The Introduction of Western Science and the Rationalization of Traditional Astrology: Reevaluating Yi Ik’s “On Field-allocation”

Lim, Jongtae*

Yi Ik (李滉, 1682-1764)’s “Bunya [分野]” (On Field-allocation), a short essay in his encyclopaedic work Seongho saseol [星湖儒說], has occupied a pivotal position in the modern historiography of the late Joseon period.1 Many researchers searching for the origins of modern thought in the late traditional period have found in Yi’s essay a fundamental criticism of the “medieval” worldview. According to these scholars, Western scientific knowledge played a significant role when Yi shaped his modern worldview; a passage in his essay “China is no more than a small piece of the great Earth” was pointed out as clear evidence of the influence Jesuit world maps had on Yi’s criticism of the Sino-centric vision of the world; Western astronomy provided Yi with “scientific” grounds for denouncing “superstitious” astrological divination.2

* Visiting Professor, College of Humanities and Social Sciences, Korean Advanced Institute of Science and Technology.

In this article, I will present a different interpretation of the essay, proposing a more “conservative” picture of Yi Ik’s thought than suggested in those “modernistic” interpretations. To do this, I will put Yi’s essay in a wider East Asian context encompassing contemporary China as well as Korea. This broader approach is necessary since Yi Ik dealt with the same problems as those raised by Chinese thinkers, and referred (albeit implicitly) to Chinese opinions. My approach, in fact, already has a good precedent from pre-modern times: Yi Gyugyeong [李圭景, 1788-1860], an encyclopaedist in the early nineteenth-century, compared Yi Ik’s ideas with those of Chinese thinkers. In line with this approach, I will show that Yi Ik in his article suggested an ingenious answer to the tasks dealt with by Chinese predecessors to find a middle ground between traditional astrology and Western astronomy.

“China’s Monopoly of Heaven”:
Criticisms of Field-allocation Theory

Field-allocation, or bunya [分野, fenye in Chinese], represented a system that associated regions of the heavens to corresponding terrestrial regions. In spite of its archaic origin, this idea was implemented in fully systematic ways under the Han [漢] dynasty China. In the “Tian’guan [天官]” chapter of the Shiji [史記] (the Records of Historian), the author divided heaven into five regions, namely the central and the four surrounding palaces, which in turn

corresponded to the terrestrial world that was to be divided in the same manner. The *Huainanzi* [*淮南子*] contained a different version, in which nine heavenly “fields” corresponded to the nine earthly provinces [*jiuzhou*, 九州]. These various versions of field-allocation gradually merged and gave way to its mature form, in which the 28 lunar lodges [*xiu*, 宿] were allotted to the ancient feudal states or the administrative divisions of the Chinese Empire.\(^4\)

Field-allocation theory was deeply rooted in the correlative thinking of ancient Chinese cosmologists, who supposed systematic correlations among various realms of the universe. Those realms, including heaven, earth, a kingdom, and a human body, were supposed to have similar structures thus forming asymmetric association among them.\(^5\) The correlation between heaven and earth very often implied areal resonance between the two realms. Thus, the field-allocation system had apparent astrological meaning, and the cosmologists of the Han dynasty incorporated it into Chinese astrological practice. They thought of the Chinese emperor as the Son of Heaven [*tianzi*, 天子] who was mandated by Heaven to rule the terrestrial world. Unusual phenomena in the sky, according to them, were messages from Heaven to the emperor which foretold of impending disasters caused by the misgovernment of the emperor and his bureaucrats. Accordingly, the Han cosmologists systematically developed the art of reading heavenly messages, *tianwen* [*天文*] (literally, heavenly patterns), of which the field-allocation system became an important part. Field-allocation made it possible to interpret extraordinary phenomena in a certain heavenly field as portents of future or ongoing affairs of the corresponding region. According to one of the most famous examples in the “Astronomical Chapter” of the *Hanshu* [*漢書*] (the Han History), the five

