

Heaven-Sent: Understanding Cosmic Disaster in Chinese Myth and History

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1. Introduction

From the very beginning of their civilization the ancient Chinese were acute observers of their natural surroundings. Few celestial or terrestrial phenomena, especially irregular occurrences, were deemed inconsequential, since all were thought to convey vital intelligence from the supernatural realm. Out of this intersection between phenology and human society there gradually developed a conviction that the Chinese State and culture enjoyed a genetic relationship with the supreme power residing in the sky. Indeed, the ideology underpinning the archaic kingship in the late Bronze Age, as well as during the later unified empire, held that political legitimacy was conferred directly by a deified Heaven (lit. Tian, 'sky').

Dynastic successions being violent affairs, usurpation had to be rationalized as justifiable regicide, so that the earliest historical texts we possess are often colored with moral outrage at the depredations of the final kings of the Xia (mid-20th to mid-16th c. BCE) and Shang (mid-16th to mid-11th c. BCE) dynasties. In some cases this is the result of the Confucian moralizing that characterized the late 1st millennium BCE when many of the texts assumed their present shape. In some cases, however, accounts of seasonal dislocations, calendrical mismanagement, natural calamities and the like may actually have a historical basis. [1] When it comes to the received texts, it is by no means an easy task to separate records of *real* astronomical and meteorological anomalies from the standard litany of disasters to be found in *stereotyped* portrayals of "evil last rulers" whose depredations, by definition, had to elicit warnings from an anthropomorphic Heaven.

Throughout Chinese history, divination, and especially portentology, provided the interpretive mechanisms that allowed the ruling elite to gauge Heaven's disposition at any given time. As early as the late Neolithic the cosmos was likened to the flat plastron and rounded carapace of a turtle, the latter arching over the former like the firmament overarching the square earth. [2] It is this correspondence that probably explains the Shang preference for searing and cracking the plastron shells of turtles to divine the will of the departed ancestors who had joined the Lord Above (Shangdi) in the other world. From Shang times on, natural and man-made disasters came to play a crucial role in Chinese cosmo-political thinking as indexes of perturbations in what would later be conceived as a dynamic equilibrium among the complementary influences of *yin* and *yang* and the five elemental forces (wood, fire, earth, metal, water). Their complex interactions were thought to give rise to all phenomena. This view of things is, of course, a late theoretical rationale for what those ancient Chinese thought they were about, but there can be no doubt that similar, albeit more rudimentary, conceptions of the mechanisms of divination and propitiation were already at work in the 2nd millennium BCE. [3]

For the systematic interpretation of astrological omens, over time an elaborate scheme of astral-terrestrial correspondences grew up based on a parallelism between the celestial

and terrestrial topography, with the Milky Way corresponding to the Yellow River flowing through the North China plain. [4] From the point of view of this mature system, the two realms were merely different manifestations of one and the same material essence or *qi*. Qualities pertaining to a given terrestrial locality were thought to be readily imparted to heavenly bodies as they took up temporary lodging in the corresponding astral space. Disturbances on the ground, whether physical or spiritual, just as readily propagated through *qi* to produce dislocations in the corresponding heavenly field; from this it follows, conversely, that untoward events in the skies could be read like texts for guidance about incipient tendencies in the corresponding terrestrial polities below.

This conception of a harmonic resonance between the realms above and below ultimately became enshrined in the imperial ideology. In the words of one scholar:

"By the third century BC, virtually all Chinese authors recognized correspondences between the realms of nature and man, and they consequently insisted that the true ruler must model himself on Heaven or the cosmic Way. This proposition meant different things to writers of the various philosophical schools, but they all showed a common and deep-rooted belief in the intimate linkage of cosmic principles, astral events, and earthly government. This belief was reflected in the close ties of observational astronomy and the calendrical sciences to political power that emerged in Warring States China and lasted into the present century." [5]

From at least Shang times until the late 19th century, the imperatives of this concept of rulership, with the emperor as sole intermediary between the temporal and supernatural realms, in times of national calamity might prompt the emperor to issue a *mea culpa* assuming personal moral responsibility for the disaster befalling the nation and promising immediate improvement in his stewardship of the mandate to rule, lest Heaven see fit to rescind its recognition of the dynasty's legitimacy. One can hardly imagine a more colossal act of impiety and unfilial conduct than for the emperor to lose the Mandate of Heaven conferred on his revered ancestor generations before. As if that weren't cause enough for concern, from the very earliest enunciation of the doctrine of Heaven's Mandate Chinese ideologues emphasized the Mandate's inconstancy and the need for constant vigilance.

Given the pervasiveness of this response to calamity throughout Chinese history, especially the heaven-sent variety, it is perhaps timely to ask whether such anxiety about preserving Heaven's Mandate is adequately explained by an attitude of reverence for the awesome majesty of the all-encompassing sky and for the *constancy* of natural cycles, or whether such attentiveness to Heaven's "bright manifestations" might reflect an equally early, profound fear and dread with which the ancients may have viewed *unpredictable* cosmic events in the formative period of Chinese civilization.

2. Objectives

This aim of the present essay is twofold. First, it will report briefly on what can be asserted with confidence about the chronology of China in the period Xia through Zhou (20th to 11th centuries BCE) in order to provide more secure chronological benchmarks than the outdated traditional chronology. Second, it will examine certain archetypal examples of disasters in Chinese myth and tradition, both to provide a Chinese perspective on their cultural and ideological significance and to examine how traditional accounts of catastrophe match the historical record. It is hoped these perspectives will enable non-sinologists better to evaluate the Chinese evidence bearing on the nature, extent, and implications of disaster for Bronze Age civilization in East Asia.

3. Chronology of the Early Bronze Age in China

The Bronze Age in China occurred significantly later than in western Asia, essentially spanning the 2nd and the early part of the 1st millennium BCE. Not coincidentally, this corresponds to the formative period of history known as the 'Three Dynasties', a term which in Chinese tradition denotes the period which saw the emergence of the hereditary dynastic state. The latter two of the three dynasties, Shang and Zhou, are fully attested historically and archaeologically. The historicity of Shang was incontrovertibly established as recently as the first half of the present century with the archaeological discovery of the royal cult center and mortuary at Anyang in Henan, together with vast numbers of divination records inscribed on bovine scapulae and turtle shells. The historicity of the first recorded dynasty, the Xia, has still not been conclusively established, although many scholars now hold that the earliest archaeological levels of the palatial foundations at the site of Erlitou in Henan are probably attributable to the Xia. Whether in fact Xia was a dynastic state like Shang is controversial.

For over two thousand years, the historicity of the Three Dynasties was unquestioned, as was that of the mythical Three Sovereigns and Five Emperors who preceded the Xia. The traditional genealogies and chronologies of the earliest dynasties enjoyed canonical status in the minds of orthodox Chinese scholars, even though troublesome gaps and glaring inconsistencies in the record were noted before the compilation of Sima Qian's comprehensive history *The Grand Scribe's Records* early in the first century BCE. Such chronologies and genealogies, fanciful, inflated, and speculative as they are, served traditional Chinese historians adequately enough, but over the past half-century archaeological discoveries, together with research on the Shang dynasty oracle bones and the social and political history of the pre-imperial period, have yielded impressive results which have provoked a fundamental reinterpretation of Chinese history in the archaic period.

It is now clear, to begin with, that the traditional dates and retrospective impressions of the period before 841 BCE are for the most part utterly unreliable, the earlier the date the greater the unreliability. A generation of increasingly sophisticated studies of both transmitted and excavated texts and traditions from the pre-imperial period (before 221 BCE) has brought a vastly improved understanding of intellectual and literary developments during the latter part of the first millennium BCE. Therefore, it is no longer acceptable to cite timeworn received chronologies in discussing the pre-imperial history of China any more than it is to interpret Chinese myths and quasi-legendary traditions without regard to the diverse periods, localities, and intellectual climates that produced them.

