

1
2
3
4
5
6
7
8
9

10 **Text Reading:**

11 *A text we know,*

12

13 Kong Yingda 孔穎達 (584–648 CE), *The Correct Meaning of the Mao Odes* (*Mao Shi*
14 *zhengyi* 毛詩正義, 653 CE), subcommentary on Zheng Xuan's 鄭玄 (127–200 CE)
15 *Notes* (*Jian* 箋) on the *Mao Tradition* (*Mao zhuan* 毛傳, 3rd/2nd cent. BCE) of the
16 *Odes* as concerns the solar eclipse mentioned in the first sixteen lines of 'At the
17 Conjunction in the Tenth Month' (Shiyue zhi jiao 十月之交), Mao no 193, from the
18 Qifu 祈父 Decade of the Lesser Hymns (Xiaoya 小雅)

19

20 *prepared for*

21

22 Transcience: Politics and Practices of Time in the Chinese Period of Division (4th-7th
23 centuries), Max-Planck-Institut für Wissenschaftsgeschichte, Berlin,
24 1-15 July 2021

25

26 *translation and subcommentary by*

27

28 Daniel Patrick MORGAN

29 CRCAO, CNRS, EPHE-PSL, Collège de France, Université de Paris,

30 52 rue du Cardinal Lemoine, 75005 Paris, France

31

1
2
3
4
5
6
7
8
9
10
11
12

13 **Contents**

14 The base text, according to Legge.....3
15 Reading: commentary on the first sixteen lines.....5
16 'Preface to the *Correct Meaning of the Mao Odes*' 《毛詩正義序》17
17 Bibliography.....19
18 Primary sources.....19
19 Secondary sources.....19

20
21
22
23

24 **Note before reading:**

25 The commentarial layers in the *Correct Meaning of the Mao Odes* are not fun
26 reading, and the technical contents highlighted in my selection will likely be
27 unfamiliar to the reader. I have chosen them to tell a story that will be articulated
28 between the translation, oral discussion, and information provided in the
29 appendices. The translation is hasty, and the apparatus is light.

1 The base text, according to Legge

2 Legge, James. *The Chinese Classics, Vol. IV. The She King or Book of Poetry*. 2 vols.
3 London: Henry Prowde; Hong Kong: London Missionary Society, 1876, vol. 2,
4 320-325.

6 Title:

7
8 'At the Conjunction of the Tenth Month' (Shih yueh che k'eaou 十月之交),
9 Decade of K'e Foo 祈父,
10 Minor Odes of the Kingdom 小雅,
11 *The Book of Poetry (She King 詩經)*

13 Summary:

14
15 Lamentation of an officer over the prodigies, celestial and terrestrial, betokening the
16 ruin of Chow 周. He expounds the true causes of these and the abounding misery;
17 names the chief culprits; and declares his own determination to remain at his post of
18 duty.

20 Translation:

21
22 十月之交 At the conjunction [of the sun and moon] in the tenth month,
23 朔日辛卯 On the first day of the moon, which was *sin-maou*,
24 日有食之 The sun was eclipsed,
25 亦孔之醜 A thing of very evil omen.
26 彼月而微 Then the moon became small,
27 此日而微 And now the sun became small.
28 今此下民 Henceforth the lower people
29 亦孔之哀 Will be in a very deplorable case.

30
31 日月告凶 The sun and moon announce evil,
32 不用其行 Not keeping to their proper paths.
33 四國無政 All through the kingdom there is no [proper] government,
34 不用其良 Because the good are not employed.
35 彼月而食 For the moon to be eclipsed
36 則維其常 Is but an ordinary matter.
37 此日而食 Now that the sun has been eclipsed, –
38 于何不臧 How bad it is!

39
40 燁燁震電 Grandly flashes the lightning of the thunder; –
41 不寧不令 There is a want of rest, a want of good.
42 百川沸騰 The streams all bubble up and overflow.
43 山冢峯崩 The crags on the hill-tops fall down.
44 高岸為谷 High banks become valleys;
45 深谷為陵 Deep valleys become hills.
46 哀今之人 Alas for the men of this time!
47 胡憊莫懲 How does [the king] not stop these things?

48
49 皇父卿士 Hwang-foo is the president;

1 番維司徒 Fan is the minister of instruction;
 2 家伯維宰 K'ea-pih is the [chief] administrator;
 3 仲允膳夫 Chung-yun is the chief cook;
 4 聚子內史 Tsow is the recorder of the interior;
 5 蹶維趣馬 K'wei is master of the horse;
 6 楫維師氏 Yu is captain of the guards;
 7 豔妻煽方處 And the beautiful wife blazes, now in possession of her place.
 8
 9 抑此皇父 This Hwang-foo
 10 豈曰不時 Will not acknowledge that he is acting out of season.
 11 胡為我作 But why does he call us to action,
 12 不即我謀 Without coming and consulting with us?
 13 徹我牆屋 He has removed our walls and roofs,
 14 田卒汙萊 And our fields are all either a marsh or a moor.
 15 曰予不戕 He says, 'I am not injuring you;
 16 禮則然矣 The laws require that thus it should be?'
 17
 18 皇父孔聖 Hwang-foo is very wise;
 19 作都于向 He has built a great city for himself in Hëang.
 20 擇三有事 He chose three men as his ministers,
 21 宣侯多藏 All of them indeed of great wealth.
 22 不慙遺一老 He could not bring himself to leave a single minister,
 23 俾守我王 Who might guard our king.
 24 擇有車馬 He [also] selected those who had chariots and horses,
 25 以居徂向 To go and reside in Hëang.
 26
 27 黽勉從事 I have exerted myself to discharge my service,
 28 不敢告勞 And do not dare to make a report of my toils.
 29 無罪無辜 Without crime or offense of any kind,
 30 讒口囂囂 [Slanderous mouths are loud against me.
 31 下民之孽 [But] the calamities of the lower people
 32 匪降自天 Do not come down from Heaven.
 33 噂沓背憎 A multitude of [fair] words, and hatred behind the back, –
 34 職競由人 The earnest, strong pursuit of this is from men.
 35
 36 悠悠我里 Distant far is my village,
 37 亦孔之瘁 And my dissatisfaction is great.
 38 四方有羨 In other quarters there is ease,
 39 我獨居憂 And I dwell here alone and sorrowful.
 40 民莫不逸 Every body is going into retirement,
 41 我獨不敢休 And I alone dare not seek rest.
 42 天命不徹 The ordinances of Heaven are inexplicable,
 43 我不敢傲我友自逸 But I will not dare to follow my friends and leave my post.
 44
 45

1 Reading: commentary on the first sixteen lines

2 Source: 《重校宋本毛詩注疏附校勘記·小雅·節南山之什詁訓傳第十九·十月之交》,
3 Edition: 台北市:藝文印書館,民 54[1965], (清)阮元審定,盧宣旬校, from [Scripta Sinica](#)

4
5 BASE TEXT (starting page 19.406a):

6
7 十月之交 ON THE CROSSING IN THE TENTH MONTH,
8 朔日辛卯 ON THE DAY OF THE NEW MOON, *XINMAO*_{28/60r},
9 日有食之 THE SUN WAS CONSUMED (ECLIPSED),
10 亦孔之醜 A VERY UGLY THING INDEED.

11
12 Tradition:

13 之交, 日月之交會。醜, 惡也。

14 CROSSING means the crossing convergence of the sun and moon.¹

15 UGLY means 'wicked'.

16
17
18 Notes:

19
20 箋云: 周之十月, 夏之八月也。八月朔日, 日月交會而日食。陰侵陽, 臣侵君之象。日
21 辰之義, 日為君, 辰為臣。辛, 金也。卯, 木也。又以卯侵辛, 故甚惡也。

22 [Zheng Xuan's] Notes:

23 The tenth month of the Zhou [civil calendar] is the eighth month in the Xia [calendar
24 that we use today].² [Therefore,] on new moon day, month eight, the sun was

1 1 Definition: *jiaohui* 交會 'crossing convergence', alt. 'crossing coincidence', is a technical term in
2 *li* 曆 mathematical astronomy first used by Xu Yue 徐岳, disciple of Liu Hong 劉洪 (fl. 167-206), in
3 226 CE (*Jinshu*, 17.499; [c;text](#)). The term combines two ideas. The first is the 'convergence' (*hui* 會) of
4 unspecified necessary conditions permitting (but not guaranteeing) a lunar eclipse at full moon,
5 expressed in the eponymous [eclipse cycle](#) of 23 'convergences': 135 months (locus classicus Liu Xin 劉
6 歆 (c.50 BCE-23 CE), *Santong li* 三統曆, 1 BCE/5 CE, cit. in *Hanshu*, 21B.992; [c;text](#)). The second is the
7 idea that the moon travels on a 'white *dao*' 白道 that is oblique to and 'crosses' (*jiao* 交) the sun's
8 'yellow *dao*' 黃道 (i.e., [the ecliptic](#)), taking the moon as far as 5 *du* 'inside' (*li* 裏, i.e. north) and
9 'outside' (*biao* 表, i.e. south) of the path of the sun (an idea developed under the rubric of 'the nine
10 *dao*' (*jiudao* 九道) between Liu Xiang 劉向 (79-8 BCE) and Zhang Heng 張衡 (78-139 CE) and
11 perfected by Liu Hong, above). Liu Hong's lunar model supersedes the 'convergence' cycle, allowing
12 one to calculate (1) whether or not an eclipse will occur, (2) the 'fraction consumed' (*shifen* 食分) of the
13 sun or moon's disc and (3) the 'starting corner' (*qijiao* 起角) as a function of the moon's distance from
14 'crossing' (i.e., [lunar node](#)) and position 'inside'/'outside' the yellow *dao*. As a compound, 'crossing
15 convergence' (*jiaohui*) is used to refer to these calculations and to 'the convergence (alignment) of the
16 sun and moon with a crossing (lunar node), guaranteeing an eclipse'. **Note:** this vocabulary is likely
17 inspired by this ode, and the later technical sense is often project back thereupon in turn. For a concise
18 English summary of these ideas and their early history in a greater study on Han *li*, see Cullen (2017,
19 343-92).

