

Constellations of war: battle array schema (zhentu) as ritual

A story about battle array schema

...“Do you desire a contest of captains, or of weapons, or of battle array?” asked Kongming [Zhuge Liang].

“Let us try a contest of battle array,” replied Sima.

“Then draw up your array that I may see,” said Kongming.

Sima withdrew within the line and signalled to his officers with a yellow flag to draw up their men. When he had finished, he rode again to the front, saying, “Do you recognise my formation?”

“The least of my captains can do as well,” said Kongming, smiling. This is called the ‘Hongyuan yiqi’ array.”

“Now you try while I look on,” said Sima.

Kongming entered the lines and waved his fan. Then he came out and said, “Do you recognize that?”

“Of course; this is the *bagua* [Eight trigrams] array.”

“Yes; you seem to know it. But dare you attack?”

“Why not since I know it?” replied Sima.

“Then you need only try.”

Sima entered the ranks and called to him three captains, Tai Ling, Zhang Hu and Yue Lin, to whom he said, “That battle array consists of eight gates of well-known names. You will go in from the east at the Gate of Life, turn to the southwest and make your way out the Gate of Destruction. Then enter at the north, at the Open Gate, and the formation will be broken up. But be cautious.”

They started with Zhang Hu leading, Tai Ling next and Yue Lin in rear, each with thirty horsemen. They made their way in at the Gate of Life amid the applause of both sides. But when they had got within they found themselves facing a wall of troops and could not find a way out. They hastily led their men round by the base of the line toward the southwest to rush out there. But they were stopped by a flight of arrows. They became confused and saw many gates, but they had lost their bearings. Nor could they aid each other. They dashed hither and thither in disorder, lost as in gathering clouds and rolling mists. Then a shout arose, and each one was seized and bound.

Then they were taken to the centre, where Kongming sat in his tent...¹

¹ Lo, *Romance of the Three Kingdoms*, ch. 100, 423.

Introduction

In the above passage from the well-known novel, protagonist Zhuge Liang (Kongming) defeats Sima Yi in a battle of superior use of *zhentu* (battle array schema). The Chinese military romance abounds in examples of achieving victory through manipulating *zhentu*. So do military manuals of the Tang and Song eras. In fact, the *bagua zhentu* (Eight trigrams battle array schema) used in the episode above by Zhuge Liang is described in the Song military manual, the *Huqianjing* (*Tiger Seal Classic*).² Other manuals written in the 8th through the 11th centuries, such as *Questions and Answers between Tang Taizong and Li Weigong* (hereafter, *Wendui*), the *Secret Classic of Venus, Planet of War* (*Taibo yinjing*; hereafter, *Venus Classic*) and the *Classic of Comprehensive Military Essentials* (*Wujing zongyao*; hereafter *Military Essentials*), incorporate similar ideas of the *zhentu*. *Zhentu* are often dismissed from historical inquiry, however, because they are absurd, “superstitious,” or mystical and therefore, irrelevant to military operations. Many historians question whether *zhentu* were actually used in battle or “remained on paper”.³ Even if they were not actually practiced, the court discussion surrounding battle array schema and the visual representations themselves may reveal most about how the middle imperial Chinese conducted war.

Zhentu were recorded in the official Song history, where there are at least thirty citations using the phrase.⁴ More significantly, forty-nine instances of *zhentu*

²*HQJ* 9.89.

³ Gawlikowski 1994: “Formations are now becoming more fantastic..., but from what we know of Chinese common sense, these probably remained mostly on paper.” Needham 1994, 26.

⁴ *SS* <*Benji*> 80, 110, 115; <*Bingzhi*> 4862, 4863, 4866, 4867, 4868, 4874, 4911; <*Yi wenzhi*> 5078, 5079, 5245, 5280, 5281, 5285-88; <*Liezhuàn*> 8964, 8965, 9300, 9308, 9309, 9468, 9469, 9488, 9702, 9956, 10196, 10197, 10299, 10300, 10461, 10463, 10474-5, 10728, 10739, 11376, 12876, 14008, 14145.

occur in the *Jiu Tangshu*, compiled in the early Song.⁵ The topic of battle array schema was taken up by the compilers of the early Song encyclopedic compilations, *Taiping yulan*, *Yuhai*, and *Wenxian tongkao*.⁶ And Song emperor Renzong (r. 1023-1063), who ordered the writing of the *Military Essentials*, regarded *zhentu* as just that, essential. Included under the military rubric in the above texts, the Song took *zhentu* seriously, viewing them as an indispensable part of the military project.

How, then, did these battle array schema function within the Song military program? Like Zhuge Liang's scenario above, *zhentu* described in prescriptive texts incorporated and organized many of the kinds of divination found in the manuals under consideration, allowing the army to fuse with the supernatural power by crossing phenomenal boundaries, such as time, space and the elements. In their cosmology, these schema functioned in accordance with the universal order. Involving more than merely winning battles, battle array schema describe subjugation of hostile forces necessary for complete victory (*quansheng*).

The Song conception of *zhentu* were not so very different from that depicted in the Zhuge Liang episode above. Below, I discuss the elements of *zhentu* and its links to the supernatural. The Tang-Song attention to *tu* (schema) was related to the changing status of battle array schema. Most texts in the *Seven Military Classics* discuss *zhentu*, but the supernatural characteristics of *zhentu* were Tang-Song attributes. Though legitimated through historical examples of the mythical Yellow Emperor (or Feng Hou) and Zhuge Liang of the Three Kingdoms era (220-280), *zhentu* as supernatural reflected a cosmology that was specifically Song.

⁵ *Beishi* has 49 citations.

⁶ *CFYG* 398.4735 <*Fushizu*>, and 401.4767-4777 <*Xingjun fa*> (*Methods on the march*). According to the *Yuhai*, the Song did employ these arrays in battle. The specifics of the arrays were contested in court, especially the issue of number. Here the form mentioned is “*wobing*”. According to Teng and Biggerstaff 1971, 89, the compilers of the *CFYG* included only the most authoritative material.

Originally derived from *xiang* (images, symbolizations, simulacrum), the Song infusion of cosmology into battle array schema meant that they acquired ritual characteristics. After discussing formal assignments of battle array schema, I show how the ritual characteristics of *zhentu* incorporated Song concerns about the cosmological order and how that affected their own place in it. Specifically, *zhentu* both expressed and tested the Song ability to invoke the supernatural by imitating heaven, performing its will, reading its reactions and adjusting schema accordingly. In this sense, *zhentu* incorporated methods concerned with questions of existence and knowing, reflecting the tension between Song anxiety about understanding moral behavior as dictated by heaven and their desire to define it themselves.

Linguistic and historical antecedents

The ideograph *tu* sheds some light on how the Chinese regarded *zhentu* and the role that *zhentu* played in the military sphere. The character *tu* 圖, is a frame constricting the character *bi* 鄙 “difficult to plan” inside.⁷ The use of the term *tu* (picture, chart, diagram, scheme, or schema) in *zhentu* has a meaning both commonplace and symbolic. In Song texts, *tu* meant both the diagram and the explication of the diagram, and as a verb, to scheme, to plan, to draw. Cosmologically, *tu* contained inherent esoteric power by virtue of being schema, conceptual abstractions capable of invoking heavenly forces. Below, I make the case that *tu* took on a revived esoteric meaning during the Song and that this revival related to the generation of battle array schema found in military manuals. I do this by looking at how Song encyclopedia develop the concept of both *zhen* and *tu*, and showing how these terms relate to changes that occur in military texts of the era.

⁷ Sivin 1994, 26-27 points out that one cannot know exactly when this character was associated with an actual diagram, but it was very early on. See also Harley and Woodward 1994, 203-227.

One component of the Song philosophical movement concentrated on developing visual schema as a means of transcending language to express the ineffable. As Mija Milcinski points out, “The awareness of the insufficiency of words resulted in many original solutions. In the Song dynasty... China produced a variety of diagrams (*tu*) by which philosophers and practitioners represented their theories. These formulations often arose on the basis of meditation techniques and could not therefore be fully transmitted by means of language alone.”⁸ Wang Bi first vocalized the “insufficiency of words” in his commentary on the *Book of Change (Yijing)*, describing its relationship to *xiang*: “Images (*xiang*) are the means to express ideas. Words are the means to explain the images....Since the words are the means to explain the images, once one gets the images, one forgets the words...”⁹ This notion is reflected again in the *Wendui*: “Military strategy can be transmitted as ideas but cannot be handed down as words.”¹⁰

The first *tu* were the eight trigrams (*bagua* 八卦) of the *Book of Change*, inspired by *xiang* (symbolizations, constellations) that dangled from the heavens. The *Taiping Yulan* entry tells us that *tu* were “drawn by Fuxi when he ruled all underheaven; these inspired the divinatory engravings (*qi*) for governance, taking the place of [keeping records] by means of knotting the ropes.”¹¹ The resurgent interest in the *Book of Change* during the Song necessitated, by its very nature, a reassessment of the visual. This included such diagrams as the “Former Heaven” and the “Latter Heaven” (*xiantian tu* 先天圖, *houtian tu* 後天圖) that were expounded upon by Zhou Dunyi, the Cheng brothers and Zhu Xi in the first two centuries of the Song.

⁸ Milcinski 1999, 386.

⁹ “Ming Xiang,” *Commentary on the Changes of Zhou*, Wang Bi; adapted from Lynn, 31.

¹⁰ Sawyer, 341.

¹¹ *TPYL* 618.2775.

The *Taiping Yulan* categorizes *tu* as a subset of learning in the expression *tushu* 圖書, the complement of *shu* (書 writings) that completes learning (*xue* 學).¹² In cosmological terms, *tu* signify an understanding of engraved patterns (*qi* 契 divinatory engravings on shell and bone) derived from the invention of the Eight Trigrams (*bagua*).¹³ They also symbolize conquest; in the Han (206 B.C.-AD 220) and the Northern and Southern (AD 220-580) dynasties, the confiscation of the enemies “charts and writings” (*tushu*) or “charts and registers” (*tuji* 圖籍) signified final domination.¹⁴ In the first instance, the confiscation echoes the place of *tu* in knowledge signaled by its association with writings. These writings were the canon of the Chinese classics,¹⁵ the “seven” weft texts (*qichen* 七讖), charts and weft texts (*tuchen* 圖讖), occult texts (*shushu* 數術), and military treatises.¹⁶ In the latter instance, *tuji* (charts and registers) evokes the association of *tu* with geography and its corresponding rule of the “nine” regions (*jiuzhou* 九洲). *Ji* (registers) were lists of households in the various subsectors of the country: the “broad learning of the *tuji*”, for example, enabled the sinification (*hua* 華) of the “thousand gates and the ten thousand households.”¹⁷ *Ji* were also military registers, as in the phrase, *fuji*. During the Tang, these *ji* became associated with the landscape (*shanshui tu, tutu*), a point to which I will return below.¹⁸

Since Han times, *tu* had been associated with *tuchen* (charts and oracles), which figured largely in the secret tradition of the *wei*, or weft, texts. The latter are often discussed in contradistinction to the *jing*, warp texts or classics, but initially, the

¹² *tushu* and *tuji*; *TPYL* ch. 618-619 <*Xue bu: Shu Tushu*>.

¹³ *TPYL* 618.2775.

¹⁴ *TPYL* 619.2778, from the *Shiji* and *Beishi*, respectively.

¹⁵ *TPYL* ch. 608-610 and 619 <*Caiqiu yiyi*>.

¹⁶ *TPYL* 613.2758 and ch. 607-619, <*Xuebu*> and <*Boxue*>.

¹⁷ *TPYL* 612.2752 <*Boxue*>.

¹⁸ *TPYL* 609.2742. Some scholars assert that the Tang cartographical developments were superior to later, and presumably previous, dynasties. See Yee 1994, 35.

wei (weft) texts complemented the classics as commentaries and explanations: “[t]he *jing* constituted the exoteric, the *wei* the inner or esoteric study.”¹⁹ *Tuchen* formed the core of the classics that gave rise to Latter Han Confucianism and figure largely in the Confucian tradition.²⁰ Eventually, though, the weft texts and the oracles separated from the canonical *jing* texts (the classics) and became a body of literature unto itself, *chen* being the oracles, and *tu*, the schema or diagrams that accompanied them.²¹ These texts were then understood as the occult analogue to the classics, and were often proscribed, hence their common appellation “apocrypha.”²² New proscriptions, however, can indicate that such texts are still in circulation.

In the Daoist usage, *tu* was closely related to *fu*, a talisman that resembled writing, generated by spirits directed at evil (“spirit writing”).²³ *Tu* are related to *xiang*: the Five Classics “taught the destinies of heaven and earth, which were to be examined as plans and pictures (*tu xiang*, or schema and representations)”²⁴ Stars are the quintessential *xiang*, and by Tang times, the term was understood as other-identity, doppelganger, and simulacrum. *Xiang* had concrete effects on *zhentu*: for example, the ascendant constellation determined the number of soldiers deployed.²⁵

In cosmology and myth, the divine power of *tu* are most closely associated with the Hetu or River chart, a magic square that dates back to the 5th century B.C. This scheme manifest when the river gave up the *tu* (chart) and the Luo River put forth the *shu* (writings), an oft-repeated idea in the *Taiping Yulan* and *Yuhai* discussions of

¹⁹ *Bohu Tong*, Tjan, Tjoe Som, trans., 100.

