Mozi and the Dates of Xia, Shang, and Zhou: A Research Note

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In a previous article in these pages (EC 7.1981-82:2-37) I reported on the discovery in the jinben version of the Bamboo Annals of verifiable records of the planetary conjunctions of 1576 and 1059 B.C. I argued that literary and chronological evidence drawn from a variety of Zhou and Han sources indicates that the two celestial events were taken at the time to signal Heaven's conferral of legitimate right to rule on the new dynasty, first Shang and then Zhou.

If this view is correct, the discoveries not only establish the historicity, and indeed the great antiquity, of certain chronological and astronomical records in the Bamboo Annals, they also prove that a concept akin to the Zhou "Mandate of Heaven" must have existed as early as the founding of the Shang in the mid-second millennium B.C., just as implied in the Shangshu. Equally noteworthy is the finding that numerous Zhou and Han works, including those of a notoriously "soft" variety such as the apocryphal "weft" commentaries of the Han date, contain mythicized though recognizable accounts of the same celestial phenomena. One particularly eloquent example is the following account from Huan Tan's (d. A.D. 39) Xinlun:

Afterward there was a Phoenix in the suburbs which grasped a Writing in its beak. King Wen said, "The Yin Emperor does not act according to the Way, [he] tyrannizes and disorders the Empire. The August Mandate has already shifted, [he] will not persist for long." Thereupon, King Wen composed the "Song of the Phoenix" which goes:

"The Phoenix soars [down] on spreading wings, Clasping a Writing it comes gamboling, thereby to command Chang (i.e., King Wen). 

with no difference in meaning. The phonetic variation falls into three types: 1) change of vowel (only a few cases); 2) change of initial consonant (approx. 50 cases); 3) change of tone, falling versus any other tone (approx. 150 cases). In classical Tibetan types 1) and 2) are found. A third Tibetan type consists of variations in affixes, one of which is the verbal suffix -s, usually marking perfect tense. Pulleyblank has proposed that falling tone variants in classical Chinese are derived from words with final -s. I suggest that final -s was a suffix similar to the classical Tibetan -s verb-suffix. In modern Tibetan verbs, it is mainly the perfect-tense form which has survived just as in modern Chinese, where it is mainly the falling tone variant which survives. In Tibetan verbally derived nouns have the -s suffix; in Chinese the verb may have any tone while the related noun has the falling tone. In Chinese, verbal subordinates such as adverbs and prepositions derived from verbs often have a falling tone; in Tibetan the perfect form (-s) is often used to mark subordination. A possible conclusion is that at least tonal variation in Chinese had a morphological function, the falling tone initially marking the perfect tense.

21. 28 April 1983. "Weiteres zu den altchinesischen Verbalformen -Verb und Nomen- (More on classical Chinese verbs -verbs and nouns-)." As in Hao-ku 20 a connection is made between classical Chinese and Tibetan: morphological word derivation occurred in both languages. In Tibetan the -s suffix was used in this derivation process; in classical Chinese the falling tone variants we seen as derived from verbs in any of the other tones. In both languages the primary word has only verbal meaning while the secondary word (with -s suffix or falling tone) always has nominal and sometimes also derived verbal meaning. Three kinds of such noun derivation are shown to occur in both languages: 1) abstract nouns derived from a) stative verbs and b) transitive verbs; 2) perfect participle type nouns derived from transitive verbs; and 3) "instrumental" nouns derived from transitive verbs. For classical Chinese the implications of this functional similarity between Tibetan -s suffix and Chinese falling tone variants are: 1) further proof that the falling tone variants have developed from -s suffixes and 2) that the non-nominal falling tone variants are perfective derivatives (like Tibetan).
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I looked up at Heaven and examined the Diagram; Yin is about to expire (lit. "portended").
Great Heaven is azure, azure;
First there (sc. in the heavens) was a presage (lit. "sprouting");
The linked essences of the Five Spirits (i.e., the planets)
met in (lodge) House to deliberate." (TPYU 84:5B)

