Lunar Mansions, Asterisms, and Constellations in Traditional Chinese Star Names*

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Abstract

In ancient Chinese celestial nomenclature, clear distinctions existed among xingxiu (lunar mansions), xingguan (official asterisms), and xingzuo (constellations). Xingxiu refers specifically to the Twenty-Eight Lunar Mansions, which functioned as a coordinate system for measuring celestial bodies without consideration for their existence as individual stars or constellations. Xingguan designates those asterisms whose names bear official governmental titles; if a star name lacks such official connotations, it must be termed xingzuo rather than xingguan. Therefore, the term xingzuo possesses a broader application scope, encompassing asterisms named after officials, animals, and other categories. The Twenty-Eight Lunar Mansions may also be termed the Twenty-Eight Constellations. Previous misunderstandings regarding these distinctions necessitate clarification.

Full Text

Lunar Mansions, Asterisms, and Constellations in Traditional Chinese Star Names*

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Abstract: In ancient China, the terms *xiu* (lunar mansion), *xingguan* (asterism), and *xingzuo* (constellation) used in the naming of the sky were distinct. The lunar mansions refer to the twenty-eight mansions; they served as coordinates for measuring celestial bodies, without considering their significance as fixed stars or constellations. An asterism refers to naming a constellation after

an official position; if a star name does not contain the meaning of an official post, it cannot be called an asterism but should be called a constellation. Thus the scope of usage of "constellation" is broader: the names of celestial officials, animal star names, and other star names may also be called constellations. The twenty-eight mansions may also be called the twenty-eight constellations. Misunderstandings in the past need to be clarified.

Keywords: China; lunar mansions; asterisms; constellations

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What is the difference among the lunar mansions, asterisms, and constellations that formed the traditional terminology of star naming among astronomers in ancient China? Some people think that in traditional Chinese usage star patterns should not be called constellations but lunar mansions; others think that star patterns should not be called constellations but asterisms, and so on. These views seem plausible but are in fact due to insufficient understanding of the star patterns spoken of by the ancients. Here we offer a focused analysis and interpretation of this question.

1 Concepts Concerning the Lunar Mansions

The character "宿" in the term *xingxiu* has three pronunciations, with somewhat different meanings. According to field investigations in the past, when people in Yunnan read *xingxiu* as *xīng xiù* (with the pronunciation *xiù*), it referred broadly to stars, including fixed stars, planets, comets, meteors, and so forth, collectively called *xing xiù*. This was the case not only among the Han people but also among some minority nationalities, although it may have been limited to the Yunnan region. According to the standard pronunciations in character dictionaries and word dictionaries, today the twenty-eight mansions are read with 宿 pronounced *xiù*. Historically, all fixed stars associated with the character "宿" were associated with the twenty-eight mansions. For example, the *Treatise on Harmonics and Calendars* in the *Records of the Grand Historian*, the *Astronomical Instructions* in the *Huainanzi*, and the *Treatise on Astronomy* in the *Book of Jin* all call them the twenty-eight mansions[1–3]. Here, 宿 may also be read *xiù* (pronounced like "朽"), but in the north it is read *xiǔ* and does not specifically refer to the twenty-eight mansions. In the *Treatise on the Celestial Offices* in the *Records of the Grand Historian* it is also called the twenty-eight lodges (*ershiba she*)[4]. *She* and *xiu* are the same concept; the two characters combine as *sùshè*, with 宿 read *sù* (pronounced like "速"). *Sùshè* means a place of residence. The "lodges" in the sky are the places where celestial bodies reside. In short, after the twenty-eight mansions became a technical term, the three pronunciations were confused; but whether or not one reads the word with its standard pronunciation, this does not lead to misunderstanding, and this is also related to the original meaning at the time of their establishment.

When the ancient Chinese established the twenty-eight mansions, it was first of

all in order to observe and calculate the course of the Moon' s motion along the ecliptic. The Moon resides in one mansion each night among the twenty-eight mansions, completing one circuit in about 28 days. Later, astronomers also extended their use to observing and calculating the positions and daily coordinates of the Sun, the five planets, and other moving celestial bodies. They could be calculated according to the equatorial, ecliptic, or horizontal coordinate systems; each mansion had a determinative star as the starting point for calculation. These coordinates are the right ascension and polar distance of each mansion. There has never been any practice of departing from the twenty-eight mansions and speaking emptily of star patterns; names such as the Five-Emperor Mansion and the Celestial Wolf Mansion are unscientific. Therefore, with regard to the twenty-eight mansions, they had already lost the meaning of constellations themselves and became coordinates and a framework for measuring the positions of celestial bodies.