20 2 Known as 'the three leads' (*sanzheng* 三正), and informed largely by the *Spring and Autumn*
21 *Annals* and its Traditions, it was common wisdom in the Han (206 BCE-220 CE) that the Xia 夏, Shang
22 商, Zhou 周 and their respective descendants placed 'the lead month' (*zhengyue* 正月) of the civil
23 calendar at different seasonal junctions: Xia: rainwater 雨水: first month of spring: 23 February ± 30
24 days:: Shang: great cold 大寒: last month of winter: 24 January ± 30 days:: Zhou: winter solstice 冬至:
25 mid-winter: 24 December ± 30 days. In reality, however, the 'Xia lead/calendar' was the norm
26 through almost all of Chinese history. See Kawahara (1996, 80-113).

1 consumed upon the crossing convergence of the sun and moon. [This is a case of] Yin
2 encroaching upon Yang, a sign of the servant encroaching upon the lord.³
3 As to the meaning of the day and chronogram (sexagenary date), the day (heavenly
4 stem) is the lord, and the chronogram (earthly branch) is the servant. *Xin*_{s08} is to metal
5 as *mao*_{b04} is to wood. [Combined with the eclipse,] the additional encroachment of
6 *mao*_{b04} (: servant : wood) upon *xin*_{s08} (: lord : metal) is the reason why this is seriously
7 wicked.⁴

8
9 BASE TEXT:

10
11 彼月而微 THAT THERE MOON WAS DIMINISHED,
12 此日而微 AND THIS HERE SUN HERE WAS DIMINISHED.

13
14 Tradition:

15
16 月，臣道。日，君道。
17 The moon [relates to] the *dao* of the servant, and the sun [to] the *dao* of the lord.

18
19 Notes:

20
21 箋云：微謂不明也。彼月則有微，今此日反微，非其常，為異尤大也○
22 [Zheng Xuan's] Notes:
23 DIMINISHED is to say 'not bright'. THAT THERE MOON experienced DIMINISHING, and
24 now THIS HERE SUN turned around and DIMINISHED, which is not its regular state but
25 constitutes instead a significant anomaly.⁵

26
27 BASE TEXT:

28
29 今此下民 THEREUPON, THE LOWER PEOPLE
30 亦孔之哀 WERE IN A VERY PITIFUL STATE INDEED.

31
32 Notes:

1 3 The language here of heaven-earth correspondences, 'the lord', 'the servant', 'encroachment' (*qin*
2 侵) and 'signs' (*xiang* 象) is typical of *tianwen* 天文 'heavenly patterns' omenology, e.g. 劉向《洪範
3 傳》曰：「日之為異，莫重於蝕；春秋日蝕則書之也。日蝕者，下凌上，臣侵君之象也。日蝕數者，其
4 亂眾；稀者，亂亦稀。」 cit. in *Kaiyuan zhanjing*, 9.8b; [c;text](#). For an introduction to *tianwen*
5 omenology, see Ho (1966), Pankenier (2017) [and others].

6 4 This form of argumentation is typical of *wuxing* 五行 'five agents/phases' divination, also
7 known as 'hemerology' and 'astrocalendrics' (Kalinowski and Harper), in which, according to the
8 rules of 'mutual conquest' (*xiangsheng* 相勝), metal should defeat and follow wood rather than the
9 other way around. While categorically distinct from *tianwen* 'heavenly patterns' omenology in terms
10 of questions, methods, objects of study and contemporary genres, bibliography, historiography,
11 institutions, cultural status, etc., 'heavenly patterns' borrows from 'five agents' theory as do a handful
12 of other domains such as ritual, medicine, religion and philosophy. On five agents and hemerology,
13 see Kalinowski (1991) and Harper and Kalinowski (2017). On the taxonomy of technical knowledge,
14 see for example Sivin (1990) and Kalinowski (2004) from the perspectives of history of science and
15 history of divination, respectively.

16 5 Definition: **chang** 常 'regularity' versus **yi** 異 'anomaly', the fundamental binary
17 distinguishing *li* 曆 'mathematical astronomy' from *tianwen* 天文 omenology, the former of which
18 is the quantitative study of 'regularities', and the later the qualitative study of 'anomalies'. Yixing 一行
19 (683–727 CE) puts this succinctly: 「故較曆必稽古史，虧蝕深淺、加時朏朧陰陽，其數相叶者，反覆相
20 求，由曆數之中，以合辰象之變；觀辰象之變，反求曆數之中。類其所同，而中可知矣；辨其所異，而
21 變可知矣。其循度則合于曆，失行則合于占。占道順成，常執中以追變；曆道逆數，常執中以俟變。知
22 此之說者，天道如視諸掌。」 ('Rishi yi' 日蝕議, cit. in *Xin Tangshu*, 27B.627; [c;text](#)). See Pankenier
23 (2017), and on the matter of solar eclipses and changing boundaries of 'anomaly', Shi Yunli and Xing
24 Gang (2006) and Chen Kanli (2012).

1
2 箋云：君臣失道，災害將起，故下民亦甚可哀○

3 [Zheng Xuan's] Notes:

4 [When] the *dao* of lord and servant are amiss, calamities will arise. Thus are THE LOWER
5 PEOPLE INDEED in a seriously PITIABLE STATE.

6
7 ***

8
9 Subcommentary:

10
11 十月至之哀○

12 TENTH MONTH to 'pitiful'

13
14 毛以為，幽王之時，正在周之十月，夏之八月，日月之交會，朔月辛卯之日，以此時而
15 日有食之。此其為異，亦甚之惡也。何則？日食者，月掩之也。月食日，為陰侵陽，臣
16 侵君之象。其日又是辛卯，辛是金，卯是木，金常勝木，今木反侵金，亦臣侵君之象。
17 臣侵君，逆之大者。一食而有二象，故為亦甚惡也。所以為甚惡者，日，君道也；月，
18 臣道也。君當制臣，似月應食；臣不當侵君，似日不應食。故言彼月而容有被食不明，
19 今此日而反被食不明。以日被月食，似君被臣侵，非其常事，故為異尤大也。異既如此，
20 災害將生。災害一起，天下蒙毒，故今此下民亦甚可哀傷矣○

21 [The] Mao [Tradition] holds that in the time of King You (r. 781–771 BCE) the sun was
22 consumed right at the time of the crossing convergence of the sun and moon at the new
23 moon on day *xinmao*_{28/60} of the tenth month of the Zhou [civil calendar], i.e. the eighth
24 month of the Xia [civil calendar]. This is what makes this an 'anomaly' and indeed
25 'seriously wicked'. Why is that? When the sun is consumed, it is blocked by the moon,
26 which makes for 'Yin encroaching upon Yang, a sign of the servant encroaching upon
27 the lord'. The date is furthermore *xinmao*_{28/60}: *xin*₅₀₈ is metal, *mao*₆₀₄ is wood, and metal
28 always beats wood, so wood turning around to encroach upon metal here is also a sign
29 of the servant encroaching upon the lord. The encroachment of the servant upon the
30 lord is one of the greatest of treasons, and it is because there are two signs contained in
31 one eclipse that this is 'indeed seriously wicked'. That which makes it 'seriously
32 wicked' is that the sun is to the *dao* of the lord as the moon is to the *dao* of the servant.
33 The lord ought to limit the servant, like how the moon should be consumed, while the
34 servant ought not to encroach upon the lord, like how the sun should not be eclipsed.
35 Thus [Zheng Xuan contrasts the two and] says that 'this here moon' is apt to
36 experience being consumed and 'not bright', while now 'THIS HERE SUN *turned around*'
37 and was consumed and 'not bright'. [He] likens the sun being consumed by the moon
38 to the lord being encroached upon by the servant, [saying that] this matter 'is not
39 **regular**' and thus 'constitutes a significant **anomaly**'. Given this anomaly, 'calamities
40 will occur', and the world under heaven will suffer, which is why [he says] here [that]
41 'THE LOWER PEOPLE ARE INDEED in a seriously PITIABLE STATE' of harm.

42
43 鄭唯「厲王時」為異○

44 The only difference (*yi* 異) in Zheng [Xuan's Notes, compared to the Mao Tradition,] is
45 that he [places this] 'in the time of King Li (r. 857/853–842/828 BCE)'.