For this reason, scholars are well advised not to attempt to mine translated editions of the Chinese Classics or other received texts for chronological and historical evidence bearing on the earliest period without reference to the pertinent sinological scholarship concerning their relevance and reliability. For example, many of the myths about the Three Sovereigns and Five Emperors who were thought to have ruled before the Three Dynasties are now known to some extent to be culturally conditioned artifacts (if not inventions) of the last half of the 1st millennium BCE, first making their appearance in the literature some 2,000 years after the epoch they purport to describe as a direct consequence of contemporaneous intellectual and social developments. We possess little reliable genealogical information for the period before about 1,300 BCE, and no chronological or genealogical information at all for the period before about 2,000 BCE, except for a wealth of new archaeological data on a variety of distinctive Chinese regional cultures in both north and south in the late Neolithic, data that underscore the fanciful nature of traditional conceptions of a unitary state dating back to the dawn of Chinese civilization.

Table I below, which is annotated in some detail with reference to the relevant scholarship, contrasts the traditional chronology for the Three Dynasties period with what are now more reliably known to be the dates of the Xia, Shang and Zhou Dynasties. In what follows, before discussing one pattern of archetypal disaster, I refer to Table I in briefly characterizing how our current understanding of the chronology was arrived at and where further refinement can be anticipated.

4. The Pivotal Date of the Zhou Conquest of Shang

The most important benchmark in establishing the chronology of the 2nd millennium BCE in China is the date of the Zhou Conquest of Shang. The traditional date of 1122 is an artificial construct arrived at by Liu Xin (d. CE 24) in the first quarter of the first century of the present era based on retrospective computations using his newly constructed *Santongli* (The Calendrical Complex of the Triple Concordance System). It is only secondarily bolstered by a smattering of chronological data of dubious provenance gleaned from the imperial archives of the Han Dynasty (206 BCE - CE 220). For two millennia, 1122 was the accepted date of the Zhou Conquest. During the past six decades, scholars have proposed several dozen more dates ranging from 1122 to 1028 BCE or later, many on the basis of questionable or incomplete data, special pleading, or in ignorance of highly pertinent scholarship on the genealogy and relative chronology of the Shang kings. The latter has been more or less firmly established since the 1950s, based on the archaeologically excavated Shang oracle bone inscriptions.

With the publication in English of David N. Keightley's *Sources of Shang History: The Oracle-Bone Inscriptions of Bronze Age China*, [6] for the first time the contents of the royal Shang oracle bone inscriptions from the late 13th to mid-11th centuries BCE were made accessible to a wider historical readership. In analyzing their significance as historical documents, Keightley offered a judicious evaluation of their contribution to research on chronology and concluded, based on all the available evidence, that the final or Yin-Shang period of the Shang Dynasty began about 1200 BCE and ended in mid-11th century. Thereafter, scholarly attention began to focus on the period 1050-1040 BCE as the probable date of the overthrow of the Shang Dynasty by the Zhou.

Because a chronicle known as the *Bamboo Annals* recovered centuries ago from a plundered third century BCE tomb also

implied a date of 1050 for the Conquest, that text became the subject of intensive philological study in an effort to determine how much of its contents are authentically early, since it is well known that emendations and interpolations found their way into the text during the reconstruction of the damaged bamboo slips by court scholars after the chronicle's discovery in 281 CE. Proof of the veracity of unusual planetary observations recorded in the *Bamboo Annals*, and their independent corroboration by other Zhou texts, led to the precise dating of the Zhou Conquest to 1046 BCE, at once reaffirming the mid-11th century date for the end of Shang while at the same time rehabilitating portions of a text about whose reliability scholars had previously expressed doubt. [7]

The consensus with regard to the mid-11th century BCE date of the Zhou Conquest of Shang is underscored by the dating of a total lunar eclipse recorded in precise detail in *Yi Zhou shu* as occurring in the first month of the 35th year of the Zhou dynasty founder, King Wen (r. 1099-1050), on the 13th day (*bingzi*) of the sexagenary day cycle. The eclipse occurred during the night of March 12-13, 1065, and its 35th year relative date in King Wen's reign correlates exactly with that of the spectacular planetary massing six years later in May 1059 which, according to the *Bamboo Annals* and other sources, had to have occurred in King Wen's 41st year. [8] This means that we now have at least two independently corroborated astronomical dates for crucial events in mid-11th century with which to establish a baseline for the reconstruction of the precise chronology of late Shang and early Zhou. [9]

In all, three planetary massings involving the five naked-eye planets are thought to have been witnessed and associated by the Chinese with the first three dynastic transitions in the 2nd millennium BCE - the founding of Xia (mid-20th c. BCE), the Shang overthrow of Xia (mid-16th c. BCE), the Zhou conquest of Shang (mid-11th c. BCE). Two of the three, in 1953 and 1059 BCE, were the densest such massings of planets to occur in the past 5,000 years and bear eloquent testimony to the observational acuity of the ancient Chinese. [10]

As a result of the establishment of astronomical benchmarks, other accounts in the Shang oracle bones and received texts concerning meteorological phenomena, prolonged droughts,

meteor showers, etc. can in some cases now be dated more reliably than in the past. In the absence of contemporaneous written records from the first two-thirds of the 2nd millennium BCE, however, the account of Xia in the *Bamboo Annals* and elsewhere still remain uncorroborated and scholars are well advised to take nothing at face value.

5. Multiple Suns, meteor showers, earthquakes, and catastrophic drought

One of the most famous episodes in China's early dynastic history about which numerous traditions persisted into classical times has to do with the simultaneous appearance in the sky of what are described as multiple suns. [19] As in the case of several other traditions there is a contrast between the matter-of-fact recounting of the anomaly in the *Bamboo Annals* and other written accounts found in late Zhou sources. The latter appear to be transcriptions of regional oral traditions concerning cosmogonic events and demiurgic culture heroes in the pre-dynastic period. One scholar, Sarah Allan, attempts to connect the myth of ten suns (or in some accounts sun-ravens) specifically with a Shang cosmological tradition in which ten suns rise each day in sequence from the branches of a Mulberry Tree growing by a solar spring at the eastern limits of the world. The suns are the sons of a goddess Xihe, who may be identical with a consort of the mythical progenitor of the Shang people, Di Ku. Allan hypothesizes that in historical times the Shang ruling elite was still organized totemically, with each of ten groups being identified with one of the ten suns, and with each being denoted by one of the so-called 'heavenly stems' used to name the days of the ten-day week (these ten then combine with the twelve 'earthly branches' to make up the sixty unique terms used to name the days in the sexagenary cycle). This classification scheme is still discernible in the oracle bone inscriptions where the royal Shang ancestors receive cult exclusively on their particular posthumously designated name days.

Nevertheless, the common form of the ten suns myth is rather more suggestive than such a Shang 'totemic' realization suggests. In the traditional accounts the appearance of multiple suns brought an abrupt end to an age of perfect harmony and abundance, when "in the time of Yao (a legendary ruler who immediately preceded the dynastic period), the ten suns came out together, withering the crops of grain and killing the grasses, so that the people had nothing to eat [...]" [20] Threatening monsters also appeared and Yao, alarmed, deputed the hero Archer Yi to shoot down the nine superabundant suns (or sunbirds), leaving only one. Rather than interpreting this version of the myth (with Sarah Allan) as a later rationalization of the tradition after Shang was supplanted by Zhou, it may be that the Shang version is a typically Shang proto-bureaucratic realization of an earlier pre-dynastic myth. At a minimum, the nine extra suns' destruction is difficult to reconcile with the supposed totemic role of all ten suns in Shang political and religious ideology, as is the presence in the *Bamboo Annals* of a record of the observation of ten suns several decades before the founding of Shang. [21] Comparative study of this motif, which is attested predominantly among minority and aboriginal cultures from mainland China, to northeast India, to Taiwan, the Philippines and Indonesia, suggests that it was originally a common cultural feature of Proto-Malayo-Polynesian peoples who originally dispersed outward from the East Asian mainland during the Neolithic. Most of their languages belong to the Austro-Asiatic language family and they may be related to the 3,000 BCE archaeological culture of central and southern Shandong and Jiangsu known as Dawenkou. [22] It is quite possible, therefore, that the myth is predynastic, originating in mainland China among Neolithic east coast cultures known to have included groups directly ancestral to the Shang people.

