

Chapter 2



A GENERAL INTRODUCTION TO EARLY HAN COSMOLOGY

The general characteristics of early Chinese cosmology are well known. In this chapter I shall undertake only to provide a brief account of the main points of early Han cosmology to serve as an introduction to the translations of *Huainanzi* 3–5 that follow. In doing this I also call attention to certain specific features of Huang-Lao philosophy as it is expounded in the *Huainanzi* and other closely related texts.

COSMOGONY

Huainanzi Chapters 1, 2, and 3 offer different, but not necessarily incompatible, accounts of the coming-into-being of the cosmos; these accounts are supplemented by additional cosmogonic passages found in other chapters of the text.¹ Together they paint a picture of a cosmos that begins in formlessness and chaos, goes through a process of differentiation governed by principles inherent in the system itself (that is, without the intervention of a Demiurge or *deus faber*), finally producing the world-as-it-appears. This, however, persists for an unspecified duration in a mythic state of timelessness before entering the realm of time and history. The distinction between the *Urzeit* and the age of historical time is of fundamental importance; as Girardot has written, “the mythological theme of creation and paradise lost literally reverberates throughout the whole [of the *Huainanzi*].”²

Huainanzi Chapter 1 is an enquiry into the nature of the Dao itself, which is depicted as anterior to time, space, and distinctions of every kind. It pervades the universe; it can be rolled up into a tiny ball—it is both macrocosm and microcosm. It has

neither dimension nor form. It gives being to every thing that is, yet cannot itself be said either to be or not to be. *Huainanzi* 1 provides a cosmogonic vision of only a very sketchy sort, derived from *Laozi* 42, which says:

The Dao gave birth to the one;
The one gave birth to the two;
The two gave birth to the three;
The three gave birth to the Ten Thousand Things.
The Ten Thousand Things carry yin and embrace yang,
And create harmony through the blending of qi.

In *Huainanzi* 1, yin and yang “partake of the Dao,” and the world is differentiated into duality; duality gives rise to the “ten thousand things.” Always behind the appearance of all phenomena lies the Dao, which “defines the four seasons and harmonizes the five phases.”

As *Huainanzi* 1 is in the tradition of *Laozi*, so *Huainanzi* 2 is in the tradition of the *Zhuangzi*. Thus, in its opening two chapters, the *Huainanzi* grounds its Huang-Lao philosophy in Lao-Zhuang metaphysics. *Huainanzi* 2 opens by quoting a famous set of propositions from *Zhuangzi* 2 (which itself is related to *Laozi* 15):

1. There was a beginning.
2. There was a time that preceded the beginning.
3. There was a time before the time that preceded the beginning.
4. There was Being.
5. There was Non-Being.
6. There was a time before Non-Being began.
7. There was a time before the time that preceded the beginning of Non-Being.³

Huainanzi Chapter 2 continues by explaining each of these propositions, in ways that *Zhuangzi* himself might not have recognized. The effect is to transform them into a seven-stage cosmogony, described by Le Blanc as follows:

1. Empty Non-Being.
2. Empty and Opaque Space.
3. Empty and Luminous Space.
4. The Space-Time Complex.
5. Blending of Earthly Qi and Heavenly Qi.
6. The Life Impulse.
7. The Birth and Flourishing of the Ten Thousand Things.⁴

As Girardot points out,⁵ the first four of these stages are in effect internal to the

primordial chaos of the undifferentiated universe. At the end of stage four, the Dao has evolved from a void to a state of chaos poised for coming-into-being, but as yet without visible manifestations. In the fifth stage, the qi of earth and heaven (yin and yang) can be described as discrete entities; in the sixth stage, germs and roots, eggs and pupae, mark the appearance of potential life-forms. Nevertheless, the cosmos is still soft, enfolded upon itself, egg-like, and without form. Only with the final stage does the manifest world appear. A major theme of the remainder of *Huainanzi* 2 is the adverse effects that follow from the imposition upon the primordial simplicity of the emergent cosmos of human-created values, distinctions, and devices.

To recapitulate, *Huainanzi* 1 gives us an enquiry into the Dao, and states with little elaboration that one produced two, two produced three, and three produced multiplicity. *Huainanzi* 2 sees the creative process as inherent in the Dao, which, however indescribable it may be, has a quality of yolk-like fecundity that gives rise to the ten thousand things.

From this perspective, the opening sections of *Huainanzi* 3 (see 3.I–II below) can be seen as an amplification of the final stage of *Huainanzi* 2's cosmogony. They provide, in other words, more detail on the mechanisms whereby chaos, impelled by the inherent qualities of the Dao, gives rise to order. Here I shall simply give in skeletal form the argument of this cosmogony.⁶

1. Heaven and Earth inchoate and unformed: The Great Inception.
2. The Dao begins in the nebulous void.
3. The nebulous void produces spacetime.
4. Spacetime produces primordial qi.
5. Qi divides; the light and pure forms Heaven, the heavy and turbid forms Earth.
6. Heaven and Earth produce yin and yang.
7. Yin and yang produce the four seasons.
8. The four seasons produce the ten thousand things.
9. Yin and yang qi produce the heavenly bodies.
10. The fight between Gong Gong and Zhuan Xu causes heaven to tilt to the northwest.
11. Yin and yang cause the heavenly bodies to shine, and produce meteorological phenomena.
12. All things respond to yin and yang according to their kind.

The first stage in this cosmogony can be seen as a brief recapitulation of *Huainanzi* 2, while the second stage reaffirms *Huainanzi* 1's emphasis on the primacy of the formless and unbounded Dao. From the nebulous void, the cosmos begins to become self-organized and produces spacetime: "The nebulous becomes process enduring

through time simultaneously with becoming material extended in space.”⁷ This produces qi, still described as “primordial,” which is to say, undifferentiated. But the qi is a mixture of light and heavy, which drift apart and become separated by a “shoreline”; the lighter qi ascends to become heaven, the heavy descends to become earth. Heaven and earth “produce,” that is, can be seen as paradigms of, yin and yang. Yin and yang produce the four seasons, and much of *Huainanzi* 3 is concerned with examining the consequences of the waxing and waning, in constantly shifting ratios, of yin and yang throughout the year. The four seasons produce the ten thousand (= all) things. This statement specifies the method of the *Laozi* 42 (and *Huainanzi* 1) cosmogony. The Dao is one and undifferentiated; the one Dao produces the two of yin and yang; yin and yang qi expressed as spacetime make three; the interactions of yin and yang with spacetime produce everything.

The introduction at this point of the famous battle between Gong Gong and Zhuan Xu that causes the northwestern pillar of heaven to be knocked aslant, making heaven lean to the northwest and earth to the southeast, is of key importance. This event is a mythic explanation of the noncoincidence of the ecliptic (the apparent path of the sun—and, approximately, the moon and the planets—around the earth) and the celestial equator (the projection into space of the plane of the earth’s rotation). *Huainanzi* 6:6b tells how the goddess Nü Gua repaired the damage wrought by Gong Gong and Zhuan Xu by patching the sky with five-colored gemstones and using the legs of a giant turtle to replace the damaged pillars.

In *Huainanzi* 4, both Mt. Kunlun and the Jian tree (beneath the midpoint of the sun’s daily journey across the sky) are depicted as cosmic pillars used by gods and immortals to ascend to and descend from heaven. This notion incorporates the idea of the “myth of eternal return,” wherein the function of religious cosmology is the re-establishment of the sacred conditions of the *Urzeit* that allowed free communication between mortals and the divine. The rupture of that communication is thus seen as the fundamental human dilemma. The tilting of the cosmic pillar by Gong Gong and Zhuan Xu is one version of the cosmic disaster in Chinese sources; another is found in the “Luxing” chapter of the *Shujing*. “The charge was given to Chong and Li to break the communication between earth and heaven so that there was no descending or ascending.”⁸

In the cosmogony of *Huainanzi* 3, both spacetime (time here considered as “process-as-it-endures”) and the four seasons exist prior to the cosmic disaster; nevertheless, that event marks the true beginning of time as it is calculated in human terms. The *Urzeit* of cosmogony comes to an end; henceforth the ruler must search for ways (through calendrical and portent astronomy, the calculation of solar and Jovian years, and all of the other astrological methods described in *Huainanzi* 3) to avert celestial harm and recover a state of oneness with universal process and cosmic order. History

begins with man's attempt—through Yu the Great's engineering works (alluded to in *Huainanzi* 4.III)—to recreate the cosmos after the universal deluge that was a consequence of the tilting of heaven and earth.

In this new era of time-dependent phenomena, the heavenly bodies shine; wind, rain, thunder, lightning, and other meteorological phenomena appear through the interactions of yin and yang. Each of the ten thousand things has its own distinctive yin-yang characteristics; all interact in accordance with them.

An important, but seldom noted, feature of this cosmogony is that it clearly states that *everything is made of qi*. Qi is both process and substance, and comes into being as the concrete manifestation of spacetime; differentiating into the light and clear, the heavy and turbid, qi (now describable in terms of yin and yang) becomes the basic stuff of the visible universe. The notion of qi (both clear and turbid) as the fundamental material is usually thought of as one of the defining characteristics of Song Neo-Confucianism; it is remarkable to see the same principle asserted here, some twelve centuries before Zhu Xi.

Up to this stage, the cosmogony of *Huainanzi* 3 deals only with the fundamental dualism of yin and yang, and sees all phenomena as reflections of their interactions; there is no hint as yet of the five phases. Those are introduced in 3.VI, in the guise of the five planets, with their associated gods, directional symbolic beasts, and other five-phase correlates. Significantly, each of the planetary gods is depicted as holding a construction tool: the compass, square, marking cord, balance beam, and plumb bob. In *Huainanzi* 5.XV, these (plus the water level) are described as the "standards" by which cosmic processes are measured. Here they have, at a minimum, that meaning; there is perhaps also a hint that the celestial (planetary) gods are the architects of the subcelestial world as it comes into being in its multiplicity of forms. At the least, in this passage the five phases are given equal status with yin and yang as part of the cosmology of differentiation-between-categories and resonance-within-categories that was central to Huang-Lao thought.