²⁰ Itano 1976; Dull 1966.

²¹ On the apocrypha and its history during the Han, see especially Dull 1966 and Boltz 1987; *Bohu Tong*; *FSCD* 36.

²² *FSCD* “Appendix”.

²³ *Yuhai* ch. 200, 33 distinguishes the meanings of *tu*, *fu*, and *lu*

²⁴ *Bohu tong*, “Introduction” 110. *WXTK* 278.2205 <*Xiang wei*>; the latter (constellations) connects *tianwen* (“heaven patterns”, astrology and astronomy) and *tuji* to *xiang*.

²⁵ *Taibo* 3.26.

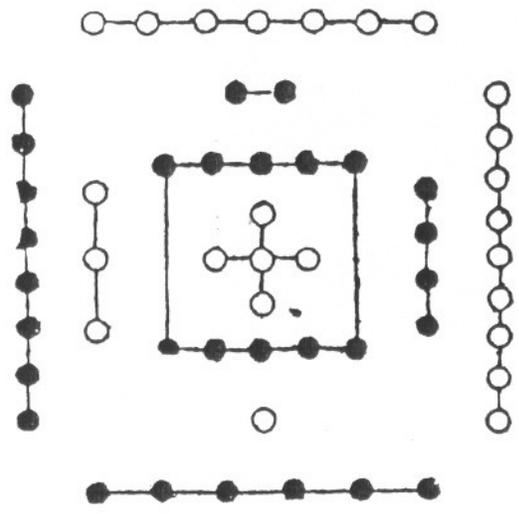
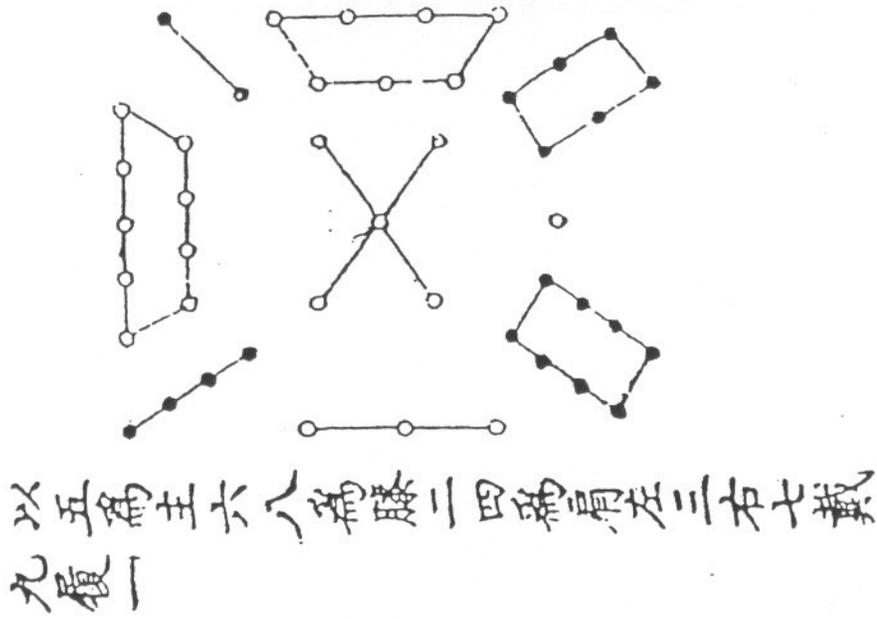


Figure 5.1. The Hetu or River Chart (left), a magic square adding to 15 in all directions. (From Zhu Xi, *Yi benyi*; reproduced in Smith et. al. 1990.) The Luo Writing (right) reiterates the principles of the River Chart but is laid out to resemble constellations. (Traditional sources; reproduced in Schipper and Wang 1986.)

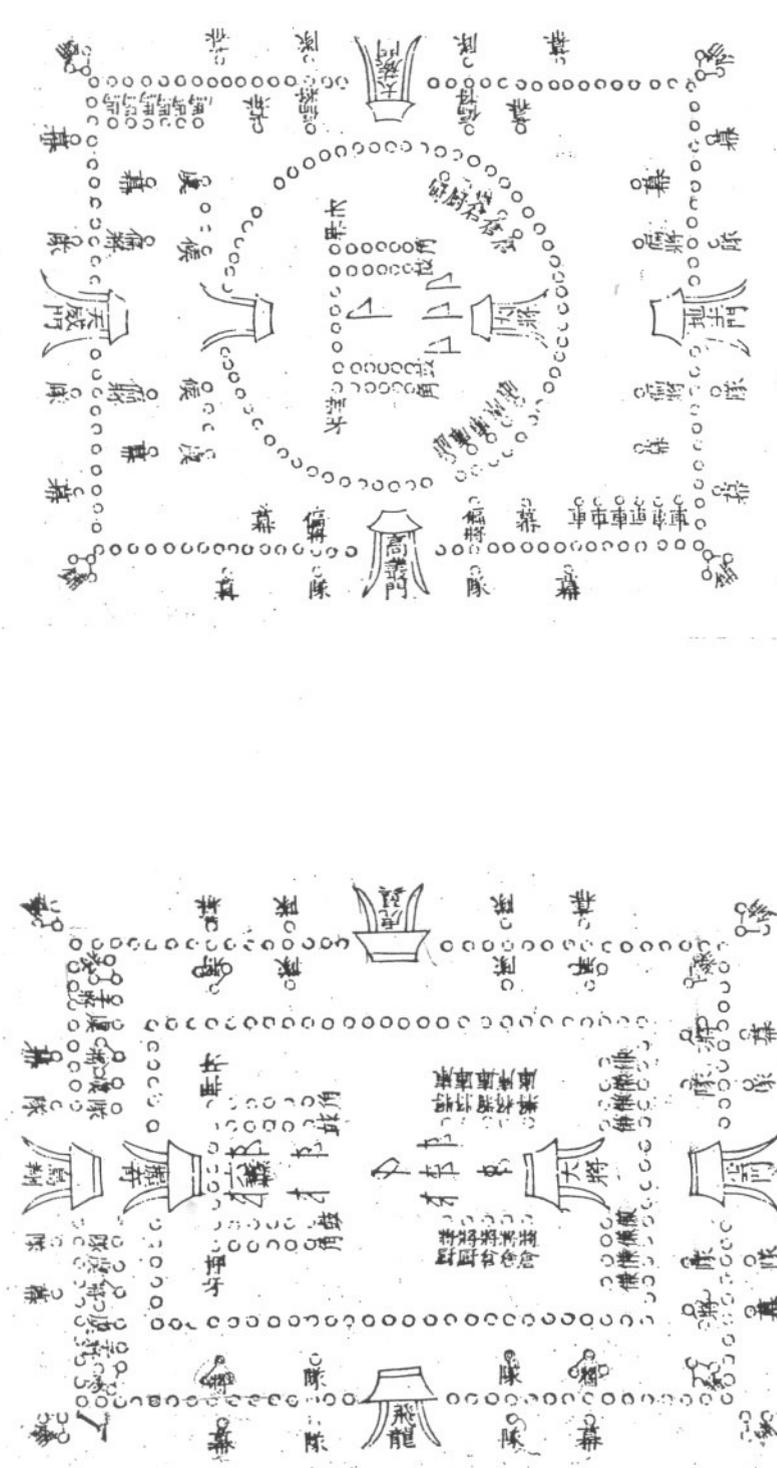


Figure 5.2. The Wondrous Grasp schema (Woqi zhentu), right, accommodates 12,500 troops. Venus, Planet of War battle encampment scheme, left, is used when the White Tiger Palace appears and accommodates 10,000 troops. (From Taibo.)

both *tu* and *xiang* (Fig. 5.1). Along with *ji* (registers), the River Chart (*Hetu*) was one of the possessions that symbolized the ruler.²⁶ It resembles depictions of *zhentu* found in the *Venus Classic*, the *Tiger Seal Classic*, and the *Military Essentials*. The basis of numerological divination, it probably inspired the layout of the Wondrous Grasp and Venus Planet of War *zhentu* (Fig. 5.2). Song thinkers were the first to depict the River Chart as a series of black and white dots: it is likely that the interest of the early Northern Song court in battle array schema, especially in drawing them, was part of the same intellectual trend that generated the River Chart and the Taiji diagram.²⁷

Formations and formulations

We saw above that, though *tu* has a number of meanings, it represents cosmic potential activated by engagement with heaven and its supernatural forces. In this section, I outline the process by which *zhen* in its most basic meaning as formation was transfigured into *zhentu*, battle array schema, which represented divine potential. I show that this is a turning point in how the Chinese conceived of battle arrays and a manifestation of developments in Tang-Song thought. Specifically, *zhentu* became tied to *xiang* as constellations in Tang military texts, evoking mythical power through association to the Yellow Emperor and the divinatory text, the *Book of Change* (*Yijing*). One watershed in this process was the attribution of *zhentu*, especially the *Woqi zhen* or “Wondrous Grasp” array, to the mythical Yellow Emperor, or alternatively, his minister, Feng Hou. Another key transition was the attribution of *zhentu* to Zhuge Liang, the hero from page one. The reworking of the supernatural status of *zhentu* took the *bazhentu*, or Eight Array schema, as its nexus.

²⁶ Saso 1978.

²⁷ *SKQSTY* in Cheng Daosheng (Ming) *Dunjia yanyi*, 1r; Li Shen 1998, 231ff.

As formations, *zhen* developed as an abstraction of the original character for *zhen*, *chen* 陳, to show, to display, to spread out, to exhibit.²⁸ Early citations of the character *zhen* from the *Zuozhuan* suggest the organization of foot soldiers around chariots, and discuss *zhen* as a determinant of defeat; “they did not *zhen* (make formations) and lost”.²⁹ The *Wuzi* and *Wei Liaozi* reiterate this theme from an offensive stance; *zhen* are the means to victory.³⁰

All of the *Seven Military Classics*, with the exception of the *Three Strategies of Huang Shigong*, discuss *zhen*, emphasizing that success in battle was determined by solid but adaptable formations; conversely, formations in disarray signalled defeat.³¹ In early texts of the *Seven Military Classics* (I discuss *Questions and Replies*, a late Tang text, below), *zhen* is discussed as a unit of troop organization, particularly forming columns and rows.³² The *Sunzi* emphasizes formations, especially as a means of judging the order, discipline and intention of the enemy. The *Wuzi*, *Methods of the Sima* and the *Wei Liaozi* also express this theme.³³ Other themes developed in the *Military Classics* are the importance of *zhen* for training and discipline, the difficulty of assailing sturdy formations, observing the enemy’s arrays as a means to determine

²⁸ Lau and Ames 1996, 97. *Yuhai* ch. 142, 1v citing Yan Shigu.

²⁹ *CFYG* 401.4767; *TPYL* 301.1384. Both cite the *Zuozhuan*.

³⁰ Concordance, <*Wuzi*> 1, 4; <*Wei Liaozi*> ch 21, 32.

³¹ Concordance, <*Sima fa*> ch. 3, 48; Concordance, <*Liu Tao*> passim, which consistently discusses keeping the arrays sturdy.

³² Concordance, <*Sima fa*> ch. 4, 50; *TPYL* 301.1384-85; *CFYG* 401.4767 citing Chunqiu era *Wei Shu*; *ZWCD* #46879.238.

I use Sawyer’s chronology for the texts: From the earliest they are the *Taigong Liutao* (4th c. B.C.); *Sima fa* (4th c. B.C.); *Sunzi* (late 5th-3rd c. B.C.); *Wuzi* (4th.-1st c. B.C.); *Wei Liaozi* (late 4th-early 3rd c. B.C.); *Huang Shigong Sanlue* (ca. AD 0); *Tang Taizong Li Weigong Wendui* (AD mid-7th-mid-10th c.). See Sawyer 1993 37, 111, 120, 192, 232, 283-4, 313 respectively. The traditional order of the texts is: *Sunzi*, *Wuzi*, *Sima fa*, *Wendui*, *Wei Liaozi*, *Huang Shigong*, *Taigong Liutao*. Sawyer 1993, 17.

³³ Concordance: <*Sunzi*> ch. 7-10; <*Wuzi*> ch. 2, 39; <*Sima fa*> ch. 4, 48-51; <*Wei Liaozi*> ch. 3, 21. See also Lau and Ames, 50 for the *Sunzi*.

whether to attack; battle arrays as a means of keeping order within the troops, and, in the *Six Secret Teachings*, using *zhen* when all else fails.³⁴

There is no doubt that the way the texts talk about *zhen* reflect military developments of their respective eras, the most conspicuous of these being the vastly increased scale of warfare that occurred during the Warring States era (403-221 B.C.). In comparing the *Sunzi* with the *Sun Bin*, which post-dated the former by a century and a half, Lau and Ames found “the expression, ‘deploying in battle formation’ [*zhen*] mentioned” in only “three passages in the ‘core’ *Sunzi*, but it is a key term in the *Sun Bin*,” appearing “in more than one hundred places...[and] providing the main theme for no less than six chapters....”³⁵ More germane here is the point that Sun Bin’s discussion of battle array represents a “strategic and intellectual revolution, rather than simply a material one.”³⁶ The historical development of the more obvious technical and material aspects of battle arrays mentioned above have been discussed elsewhere and need not be repeated here.³⁷ Below I identify some of the philosophical and cosmological associations that are developed in these earlier texts, and how these ideas served the Tang and Song.