---


planets lead by Jupiter gathered in the Eastern Well ( dongjing, 東井) lunar lodge when Liu Fang [劉邦], the founder of the Han dynasty, was about to conquer the capital of the Qin [秦] empire. The Eastern Well was the field of Qin and the planet Jupiter signified the virtue of righteousness [yi, 義]; thus, the heavenly event foretold that Liu Fang would pacify the Qin with his virtue of righteousness. After its basic principle and examples were established, the field-allocation system was firmly institutionalized into the astrological practice of the Imperial Astronomical Bureau of successive dynasties until Jesuit missionaries entered China in the late Ming time.

The Western missionaries criticized the field-allocation system for two reasons. First, it was classified as “superstitious.” Following the policy of the Jesuit order, which was critical of the mysticism of Renaissance Europe, missionaries in China heavily criticized Chinese belief in such “superstitious” fields as astrology, fortune-telling, and fengshui [風水]. Another reason the foreign missionaries were uneasy regarding field-allocation was its apparent Sino-centric bias. According to the system, the only legitimate terrestrial counterpart of heaven was China, a country which the Chinese themselves often equated to “all under the heaven” [tianxia, 天下]. This “monopoly” of heaven was fundamental to the Sino-centric worldview, since it was built on the belief that China was the only place in the world where Heaven had revealed its ordinance to the Confucian sages, who in turn had inaugurated the civilization based on the heavenly principle.

A missionary who strongly criticized the Sino-centric assumption of field-allocation was Giulio Aleni (1582-1649), the author of the widely circulated world geography text Zhifang waiji [職方外紀] (Descriptions on the World Unknown to Chinese Bureau of

---
6. A useful introduction to astrology of the Han dynasty, including field-allocation theory, was provided in Yi Moonkyu, Godae jungguk in i barabon haneul ui segye [고대 중국인이 바라본 하늘의 세계] (Seoul: Munhakgwa jiseongsa, 2000), pp. 144-204.
Geography, 1623). In another of his works intended to introduce European culture and learning to a Chinese audience, *Xifang dawen* [西方答問] (Dialogues on the West, 1637), he pointed out that the Chinese unfairly monopolized heaven with their field-allocation system.

Since your country divides all the stars to be in charge of China, there seems nothing to be left for other countries. In reality, however, ten thousand countries all together carry the heavens. The sun, moon, and stars revolve from east to west, shining the eastern and then western lands; .... they keep turning without rest. The sun and moon never shine their light on the earth unfairly, nor do the stars look down to the earth unjustly. How do they discriminate China and the other countries? The field-allocation theory .... is to take over the heavens unjustly. I have not yet found its foundation.7

Interestingly enough, Aleni’s criticism, directed at the core of the Chinese Confucian worldview, received a warm reception among certain prominent figures in the late Ming and early Qing periods. Scholars like Fang Yizhi [方以智, 1611-1671], You Yi [游藝, c. 1614-after 1684], Jie Xuan [揭晅, c. 1625-c. 1705], and Jiang Yong [江永, 1681-1762], ardent proponents of Western science, agreed with Aleni’s critique of field-allocation. They even sought out new evidence from Western science to demonstrate the flaws of the theory. Fang Yizhi, for example, having confidence in the star map drawn by Jesuit missionaries, which covers the stars of the southern as well as the northern hemispheres, blamed field-allocation for its failure to represent the entire heavens.8

Their direct approval of Aleni’s criticism could not wholly be ascribed to their enthusiasm for Western science. Suspicion of field-allocation was not new to the Chinese intellectual tradition.

---

While field-allocation had been well-established in the astrological practices of court astronomers, many reasonable-minded scholars had criticized its flaws, including its Sino-centric bias. According to Wang Tingxiang [王廷相, 1474-1544], famous for his harsh criticism of the correlative cosmology, it was unlikely that Heaven, the fair and impartial overseer of the world, would show its messages only to the Chinese emperor. In fact, aside from the new evidence Aleni was able to adduce from Western astronomy, it is possible to say that Aleni’s argument was in essence a reiteration of Wang’s earlier criticisms.