The five phases also provide (in *Huainanzi* 4.XVIII–XIX) more detail about the processes through which the ten thousand things emerge from a state of relative undifferentiation. The first of these two chapter sections describes the speciation of animals and plants from first ancestors (in the case of animals, according to the five phase categories of scaly, armored, feathered, hairy, and hairless; textual corruption has obscured what probably were five phase categories in the case of plants). The second describes the formation of minerals from qi of five colors corresponding to the five phases. Moreover, *Huainanzi* 4.XI provides a somewhat rudimentary attempt to devise a taxonomic classification of animals on the basis of physical characteristics.

The universe that emerges from the cosmogony of *Huainanzi* 3 (as Randall Peerenboom has pointed out with regard to the Huang-Lao philosophy of law⁹) is to a

remarkable degree structured and determined. The coming-into-being of the cosmos is *wuwei*, "non-purposive," and *ziran*, "thus-of-itself," but it is also orderly, predictable, and subject to what one might cautiously describe as "natural law" even in the absence of a divine lawgiver.¹⁰ The principles that make the cosmos orderly and predictable are elaborated in the theories of categorical or correlative thinking and *ganying* resonance.

CORRELATIVE THINKING AND SYSTEMS OF RESONANCE

In Huang-Lao cosmology, the principal means by which the ruler was advised to make his actions conform to the natural rhythms and processes of the cosmos emerged from a thorough understanding of systems of correspondence, or what Graham has termed "correlative thinking."¹¹ In this mode of thought, all things in the world can be grouped into numerical categories (corresponding to the dualistic yin and yang, the five phases, the eight directions, and so on); things within a category resonate with each other more strongly, reliably, and predictably than do things that are not in the same category. As *Huainanzi* 3.II.17–18 puts it, "Things within the same class mutually move each other; root and branch respond to each other." Or again, *Huainanzi* 4.VIII.17: "All things are the same as their qi; all things respond to their own class." Resonance (*ganying*) between or among things within a class is conveyed through qi, conceived of as both the basic stuff of concrete phenomena and as an intangible vibrating medium pervading empty space.¹²

Correlative thinking is the best-known aspect of early Han cosmology, and it need not be reviewed at length here. Modern Sinology has produced an enormous body of literature on its various aspects, including yin-yang and *wuxing* and other correlative categories. Much of this scholarship has been summarized by Michael Loewe; the best analytical treatments are those of Ho Peng Yoke, Nathan Sivin, Derk Bodde, and A. C. Graham.¹³ Graham's structuralist analysis gives deep insight into the nature of correlative thinking, and his survey of the historical development of the categories of yin-yang and the five phases may be taken as authoritative.

Yin and yang entered the Chinese vocabulary sometime during the early- to mid-Warring States period, with the original meanings "the shady and sunny sides of a hillside" and "cool and warm." Although the words were not yet terms of philosophy, their meanings had important implications for their later use as technical terms; both "shady and sunny" and "cool and warm" imply gradients on a scale, rather than polar opposites. In the *Zuozhuan* (Zhao 1/8), they are two of the "six qi," the others being wind, rain, darkness, and light. As employed by Zou Yan and the Naturalist School from the mid-third century B.C.E. onwards, yin and yang became paradigms of a complementary (nonantagonistic) dualism whereby phenomena could be analyzed in terms

of shifting proportions of yin and yang; a predominantly yin phenomenon always contained at least a germ of yang and vice versa.

As we have already seen, in the cosmological chapters of the *Huainanzi* yin and yang are used especially to describe cyclical dualistic phenomena, chiefly the shifting proportions of sunlight and darkness throughout the solar year. The waxing and waning of the seasons is characterized as the "accretion" and "recision" (*de* and *xing*) of yin and yang. Yin and yang also denote other dualistic pairs, such as:

Heaven :: Earth
High :: Low
Male :: Female
Light :: Dark
Flying :: Walking

The second most important correlative category in *Huainanzi* is the *wuxing*, or five phases. The earliest appearance of the concept of a set of five categories dates back to the Shang, with the "four directions" (*sifang*) plus, implicitly, the center.¹⁴ Various references to sets of five can be found in Zhou texts, but, as Graham has shown, before the third century B.C.E. the Chinese showed no particular preference for the characteristic Huang-Lao sets of two and five; note, for example, the "six qi" mentioned above. In the thought of Zou Yan and his followers, fives were normally specified as "five materials" (*wuca*), "five powers" (*wude*), and so on, rather than being subsumed under the *wuxing*, which was simply one category among several.

By the time the *Huainanzi* was written, however, the system of the *wuxing* was already philosophically mature. The *wuxing*—Wood, Fire, Earth, Metal, and Water—had become paradigmatic, subsuming all other sets of fives (five musical notes, five tastes, five planets, etc.). The translation "five phases" becomes fully applicable to the *wuxing* at this point, because the five are clearly phases of qi in the same sense that ice, water, and vapor are phases of H₂O. The directional, numerical, and other key correlates of the five phases were securely established. The five phases had become, in other words, a fully correlative system; all things within a single phase mutually interacted according to the principles of *ganying* resonance, while the five taken together operated in regular and predictable cycles of transformation.

The originally separate themes of yin-yang and the *wuxing* were combined within a single cosmological framework. The five phases themselves could be correlated with cycles of yin and yang, as for example in the various versions of the "Yueling" (including *Huainanzi* 5), where the yin-yang annual cycle includes subcycles correlated with the five phases. Moreover, anything correlated with one or another of the five phases could have a yin or a yang aspect (that is, be *predominately* yin or yang; everything is

always to some degree both yin and yang), or be yin in some features but yang in others. For example, birds (feathered creatures) are correlated with phase fire; they are yang, in that they fly, but yin, in that they are oviparous. In modern terms, the set of living creatures has a subset, creatures correlated with phase fire; this subset is intersected by a set of yin attributes and a set of yang attributes. The small area where the sets are congruent yields the category "birds."

Mutual interaction within a class of things defined by yin, yang, and the five phases (and other correlative categories) is conveyed by qi. The word qi originally meant breath, steam, or vapor. By the early Warring States period it had come to mean, more broadly, an active influence of some kind, as from the atmosphere (in weather) or within the body (in causing fever or chills). Qi could also be applied to temperament or mood; likes and dislikes, anger and joy were conceived of as arising from qi. (In modern Chinese, to become angry is still "to give rise to qi.") Qi also meant, in the contexts of medicine and hygiene, a kind of animating force, as in Zhuangzi's methods of *yangqi*, "nourishing the vital energy," and similar yogic practices.

The idea of qi as a conveyor of resonant influence, on the *ganying* principle of "like responds to like," seems to have originated with Zou Yan and his followers in the Jixia Academy of the state of Qi in the third century B.C.E. In this conception qi is an active correlative principle. As Graham puts it, "once spring is correlated with the color green and the ruler's bounty, [qi] will be conceived as changing the weather to spring, making leaves green and moving the heart to bounty."¹⁵ In the *Huainanzi*, as we have seen, qi functions in that sense as an intangible conveyor of influence, but it also was regarded as an immaterial substance ("primordial qi") that, in the self-organizing cosmogonic process, condensed into the material fabric of all things in heaven and earth. Things within a correlative category (whether a simple or a complex one) interact (even over long distances, and without any mechanical connection) on the "like responds to like" principle not only because they emit imperceptible "vibrations" through the medium of qi, but because they are made of the same kind of qi.

While yin-yang and the five phases are the most important correlative categories in *Huainanzi*, several others deserve mention as well. A category of nine appears frequently in the opening sections of *Huainanzi* 4 in the form of the 3 x 3 grid of the nine provinces (which, in *Huainanzi* 3, is reflected in the nine palaces of heaven). This category of ninefold phenomena gives rise to a subset of eight (the nine minus the center), as in the eight directions, the eight winds, the eight outlying regions beyond the center, and so on. This category of eight would seem to invite a further correlation with the eight trigrams of the *Yijing*, but in fact until the end of the second century B.C.E. the *Yijing* was the exclusive preoccupation of the Confucian school, and it plays no role in Huang-Lao cosmology as exemplified by the cosmological chapters of the *Huainanzi*. (Trigram correlates for the eight winds etc. in *Huainanzi* were supplied by

the late Eastern Han commentator Gao You. One of the achievements of Dong Zhongshu in forging, around 105 B.C.E., the grand synthesis that laid the foundation for imperial Confucian ideology had been to incorporate the trigrams and hexagrams into the categorical thinking of the Zou Yan school and its Huang-Lao heirs. This provided a vehicle for the introduction into natural philosophy of the whole range of Confucian ethical philosophy, which had developed its own correlative categories—not only the trigrams and hexagrams, but also, for example, the “five virtues,” which fit easily into five-phase reasoning.)

Other important correlative categories in *Huainanzi* are ten and twelve, associated with the Heavenly Stems and Earthly Branches. The latter were particularly important in their guise as the twelve chronograms that marked out the months, by denoting the position of the sun throughout the year, and the twelve years of the Jovian Cycle, by denoting the position of counter-Jupiter, *taiyin* (see below). The Earthly Branches also were correlated with the twelve pitch pipes of the duodecatonic scale. Both stems and branches, and some combinations of the two, were used in *fenye*, “field allocations” (for which see below) to denote certain states and territories. They also were used to name twenty of the twenty-four “seasonal nodes” of the solar calendar. The stems and branches together made still another category, the sexagenary cycle applicable to days and years.

Correlative thinking and *ganying* resonance operate in the cosmology of the *Huainanzi* to organize the world into a highly regular and predictable system. In that system, change and transformation, evolution and decay are still “organic” (to use Needham’s term). The world remains unitary in a fundamental sense; the Dao embraces and underlies all things, and reduces distinctions among them to epiphenomena. Through the Dao, everything in the cosmos can affect everything else; a disturbance in one part of the system reverberates throughout the whole. For early Chinese of all schools of thought, there was no necessary cleavage between the world of man and the world of nature, between organic and inorganic, between ethics and instinct; nor was there any notion of a mechanistic universe, divine clockwork operating by mathematical laws that could be observed and formulated by people acting outside of and apart from the machine. But correlative thinking brings order to the organism by showing that certain effects are regular and predictable. In *Huainanzi* 5 we find, for example, that if a ruler acts benevolently during the months of spring, the (phase wood) generative qi thus engendered will encourage the growth of plants. If on the contrary during the spring months he inappropriately acts with stern severity, thus generating the metallic qi of autumn, then the springtime growth of plants will be hindered.