In the texts the *Zhou Shu*, *Sun Bin*, *Wuzi*, and the *Liu Tao* we find expressions of the conceptual aspects of *zhen*. The *Zhou Shu* defines five seasons, associating each with a specific array and type of weapon (spear, short sword, etc.) in the front line.³⁸ This passage reflects the Confucian idea that moral war must follow the seasons, yet simultaneously accommodating war all year round with names of arrays and associated weapons. This and the three military texts above describe battle arrays as

³⁴ *Taigong Liu Tao*, ch. 5, 6r: Sawyer 1993, 93-4.

³⁵ Lau and Ames 1996, 50.

³⁶ Lau and Ames 1996, 48.

³⁷ See Sawyer 1993, 373-376; Sawyer 1994, 33-76; Lau and Ames, 47-56, Gawlikowski, 58-66; Xu Baolin, 206-213; Wu Han.

³⁸ *TPYL* 301.1384.

connected to natural forces, connected to heaven, connected to moral order, and connected to earth, particularly terrain.

The *Six Secret Teachings* (*Liu Tao*) discusses the heaven, earth and human arrays, reflecting the Xunzian cosmic scheme of mutual and reciprocal influence exerted by heaven, earth and human on each other. The Heaven array accords with the sun, moon, the North star and the Hook constellation, the cosmology not only determining the position of the troops, but actually circumscribing them. The earth array connects it to the landscape, while the human array refers to both equipment and the use of the moral positions, especially to *wen* and *wu*, the “civil” and the “martial” broadly conceived.³⁹ By the Song, this set of arrays symbolized (*xiang*) the Three Potentials or Three Powers (*sancai*). With the latter, used in conjunction with the set of straight, sharp, curved, square and round arrays to emulate the five phases, “the army can encounter the enemy without defeat, but victory cannot be achieved without the interaction of the unorthodox (*qi*) and orthodox (*zheng*)”.⁴⁰ While the Tang *Classic of Venus* does not mention this scheme, Xu Dong begins his *Tiger Seal Treatise* with the Three Potentials, devoting an entire chapter to discussing each individually, then as a set, incorporating the importance of knowing *yin* and *yang* and following the changes of heaven. In this chapter, Xu provides the context for the means of reading changes and discusses techniques by which one can use or change circumstances.⁴¹

The *Wuzi*, on the other hand, discusses *zhen* as one of the Four Disharmonies in terms parallel to the Doctrine of the Mean, stressing the importance of internal order.⁴² The ordered, stable formation is tied to the state as a moral body⁴³ to the extent

³⁹ *WJQS* ch. 4 & 5; See Sawyer, 79-80.

⁴⁰ *WJZY* 7.1r-2v, 271.

⁴¹ *HQJ* 1.

⁴² Concordance <*Wuzi*> ch. 1, 36. Sawyer 1993, 207.

⁴³ Concordance <*Wuzi*> ch. 1, 37. Sawyer 1993, 209.

that battle arrays manifest the flaws of rule: “Although Qi’s battle array is dense in number, it is not solid....Now Qi’s character is hard...the ruler and ministers are arrogant and extravagant and insulting to the common people. The government is expansive, but salaries are inequitable. Each battle array is of two minds...”⁴⁴ The *Wuzi* puts the heavens on par with the moral posture of the state when it advises that arrays should be deployed according to wind direction, with banners of the constellations situated in their proper direction within the array, the constellations essentially encompassing the field of engagement.⁴⁵

In the *Zhou Shu*, *Six Secret Teachings* and the *Wuzi*, the concept of *zhen* assumes a moral and divine role. Like the moral ruler, *zhen* accords with nature in the form of season, weather, and terrain. It acquires divine qualities by invoking characteristics that metaphorically imitate heaven in the form of constellations (*xiang*) on banners, scribing the heavens onto the battlefield with constellations in their proper place.

In addition to the *Wuzi* and the *Six Secret Teachings*, the *Sun Bin Art of War* formulation of battle array provides a useful foundation for the middle imperial reworking of traditional ideas about battle arrays. Of these three, the *Sun Bin* was not included in the *Seven Military Classics*, and it was not listed in the bibliography section of the *Song History*.⁴⁶ The text did not survive in the purview of the official histories past the Latter Han (AD 24-220). However, this does not necessarily mean that Sun Bin’s ideas did not survive via unofficial texts and oral transmission—for instance, Sun Bin’s chapter on cavalry was preserved in the Tang dynasty *Tong*

⁴⁴ Concordance <*Wuzi*> ch. 2, 37. Sawyer 1993 210-11.

⁴⁵ Concordance <*Wuzi*> ch. 3, 40. Sawyer 1993 216.

⁴⁶ Lau and Ames 1996, 22. Sima Qian’s history, *Shiji*, gives biographies for both Sun Wu, the author of the *Sunzi* and Sun Bin, the author of the *Sun Bin*. A bamboo slip copy of the latter text was excavated at Linyi.

Dian—and oral and unofficial textual transmission were primary means of apprenticing in the military tradition.⁴⁷

In contrast to most works in the *Seven Military Classics*, Sun Bin invests *zhen* with the transcendence of the phenomenal and identity with the heavens. In language that parallels the “Appended Judgments Commentary” (*Xici zhuan*) of the *Book of Change*,⁴⁸ Sun Bin discusses the commander that has mastered the Eight Arrays in the chapter of the same name: “One who has mastered the Way (*dao*), above, understands the Way of Heaven; below, understands the patterns of the earth.”⁴⁹

It is this same conceptual model that leads to Sun Bin’s formulation of the “four principles of the Dao (Way) of warfare”.⁵⁰ In this scheme, the sages were responsible for creating the tools of warfare, each a resulting weapon symbolized by a broader guiding principle. “The Yellow Emperor created the sword, and the notion of military formation and display (*zhen/chen*) symbolizes (*xiang*) it; Yi created the bow and crossbow, and the notion of strategic configuration (*shi*) symbolizes them; Yu created the boat and chariot, and the notion of adaptability (*bian*) symbolizes them; Tang and Wu created the long-handled weapon, and the notion of weighing with the lever scales (*quan*) symbolizes it.”⁵¹ In this passage, the concept symbolizes the thing, rather than the thing symbolizing a concept, a reversal of the phenomenal creations of

⁴⁷ Sawyer 1993, 423n.15. The oral tradition is a common theme in learning the military arts, one that serves as a foil for Li Jing in *Wendui*. The text makes much of the “secret” military tradition even as Taizong insists on its documentation.

⁴⁸ In ancient times, when Fu Xi ruled the world, he looked up and contemplated the images (*xiang*) in heaven, he looked down and contemplated the patterns (*fa*) on earth. He contemplated the markings (*wen*) of the birds and beasts and their adaptations to the various regions. From near at hand he abstracted [images from] his own body; from afar he abstracted from things. (adapted from Smith et al., 177)

⁴⁹ *Sun Bin* ch. 7 <*Bazhen*>; adapted from Lau and Ames 1996, 154-5. *Zhen* is translated by Lau and Ames as ‘the eightfold division of formations,’ but I have retained Eight Arrays for reasons I discuss below. See their 311-12n.128.

⁵⁰ *Sun Bin* ch. 9 <*Shibei*>; Lau and Ames, 162, 163.

⁵¹ *Sun Bin* ch. 9 <*Shibei*>; adapted from Lau and Ames, 162, 163.

Fuxi according to the *Book of Change* noted above. But the reversal is self-referential; the concept of *zhen* symbolizes sword, but is also associated with Yellow Emperor—the idealized first ruler of China, progenitor of civilization, and the genealogical ancestor—associated with earth and center. So, while the battle array, as symbol of the sword, may be discussed as an implement—as it is in Tai Gong’s *Six Secret Teachings*, for instance—the deployment of troops into arrays obtains sanction by virtue of its associations with the Yellow Emperor, the founder of civilization.⁵² *Zhen*, and hence, military engagement, become an ideologically-imbued action that preserves the right to progeny, at least, and the continuation of civilization (as the center) at its most encompassing.

Yet these associations are themselves layered and contradictory. The Yellow Emperor “may have originally been the Lord of the Underworld, the counterpart of Shangdi, the Lord on High,”⁵³ a fitting role for the creator of weapons and battle arrays, both arbiters of war—an “inauspicious instrument” (*xiongqi*) inspired by “evil essence” (*shaqi*). Weapons (*bing*, also soldier, war, military) are traditionally understood as *yin*, one of the two relational cosmic forces that created order from undifferentiated chaos. Associated with the receptive, moist, blood, female, and the underworld, *yin* differentiated from its counterpart, *yang*, forming the *taiji* (Great Ultimate) from which all other phenomena were created. Porter ties the Yellow Emperor as underworld figure to *xiang* in its sense of constellation, connecting the underworld to the nine stars of the tail of Scorpius and the Heavenly Turtle quadrant.⁵⁴ Finally, Xuan Nu, the Abstruse Woman—female and hence, *yin*—presented “the

⁵² Especially with regard to the assault array (*chong zhen*), often discussed vis-à-vis the alternating array (*lun zhen*). *Tai Gong Liu Tao*.

⁵³ Allen, *Shape of the Turtle*. Cited in Porter 1996, 89.

⁵⁴ Porter 1996, 89.

manifold cosmic measures” to the Yellow Emperor, one of which, according to the *Military Essentials*, was the Wondrous Grasp battle array schemata (*Woqi zhentu*).⁵⁵

The *Sun Bin* aside, sources prior to the Tang and Song that discuss battle arrays do not connect them with the Yellow Emperor.⁵⁶ *Zhentu* as a phrase first appeared in Wang Yin’s (fl. ca. 430’s) *History of the Jin* (265-479), signaling the transfiguration of *zhen* from battle organization to an element of the cosmic order.⁵⁷ Tang and Song sources attribute two different battle array schema to the Yellow Emperor. The first of these describes the Yellow Emperor as creator of the Eight battle array schema devised according to the well-field system, thereby defeating his nemesis Chi You: “[T]he Yellow Emperor established the army according to the ‘village and well’ system. Thus the well was divided by four roads, and eight families occupied it. Its shape was that of the character for ‘well’ (井 *jing*), so nine squares were opened therein. Five were used for battle formation methods (*zhenfa*), four were empty...” “The ‘four sides’ and ‘eight directions’ are all regulated within.”⁵⁸ The well-field system was believed to be the traditional foundation of social organization in ancient China.⁵⁹ But in this scheme above, the authors conflate this social symbol with military organization, weaving it into the landscape.

⁵⁵ Porter 1996, 135; *WJZY* 8.321; Li Ling et al., 343.

⁵⁶ But see Gawlikowski, 10 who cites the *TPYL*, the *Shiji* and the *Shiben* as saying that the Yellow Emperor introduced the battle formation. I did not find a reference to battle formations using the character *zhen* in the Yellow Emperor section of the *TPYL*. The only remote exception is a passage from the *Shiji* that mentions “the public works array (*gonggong zhen*) used by Huangdi’s grandson, Zhuan Xu, in order to repair the water damage caused by the great flood. *TPYL* 301.1385. See *Zhongguo bingshu tonglan*, 206-7 for more on the Yellow Emperor and the battle array. The *Woqi jing* appears in the Han histories *Yiwen zhi*.

⁵⁷ *TPYL* 301.1385. In a departure from most commentators, Wang claimed that the Eight Battle Array schema (*bazhentu*) were devised by Ma Long. For the latter, see *ZWCD* 10: 300, #45550.578; *WXTK* 221.1791. For Wang, see *ZWCD* 2: 364, #21295.1930.

⁵⁸ *Yuhai* ch. 142, 1r, 2v <*Huangdi qiujingfa*>. *WJQS* <*Wendui*> 7r, 8v. Sawyer 1993, 328. *WXTK* 157.1372. The *TPYL* doesn’t mention this scheme, although it describes many of Huangdi’s other military escapades that he used to defeat Chi You. *TPYL* 79, sec 4, 367.

⁵⁹ See for instance the hexagram, “The Well” in the *Book of Change*, and Zhu Xi’s commentary on it. Most scholars now doubt that the system was ever put into place.