46
47 傳「之交，日月之交會」○

48 Tradition: '“Crossing of ” is the crossing convergence of the sun and moon'

49
50 『正義』曰：交者，日月行相逮及，交而會聚，故云交會也。日月交會，謂朔日也。此
51 言十月之交，即云「朔月辛卯」。朔月即是之交為事也。19.406a

52 [Kong Yingda et al.] *The Correct Meaning*:

53 'Crossing' (*jiao*) is when the sun and moon catch up to one another in their
54 movements: they 'cross' (*jiao*) and 'converge' (*huiju* 會聚), thus [the term] 'crossing
55 convergence' (*jiaohui*). The crossing convergence of the sun and moon is called 'new

1 moon day'. In talking about THE CROSSING OF THE TENTH MONTH, this [passage] then
2 says ON THE NEW MOON OF THE MONTH (sic.?), *XINMAO*_{28/60}, [because?] new moon is
3 precisely a matter of 'crossing'.

4 古（歷）（曆）緯及『周髀』皆言周天三百六十五度四分度之一，日月皆右行於天，
5 日日行一度，月日行十三度十九分度之七，是月行疾，日行遲。二十九日有餘，而
6 月行天一周，追及於日而與之會，是會之交也。每月皆交會，而月或在日道表，或
7 在日道裏，故不食。其食要於交會，又月與日同道，乃食也○

8 The ancient mathematical astronomy (*li* 曆) apocrypha and the *Gnomon of Zhou*
9 (*Zhoubi* 周髀) all say that the circuit of heaven is three-hundred and sixty-five *du* and
10 one of four parts *du*, that the sun and moon both travel rightwards (counter clockwise)
11 through heaven, that the sun travels one *du* per day, that the moon travels thirteen *du*
12 and seven of nineteen parts *du* per days, and thus that lunar motion is fast and solar
13 motion slow. In twenty-nine days and some remainder, [these texts tell us], the moon
14 travels one circuit through heaven, catch up to the sun and converge with it, which is
15 the 'crossing' of 'convergence'.⁶ But while they cross and converge every month, the
16 moon is sometimes outside the solar *dao*, and sometimes inside the solar *dao*, which is
17 why [the sun] is not consumed. What is essential for it to be consumed is to be at
18 crossing convergence and for the moon and sun to be furthermore on the same *dao* –
19 only then will it be consumed.⁷

20
21 箋「周之」至「甚惡」○

22 **Notes:** 'Of the Zhou' to 'seriously wicked'

23
24 『正義』曰：『詩』之言月，皆據夏時，而知「此周十月，夏八月」者，『推度災』曰：
25 「十月之交，氣之相交，周十月，夏之八月。」緯雖不可盡信，其言主以釋此，故據之
26 以為周十月焉。

27 [Kong Yingda et al.,] *The Correct Meaning*:

28 When the *Odes* gives the month, it is always in accordance with Xia [civil] time, and
29 we know that 'this is the tenth month of the Zhou and eighth month of the Xia' (Zheng
30 Xuan?) [because the *Odes* weft] *Calamities Calculated by Degree* says 'THE CROSSING IN
31 THE TENTH MONTH is the intecrossing of *qi*, and the tenth month of the Zhou is the
32 eighth month of the Xia'. Though the weft(s) cannot be entirely trusted, its words
33 principally serve to explain this (?), and thus may we cite it as proof to take this as the
34 tenth month of the Zhou.⁸

35
36 「日月交會而日食，陰侵陽，臣侵君之象。」以日食者，月食之也，故何休曰：「不言
37 月食之者，其形不可得而觀，故疑。言日有食之，月食日。」是陰侵陽也。下傳曰：
38 「月，臣道。日，君道。」是臣侵君之象。

1 **6 Definition:** a *du* 度 (lit. 'measure', 'span') is a unit of measure in astronomy corresponding to the
2 mean sun's daily motion, which makes the celestial circumference – one 'circuit of heaven' (*zhou tian*
3 周天) – approximately $365\frac{1}{4}$ *du*, at one *du* for each day it takes the mean sun to travel back to the same
4 position among the stars. The sources in question posit the moon with a (mean) [synodic period](#) of
5 $29\frac{499}{940}$ days, from new moon to new moon, and a mean 'rightward' (W-E) speed of $13\frac{7}{19}$ *du* per
6 day through the stars (vs the mean sun's definitional 1 *du* per day). **Note:** designated a 'mathematical
7 classic' (*suanjing* 算經) in 656 CE, the extant *Gnomon of Zhou* (*Zhoubi* 周髀) is a product of the same
8 culture as the Han apocrypha, its choice as a source here having more to do with its (false) pretention
9 of ancient classical authority than its veracity; in Kong Yingda's day, this information was at best a
10 gross simplification of how things 'actually work'. On the *Gnomon of Zhou*, see Cullen (1996). On the
11 *li* 曆 mathematical astronomy of the apocrypha, see Fu Daiwie (1988) and Takeda (1989).

12 **7** As to what this means, see Note 1. **Note:** this knowledge post-dates both the real and claimed
13 origins of the primary sources cited above as his authority.

14 **8** It is interesting to reflect upon what the subcommentary is doing here: it would seem that the
15 authors understand their task to be to supply classical textual evidence in support of all of Zheng
16 Xuan's claims, regardless their mundanity, and that they are acknowledging that they came up a little
17 short here (short on a specific type of proof of a well-accepted claim that could be easily supported by
18 other means, such as citing the classic itself).

1 [When Zheng Xuan says] ‘The sun was consumed upon the crossing convergence of
2 the sun and moon. [This is a case of] Yin encroaching upon Yang, a sign of the servant
3 encroaching upon the lord’, we understand the sun to have been consumed by the
4 moon. According to He Xiu (129–182 CE), therefore, ‘Where it does not say that the
5 moon consumed it, it is because its form was not observable and is thus suspect; where
6 it says ‘the sun was consumed’, however, it is the moon consuming the sun’ – this is
7 Yin encroaching upon Yang.⁹ The following [line from the Mao] Tradition says ‘The
8 moon [relates to] the *dao* of the servant, and the sun [to] the *dao* of the lord’ – this is [to
9 what Zheng Xuan is referring by] ‘a sign of the servant encroaching upon the lord’.¹⁰

10
11 「日辰之義」者，『月令』「其日甲乙」，是從甲至癸為日也。『左傳』曰：「辰在子
12 卯。」又曰：「辰在申。」是從子至亥為辰也。雖十日，甲剛乙柔，其中有五剛五柔，
13 要十日皆為幹，故日為君也。而十二辰亦子陽丑陰，其中有六陽六陰，以對十日，皆為
14 支，故辰為臣。言此者，解『詩』本言辛卯日食之意。日食，陰侵陽，而以辛卯日。卯
15 比臣，辛比君，是為卯侵辛也。辛日以辰侵日，而日為金，辰為木，金應勝木，反侵金，
16 是五行相，逆猶君臣顛倒，故言亦甚惡也。

17 [As to Zheng Xuan’s take on] ‘The meaning of the day and chronogram’, the *Monthly*
18 *Ordinances* says ‘Its days are *jia*_{s01} and *yi*_{s02},¹¹ taking [the heavenly stems] from *jia*_{s01} to
19 *gui*_{s10} as ‘days’. The *Zuo Tradition* has ‘The chronogram was at *zi*_{b01} [and] *mao*_{b04},¹² and
20 also ‘The chronogram was at *shen*_{b09},¹³ taking [the earthly branches] from *zi*_{b01} to *hai*_{b12}
21 as ‘chronograms’. Though the ten days go *jia*_{s01} : hard :: *yi*_{s02} : soft, with five hard and
22 five soft, what counts is that the ten days are all [heavenly] stems, and thus the ‘day’
23 acts as the lord; and while the twelve chronograms likewise go *zi*_{b01} : Yang :: *chou*_{b02} :
24 Yin, with six Yang and six Yin, they all match with the ten [heavenly stem] days as
25 [earthly] branches, and thus the ‘chronogram’ acts as the servant. [Zheng Xuan] talks
26 about this to explain the original intention behind the *Odes* in saying that the sun was
27 consumed on *xinmao*_{28/60}. When the sun is consumed, Yin encroaches upon Yang, and
28 [the fact that] this is on a *xinmao*_{28/60} day, with *mao*_{b04} analogous to the servant and
29 *xin*_{s08} analogous to the lord, makes for ‘the encroachment of *mao*_{b04} upon *xin*_{s08}’. On the
30 *xins08* day, the chronogram encroaches upon the day, but the day is metal and the
31 chronogram wood, and metal should conquer wood, [the latter of] which turns around
32 and encroaches upon metal – this is a case of the five agents running backwards, like
33 the inversion of lord and servant, and thus does [Zheng Xuan] say that it is also
34 ‘seriously wicked’.

35
36 案此「朔月辛卯」，自是所食之月。

37 Note: this ON THE NEW MOON OF THE MONTH (sic.), *XINMAO*_{28/60}, is itself the month of
38 the consumption (eclipse).
39

1 9 Citing He Xiu’s 何休 (129–182 CE) extant *Chunqiu Gongyang jiegou* 春秋公羊解詁 commentary at
2 Duke Yin year 3 (c**text**).

3 10 I note that the only purpose of this line appears to be the mapping of Zheng Xuan’s comments
4 to the lines of the Mao Tradition to which they refer, which points to Kong Yingda et al. working from
5 a text with a different layout.

6 11 *Liji* 禮記, ‘Yueling’ 月令, (c**text**).