Table 1

Event	Traditional Date	<i>Bamboo Annals</i>	Reconstructed [11]
Xia Begins [12]	2204	1990	1953
ten suns appear [13]	1893	1607	1604
King Jie [14]	1818-1767	1589-1558	1585-1555
5 planets 'criss-crossed'; stars fell like rain;			
the earth shook [15]	1809	1580	1576 Nov-Dec
three suns appeared [16]	1791	1561	1557
Shang Begins	1766	1558	1554
5-7 yr. drought [17]	1766-1762/60	1558-1554/52	1554-1550/48
Di Xin	1154-1123	1102-1050	1086-1047
lunar eclipse (King Wen 35 th year)			1065
5 planets gather; Comet Halley appears			
(King Wen 41 st year) [18]		1071	1059
Zhou Conquest	1122	1050	1046

The dichotomy displayed by the transmitted versions is in some ways reminiscent of the contrasting accounts of the planetary massing of 1059 BCE, which is represented on the one hand by a straightforward record in the *Bamboo Annals*, ‘the five planets gathered in (asterism) Room,’ [23] and on the other by a mythicized version with parallels in later Zhou textual accounts which preserve early oral traditions relating to the dynastic founding (e.g., ‘a great red bird alighted on the Zhou altar to the soil’). The *Bamboo Annals* makes no mention of multiple suns associated with the legendary Yao, but several decades before the end of the Xia dynasty (in the eighth year of the reign of the Xia king, Yin Jia, in about 1607) ten suns are said to have appeared together in the sky: “In the eighth year there was an evil omen in the sky; ten suns came out together. That year [the king] died.” [24] No further details are provided, though the implication is, of course, that this was an omen of the king’s impending demise.

Not long after this, in the tenth year of the last Xia king, Jie (1576) is the record “the five planets criss-crossed; in the middle of the night the stars fell like rain. There was an earthquake. The Yi and Luo Rivers dried up.” [25] And again in King Jie’s 29th year (1557) “three suns came out together.” [26] Finally, immediately after Xia Jie’s overthrow in 1555 by Cheng Tang, founder of the Shang dynasty, there occurred a drought notorious for its severity that persisted for five to seven years until, in an act much celebrated in later Confucian tradition, virtuous King Cheng Tang volunteered to expose himself as a expiatory offering in the sacred Mulberry Grove. According to tradition this selfless act was promptly answered with copious life-giving rainfall that saved the people, and probably the fledgling dynasty, from utter ruin. Some interpret the episode as an act of expiation for the usurpation and regicide of which the Shang founder was actually guilty. What is of particular interest is not so much the curious record(s) of the anomalous suns by themselves, but that there is a series of apparently unrelated observations and natural calamities within a span of some fifty years. Might these observations be consistent with the apparition of a disintegrating comet or meteor storm? Other traditional accounts of the end of King Jie’s reign, while they obviously do conform to the imperative in retrospect to malign failed last kings, could conceivably also harbor a grain of truth. For example, in the earliest strata of the 4th century text *Mozi* the seasonal dislocations accompanying the transition from Xia to Shang are described as follows:

“There was a harsh command from Heaven; the days and months were untimely, heat and cold arrived confusedly, the five grains were scorched to death, ghosts howled within the state, cranes called for more than ten nights running [...]”[27]

6. Cosmic violence: the Yellow Emperor vs. Chi You “The Wounder”

Another ancient Chinese myth remarkably rich in associations potentially relevant to Victor Clube and Bill Napier’s cometary impact hypothesis [28] is the story of the conflict between the legendary Yellow Emperor and his adversaries, particularly the monstrous miscreant known as Chi You (Fig. 1). In this myth, as recounted in a wide variety of texts from the 3rd and 4th centuries BCE through the Han dynasty (206 BCE - CE 220), violence on a cosmic scale intrudes repeatedly into the benign existence of the Chinese people under the benevolent rule of the Yellow Emperor. The Yellow Emperor comes to the forefront as mythic culture hero and progenitor of the Chinese people in the Warring States period (5th to 3rd centuries BCE) in stories in which the Chinese dramatized their ideology and self-understanding in the form of tales about the emergence of civilization.



Fig. 1. Chi You, The Wounder. Tomb wall-relief, Yanan, Shandong, late 2nd-3rd cent. CE. After Bodde, *Festivals in Classical China*, 123.

His civilizing accomplishments and the adversaries he encountered are described in the following account from Sima Qian’s *The Grand Scribe’s Records*:

“The Yellow Emperor was the son of Shao Dian. His surname was Gongsun and his personal name was Xuanyuan. At birth his spirit was magically efficacious, in infancy he could speak, when young he was wise and equable, when he grew up he was quick-witted and when he reached maturity his perceptions were supremely acute. At that time the lineage of the Divine Husbandman had been in decline for generations. The nobles attacked one another and violently persecuted the common people, and the lineage of the divine husbandman could not send punitive expeditions against all of them. So Xuanyuan practiced the use of weapons in order to punish all those who did not attend the ruler’s court, and the nobles all served him as retainers.

But Chi You was the most savage of them all, and none could attack him. The Fiery Emperor sought to invade and bully the nobles by force, so they all took refuge with Xuanyuan. Xuanyuan cultivated his spiritual potency and arrayed his troops. He channeled the five *qi*, planted the five grains, consoled the myriad people, measured the four quarters, and instructed the bears, leopards, and tigers, and with them he battled the Fiery Emperor on the plain of Ban Springs. He fought three battles and finally achieved his goals.

Chi You rose up in rebellion, and rejected the Yellow Emperor’s command. So the Yellow Emperor levied the armies of the nobles, did battle with Chi You at Zhuolu, and killed Chi You. The nobles revered Xuanyuan as the Son of Heaven, replaced the lineage of the Divine Husbandman with him, and he became the Yellow Emperor.

[...] He was always moving without any fixed residence, using only his army as an escort. The titles of his officials were all taken from clouds, so they became a cloud army. He appointed Grand Observers of the Left and Right to oversee the myriad states. The myriad states were in harmony, and there were numerous offerings to the ghosts, spirits, mountains, rivers, and the *feng* and *shan*. He obtained the precious tripods [symbols of sovereignty]. He manipulated the spirit yarrow to lay out the calendar. He raised up the Wind Monarch, the Mighty Shepherd, the Constant Vanguard, and the Great Vastness to direct the people. He followed the divisions of Heaven and Earth [yin and yang and the four seasons], the divinations of the hidden and the clear, the sayings about life and death [methods of immortality], and those about preservation and destruction [military theories]. In their proper seasons he planted the hundred grains, grasses, and trees; through his simple purity he civilized the birds, beasts, reptiles and insects. On all sides he spread out the sun, moon, stars, water, soil, rocks, metal, and jade. He toiled with mind, body, eyes, and ears. He was sparing in the use of water, fire, and materials. He received the auspicious signs of the virtue of the phase of Earth, so he was called the Yellow Emperor.” [29]

It is impossible to do justice here to Mark Lewis’s recent detailed study of this cosmic conflict motif in its socio-political context. In summary, however, Lewis concludes,