Indigenous suspicion of field-allocation, however, did not focus on its mere unfairness but pointed more to its weak theoretical foundations. Since as early as the Han time Chinese scholars had doubted whether there existed any firm principles for corresponding heavenly fields to terrestrial regions. No one was able to find any explicit mention of it in the classical loci of field-allocation. The directions of the constellations and the terrestrial regions, seemingly the most probable candidates for establishing the rule of allocation, were often at odds. To make matters worse, those texts were not in accordance in their actual schemes. Several attempts thus had made to find out the hidden principle behind the classical field-allocation system. A promising solution was suggested by an astronomer of the Tang dynasty, Yi Xing [一行]. Instead of interpreting the heavenly fields in relation to the states or provinces of China, he associated the flow of the Milky Way to that of the mountains and rivers of China. Yi Xing’s ingenious move indicates one of main flaws of the classical field-allocation system that bothered Chinese cosmologists: while stars in the heaven keep their positions for a long time, earthly territories keep changing in the course of frequent socio-political fluctuations. Yi Xing thus adopted mountains

---

and rivers instead of political territories as the more stable counterparts of heaven.

In the mid-seventeenth century, Chinese scholars became more skeptical of the existence of the hidden principle. Their skepticism regarding field-allocation was part of their general critique of the correlative cosmology that was voiced loudly in the intellectual society of mid-seventeenth century China. These scholars, who pioneered the Qing Evidential [kaozheng, 考證] scholarship, systematically criticized the classical correlative schemes that had dominated Chinese cosmological thought since the Han dynasty. To them, events and phenomena in the universe were too complex to be reduced to a set of simple and neat formulae of the five phases and the Yijing diagrams. Furthermore, they dispersed the aura of classical authority surrounding the major cosmological schemes, such as the hetu [河圖] and loshu [洛書] diagrams, showing that they were actually fabrications by scholars in the later times.¹¹ Nor did the field-allocation system escape their critical scrutiny. Fang Yizhi, You Yi, and Jie Xuan pointed out that only three of the 28 lunar lodges were allotted to the Jiangnan [江南] region, which actually constituted about half of the empire. The apparent disparity between this scheme and the geographical reality of contemporary China, according to Huang Zhongxi [黃宗羲, 1610- 1695], could be explained by the fact that the scheme was devised in ancient times when the socio-political hub of China was in the northwestern region. The classical field-allocation system turned out to be in fact contingent on certain historical conditions.¹²

Meanwhile, Korean scholars were developing their own tradition of criticism on field-allocation. Being intellectuals of a “barbarian” kingdom, Korean critics naturally focused their attention on the Sino-centric assumption of field-allocation. In classical field-allocation

theory, Korea shared the *wei* [ ولو] and *ji* [KeyId] lodges with neighboring Yan [燕] state of northeast China. Some “nationalist” scholars in the sixteenth-century, such as Jo Heon [趙憲, 1544-1592] and Seo Gi [徐起, 1523-1591], felt uncomfortable with the belittled position of their country in this system. They thus devised their own scheme in which all the constellations were allotted to the provinces and prefectures of the Korean Kingdom.\(^{13}\)

In the eighteenth-century, Korean scholars discussed the topic in more sophisticated ways. They seemed to have been influenced by the criticism raised by the Chinese of the previous century. For example, An Jeongbok [安鼎福, 1712-1791] in the appendix to his work on ancient Korean history subdivided the Korean Kingdom into three regions— the northern, middle, and southern parts—and allotted different constellations to them. An’s revision was not simply motivated by “nationalist” sentiment. As a competent historian, he found that classical field-allocation failed to reflect geographical changes in the course of Korean history, the center of which had moved from Manchuria to the middle region of the Korean peninsula. According to An, the middle and southern parts of the peninsular, the political and cultural center of Korea in his time, should be allotted not to the *wei* and *ji*, but to the *xu* [虚], *wei* [危], *dou* [斗] constellations, which in the classical scheme were associated with the Shandong [山東] and Jiangnan [江南] provinces of China.\(^{14}\) An’s idea was similar to Fang Yizhi and Huang Zhongxi’s critique, which was based on historical and geographical considerations. More theoretical approaches were made by several scholars, such as Yi Ik, Hong Daeyong [洪大容, 1731-1783], and Yi