The second and by far more influential schemata attributed to the Yellow Emperor was the Wondrous Grasp *zhentu*, which first crops up in the *Classic of Venus*.⁶⁰ In his explanation of battle array schema, Li Quan says:

The Yellow Emperor established the forms of the Eight Arrays. [Wu Qi's] *Juxiang* and [Zhuge Liang's] *Tongdang* arrays refer to metal;⁶¹ the *Jugong* and *Zhong Huang* arrays refer to earth; the Black Cloud and Soaring Birds arrays in the south refer to fire; the Rammer array in the east refers to wood; the Leaping Dragon and Waning Moon arrays refer to water; the Flying Hawk and the Goose and Stork arrays refer to heaven; the Chariot Wheel array]refers to earth; and the Flying Winds and Floating on the Swamp [arrays] refer to [the hexagram] *xun* (i.e., wind); this totals eight.⁶²

He emphasizes “inexhaustible forms” of arrays through constant change; “One who is able to fetch victory through changing their array when encountering the enemy is called being spiritual.”⁶³ Li develops the theme of the Eight Battle Array schema, incorporating them with the Wondrous Grasp schemata, whose latter “principle was so obscure it was difficult to understand.” While the Wondrous Grasp represents the field encampment accommodating 12,500 troops, the Eight Arrays show schema for battle (Fig. 5.2). In camp, each gate represents one of the Eight Arrays: Heaven, Earth, Wind, Cloud, Flying Dragon, Winged Tiger, Soaring Bird, or

Nevertheless, it is represented as having been an actual, working system in most pre-modern sources.

⁶⁰ See Sawyer 1993, 328 for the passage. Also called the *Feng Hou Woqi zhentu*, the *Huangdi* (Yellow Emperor's) *Woqi zhen* or the *Feng Hou Bazhentu*. Ma Long annotated a volume called the *Woqi jing*, or *Classic of the Wondrous Grasp*. The latter is mentioned in the *Wendui*. Feng Hou was the Yellow Emperor's minister. Though the *Yuhai* cites the *Feng Hou Bazhentu* in the Han dynasty bibliography, modern Chinese scholars cite the bibliography of the *Official History of the Song* (SS) as the first occurrence of the work. See Xu Baolin, 207-8; *Yuhai* ch. 142, 2r. The authors of *Wendui* suggest that the Wondrous Grasp *zhentu* post-dated Zhuge Liang.

⁶¹ The *WJZY* 8.342-366 explains the provenance of the names of these formations. Some of these names are obscure, but very likely refer to constellations, as does Zhechong later in the passage, or to specific stars or areas in the primary constellations, so that Zhong Huang would refer to the center of the Huang constellation. Likewise with Jugong. See Li Ling et. al, 350-51; Liu and Peng, 280.

⁶² *Taibo* 6.127. See also Needham 1994, 10-11, 58. On *xun*, See Li Ling et al., 350.

⁶³ *Taibo* 6.127-8.

Coiled Snake. Each array and its corresponding gate is associated with one of the eight trigrams from the *Book of Change*. Each is also associated with a color and direction—reflecting five phase theory—and assigned either irregular or regular troops, which ties into the idea of changing and adaptability (*bian*) so necessary for victory. Each gate has an open or closed designation, used for the Hidden Period and Irregular Opening systems of divination.⁶⁴

I noted above that the camp schemata resembles the River Chart (*Hetu*). In battle, however, the incipient array schema resemble constellations, indicating the relationship between *xiang* as constellations to battle array schema (Fig. 5.3). But the attributes of the *zhentu* invoke the *xiang* as divine assistance through mimesis, modeling the arrays on heaven and the constellations, which held both knowledge and the power of change. Dugu Ji (fl. 750s-760s), a contemporary of Li Quan, describes the divine origins of *zhentu*:

[When] the Yellow Emperor first received the decree [of heaven], he followed the murderous *qi* (vital universal essence) to make weapons. He modelled himself on Wenchang in ordering the generals to grasp the essentials of establishing victory; this was how *zhentu* came to be. Now, the positions of the eight palaces are upright and regular (*zheng*), so that their number (*shu*) does not falter, their spirituality does not change. For this reason, there are eight battle arrays; therefore, their positions are stabilized.⁶⁵

Song commentator Chen elaborates Dugu's theme, connecting the Eight Array schema to Fu Xi's deriving civilization from the images and symbolizations (*xiang*) of the *Book of Change*. The Eight Arrays unify with the inexhaustible changes in accord with those of the sixty-four hexagrams. Like *yin* and *yang* from which the sixty-four

⁶⁴ See Chapter Six.

⁶⁵ *Yuhai* 142, 1v. <Dugu Ji's *Bazhentu ji* (*Record of Eight battle array schema*)>. It is discussed in *WXTK* 221.1790-91. See also Xu Baolin, 207. For Dugu Ji, *ZWCD* 6:237, #21209.97. Italics mine. Wenchang was a constellation and by the mid-Song, a worshipped deity.

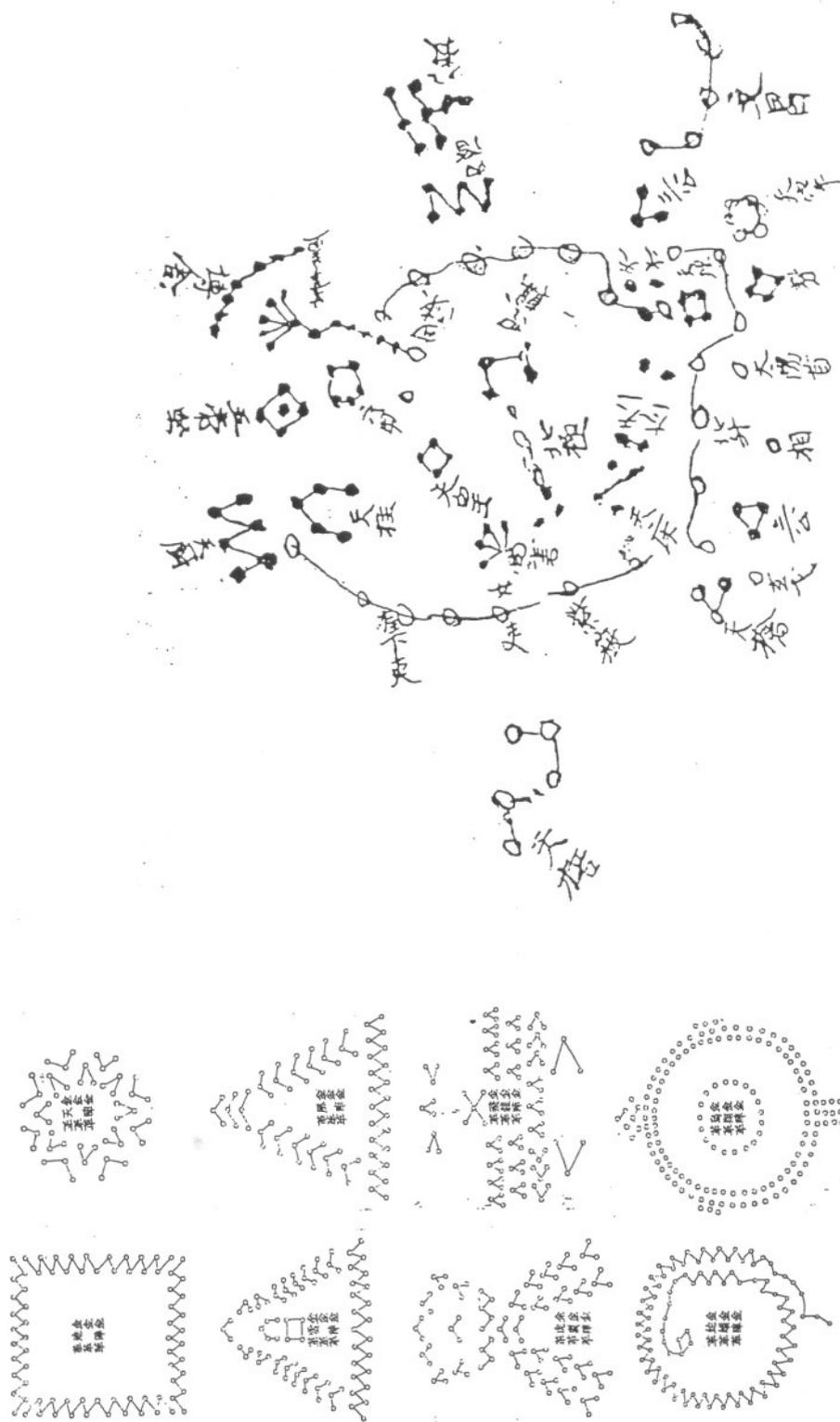


Figure 5.3. Zhuge Liang's Eight Array schema resemble constellations, like those of the ninth-century star map excavated at Dunhuang. The array names top to bottom rows and right to left, respectively follow. Top row: Heaven array (right), Earth array (left). Second row: Wind array (right), Cloud array (left). Third row: Flying Dragon (right), Winged Tiger (left). Bottom row: Soaring Bird (right), Coiled Snake (left). (From *Taibo* and *SCC*.)

hexagrams proceeded, *qi* (irregular) and *zheng* (regular) are “mutually engendered” to create the transformations (*bianhua*) of the array.⁶⁶

The ancient concepts of *qi* (irregular, extraordinary, unorthodox, indirect, ambush) and *zheng* (regular, ordinary, orthodox, direct, normal) are central to the Wondrous Grasp *zhentu*.⁶⁷ The Venus Classic tells us:

The army has four *zheng* and four *qi*, together they form Eight Arrays. Sometimes, they unite and make one, sometimes they separate and make eight. They unite according to [the concept] *zheng* (regular); they obtain victory according to [the concept] *qi* (irregular); the residual *qi* (unorthodox) form the Wondrous Grasp (*woqi*). This forms the limits of regulation and control of the [commander's] potential for massing and dispersing [the troops].

12,500 people make the army; 12,000 of these symbolize the twelve months; the remaining 500 symbolize the intercalary month. When *yin* wanes and *yang* waxes, all formed things will achieve merit. There is no righteousness in subjugating; there is no [principle of] the Way in invading. The sagely person embraces this; the spiritually confused person rejects it. Embracing and rejecting, existence and extinction, confusion and understanding, the methods for all of these depend on the army.⁶⁸

In this passage, Li Quan ties the irregular/unorthodox and the regular/orthodox to time, *yin* and *yang*, virtue, principle and existence. In vocalizing these ideas, Li Quan and other Tang commentators brought the Wondrous Grasp *zhentu* to the fore of military thought, influencing Song conceptions of *zhentu*. Both the *Tiger Seal* and the *Military Essentials* reiterate and further explicate the Wondrous Grasp *zhentu*.⁶⁹ A similar cosmological scheme that tied together number (*shu*), irregular and regular, time and *zhentu* was advanced by Su Che and other Song commentators.⁷⁰ These Tang

⁶⁶ *Taibo* 8 <He er wei yi zhentu>; *WXTK* 21.1790-91.

⁶⁷ See Griffith 1963, 34-35, 42-43; Sawyer 1993, 427-429n.33 and 442n.64. In his commentary on the *Sunzi*, Sawyer favors *qi* and *zheng* as merely tactical devices, rather than forces connected with *yinyang*. This is true of Griffith also. I note here that the concepts are discussed more in the late Tang-Song *Wendui* than in any other text of the *Military Classics*, including of course the *Sunzi*.

⁶⁸ *Taibo* 3.52 <Military preparations>; Liu Xianting, 164-5.

⁶⁹ *HQJ* 8.68-70; *WJZY* 8.321.

⁷⁰ *WXTK* 149.1303 and 221.1791, which connect *xiang*, *tu*, *qi*, *zheng* and *bian*.

ideas instigated Song discussions about battle array schema generally, and a Song reworking of the provenance of the Eight Array schema specifically.

Doubt in the Yellow Emperor as the creator of the battle array schema is first indicated in *Questions and Replies*, when Tang Taizong asks about the *Classic of the Wondrous Grasp* (*Woqi jing*).⁷¹ Li Jing gently corrects Taizong, attributing the Eight Array schema to Zhuge Liang—not the Yellow Emperor—who “set stones out horizontally and vertically to make eight rows. The method for the Square array is this schemata...What generations have passed down as the *Classic of the Wondrous Grasp* probably includes its rough outline.”⁷²

There are three different conceptions of Eight Arrays (*bazhen*).⁷³ In its simplest and most ancient use, the eight *zhen* means the division of the army into troops.⁷⁴ I noted above that Li Quan conceived of the Eight Array *schema* each as one part of the Wondrous Grasp that could separate and come together as the need arose, more clearly outlined in his “Uniting to Make One, Separating to Make Eight” *zhentu* (Fig. 5.4).⁷⁵ The third definition refers to the Eight *zhentu* devised by Zhuge Liang, a special square consisting of eight rows and eight columns that Zhuge made from piling up small rocks. Zhuge’s arrangement and pattern of rocks intrigued later commentators. Du Fu and Su Shi wrote poems about them.⁷⁶ Su Che tells us that Zhuge was “the only one who knew the legacy of the Eight Array schema; instituting them he obtained all

⁷¹ A text attributed to the Yellow Emperor, but annotated and probably written by Ma Long of the Jin dynasty. *Yuhai* ch. 142, 15v. See Li Ling et. al., 344.

⁷² *WJQS* <Wendui> 7v-7r. Sawyer, 327. This passage seems to suggest the *Classic of the Wondrous Grasp*, a text attributed to the Yellow Emperor, as anachronism.

⁷³ See Li Ling et al., 708. Their explanation is based on the Song text, *Lidai bingzhi*.

⁷⁴ Gawlikowski 1994, 58.

⁷⁵ The eight *zhen* referenced by Sun Bin incorporated this scheme, too. Lau and Ames, 155-56 follow this definition for the Sun Bin, but their translation of *bazhen* as “eightfold division of formations” is based reconstructions from Tang-Song documents. See their 311, n. 238; Zhang Zhenze, 68-71; Zhang Wenru, 266-67.