“in the Warring States the cultic roots of the tales of the Yellow Emperor were gradually suppressed as part of the general reinterpretation of ancient divinities as historical figures. This ‘suppression’ of the magical, shamanistic roots of these tales [...] reflected the changing character of official religion and the class basis of cultic practice in Warring States and early imperial China. Among the common people shamanic rituals devoted to a host of anthropomorphic spirits continued to flourish throughout the Zhou and indeed the entire history of imperial China, but elite religion and the state cults focused increasingly on ancestor worship, official sacrifices to abstract natural forces or spirit analogues of the bureaucracy, and the commemorative cults of select moral exemplars. The reinterpretation of ancient cult figures as historical personalities who provided models and sanctions for state power, and the devotion of the state cults entirely to abstract deities such as Heaven, Earth, or the Supreme Unity were part of a general re-creation of the spirit world by the emerging elite of the Warring States. It was the first round in a battle for control of the realm of the spirits that would span the history of imperial China, a battle between the historicizing, philosophical intellect of the literate elite and the protean religious practices of the local, peasant communities.” [30]

In this influential view the tales of the Yellow Emperor and his battles were reinterpreted as “accounts of the origins of violence in the world of men and its subsequent use by the sages to create a proper political order [...] claims for the indispensability of moral instruction, textual military skills, [judicious application of force,] and the patterns of Heaven [all precedents established by the Yellow Emperor] were used to rationalize and justify the government’s mobilization and control of the peasant populace. In this way the tales of the Yellow Emperor became a charter myth for the absolutist state.” [31]

In *Sanctioned Violence in Early China*, Lewis’s chapters on ‘Cosmic Violence’ and the ‘Social History of Violence’ deal exhaustively with the twin motifs of civilizing order vs. chaos, sanctioned application of force vs. the indiscriminate use of violence. By exploring the mythic careers of the principal demiurges, the Yellow Emperor and his chief adversary Chi You, Lewis tries to show how ancient “tales of cosmic battles between rain and drought were recast as accounts of the origins of warfare and punishments. [...] so men of the Warring States, Qin and Han periods knew the Yellow Emperor and Chi You as creators of warfare and punishments.” [32] Ultimately, the Yellow Emperor’s nemesis Chi You was transformed and domesticated, once the most terrifying archaic embodiment of unbridled violence and evil he finally becomes a god of warfare, inventor of

weapons, bringer of storms and rain, and tutelary spirit of the New Year season who eradicates old influences in anticipation of the new, and tomb guardian and apotropaic deity who is invoked to turn his weapons to exorcising evil spirits.

This evolutionary process seems plausible enough, but when the original cosmic conflict and Chi You’s career are examined from a slightly different perspective, other interpretive possibilities present themselves which may be even more illuminating. If one of the chief functions of myth is to mediate for a collective the irreconcilable elements of tension in their lives as religious, political, and social beings, the myth of Chi You’s subjugation by a deity of order and regularity and his subsequent domestication as the Yellow Emperor’s servant or votary may represent an attempt to resolve even more profound existential anxieties than previously suggested.

Before describing in more detail the characteristics of the two demiurges and the nature of their conflict, it might be helpful to briefly recapitulate the seven principal motifs of a worldwide pattern of mythic conflict consistent with the disintegrating comet hypothesis, to which Victor Clube and Bill Napier drew attention in *The Cosmic Winter*. [33]

- There was once a supreme god; this god often constructed heaven and earth.
- Later the “world” was peopled with giants in the sky.
- There was a combat involving two major participants, god and dragon, two dragons, or whatever. Often the outcome of the battle was fire and flood on the earth below.
- The major participants were frequently accompanied by hordes of lesser creatures.
- The combat took place in the sky.
- It was recurrent.
- The combatants were celestial creatures, giants, noisy, chaotic, winged, serpent-like, and they spanned the skies. They might crash into the ground in flames.

It will be helpful to keep in mind these major motifs and their hypothesized association with meteor storms and multiple cometary apparitions as we review the main features of the cosmic conflict at the dawn of Chinese civilization.

7. Characteristics of the Yellow Emperor and Chi You

There is a remarkable consistency in Han and pre-Han texts in the portrayals of the Yellow Emperor and Chi You as divine beings who wielded extraordinary power. We saw above how by the 1st century BCE the Yellow Emperor was credited with a civilizing, indeed, a cosmogonic role in making the earth habitable for the people. In some respects the Yellow Emperor gives evidence of being a popular personification of the very ancient but otiose supreme lord Shangdi. In his divine aspect the Yellow Emperor is described as being dragon-like: “he had the face of a dragon [...] his imminent attainment of the Mandate of Heaven was marked by the appearance of dragons [...] the constellation that bears his name had the body of a yellow dragon and ruled thunder and rain, and [...] he departed on a dragon at the end of his life.” [34]

The pole star is the Yellow Emperor’s spirit father and astral double and his identification with the celestial Big Dipper is

emblematic of his role as bringer of order and regularity. Throughout early Chinese history, the Dipper was employed as a sort of celestial timepiece whose orientation in the sky accurately told the seasons of the year. More than this, the unmoving pivot of the pole, in fact the abode of Shangdi, the Lord Above, symbolized for the ancient Chinese the awesome and unfathomable power of the cosmos - invisible, unmoving, yet controlling all change and transformation in time and space. The constellations, or Celestial Offices, and the planets, the Lord Above's minions, revolved about the unmoving center going about their official business at the proper times seemingly without his intervention. Small wonder that the patterns of the stars were employed by Han court specialists to bring imperial rituals into accord with the actions of Heaven and Earth. Throughout, a principal thrust of such efforts was to achieve regularity and predictability so as to ensure that terrestrial affairs would always be in harmony with the celestial realm. But chaos and irregularity were an ever-present threat. Natural disaster visited by the Lord Above on terrestrial politics was seen as a form of chastisement, as was warfare waged by dynastic paragons explicitly in Heaven's behalf. And so the Yellow Emperor became, in one view, the domesticator of violence in the service of order: "the savage power of inanimate nature as well as that of beasts was brought into the service of the emperor and offered a demonstration of the celestial origins and character of the violence of the sage ruler." [35]

Enter Chi You. Chi You was thought to have first created disorder, thereby corrupting the moral character of the people. Exactly how is not clear, but the indiscriminate use of violence - punishments and the use of weapons, especially 'natural' weapons fire, powerful winds, rain, fog, etc., are implicated. So, for example, one text says:

"Long ago the Yellow Emperor fought the battle of Zhuolu [with Chi You] to settle the disaster of fire; Zhuan Xu [a legendary successor to the Yellow Emperor] had the battle with Gong Gong to settle the disaster of water; [36] Cheng Tang [of Shang] had the battle at Nanchao to extirpate the chaos of Xia. They rose and fell in sequence, the victor governing the affairs of state. This was received from Heaven." [37]

Another says:

"The Yellow Emperor battled Chi You at Zhuolu, and Chi You created a great fog that lasted three days. The soldiers did not know what to do, so the Yellow Emperor ordered the Wind Monarch to imitate the North Star and create the 'south-pointing chariot' [a mechanical proto-compass] in order to distinguish the four directions, and they captured Chi You. [...] In the time of the Yellow Emperor the sky was filled with a great fog for three days. While wandering about above the Luo River, the Emperor saw a great fish and killed five sacrificial beasts to offer up to it. Then Heaven sent down a great rain for seven days and seven nights. He received an illustrated book which was the *He tu* [River Diagram]." [38]

8. Ritual Games

But it is with descriptions of the appearance of Chi You and ritualized commemorations of the Yellow Emperor's primal conflict with him that we strike a mother lode of suggestive imagery. Detailed accounts survive from pre-Han and Han times of two types of ritualized combat, one a game of kickball, the other a wrestling match involving 'horn butting', and both performed explicitly in commemoration of the cosmic combat which led to the introduction of warfare and weapons. Both originally figured as important aspects of military training as strength-building exercises in the state of Qin before unification in 221 BCE, but cosmic kickball later assumes a ritual function as a symbol of imperial sovereignty.

