#### David W. Pankenier

#### **Abstract**

Joseph Needham called the *Treatise on the Celestial Offices* 'a text of the highest importance for ancient Chinese astronomy'. This is no exaggeration, but the title of the *Treatise* alone shows that it is more than just a *summa* of ancient Chinese astronomical lore. The term 'Celestial Offices' clearly evokes a direct linkage between the stellar patterns above and the imperial offices and departments of the "celestial" empire below. This was new, of course, since at the time the empire itself was barely a century old. This paper will report on new insights on the text and its socio-cultural context acquired in the process of producing a complete annotated translation into English.

Nearly fifty years ago Joseph Needham called the 'Treatise on the Celestial Offices' from Sima Qian's *Shiji*, the *Grand Scribe's Records* (c. 100 BCE) 'a text of the highest importance for ancient Chinese astronomy'. Here are some highlights of what the 'Treatise' does:

- it thoroughly 'imperializes' astral nomenclature, identifying by name and relative location 90 asterisms and 412 individual stars, in many cases giving rudimentary indications of apparent magnitude;
- it displays self-conscious theory formation in advancing an astrologically-informed interpretation of history: 'to investigate the boundary between the celestial and human and thereby comprehend historical change, past and present, in order to formulate a thesis of my own':
- it emphatically reinforces cosmological principles of centrality and universality;

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<sup>&</sup>lt;sup>1</sup> Joseph Needham et al., Science and Civilisation in China, Vol. 3, Mathematics and the Sciences of the Heavens and the Earth (Cambridge: Cambridge University Press, 1959), p. 200.

• it reformulates age-old astrological schema to adapt to the requirements of the newly founded empire.

Clearly, Needham's characterization is no exaggeration; the 'Celestial Offices' in the title shows that the 'Treatise' is more than merely the definitive compendium of ancient Chinese astronomical lore. 'Celestial Offices' clearly evokes the direct linkage between the stellar patterns and the analogous imperial offices and departments of the Celestial Empire below. Here my focus will mainly be on astrology in the service of ideology, represented by the last two points enumerated above.<sup>2</sup>

Astronomy in Sima Qian's time was, of course, not the dispassionate scientific pursuit that the term currently implies. Rather, it was the prevailing conception that celestial events had ramifications on earth and, conversely, that temporal affairs could perturb the cosmos, mutual influences being accomplished by means of a long-established system of astral-terrestrial correspondences and the medium of 'energetic vapour': qi. It was thought that the signs of this reciprocal interaction between Heaven and Earth could be discerned at an incipient stage, that historical precedent and the maintenance of careful records could aid in the interpretation of such omens, and that it was crucial to the welfare of the state that the emperor be kept regularly and accurately informed of celestial events, especially unanticipated or anomalous phenomena. This is why Sima Qian's official title Taishi gong is rendered in English as 'Prefect Grand Scribe-Astrologer' - the two responsibilities were functionally inseparable. But it is the astrological motive that especially informs the *Treatise* and lends it its special character.

The *Grand Scribe's Records* was written and compiled during an epoch-making period in China's early history. By Sima Qian's time (c. 145-86 BCE) the Han dynasty had come into its own after over a half-century of consolidation following the debacle of the Qin dynasty's collapse in 206 BCE. The early Han emperors' successful stewardship of the Mandate of Heaven and the growing self-confidence which this engendered prompted the Han rulers increasingly to distance themselves from the excesses of the failed Qin dynasty (221–206 BCE). By the reign of Han Emperor Wu (r. 140–87 BCE), in particular, this ambition manifested itself in concerted efforts to reform political, legal and

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<sup>&</sup>lt;sup>2</sup> An annotated translation of the entire 'Treatise' is in Appendix One to David W. Pankenier, *Bringing Heaven Down to Earth: Celestial Foundations of Chinese Civilization* (New York: Cambridge University Press, 2014).

financial administration, to recreate state religious and ceremonial rites, to reinvent the imperial ideology and to project Han military power abroad. Sima Tan and Sima Qian, father and son, who occupied the office of Prefect Grand Scribe-Astrologer in succession for over half a century, witnessed these transformative developments; the enduring importance of their life work is a testament both to the intrinsic value of their comprehensive account of Chinese history as well as to the normative influence the Grand Scribe's Records exerted on later Chinese historiography. What makes the Treatise on the Celestial Offices so important from the perspective of the history of ideas, apart from its clear exposition of the theory and practice of portent astrology in the Former Han (220 BCE-8 CE), is that it also marks an unmistakable transition from ancient traditions to a new interpretive paradigm.