⁷⁶ *Yuhai* 142, 15r-16v.

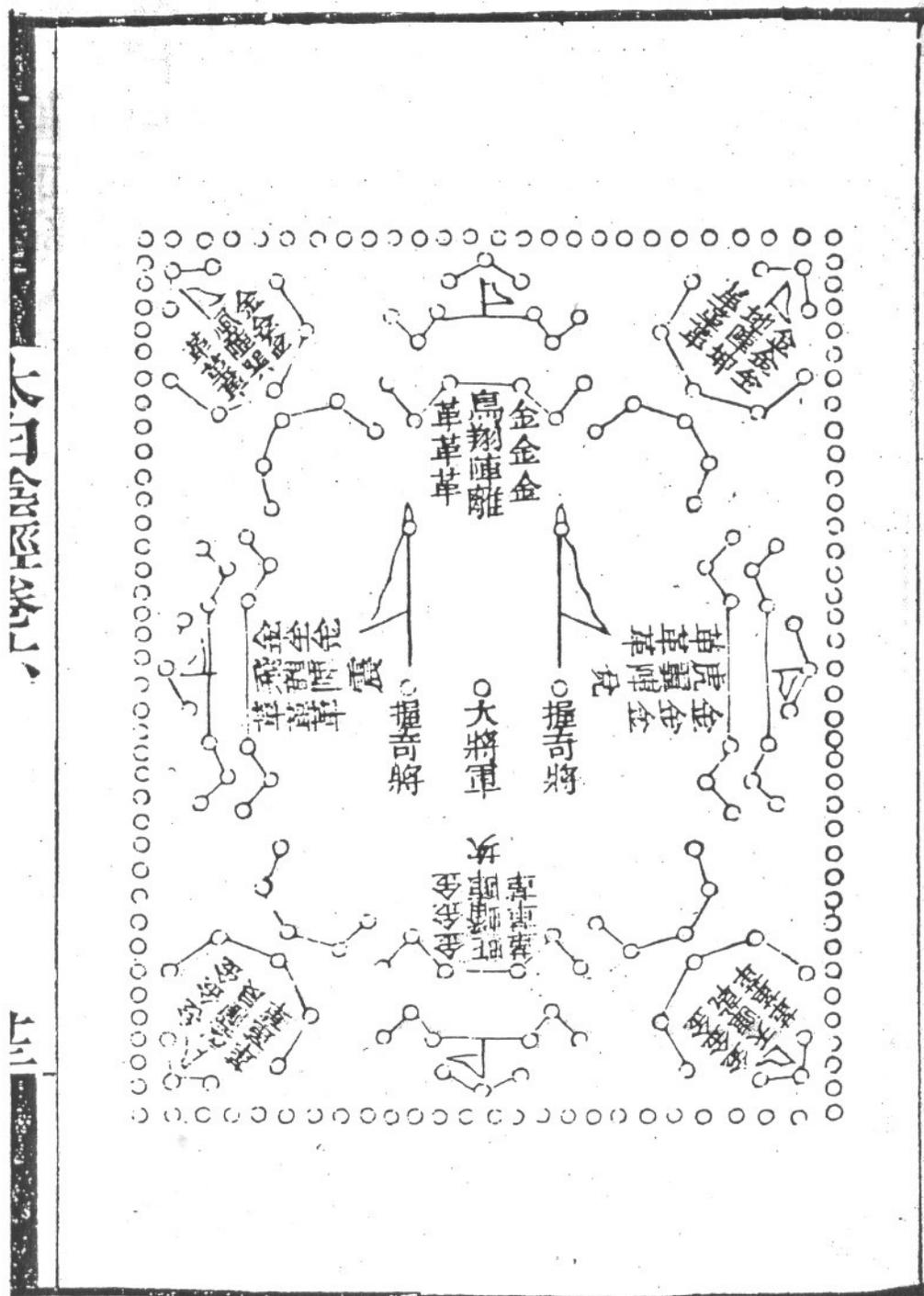


Figure 5.4. Uniting to Make One (*he er wei yi*) battle array schema combines all Eight Arrays. (From *Taibo*.)

under heaven.”⁷⁷ The *Military Essentials* says that Zhuge “inferred events (*tui*; to extract from fundamental elements) and developed the Eight Array schema, obtaining a new idea of it”.⁷⁸

What exactly were Zhuge’s *bazhentu*? According to Song texts, Zhuge erected this schemata in three different places in the southern border regions as part of his plan for subjugating the “rebellions” in the south.⁷⁹ Inside earth walls with four gates, he piled up small rocks, into a square of eight rows and eight columns.⁸⁰ Each pile was 5 *chi* high by 10 *chi* square, arranged like pieces on a chess board, the piles evenly spaced 9 *chi* from each other.⁸¹ In the exact middle, there is a path running north-south 5 *chi* wide throughout. Altogether there are sixty-four of these stone massings.⁸² “From above, one cannot perceive the convexities and concavities of the piles; but at midday, one can see every pebble.”⁸³ The *bazhen* and its ramparts “provide the schemata (*tu*) of the army’s strategic configuration (*shi*); the rows conceal their positional advantage (*quan*).”⁸⁴

Song commentators tell us that the scheme of rocks at Yufu (Fishbelly) Creek—erected in the middle of the stream, yet unaffected by the current—is in fact identical with the Wondrous Grasp *zhentu*. They developed the relationship of the numbers proceeding from the Eight Arrays, saying the first installations at Kuizhou (lit., Monster province) had 64 piles representing the Square Array; at Mimou, 128 piles represented the Head-to-Head Array; at the third location, Qipan, 256 piles

⁷⁷ *Yuhai* 140, 15v.

⁷⁸ *WJZY* 7.274; 8.321. Xu Baolin 207.

⁷⁹ *Yuhai* 142, 13r, 14r.

⁸⁰ *Yuhai* 142, 14r.

⁸¹ *WJZY* 8.321 says 2 *chi*. Other sources give varying numbers. The *chi* is the Chinese foot, measuring 12.6 inches or .32 meters.

⁸² *Yuhai* 142, 13r.

⁸³ *Yuhai* 142, 14r, citing Su Shi.

⁸⁴ *Yuhai* 142, 14v.

represented the Method for Setting up Camp. They identify Zhuge's Eight Array schema with great generals and the regions they subjugated, all of which are located outside of the Chinese cultural sphere.⁸⁵ The entire conceptualization is then connected to cosmic schemes and the spiritual:

The Eight Arrays conceal the 64, duplicating the hexagrams of the [*Book of*] *Change*. The waning moon conceals 24 of them, creating the diagrams (*hua*, horizontal lines) of the [*Book of*] *Change*. The *hua* arose from the round and the spiritual; therefore the form of the waning moon is round. The hexagrams were fixed from the square using foreknowledge; therefore the [underlying] structure of the Eight Arrays is square. The square is situated at the front [of the array]; the round is situated at the rear [of the array]. [Just as] the hexagrams proceeded from the lines and trigrams (*hua*), [so] the square, proceeding from the round, is engendered. The walls and gates run true north and south, the curves and bends protect its sides. Here, the two phenomena *yin* and *yang*; there, the vacuity of the Wondrous Grasp unites with the Images (*xiang*).⁸⁶

Curiously, most everything about Zhuge's Eight Array schema is contested—how many sites were constructed, where they are located, their total area, how high the piles are, how far apart they are; most any numerical value related to the schema—except that *Zhuge Liang* devised and constructed them, and that what he constructed were the *Eight Array schema*. The Eight Battle Array schema of Zhuge Liang represents a changed founding myth.⁸⁷ “Huangdi relegated to *zhenfa*, Zhuge Liang *zhentu*”, trading one founding myth for another, in which the Yellow Emperor is replaced by Zhuge Liang.

The Tang-Song understanding of the Eight Arrays served as the foci of the Song discussions about battle array schema. The attributes associated with the Eight Arrays were projected onto battle array schema generally.⁸⁸ Even though the attribution of the Eight Array schema to Zhuge Liang is a Song construction, Zhuge

⁸⁵ *Yuhai* 142, 15v. *WJZY* 8.321-322.

⁸⁶ *Yuhai* 142, 15r; citing Mr. Hong of the Song.

⁸⁷ *SS*; *WXTK* 157.1372.

⁸⁸ *WJZY* <Woqi zhentu>, 327 and <Bazhenfa>, 324. The *HQJ* does not attribute the Eight Arrays to him, but it is in the *WJZY* and *SS* <Annals>.

Liang as creator of the *bazhentu* was conventional wisdom by the Ming dynasty (1368-1644).⁸⁹ The Eight Arrays are an important development for incorporating many of the divination systems used in the military. The manuals reflect *zhentu* as a conceptual abstraction symbolizing the divine. The Song, through their construction of Zhuge Liang and his schema engraved on the earth, developed the idea of *zhentu* as a conceptual abstraction and philosophical device.

Battle array schema as sinified space

One of the most obvious changes in battle arrays that the discourse around Zhuge Liang and the Eight Array schema brings to light was the modelling of the array itself. According to Tang-Song commentators, *zhentu* assumed boundaries by adding *lei*, or ramparts. Like the battle array schema described at the beginning of this chapter and shown in the Wondrous Grasp schemata, battle array schema in the manuals are highly dimensional: they have well-defined borders that enclose and define a spatial hierarchy. Li Quan used *ying* (camp) as a subset of *zhentu*.⁹⁰ In Song commentaries also, *zhen* were identified with *ying* (camp, tent, ramparts): “When stopped, this is the *ying* (camp); when moving, this is the *zhen*(array). When speaking of the camp and the array, these [two] are the same systems.”⁹¹ “With regard to *qi* (unorthodox, irregular) and *zheng* (orthodox, regular), *ying* (camp, stopped) is the regular (*zheng*); *zhen* (battle array, moving) is the irregular (*qi*).”⁹² Similarly, the term *ying* was an umbrella term that encompassed *tun* and *sai*, rather permanent, theoretically self-sufficient military colonies built in border regions.⁹³

⁸⁹ Consider, for instance, the Ming text *Bazhen hebian tushuo*.

⁹⁰ *Taibo* 6.

⁹¹ *WJZY* 6.218.

⁹² *WXTK* 157.1372-2; *Taibo* 6.

⁹³ *WJZY* 6.318 and 340-342.

The Wondrous grasp schemata shows the arrangement for camp (Fig. 5.2). There is an inner and outer rampart (*lei*), a set of gates, and an “empty” center. The head commander occupies the heart of the array, behind the inner main gate. The six flags (dao), five standards, gongs, drums and supplies are all kept in the inner ramparts.⁹⁴

The Planet of War (*Taibo zhentu*) battle encampment schemata stands in contrast to the Wondrous Grasp. Used when the White Tiger heavenly palace appears in the west and crosses the Ten Commander star group, it signifies great victory (Fig. 5.2). Accordingly, the constellation calls for only 10,000 troops.⁹⁵ Its basic arrangement is similar to the Wondrous Grasp, but the center is round, and the Heaven and Earth gates have shifted position to open gates in the south and north, respectively. The east and west gates, also open gates, are both named for abundance; the northern oblique gates are Peaceful Virtue and Yin (shadow) Virtue. Both are closed, as are the southern oblique gates, Big Clarity and Great Martiality. Star deities reside in each of the eight gates, but only four of these are designated by trigram; the remaining four gates are designated by four earthly branches of the sexagenary cycle used to calculate time.⁹⁶ In addition to their directional identification, these gates are distinct from each other in possessing specific qualities that effect an associated outcome.

These gate names and designations relate to the “empty” center discussed in the manuals. I noted above that the authors of the *Wendui* related this to the well-field system: “The middle was left vacant to be occupied by the commanding general, while around the four sides the various companies were interconnected; this is what is meant

⁹⁴ *Taibo* 6.131-32. Li Quan gives very specific figures on the size of the camp, distance between objects, area per soldier, etc.

⁹⁵ *Taibo* 6.132-136.

⁹⁶ *Taibo* 6.136. According to Kalinowski 1991, 34.377-88, these names indicate the *Tai Yi* (Grand One) method. I believe this system is the *Taiyi dunjia* method; *Taibo* 9.243.

by ‘ending with eight’.⁹⁷ Despite the commander’s significant entourage—drums, gongs, and flags, supplies, assistants and their tents, etc.—both the battle encampment and battle array schema in the *Military Essentials* echo the theme of the empty center.

There are several reasons for this. The center was the site of the commander, and battle was orchestrated from there. It signalled the progress of the action: “If the center of the enemies’ array is round and sturdy, it will not be easy to attack. Wait until it changes before engaging again”.⁹⁸ “The number (*shu*) of battle arrays is nine; the *qi* (unorthodox) is [located] in the direct center. How many of these is controlled by the head commander for responding to and supplementing the urgencies of the Eight Arrays.”⁹⁹

The empty center of the encampment duplicated the center of the ideal imperial city plan (*wangcheng*), considered to be sacred due to its associations with the emperor (Fig. 5.6).¹⁰⁰ The center as sacred was brought to bear on the organization of the array schema. The center of the array was the creative ground upon which heaven expressed itself, the stage for divination and methods of prognostication. It was closely watched for omens, and divinatory methods determined its shape.¹⁰¹ The Tiger Seal Treatise advises that the center be arranged according to contingencies of the Six Water Cycles (*Liu Ren*) system, a form of creative magic being developed during the Song (Fig. 5.5).¹⁰² This system dictated the location of the commander within the center and the proper direction to face dependent upon conjunctions of the

⁹⁷ Sawyer 1993, 328. *WJQS* <Wendui>, 8v and *Yuhai* 142, 2v. This is reiterated in *Bazhen hebian tushuo* (Ming), 2: “The center is empty, and the head commander stays there.”