Correlative thinking was not devoid of absurdities, as for example when categories were filled in artificially to preserve symmetry; the season of “midsummer” in *Huainanzi* 5 is a good example. Some correlations, such as the five phase correlations of the

"five viscera," were only weakly (if at all) tied to real phenomena. Nevertheless, to its practitioners correlative thinking must have seemed like a remarkably powerful tool for making sense of the world. It allowed them to act upon the view that while events in the universe might seem "spontaneous," they are not random. That the universe is describable and predictable was a fundamental doctrine of Huang-Lao cosmology, which was intended (as *Huainanzi* 3–5 in their entirety show) to provide a ruler with a practical program for promoting the success of human endeavors by ensuring that they conformed to the basic principles and rhythms of the cosmos itself.

COSMOGRAPHY

The Round and the Square

The most basic principle of Huang-Lao cosmography is that "Heaven is round, Earth is square." This concept, which apparently has its first explicit statement in the *Zhoubi* (or *Zhoubei*) *xuanjing*, a classic mathematical work of the third or second century B.C.E. but which certainly has much deeper roots in ancient Chinese thought, admits a variety of interpretations. Many of these have been explored by Sarah Allan in "The Shape of the Cosmos,"¹⁶ the principal argument of which is that the Chinese, at least as far back as the Shang Dynasty, conceived of the earth as being shaped like the character *ya*, with four squares radiating out in the cardinal directions, surrounding a central square. As Allan notes, a common (and very old) metaphor for heaven and earth was the shells of a turtle; heaven covers earth as the round carapace covers the "square" plastron.

I believe, however, that the fundamental meaning of "round heaven, square earth," at least in the minds of Huang-Lao cosmologists, was astronomical. The roundness of heaven was taken for granted as being obvious; the only controversy was over whether heaven was flat or bowl-shaped.¹⁷ The belief that the earth is square was based on more subtle reasoning. The cosmic disaster wrought by Gong Gong and Zhuan Xu knocked the ecliptic askant from the celestial equator. This produced the astronomical phenomena that define the four seasons. Around the circumference of the celestial equator (the ideal circle of the round heavens), there are two points where it is crossed by the ecliptic. These points, in the northeast and southwest, mark the spring and autumn equinoxes. There are two further points, in the southeast and northwest, where the ecliptic and the equator are at their maximum distance from each other. These mark the summer and winter solstices. Thus there are four seasonal nodes, separated along the celestial circle by arcs of 90°. Connecting these points forms a square, and that square is the earth—an idealized earth, bounded by celestial time as defined by the four seasons.

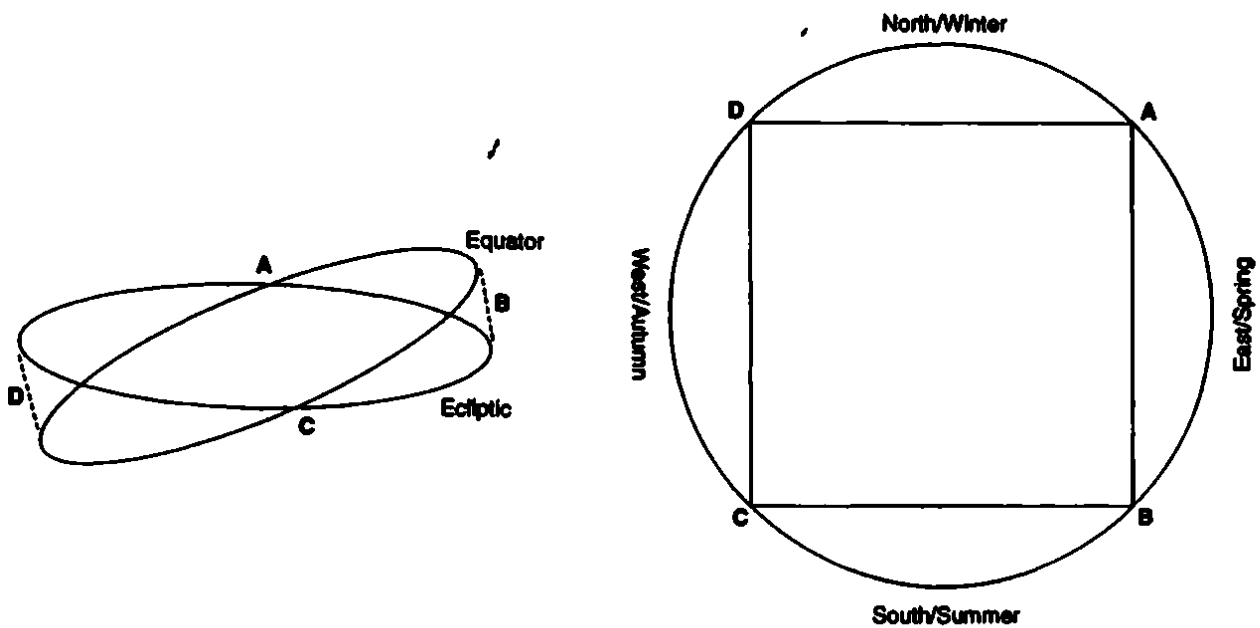


Figure 2.1. The equinoctial and solstitial nodes define the square earth.

For Han cosmologists, this conception of round heaven and square earth had the practical consequence that celestial measurements were normally expressed in degrees (*du*) and celestial motions in terms of leftward or rightward movement along the ecliptic and the equator; earthly measurements were expressed in terms of linear units and cardinal directions.

Several bits of evidence point to the conclusion that this astronomical basis of “round heaven, square earth” informed Huang-Lao cosmology as exemplified by the cosmological chapters of *Huainanzi*.

One domain of evidence is calendrical. As mentioned in Chapter 1 above, the *Huainanzi* uses two different systems for defining the solar year. The first is the “astronomical year,” beginning with the month designated by the Earthly Branch *zi*; this month contains the winter solstice and is correlated with the direction north. It therefore occupies a point on the celestial circle corresponding to the midpoint of the northern edge of the square earth, formed by a line connecting the points at NW and NE on the celestial circle. The second calendrical system, the “Xia sequence” civil year (or astrological year), begins with the month designated by the third Earthly Branch, *yin*; this is the month immediately preceding the month in which the spring equinox occurs. It marks (astrologically, if not astronomically) the return of waxing yang and phase wood in the annual cycle. All twelvefold enumerations (months and their correlates) begin with *yin*; all eightfold enumerations (winds and other directional phenomena) begin with the direction northeast.

Another domain of evidence is what might be called schematic cosmography. When the twelve Earthly Branches are arrayed around the celestial circle as chronograms

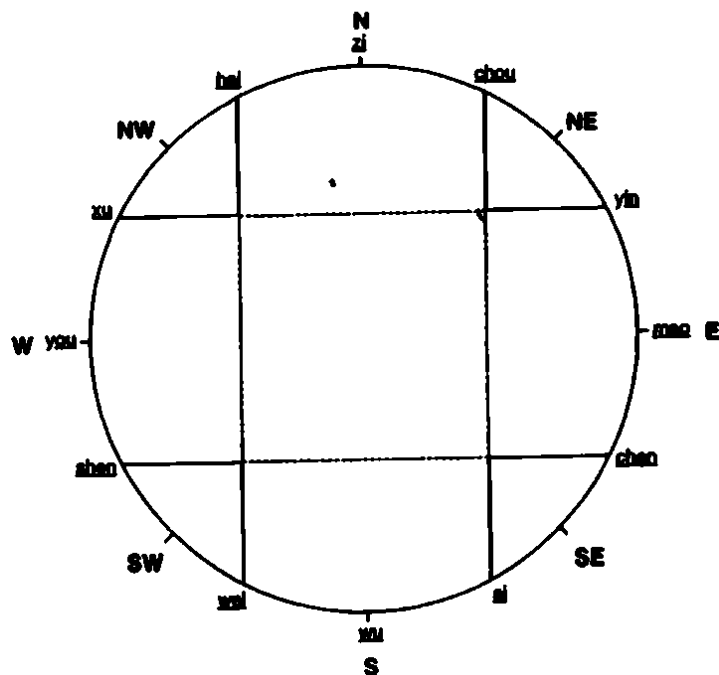


Figure 2.2. Twelve chronograms, eight directions, four hooks: a square within a circle.

to define the twelve months of the solar year (or the twelve years of the Jovian Cycle), each of the four “corner” points (NE, SE, SW, NW) is bracketed by a pair of chronograms. These pairs are called the “four hooks”; they correspond to (or are depicted as) the “V’s” of a TLV mirror or a *liubo* game board. (For more on TLV mirrors and *liubo* boards, see below.) These V’s define four points that can be connected to form a square within the celestial circle.