One could hardly ask for a more lucid rendering of what actually transpired when the Mandate (cum "Diagram") was revealed to King Wen in 1059 B.C., but without prior knowledge of the celestial phenomena that inspired the poetic account, who would have believed that so accurate a tradition could have survived for so long? Clearly, some of the most widely held convictions about what constitutes a "soft" text are due for revision—nowhere in Shiji, in contrast, is there any mention of the planetary conjunctions, Cinnabar Writings, or esoteric "Diagrams" associated with the transfer of the Mandate. Sima Qian may have been a conscientious, critical scholar, but it does not necessarily follow that his history should be the primary standard against which the reliability of contemporary sources must be judged. This is particularly true in the realm of those works that contain the remnants of very ancient traditions whose survival, in spite of the political and social upheavals of late Zhou and Qin, is attributable to their transmission in an oral medium.

As I pointed out in my previous article (EC 7:4), the earliest mythicized versions of the Mandate conjunctions are found in Mozi, in chapter nineteen "Against Aggressive Warfare" (H 33/19/44). Elsewhere I have suggested that this Mozi account, as well as those in Lushi chunqiu, Xinlun, and various Han apocrypha, derives from oral traditions comparable in antiquity to the archaic tradition evidenced by the Bamboo Annals (Pankenier 1984), and that couched in the mythical language in which they are written there is much valuable information bearing on archaic cosmological, astronomical, and religious conceptions of the Chinese. The most obvious example is of course the planetary event of 1059 B.C. The true location of the planetary cluster a few degrees west of the star marking the beak of the constellation Vermilion Bird, the timing, and the azimuth of setting on the northwest horizon all pointed to its identification as the phenomenon underlying Mozi's account: "A red bird holding a jade gui sceptre in its beak alighted on Mt. Qi." Here I might also add that the reason given in Mozi for Heaven's displeasure with the Shang—"the sacrifices were not according to the seasons"—suggests in turn that, in China as in Vedic India, periodic obsolescence of the calendar due to the effects of precession may have had far-reaching religious and political implications. Di Xin's alleged negligence in connection with the ritual observances may have had less to do with their frequency than with their timing. Thus it is hardly surprising that calendrical reform and redefinition of the "correct" beginning of the year should have acquired such symbolic importance in connection with dynastic transitions.

Mozi's account in the same context of the founding of Shang some five hundred years earlier follows a similar pattern: "When it came to King Jie of Xia, Heaven gave severe command; the sun and moon were untimely...Heaven thereupon commanded Tang in the Biao Palace to exercise the great Mandate that had been given to Xia..." (Mel 1976:224). Here, too, I would suggest that "Biao Palace" does not refer to a terrestrial edifice at all, as the commentators would have us believe, but to one of the constellations or "palaces" of the heavens, specifically, that quadrant encompassing the location in Sagittarius where the planetary event of 1576 B.C. took place. The "untimely" appearance of the sun and moon, again suggestive of calendrical inaccuracy or misreckoning, parallels the motive given for the overthrow of Shang: the ruling dynasty had lost touch with the rhythm of the seasons, a lapse of cosmic proportions!

This interpretation implies of course that the ruling elite in ancient China possessed a well-established calendrical system sometime prior to 1576 B.C., which may seem an audacious claim. But if the Chinese were observing the planets as assiduously as I believe, it is not difficult to imagine that they might have become aware of a fundamental fact of astronomy; that is, "the slow eastward slippage, past a fixed and ancient horizon marker, of the familiar constellations marking the solstices or equinoxes, clearly noticeable after but a few generations and entailing the gradual obsolescence of any given polar star... All one needed to notice this (in Philip Morrison's apt phrase) was an old tree and faith in the veracity of one's grandfather" (Reiche 1979:155). In fact, the myth which describes the cosmic dislocation caused by the depredations of the demigurge Gong Gong contains elements which suggest that it may have served as a hypothetical explanation of precisely such observational data (Pankenier 1984).