The one form of military training, 'head butting', which eventually turned into a ritualized entertainment in connection with the New Year's festivities, is shown in a Han dynasty tomb relief that depicts a pair of men wearing horns and engaged in a wrestling match. A slightly later literary account has this to say about this form of wrestling:

"In Qin and Han times they said that Chi You's ears were like swords and the hairs of his temples like lances, and he had horns on his head. When he fought with Xuanyuan [the Yellow Emperor] he butted men with his horns, and none could stand against him. Now in Jizhou there is a performance called the 'Chi You game'. The people divide into groups of two or three, put horns on their heads and butt each other. The Han had created the 'horn butting game', and this is probably its vestige." [39]

This horn-butting exercise already had a long history by the Han dynasty as a form of military training along with staged animal combats that also included bull grappling. [40] But in the Han it too became institutionalized as a ritual performance of the rivalry between Chi You and the Yellow Emperor.

The second game, cosmic kickball, was played on a military training field in the palace complex with nine raised steps on the left and a flat area on the right. The game was said "to resemble the state," the game itself being in some sense "a simulacrum or double (*xiang*) of regulating the state." [41] The game involved "a round ball and square walls; it imitates the [Heavenly] simulacra [images in the heavens] with a yin and a yang. Imitating the moon[s] they rush against one another; the two [teams of] sixes facing one another." [42] According to a recent commentator,

"it is an obscure explanation, but all the lines refer to basic Chinese cosmological ideas. The 'round ball' and 'square walls' evoke the standard description of the universe as a round Heaven over a square Earth. The 'simulacra' or 'doubles' commonly refer to the various astral bodies and constellations which resonate with and reflect corresponding earthly locales or institutions. These phenomena all have a *yin* and a *yang* in that they pass through an annual cycle based on the successive shift from one to the other. One major exception was the moon - or 'moons,' for each month was a moon to itself - which passed through a series of monthly cycles that could be mapped onto the solar year. [...]" [43]

Mark Lewis sees this game of kickball, which became a "fundamental element in the ritual theater of Han imperium" [44] as a ritualized simulation of the regular cosmic cycles that the emperor sought to imitate and maintain congruence with. In his view, as an "archetypal event marking the introduction of organized warfare into human society, it is not surprising that many of the chief rituals pertaining to combat were interpreted as commemorations of the primal conflict." [45] Lewis suggests that this interpretation was a late rationalization of an earlier mythos. But if we recognize in this 'game' a ritualized commemoration of a primal conflict, one need not necessarily conclude that it only lately assumed this character. Viewed from a slightly different perspective, as a ritualized commemoration of the cosmic conflict between the Yellow Emperor and Chi You, the game may actually have evoked the locale of the primal combat - *it took place in the sky*. Consider this description of the invention of the game by the Yellow Emperor from one of the 2nd century BCE Mawangdui silk manuscripts:

"Thereupon [the Yellow Emperor] took out his axes of punishment and mobilized his troops. The Yellow Emperor in person encountered Chi You and slew him. He stripped off his skin and made it into an archery target; he had men shoot at it and rewarded those who had the most hits. He cut off his hair,

mounted it in Heaven, and called it 'Chi You's Banner.' He stuffed his stomach and made it into a ball; he had men kick it and rewarded those who scored the most. He fermented his bones and flesh, threw them into a bitter meat stew, and had all the men drink it. Thus the Supreme Emperor [= Lord Above or Shangdi] made his prohibitions." [46]

Now, Chi You's Banner figured prominently in astral divination in this period as "a broom star or comet but with

curved back" whose appearance presaged royal military expeditions in all directions, according to Sima Qian's monograph on astrology in his *The Grand Scribe's Records*. [47] In another remarkable archaeological confirmation of that historical text, examination of the famous Mawangdui cometary atlas drawn on silk shows that out of 29 comets illustrated in the catalogue all but one have military prognostications inscribed beneath them, and one of the 29

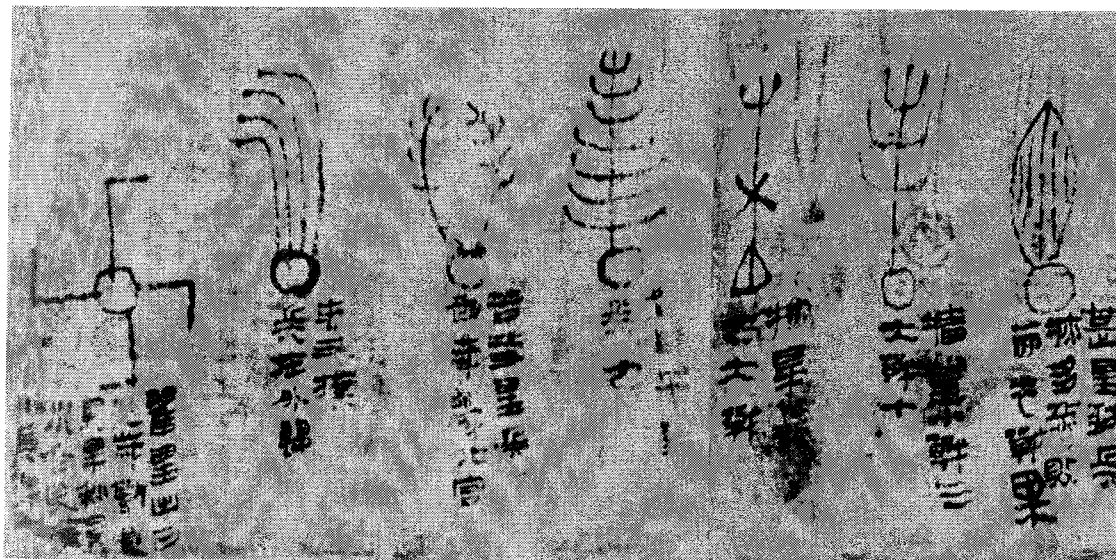


Fig. 2. Chi You's Banner (second from left). Mawangdui cometary atlas, early 2nd century BCE. After *Zhongguo gudai tianwen wenwu tuji*, 23.

TABLE II
Elements of primal conflict:
Yellow Emperor vs Chi You

Scenario: Sudden intrusion of chaos on peace and order. A battle to confront fiery disaster: prolonged fog, searing heat, strong winds, drought, followed by heavy rainfall that possibly causes watery catastrophe.

Protagonists: Yellow Emperor: a dragon-like aspect; spirit father and astral double is the Pole Star > emblem of constancy and stability; his own asterism is Xuanyuan (in Leo); plays a cosmogonic role in making the world safe and orderly; benign progenitor of the people; commands celestial spirits, thunder and rain; possessor of Mandate to rule; received revealed treatises from Heaven; introduces measured and judicious use of violence to achieve stability.

Fiery Emperor: causes excess of sun/heat that scorches the earth > bringer of drought; propitiated with sacrifices, including burning of victims; Yellow Emperor battles him repeatedly.

Chi You: most threatening miscreant and initiator of chaos; defeated more than once by the Yellow Emperor; archetypal bestial warrior who kills indiscriminately; hideous aspect > horned, sword-like ears and hair; hair placed in heaven by Yellow Emperor as a comet presaging military conflict; wields weather weapons > winds, fog, clouds, rain; becomes god of weapons and organized warfare associated with correct killing season in autumn consonant with Heaven-ordained pattern; transformed through sacrifice/ritual consumption into Yellow Emperor's votary; becomes exorcist of evil influences and tutelary spirit of cleansing, expiation, rain-seeking rituals; games and tests of strength (bull-grappling, cosmic kickball, horn-butting) ritually reenacting primal combat during year-end ceremonies.

types depicted is in fact labeled 'Chi You's Banner' [48] (Fig. 2). Chi You, therefore, was almost certainly a comet. [49] The myth of Archer Yi downing the superfluous suns could then refer to the ritualized shooting of targets made to symbolize the frightening cometary apparitions in the sky in an attempt magically to dispose of the threat.