⁹⁸ *HQJ* 5.35.

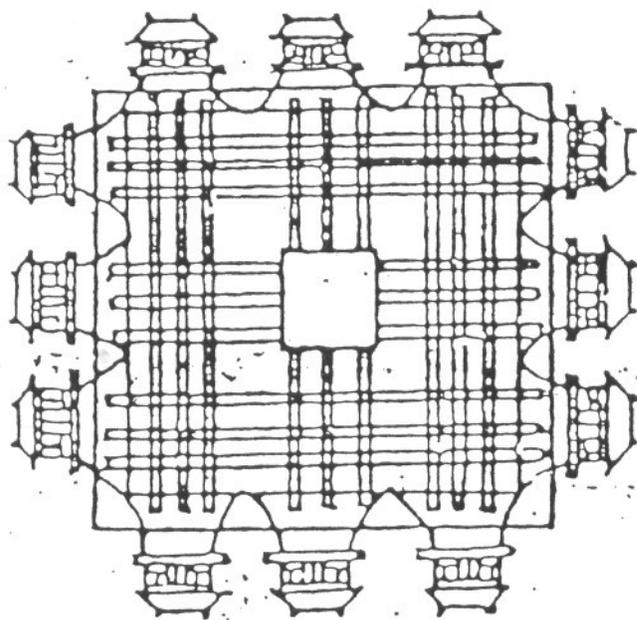
⁹⁹ *WJZY* 8.325.

¹⁰⁰ *ZWCD* v. 6, 323 <Wang cheng>.

¹⁰¹ *WJZY* 8.324-25.

¹⁰² *HQJ* 8.63-67.

周九服圖第四十六附



(圖禮三) 城王

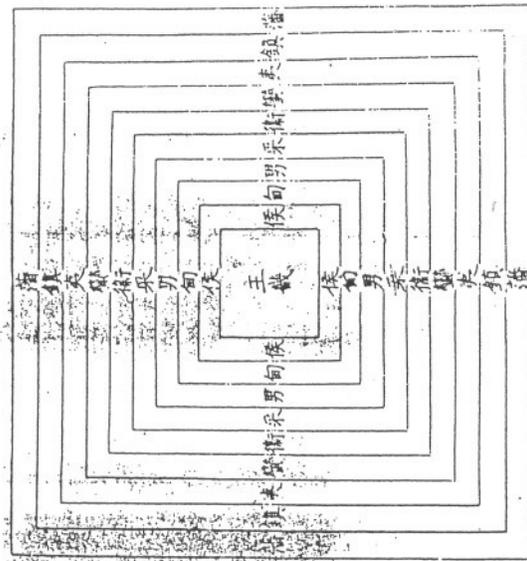


Figure 5.6. Left: City of the Ruler (*wang cheng*) was the model for imperial walled city design. Right: Diagram of the Nine Domains of the Zhou. Han planners devised the scheme of relative degree of sinification. The ruler is in the center, and the various types of “barbarians” are at the perimeter. (From traditional sources; reproduced in Henderson 1994.)

calendrical cycle combinations with the constellations, using a platen that aligned time, the constellations and their various resident deities (see below).¹⁰³

The center also controlled the gates, which we saw above contained calendrical attributes as well as trigram designations (e.g., the appellation of the northwest gate, Yin Virtue, and the open/closed gate designation.) This combination—trigrams, *yinyang*, and time designations—created conditions for enacting the Hidden Period (*Dunjia*) and Irregular Opening (*Qimen*) systems of sorcery. These systems could be used to produce desired effects from manipulating natural phenomena; weather was one popular target.¹⁰⁴ “Not leaving the inside of the commander’s position (*zhangwo*), one can intervene or unite with the latent patterns (*li*, principles) [common to] heaven and human.”¹⁰⁵ These systems could also be used for time and place-jumping so that “one [could] vanish in broad daylight”; incidentally, it is the system that Zhuge Liang used to foil the Sima Yi’s captains on the first page of this chapter.¹⁰⁶

The empty center with the banners, drums and gongs organized the Eight Array schema. Located inside the array, these three elements orchestrated battle and reported its status. The banners of each array carried drawings (*tu*) of an animal and “colors and elements according with the five phases.”¹⁰⁷ Ordering and representing order, battle could not take place without them.

The organization of battle array schema around a center signified the array as bounded. The *Military Essentials* refined the boundedness of the array. The troops assigned within and without the ramparts were clearly distinguished. With bounded

¹⁰³ Gu Jianqing et al., 302-305. According to the *WJZY* 21.2149-2192, “reading fate” oversimplifies this system considerably. See Kalinowski 1983. I discuss this system and the Hidden Period (*dunjia*) and Irregular Opening (*qimen*) systems in more detail in the following chapter.

¹⁰⁴ *Romance of the Three Kingdoms* v. 2, 251-52.

¹⁰⁵ *WJZY* 21.2193.

¹⁰⁶ Schipper and Wong 1986.

¹⁰⁷ *Taibo* 6.134-35; *WJZY* 6.223-24 and 7.269-274.

array schema, the military was now conceived of as consisting of inner and outer. It served both as an organizing vehicle for the troops and as a model of the imperial project.

This bounded space consisted of a central, interior cultural space modelled on the Chinese ideal walled city plan and its related conception the Nine Domains, in which “the degree of barbarism increases with the square of the distance from the center” (Fig. 5.6).¹⁰⁸ The array’s outer ramparts limned the unknown, its exterior penetrated by gates.¹⁰⁹ Like the imperial city, *zhentu* added watchtowers and occupied increasingly more physical space through time. The Wondrous Grasp schemata of the Tang *Classic of Venus* measured roughly 1.75 *li* per side and accommodated 12,500 troops. The “Dynasty’s Perfect *Zhentu* for Pacifying the Rong Tribe,” noted in the *Military Essentials* as an actual record of Song Taizong’s (r. 976-997 AD) personal military success, measured 17 *li* by 11 *li*, accommodating 140,930 troops.¹¹⁰ Along with the larger area occupied by battle arrays came the increase in distance from the imperial center that the troops could be sent. The *Taiping Yulan* outlines *zhen* as a means of fighting far from home territory, as a development from inner to outer and from near to ever farther, until it became, during the Song, a mammoth imperial appendage marching further and further into unacculturated space.¹¹¹

Zhentu symbolized military conquest of the far away. The “Grand Duke Divides up the Land Schemata” in the *Yuhai zhentu* chapter and the well-field conceptualization hint at territorial aspirations underlying battle array schema.¹¹² During the Song, if not the Tang, military expeditions at the empire’s margins were

¹⁰⁸ Henderson 1994, 207.

¹⁰⁹ *WJZY* 7.17.

¹¹⁰ *Taibo* 6.130. *WJZY* 7.274-288. The *li* is thought to have been roughly 576 meters.

¹¹¹ *TPYL* 301 <*Zhen*>. See Forage 1991b “Sino-Tangut”.

¹¹² *Yuhai* ch. 142, 3v <*Taigong huadi tu*>.

used for cartography and mapping of territories. Shen Kuo, for instance, returned from one expedition with a contour model of a previously unmapped territory.¹¹³

Zhentu reify onto the landscape the *fenye* (field allocation, “disastrous” geography), a system of portent astrology that associated specific regions of the empire with sectors of the heavens.¹¹⁴ Using this system in military expeditions dates back to 632 B.C.¹¹⁵ No surprise then that the *fenye* system was included in all three manuals. Figure 5.7 shows the *fenye* diagram for Yanzhou from the Tiger Seal Treatise.¹¹⁶ In its most general form, Edward Schafer notes, the *fenye* system

divides the sky into four great precincts....[but] it was the smaller divisions that made reliable forecasting possible. There were three sets of these sky realms: one of nine, one of twelve, and one of twenty-eight. The system of nine domains in the sky...best fitted...the ancient and hallowed plan whereby the sage engineer Yu divided the land into nine ‘islands’ raised from the flood for human habitation. These drained provinces corresponded ideally to the eight directions plus the center.¹¹⁷

Similarly, constellations were named for military entities and formations, such as the “Walls of the Ramparts Battle Array” and the “Heaven Rampart Fortress” constellations shown in astronomer Su Song’s (1020-1101) star map.¹¹⁸ “[P]roposals to reform the boundaries of the terrestrial divisions in the *fenye* system” during the Tang and Song caused “serious concern.”¹¹⁹

Although Henderson points out that the purpose of these reforms was to “bring ancient *fenye* conceptions into accord with *existing* terrestrial boundaries,” the *fenye* discourse in Tang-Song manuals, which confine their discussions to the empire’s

¹¹³ Sivin 1980 “Shen Kua”. *Yuji tu*, Song edition.

¹¹⁴ Henderson 1994, 210.

¹¹⁵ Pankenier 1999 gives an account of the using *fenye* at the Battle of Chengpu.

¹¹⁶ *Taibo* 3; *HQJ* 16; *WJZY* qj 16-22 and *houji* 21.

¹¹⁷ Schafer 1977, 75.

¹¹⁸ Stephenson 1994, 543.

¹¹⁹ Henderson 1994, 210.

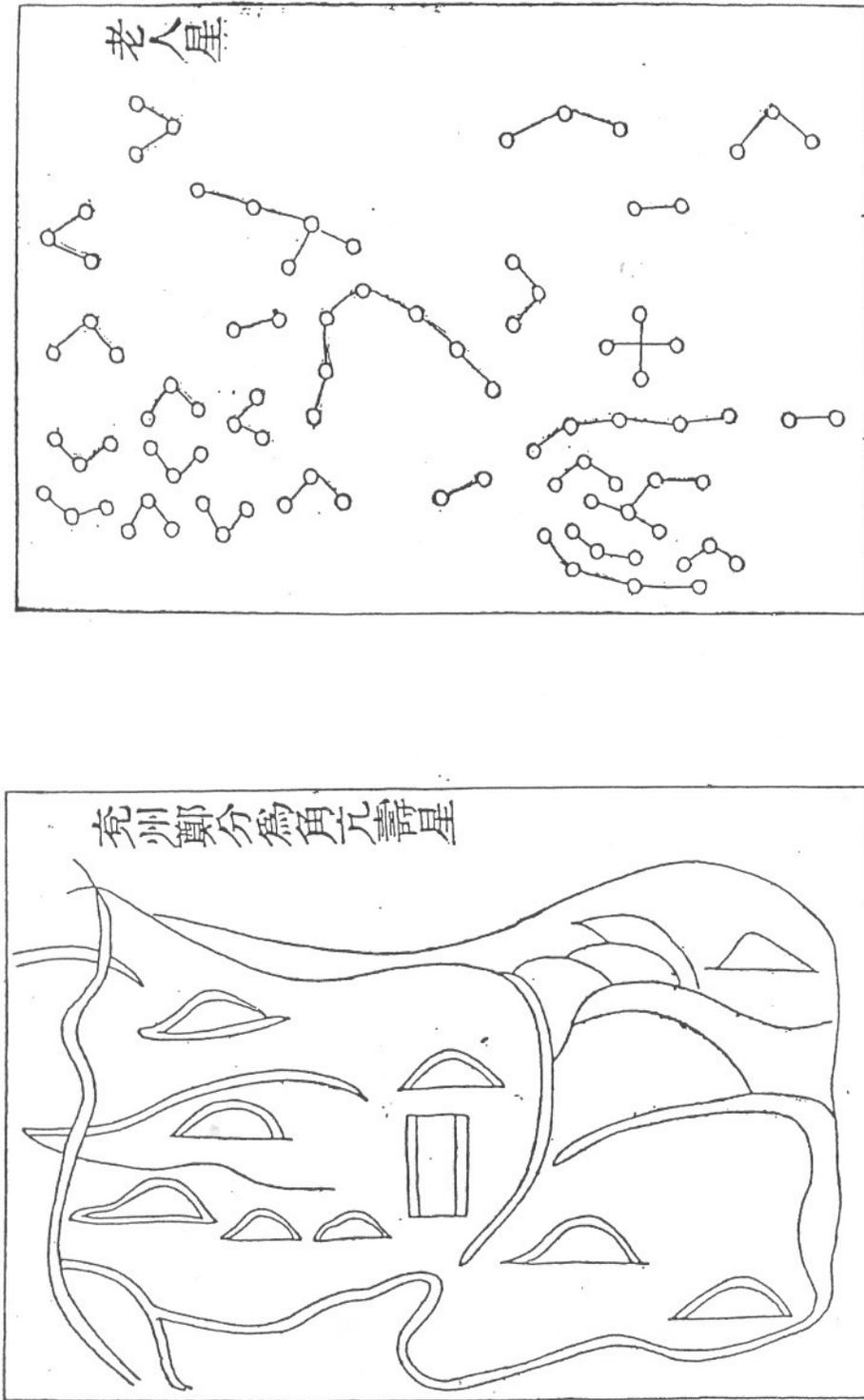


Figure 5.7. "Disastrous field" (*fenye*) for Yanzhou. The geographical rendering (left) corresponds with the Longevity star group in the Horn and Gullet lunar lodging of the Blue Dragon palace (right). (From *HQJ*.)

margins, suggests that possession of *fenye* meant territorial rights to the land below.¹²⁰ The neighboring Jidan Liao dynasty's (916-1125) adoption of the zodiac system seems to bear this out, as do repeated requests for military treatises and star charts by the kingdom of Dali during their tribute visits to the Song court; the Jurchen instituted the Office of Astronomy soon after they founded their Jin dynasty, composed in part of Song territory.¹²¹

Clearly, the *fenye* system is another manifestation of *xiang* as constellation. While governments wrestled over possession of stars charts as a means of conquest, possession of territory proceeded on the ground through battle arrays schema as a simulacrum subject to more easily controlled human manipulation. At the same time, reforms to the system suggest the degree to which the Chinese and their neighbors perceived nature as inherently and intensely violent. Nature provided the quintessential model for warfare, especially the stars. In this sense, the *fenye* system refers to how mid-imperial China perceived its own geography, and more generally, to moral justification for taking up war as a solution to territorial claims.

