

asserted, in the recently published Xiaotun nandi jiagu (2 volumes; Peking, 1981), there was evidence for an additional two-hour period in the Shang division of the day, over and beyond those mentioned by Chou and his colleagues, namely dan 旦.

16. HU HOUXUAN (Institute of History, Peking)

AN INTERPRETATION OF THE ORACLE-BONE INSCRIPTION PHRASE: "THE SUN AND MOON ECLIPSED"

ABSTRACT:

This paper assembles three oracle-bone inscriptions divined at the same time from the Wu Yi-Wen Ding period. Two are identical, being a paired divination inquiring into whether the event ri yue you shi 日月又食 was or was not auspicious. The third asks whether, in light of this ri yue you shi, it would be auspicious to sacrifice to Shang Jia.

Since 1925, when Wang Xiang 王襄, first proposed that the character yue 月 should be read as xi 夕, his position has been accepted by Liu Chaoyang 劉朝陽, De Xiaoqian 德效騫, Chen Mengjia 陳夢家, Zhang Peiyu 張培瑜, Xu Zhentao 徐振韜, the Zhongguo Tianwenxue jianshi bianxiezu 中國天文學簡史編寫組, and the Zhongguo tianwenxueshi zhengli yanjiu xiaozu 中國天文學史整理研究小組.

Yue was first interpreted as yue 月 in 1933 by Shang Chengzuo 商承祚. Those subscribing to this reading include Dong Zuobin 董作賓, Chen Zungui 陳遵媯, Yü Xingwu 于省吾, Liu Chaoyang, Chen Mengjia, Joseph Needham, Zhao Quemin 趙却民, and Chen Banghuai 陳邦懷.

Among these scholars Liu Chaoyang holds that "there is no distinction between xi and yue," while Chen Mengjia believes that the phrase "ri yue you shi" can also be read "ri xi you shi," hence they accept both interpretations.

Those who have accepted the reading yue all take it to be an actual record of a gui-you 癸酉 day. Those reading xi have taken the phrase to refer to a solar eclipse at dusk; based on their calculations it may have occurred on 25 May 1917, 9 February 1129, or 9 August 1186 B.C. The interpretation of yue as xi is clearly inappropriate, because the Wu Yi-Wen Ding period inscriptions regularly write 𠄎 for yue, not for xi; further, the meaning of xi is "night," and a solar eclipse that occurs at night cannot be seen.

The reading of yue is correct. Some say that "ri yue you shi" means that the sun and the moon were eclipsed in succession, 日月頻食, and calculate that it may refer to the eclipse of the sun on 18 July 1230 B.C. and the eclipse of the moon on 1 August of that year, or to the eclipse of the moon on 4 August and the eclipse of the sun on 18 August 1222, or to the eclipse of the moon on 11 April and the eclipse of the sun on 26 April 1217. However, after repeated calculations, evidence that the dates did not fit or that the eclipse was not fully visible, led many scholars to question these theories, or even retract them.

Among the inscriptions from Wu Ding's reign there are seven inscriptions recording five eclipses of the moon; all are recorded in the verification. Further the record of ri you shi 日又食 in the inscriptions from the time of Wu Yi and Wen Ding also occurs in the verification. From this we know that the inscription gui-you zhen ri yue you shi 癸酉貞日月又食 is a charge, the purpose of which is to ask whether, in the event of an eclipse of the sun or of the moon, it will be auspicious or not, and further, if there is an eclipse of the sun or the moon, would it be appropriate to sacrifice to Shang Jia. The phrase gui-you zhen ri yue you shi is a charge, not a verification, and therefore it is definitely not the record of an actual event.

It is no wonder that previous scholars have been unable to make sense of these inscriptions, considering that they were taking them to be the record of an event.

DISCUSSION:

Granting that the inscriptions analyzed by Hu Houxuan were not eclipse records, Noel Barnard suggested that they might nevertheless reflect some awareness about when to expect an eclipse. A lunar eclipse being less spectacular than a solar one, it would have presumably been regarded as less important. What the Shang diviners were divining about was whether the one or the other was likely to happen or not; such phenomena in the oracles usually would not yet have occurred at the time of the oracle, but would occur some time in the future.

Chang Kwang-yuan remarked that there are 41 solar and 29 lunar eclipses in an 18 year cycle, but the solar ones can be less frequently observed. He thought the dates in the inscriptions were still relevant as indicators of the expectation that there might be an eclipse. What the Shang diviners tried to do, Chang asserted, was to establish some kind of a logical relationship between the two kinds of eclipses; thus, solar eclipses came to be expected on a new-moon day, and lunar ones on a full-moon day. Such notions may have been triggered by two successive eclipses within a month's period.