The image of the square earth within the round celestial circle was given concrete form in the so-called “mountain mirrors” (*shanxi jing*) of the late Warring States and early Han periods (see Fig. 2.3).¹⁸ These mirrors customarily depict, within the circumference of the round mirror (conventionally understood as a heaven image), a central square (in the center of which is a boss, designed to hold the silken cord by which the mirror could be picked up, but also to represent the *axis mundi*); at some distance beyond the central square a larger square was indicated by four figures in the shape of skewed characters *shan*, representing the mountains at the ultimate edges of the earth. In some of these mirrors, the inner and outer squares have parallel sides. In others, the outer square (representing the outer limits of the earth, i.e., the celestial equator projected out into space) was set at an angle of 90° to the smaller central one (representing the *oikoumene*). This perhaps indices some disagreement on the part of cosmologists, as seen in the instructions that they presumably gave to the artisans who cast these mirrors, over how to depict the orientation of the earth itself within the outer limits of the four directions. In mirrors where the sides of the squares are not parallel, the sides of

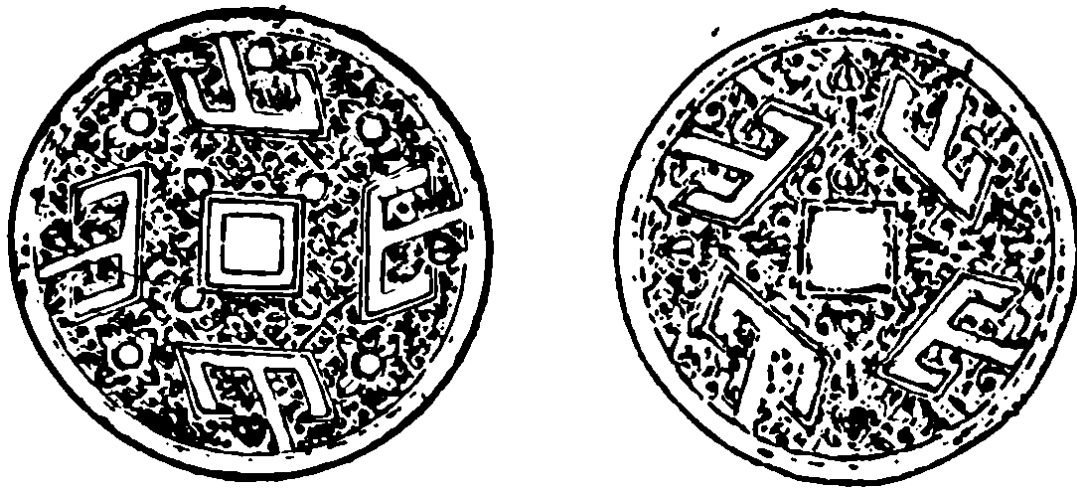


Figure 2.3. "Mountain Mirrors" of the Late Warring States Period (after Hunan Provincial Museum, "Hunan Changde Deshan Chumu fajue baogao," *Kaogu* 1963.9: 473.)

the inner square would run N–S and E–W, with the corners therefore at NW, NE, SE, and SW (i.e., at the solstitial and equinoctial nodes), while the corners of the outer square would point in the four cardinal directions. (Or perhaps vice versa, as the mirrors give no clear indication of absolute orientation.) Scattered among the squares (whether parallel or nonparallel) at equal intervals were eight (or sometimes eight outer and four inner) low bosses, indicating the cosmic pillars. These mirrors obviously were forerunners of the better-known TLV mirrors of the late Former Han and beyond, about which more will be said below in connection with the cosmograph.

Finally, it is important to note that the standard metaphor in the *gaitian* cosmological system (for which see below) for the relationship of heaven to earth was that heaven covers earth "like the canopy of a chariot." This clearly defines a square *within* a circle; as seen in numerous Han models and pictures of chariots, the umbrella-like canopy extends to the corners of the square chariot platform, not just to the midpoints of its sides (see Fig. 2.4)¹⁹. Wang Chong's famous complaint in the *Lunheng* that if heaven were round and earth square "the corners would not fit" could not apply to the canopy-and-chariot image. It would only become germane when that image was displaced by another, namely the circle within a square of the cosmograph.

Divisions of the Circle and the Square

As we have seen, the circumference of the celestial circle was customarily divided by twelve points (the chronograms, used for celestial/calendrical measurements) and/or by eight points (the directions N, NE, E, SE, S, SW, W, and NW). The planes of the celestial circle and the earthly square were generally conceived of as being divided into five or nine segments.



Figure 2.4. A Han chariot, showing the characteristic round canopy above a square carriage body. Line drawing after a relief carving in stone from the Han tomb at Yinan, Shandong (from Zeng et al., *Yinan gu huaxiang shimu fajue baogao*, Plate 102).

The five “palaces” of heaven (see *Huainanzi* 3.XIII.1–6) consisted of a central circle surrounded by four radial truncated wedges in the four cardinal directions. The earthly counterpart of this scheme was the figure of a central square surrounded by four squares (or rectangles) in the four cardinal directions, in the shape of the character *ya* (see *Huainanzi* 5.XIII).

The “nine fields” of heaven (*Huainanzi* 3.V) similarly consisted of a central circular field surrounded by eight radial truncated wedges extending in the eight directions. Note that these outer eight fields were not formed by simply splitting the outer “four palaces” in two. Whether four palaces or eight fields, these truncated wedges were defined by arcs the midpoints of which correspond to the four, or eight, directions. Thus the northern “palace” extended for 45° to either side of true north; the northern “field” extended for 22.5° to either side of true north.

The earthly counterpart of the nine celestial fields was the 3 x 3 grid of nine squares filling a larger square. This figure, established by Zou Yan at the Jixia Academy in Qi in the third century B.C.E. and accepted by the Huang-Lao School as the sovereign image of the square earth, was applied to a very wide range of things, from the “well-field” system of Mencius to the *mingtang* “Hall of Light” to the “nine provinces” of Yu the Great as schematized by Zou Yan.²⁰

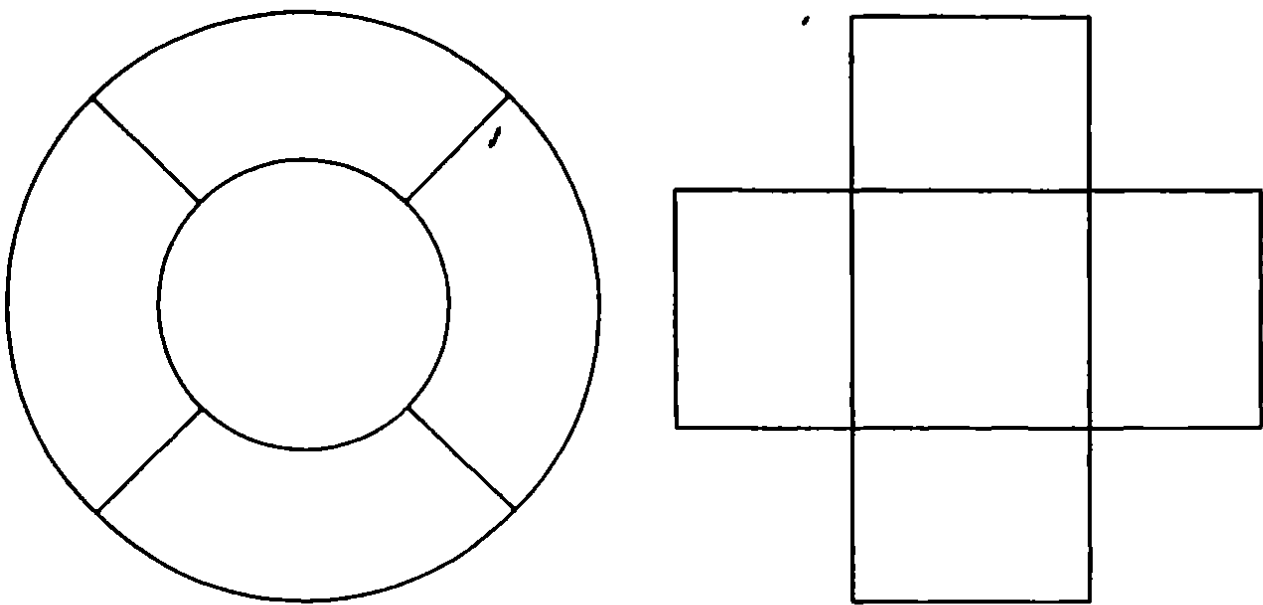


Figure 2.5. Fivefold Heaven and Fivefold Earth.

The dominant image in all of these schematic depictions of heaven and earth is that of axial centrality. The *axis mundi* was thought of as penetrating down to the Yellow Springs below the earth, and ascending through the Gate of Heaven into the sky. This image is found, for example, in *Huainanzi* 8:6a: “When Boyi bored the first well, the dragon mounted on a dark cloud, and divinely made its dwelling on Mt. Kunlun.” The axis of heaven was usually taken to be the polestar, and the axis of earth a point lying directly beneath it, far to the north of China. The mythology associated with Huang-Lao cosmology offers, however, a bewildering variety of candidates for the *axis mundi*: Mt. Kunlun (or one of its peaks, Mt. Buzhou, the “Non-Circumscribing Mountain”) in the northwest; Mt. Changhe, described as the Gate of Heaven but also as a mountain associated with the west wind; the Fusang tree of the east and the Ruo tree of the west, marking the beginning and end points of the sun’s daily journey across the sky; and the Jian tree, marking the apogee of the sun in the south. There were also eight (or, in some accounts, four) pillars that separated heaven and earth. These presumably were arrayed around the periphery of the square earth or of the round heaven (though in either case, the geometry does not quite work for eight evenly spaced pillars); it was the northwestern one of these that Gong Gong and Zhuan Xu broke in their battle.²¹ The important point here is that while axial imagery varies, the fundamental importance of centrality does not.²²

A further feature of the 3 x 3 grid system of schematic cosmography was the *fenye* “field-allocation” theory of judicial astrology.²³ In its simplest form, associated with Zou Yan, this held that celestial events occurring in one of the nine fields of heaven would have concrete effects in the corresponding one of the nine provinces of earth.