7 12 ‘You act for the ears of the ruler and so you have as your responsibility the acuity of his
8 hearing. When the day-cycle is in *zi* or *mao*, which are known as taboo days, the ruler should refrain
9 from banqueting and musical performance’ 女為君耳，將司聽也，辰在子卯，謂之疾日，君徹宴樂
10 (Duke Zhao year 9, Durrant et al. (2016, 1449); c**text**).

11 13 ‘In the eleventh month, on the *yihai* day, the first day of the month, there was an eclipse of the
12 sun. The Handle of the Ladle pointed to the Shen asterism. This was an error on the part of the
13 supervisor of the calendar. Twice he had missed the intercalary months.’ 十一月乙亥朔，日有食之。辰
14 在申，司曆過也，再失閏矣 (Xiang 27, Durrant et al. (2016, 1209); c**text**). This interpretation derives
15 from Zheng Xuan and is followed in the Kong Yingda et al. *Correct Meaning* commentary to said
16 passage.

1 知取金木為義者，『推度災』曰：「及其食也，君弱臣強，故天垂象以見徵。辛者正秋
2 之王氣，卯者正春之臣位，日為君，辰為臣，八月之日交卯食辛矣。辛之為君，幼弱而
3 不明；卯之為臣，秉權而為政，故辛之言新，陰氣盛而陽微，生其君幼弱而任卯臣
4 也。」以此緯文，故知取卯侵辛為義。如緯之意，以辛王在秋八月用事，卯位在春，秋
5 當休廢。思臣以休廢之時，能侵當王之君，是陰盛陽微之象。緯意又取剛柔為義，以辛
6 是柔日，又辛之言新，言微陽新用事也。卯位正春，強臣之象。故云「君幼弱，臣秉
7 權。」以權臣陵弱君，故為醜也。此箋直言卯侵辛，不言君弱臣強者，陰陽之事，容有
8 多塗，故舉金木為正，餘畧之也。

9 We know to take metal and wood as their meaning because the [aforementioned]
10 *Calamities Calculated by Degree* says: 'When there is a consumption (eclipse), the lord
11 is weak and the servant strong, and it is for this reason that heaven deigns us with a
12 sign in manifest testimony [of the problem]. *Xin*_{s08} is the reigning *qi* of the beginning of
13 autumn and *mao*_{b04} the servant position of the beginning of spring, and [since] the day
14 acts as the lord and the chronogram as the servant, the *mao*_{b04} of the crossing on the
15 day of the eighth month (?) consumes *xin*_{s08}. In its capacity as lord, *xin*_{s08} is young and
16 weak and unilluminated, and in its capacity as servant, *mao*_{b04} takes the reins of power
17 to rule, and thus does *xin*_{s08} 辛 say *xin* 新 ('new') - the Yin *qi* is in abundance and
18 Yang is diminished, which generate (?) a lord that is young and weak and trusts *mao*_{b04}
19 as his servant.' It is from this weft text that [Zheng Xuan] knew to take *mao*_{b04}
20 encroaching upon *xin*_{s08} as the meaning [of the date]. As per what is intended by the
21 weft, we take [the fact that] the reign of *xin*_{s08} is in the eighth month, in autumn, while
22 *mao*_{b04} is positioned in spring and ought to be *en retraite* in autumn. That the plotting
23 servant,¹⁴ in his time of *retraite*, is able to encroach upon a lord that ought to be
24 reigning, this is a sign of abundant Yin and diminished Yang. The weft intends
25 furthermore to take [the stem and branch's] hardness and softness as the meaning,
26 with *xin*_{s08} as a soft day and *xini*_{s08} 辛 also saying *xin* 新 ('new'), which says that
27 diminished Yang is newly in charge. *Mao*_{b04} is positioned at the beginning of spring,
28 which is the sign of a strong servant. Thus does [the weft text] say 'the lord is young
29 and weak' and 'the servant takes the reins of power'. The bullying of a weak lord by a
30 powerful servant is what makes this UGLY. Here, [the reason that Zheng Xuan's] *Notes*
31 directly says that *mao*_{b04} encroaches upon *xin*_{s08} and not that the lord is weak and the
32 servant strong [is that] Yin-Yang stuff allows for a lot of [interpretative] routes, so he
33 raises the metal and wood [stuff] up front and the rest completes that.

35 昭二十一年「秋（正）（七）月壬午朔，日有食之」，以午食壬，似卯侵辛。傳言「不
36 為災」者，彼為夏之五月，午當用事，壬應休廢，又壬為剛日，非是弱君，故與此不同
37 也。若然，此八月即秋分之時也。『左傳』曰：「二至二分，日有食之，不為災。日月
38 之行，分，同道也；至，相過也。其他月即為災。」此亦分月，而云「孔醜」者，然日
39 者，太陽之精，至尊之物，不宜有所侵，侵之則為異。但聖賢因事設教，以為等級耳。

40 『左傳』曰：「唯正月朔，慝未作，日有食之，於是乎有用幣於社，伐鼓於朝。其餘則
41 否。」是以日食之中分為差降也。以正月為夏之四月，純陽用事，而日又為陽，於時最
42 盛，尤不宜為陰所侵，故為最重，而特用鼓幣也。其他月則非正陽，故為差輕也。

43 In the twenty-first year of [Duke] Zhao, [the *Spring and Autumn Annals* says] 'in
44 autumn, on new moon, [day] *renwu*_{19/60}, of the [seventh] month the sun was
45 consumed'¹⁵ - *wu*_{b07} consumes *ren*_{s09} like *mao*_{b04} encroaches upon *xin*_{s08} [here]. The
46 [reason why] the [*Zuo*] *Tradition* says that 'This was not a disaster' is that this is the
47 fifth month [in the Xia calendar], in the summer, when *wu*_{b07} ought to be in charge and
48 *ren*_{s09} should be *en retraite*; furthermore, *ren*_{s09} is a hard day, so this is not a weak lord,
49 and thus it is different to this [line in the *Odes*]. If so (?), this eighth month [in the

1 14 Alternatively, *si* 思 ('thinking', 'plotting') can be read *sai* and be understood to refer to the
2 servant's head and facial hair situation as in 'yusai yusai, he abandoned his armour and returned' 于
3 思于思, 弃甲复来, which Du Yu 杜預 (222-285 CE) glosses as 'heavily bearded' 多鬚之貌, citing Jia
4 Kui's 賈逵 (30-101 CE) alternative reading of 'white haired' 白頭貌 (*Chunqiu Zuozhuan zhushu*,
5 Xuan 2, 21.393b). **Note:** this is a test to see if anyone has read this horribly boring paragraph.

6 15 [Ctext](#); cf. the translation in Durrant et al. (2016: 1592). Eclipse: 10 June 521 BCE (no [03543](#)).

1 *Odes*] is the time of (i.e., the month containing) the autumn equinox. The *Zuo Tradition*
2 says: 'It is not a disaster when the sun is consumed on the two solstices and two
3 equinoxes. As concerns lunar and solar motion, on the equinoxes, they are on the same
4 *dao*, while on the solstices they pass/exceed another, and on the other months it is a
5 disaster.'¹⁶ This is also an equinoctial month, but [the base text] says [it is] VERY UGLY,
6 so even so, the sun is the essence of great Yang, a thing of supreme reverence, and so
7 inappropriate to be encroached upon, and it is [thus] the encroachment upon it that
8 makes the anomaly. Only sages and worthies establish instructions in accordance with
9 affairs, and that is a simple matter of hierarchy (?). The *Zuo Tradition* says: 'It is only
10 when the sun is consumed on the new moon of the lead month, before the adverse
11 forces have begun their rise, that beating drums and offering sacrificial goods is in
12 accordance with ritual propriety. At other times it is improper'¹⁷ – this is because the
13 consumption of the sun right on the equino[ctial month] is a step down [in importance]
14 (?). Because the lead month [of the Zhou] is the fourth months of the Xia, pure Yang is
15 in charge, and [since] the day is furthermore Yang, it is the most abundant of the
16 season/s, so it is particularly inappropriate for it to be encroached upon by Yin. Thus is
17 it the most grave and most one specially use drums and offerings. The other months
18 are not main Yang, and thus are differentially lighter.

19 至於二至二分，固有分、至之名，宜若同道相過，有可食之理，故為尤輕也。計古今之
20 19.406b 天，度數一也。日月之食，本無常時，故（麻）（曆）象為日月交會之術，大率
21 以百七十三日有奇為限。而日月行天，各自有道，雖至、朔相逢，而道有表裏。若月先
22 在裏，依限而食者多。若月先在表，雖依限而食者少。杜預見其參差，乃云：「日月動
23 物，雖行度有大量，不能不少有盈縮，故有雖交會而不食者，或有頻交而食者。唯正陽
24 之月，君子忌之。」是日月食無常時，非分至之月必相食也。

25 Coming to the two solstices and two equinoxes, there are definitely the names 'solstice'
26 and 'equinox', and it is apt take these like being on the same *dao* and mutually
27 surpassing, there being a rational for why consumption can happen, and thus is this
28 particularly light (?). If you calculate the ancient and modern sky, their measures and
29 numbers are the same. Solar and lunar [eclipses] do not occur at regular times, and
30 thus to 'calculate the signs'¹⁸ did they (?) make the lunisolar crossing convergence
31 procedure, which takes roughly a hundred and seventy-three days and a fraction as
32 the limit.¹⁹ Of course the sun and moon each travel through heaven on their own *dao*,

1 16 Still Zhao 21, [c;text](#); cf. the translation in Durrant et al. (2016: 1597). Cf. 「四序之中，分同道，至
2 相過，交而有蝕，則天道之常。如劉歆、賈逵，皆近古大儒，豈不知軌道所交，朔望同術哉？以日蝕非
3 常，故闕而不論。」（Yixing, 'Rishi yi' 日蝕議, cit. *Xin Tangshu*, 27b.626）

4 17 Zhao 17, [c;text](#); tr. modified from Durrant et al. (2016: 1543).