Hu Houxuan expressed agreement with Tung Tso-pin on the point that there had to have been two successive eclipses. It did not matter whether a solar or lunar one was first, or how much time elapsed between them. Important to his argument was the fact that the prognostication was only made after both events had occurred, in order to test the probability of their happening again. Hu said it was impossible to say which kind of eclipse had triggered the prognostications.

Hsü Chin-hsiung raised the difficult question of whether the eclipses were perceived as being auspicious or not. He thought it conceivable that lunar eclipses perhaps did not generate fear, but solar ones did. The prognostications recorded in the inscriptions would have been made in order to be prepared in case such an event would occur.

There were several alternative readings of the phrase "日月出食" suggested by various participants. Firstly, Hsü Chin-hsiung said that by reading "日,月有食", he had concluded that these were prognostications only about lunar eclipses. Ri 日 meaning "day" -- perhaps including dawn and dusk when the sun and the moon could be seen at the same time -- he read the inscription as "During the day-time, a lunar eclipse?" Whereas a normal lunar eclipse would not have attracted enough attention to be thought worthy of prognosticating about, a lunar eclipse occurring at dawn or dusk with the sun shining might have been a different matter.

Jao Tsung-yi remarked that usually the graphs for xi 夕 and yue 月 were not interchangeable in Period I inscriptions, and xi in the inscriptions used by Hu ought to mean "night," not "moon." This would produce a reading like "a nightly solar eclipse?", which is obviously impossible, since no solar eclipses can be observed at night. Therefore, Jao was willing to grant an exception and agreed that xi in these inscriptions should be read as yue after all. Note, however, that xi might, in Shang times, have included the early evening, as it doubtless does in the famous Shi jing verses "日之夕矣,牛羊下來" (Mao No. 66).

Terry Kleeman suggested reading xi as meaning "slanted," related to the modern words xie 斜 and li 戾, which meaning is attested in Zuo zhuan (xishi 夕室) there denoting an improperly oriented building). The translation of the inscription would thus run: "When the sun is slanting, an eclipse?" The prognostication would thus have only been about a solar eclipse.

Hu responded by admitting that he was not sure which parts of the day were included in either ri or xi. Conceivably, he added, they could also be used in meanings such as today, tomorrow, or yesterday. It was still a hotly debated issue, Hu noted, whether xi

and the day divided into two-hour units were mutually exclusive or whether xi included part of the evening.

Some participants denied that the inscriptions analyzed by Hu had anything whatever to do with eclipses. Chang Tsung-tung suggested the reading "日夕侑食" -- "Sacrificing food to the sun in the evening?" Hu Houxuan said he had never heard of such an interpretation and did not believe it; after all, the expression rishi 日食, "eclipse," persists even in the modern Chinese.

On a written handout distributed to all the participants, Akatsuka Kiyoshi had elaborately substantiated an interpretation of the inscriptions in question which was similar in principle to that proposed by Chang Tsung-tung reading, however, 禴 instead of 侑. He thought 食 should be equivalent to 戩 in the expression 日出戩; 戩 is a ritual to stop rain. The translation would thus run: "Offering to the sun the rain-stopping sacrifice in the evening?" Itō Michiharu further elaborated this interpretation, quoting the inscription "又戩于祖辛" as an example of the use of 戩. But according to him, ri 日, too, was a kind of sacrifice, as is suggested by the two parallel inscriptions "小乙祭亡巷 / 小乙日亡巷." Here, 祭, "to sacrifice," corresponds to 日, which has an obviously verbal function. Taking xi to mean "moon," Itō arrived at the following translation: "In performing the ri sacrifice to the moon, offer foodstuffs (or: the rain-stopping sacrifice)?"

17. AKATSUKA KIYOSHI (Nisho-gakusha University)
THE COSMOLOGICAL MEANING OF THE TEN GAN AND TWELVE ZHI IN SHANG CIVILIZATION

ABSTRACT:

In the Shang, time was represented by a system of combining shi gan 十干 (ten stem signs) and shi-er zhi 十二支 (twelve branch signs), a complete cycle taking sixty days.

Many interpretations, some dating back to the Han period, have been made as to the meaning of the signs. I question the suitability of these theories and, using the original meaning of the characters together with different words of similar sound, propose the possibility of a systematic interpretation. Shi gan symbolize stages in the development of a barley seed from germination in the earth to fruition, while shi-er zhi are taken to be stages from the conception of a child up to acceptance into the family. The cycle of the two sets of signs represents the idea of the diffusion of two forces within the cosmos: that which gives life to plants and all living