\(^{13}\) On the field-allocation theory in the Joseon dynasty including Seo Gi and Jo Heon’s scheme, see O Sanghak, “Jeontong sidae cheonji e daehan sang’gwan jeok sago wa geu’ui pyoheon bunyaseol eul jungsim euro [傳統時代 天地에 대한 相關的 思考와 그의 表現 分野說을 중심으로],” *Munhwa yeoksa jiri* [文化歷史地理] 11 (1999), pp. 22-26.

Gahwan [李家焕, 1742-1801]. Not confining their interest to the specific case of Korean field-allocation, they, like Chinese scholars of the previous century, raised fundamental questions on the general validity of the classical field-allocation system.

Yi Ik’s discussion was one of the most comprehensive and thorough. He examined almost every aspect of the topic, including astronomical, cosmological, and philological issues that had been raised by Chinese predecessors. Impressed by Western geographical knowledge, he doubted if the entire heavens could legitimately correspond to China, which was no more than “a small piece of land on the great earth.” He pointed out that the minute movement of stars due to the precession of the equinoxes made any attempt to build a stable field-allocation system impossible. He compared various classical loci of the field-allocation to expose the conflicts among them. After all these considerations, he had no choice but to conclude that there was no basis to the classical field-allocation method. How then did ancient Chinese cosmologists formulate it? According to Yi, their system was no more than groundless generalizations drawn from coincidences of certain heavenly phenomena and earthly affairs. For example, the association between the Eastern Well lodge in the southeastern part of sky and the Qin state in the northwestern part of China was fixed only after the five planets’ gathering in the Well coincided with Liu Fang’s successful campaign to the Qin capital. And for the same reason, “the five planets’ gathering in the Well” [wuxing ju jing, 五星聚井] began to be interpreted as an auspicious omen; there was no profound principle behind it. He concluded, “How does it differ from placing a target where an arrow would reach?”

Western Astronomy and Reshaping the Field-allocation System

Curiously enough, such criticisms of field-allocation, however thorough they may have seemed, failed to challenge the foundations of that system. Critics, both native and foreign, seldom discarded the idea of the astrological resonance of heaven and earth. And some of them still held a belief in the basic idea of field-allocation, the correlation between partitions of heaven and earth.

First of all, the Western science brought by Jesuit missionaries did not entirely contradict or refute astrological beliefs. Since ancient Greek times, the astronomical tradition in the West had consisted of two mutually related fields, mathematical astronomy and astrology, which roughly corresponded to *lifa* [曆法] and *tianwen* [天文] in the Chinese tradition. It is well known that the Jesuit order was generally critical to various trends of Renaissance mysticism. Yet the order never totally denounced astrological practices and still allowed a certain version of astrology. Jesuits recommended “natural astrology” that limited astrological influence of stars to “natural phenomena,” such as the growth of plants, the health of a human body, and climatic changes, while prohibiting “judicial astrology” that included the fate of men in the realm of astrological prediction. Thus, within the policy of the Jesuit order the missionaries dispatched to China could introduced a Western version of astrology.  

16 Aleni actually presented this astrological

---

perspective in the very same work that contained his criticism of Chinese field-allocation theory.