5 18 The term *lixiang* 曆象 'calculate the signs' is an archaism originating in the *Shangshu* 尚書,
6 'Yaodian' 堯典: 'He commanded the Xis and Hes, in reverent accordance with (their observation of)
7 the wide heavens, to calculate and delineate (the movements and appearances of) the sun, the moon,
8 the stars, and the zodiacal spaces, and so to deliver respectfully the seasons to be observed by the
9 people' 乃命羲和，欽若昊天，歷象日月星辰，敬授人時 ([c;text](#); tr. Legge).

10 19 Here again, the technical vocabulary appears muddled. **Definition:** *Shu* 術 'procedure' refers
11 in *li* 曆 and *suan* 算 mathematics to an algorithm. As applied to eclipses, the term *xian* 限 'limit'
12 first appears in the work of Liu Hong (above), then in the first mature eclipse model in the *Jingchu li*
13 景初曆 of 237 CE in the compound *jiaoxian* 交限 'crossing limit', as the distance from 'crossing' at
14 which the moon is within about 1° of the ecliptic ($\approx 15^\circ$ out from 'crossing') and, thus, geometrically
15 likely transit the earth's shadow at full moon, or eclipse the sun at new moon. Historically, this
16 'crossing convergence' model replaces the Han 'convergence' model, as described in Note 1. Here, the
17 vocabulary of 'limits' and 'the lunisolar crossing convergence procedure' 日月交會之術 invoke the
18 later 'crossing convergence' model (cf. the *Jingchu li*'s 'procedure for calculating lunar eclipse from
19 syzygy crossing convergence' 推合朔交會月蝕術). However, in defining 'the limit' as 'a hundred and
20 seventy-three days and a fraction' 百七十三日有奇, the text invokes the old 'convergence' cycle: a
21 resonance period of 23 'convergences': 135 months, which can be reduced to one 'convergence' every
22 $135 \div 23 = 5 \frac{20}{23}$ months, or, taking the *Gnomon of Zhou's* (quarter-remainder) value for the synodic
23 month of $29 \frac{499}{940}$ days, one 'convergence' every $5 \frac{20}{23} \times 29 \frac{499}{940} = 173 \frac{1441}{4324}$ days. **This apparent**

1 [so] even if the solstice and new moon coincide, the *dao* [of the moon] has [stretches]
2 inside and outside [that of the sun], and if the moon starts on the inside, there are
3 numerous consumptions by the limit, while if the moon starts on the outside, there are
4 few consumptions by the limit.²⁰ Du Yu (222-285 CE) saw this inequality and thus said:
5 'The sun and moon are moving objects, and though there are a great number of *du*-
6 travelled [models], it is impossible for there not to be a bit of excess and deficit, and
7 thus it is that there is sometimes no consumption despite crossing convergence and
8 there are sometimes back-to-back consumptions at successive crossings. The gentleman
9 taboos it only on a month of lead Yang.'²¹ This is [why] the consumption of the sun and
10 moon do not occur at regular times and, [thus, why] it is not inevitable that they
11 consume one another in the equinoctial and solstitial months.

12
13 正以二分晝夜等，有類同道；二至長短極，似若相過，因名示義，非實然也。以日體一
14 也，食之輕重，假理示義，其實日食皆為異矣。故鄭『駁異義』引此詩云：「彼月而食，
15 則維其常，此日而食，于何不臧？」則「非常為異。」明謂此為非常，明『春秋』為示
16 義也。若人君改過修善，雖正陽之月，禍亦可消。若長惡遂非，雖分、至之月，亦將有
17 咎，安得二至、二分獨不為災也？昭七年「四月甲辰朔，日有食之。」是春分之月，傳
18 稱「魯、衛惡之。衛大，魯小，（云）（去）衛地如魯地，於是有災，魯實受之。大咎
19 其衛君乎！魯將上卿。」其年八月，衛侯惡卒。十一月，季孫宿卒。此分月日食有災之
20 驗也。且日之有食，象臣之侵君。若云日有可食之時，則君有可殺之節，理豈然乎？以
21 此知雖在分、至，非無災咎，故此食在夏之八月，云「為異尤大」也。

22 It is precisely because day and night are equal at the two equinoxes that they look to be
23 on the same *dao*, and because they are long and short in the extreme at the two
24 solstices that they appear to exceed one another – this is a literal interpretation of the
25 words (?), and it is not how things really are. [Instead], because the body/form of the
26 sun is one, the lightness and heaviness of its consummation – this is an interpretation
27 from principal (?), and in reality the consummation of the sun is always an anomaly.
28 Thus does Zheng [Xuan] cite this ode in *Rebuttal of Anomalies* (*Boyi yi* 駁異義), FOR
29 THE MOON TO BE CONSUMED, IS BUT AN ORDINARY MATTER. NOW THAT THE SUN HAS BEEN
30 CONSUMED, – HOW NOT CAPITAL IT IS!, [commenting that] 'irregularity makes
31 anomaly'. [Zheng Xuan] is saying that this is irregular, showing that the *Spring and*
32 *Autumn Annals* holds the key (?). If the lord of men corrects his excesses and cultivates
33 goodness, then even disasters on a lead Yang month can be dissipated, but if he
34 persists in evil ways, then there will be fault (*jiu* 咎) even on the solstitial and
35 equinoctial months – so how could the two solstices and two equinoxes alone not make
36 a catastrophe? Zhao year seven: 'On new moon, [day] *jiachen*_{41/60}, of the fourth month
37 the sun was consumed'.²² This was the month of the autumn equinox, and the [*Zuo*]
38 *Tradition* states that 'Lu and Wei will suffer for it. In Wei it will be great suffering; in
39 Lu, less... It left the field of Wei and entered the field of Lu. In the first of these, there
40 will be a disaster and Lu will suffer the effects. The greater punishment will fall upon

1 confusion may relate to how the two earliest geometrical models, in the *Jingchu li* and *Yuanjia li* 元嘉
2 曆 (445 CE) divide the distance between lunar nodes into units equivalent to those of the
3 'convergence' cycle and set their 'limits' within that, rather than the later practice of simply using a
4 nodical month. See Note 1.

5 20 [I need to think about this.]

6 21 **Definition:** *Xingdu* 行度 'du-travelled' refers in *li* 曆 mathematical astronomy to a model of
7 mean planetary motion. There were 'a great number' (*daliang* 大量) of these for the sun and moon by
8 Du Yu's day because experts posited a variety of different values for the solar year (e.g., 365 ¼ vs
9 365¹⁴⁵/₅₈₉ days) and synodic month (e.g., 29⁴⁹⁹/₉₄₀ vs 29⁷⁷³/₁₄₅₇ days). *Yingsuo* 盈縮 'excess and
10 deficit' refer to the discrepancy, ahead (*ying*) or behind (*suo*), between a planet's mean and true
11 position as a result of the variability of its true speed over its 'slow-fast sequence' (*chiji li* 遲疾曆) or
12 'anomalistic period'. This concept was introduced in Liu Hong's late second-century CE lunar model,
13 which lead to a geometrical eclipse model ('crossing convergence', see previous notes) and, one
14 imagines, to the reflections on the inadequacies of the Han 'convergence' model that Du Yu describes
15 here. Du Yu's commentary is from *Zuo Tradition*, Duke Yin year 3.

16 22 Eclipse: 18 March 535 BCE (no 03507).

1 the ruler of Wei. In Lu it will be a high minister'.²³ In the eighth month of that year, the
2 Marquis of Wei died wickedly, and in the eleventh month, Jisun died in his sleep – this
3 is verification of the consumption of the sun on an equinoctial month being a disaster.
4 Furthermore, the consumption of the sun symbolises the encroachment of the servant
5 on the lord. Were we to say that there was a time for the sun to be consumed, then
6 there is [likewise] a rhythm for the lord to be killed – what reasoning is this? From this
7 we know that there is still disaster and blame on the equinoxes and solstices, and it is
8 thus that for this consumption on the eighth month of the Xia that [Zheng Xuan] says
9 'it constitutes a significant anomaly'.