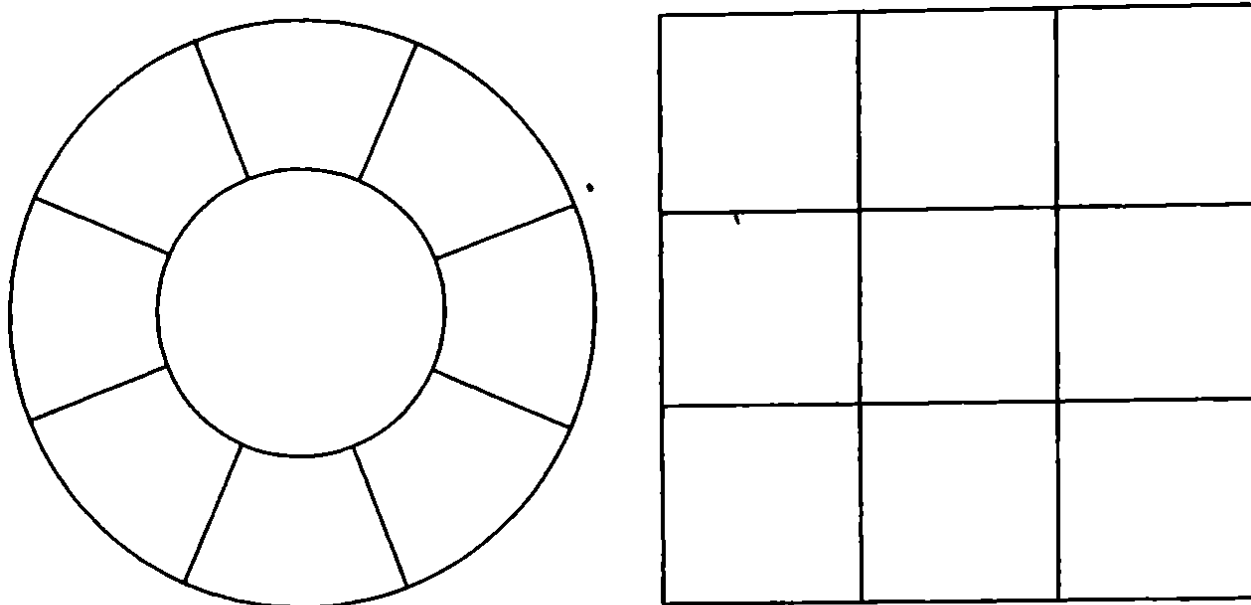


Figure 2.6. Ninefold Heaven and Ninefold Earth.

This concept is elaborated to a very considerable degree in *Huainanzi* 3, where such astrological “force-fields” are allocated according to the ten Heavenly Stems and twelve Earthly Branches, various significant stem-branch pairs, the twenty-eight lunar lodges, and so on. Later in the Han, the system would be extended still further to embrace the eight trigrams and sixty-four hexagrams of the *Book of Changes*.

The Gaitian System

In addition to laying out heaven and earth in various schematic configurations, cosmologists of the Huang-Lao School (and its competitors) had to explain the motions associated with the heavens—the diurnal movements of the sun and the fixed stars, and the more complex longer-term motions of the sun, moon, and visible planets. The most widely accepted theory to account for these phenomena, in the early Han, was the *gaitian* or “Canopy Heaven” system. The locus classicus for the *gaitian* system is the *Zhoubi xuanjing*, a work of the third century B.C.E. The *gaitian* system has been lucidly described by Nakayama²⁴ and is also discussed in detail below in Appendix A, by Christopher Cullen, with specific reference to *Huainanzi* 3. Accordingly, it will be appropriate here to mention only a few of the system’s most salient points.

The *gaitian* system was an attempt to account for the perceived motions of the heavenly bodies in the absence of a concept of a spherical earth. The primary *gaitian* system assumed that earth and the sky were both flat, parallel planes. Variants of the system assumed that both were shallow arcs, or hemispheres, but parallel in either case. The heavenly bodies were assumed to rotate around the celestial north pole; the rising

and setting of the sun, moon, planets, and fixed stars, were therefore taken to be not real phenomena, but optical illusions. The heavenly bodies were held to be visible in the sky, and hence to illuminate the earth, only within a restricted (and seasonally shifting) "circle of visibility" covering a portion of the earth's surface but not its entirety; thus they would seem to appear and disappear from time to time. The main goal of scientific investigation under the *gaitian* system was therefore to employ gnomons to measure the distance between the earth and the sky, the distance of an observer's location from a point located beneath the center of the sky, and the seasonal movement of the circle of visibility of the heavenly bodies.

The *gaitian* system would have been virtually by default the main cosmological model of the authors of the *Huainanzi*, but except in the case of the final section of *Huainanzi* 3 (generally assumed to be a later addition to the text) it does not play a conspicuous role in *Huainanzi* 3–5. Indeed one may question whether the *gaitian* system, strictly conceived, corresponded to the mental model of the authors of these treatises. That is, they might have employed the *gaitian* system for calculating purposes, while intuitively assuming that the real earth and sky in fact consisted, not of parallel flat planes, but a square flat earth covered by a circular, domed sky—the ancient tortoise shell-and-plastron analogy. This view is inherent, for example, in *Huainanzi* 3.XXV, which describes the path of the sun across the sky from east to west (and thence from west to east by subterranean channels) in terms redolent of archaic mythology.

The *gaitian* universe was given physical embodiment in the *shi* cosmograph, a device that plays a crucial role in the astronomy and (especially) the astrology of *Huainanzi* 3. However convenient that device was, however, for gauging the astrologically significant arrangements of the heavenly bodies at any given time, it may also, as we shall see, have played an unintended role in exposing the weaknesses of the *gaitian* system itself.

The Cosmograph

The cosmograph used the motion of an imaginary counterorbital asterism, called *taiyin* ("great yin") or, sometimes, *taisui* ("great year") to track (in mirror image) the actual motions of Jupiter, for reasons explained by David Hawkes:

The Chinese were rather late in adopting an astronomical system of year numeration, preferring to designate the year, for whatever purpose, in terms of someone's reign. Texts dating from about the fourth century B.C. occasionally speak of the "Year Star" (i.e., Jupiter) being in such and such a constellation; but this system was felt to be an awkward one, because Jupiter moves in contramotion to the fixed stars, and so the twelve cyclical terms (*zou*, *ch'ou*, *yin*, *mao* &c.), which were already used both in the naming of the days and in the clockwise designation of twelve

compass points, appeared—very confusingly—in reverse order if you applied them to the twelve years marked by the positions of Jupiter.

This difficulty was eventually overcome by inventing a “hypothetical correlate” of Jupiter which moved from *yin* to *mao* while Jupiter moved from *ch'ou* to *tsu*. The term “She T'i Ke” was used to designate the position of this imaginary planet in *yin* (approximately ENE), and eleven other very unChinese-looking terms were used to designate its positions in the other eleven years of the cycle. This new system is first found in use in a text dating from the third century B.C.²⁵

The “invisible correlate” moved, however, not so much (conceptually) through the actual sky, but by being carried along on the moveable “heaven plate” of the cosmograph.

The cosmograph consisted of a round, rotatable “heaven plate” placed on a pivot atop a fixed, square “earth plate.” The heaven plate typically was inscribed with a depiction of the Northern Dipper, the names of key asterisms, and the twenty-four seasonal nodes or “fortnightly periods.” The latter were designated by the twelve Earthly Branches (which on the earth plate marked the cardinal directions, denoted as the “four hooks” and “four midpoints”—see below), along with eight of the ten Heavenly Stems and four named “corner points” to mark out twenty-four equally spaced points around the celestial circle. (The remaining two Heavenly Stems were correlated with the center, and so played no role in the function of the cosmograph.)

The TLV mirrors of a century or so after the compilation of the *Huainanzi* were in effect an elaboration of the “heaven plate” of the *shih*; as Cammann noted many years ago, TLV mirrors resembled a *bi* circular jade disc placed on top of a square *liubo* game board with TLV markings, those markings then being transferred to the round mirror itself.²⁶ The mirrors also depicted a square earth within the circular heaven, the eight cosmic pillars and, frequently, images of the four directional gods.²⁷

The earth plate of the cosmograph was marked at the midpoint of each side, and at the corners, with eight broad lines (sometimes inscribed with the Eight Trigrams of the *Book of Changes*) indicating the directions, as well as with concentric bands indicating the Heavenly Stems, the Earthly Branches, and the twenty-eight lunar lodges. This explains the references to “midpoints” and “hooks” in *Huainanzi* 3.VII, and the rather puzzling (at first glance) statement there that “when *taiyin* is in any of the four hooks, Jupiter passes through two asterisms” but that “two times eight is sixteen” (one might expect “two times four is eight”): The “midpoints” (corresponding to the “L’s” of a *liubo* board or TLV mirror) are marked by a single Earthly Branch at the four cardinal directions, while the “hooks” (corresponding to the “V’s” of a *liubo* board or TLV mirror) at the corners each designate *two* directional points (approximately NNE and ENE, ESE and SSE, etc.), indicated by the names of two of the Earthly Branches flanking the



Figure 2.7. Drawing of the back of a Han TLV mirror (from *Gong nong kaogu jichu zhishi*, p. 163.)

corner lines themselves. These points, so marked and so named, were used in the operation of the cosmograph to trace the celestial movement of Jupiter by analogy with the indicated position of *taiyin* on the cosmograph itself. The handle of the Dipper—the “pointer” of the heaven plate dial—was said to “strike” a country or territory by indicating the presence of *taiyin* in the heavenly field (chronogram, lunar lodge, etc.) corresponding to that state or territory in *fenye* field-allocation astrology.