## Astrology in the Early Imperial Period

Field-allocation (fenye) astrology is hardly mentioned in the Former Han philosophical works. However, numerous passages in fourth through second-century BCE narratives – like Zuo's Tradition (Zuozhuan), Discourses of the States (Guoyu), the Springs and Autumns of Master Lü (Lüshi chunqiu), and the encyclopedic Huainanzi (Book of Master Huainan) – as well as an abundance of archaeologically excavated Han dynasty artifacts - ranging from diviners' cosmic-boards (shi) to the Mawangdui silk manuscripts - all make it clear that both a theory of astral-terrestrial correspondences and the idea of mutual resonance (ganying) were fundamental to the cosmological thought of the early Han period.<sup>3</sup> Unlike Hellenistic astrology, the Chinese did not stress the unidirectional influence expressed by Ptolemy's famous axiom 'as above, so here below,' so much as the reciprocal 'as here below, so above', reflected in the belief that celestial anomalies and other ominous manifestations of Heaven's displeasure were seen as an index of temporal misrule. For this reason, astrology and astronomy bore directly on the security of the state and hence were closely controlled activities. This is one explanation for the hereditary - even hermetic - character of the astrologer's profession from the earliest times.

<sup>&</sup>lt;sup>3</sup> For a general discussion of these and other aspects of pre-imperial and Han dynasty astrology and cosmology, see Donald Harper, 'Warring States Natural Philosophy and Occult Thought', The Cambridge History of Ancient China: From the Origins of Civilization to 221 B.C. (Cambridge: Cambridge University Press, 1999), p. 831 ff.

The ancient Chinese were acute observers of celestial phenomena. Such observation was not the result of disinterested stargazing. Original records of regular astronomical observation ranging from the mundane (sunrise and sunset, solstices, individual stars and planets) to the exceptional (lunar and solar eclipses, sunspots, supernovae, etc.) appear as early as writing itself in the Shang oraclebone inscriptions beginning in the late thirteenth century BCE. But for many years the conventional view has been that astrology played no significant role in the history of ideas in China before the late Warring States period. The very fact that astronomical records first appear in the context of late Shang dynasty (1554-1046 BCE) oracle bone divinations, and that the Spring and Autumn Annals accurately reports numerous solar eclipses during the period 722-479 BCE and the distress they caused should be sufficient to give pause; the role of astral-terrestrial correspondences in the very earliest period has not been adequately explored.5

In the Former Han dynasty (206 BCE–8 CE) it was the duty of the Prefect Grand Scribe-Astrologer *Taishi gong* to know the historical precedents, to follow the movements of the heavenly bodies and to advise the emperor on the implications of developments, especially unanticipated changes or anomalies. Sima Qian's *Treatise on the Celestial Offices* provides a comprehensive survey of the cosmological and astronomical knowledge in the keeping of his office, as well as its practical application. This included plotting the locations, movements and changes affecting the stars and planets and interpreting their significance based on the, by then, well-established system of astral-terrestrial correspondences. According to Sima Qian, this preoccupation with

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<sup>&</sup>lt;sup>4</sup> Though Nathan Sivin recognizes the connection between the evolution of astrology and Shang divination, and the Zhou rulers seeking direction from their anthropomorphic Heaven, he nevertheless avers that the microcosm-macrocosm analogy between the cosmos and centralized political rule was a product of the last three centuries B.C.; see Nathan Sivin, 'State, Cosmos, and Body in the Last Three Centuries B.C.', *Harvard Journal of Asiatic Studies* 55.1 (1995), pp. 5-37. In contrast, Peter Berger observed that, 'Probably the most ancient form of legitimation is the conception of the institutional order as directly reflecting or manifesting the divine structure of the cosmos, that is, the conception of the relationship as one between microcosm and macrocosm. Everything "here below" has its analogue "up above"; see Peter Berger, *The Sacred Canopy*, (Anchor Books, 1990), p. 34.