2 Concepts Concerning Asterisms

The *Records of the Grand Historian* states that the book describing the all-sky constellations named in China was called the *Book of Celestial Offices*. Its original meaning was to call these constellations celestial offices or asterisms, comparing the structure of the whole sky to human society and governmental institutions on the ground; the names of the constellations were like the various official titles in governmental institutions, and therefore it was called the *Book of Celestial Offices*. The composition of its constellations was just like administrative agencies at all levels with a fine division of labor. The asterisms in the sky were mainly concentrated inside and outside the Purple Forbidden Enclosure in the northern polar sky, in the Supreme Palace Enclosure in the eastern sky, and in the Heavenly Market Enclosure in the northern sky, as well as among local officials of various ranks; they were also all divided—

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distributed in suitable places in the starry sky.

Ziwei Yuan is the palace where the Heavenly Emperor resides. Within it, in addition to the Heavenly Emperor high above, there are the Empress of Heaven, Crown Prince, Imperial Heir, Maids-in-Waiting, Female Attendants, and Pillar of History, as well as the celestial kitchen that prepares food and the carriage, ornate canopy, and so on used when going out. The place where the Heavenly Emperor handles affairs of state is called Taiwei Yuan; within it are the Three Excellencies, Nine Ministers, Five Feudal Lords, the Prime Minister, Vice Minister, Senior General, Junior General, Left and Right Law-Enforcement Officials,

and so forth, who assist in deliberation and in handling daily affairs. The Tianshi Yuan, over which the Heavenly Emperor presides, contains the stalls, shops, and cart-stalls where trade is conducted, as well as officials and market towers that manage the market, and so on[^5].

Ancient astronomers not only transplanted the names of officials on earth into the sky; they also moved terrestrial government institutions into the heavens. Examples include the Lingtai, Mingtang, Kulou, Guansuo, and the like. It should be said that transplanting royal sacrifices, astronomical observations, and important places such as garrisons and sluices into the starry sky was necessary. But assigning places even to secondary spaces such as outer screens and toilets seems somewhat trivial.

It should also be mentioned that some scholars like to attach the suffix "official" to the names of the above institutions, for example, Lingtai Official, Mingtang Official, and so forth, in the hope of making them consistent with the "star-official" names in the preceding text. We do not object to this view, because many institutional names are linked to official titles, but one cannot help feeling that it is rather far-fetched. If such inference is extended on that basis, then even the person who manages the toilet would have to be an official! Moreover, there are also star names named after physical objects, such as Tiantian, Zhouding, Fuyue, and the carriages and ornate canopies mentioned above; to attach the suffix "official" to all of them may be somewhat inappropriate.

3 Concepts of Star Names of States and Animal Star Names

"States" are named in relation to the central kingdom. The central dynasty is the ruler, and the surrounding states are dependencies; they are territories enfeoffed by the emperor to the various lords, also called *guo* or *zhouguo*. Among Chinese star names, they may be divided into several categories. In addition to the officials, government institutions, and objects mentioned above, there are also names of ordinary people, such as Wenren, Zi, and Sun. In addition, many names of states are also included. Apart from the "Seven Heroes of the Warring States"—Liang, Zeng, Ji, and Yue, which appeared in the Central Plains literature during the Spring and Autumn and Warring States periods, there are also Dai, Zhou, Zheng, and others. Their positions are mainly concentrated in Tianshi Yuan and to the southeast of Zuo Yuan, among the Twelve States beneath Nüxiu[^6].

Furthermore, among those with a certain relationship to states are animal star names; this category of star names numbers as many as seventeen or more. Most of them are concentrated in the broad region near the ecliptic belt and are distributed in all directions. This phenomenon cannot be understood simply as a zoo in the heavens; rather, it refers to the emblems of peoples and ethnic groups, to which totemic names for worship were later added—that is, totems were used to represent groups of people. This point has been discussed in the past[^7], but because it is not as immediately easy to understand as state star

names, a few examples need to be given briefly.

When ancient astronomers named the Four Images, they took into account already existing totems representing the peoples of the four directions. The representative totem worshiped by the eastern Yi groups was the dragon; therefore, the seven lodges of the east came to be called the Azure Dragon. The one representing the southern Man groups was the bird totem, and the seven lodges of the south were called the Vermilion Bird. The western Qiang groups generally used the tiger as their totem, and the seven lodges distributed in the west were called the White Tiger. The representative totem of the northern Di groups was the turtle and snake intertwined, and the seven lodges of the north were named Xuanwu. This developed from Xuanming; it actually refers to the Xianyun tribes developing northward, uniting with the She people, and becoming a powerful group. The colors of the Four Images were added after the development of the theory of the Five Phases. Wood in the east is azure-green, fire in the south is vermilion-red, metal in the west is white, and water in the north is dark black.