By regularizing celestial motions and making them observable under any conditions (regardless of daylight, clouds, or whatever), the cosmograph must have been a great boon to astrologers. It also gave a sort of physical embodiment to the *gaitian* universe, by depicting the world as a flat, square earth surmounted by a flat (or actually slightly domed) and parallel heaven. It was not, however, able to reproduce any of the sophisticated gnomon measurements that, in the *gaitian* system, were used to measure the height of the sky or the angle of the sun, nor could it indicate the supposed seasonally shifting “circle of visibility” of the heavenly bodies. Ultimately, therefore, the very simplicity of the cosmograph may have undermined the *gaitian* system (except for astrological purposes, and as it was understood in unsophisticated terms in the popular imagination). In any case, the *gaitian* system was discarded by the Latter Han in favor of the *huntian* system, in which earth was enclosed within a spherical heaven

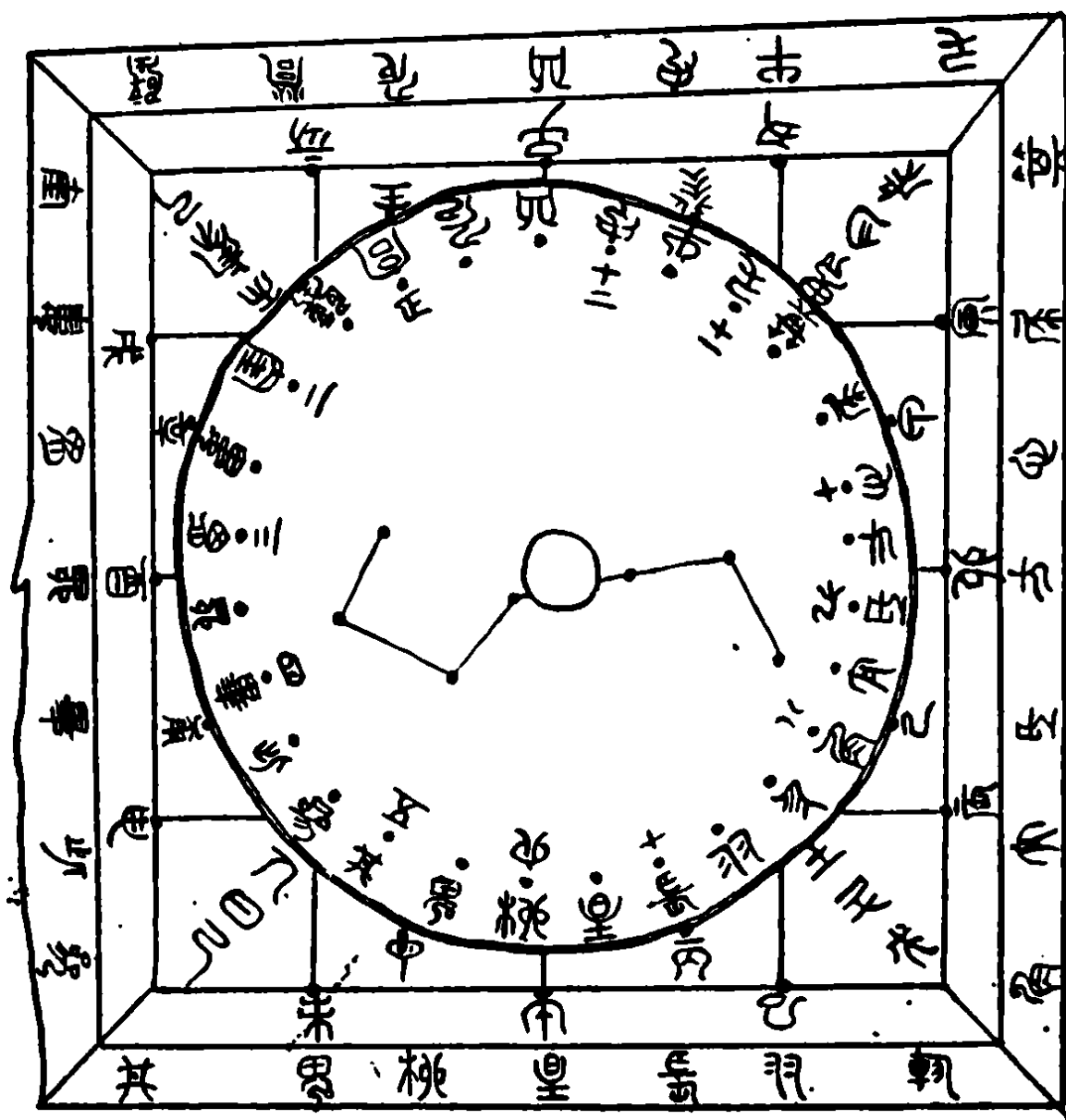


Figure 2.8. *Shi* cosmograph from the tomb of the second Marquis of Ju Yin, Anhui Province, ca. 165 B.C.E. (from Yan Dun jie, "Guanyu Xi Han chuqi de shipan he zhanpan," *Kaogu* 1978.5: 340).

as the yolk of an egg is enclosed by its shell.²⁸ As the cosmograph was the characteristic instrument of *gaitian* cosmology, so the armillary sphere would become the characteristic instrument of the *huntian* system.²⁹

The cosmograph also created unintended confusion about the relationship of the round heaven to the square earth. As noted above, this concept originally visualized earth as an ideal plane the corners of which were at the equinoctial and solsticial nodes of the celestial equator: a square within a circle. Heaven covered earth as the canopy of a chariot covered the driver's compartment, with the corners neatly fitting under the canopy. For purely practical reasons, however, it would not have been possible to

design the cosmograph to reflect this square-within-a-circle model; the earth plate had to be larger than the moving heaven plate in order for measurements to be read from one against the other. This uncoupled the "round heaven, square earth" concept from its astronomical underpinnings; as concretized in the cosmograph, and as Wang Chong would complain, the corners of the earth indeed did not fit under the canopy of heaven. However successful the cosmograph may have been as an astrological calculating device, it was clearly unsatisfactory as a physical model of the universe. If the *gaitian* system required the cosmos to be modeled as a small celestial disk atop a larger square earth, then something was wrong with the *gaitian* system. This problem did not apply to the cosmograph's cousin, the TLV mirror (because it had no moving parts, and thus did not involve considerations of scale), which continued to gain popularity as a magico-religious cosmos-in-miniature even as the *shi* cosmograph itself was yielding to Zhang Heng's armillary sphere.³⁰

Both archaeological discoveries and careful textual analysis are beginning to make clear that the Chinese of the Warring States and Han periods made use of a number of astronomical instruments for observing (and for not needing to observe) the skies.³¹ As other astronomical instruments emerge from archaeological excavations, or are identified as such in museum collections, further light will be shed on the cosmological theories of the Huang-Lao School as found in these chapters of the *Huainanzi*, as well as on competing schools of thought.³²

TRADITION AND INNOVATION: MYTH AND RELIGION IN HUANG-LAO COSMOLOGY

As was noted at the beginning of this book, the philosophical synthesis that emerged from the vigorous intellectual life of the late Warring States and early Han periods obviously contained much that was new. Innovations were found not only in the realm of abstract ideas (such as correlative thinking) and improved theories of rulership, but also in new techniques of mathematical astronomy and new devices, such as the cosmograph and magically potent TLV mirrors. On the other hand, the Huang-Lao synthesis also built on ideas that were of considerable antiquity. The credibility of the Huang-Lao School in the early Han may have rested in part on the degree to which it was grounded in widely-shared assumptions that went back to the foundations of Chinese civilization.

A few examples will suffice here. One striking feature is the importance of the calendar, and of positional astrology, in Huang-Lao thought. Nivison and Pankenier have shown in separate studies³³ that the *Bamboo Annals* calendar is reliable back to the early second millennium B.C.E., that the lunar lodges probably date back to around the

same time, and that the directional gods (vermilion bird, white tiger, etc.) are of similar antiquity. Sarah Allan has shown that the sun myths preserved in *Huainanzi* 3 date back at least to the Shang.³⁴ Li Xueqin recently introduced striking physical evidence for the antiquity of the conception that the heavens are round and divided into eight parts.³⁵ The formulation of *ganying* resonance through the medium of qi was probably an innovation of Zou Yan, but the idea of action at a distance, and particularly the idea that events in the subcelestial world can influence the heavens, underlies the theory of the Mandate of Heaven—an idea of the early Zhou, if not before. Taken together, these ideas would have made the calendrical astrology of *Huainanzi* 3 seem, in its own time, not simply credible, but nearly self-evident.

Another cluster of ideas has to do with symmetry and centrality. As we have seen, this is implicit in the Shang idea of the “four quarters” surrounding the central polity. This Shang notion of centrality finds concrete expression in the decor of many bronze vessels, most notably the celebrated Changsha square *ding* with all four sides decorated with human-like masks facing out in the four directions. In Cammann’s view, these faces or masks represent unusually humanoid versions of the *taotie* monster mask, which he identifies as symbolic of a protective deity associated with the idea of centrality.³⁶ The idea of centrality is also found in the myth of the expulsion from the central realm of the San Miao “barbarians,” a myth that dates back at least to the early Zhou. The concept of the periphery of the civilized world as being populated by monsters and terata persisted in Chinese mythology, and is found in *Huainanzi* 4.XV as well as throughout the *Shanhaijing*. The schematic cosmography of the Huang-Lao School has deep roots.³⁷

The extent to which the philosophical synthesis that finds its near culmination in *Huainanzi* (the Confucianism of Dong Zhongshu may be said to mark the ultimate stage in Han syncretism) is rooted in antiquity may be seen in the extent to which that synthesis, for all its apparent rationalism, was intertwined with myth and religion. A central element in Huang-Lao cosmology is a Chinese version of the Grand Origin Myth. The Grand Origin Myth itself, as de Santillana and von Dechend have shown,³⁸ is a complex of ideas that pervade the civilizations of Eurasia and which in all likelihood, therefore, date back to neolithic times.³⁹

We know almost nothing of Chinese mythology as it might have existed from the beginnings of Chinese civilization as an oral tradition, but it is clear from various fragments of evidence (both written and iconographic) that do exist that the Chinese Grand Origin myth is of considerable antiquity. Beginning in the early Zhou Dynasty, the Chinese began to compile written texts; by the late Warring States period and into the early Han Dynasty a large body of written works existed. Those works contain bits and pieces of ancient mythology, not as a continuous, coherent narrative, but rather as fragments, often out of context, often puzzling, of uncertain date and authorship.

Versions of many elements of this fragmented mythology can be found in several of the chapters of the *Huainanzi*, notably in the three under consideration here, and in *Huainanzi* 8 as well. The cosmology of the *Huainanzi* is intimately bound up with elements of religious or quasireligious belief; any description of that cosmology that deals only with the rational elements of "natural philosophy" and ignores the numinous would be seriously misleading.

Accordingly, it will be useful to recast the account given above of cosmogony and the origins of human history into a mythic narrative, drawing primarily on the three chapters of the *Huainanzi* under consideration here but filling in gaps, when necessary, from other chapters of the *Huainanzi* and other works in the Huang-Lao tradition. First, however, a few additional words of explanation are in order.