Military treatises in general associated with landscape in a yet another way. Like other divine treatises, they were often contained by the landscape, especially mountains and rocks. The *Classic of Venus* was sequestered in a mountain.¹²² The old man who transmitted the *Grand Duke's Art of War* to Zhang Liang returned to Zhang

¹²⁰ Henderson 1994, 210; italics in the original. See Pulleyblank 1954 for the *fenye* section of the *Taibo*.

¹²¹ For Liao star chart, Stephenson 1994, 548. See *WXTK* for Dali's requests for star charts. Nakayama 1966, 442 argues that *tianwen* generally meant "portent astrology" in pre-modern China.

¹²² *Yunji qiqian* <*Li Quan zhuan*>, j. 71-74.

decades later as a yellow rock.¹²³ And Zhuge Liang's Eight Arrays were rocks that magically responded in battle when the enemy crossed its boundaries.¹²⁴

Zhugue Liang represented the conquest of the south. Transgressing the bounds of the cultural sphere, he symbolically transformed and physically expanded them. He took common rocks and, by changing their pattern within the landscape, he “matched up” the land with heaven, creating schema that were exclusively Chinese. The discourse around Zhuge Liang's rocks expressed a sentiment about geography generally; shaping the land into a mystical and effective—for the magic of the Eight Array schema did not fail—“imperial city” in the midst of a “demon” people. For the Northern Song, especially, these rocks stood as metaphor for the resolution of their own frustration over foiled attempts to retake lost territory and increasing pressures from their non-Chinese neighbors on the northern borders.

Battle array schema as ritual

The *zhentu* described above were as much a symbol of imperial presence as a representation of the margin between what is Chinese and what is not. But *zhentu* did more than simply conquer territory by sowing symbols in a non-sinified earth. *Zhentu*—schema constructed on principles of Chinese thought—also symbolized an ideological conquest, a “true victory” over the uncivilized. As ideological conquest, it invoked the moral position of *wu* (martial, warfare, weapons, by extension chaos) via its relational counterpart, *wen* (civil, civilization, culture, embellishment, pattern). This civilizing mission of *zhentu* was achieved through enactment of its inherent ritual attributes. *Zhentu* used formal characteristics for mapping cultural space. Unlike walled cities, which functioned as centers of overlapping regions of influence—

¹²³ *Shiji* 55, 2034-2035 <Zhang Liang>; Watson 1961 v.1, 134-151; Egan 1994, 21-22.

¹²⁴ *WXTK* 157.1372; *Yuhai* ch. 142, 13-15; *Romance of the Three Kingdoms*, 251-52. The two former texts are the first to fuse *lei*, ramparts, and *zhen*, schema. It is also the first occurrence of the use of *zhen* with *tu* rather than *fa*.

imperial provincial capitals are one example—*zhentu* extended into unincorporated territory, moving into a landscape subject to a different set of cosmic rules.

There is yet another dimension to this cultural categorizing and conquest. As far back as the Jin Dynasty (265-420 AD) both metaphysical and actual physical journeying played a role in Chinese thought, especially as found in the scholarship of the Neo-Daoist movement and its attendant quest for immortality. “The very highest and most powerful” spirits were believed to inhabit exotic and remote places, especially those “with large stones and trees of great age”, both of which we find in Zhuge Liang’s southern territory. “By means of [incantations] and charms, knowledge of [propitious] days and hours, purification, fasting and other practices, it was possible to avoid pernicious influences and in fact gain admittance to [the] sanctuaries” of these deities.¹²⁵ The inhabitants of these places were not mere enemies, but—by virtue of inhabiting the same realm as these extraordinary, powerful spirits—they possessed a potential that may have exceeded that of the Chinese. *Zhentu* were employed as a weapon to combat potentially supernatural enemies, and as propitiatory sacrifice to unfamiliar spirits and deities (see below).

While the visual and mimetic qualities of the middle imperial Chinese *zhentu* comprise its ritual attributes, *zhentu* embodied performative aspects of ritual also. Though “performative” evokes references to speech acts, “sound-acts” may better explain the performative aspect of *zhentu*; display, music, and dancing out cosmic patterns engendered the mimetic and visual qualities of the schema.

That *zhentu*—or any sort of warfare—entails some sort of display is no surprise. I have noted above that the root of *zhentu*, *chen*, means to exhibit or display; Sunzi advised careful monitoring of that display in order to understand the commander’s intention; the *Wuzi* advised the same in order to understand the nature of

¹²⁵ Sailey 1978, 335-36.

the state's governance. Sun Bin, too, raises this point: "How do we know that the sword corresponds to military formations and display? Morning and night we wear a sword, but we don't necessarily use it. Hence, it is said, we deploy troops in formation without committing them to battle: the sword exemplifies military display."¹²⁶

The entire concept of warfare and the martial (*wu*) originated with music, in which *wu* is a dance performed to drums as well as the method of attack inaugurated by King Wu of the Zhou dynasty (trad. 1122-256 B.C.). It is culturally linked with the concept of *xiang* as the music, poetry and dance of semi-sage King Wen. According to Tang commentator Kong Yingda, Wen's offspring, King Wu, set it to music, and instituted *xiangwu* (lit., martial symbolization) as the music and dance performed on the occasion of large military endeavors.¹²⁷ Tang Taizong elaborated the idea of music as an—if not *the*—essential component in battle array schema and the power of its performance. According to the *Wendui*, Taizong created music and dance called "Destroying the Battle Array Schema". Here Taizong uses music to motivate patterns that take the enemy's array apart. This is not generally understood, he laments, because "the people only see the flourishing of the music and dance." The four animal arrays of the Eight Array schema represent musical notes that correlate with the five phases (and here again we see a numerical remainder) and act in concert with the remaining arrays—heaven, earth, wind and cloud: "left and right they circle about, marching and racing to the gongs and drums, each in accord with its rhythms."¹²⁸

As a performative, the array itself forms dynamic, ever-changing patterns drawn in space that invoke supernatural potential. Through transformation and change (*hua* and *bian* in Song commentary on *zhentu*) invoked by such performance, the

¹²⁶ Sun Bin 9 <*Shibei*>. Ames and Lau 1996, 162, 163.

¹²⁷ ZWDC #37215.5.9, 13714 citing the *Liji*; HYDZ, 3612, def. 17 citing Kong Yingda; ZWDC #37215.146, 13720.

¹²⁸ WJQS <*Wendui*> "zhong", 6r; Sawyer 1993, 341, 346.

zhentu becomes a divine maze.¹²⁹ Based on recognition of the array, the victor weaves a pattern that counteracts that of his enemy: successful moving through the array schema with the right pattern breaks it up. To counteract the base pattern is to break the formation, ultimately a contest of my *wen* (culture, pattern, writing, embellishment) versus yours, an idea echoed in the *Military Essentials*.¹³⁰ Constellations as the inspiration of *zhentu* and the continual tracking of heaven puts array schema on the level of a contest of culture.¹³¹

Along these lines, *zhentu* can be discussed in the light of Daoist ritual. The formal characteristics of *zhentu* are similar to those of the moveable Daoist altar (*tan*) and its associated sacred area (*daochang*). This space consisted of a series of three concentric and hierarchically arranged enclosures (Fig. 5.9). Lamps are dispersed outside the demarcation of the outer altar, “grouped together in patterns representing constellations.”¹³² The outer altar itself is arranged into twenty-four precincts representing the Twenty-four energy nodes (*jieqi*), “constructed around the equinoxes and solstices, [that] divided the tropical year of 360 days into 24 periods of 15 days.” These energy nodes “constituted a liturgical calendar for all the spirits of heaven and earth,” the latter conceived of as abstract and numerological, and in the Daoist tradition, “provide[d] the fundamental grid for the organization of the community and the geographical network of dioceses.”¹³³ The inner altar displays the twelve earthly

¹²⁹ *WJQS zhuyi*, 560.

¹³⁰ *WJZY <Zhentu>* 122.

¹³¹ This also illustrates how knowledge functions as conquest, an idea found in the *WJZY*.

¹³² Schipper and Wang 1986, 190.

¹³³ Schipper and Wang 1986, 189-190.

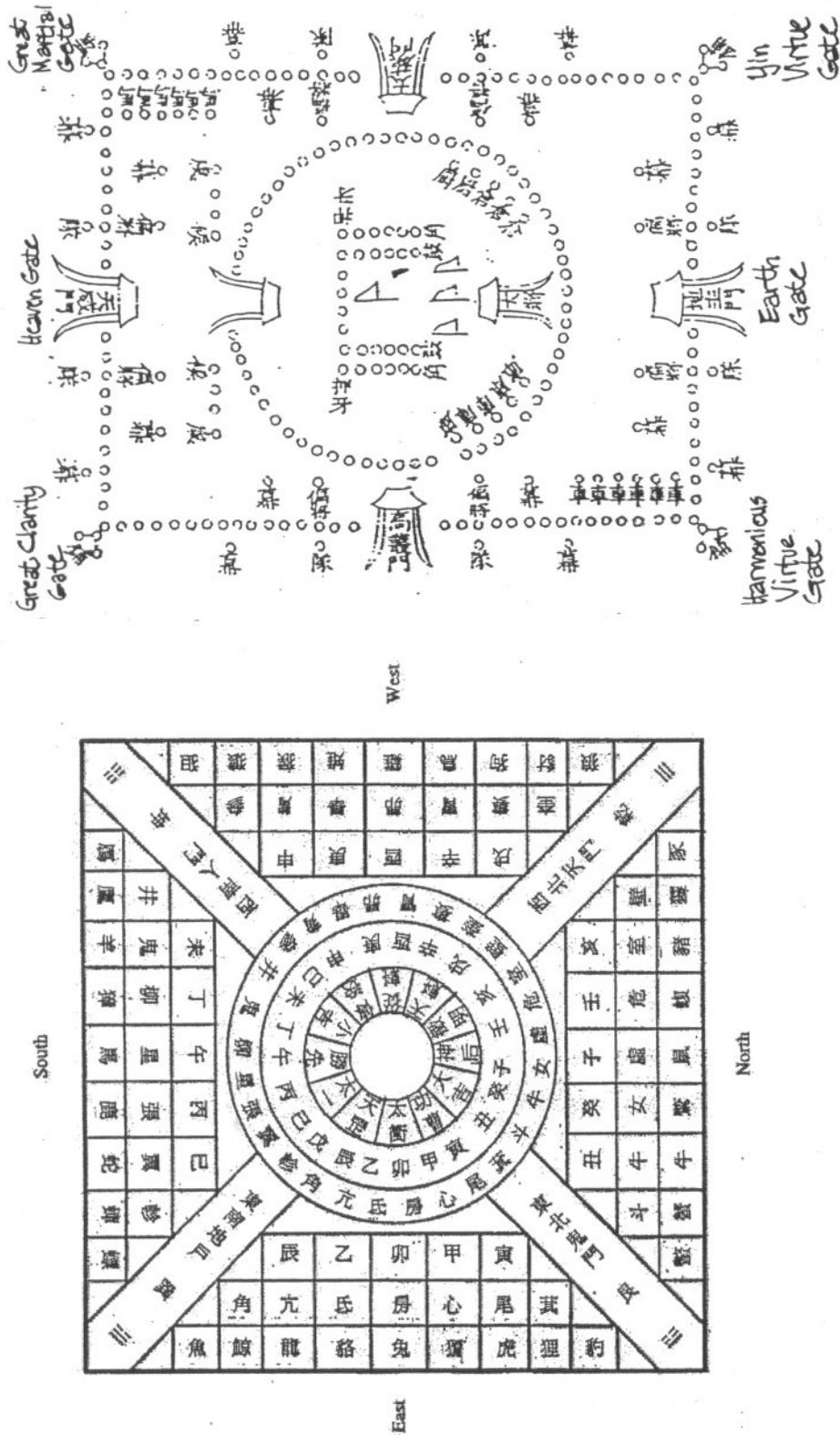


Figure 5.8. A reconstructed Six Water Cycles cosmograph from the Six Dynasties era and the Planet of War battle array schema show similarities in form and layout. (From *Taibo*; cosmograph illustration reconstructed from traditional sources.)