When God created the stars, he gave them their own virtues and powers. Yet those powers were restricted to natural qualities, those of cold-hot and dry-wet, with which the winds and rains, the growth of plants and trees, and all the things that have shapes and qi [xingqi, 形氣] would respond. The health and illness of human bodies also depend very much on them. A school of astronomy in the West discusses these. Those astronomers are able to predict the harvest of the year and the health and illness of people. Thus, physicians, farmers, and navigators all observe the stars to find out the right time [for their business.] .... However, as for the successes and failures, virtues and sins, advances and retreats, and luck and misfortune, they depend on the uprightness and wickedness of one’s will. How could they be predetermined by stars?¹⁷

Aleni introduced the European distinction between natural and judicial astrology into the Chinese context to denounce Chinese astrological beliefs. In his view, Chinese astrology shared the same flaws with European judicial astrology in the sense that both wrongly extended the astrological influence of stars beyond natural phenomena to the fate of individuals. From this we can conclude that Aleni’s criticism of Chinese astrology hardly anticipates our modern demarcation between “science” and “superstition.” The clash was between two different versions of astrology, those of Chinese and Jesuits, which nevertheless shared a common belief in the astrological correlation between heaven and earth.¹⁸

Indeed, native scholars did not read Aleni’s criticism on field-allocation as a categorical denial of astrology in general. Nor did they regard the Western astronomical model as a pure mathematical system without any astrological implications. Jie Xuan, a determined follower of Western astronomy, accepted Aleni’s recommendation

when he endorsed European natural astrology while rejecting Chinese field-allocation.\textsuperscript{19}

Fang Yizhi, You Yi, and Yi IK even showed their trust in the basic idea of field-allocation strongly enough to make readers question the authors’ intellectual consistency. Fang Yizhi, who systematically criticized field-allocation in \textit{Tongya}, protested in his other work that Westerners denouncing field-allocation failed to fathom another aspect of that topic.\textsuperscript{20} Yi Ik, soon after outlining the flaws of field-allocation, changed his words to say that correlating the partitions of heaven and earth was “reasonable in a fundamental sense.”\textsuperscript{21} If one uncovered a reasonable way of dividing and associating heaven and earth, they believed, field-allocation could emerge from the debate unscathed.

They realized that the principles that could be utilized for saving field-allocation could be found near at hand: the Western astronomical model consisted of concentric spheres. Westerners successfully explained various meteorological phenomena like division of the temperate zones on earth, the changing lengths of day and night, and the changes of seasons by geometrical relations of a round earth and the sun’s motion in an enveloping heavenly sphere. According to Fang Kongshao [方孔炤, 1591-1655], Fang Yizhi’s father, if one adopted the Western cosmographical model, one could reshape field-allocation theory in a more reasonable fashion. He extended the earthly counterpart of heaven from the Chinese Empire to the entire globe in order to devise a scheme that matched the 28 lunar lodges around the celestial equator to the continents and oceans surrounding the earth east and west. In Fang Kongshao’s new field-allocation system, the four celestial palaces, each consisting of seven lodges grouped by their directions,

\textsuperscript{19} Jie Xuan, “fenye zhi dan” [分野之譜],” \textit{Xuanji yishu} [璇玑遺術] in \textit{Siku quanshu cunmu congshu} [四庫全書存目叢書], Vol. 55, pp. 410-412.
\textsuperscript{20} Fang Yizhi, \textit{Wuli xiaozhi} [物理小識], in \textit{Siku quanshu} (SKQS hereafter) [四庫全書], Vol. 867, pp. 776-777.
\textsuperscript{21} Yi Ik, “Bunya,” \textit{SHSS}, gweon 2, 8a.
were associated with the four terrestrial areas evenly divided from west to east; for example, China corresponded to the southern palaces and Europe to the western palaces.  

Fang’s scheme was more systematically presented by Yi Ik, who demonstrated it using a Western world map.

According to the Map of Great Earth, the North Pole corresponds to the central palace, the Eastern Sea to [the palace of the Eastern] Dragon, and the Western Sea to [the palace of the Western] Tiger. Proceeding in the same manner, China corresponds to [the palace of the Southern] Bird, and the antipode [of China] to [the palace of the Northern] Turtle.