Consistent with Clube and Napier's prediction that "the annual appearance of the [Taurid] meteor stream blazing forth from the sky would make an unmistakable annual event, and one might seek evidence of an annual rite at this date," [50] the ritual commemoration of the cosmic combat between the Yellow Emperor and Chi You figured prominently in exorcistic festivities which preceded the New Year during the Qin and Han Dynasties. [51] According to Mark Lewis, "the figures of the Yellow Emperor and Chi You, like that of the Fiery Emperor, all emerged from rituals used to expel evil influences at the end of the old year and bring on rain at the end of the dry season." [52] There is strong evidence that the Fiery Emperor, who was responsible for repeated calamities of fire that caused severe droughts, is in fact a regional variant of the same demiurge as Chi You. [53] His depredations using weapons of fire could only be countered by equally powerful watery weapons wielded by the Yellow Emperor. Propitiatory sacrifices were already being offered to the Fiery Emperor in the state of Qin in the west as early as the 5th century BCE, so we are indeed dealing with archaic ritual practices. By the Han dynasty the ritual reenactments of the Yellow Emperor's combats with Chi You and the Fiery Emperor became part of the most important elements of communal cleansing and expulsion of evil influences during the festivals concluding the year. [54]

9. Duality of Accounts of Epochal Phenomena in the Sky

As I have shown in the past with respect to the surviving

accounts of unusual planetary observations from the 2nd millennium BCE, two parallel accounts sometimes survive in the literature. On the one hand, there are the straightforward records in the *Bamboo Annals* that mention the behavior of the five planets and locate the events in a coherent chronology. On the other hand, there are numerous accounts appearing in various pre-Qin texts in a kind of imagistic language that bespeaks their origin in and transmission by other means, for example, in popular traditions. In certain key instances it is possible to demonstrate that the two versions of events actually refer to the same phenomena in the sky. [55] Moreover, the account of the appearance of multiple suns in the latter part of the Xia Dynasty occurs in both versions of the *Bamboo Annals*, the so-called current version as well as the genuine version reconstituted from quotations in ancient works, so there can be no question that this record appeared in the original text.

What I would like to propose as a tentative conclusion to this examination of the historical and mythological evidence bearing on the possible observation in ancient China of cometary and impact phenomena is the following. First, there appears to have occurred a series of related astronomical/meteorological phenomena between 1610 and 1550 BCE, contemporaneous with the dynastic transition from Xia to Shang. Assuming they are factual, accounts of these phenomena in the *Bamboo Annals* may point to repeated multiple cometary apparitions, meteor storms, and possible impacts leading to anomalous weather-related consequences on a wide scale in north China, most notably one of the severest droughts in cultural memory. Second, accounts of a cosmic conflict between the Yellow Emperor and Chi You, that is between an established sky-god and order-giver and a fearsome, chaos-bringing intruder bear all the earmarks of a mythicized version of such events; that is, the sudden appearance of a spectacular comet, possibly with multiple companions, whose passage is attended by the kind of meteorological disruptions to be expected from one or more sizeable impacts. Since the earliest known rituals and sacrifices commemorating this event date at least to the mid-1st millennium BCE, it is possible that the myths originated in the mid-2nd millennium BCE or even earlier. The pre-Shang date of the *Bamboo Annals* record to which the myth may have reference could explain the connection between the ten suns motif and the origin myths of the Shang people, since the cataclysmic astronomical events would have been contemporaneous with the rise of the Shang in the east and their westward expansion as they challenged the constellation of forces that constituted the Xia polity in the central plains area.

On the other hand, the series of unusual observations during the first half of the 16th century BCE could conceivably represent a recurrence of chaotic events still remembered from a time prior to the dispersal of Proto-Malayo-Polynesian peoples outward from the East Asian mainland during the Neolithic, as suggested by the wide geographic dispersal of the multiple sun myths. Various motifs dating from the Neolithic period may preserve representations of those cometary events (Fig. 3a-c). Therefore, the dating of the Yellow Emperor's battles with Chi You/Fiery Emperor to the time of Yao in the pre-dynastic past could also derive from prehistoric Neolithic traditions.

In either event, the broad spectrum of cultural responses to cataclysmic events - from deep-seated fear and dread, to intense efforts to mediate what they saw through ritual reenactment, mythic recounting, and sacrifice, to the ultimate domestication of the frightening implications of chaotic intrusions into their lives through various forms of deep-play all attest to the profoundly unsettling impact chaotic events in the skies may have had on the minds of those ancient Chinese.

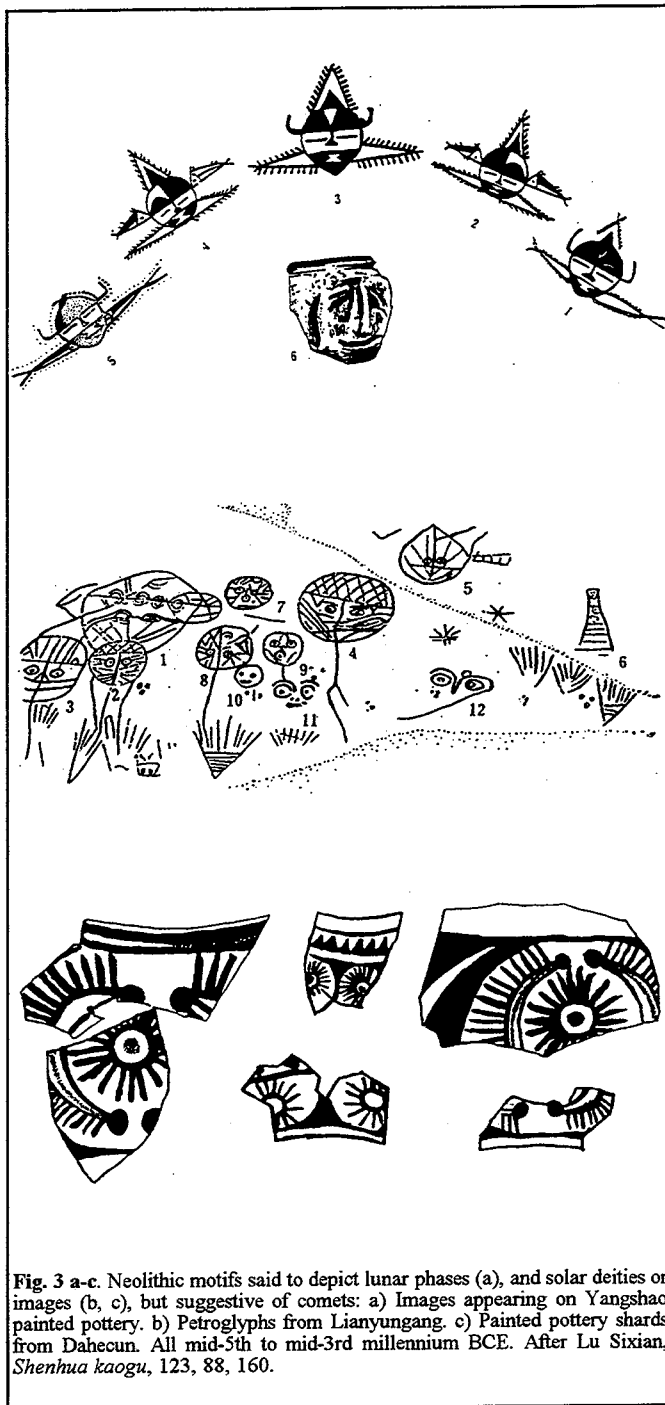


Fig. 3 a-c. Neolithic motifs said to depict lunar phases (a), and solar deities or images (b, c), but suggestive of comets: a) Images appearing on Yangshao painted pottery. b) Petroglyphs from Lianyungang. c) Painted pottery shards from Dahecu. All mid-5th to mid-3rd millennium BCE. After Lu Sixian, *Shenhua kaogu*, 123, 88, 160.