<sup>&</sup>lt;sup>5</sup> But see Pankenier, Bringing Heaven Down to Earth.

tracking the movements of the heavenly bodies could be traced all the way back to the beginning of history: 'For as long as the people have existed, when have successive rulers not traced the movements of the Sun, Moon, stars and asterisms?' 6

Astrological portents typically had implications for the ruler, high dignitaries and major affairs of state. Because of their extreme rarity, multiple planetary conjunctions – especially dense groupings involving all five naked-eye planets (MERCURY, VENUS, MARS, JUPITER, SATURN) ranked as the most portentous of all celestial phenomena and, as such, had dynastic implications. This pre-eminence was based on the historical association of planetary massings with epochal dynastic transitions, culminating in the most recent such alignment, in 205 BCE. This sign in the heavens was officially recognized and later memorialized in the *Grand Scribe's Records* as the astral omen signalling the imminent rise of the Han dynasty: 'When Han arose, the FIVE PLANETS gathered in DONGJING [EASTERN WELL; lodge #22, roughly Gemini]'. The later account in the *History of the Former Han* is even more explicit:

1<sup>st</sup> year of Emperor Gaozu of Han, 10<sup>th</sup> month, the five planets gathered in Dongjing [lodge #22]. Extrapolation based on the calendar [indicates] they followed [the lead of] JUPITER. This was the sign that August Emperor Gao received the Mandate. Therefore, a retainer said to Zhang Er, 'Dongjing is the territory of Qin. When the King of Han [i.e., Liu Bang, soon to be Emperor Gao] entered Qin, the FIVE PLANETS, following JUPITER, gathered together, signifying [he] ought to gain the sub-celestial realm by means of Righteousness'.<sup>9</sup>

<sup>&</sup>lt;sup>6</sup> Sima Qian, *Shiji* (Beijing: Zhonghua, 1959), 27.1342.

<sup>&</sup>lt;sup>7</sup> David W. Pankenier, 'The Cosmo-Political Background of Heaven's Mandate', *Early China* 20 (1995): pp. 121-176.

<sup>&</sup>lt;sup>8</sup> Sima, Shiji 27.1348.

<sup>&</sup>lt;sup>9</sup> See also *Han shu* (Beijing: Zhonghua, 1962), 26.1301. The *Han shu* date '10th month' of 206 BCE for the event is an obvious 'adjustment' based on the date of the Qin heir Wangzi Ying's surrender to Liu Bang at Xianyang, the Qin capital. The actual planetary alignment occurred the following year, in May of 205 BCE. Sima Qian is more circumspect saying only 'when Han arose'. For his theoretical statement that conjunctions of the five planets in which Jupiter takes the lead portend the rise of a 'righteous' dynastic founder, see Sima, *Shiji* 27.1312.

From Sima Qian's account of the significance of planetary massings, it is evident that by the beginning of the Han dynasty heavenly endorsement of the transfer of the Mandate to a new dynasty in the form of a cluster of all five planets had become ideologically *de rigueur*. In a conservative 'science' like astrology this kind of axiomatic premise could not take shape and win general acceptance overnight; it must have the sanction of long tradition behind it. Clearly, by Sima Qian's time the connection was self-evident. His concluding summary of the astrological knowledge of his day in his *Treatise* displays both ancient conceptual roots as well as the Han theoretical reformulation based on the prevailing *yin-yang* and Five Elemental-Phases correlative cosmology:

Ever since the people have existed, when have successive rulers not systematically tracked the movements of the Sun, Moon, stars and asterisms? Coming to the Five Houses [Huang Di, Gao Yang, Gao Xin, Tang Yu, Yao-Shun; the five mythical emperors] and the Three Dynasties [Xia, Shang, Zhou], they continued by making this [knowledge] clear, they distinguished wearers of cap and sash from the barbarian peoples as inner is to outer, and they divided the Middle Kingdoms into twelve regions. Looking up they observed the figures in Heavens, looking down they modelled themselves on the categories of the Earth. Therefore, in Heaven there are Sun and Moon, on Earth there are yin and yang; in Heaven there are the FIVE PLANETS, on Earth there are the Five Elemental-Phases [WOOD, FIRE, METAL, WATER, EARTH]; in Heaven are arrayed the lunar lodges, and on Earth there are the terrestrial regions. 10

# Therefore, Sima Qian says:

When the FIVE PLANETS gather, *this is a change of Phase*: the possessor of [fitting] virtue is celebrated, a new Great Man is set up to possess the four quarters, and his descendants flourish and multiply. But the one lacking in virtue suffers calamities or elimination.<sup>11</sup>

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<sup>&</sup>lt;sup>10</sup> Sima, Shiji, 27.1342.