10
11 然日月之食，於算可推而知，則是雖數自當然，而云為異者，人君者，位貴居尊，恐其
12 志移心易，聖人假之靈神，作為鑒戒耳。夫以昭昭大明，照臨下土，忽爾殲亡，俾晝作
13 夜，其為怪異，莫斯之甚，故有伐鼓用幣之儀，貶膳去樂之數，皆所以重天變，警人君
14 者也。而天道深遠，有時而驗，或亦人之禍畔，偶與相逢，故聖人得因其變常，假為勸
15 戒，使智達之士，識先聖之深情，中下之主，信妖祥以自懼。但神道是以助教，而不
16 可以為教。神之則惑眾，去之則害，宜故其言若有若無，其事若信若不信，期於大
17 通而已矣。

18 With that being so, the consumption of the sun and moon can be calculated and known
19 using computation/counting rods (*suan* 算), so [the reason why Zheng Xuan] says this
20 'constitutes an anomaly', despite the fact that the numbers speak for themselves, is that
21 the lord of man occupies a position of nobility and reverence, and [so] fearing that his
22 ambitions shift and heart change, the Sages falsely attributed (*jia* 假 ?) [eclipses] to
23 numinous spirits, as a warning from the past, and that is it. Now, brightly-lighty and
24 greatly illuminated, shining down on the earth below, [the sun] is suddenly
25 extinguished, making day into night... the strange anomalousness of this is more
26 profound than anything, and thus it is that there is the ceremony of beating the drums
27 and offering silk and numbers by which to reduce feasts and remove music – all of this
28 is to emphasise heavenly transformations to warn the lord of man. But the *dao* of
29 heaven is deep and distant; sometimes it is verified, and sometimes also the disasters
30 and betrayals of man cross with it by chance (?), and thus did the Sages understand to
31 follow its transformations and constancies and to falsely present them as (?)
32 encouragement and admonition, making gentleman of wisdom and accomplishment
33 recognise the deep emotions (?) of former sages, and [making] middling and lesser
34 rulers fear for their belief in omens. The *dao* of the spirits is only to assist instruction,
35 but cannot be made the subject of instruction itself. If you spiritualise something, then
36 it confuses the masses, and if you remove it, then it causes harm, and it is best therefore
37 that [the ruler's?] words [on the matter] are ambiguous about their existence, and that
38 his actions/sacrifices are ambiguous about his belief in them, keeping his eye on the
39 Great Communication (?).

40
41 經典之文，不明言咎惡，而『公』家董仲舒、何休及劉歆等以為發無不應，是知言徵祥
42 之義，未悟勸沮之方。杜預論之當矣。日月之食，大率可推步而知，亦有不依交限而食
43 者。襄二十四年「秋七月甲子朔，日有食之，既。八月癸巳朔，月有食之。」於法筭前
44 月之日食既，則後月不得食，而『春秋』有之。又此經云：「日月告凶，不用其行。」
45 箋云：「行，道度也。不用之者，謂相干犯。」則此依交限以否，未可知也。古之
46 (麻) (曆) 書亡矣。今世有『周(歷) (曆)』、『魯(麻) (曆)』者，蓋漢初為
47 之，其交無遲疾盈縮考日食之法，而其上年月已往參差，是以漢世通儒未有以(歷)
48 (曆) 考此辛卯日食者。而王基獨云：「以(麻) (曆) 校之，自共和以來，當幽王，
49 世無周十月夏八月辛卯交會，欲以此會為共和之前。」其在共和之前則信矣，而校之則
50 無術。說者或據世以定義矣○

51 The text of the Classic(s) does not specify the fault of evil (?), but the *Gong[yang*
52 *Tradition]* expert(s) Dong Zhongshu 董仲舒 (179-104 BCE), He Xiu and Liu Xin 劉歆
53 (c.50 BCE-23 CE) hold that every action (?) has a response, and [from] this that they
54 knew to talk about the meaning of omens, though they were not woke to the methods

1 23 Tr. Durrant et al. (2016: 1419).

1 of encouragement and inhibition. Du Yu's discussion of this is just: the consummation
 2 of the sun and moon can be roughly known through calculation, but [the sun] is also
 3 sometimes consumed irrespective of the crossing limit.²⁴ [Duke] Xiang year twenty-
 4 four: 'On new moon, [day] *jiazi*_{01/60}, of the seventh month, in autumn, the sun was
 5 consumed, and it was total... On new moon, [day] *guisi*_{30/60}, of the eighth month, the
 6 sun was consumed'.²⁵ Using method to compute, if there is a full consumption of the
 7 sun in the previous month, then there can be to consumption one month later, but the
 8 *Spring and Autumn Annals* has that.²⁶ Furthermore, here [in 'Shiyue zhi jiao'] the
 9 Classic says THE SUN AND MOON WARN OF EVIL, NOT KEEPING TO THEIR PROPER
 10 MOVEMENTS, [to which Zheng Xuan's] *Notes* say, 'MOVEMENTS [means their] *dao* and
 11 *du*. NOT KEEPING TO refers to encroaching upon one another' – as such, it cannot be
 12 known whether [the eclipse] here was according to the crossing limit or not. The
 13 writings on mathematical astronomy (*li* 曆) from antiquity are lost. Our generation has
 14 the *Zhou li* 周曆, the *Lu li* 魯曆, [etc.], but these were all made in the early Han; their
 15 [treatment of] crossing does not have a method of studying the consumption of the sun
 16 via slow-fast excess-deficit, and the years and months of the past that they retrodict do
 17 not align, and that is why the conversant Classicists of Han times did not use
 18 mathematical astronomy to investigate this consumption of the sun on *xinmao*_{28/60}.²⁷
 19 Wang Ji 王基 (190–261 CE) alone [went to the bother, reporting]: 'Checking this against
 20 mathematical astronomy (*li*), [one finds that] in the age from Gong He 共和 (r. 841–
 21 828 BCE) down to King You (r. 781–771 BCE), there are no tenth months of Zhou, eighth
 22 months of Xia, where crossing coincidence occurs on a *xinmao*_{28/60}, [so] I would like to
 23 place this convergence prior to Gong He.'²⁸ His placing this prior to Gong He is
 24 believable, but his checking had no method / there is no method to check. Exegetes
 25 sometimes fix the meaning [of this ode] based on the age.

26
 27 箋「微謂」至「其常」○

28 **Notes:** 'DIMINISHED is to say' to 'its regular state'

29
 30 『正義』曰：下章云「彼月而食，此日而食」，與此微同。則不明謂日月被食而不明也。
 31 謂 19.407a 之微者，取君微弱之義。下云「彼月而食，則維其常」，月食為常，則日食
 32 為非常，故云「此日反微，非其常」也。『周禮·春官·大司樂』云：「日月食，令去
 33 樂。」『秋官·庭氏』有救日月之弓矢。『昏義』云：「陰事不修，謫見於天，月為之
 34 食。」『漢書·天文志』曰：「凡日食修德，月食脩刑。」如此，則月食相類而云常者，
 35 義取君可無理殺臣，臣不有以犯君，故以日食為重耳，不謂月食非異也○

36 [Kong Yingda et al.] *The Correct Meaning*:

37 The following *zhang* 章 says FOR THE MOON TO BE CONSUMED... NOW THAT THE SUN
 38 HAS BEEN CONSUMED, which is essentially the same as this, except that it does not
 39 explicitly say that the sun and moon were not bright because they were consumed.
 40 [According to Zheng Xuan, the Classic] calls this DIMINISHED in the sense that the lord

1 24 It is interesting that Du Yu (3rd cent.) is cited as the last authority on how eclipses work four
 2 centuries later.

3 25 Cf. Durrant et al. (2016: 1123–1125).

4 26 This is true. The reported eclipse on month 7 day *jiazi*_{01/60} corresponds to a historical total eclipse
 5 on 19 June 549 bce (no 03473), while that reported on month 8 day *guisi*_{30/60}.

6 27 On the 'six ancient *li*' 古六曆 as studied in Han and later times, see Zhang Peiyu et al. (2008,
 7 251–390). Note the odd mix of scepticism and credulity in the assumptions underlying this claim: on
 8 the one hand, we can place these ancient texts in question; on the other hand, we do so because we
 9 presume that the ancient Sages possessed the 'true knowledge', expressed in the same terms and
 10 algorithms, as was current in the author's day. On the tension between the idea of the fall of man and
 11 historical progress in astronomy, see Henderson (2006) and Morgan (2017, chap. 5) as arguing against
 12 Sivin (1986).

13 28 The *Sui shu* 'Jingji zhi' records a 'Refutations of the Mao Odes, one *juan*, written by [Cao-]Wei
 14 Minister of Works Wang Ji, incomplete' 毛詩駁一卷魏司空王基撰，殘缺 (*Sui shu*, 32.916), which is
 15 presumably the origin of this quote. For a synthesis of different studies on the date of the eclipse in
 16 'Shiyue zhi jiao', see Saitō and Ozawa (1992, 48–51).

1 is diminished and weak. Below, [the Classic] says FOR THE MOON TO BE CONSUMED IS
2 BUT AN ORDINARY MATTER, [meaning that] the consumption of the moon is regular,
3 while the consumption of the sun is irregular, and thus does [Zheng Xuan] say 'now
4 THIS HERE SUN turned around and DIMINISHED, which is not its regular state'. Under the
5 Musician-in-Chief entry in the Spring Offices of the *Rites of Zhou* it says: 'When the
6 sun and moon are consumed, one orders the removal of music.'²⁹ Under the Protector
7 of the Palace entry in the Autumn Offices, there are the bow and arrow to save the sun
8 and moon.³⁰ The *Meaning of Marriage* [chapter of the *Record of Rites*] says: 'When
9 matters of Yin are not cultivated, the disgrace is manifest in heaven, and the moon is
10 consumed because of it.'³¹ The *Monograph on Heavenly Patterns* of the *History of Han*
11 says: 'In all cases, if the sun is consumed, cultivate virtue, and if the moon is consumed,
12 cultivate punishments'.³² If this is so, then lunar consumptions are [all] alike and we
13 say they are 'regular', meaning that the lord can kill the servant without reason, but
14 that the servant has no[reason] to aggress the lord, and thus do we take the
15 consumption of the sun to be grave and say that the consumption of the moon is not an
16 anomaly.