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1. David W. Pankenier, "The Cosmo-political Background of Heaven's Mandate," *Early China* 20 (1995), 121-176.
2. See Sarah Allan, *The Shape of the Turtle: Myth, Art, and Cosmos in Early China* (Albany: SUNY Press, 1991); also Li Xueqin, A Neolithic Jade Plaque and Ancient Chinese Cosmology, *National Palace Museum Bulletin* XXVII.5-6 (Nov-Dec 1992, Jan-Feb 1993), 1-8.
3. Pankenier, "The Cosmo-political Background of Heaven's Mandate," 161-170.
4. David W. Pankenier, Characteristics of Field Allocation Astrology in Zhou China, in *Cultural Aspects of Astronomy: An Intersection of Disciplines* (Durham: Carolina Academic Press) ms. (in press).
5. Mark Edward Lewis, *Sanctioned Violence in Early China* (Albany: SUNY Press, 1990), 138.
6. David N. Keightley, *Sources of Shang History: The Oracle-Bone Inscriptions of Bronze Age China* (Berkeley: University of California Press: 1978).
7. According to Keightley, the earliest oracle bone records of lunar eclipses recorded during the reign of Shang King Wu Ding cluster in an 18-year period from 1198-1180 BCE (Keightley, *Sources*, 174). Subsequently, astronomer Zhang Peiyu's analysis concluded that all must fall between 1250 and 1165; see his "Yin Shang Wu Ding shi de yueshi he lifa (Lunar eclipses and the calendar in the time of Wu Ding of Yin-Shang)," *Zhongguo wenwu tianwen wenwu lunji* (Beijing: Wenwu, 1989), 25. Zhang now dates King Wu Ding's reign to 1239-1181 (personal comm. 12/18/97). The 10 (or 9) kings of the historical Anyang phase ruled from about 1239 to 1047, or 192 years. Subtracting this from the 496 years for the Shang dynasty given in the *Bamboo Annals* and Han dynasty texts leaves 304 years for the first part of the Shang dynasty, thus implying a Shang founding date of about 1543. This result is in very close agreement with my date of 1554 for the founding of Shang based on the *Bamboo Annals* records of astronomical observations and internal chronology. For his part, Keightley's analysis of the chronology of late Shang led him to conclude that the dates he assigns to the individual kings are not likely to be in error by more than 25 years (Keightley, *Sources*, 176).
8. For this lunar eclipse, see Pankenier, "The Cosmo-political Background of Heaven's Mandate," 129 and Li Changhao ed., *Zhongguo tianwenxue shi* (History of Chinese Astronomy) (Beijing: Kexue chubanshe, 1981), 21. The Zhou King saw the eclipse as particularly ominous because it occurred in the Vermilion Bird constellation astrologically associated with the Zhou. For the planetary massing of 1059 BCE, see "The Cosmo-political Background of Heaven's Mandate," 124ff.
9. For a discussion of other evidence, astronomical as well as historical, for the chronology of the immediate conquest period, see David W. Pankenier, "The *Bamboo Annals* Revisited: problems of method in using the chronicle as a source for the chronology of early Zhou, Part 1," *Bulletin of the School of Oriental and African Studies* LV, Part 2 (1992): 272-297. This also means, for example, that the attempt to connect a *Bamboo Annals* record of dust-laden rain in the 5th year of the last Shang King Zhou Xin (r. 1086-1047) with an eruption of Hekla 3 in the late 12th century (tree ring date of 1159-1140 BCE) is problematical since it misses the mark by some 50 years. See K. D. Pang and S. K. Srivastava, "Climatic Impacts of past Volcanic Eruptions: Inferences from Ice Core, Tree