In this passage, Yi Ik projected the classical five-fold division of heaven to the globe as viewed from the North Pole. It is noticeable that the concentric structure of the heaven and earth assumed by Western astronomy provided Fang and Yi with the rational principle that Chinese cosmologists had sought for a long time. At the same time, in the course of Fang and Yi’s new conceptualization, the Western astronomical model was transformed into a frame for Chinese astrology.

Yet the geometrical symmetry of the Western model still posed a problem for Fang and Yi; how could the association between China and the Southern Palace be justified? They seemed to consider this association inevitable to maintain the Sino-centric worldview in their new system. According to Chinese correlative thinking, the South, usually connected to yang [陽], fire, and heart, was the most auspicious place in the world. The rise of Confucian civilization in ancient China, Fang declared, was preconditioned by China’s propitious location. It seems that Fang, in his global

system of field-allocation, assumed the connection between China and the South as an indisputable axiom. Yet it no doubt contradicted the geometrical symmetry of the Western astronomical model. Yi Ik well noticed that the roundness of the earth would never allow the absolute definition of the four cardinal directions, not to mention the problem of associating China and the South. He said, “Since everyman can be said to be in a place where the direction of the sunrise is called east, and that of the sunset is called as west, the four directions seem not to be fixed.”

If he wanted to legitimate the new field-allocation system based on the Western concentric model, he would need to find a way to fix “the four directions” on the spherical earth.

In spite of the apparent clashes between the Western astronomical model and Sino-centric cosmology, most of the Chinese and Korean literati were positive in finding a middle ground in which the contradiction could be successfully resolved. An influential solution was suggested by Li Guangdi [李光地, 1642-1718], a famous Neo-Confucian scholar in the early Qing dynasty. He adopted the Western theory of the temperate zones to demonstrate that the Luoyi [洛邑], the capital of the ancient Zhou [周] dynasty and, allegedly, the birthplace of Chinese Confucian civilization, was the most auspicious place in the world. Yi Ik devised a more articulate explanation to justify the connection between the South and China. In his “Ji’nam chim,” [指南针, On the South Pointing Needle] another article in Seongho saseol, Yi developed a kind of fengshui [风水] theory on a global scale, in which he used the variations of a magnetic needle to demonstrate that China was “the center of the yang [陽] hemisphere” of the earth.

27. On Yi Ik’s effort to save Sino-centric cosmology, see Lim Jongtæ, “Sipchil sip’pal segi seoyang jirihak e daehan joseon jungguk hak’in deul ui haeseok
Another problem that bothered the reformers of field-allocation was China’s position in their global scheme of astrological divination. If the heavenly fields corresponded to the earth as a whole, would the traditional scheme that correlated the heaven to China now be rendered invalid? Fang Kongshao and Yi Ik did not entirely deny the idea, but tried to make room for the traditional scheme in their system. According to Fang, because the astrological interaction between heaven and earth had multiple layers, heaven could correspond not only to the entire earth but even to its part, for example, to Chinese empire.\(^\text{28}\) Yi Ik, in his letter to An Jeongbok, which has usually been interpreted by modern historians as an evidence of Yi Ik’s modernity, tried to justify the association of heaven and China.

From the standpoint of the great earth, China is no more than a small piece of land and moreover our kingdom is like a small spot in the northeastern part of China. Thus, images of the great heaven seem not to correspond to them. Yet.... it is not without principle. It can be exemplified by a basin of water, upon which all the images of heaven fall.\(^\text{29}\)

Thus, not only China but also any portion of the earth even a human body could in principle be a legitimate counterpart of the whole heaven. Fang Kongshao summed up this idea: “It is possible for heaven to correspond to the great earth; it is also possible for heaven to correspond to China, to a province, and even to a house.”\(^\text{30}\) Fang and Yi re-conceptualized the traditional Sino-centric field-allocation as one layer in their multi-layer system of correspondence.