Another typical example among animal star names is the dog. The two stars of Gou are north of Dousu; the four stars of Gouguo are south of Dousu; and the seven stars of Tiangou are south of Guisu. Likewise, these cannot be regarded as an animal dog and a country founded by dogs, but refer to different groups that used the dog as their totem; they are concrete reflections of social history. Among the Quanrong peoples living in the northwest, there are records of the dog totem. After the Three Miao moved south, their descendants—the She and Yao peoples—down to modern times have regarded the dog as their male progenitor, which is clear evidence. Therefore, animal star names must be symbols of minority peoples.

In addition, Tianlang is the brightest fixed star in the whole sky. It lies south of Jingsu, and beneath it the constellation Hushi draws a bow and aims an arrow directly at it. It does not refer to the animal wolf, but to a fierce and cruel barbarian general like a wolf or tiger; in other words, it refers to the side hostile to the Central Plains, and therefore Hushi is arranged opposite it, "raising the bow to shoot Tianlang." Moreover, among the Xiongnu in northern and northwestern China, the wolf was used as a totem; their long-standing status as a frontier threat to the Central Plains dynasties is also evidence.

4 The Ancient Concept of Constellations

Some people believe that China' s naming of the starry sky can only be called "star officials" or "lunar lodges," and cannot be called "constellations." This view has long been not an isolated case but rather widespread, and it is also supported by written historical records. For example, the "Treatise on Astronomy" in the *Book of Han*[^8] says: "Among the regular lodges of the stars there are officials both inside and outside; altogether 118 names." Zhang Heng' s *Lingxian* also says: "The officials inside and outside, the constantly bright ones, number 124; those that can be named number 320." From this it is inferred that in ancient

China people spoke only of "star officials" and not of "constellations," and that the concept of constellations seems to be modern! This is a misunderstanding. The above quotations cannot prove that there were no constellations; in fact,

In fact, the concept of the constellation in China today appeared quite early. According to the record in the *Treatise on Astronomy* of the *History of Song*: "According to *Butiange*, in the central palace are the Purple Tenuity Enclosure and the Constant Stars of the Classic, with thirty-five lodges that can be named." "To the upper right is the Great Tenuity Palace, with nineteen lodges of constant stars." "The Celestial Market Enclosure on the right has seventeen lodges whose constant stars can be identified." [^9]

Further evidence is found in the Dunhuang Mogao Grottoes manuscript from the Tang dynasty: the Shi school has "sixty-four lodges in the central palace" and "thirty lodges in the outer palace" ; the Gan school has "seventy-six lodges in the central palace" and "forty-two lodges in the outer palace" ; the Wu Xian school has "forty-four lodges in the inner and outer palaces" and "a total of 283 lodges."

In the above examples, the character "lodge" (*zuo*) should be understood as meaning constellation; beyond this, it has no other meaning. From this it may also be concluded that the concept of the constellation originated in ancient China.

5 Conclusion

The twenty-eight lodges existed only as coordinates for measuring celestial bodies; in this sense, their existence as fixed stars or constellations is not considered. If their function as constellations is considered, then they may be called the twenty-eight stars, or certain numbered stars within the twenty-eight stars. The so-called star officer refers to a constellation named after an official. If a given star name does not carry the meaning of an official, it cannot be called a star officer, but may be called directly a constellation. For example, the Ming Hall constellation, Celestial Wolf constellation, Gouguo constellation, and so on. Therefore, the traditional star images named in ancient China may all, as a whole, be called constellations. Or, to put it more broadly in terms of the scope of usage, star names associated with celestial officials may be called constellations, and animal star names and other star names may also be called constellations; the twenty-eight lodges may likewise be called the twenty-eight constellations. Interpreted in this way, misunderstandings from the past can be clarified.

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Star, Asterism and Constellation in Traditional Chinese Name System of Celestial Objects

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Abstract: In ancient China, "star", "asterism" and "constellation" were different when used to denote celestial objects. As a special word, "star" indicates 28 star areas in the zodiacal belt. In terms of its original usage, it was just used for observing and calculating lunar movement. Later, it was applied to observe and calculate other celestial objects. However, it was used only as the coordinates to measure other celestial objects, without considering its significance as fixed star or constellation. "Asterism" was named for the officer in the sky, for example, a variety of officers in the government. However, an object name without the meaning of the officer cannot represent an asterism. For example, vehicles or other matters cannot be used to name an asterism. Names for constellations were adopted in a more popular manner: officers, animals as well as other matters can be used as the names of constellations. Those 28 star areas in the zodiacal belt can also be called 28 constellations.

Key words: China; Star; Star Officer; Constellation

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