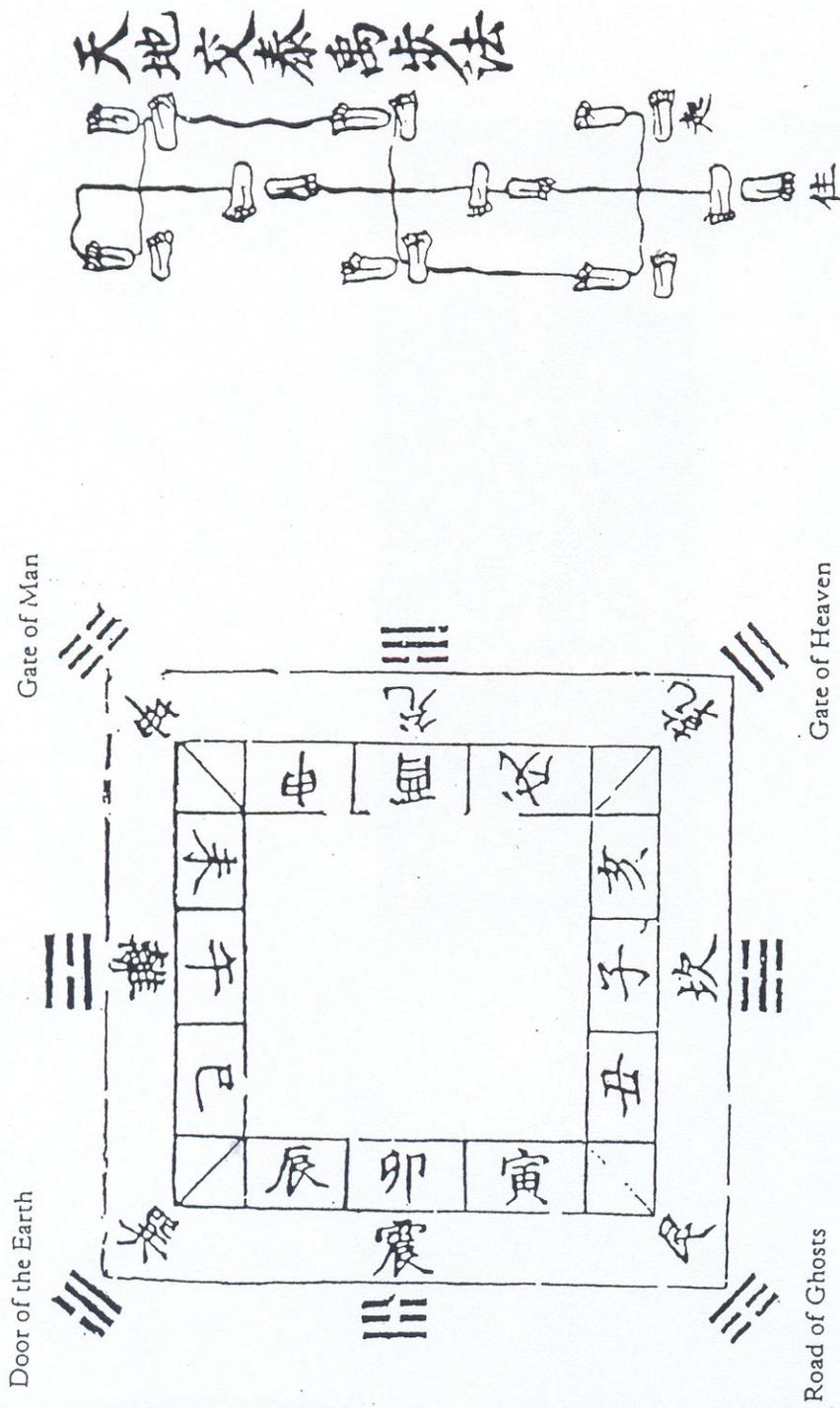


Figure 5.9. Daoist altar layout shown with the "Paces of Yu". Left: Altar with the Twelve earthly branches surrounded by the Eight trigrams of the *Book of Change*. Right: A drawing (ca. 1116 AD) of the "Paces of Yu", which dance out the pattern of the hexagrams shown around altar; it recreates the Big Dipper, according to the numbers of the River Chart and the Luo Writing. (From traditional sources; reproduced in Schipper and Wang 1986 and Schafer 1974.)

branches.¹³⁴ The gate arrangement of the outer altar echoes that of the Wondrous Grasp Array scheme, as does Xu Dong’s camp arrangement using the Six Water Cycles system. The obvious, formal similarities of the altar and *zhentu* are based on similar cosmological models. The gate names and positions correspond with each other on the diagonal and cardinal axes (Fig. 5.8).

The correlation of the Daoist altar with the formal characteristics of the *zhentu* goes some distance in explaining the puzzling reference to the number 24 associated with the Eight Arrays in Song commentary: “The Eight Arrays conceal the 64, duplicating the hexagrams of the Changes. The waning moon conceals 24 of them.” Above I showed that the irregular and unorthodox (*qi*) constituted the “wondrous” in the Wondrous Grasp array, and contained the remainder that didn’t quite fit with the “four heads and eight tails” schema of the Eight Arrays. Elsewhere, the *Military Essentials* suggests that the *qi* (irregular) and *shu* (number, regularities, method, emblem) also played a key in the battle action.¹³⁵ *Shu* occupied a position in the Song cosmic scheme that stood between *li* (patterns, principles) and *xiang* (image, symbolization, representation). As in the Daoist altar arrangement and in cosmography techniques such as Xu Dong’s Six Water Cycles system for laying out the center of the array, it is the unused remainder that acts as the source of superhuman power. The “magical” irregularities are staged within a context of a regularized universe (the *zhentu* layout as a model of the cosmos) and “magic” is performed within it (see Fig. 5.8).

¹³⁴ Schipper and Wang 1986, 190. Details of the altar’s form dates back to at least the fifth century, in the scriptures of the *Lingbao* canon; in a manual for conducting ordinations compiled by Lu Xiuqing (406-477); and in the text, *Taishang dongxuan lingbao shouduyi*, “a compendium of excerpts from Daoist scriptures and texts compiled under imperial auspices by a commission” around 577 AD. See Benn 22.

¹³⁵ *WJZY* <*Bazhenfa*> 325.

The Six Water Cycles, Hidden Period and Irregular Opening cosmography techniques are activated by a ritual that includes the “Paces of Yu”, a series of steps that trace the pattern of the Big Dipper, and performed the Luo River Writing, a variation of the River Chart (Figs. 5.1 & 5.9). These ritual systems unified time, physical space, and the stars.¹³⁶ As Schipper and Wang note: “By making cosmological models the very basis of the ritual structure, rituals became the expression of natural processes.... Nature thus became the replica of the model, and this mirror image was embedded in the structure of the ritual action itself.”¹³⁷

In the field, the commander performed this dance while chanting when laying out camp. Like the ritual purification inherent in the “Paces of Yu,” which reenacts Yu’s definition of a specifically Chinese geography, battle arrays were used to re-order contested territory, make it “civilized” again, and then re-invest it in the empire. *Zhentu* reincorporated contested space, not by just defeating enemy, but by neutralizing the “nefarious *qi* (universal essence)” that inspired war.¹³⁸

Warfare has been understood as *yin*, not *yang* as one might expect. Since Sunzi’s time, weapons were *yin* (metal, death, blood); by extension, warfare was also *yin*. In this light, the beheading of war captives, which took place in the center of the array, takes on full ritual significance as sacrifice, exorcism, purification and re-incorporation; essentially a field performance of the Daoist *jiao* ritual.¹³⁹ Not simply an act of vengeance, it incorporates the “barbarian” outsider into the sinified sphere. Within the schema of the altar—the empty center of the array—the captive, a product

¹³⁶ See Chapter Six.

¹³⁷ Shipper and Wang 1986, 188.

¹³⁸ Needham 1994, 11 gives another example; blood generally, but also in its connection with women, another *yin* association.

¹³⁹ Yates 2001 notes the beheading of war captives, citing the *HQJ*. The *jiao* ritual is usually performed once every three years, and purifies and re-incorporates the local temple community. A special pig is raised according to strict rules for feeding, etc., then slaughtered and eaten on the day of the ritual. See Schipper and Wang 1986 for an explanation of the altar.

of the magical unknown geography and therefore, demon (non-Han and/or a product of death, both *yin*), is neutralized and his “nefarious *qi*” is exorcized. This sacrifice propitiates the spirits of dead comrades (also *yin*) at the same time. The sacred disposition of the center as altar purifies and re-incorporates the troops as a ritual community, while spilt blood baptizes the geography as Han space, “ a sacrifice to make the world sacred”.¹⁴⁰ The *zhentu* is talisman and altar all at once, protecting against uncontrolled *yin* and unyoked supernatural power.

For binding oaths--their golden sabres are weighty
 For beheading trolls—their precious swords are keen.
 When they pace like Yu the starry stays are moved;
 When they burn their spells the furnace spirit does homage.
 Yuan Zhen¹⁴¹

Conclusions

Skeptics may wonder whether we can make conclusions about *zhentu* based on such formal affinities. After all, these shapes are repeatedly found in Chinese iconography. But these continuities tell us something about the ideas upon which Tang and Song *zhentu* were founded. There can be no doubt that this era represented a turning point in how *zhentu* were conceived.

We saw above that the morphology of *zhentu* mimicked the form of the imperial walled city. They were based on the patterns of the River Chart and the Luo River Writing in camp, while corresponding to constellations in battle. *Zhentu* were arranged according to cosmological patterns and correspondences, flowing from the inspiration of *xiang* as image and symbolization, the fundamental trigrams and numerology of the *Book of Change*; five phase theory; *yin* and *yang*; and the natural forces of heaven, earth and wind. Through *xiang* as image, as constellation, and as symbol, *zhentu* operated as limn between heaven and human. As the result of new

¹⁴⁰ Schipper and Wang 1986, 188.

¹⁴¹ *JTS* quoted from Schafer 1977, 242.

cosmological constructions, *zhentu* reveal epistemological and ontological concerns of the middle imperial Chinese.

Much of this epistemological shift related to the conception of *zhentu* as an image and a diagram. While previous nomenclature spoke of *zhenfa*—the method of formations, Tang and especially Song commentators instituted the concept of *zhen* as intimately related to *tu*; charts, diagrams and pictures. These visual schema played a large role in if not human *transcendence* of nature, at least human control of it. This new attitude toward *tu* was intimately related to *xiang*—constellation, image, symbol and symbolization, representation—and Song literati commented in highly nuanced terms how *zhentu* related to new cosmological schemes that incorporated *xiang* and *shu* (number, regularity, emblem) as key features.

The Song construction of *zhentu* as a powerful tactic included a new mythopoeic formulation; in particular, a shift from the Yellow Emperor of the *Sun Bin* and later texts as the mythic origin of *zhentu* to Zhuge Liang, the Han dynasty strategy wizard. This seems to represent a diminishing of the previous orientation of *zhentu* as awestruck imitation of constellations (represented by the Yellow Emperor) to one oriented toward the forces of landscape, geography and territory (represented by Zhuge Liang's maze-like rock layout). Ultimately, once the imitation was refined and perfected, even the heavens could be imaged and patterned, as seen in the case of the *fencye* system.

In the Song reworking of cosmological schemes, *xiang* and *shu* attained new importance in the ability of the human to manipulate the cosmological realm. The preponderance of number in the production of *zhentu* is related to a view of *yin* vis-à-vis *yang* as a much more potent source for the production of power useful in warfare. Descriptions and analyses of new magical means to harness and control the inherently

chaotic power of *yin* are continually shaded with warnings and take on a hue of fear of and for those playing with such power.

In divination techniques, *xiang* symbolize and imitate. Though some may regard the latter as a passive form of magic, imitating in the case of *zhentu* established authority, and with authority came the power to change. *Zhentu* socially (or antisocially) performed culture, thereby making it so; its performance ‘worked’ by creating simulacra and manipulating them to produce power siphoned from the original source (the constellations, the universal forces of *yinyang*, the five phases and so on). The mimetic and visual qualities were made “really real” through display, music, and dancing out cosmic patterns.

It was important that *zhentu*, and indeed, war in general, stay within the universal order. The Chinese enacted a series of rituals in initiating war and deploying troops. This ritual series began with the passing of the *fu* and *yue* ritual axes from the emperor to the commander and the swearing in of troops. The series continued along the battle route with prayers and offerings to various deities, divination of clouds and ether, omen-spotting, geomancy, etc. *Zhentu* were very much a part of this series of rituals. The new geographic orientation insured a patterning of the landscape as distinctly Chinese, simultaneously exorcizing residual uncontrolled *yin* and purifying transformed landscape. By performing *zhentu*, commanders believed that they were capable of manipulating multi-dimensional states of existence, a bridge between chaos (war) and order (victory), thereby restoring the balance of the realm.