---


\(^{29}\) Yi Ik, *Seongho jeonseo* [星湖全書], gweon 24, in *Han’guk munjip chong’gan* [韓國文集叢刊] (Seoul: Minjok munhwa chujinhoe), Vol. 198, p. 487.

In Fang and Yi’s multi-layer system, the Sino-centric belief distinctive to the classical field-allocation system became noticeably weak. Now any country in the world, at least in principle, could legitimately claim the whole heavens. But Yi Ik, not to mention Fang Kongshao, never went as far as to assert a “national field-allocation system,” which in principle was inherent in his multi-layer system. Many other Korean scholars, however, actually did assert so as mentioned earlier. Jang Hyeon’gwang [張顯光, 1554-1637], a cosmologist in the early seventeenth-century, endorsed Jo Heon and Seo Gi’s “national” field-allocation system through a logic similar to that of Yi Ik. According to Jang, heavenly omens applied to every country that had its own royal house and people since, as Shao Yong of the Northern Song dynasty had said, “Even a human body contains its own heaven and earth.”

Jeong Dongyu [鄭東愈, 1744-1808], influenced by Western cosmology, argued, “Since China, Korea, and Japan are all small parts of the earth, Korea and Japan as well as China could correspond to the whole heavens.” Yi Ik’s interest, however, was different from that of those Korean scholars who tried to devise and legitimate the field-allocation for the Korean Kingdom. Yi Ik focused his discussion on the foundation of field-allocation, which other Korean scholars mostly took for granted. The Korean scholars, though complaining about the Sino-centric assumption of the classical field-allocation system, seldom raised any questions regarding its legitimacy. They even accepted the classical system as a model to be emulated when forming their “national” field-allocation system. When An Jeongbok subdivided the astrological fields of Korea, for example, he allotted to provinces of Korea the identical constellations which

had been allotted to Chinese provinces that had the same latitude to the Korean counterparts. Thus, Yi Ik’s enterprise has more affinity to those of Chinese scholars of the previous century rather than to those of his contemporary Korean scholars.

In some sense, the scope of Yi Ik’s theoretical scrutiny looks much wider than that of his Chinese predecessors. He extended his theoretical ambitions beyond the relatively small field of field-allocation to the problems of astrology in general. That drove Yi Ik to elaborate the idea of a multi-layered field-allocation system much further than Fang Kongshao did.

Yi noticed that the idea of multi-layer correspondence was instrumental in solving the general crisis of traditional astrology. The crisis was caused by the fact that most heavenly omens seemed not to exert any visible influence on earthly affairs. Solar eclipses, for example, usually occurred without any accompanying disaster. Does this mean that the basic assumption of astrology, the resonance of heaven and earth, was proven wrong? Many cosmologists, such as Tong Zhongshu [董仲舒] and Liu Xiang [劉向] of the Han dynasty, tried to link every heavenly omen to earthly affairs, to the extent that their astrological divination, at least in appearance, never failed. Their forced connections, however, did not make rulers and officers to pay their reverence to Heaven because they knew by their own experience that heavenly phenomena were not always effective. How could Confucian scholars persuade the rulers to obey Heaven’s will if there was no sound way to read the heavenly message from capricious celestial phenomena? Thus, Yi argued, it was not only astrology which was suffering a crisis, but the very foundation of the Confucian world order based on the Heavenly Principle [tianli, 天理] that was in danger.34

The new field-allocation system, Yi thought, could give a successful explanation of the problem without damaging the core of Chinese correlative cosmology. A phenomenon occurring in a certain area of

34. Yi Ik, “Cheonbyeon [天變]” (On the Heavenly Portents), SHSS, gweon 2, 10b.
sky would exert its influence mostly to a certain place geometrically corresponding to that heavenly area. If a comet was seen beneath the celestial equator, it would have little astrological power on China, or any country in the northern hemisphere. To demonstrate his point, Yi Ik suggested a meteorological analogy; in the winter solstice when the sun was beyond the southern hemisphere, the sun’s glow hardly reaches China. In the same manner, a heavenly phenomenon did not exert its influence evenly on the entirety of the earth. The degree of astrological influence would vary according to the distance between the heavenly area and the place of observation.35

