

rule was legitimate, and that he, like the previous Han Chinese emperors, was ordained by heaven. The performative action of revising the calendar also illustrates Kangxi's resolve to assume his authority nationwide, to connect his rule with heaven, and to position himself as a rightful ruler. Verbiest utilized this argument in his debate with Wu Mingxuan, arguing that heaven will choose the new calendar since the calendar cannot stand on its own, by which he was implying that the westernized calendar would be chosen (Zhang and Guo 70).

Yet the westernized calendar also came with disadvantages. The Han literati, who viewed the rule of Qing with suspicion, continued to harbor grudges against Westerners and their foreign ways. For example, Yang Guangxian, the advocate of traditional Chinese calendric astronomy, proposed that China would rather forego a good calendar than use a westernized one and be forced to tolerate Westerners in China (D. Liu 43).¹⁹ Using Western calendric astronomy was unbearable for the Han literati. After all, it was the doctrine of the Confucian sages that should be prioritized over the so-called knowledge of the Western barbarians, who should be displaying due reverence. Thus, while Kangxi consolidated his authority through revising the calendar, he also needed to manage his relationship with the Han literati and his authority among them. By exempting Yang from the death penalty in 1669, Kangxi may have intended to reduce the impact of the Calendar Case on his relationship with the Han literati. Subsequently, Kangxi resorted to localizing Western calendric astronomy by devising a theory claiming Western learning was simply a product of

¹⁹ The original Chinese version is “宁可使中夏无好历法，不可使中夏有西洋人。”

Chinese origin.²⁰ This theory helped Kangxi consolidate his power and position himself as the foremost sage of the era.

Chinese Origin of Western Learning

1. Kangxi's Attitude Altered

Although Kangxi utilized the westernized calendar to guide agricultural production and consolidate his power, he was still doubtful about Western learning and the Jesuits themselves. For example, when Kangxi demanded that the Jesuits chart his empire, he first asked them to map the well-known terrain within the confines of the Great Wall, using a comparison of their results with what was already known to judge the accuracy of Western cartography (Perdue 274). Additionally, Kangxi assigned secret agents to investigate whether the Jesuits were loyal to the empire. In 1684, during a journey to the south of the empire, Kangxi demanded to talk with the Jesuits in Jinan and Nanjing about their religious life (X. Liu 152). After having made a thorough investigation of the Jesuits' conduct, Kangxi issued a decree in 1692 that allowed the Catholics the freedom to assemble.

However, Rome's subsequent edict altered Kangxi's decision. In 1705, when Charles-Thomas Maillard De Tournon (1668–1710) was sent to Beijing by Rome, he reported that the followers of Catholicism in Qing China should not conduct any memorial services in honor of Confucius or their ancestors. This denunciation of Confucianism flouted Kangxi's expressed support for the Cheng-Zhu school and may have further undermined Kangxi's

²⁰ Here, Western learning is meant to include Western calendric economy, mathematics, cartography, and other subjects that the Jesuits were required to learn to fulfill their mission worldwide (Elman 88).

authority among the Han literati, threatening stability within the Qing empire. Kangxi regarded Rome's edict as unacceptable, noting that Westerners, being vile by nature, would never acknowledge China's honorable principles (D. Liu 43).²¹

Consequently, Kangxi demanded that the Jesuits follow Matteo Ricci's methodology of observing Chinese customs if they wanted to remain in China. Rome's edict eroded the previous efforts of the Jesuits and exacerbated the situation, leading Kangxi to weigh the stability of his empire against the advantage of adopting Western learning. This tension was the impetus for Kangxi to find a local substitute for Western calendric astronomy.