The question is, is this merely conjecture, or is there solid evidence to support the proposed interpretation of the Mozi passage? In order to attempt an answer to that question let us consider the third precedent adduced by Mozi and briefly review the preliminary results of my research into its significance. Mozi singles out three instances of the Mandate's conferral; namely, the founding of the "Three Dynasties"—Xia, Shang, and Zhou. The parallels between the latter two events have already
been discussed, so let us now turn to the earliest historical precedent for the direct intervention of Heaven in human affairs: "Anciently, the three Miao tribes were in great confusion. Heaven ordered their destruction. The sun rose at night. It rained blood for three days...Ice came forth in summer and earth cracked until water gushed forth. The five grains appeared in mutation. At these, the people were greatly shocked. Gao Yang ("Heaven" in some versions) then gave command [to Yu] in the Dark Palace 玄宮. Yu held the auspicious jade command in hand and set forth to conquer the Miao. Amidst thunder and lightning, a god with the face of a man and the body of a bird was revealed to be waiting upon [Yu] with the jade gui in hand..." (Mei 1976:222; modified).

Here Mozi again reports seasonal dislocations and the conferral of an auspicious jade tally with accompanying charge on Yu the Great, much the same as in the case of King Wen in the same context. In the latter case I identified the gui sceptre, inscribed with a "Writing" or command, as a reference either to the actual configuration of the planetary cluster of May 1059 B.C., or possibly to a symbolic representation of the event on jade; that is a "Diagram" such as that mentioned in the "Guming" Chapter of Shangshu as part of the royal Zhou regalia. In the present case, one early text, the "Yu gong" Chapter of Shangshu, explicitly identifies the object given to Yu as "the dark jade sceptre (xuangu)" conferred upon him in recognition of the completion of his labors in hydraulic engineering. Thus, in both cases, the token of heavenly approbation was a gui sceptre of the type which in early Zhou usually signified the conferral of legitimate authority by a ruler on a subordinate.

According to Mozi, this auspicious token was bestowed on Yu in the "Dark Palace," a location which the commentators again insist on identifying with a terrestrial temple. But by the late Zhou, "Dark Palace" conventionally referred to the winter or northern quadrant of the heavens, the abode of Zhuo Xu 風後 (i.e., Gao Yang), inventor of the calendar. A quotation from the fourth century B.C. "Canon of Luminaries" 星經 by Shi Shen 石申 states that the term "Dark Palace" refers specifically to the lunar lodge known as yingshi 星室 or "Mansion" (Morohashi 2001:78; Jinshu 11:301). As far back as we are able to trace the history of the position of determinative stars of the lunar mansions, the sixth century B.C., the prominent star Alpha Pegasi already served to mark the location of this important constellation. Known as Ding 足 in the Book of Poetry (Mao 50: "Ding zhi fang zhong"), this star's dawn rising some three and one-half millennia ago coincided with the first month of the lunar year, or the second lunation after the winter solstice in the so-called "Xia annuury" 夏正.

If the parallel is exact, these exploits of Yu the Great at the very dawn of Chinese recorded history must have coincided with still another particularly impressive planetary event, symbolized by the divine revelation of a jade gui sceptre, this time in the northern quadrant of the heavens (Dark Palace), and perhaps in the longitude of the lunar mansion yingshi. Astonishingly, this is precisely correct! It is a fact that a clustering of all five naked-eye planets, the earliest and most impressive of only four such events in the past five thousand years (Weitzel 1945:160), did indeed take place in Aquarius in the same longitude as Alpha Pegasi (fig.1). The date was February 26, 1953 B.C.