17
18
19

20 BASE TEXT:

21
22 日月告凶 THE SUN AND MOON WARN OF EVIL,
23 不用其行 NOT KEEPING TO THEIR PROPER MOVEMENTS.
24 四國無政 THE FOUR KINGDOMS HAVE NO [PROPER] GOVERNMENT,
25 不用其良 BECAUSE THE GOOD ARE NOT EMPLOYED.

26
27 *Notes:*

28
29 箋云：告凶，告天下以凶亡之徵也。行，道度也。不用之者，謂相干犯也。四方之國無
30 政治者，由天子不用善人也○治直吏反○

31 [Zheng Xuan's] *Notes:*

32 WARN OF EVIL [means] to warn the world under heaven by means of an evil omen.
33 MOVEMENTS [means their] *dao* and *du*. NOT KEEPING TO refers to encroaching upon one
34 another. The KINGDOMS of the FOUR quarters HAVE NO one taking care of GOVERNMENT
35 because the son of heaven DOES NOT EMPLOY good people.

36
37 BASE TEXT:

38
39 彼月而食 FOR THE MOON TO BE CONSUMED
40 則維其常 IS BUT AN ORDINARY MATTER.
41 此日而食 NOW THAT THE SUN HAS BEEN CONSUMED, —
42 于何不臧 HOW NOT CAPITAL IT IS!

43
44 *Notes:*

45
46 箋云：臧，善也○

47 [Zheng Xuan's] *Notes:*

48 CAPITAL [means] 'good'.
49

1 29 「凡日月食，四鎮五岳崩，大傀異災，諸侯薨，令去樂。」 (ctext).

2 30 「庭氏：掌射國中之天鳥。若不見其鳥獸，則以救日之弓與救月之矢夜射之。若神也，則以大陰
3 之弓與枉矢射之。」 (ctext).

4 31 「婦順不修，陰事不得，適見於天，月為之食」 (ctext).

5 32 「星傳曰：『日者德也，月者刑也，故曰日食修德，月食修刑。』」 (ctext).

1 Subcommentary:

2

3 「日月」至「不臧」○

4 THE SUN AND MOON to NOT CAPITAL

5

6 毛以為，幽王時所以日有食之者，日月告天下以王有凶亡之徵，故不用其常道度，所以
7 橫相干犯也。又所以有凶亡之徵者，以今四方之國無政者，由天子不用其善人故也。由
8 王不用善，凶亡將至，故告之也。又言日食為大惡之事，彼月而食，雖象非理殺臣，猶
9 則是其常道，今此日而反食，於何不善乎？猶言一何不善，為不善之大，是凶亡之徵也。
10 昭七年『左傳』：「晉侯問於士文伯曰：『「詩」所謂此日而食，于何不臧，何也？』
11 對曰：『不善政之謂也。國無政，不用善，則自取謫於日月之災，故政不可不慎』」是
12 也○

13 [The] Mao [Tradition] holds that the reason why the sun was consumed in the time of
14 King You is that the sun and moon 'warn the world under heaven by means of an evil
15 omen,'³³ thus they DO NOT KEEP TO THEIR regular 'dao and du' and so flagrantly
16 'encroach upon one another'. Furthermore, the reason why there is 'an evil omen' is
17 that since 'The KINGDOMS of the FOUR quarters HAVE NO [PROPER] GOVERNMENT, the son
18 of heaven DOES NOT EMPLOY good people.' And because the king does not employ the
19 good, evil is about to happen, and thus do they ANNOUNCE that. It also talks about how
20 the consumption of the sun is a big bad thing, and that FOR THE MOON TO BE
21 CONSUMED, though it symbolises the unprincipled (?) killing of the servant, it is still its
22 regular dao, and but now this here sun turns around and is consumed, in what is that
23 not good? - which is to say that it is good in no circumstance, making it greatly not
24 good, which is an omen of evil and death. In [Duke] Zhao year seven, the *Zuo*
25 *Tradition* says: 'The Marquis of Jin asked Shi Wenbo... "What does the ode refer to
26 when it says, NOW THAT THE SUN HAS BEEN CONSUMED, - HOW NOT CAPITAL IT IS?" He
27 answered, "It refers to poor administration. If the domain lacks correct administration
28 and fails to use excellent men, it brings upon itself punishment in the form of
29 calamities of the sun and moon. Therefore, one cannot but be careful about
30 administration"'³⁴ - that is right.

31

32 鄭唯「厲王時」為異。

33 The only difference in Zheng [Xuan's *Notes*, compared to the Mao Tradition,] is that he
34 [places this] 'in the time of King Li'.

1 33 Above, this text is attributed to Zheng Xuan's *Notes*, so we might be dealing with commentary
2 creep.

3 34 Tr. modified from Durrant et al. (2016: 1419).

1 'Preface to the *Correct Meaning of the Mao Odes* 《毛詩正義序》

2 夫詩者，論功頌德之歌，止僻防邪之訓。雖無為而自發，乃有益於生靈。六情靜於中，
3 百物盪於外。情緣物動，物感情遷。若政遇醇和，則歡娛被於朝野；時當慘黷，亦怨
4 刺形於詠歌。作之者所以暢懷舒憤，聞之者足以塞違從正。發諸情性，諧於律呂。故
5 曰感天地，動鬼神，莫近於詩。此乃詩之為用，其利大矣。若夫哀樂之起，冥於自然；
6 喜怒之端，非由人事。故燕雀表啁噍之感，鸞鳳有歌舞之容。然則詩理之先，同夫開
7 闢，詩迹所用，隨運而移。上皇道質，故諷諭之情寡；中古政繁，亦謳譟之理切。唐
8 虞乃見其初，犧軒莫測其始。於後時經五代，篇有三千，成康沒而頌聲寢，陳靈興而
9 變風息。先君宣父，釐正遺文，緝其精華，褫其煩重，上從周始，下暨魯僖，四百年
10 間，六詩備矣。

11 ...[Description of the *Odes*]...

12
13 卜商闡其業，雅頌與金石同和；秦正燎其書，簡牘與煙塵共盡。漢氏之初，詩分為四。
14 申公騰芳於鄢郢，毛氏<>光價於河間，貫長卿<>傳之於前，鄭康成<DM00328>箋之
15 於後。晉宋二蕭之世，其道大行；齊魏兩河之間，茲風不墜。

16 **Bu Shang 卜商 (5th cent. BCE)** expounded upon this patrimony, and his elegentia and
17 hymns were in harmonious accord with the bronze and stone [inscriptions] (?), [then]
18 Qin Zheng burnt his writings, and the slips and slats were reduced into smoke and
19 ashes. At the beginning of the Han Clan, [the study of] the *Odes* was divided in four:
20 **Seignior Shen 申公** made his renown in Yanying, **Mr Mao 毛氏** proved his worth in
21 Hejian, **Guan Changqing 貫長卿** transmitted it in the Former [Han], and **Zheng**
22 **Kangcheng 鄭康成 (Zheng Xuan)** annotated it in the Latter [Han]. In the time of the
23 Jin, [Liu-]Song and two Xiaos' (S. Qi and S. Liang), its *dao* greatly circulated; and
24 between the two rivers of the [Northern] Qi and Wei, this 'wind' never dropped off.

25
26 其近代為義疏者，**3b**有全緩、何胤、舒瑗、劉軌思、劉醜、劉焯、劉炫等，然焯、炫
27 並聰穎特達，文而又儒，擢秀幹於一時，騁絕轡於千里，固諸儒之所揖讓，日下之無
28 雙，於其所作疏內，特為殊絕。

29 Recent subcommentators include **Quan Yuan 全緩**, **He Yin 何胤 (446–531)**, **Shu Yuan 舒**
30 **瑗**, **Liu Guisi 劉軌思**, **Liu Chou 劉醜**, **Liu Zhuo 劉焯 (543–610)** and **Liu Xuan 劉炫**
31 **(c.546–c.613)**. [Of these], however, [Liu] **Zhuo** and [Liu] **Xuan** were brilliant and especially
32 accomplished, they were cultured (*wen*) and furthermore scholarly (*ru*), planting their flag in
33 one [entire] period and galloping unbridled for a thousand *li*; abidingly are/were they saluted
34 by other scholars, unmatched under the sun, and in the subcommentaries that they wrote, they
35 especially stand out from all the rest.