Myth has two essential characteristics. First, it exists in the form of a good story, one that will be told and retold from generation to generation in preliterate societies. Second, it admits of simultaneous multiple interpretations; it can be understood at the level of the obvious story being told, but also at various symbolic levels, some so sacred and taboo that they are among a culture's most closely guarded secrets, imparted in elaborate rituals of initiation or transmitted through closed lineages of shamans or other ritual specialists. Thus, for example, one can believe that the events of Genesis—or any other version of the Grand Origin Myth—happened exactly as they are written down in the sacred scriptures. Others see them as cultural memories of actual ancient events, mythicized over the centuries. It has been proposed, for example, that the myth of the Great Flood is a memory, preserved through hundreds of generations, of the worldwide inundation of coastal lands that occurred about 12,000 years ago when the glaciers of the Ice Age melted and raised the level of the sea by many meters.⁴⁰ Myth seems to lend itself particularly well to the phenomena of astronomy, the most ancient and sacred of the sciences—as for example in the myth of Gong Gong and Zhuan Xu, which, as we have seen, "explains" the tilting of the ecliptic relative to the celestial equator.

With these considerations in mind, let us look again at the mythic narrative implicit in the cosmological chapters of the *Huainanzi*.

The story begins in the *Urzeit*, the time before time began, the era of the first sages—Shen Nong, Fu Xi, the Yellow Thearch, and others—who are scarcely distinguishable from gods, who reigned for hundreds of years apiece and who bestowed the blessings of civilization upon the people. As that age drew to a close, under "Emperors" Yao and Shun, a mysterious people known as the San Miao committed the terrible sin of rebellion; they were then driven away from the central kingdom by Shun. Around the same time, two divinities, conceived of as giants, sought to gain celestial powers:

Anciently, Gong Gong and Zhuan Xu fought, each seeking to become the thearch.
Enraged, they crashed against the Non-Circumscribing Mountain; Heaven's pillars

broke, the cords of earth snapped. Heaven tilted in the northwest, and thus the sun, moon, stars and planets shifted in that direction. Earth became unfull in the south-east, and thus the watery floods and mounding soils subsided in that direction. (3.I.23-29)

As a consequence of this, a great deluge began, and a flood engulfed the whole earth. Shun chose a man named Gun to tame the flood; he tried to do so by stealing some magical earth from the gods to make dams. But the dams failed, and Gun was punished by being exposed on a mountainside, where he turned to stone. From his body, however, burst his son Yu, later to be known as Yu the Great. Yu, rather than opposing the waters, harnessed their natural tendencies. He observed the tracks left in the mud at the bottom of the floodwaters by the tails of passing dragons, and used them as markers to excavate channels; thus he returned the rivers to their natural beds and allowed the waters to drain away.

But in one version of the myth, Yu also availed himself of some magical earth:

Yu also took expanding earth to fill in the great flood, making the great mountains. He excavated the wastelands of Kunlun to make level ground. In the center (of the world) is a manifold walled city of nine layers, with a height of 11,000 li, 114 double-paces, two feet, and six inches. (4.III.1-3)

When all of this was over, Yao and Shun had passed from the scene, and Yu became thearch. And not just thearch, but the first hereditary ruler in Chinese history; in legend, at least, the founder of the dynastic system of government that lasted into the twentieth century.

This myth is a very good story, but, as we saw earlier in this chapter, it also contains elements of a metaphor about the shape and character of the universe itself. The first sages were themselves gods, or god-like, and lived in contact with the gods. Their reigns lasted for hundreds of years. Under their rule, the people enjoyed the blessings of civilization and were totally free from strife. In their era, time had no meaning—time did not yet exist.

In the time of Yao and Shun, the sins of the San Miao led to their expulsion, and at the same time the ambitions of Gong Gong and Zhuan Xu led to the wrecking of one of the pillars of heaven. Heaven and earth tilted, so that the heavenly bodies flowed one way, the waters of the earth another. The old order was swept away in a world-engulfing flood. The square earth had to be drained, surveyed, marked out into its nine provinces, and set under the government of the flood tamer himself. With the tilting of the ecliptic relative to the celestial equator, time itself began—seasonal time, the endless round of years from winter solstice to winter solstice, the end of one year and the beginning of the next. The world became familiar, ruled by a human emperor

with a normal life span, and marked by the trouble and strife that is the lot of all mortals. For better or worse, we became masters of our own fate, but at a price—for the gods, those inhabitants of the celestial plane, withdrew from the plane of the earth, and were our constant companions no longer.

Yet it was thought that this rupture might be repaired, at least for some times and under some circumstances. Yu the Great was careful not only to drain the floods but to raise up the mountains, including Mt. Kunlun itself, the world pillar. We are told that

Broad Palace, Revolving House, Hanging Garden, Cool Wind, and the Hedge Forest are within the Changhe Gate of the Kunlun Mountains. This is called the Carved-Out Garden. The pools of the Carved-Out Garden flow with yellow water. The water circulates three times and then returns to its source. It is called cinnabar water; if one drinks it, one will not die. . . . (4.III.14–18)

If one climbs to a height double that of Mt. Kunlun, that mountain is called Cool Wind Mountain. If one climbs this mountain, one will not die. If one climbs to a height that is doubled again, that mountain is called Hanging Garden. If one ascends it, one will gain supernatural power, and be able to control the wind and the rain. If one climbs to a height that is doubled yet again, it reaches up to heaven itself. If one mounts to there, one will become a demigod. It is called the abode of the Supreme Thearch. (4.V.1–7)

Mt. Kunlun is, in effect, a stairway to heaven. Mounting the sacred pillar, one passes through the Changhe Gate, a circular door in the vault of the sky leading into the heavens beyond; there one encounters still higher peaks, with more and more marvelous powers, until one ascends to the abode of the celestial emperor himself.

In other words, ritually and under some circumstances, one can restore the conditions of the world before time, the world before cosmic disaster and engulfing flood severed the bonds between humans and the gods.

Nevertheless, in the cosmological chapters of the *Huainanzi*, the gods play a role that seems curiously divorced from religious faith. They appear to be embodiments of the principles of correlative thinking and calendrical astrology, an awe-inspiring part of, but not separate from, the cosmic unity grounded in the immanent and indivisible Dao. They occupy every niche of a pantheistic hierarchy from the Supreme Thearch (also called the Grand Monad) to high gods associated with the planets, the five directions, etc., to the assistants to those gods, to meteorological gods such as the Torch Dragon and local minor divinities like Shaman Xian, to “immortals” who ascend and descend the cosmic pillars, down to the not-divine but also other-than-human monsters of the lands far beyond the central realm. Many of these gods are scaly, draconic, or serpent-bodied, from the (to judge from the characters used to write their names) fishy Gun and the insect-like Yu to the dragon-like divinities of Thunder Marsh who

drum on their bellies for the sheer pleasure of it. Strangely lacking in this pantheon are malevolent gods or deities of the underworld. All of these gods seem to be presented as being emblematic of the natural world—upholders of the cosmic order and symbols of its diverse processes, but not capable of acting upon it. There is no hint, in *Huainanzi* 3 and 4, of prayers to any of these divinities, or of the likelihood that they could intervene on behalf of humans to affect the nonhuman world in any way. *Huainanzi* 5, in contrast, is replete with mention of sacrifices to ancestors and to gods of the four directions; disaster—disruption of cosmic order—is held to ensue from neglecting these sacrifices. But the concrete benefit derived from such sacrifices is that the world will continue in its proper and harmonious course, not that the ruler might obtain a dispensation to depart from the inherent order of the cosmos.

The concept of the sacred in Huang-Lao thought thus seems to be subsumed into a broader concept of cosmic order. The stories, imagery, and dramatis personae of myth pervade the cosmology of the *Huainanzi*; but gods that once contended so fiercely that they knocked aside a cosmic pillar, or who struggled to control a world-engulfing flood, now are seen as simply part of a continuum that embraces all of the unitary cosmos, from heaven to earth, from the Supreme Thearch through lesser gods, from humans and animals to shellfish and worms. The role of the human ruler of the central polity mirrors that of the planetary gods who wield the construction implements that are the “standards” of cosmic order; both are charged with ensuring that nothing interferes with the harmony of the world. To the extent that an individual human religious goal appears at all in this cosmology, it does not involve worship and adoration, or even making bargains with the gods; rather it is to attain the quasidivine status of immortality.

Hints of the cult of immortality do appear in the cosmological chapters of the *Huainanzi*, as for example with the elixir of immortality drawn from the cinnabar springs of Kunlun mentioned above. Around the time the *Huainanzi* was written, the age-old question of religion—“what happens when we die”—was being asked anew, and some were beginning to add, “Is it possible not to die?” To ancient rituals of calling back the departed *hun*, or ethereal soul, of the deceased, were added positive attempts to forestall death, through breath control, yoga, and the earliest hints of metallurgical alchemy.

Cosmogony is explicitly linked to questions of immortality, or life after death, in the opening passages of *Huainanzi* 7:

Anciently, in the time before there were Heaven and Earth, there were only formless simulacra. Obscure! Profound! Vast plain, mournful desolation, boiling turbulence, fathomless grotto! No one knew the gate (of Heaven). Two gods inchoately were born, giving structure [= “warp threads”] to Heaven and a plan to Earth. Vast! None knew its limits. Overflowing! None knew its resting-place.

From this (condition), they differentiated as yin and yang, separated as the eight ultimate endpoints [= cosmic pillars]; hard and pliant brought each other to completion, and the ten thousand things took form.

Turbulent qi became beasts, and subtle qi became humans. Thus the germinal and godlike belong to Heaven, the bony and corporeal belong to Earth. The germinal and godlike enter the gate (of Heaven), but the bony and corporeal return to their roots (in the Earth). (One asks,) "How then am I to be preserved?"

Thus the Sage patterns himself on Heaven and follows the flow of the essential nature of things; he does not adhere to the vulgar, nor entrap himself in the (merely) human. He takes Heaven as his father and Earth as his mother, yin and yang as his net and the four seasons as his fastenings. Heaven, in its tranquility, attains clarity; Earth, in its fixity, attains repose. Of the ten thousand creatures, those who lose these (fixed principles) die; those who pattern themselves on them live.