<sup>&</sup>lt;sup>11</sup> Sima, *Shiji* 27.1321. That Sima Qian's was the conventional conception is confirmed by Shen Yue's (441-513) reiteration of this principle in the *History of the Song Dynasty, Song shu* ('Treatise on Astrology' *Tianwen zhi*, 25.735) where

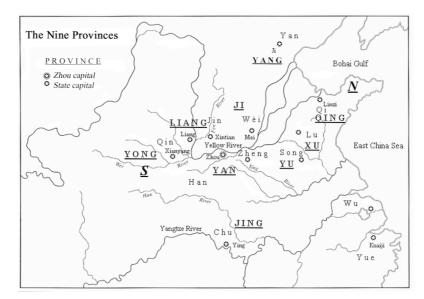


Figure 1. Map of the ancient provinces of north-central China and the astral-terrestrial correspondences of field-allocation astrology

### The New Astrological Paradigm

A noteworthy attribute of the earlier field-allocation system of the Warring States period (40–221 BCE) is that it was unabashedly sinocentric in conception. The Chinese world was all that mattered, so that the identity between the Milky Way (the RIVER OF HEAVEN) and the Yellow River provided the paradigm for the entire scheme of correlations between the starry sky and the terrestrial provinces below. No

he quotes Sima Qian, 'the one lacking in virtue suffers punishment, is separated from his household and kingdom, and devastates his ancestral temple', and then says, 'Now, in my judgment, based on surviving texts, there have been three conjunctions of the FIVE PLANETS. Zhou and Han [dynasties, each] relied [on one] to rule as King, as did Qi as hegemon. [Duke Huan of] Qi [685-643 BCE] finally ended up as Hegemon, and in the end there was no epochal change. Therefore, there has never occurred such a thing as a conjunction of planets with no [concomitant] change of Phase'. Similarly, arguing that dynastic change may be portended by clusters of only four planets, Shen Yue later points to record of the transfer of the Mandate from the Han dynasty to Wei in 220 CE: 'Emperor Xian of Han, 25th year of the Jian'an reign period: Emperor Wen of Wei [Cao Pi; r. 221 - 237 CE] received his [Han Emperor Xian's] abdication. This constitutes the change of Phase [portended by] the four planet's three [recent] gatherings'; Shen Yue, Song shu (Beijing: Zhonghua, 1974), 25.736.

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accommodation was made in Heaven for non-Chinese peoples. By the Former Han dynasty (206 BCE-8 CE), however, some concession had to be made to the new political reality. Leaving no room for prognostication concerning non-Chinese peoples was an anachronistic bias that astrology could no longer afford if it was to have a claim to relevance in the imperial period. 12 Therefore, in view of the increasingly ominous threat to the unified Han Empire posed by aggressive non-Chinese peoples on the periphery like the Xiōngnú, the Sīmăs assert in the Heavenly Offices that, in macro-astrological terms, the warlike nomadic peoples are  $y\bar{i}n$  with respect to the váng of the Chinese world. As such, they correspond to the northern and western quadrants of the heavens, while the Chinese world corresponds to the south and east. By way of theoretical support, they adduce the historically powerful Chinese border states of Jin and Qin as cases in point of hybrid Chinese polities whose martial proclivities clearly reflect the influence of non-Chinese peoples with whom they had been in intimate contact for generations.

... coming to Qin's swallowing up and annexing the Three Jin [i.e., Wei, Zhao, Han], Yan, and Dai [Shandong], from the [Yellow] River and Mount [Hua] southward is China [zhongguo]. [With respect to] the area within the Four Seas, China therefore occupies the south and east as yang — yang is the Sun, Jupiter, Mars, and Saturn. Prognostications [about China are based on astral locations] situated south of

<sup>&</sup>lt;sup>12</sup> See also the discussion in Nicola Di Cosmo, *Ancient China and its Enemies: The Rise of Nomadic Power in East Asian History* (Cambridge: Cambridge University Press, 2002), pp. 305-11.