- Ring and Historical Data," *EOS* 69.44 (1988), 1062.
10. The earliest of these extraordinary events was first computed and described by R. B. Weitzel in 1945 as follows: "The five planets provided a magnificent spectacle. Mercury, Venus, and Mars approximated a triple star, Saturn was somewhat lower and to the left, while Jupiter, more apart, shone above and to the right of them. On the morning of February 26, 1953 B.C. Mercury, Venus, Mars, Jupiter, and Saturn were clustered in a field of three and eight tenths degrees - an exceptionally dense assemblage of planets"; see Weitzel, "Clusters of Five Planets," *Popular Astronomy* 53 (1945): 161; cited in Pankenier, "Mozi and the Dates of Xia, Shang, and Zhou: A Research Note," *Early China* 9-10 (1983-85), 183.
 11. Dates reconstructed by the author based on astronomical benchmarks and analysis of systematic error in the *Bamboo Annals'* chronology; see Pankenier, "The *Bamboo Annals* Revisited."
 12. The densest planetary massing in the past 5,000 years occurred in Aquarius. For analysis of a 4th c. BCE textual account and verification see Pankenier, "Mozi and the Dates of Xia, Shang and Zhou," 175-183, and "The Cosmo-Political Background of Heaven's Mandate," 123ff.
 13. James Legge, *The Chinese Classics*, vol. 3, *The Shoo King or The Book of Historical Documents* (2nd ed.) (rpt. Taipei: Wenshizhe chubanshe, 1972), Prolegomena, "The Annals of the Bamboo Books," 124.
 14. Last king of the Xia Dynasty.
 15. Legge, *The Shoo King*, 125. Legge's rendering "the five planets went out of their courses" is a mistranslation. In its entirety the entry for King Jie's 10th year reads, "10th year, the five planets criss-crossed; in the middle of the night the stars fell like rain; the earth shook; the Yi and Luo Rivers ran dry." The curious term *cuoxing* 'criss-crossed; moved crosswise' is used to describe the behavior of the five planets in the late fall of 1576 as the sun overtook the grouping, so that the time and place of observation changed from the NW horizon after sunset to the SE horizon before dawn. For detailed discussion of the term *cuoxing* and the movements of the planets on this occasion, see Pankenier, "Astronomical Dates in Shang and Western Zhou," *Early China* 7 (1981-82), 18ff. Associated with the planetary massing is the only mention in the *Bamboo Annals* during the Xia and Shang dynasties of an impressive meteor shower. The timing suggests the shower in question may have been the Taurids, or perhaps the Geminids. This record of a meteor shower is the earliest of the 147 reports collected by Zhuang Tianshan in his "Ancient Chinese Records of Meteor Showers," *Chinese Astronomy* 1 (1977): 197-220. Unfortunately, Zhuang also misread the *Bamboo Annals* record, placing the observation in King Jie's 15th year.
 16. Legge, *The Shoo King*, 126. The record "three suns appeared together" is in the 29th year of King Jie of Xia, and probably relates to the spring or summer of that year. An effort by Pang et al. to correlate Thera/Santorini's eruption (which they date to 1600 ±30 BCE) with a spate of weather anomalies near the end of King Jie of Xia's reign (1585-1555) misses the mark by a considerable margin. Recently, Peter Kuniholm and Stuart Manning have more precisely dated the eruption to 1628 BCE, some 50 years too early to be associated with the Chinese records of unseasonal phenomena; see K.D. Pang, R. Keston, and S. K. Srivastava, "Climatic and Hydrologic Extremes in Early Chinese History: Possible Causes and Dates," *EOS* 247 (1989), 1095; Peter Kuniholm et al., Anatolian tree rings and the absolute chronology of the eastern Mediterranean, 2220-71 8 BC, *Nature* 381.27 (27 June 1996): 780-782. Cf. also M.G.L. Baillie, *A Slice Through Time: Dendrochronology and Precision Dating* (London: Batsford, 1995).
 17. Legge, *The Shoo King*, 129. This is probably the most well known drought in early Chinese history. The Shang king Cheng Tang's willingness to offer himself as a propitiatory sacrifice to alleviate the people's suffering is much celebrated in later classical texts. For a discussion of this account and drought sacrifices in general, as well as the theme of atonement for regicide in connection with dynastic overthrow, see Allan, *The Shape of the Turtle*, 19-56, esp. 42ff, and "Drought, Human Sacrifice and the Mandate of Heaven in a Lost Text from the *Shang Shu*," *BSOAS* XLVII.3 (1984): 523-539.
 18. The fullest account of this planetary massing and its implications for the chronology of the Zhou Conquest period is in Pankenier, "Astronomical Dates," however, "The Cosmo-Political Background of Heavens Mandate," 121-136 may be more accessible to the non-sinologist.
 19. For an in-depth discussion of the original sources, including *Shanhaijing*, *Huainanzi*, and *Chuci*, and their antiquity, see Allan, *The Shape of the Turtle*, 25ff.
 20. Allan, *The Shape of the Turtle*, 37.
 21. The account of the appearance of multiple suns in the latter part of the Xia Dynasty occurs in both versions of the *Bamboo Annals*, the so-called current version as well as the genuine version reconstituted from quotations in ancient works more or less contemporaneous with the chronicle's discovery. There can be no question, therefore, that this record appeared in the original 3rd century BCE version of the text.
 22. Chantal Zhang, "Le Mythe de l'archer et des soleils", in Le Blanc and Mathieu, *Mythe et philosophie à l'aube de la Chine Imperiale* (1992), 27-48; Li Fuqing, "Xiaomie duoyu taiyang de shenhua (The myth of the eradication of superabundant suns)," *Lishi yuekan* (Historical Monthly) 3 (1997): 70-76.
 23. Legge, *The Shoo King*, 140.
 24. Legge, *The Shoo King*, 124.
 25. Legge, *The Shoo King*, 125.
 26. Legge, *The Shoo King*, 126.
 27. *Mozi jiangou*, Xibian zhuzi jicheng ed., (Taipei: Shijie shuju, 1974), vol. 6, 93.
 28. Victor Clube and Bill Napier, *The Cosmic Winter* (London: Basil Blackwell, 1990).
 29. Tr. Mark Edward Lewis, *Sanctioned Violence*, 174-75; for a fully annotated translation, see William H. Nienhauser, Jr., ed., *The Grand Scribe's Records, Vol. 1, The Basic Annals of Pre-Han China* (Bloomington, Indiana University Press, 1994), 1-3.
 30. Lewis, *Sanctioned Violence*, 195.
 31. Lewis, *Sanctioned Violence*, 210-212 (insertions mine).
 32. Lewis, *Sanctioned Violence*, 195.
 33. Clube and Napier, *The Cosmic Winter*, 185.
 34. Lewis, *Sanctioned Violence*, 180.
 35. Lewis, *Sanctioned Violence*, 162.
 36. The myth of Gong Gong and the cosmic disaster that produced the tilting of the ecliptic and a cataclysmic flood are discussed in detail by John S. Major, *Heaven and Earth in Early Han Thought* (Albany: State University of New York Press, 1993), 26 and *passim*; see also William G. Boltz, "Kung-kung and the Flood: Reverse Euhemerization in the *Yao tien*," *Toung Pao* 67 (1981), 141-153.
 37. Lewis, *Sanctioned Violence*, 141.
 38. Lewis, *Sanctioned Violence*, 182.
 39. Lewis, *Sanctioned Violence*, 158. See also Michael Loewe, "The *chüeh-ti* games: a re-enactment of the battle between Chih-yu and Hsüan-yüan?" in *Divination, mythology and monarchy in Han China* (Cambridge: Cambridge University Press, 1994), 236-248.
 40. Lewis, *Sanctioned Violence*, 158; cf. Derk Bodde, *Festivals in Classical China: New Year and other Annual Observances During the Han Dynasty (206 B.B. A.D. 220)*, (Princeton: Princeton University Press, 1975), 201 ff.
 41. Lewis, *Sanctioned Violence*, 149.
 42. Lewis, *Sanctioned Violence*, 149.
 43. Lewis, *Sanctioned Violence*, 149.
 44. Lewis, *Sanctioned Violence*, 150.
 45. Lewis, *Sanctioned Violence*, 148. For a discussion of Mesoamerican parallels, see Benny J. Peiser, "Cosmic Catastrophes and the Ballgame of the Sky Gods in Mesoamerican Mythology," *Chronology and Catastrophism Review* 17 (1995), 29-35.
 46. Lewis, *Sanctioned Violence*, 148 (insertion mine).
 47. Lewis, *Sanctioned Violence*, 184; *Shiji*, 27.1335. See Bodde (*Festivals in Classical China*, 121), who also calls attention to the historians explicit identification of the comet of 134 BCE with Chi You's Banner. See also Michael Loewe, "The Han view of comets," in *Divination, mythology and monarchy in Han China* (Cambridge: Cambridge University Press, 1994): 77ff.
 48. Xi Zezong, "Mawangdui Han mu boshu zhong de huixing tu, (The Comet Atlas on Silk from the Han Tomb at Mawangdui)," *Zhongguo gudai tianwen wenwu lunji* (Beijing: Kexue chubanshe, 1989): 29-34. For detailed discussion of this and other apparitions of Chi You's Banner, see Michael Loewe,

- "The Han view of comets," 61-84.
49. It is noteworthy that the instigator of recurring chaos, Chi You, is associated with cometary phenomena, while the Yellow Emperor is identified with a fixed constellation called Xuanyuan in Leo and his astral double is the Pole Star.
 50. Clube and Napier, *The Cosmic Winter*, 197.
 51. Bodde (*Festivals in Classical China*, 52) discusses at length the problem of dating rituals such as the *La* in Zhou times and the possibility that there may have been regional variations in their timing. In any case, he concludes they always occurred around the end of the year.
 52. Lewis, *Sanctioned Violence*, 194. Lewis (187) also cites direct evidence that Chi You received sacrifice in the state of Qin at the time of the New Year *Zha* rites in the tenth month (October-November).
 53. See Sima Qian's account above of the Yellow Emperors career where 'Chi You' and 'Fiery Emperor' are used seemingly interchangeably to refer to a single miscreant. The identity of the two was suggested early on by Yang Kuan in *Gu shi bian*. See his "Huang di yu Huang di," in *Zhongguo gu shi yanjiu luncong*, (Taiwan rpt. of *Gu shi bian*), vol. 7, *Gu shi chuanshuo tonglun* (Taipei: n.d.), 199-206.
 54. Lewis, *Sanctioned Violence*, 202; Bodde, *Festivals in Classical China*, 120-127. For a recent re-interpretation of flood rituals and ceremonies elsewhere in the world as a reflexive reaction to cosmic catastrophe, see Benny J. Peiser, "Catastrophism and Anthropology: The Influence of Neo-Catastrophism on the Interpretation of Flood Rituals and Ceremonies," *Chronology and Catastrophism Review* (Special Issue 1994), 130-134.
 55. A similar contrast between the tenor of the *Bamboo Annals* and many of the classical texts was noticed and commented on by the great sinologist James Legge over a century ago. According to Legge, this is one of the features of the text that underscore its credibility as having escaped the wholesale rewriting of China's ancient history in heroic terms so evident in many other Warring States texts; see Legge, *The Shoo King*, 178, 182-183.