2. Forging Chinese Origin of Western Learning

Having been disappointed by the Jesuits, Kangxi became impressed by the works of Mei Wending (1633–1721), who had earned his fame through calendric mathematics. Li Guangdi (1642–1718), a court official who might have been intending to ingratiate himself with Kangxi through a show of support for calendric knowledge, invited Mei to Beijing in 1689 (Wang 79). During his residence in Beijing, Mei completed *Issues of Calendric Mathematics* (*Lisuan yiwen*), which Li published in 1699 and then presented to Kangxi during Kangxi's inspection tour to the south in 1702. In his book, Mei concludes that Western learning originated from Chinese methods.²² Kangxi likely found Mei's work useful in several aspects: as a pretext for using Western learning and thus mollifying the protests of the Han literati, which would allow them to serve in central and local government; as an

²¹ The original Chinese version is “只可说得西洋人等小人，如何言得中国之大理?”

²² Wang Yangzong discussed Mei's approach in detail. See Wang, pp. 79-80.

opportunity to fashion himself as a defender of Chinese learning and reinforce his image as an orthodox ruler; and to construct himself as the foremost sage of the era. Thus, in 1704, Kangxi announced his publication *On Reasoning Triangles* (*Sanjiaoxing tuisuan falun*) as an initial practice of the theory of the Chinese origin of Western learning. In this work, Kangxi positions himself as someone who revives ancient Chinese learning by contrasting his efforts in pursuing calendric astronomy to those literati who had forsaken ancient learning to become bureaucrats.

Later, in 1705, Kangxi summoned Mei to a meeting during which the two talked for three days. During the meeting, Kangxi confirmed Mei's contribution to the theory of the Chinese origin of Western learning, which encouraged Mei to continue working on the theory over the following years (Wang 82). Meanwhile, Kangxi began to put the theory into practice. In 1712, Kangxi established the Studio for the Cultivation of the Youth (*Mengyang zhai*), where Mei Juecheng (1681–1763)²³ and other Chinese scholars composed *On Calendric Phenomenon* (*Lixiang kaocheng*) and *The Essence of Mathematics* (*Shuli jingyun*). These works applied the theory in historical summaries of Chinese calendric astronomy and mathematics (Wang 82). Later generations of mathematics scholars observed and endorsed the theory. Ruan Yuan (1764–1849), the author of *Biographies of Renowned People* (*Chouren zhuan*), recorded how the Mei family contributed to Chinese mathematics by creating the theory of the Chinese origin of Western learning (Jiang 105).

Recognizing Western learning as stabilizing statecraft, Kangxi promoted the theory of

²³ Mei Juecheng was Mei Wending's grandson.

the Chinese origin of Western learning as a means of distancing himself from the charges of endorsing so-called barbarian methods. This framing helped Kangxi mollify the Han literati, engage them in several state projects, and encourage their greater participation in court politics.²⁴ Furthermore, Kangxi was able to apply Western learning while at the same time positioning himself as a defender of ancient Chinese learning and Confucian orthodoxy.

Conclusion

When the Jesuits approached Kangxi with their scientific knowledge, they failed to recognize that each of them had different ideas about what constituted authoritative knowledge. Kangxi and his court officials recognized the philosophy of the Cheng-Zhu school of Confucianism as their official knowledge base. The Jesuits, however, were trained in an educational system that prioritized theology, astronomy, mathematics, and cartography. Kangxi, attempting to stabilize his empire, utilized the Western calendric astronomy for practical purposes. As peasants continued to pose threats to earlier rulers throughout Chinese history, Kangxi took advantage of the westernized calendar to guide agricultural production. Acknowledging his recent ascent to power, Kangxi revised the calendar to reinforce the cosmological significance of his ordination by heaven and demonstrate the orthodoxy of his rule. Nonetheless, Kangxi remained critical of Western calendric astronomy, especially when it threatened his power or the fate of the empire. In such cases, Kangxi resorted to a local

²⁴ State projects like the composition of the Kangxi Atlas and compilation of Ming History employed a considerable quantity of Han literati. See Liang, p. 17, and Y. Zhang, pp. 31-47.

alternative. Promoting the theory of the Chinese origin of Western learning, Kangxi was able to transform Western calendric astronomy into native Chinese knowledge that he then leveraged into statecraft.

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