<sup>&</sup>lt;sup>13</sup> In the early Han *Mawangdui* ms 'Prognostications of the Five Planets', *yin* and *yang* are commonly used as directional terms in the sense of 'north and west' and 'south and east', respectively, but only with respect to relative locations of the kingdoms of the Warring States. For example, in discussing prognostications based on VENUS' position in particular astral fields, 'Prognostications of the Five Planets' says: 'Yue, Qi, Han, Zhao, and Wei, are *yáng* with respect to Jing (Chu) and Qin. Qi is *yang* with respect to Yan, Zhao, and Wei. Wei is *yáng* with respect to Han and Zhao. Han is *yang* with respect to Qin and Zhao. Qín is *yang* with respect to the *Di*-barbarians. They are prognosticated on the basis of [VENUS' lying] north or south, advancing or retreating'; see Liu Yuxian, 'Mawangdui tianwen shu kaoshi', *History of Chinese Philosophy* 3 (2004), p. 86. Sima Qian's use of *yin* and *yang* here with respect to the topography of the whole empire is an innovation.

CELESTIAL STREET [ $\kappa$  Tau], and HUNTING NET [lodge #18,  $\epsilon$  Tau] governs them. To the north and west are the Hu, Mo, Yuezhi and other peoples who wear felt and furs and draw the bow as yin — yin is the MOON, VENUS, and MERCURY. Prognostications [about them are based on astral locations] situated north of CELESTIAL STREET, while MANE [Pleiades, lodge #19, 7 Tau] governs them...

Essentially, China's mountain ranges and watercourses run north and east, their head[-waters] in [Mount] Long and Shu [Gansu and Sichuan] and tail at the Bo[-hai Gulf] and [Mount] Jie[-shi] [Shanhaiguan]. For this reason, Oin and Jin are fond of using weapons; furthermore, their prognostications [depend on] VENUS, governor of China, while the Hu and Mo, who have repeatedly invaded and despoiled, are uniquely prognosticated [based on] MERCURY. MERCURY'S appearances disappearances are swift and sudden, so as a rule it governs the Yi-Di barbarians. These are the guiding principles. They are modified according to who acts as the guest and who the host. MARS means order, externally [N & W], the army should be mobilized, but internally [S & E], the government should be put in order. Therefore it is said, 'Though there may be a perspicacious Son of Heaven, one must still look to where MARS is located'.14

Astrological prognostication on this new binary macro-level clearly departs in important respects from the earlier astral omen-watching. The new astrology reflects the animosity between the Chinese and frontier peoples which became a major preoccupation of the imperial court from the Qin dynasty on, and intensified greatly during Emperor Wu's reign (140–87 BCE), under whom the Simas served. This antagonism also surfaces in the interpretation of important planetary phenomena, with its suggestive modern terminology; as we read in the *Treatise*: 'When the FIVE PLANETS divide the sky in the middle and gather in the east, China (*zhongguo*) benefits; when they gather in the west, foreign kingdoms (*waiguo*) using weapons gain'. <sup>15</sup> Remarkably, given astrology's

<sup>15</sup> Sima, *Shiji*, 27.1328. Precisely because of the macro-astrological context, I do not think it is anachronistic to translate *zhongguo* 'Middle Kingdoms' as 'China' in this part of the 'Treatise'.

<sup>&</sup>lt;sup>14</sup> Sima, *Shiji*, 27.1347.

resistance to change, and in spite of a pious nod in the direction of his esteemed predecessors, the Sima's account bears witness to a major reformulation of astrological theory and practice, in which the former preoccupation with a multivalent sino-centric world is adapted to the circumstances of the Han empire with its 'us vs. them' view of contemporary power relations.

By referring again to the map of the sky (Figure 2) it becomes apparent that this broad generalization invokes the parallelism between the celestial topography and the geo-political realities of north central China in the pre-imperial and early Han periods. (It is noteworthy that even in this revised scheme Sima Qian's geographical focus is still on North China and the Yellow River watershed. He gives surprisingly short shrift to the Yangtze and Jiangnan region, despite the Han dynasty's aggressive expansion into this region as far south as present-day North Vietnam.) Essentially, the wintry or *yin* celestial fields north and west of the Milky Way as archetypal CELESTIAL RIVER (i.e., lodges #10 – 18, provinces Yang through Liang, or Capricornus through Taurus) correspond to the historical fields of activity of the peripheral 'barbarian' peoples. In contrast, the summery or yang celestial fields south and east of the Milky Way (i.e., lodges #15 - 19, provinces Yong through Yu, or Taurus through Scorpius) correspond to the Chinese heartland. Sima Qian singles out the powerful northern Chinese border states of Jin and Oin as emblematic of those who favoured martial exploits over the purported Chinese ideological emphasis on civil pursuits and ethical selfcultivation.