The tranquil and boundless is the dwelling-place of the godlike and enlightened; the empty and null is the dwelling-place of the Dao. This is why those who search in externals lose that which is within; those who stand guard over internalities lose that which is external. It is like roots and stems: The root leads into a thousand branches, and to ten thousand leaves—no one can follow them all. But that which is germinal and godlike is received from Heaven; that which has shape and substance is endowed by Earth. (7:1a:4–1b:8)

The prescription for immortality—or at least for finding some means for escaping the human predicament—here is reminiscent of Zhuangzi; the sage escapes the mundane by taking refuge in the Dao. But other contemporary evidence suggests that immortality was sought in more concrete ways as well, through the rituals of burial and through the escape of the soul into the realm of the gods. The notion that the *po*, or earthly soul, could continue to enjoy its funeral offerings after death so long as the body remained uncorrupted to house it, led to elaborate efforts at preparing corpses for burial—with spectacular success in the case of the Lady of Dai, the occupant of Mawangdui Tomb #1. The funerary banner draped over her coffin was probably intended to serve as a sort of cosmic road map for the journey of her *hun* ethereal soul—released from her body at the moment of death—to the afterlife. Beyond that, the idea was beginning to take hold that the departed *hun* soul might achieve an apotheosis after death. This too is evident in the Mawangdui banner: the Lady of Dai is pictured in the heavens with a serpentine tail, making her as one with such celestial deities as Fu Xi, Nü Gua, and the Torch Dragon.

Cosmology in Context

What might the Huang-Lao cosmology of the *Huainanzi* have meant to Liu An and his circle of savants at the court of Huainan? To answer this question, one must look at least briefly at the social and political circumstances of the early Han period.

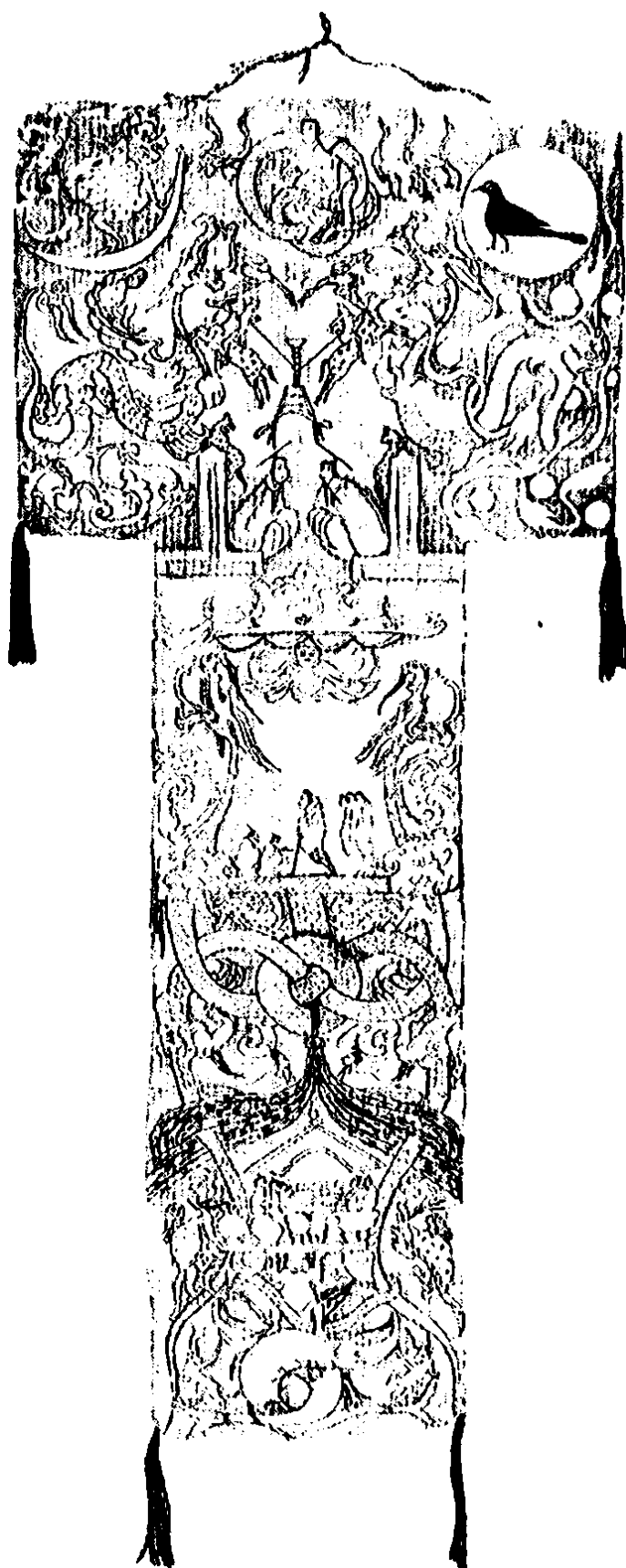


Figure 2.9. The funerary banner from Mawangdui Tomb #1. Pencil drawing by Sandra Smith-Garcès.

Liu An was a grandson of Liu Bang, and thus a member of the third generation of the ruling family of the Han. He was one of many relatives or close supporters of the Han founder who held fiefs within the Han empire. It would have been natural for him, and others of his status, to view feudalism (in the Zhou Chinese manifestation of that concept) as the natural order of government; the brief statist experiment of the Qin Dynasty would have seemed like a temporary aberration. The ideal ruler that Liu An envisioned and sought to emulate, and for whom the *Huainanzi* might have been conceived as a sort of handbook of good government, would have resembled a Zhou king more than a later Chinese emperor. As the astrological predictions of *Huainanzi* 3 make clear, the old Zhou states—Wei, Chu, Lu, and the rest—were still thought of in the early Han as having a present reality, rather than as being mere historical memories.

At the same time, Liu An and his fellow feudatories found their world under siege. Liu An might well have been guilty of crimes against the imperial throne, but whatever they were, it is clear that Emperor Wu seized upon them to bring about the death of Liu An and the prompt incorporation of his fief into the imperial polity. A new political reality was beginning to take hold; Qin-style centralism was to prove to be no aberration, but rather the blueprint for a new style of government in China. Feudalism as a political system was dead, replaced by imperial bureaucracy.

The world was changing in other ways as well. Under Emperor Wu the borders of China expanded dramatically, bringing under Chinese rule many peoples who had been known only as half-wild “barbarians” to writers of such texts as the “Treatise on Topography.” Legalism had been discredited by the harsh policies of Qin; Confucianism was enjoying a modest revival, but so far Confucian scholars found themselves valued mostly for their historical, archival, rhetorical, and clerical skills. Within the empire, commerce and industry flourished, bringing unheard-of wealth to nouveaux-riches commoners; the familiar distinctions of aristocratic rank were disappearing. Of course, these phenomena were not entirely new, and some of them merely continued trends that extended well back into the Zhou period itself. Nevertheless, a well-born Chinese of the early Han could legitimately have felt that his world was changing with baffling speed and in ways that defied comprehension.

These considerations are important for our understanding of the *Huainanzi*. In many ways the political program propounded in that work is conservative, even reactionary. It proposed solutions to the political problems of a world that no longer existed at the time when it was written. The Huang-Lao School was a product of the late Warring States period, even if it reached its full flowering in the early Han. Like other philosophical schools of the time, it asked the question, How is a ruler to prevail in a world of small kingdoms locked in a mutual, and deadly, struggle for survival? It rejected both the Legalist solution—arms and grain—and the Mencian one—benevo-

lence and righteousness. As we have seen, the Huang-Lao prescription was rather for the ruler to align himself with the power of the Dao itself, to make his actions so conform to the patterns of the natural order as to be irresistible. Liu An was never to have a chance to put this program to a practical test.

Nevertheless, the Huang-Lao School taught much that was appealing to the rulers of the new age as well. If the ruler of a Zhou principality could fancy himself as occupying the fulcrum between heaven and earth, so too could an emperor of the Han Dynasty. The early Han was a time of intellectual ferment and discovery precisely because the new circumstances of the age demanded a new ideological synthesis—one that was soon to be provided, when Dong Zhongshu found the key to integrating Huang-Lao thought with Confucianism.⁴¹

The *Huainanzi* is of interest in part because of the lively picture it provides for us of the intellectual atmosphere at the court of an up-to-date Chinese ruler of the second century B.C.E. Liu An ensured for himself a good historical reputation, just as the kings of Qi had done a century earlier, by establishing himself as a patron of scholarship and the leading figure in a learned academy. On the evidence of the cosmological chapters of the *Huainanzi*, his court scholars would have included astronomers, calendrical specialists, astrologers versed in the manipulation of the cosmograph and in the interpretation of its positional readings, geographers, cartographers, and specialists in the natural sciences. The King of Huainan's meticulous attention to the phenomena of the natural world was to be emulated by Chinese emperors throughout the history of the empire.

With the establishment of a strong imperial capital and a rapid expansion of the frontiers, new ideas poured into the center from every part of the realm, including from such provincial centers of learning as the court of Huainan. This process was further encouraged by the expansion of bureaucratic government throughout the empire; officials returning to the capital from the provinces could and did bring with them new ideas, books, techniques, beliefs, and even customs and fashions.

Among many other signs of increasing cosmopolitanism at the imperial level, new forms of official worship were instituted in the Former Han, including sacrifices to the gods of the four directions and to Xiwangmu, the Queen Mother of the West. These innovations provide additional evidence of the acceptance at elite metropolitan levels of yin-yang/five phase philosophical and religious ideas, and of interest in the cult of immortality;⁴² they hint at what was to become the formalized pantheon of Religious Daoism a few centuries hence.

The *Huainanzi* is of particular interest and importance for the intellectual history of Han China because it was written at a time that defined the turning point from an old order to a new one. However much the Huang-Lao cosmology found in the following chapters may have shared in the currents of new ideas and new techniques that

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swirled through the intellectual circles of the early Han, it also was grounded in beliefs and attitudes from the distant past. It was, in other words, in large part a reinterpretation of tradition; and it stood poised to usher in new trends in philosophy and religious belief in the centuries that followed.