Scholars of the later generations who spoke of heavenly portents failed to consider whether [the location of heavenly phenomena was] far north or far south [from their respective locations.] Thus, all the people around the earth with no exception said that the influence of the phenomena would reach their place. This is because they were ignorant of the theory of quantitative [prediction of heavenly portents.]]36

With the help of Western astronomical models, Yi Ik tried to reshape traditional astrology as an exact discipline armed with mathematical methods of divination. The motivation for his reform was clear—he was not out to denounce traditional astrology but to salvage it. Since heavenly phenomena still exerted their influence on earth with varying degrees, rulers were not allowed to neglect heavenly images. The pressure exerted by Yi Ik’s astrology on rulers grew much stronger when the multi-layerness of field-allocation theory was brought into consideration. Even in the case of a heavenly portent occurring far from China, it would possibly have some effect on a certain province of China because the heavens also corresponded to the Chinese empire. Not only China, but every country, every province, and everyman was no exception.

35. Yi Ik, “Jihu [嬫垕]” (On the Thickness of Earth), SHSS, gweon 2, 10a.
There is no man who does not carry the heaven and does not step on the earth. One step out from the door, and it is the blue sky we face. Even in the room, bright light shines through chinks of a window and a door. How could we escape from incoming heavenly disaster?  

Conclusion

Fang Kongshao, Fang Yizhi, and Yi Ik were no doubt the most open-minded among Chinese and Korean scholars in the seventeenth and eighteenth centuries. Yet their adoption of Western science did not drive them to discard their traditional worldview. They used the Western astronomical model as a resource to provide Chinese astrology with a rational foundation. Due to their enterprise, the traditional belief in the correspondence of heaven and earth was infused with “scientific” validation, enabling the theory to survive harsh criticism both from native intellectuals and from Western missionaries. The Sino-centric assumption of Chinese astrology also survived, though the status of China was somewhat belittled in their “globalized” system. Indeed, Chinese astrology with its Sino-centric assumptions still had two strong allies: the continuing belief in a geocentric worldview and the reality of the actual Sino-centric world order. Any rational criticism would be powerless in the presence of these two predicates. The universe revolved around the earth, the center of which was China, still the most powerful and prosperous country in the world. It would take the passage of another full century for these two conditions to disintegrate, and only after that would Chinese astrology finally give way to modern Western astronomy.

ABSTRACT

The Introduction of Western Science and the Rationalization of Traditional Astrology: Reevaluating Yi Ik’s “On Field-allocation”

Lim, Jongtae

In this article I examine how Yi Ik, a prominent shirak[

scholar in the 18th century, responded to the impact of Western science. I focus on one of his articles, “On Field-allocation” [bunya, 分野] in the Fragmented Essays of Master Seongho [seongho saseol, 星湖儒說], because Yi Ik here articulated his approach both to Western science and the traditional world view. Contrary to the accepted image of Yi Ik as an iconoclastic critic of the traditional worldview and as a pioneer of modern Korean thought, I draw a rather conservative picture of him; Yi Ik never discarded the traditional belief in the astrological correspondence between heaven and earth, nor did he negate the central position of Chinese civilization in the world. He was, of course, aware that these conventional beliefs had many flaws that conflicted with the astronomical and geographical knowledge of Jesuit missionaries he highly evaluated. Yi IK tried to find a middle ground in which these conflicts could be successfully resolved. He incorporated several elements from Western science, especially the concept of a round earth, into the traditional astrological system, giving the latter a more reasonable theoretical foundation. In Yi Ik’s work, Western science did not provide an alternative to the traditional belief but a useful resource to rationalize them.
Keywords:
Yi Ik, shirak, field allocation, Western science, Jesuit missionaries, Sinocentric world view