Astrological prognostication on this new binary macro-level clearly departs in important respects from the earlier astral omenwatching. To cite one telling example, linking the powerful southeastern coastal state of Wu with the southern lodge BIRD (#23;  $\alpha$  Hydrae) represents a radical break with the earlier scheme in which Wu and Yue, then seen as the peripheral south, were originally associated with lunar mansions SOUTHERN DIPPER #8 [ $\phi$  Sagittarii] and OX-LEADER #9 [ $\beta$  Capricorni] in the winter or northern quadrant. This move also had the effect of dispossessing the longest-ruling and culturally most influential of the pre-imperial dynasties, the Zhou (1046 – 256 BCE), by disassociating it from the huge VERMILION BIRD constellation (Cancer-Corvus). The new astrology reflects the animosity between the Chinese and peripheral peoples, which became a major preoccupation of the imperial court in the Qin and Former Han dynasties. As noted above, in the pre-imperial scheme of astral-terrestrial correspondences, all twenty-

eight lunar lodges were allocated to the twelve states of the Hua-Xia or Chinese world. No provision is made there for non-Chinese peoples, nor is there any trace of a *vin-yang* binary polarity.

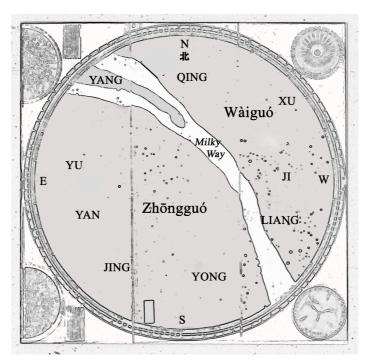


Figure 2. The Nine Astral Fields-Provinces in Relation to the Milky Way. A map of the heavens showing the disposition of the nine provinces surrounding the Milky Way in field-allocation astrology. The Milky Way, as archetypal CELESTIAL RIVER, divides the celestial topography into yin (north and west) and yang (south and east) halves.

Sima Qian's cardinal principles of astrological prognostication, insofar as they concern non-Chinese peoples, are clearly based on a north vs. south bisection of the celestial topography – still with the CELESTIAL RIVER as boundary - and also on the idea that wen (civil pursuits) are to wu (martial pursuits) as yang is to yin, and so Zhongguo (China) is to waiguo (foreign kingdoms) as yang is to yin. Fortunately for the new, binary, macro-astrological scheme, it worked out that China corresponds to the assertive, quintessentially 'masculine' - or yang half - of the binary paradigm. Needless to say, the converse - with Imperial China corresponding to the submissive, 'feminine' yin force – would have been

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culturally unacceptable. For this very reason, repeated invasion and conquest by aggressive 'barbarian' peoples (including nineteenth and twentieth century imperialists) would pose a major psychological challenge to China with its age-old cultural devaluation of martial pursuits.

Let me end with Sima Qian's words from his own conclusion to the *Treatise*', which convey an impression of the humanistic flavour of his astrology:

If there is a solar anomaly, practice virtue; if there is a lunar anomaly, reduce punishments; if there is a planetary anomaly, join in harmony. In all cases of celestial anomalies, if the [regular] measures are overstepped, then prognosticate... The ultimate superior cultivates virtue, the next level practices [good] government, the next level carries out relief efforts, the next level conducts sacrificial rituals, below that nothing [is prognosticated].

Now, changes in the constant stars are rarely seen, but prognostications concerning the THREE LUMINARIES [SUN, MOON, STARS & PLANETS] are frequently applied. Halos and defects in the SUN and MOON, clouds and wind, these are the transient [effects] of celestial *qi* [energetic vapor], and their production and appearance also have their major cycles. However, with regard to the vicissitudes of governmental affairs, they are the most proximate tallies of [the intersection] between the Celestial and human...[my purpose is] to investigate the boundary between the celestial and human and thereby comprehend historical change, past and present, in order to formulate a thesis of my own... [exploring events] from beginning to end, from ancient times to the present, [I have] looked deeply into the trends of the times, examining the minute and the large scale, [so that my exposition of] the CELESTIAL OFFICES is now complete.<sup>16</sup>

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<sup>&</sup>lt;sup>16</sup> Sima, *Shĭjì*, 27.1350.