Nor is this the only evidence for the significance of that date in Chinese history. The year 1953 B.C. is only thirty-six years from 1989 B.C., the date which the Bamboo Annals assigns to the founding of Xia! In spite of the fact that no mention of this impressive alignment of planets per se now appears in the text, in the "Annals of Yao" the chronicle states that in his eighty-sixth year Yao granted an audience to Yu, at which time Yu wielded the famous xuangu ("Dark Sceptre"). In fact, this was precisely fourteen years after Yao had "resigned" in Shun's favor in his sixty-seventh year. The Bamboo Annals also records in the "Annals of Shun" (27A) in his fourteenth year, Shun to deliberate about affairs of state in his place, and that in that year auspicious clouds appeared. A passage in the Songsu "Monograph on talismans and auguries" (Songsu 27A:763) dwells on this event and states that on this occasion a "River Diagram" described as a red and green writing was presented to Yu by a human-faced bird spirit (the same spirit which delivered the Jade in Mozi). The "Writing" suggested Shun should resign in Yu's favor! Shangshu dazhan (SPT 1B:22) also makes the date Shun's "fourteenth ritual cycle." Since the Bamboo Annals portrays Yu controlling the Yellow River in his capacity as Superintendent of Works in Yao's seventy-fifth year, and receiving the dark sceptre twelve years later in recognition of his completion of his task, and since Shun is represented as deputing Yu to deliberate about affairs in his (Shun's) fourteenth year, one suspects that these events in the reigns of Yao and Shun ought to be contemporaneous. It follows from an examination of the "Annals of Shun" that some of the datings in Shun's reign refer to his putative (and probably inflated) age, and some (in particular the fourteenth year record cited above) refer to years in his reign, though no distinction is made in the chronicle (in EC 7:37, note 50). I pointed out a similar confusion in connection with the account of the reign of King Men). This is confirmed by the version of events presented in Songsu (26A:762-63). As we saw above, the fourteenth year span of Yu's significant activity in Shun's reign is clearly reflected
by the dates in Yao's reign when Shun is first appointed (Yao 73) and when Yu receives the Dark Sceptre (Yao 86). From this I believe we may conclude that Shun's fourteenth year was simultaneously the first de jure year of Yu the Great's reign as the founder of the Xia Dynasty, or, in our terms, the year 1953 B.C.

Of course, many more questions remain to be resolved regarding the Bamboo Annals chronology and its obvious distortions. Here I mean only to suggest that the chronicle, though defective, appears to contain important corroborative evidence. I am certainly not proposing to accept the reign lengths or ages assigned to Yao and Shun, nor the accounts of their resignations, as factual. What I am suggesting is that the relative dates of certain events may be of considerable value in attempting to establish the early chronology. Much more significant is the realization that the evidence outlined in the above, necessarily brief, discussion points inexorably to the conclusion that Xia Dynasty Chinese observers both witnessed and recorded a spectacular planetary event in the mid-twentieth century B.C. Once again, what appears to be an ancient oral history and an astronomical fact combine to provide strong evidence for the historicity of "mythical" accounts of the founding of one of the earliest Chinese dynasties. The consistent correlation of a sequence of three such extraordinary celestial events, in three separate locations (North, East, and South "palaces" of the heavens), with a series of calendrical "dislocations" and with the transfer of heavenly approbation from one dynasty to its successor, leaves little room for doubt about the origins of ancient Chinese speculation about the inter-relationship between cosmology and dynastic politics.

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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 tenth degrees—an exceptionally dense assemblage of planets (Weitzel 1945:161).

Figure 1. In 1953 B.C. the five planets rose together before dawn in the southeast on twenty-seven consecutive mornings, from mid-month of the first lunar month on February 19 to mid-month of the second on March 16. On February 26, the positions of the planets were as follows: Mercury—R.A. 295°35, dec. -22°99; Venus—295°48, -22°74; Mars—295°35, -23°04; Jupiter—292°07, -23°18; Saturn—296°15, -23°00.

Note the position of Alpha Pegasi (297°09, -12°62 in 1953 B.C.) in relation to the planetary cluster superimposed on the modern chart. By turning the chart on its left side one can gain an impression of the configuration of the planets as they rose in the southeast. According to R. B. Weitzel: "The five