36
37 今奉勅刪定，故據以為本。然焯、炫等負恃才氣，輕鄙先達，同其所異，異其所同，
38 或應略而反詳，或宜詳而更略。準其繩墨，差忒未免，勘其會同，時有顛躓。今則削
39 其所煩，增其所簡，唯意存於曲直，非有心於愛增，謹與朝散大夫行太學博士臣**王德**
40 **韶**、徵事郎守四門博士臣**齊威**等對共討論，辨詳得失。

41 We have been commissioned here to redact [a subcommentary to the *Odes*], and thus
42 do we go by [theirs] as our base [edition]. However, **Zhuo** and **Xuan** depend upon
43 their brilliance of mind, neglecting and denigrating their accomplished predecessors,
44 unifying their differences, differentiating their uniformities, sometimes adversely
45 detailed where they should be concise, and sometimes overly concise where they
46 ought to be detailed – [when we] level the carpenter's ink-line, [we find that certain]
47 mistakes were unavoidable, and [when we] collate their convergences, [we find that]
48 they sometimes lose their footing. Here, we have therefore trimmed what is

1 [over]elaborate and added what is [over]simplified, not possessed by our hearts' of
2 love of adding, but out of a singular concern for what is crooked and straight. And
3 we have carefully debated [the manuscript] in dialogue with the Grand Master for
4 Closing Court Acting Grand Academician, Your servant **Wang Deshao 王德韶**,
5 Gentleman for Summoning (?), Probationary Gatekeeper Academician, Your servant
6 **Qi Wei 齊威**, and company, to discern and detail its successes and failures.

7
8 至十六年，又奉勅與前脩疏人及給事郎守太學助教雲騎尉臣**趙乾叶**、登仕郎守四門助
9 教雲騎尉臣**賈普曜**等對勅使**趙弘智**覆更詳正，凡為四十卷。庶以對揚聖範，垂訓幼蒙。
10 故序其所見，載之於卷首云爾。

11 In the sixteenth year [of Upright Contemplation (Zhenguan 貞觀)] (643 CE), we
12 received another commission, with men experienced in editing subcommentaries as
13 well as Gentleman of Service, Probationary Academy Instructor, Commandant of the
14 Fleet-as-Clouds Calvary, Your servant, **Zhao Qianxie 趙乾叶**, and Court Gentleman
15 for Promoted Service, Probationary Gatekeeper Instructor, Commandant of the Fleet-
16 as-Clouds Calvary, Your servant, **Jia Puyao 賈普曜**, and company, to answer to do
17 another round of corrections ordered by imperial commission from **Zhao Zhongzhi**
18 **趙弘智 (572–653 CE)**, [the result of which was the current work] in a total of forty
19 rolls. We hope that it will stand in exaltation of Your sagely example and help
20 educate our future youth. Thus have we written a preface on what we see (?) and
21 placed it [here], at the head of the roll.

1 Bibliography

2 Primary sources

- 3 *Chunqiu Zuo zhuan zhushu* 春秋左傳注疏, pre-Qin (< 221 BCE), commentary by Du Yu 杜預
4 (222–85 CE), subcommentary by Kong Yingda 孔穎達, 653; edition *Shisanjing zhushu*
5 重刊宋本十三經注疏, 1815; reprint Taipei: Yiwen yinshuguan, 1965.
- 6 *Hanshu* 漢書 (*Book of Han*), Ban Gu 班固 et al., 111 CE, commentary by Yan Shigu 顏師古
7 (581–645 CE); punctuated critical edition of Beijing: Zhonghua shuju, 1962 (8 vols.).
- 8 *Hou Hanshu* 後漢書, Fan Ye 范曄 (398–445 CE) et al., commentary by Liu Zhao 劉昭 (sixth
9 century CE) and Li Xian 李賢 (654–684 CE); punctuated critical edition of Beijing:
10 Zhonghua shuju, 1965 (12 vols.).
- 11 *Jinshu* 晉書 (*Book of Jin*), Fang Xuanling 房玄齡 et al., 648 CE; punctuated critical edition,
12 Beijing: Zhonghua shuju, 1974 (10 vols.).
- 13 *Kaiyuan zhanjing* 開元占經. Gautama Siddhārtha 瞿曇悉達, 729. Reprint from Wenyuange
14 Siku quanshu 文淵閣四庫全書, 1782; edition Taipei: Taiwan shangwu yinshuguan,
15 1983–1986.
- 16 *Maoshi zhushu* 毛詩注疏, pre-Qin (< 221 BCE), tradition by Mao (W. Han), commentary by
17 Zheng Xuan 鄭玄, subcommentary by Kong Yingda 孔穎達 (574–648 CE) et al., 653;
18 edition *Shisanjing zhushu* 重刊宋本十三經注疏, 1815; reprint Taipei: Yiwen
19 yinshuguan, 1965.
- 20 *Sui shu* 隋書. Wei Zheng 魏徵 (580–643 CE), Linghu Defen 令狐德棻 (582–666 CE), et al., 656
21 CE; punctuated critical edition Beijing: Zhonghua shuju, 1973 (3 vols.).
- 22 *Xin Tang shu* 新唐書, Ouyang Xiu 歐陽修 (1007–1072) and Song Qi 宋祁 (998–1061), 1060;
23 edition Beijing: Zhonghua shuju, 1975 (20 vols.).

24 Secondary sources

- 25 Chen Kanli 陳侃理. 2012. 'Tianxing you chang yu xiujiu zhi bian: Zhongguo gudai guanyu
26 rishi zaiyi de xueshu, liyi yu zhidu' 天行有常與休咎之變——中國古代關於日食災異的
27 學術、禮儀與制度. *Zhongyang yanjiuyuan lishi yuyan yanjiusuo jikan* 中央研究院歷
28 史語言研究所集刊 83 (3): 389–443.
- 29 Cullen, Christopher. 1996. *Astronomy and Mathematics in Ancient China: The Zhou Bi Suan*
30 *Jing*. Cambridge: Cambridge University Press.
- 31 — — —. 2017. *Heavenly Numbers: Astronomy and Authority in Early Imperial China*.
32 Oxford: Oxford University Press.
- 33 Durrant, Stephen, Wai-ye Li, and David Schaberg. 2016. *Zuo Tradition: Commentary on the*
34 *Spring and Autumn Annals*. Seattle: University of Washington Press.
- 35 Fu Daiwie 傅大為. 1988. 'Lun Zhoubi yanjiu chuantong de lishi fazhan yu zhuanzhe' 論『周
36 髀』研究傳統的歷史發展與轉折. *Qinghua xuebao* 清華學報 18 (1): 1–41.
- 37 Harper, Donald, and Marc Kalinowski, eds. 2017. *Books of Fate and Popular Culture in Early*
38 *China: The Daybook Manuscripts of the Warring States, Qin, and Han*. Leiden: Brill.
- 39 Henderson, John B. 2006. 'Premodern Chinese Notions of Astronomical History and
40 Calendrical Time'. In *Notions of Time in Chinese Historical Thinking*, edited by
41 Chun-chieh Huang and John B. Henderson, 97–113. Hong Kong: Chinese University
42 Press.
- 43 Ho Peng Yoke 何丙郁. 1966. *The Astronomical Chapters of the Chin Shu*. Paris: Mouton.

- 1 Kalinowski, Marc. 1991. *Cosmologie et divination dans la Chine ancienne: le compendium*
2 *des cinq agents (Wuxing dayi, VI^e siècle)*. Paris: Ecole française d'Extrême Orient.
- 3 — — —. 2004. 'Technical Traditions in Ancient China and *Shushu* Culture in Chinese
4 Religion'. In *Religion and Chinese Society*, edited by John Lagerwey, 223–48. Hong
5 Kong: The Chinese University Press; Paris: École française d'Extrême-Orient.
- 6 Kawahara Hideki 川原秀城. 1996. *Chūgoku no kagaku shisō: ryō Kan tengaku kō* 中國の科學
7 思想: 兩漢天學考. Chūgoku gakugei sōsho 1. Tōkyō: Sōbunsha.
- 8 Morgan, Daniel Patrick. 2017. *Astral Sciences in Early Imperial China: Observation,*
9 *Sagehood and the Individual*. Cambridge: Cambridge University Press.
- 10 Pankenier, David. 2017. 'The Origins, Use, and Abuse of Omenology in Early China'. *Journal*
11 *of Political Criticism* 21: 145–64.
- 12 Saitō Kuniji 齊藤國治 and Ozawa Kenji 小澤賢二. 1992. *Chūgoku kodai no tenmon kiroku*
13 *no kenshō* 中國古代の天文記錄の檢證. Tōkyō: Yūzankaku.
- 14 Shi Yunli 石云里 and Xing Gang 邢鋼. 2006. 'Zhongguo Handai de riyueshi jisuan ji qi dui
15 xingzhan guan de yingxiang' 中國漢代的日月食計算及其對星占觀的影響. *Ziran*
16 *bianzhengfa tongxun* 自然辯證法通訊 28 (2): 79–85.
- 17 Sivin, Nathan. 1986. 'On the Limits of Empirical Knowledge in the Traditional Chinese
18 Sciences'. In *Time, Science, and Society in China and the West*, edited by Julius
19 Thomas Fraser, Nathaniel Morris Lawrence, and Francis C. Haber, 151–69. Amherst:
20 University of Massachusetts Press.
- 21 — — —. 1990. 'Science and Medicine in Chinese History'. In *Heritage of China:*
22 *Contemporary Perspectives on Chinese Civilization*, edited by Paul S. Ropp, 164–96.
23 Berkeley: University of California Press.
- 24 Takeda Tokimasa 武田時昌. 1989. 'Isho rekihō kō: Zenkan matsu no keigaku to kagaku no
25 kōryū' 緯書曆法考: 前漢末の經學と科學の交流. In *Chūgoku kodai kagakushi ron* 中
26 國古代科學史論, edited by Yamada Keiji 山田慶兒, 55–120. Kyōto: Kyōto daigaku
27 jinbun kagaku kenkyūjo.
- 28 Zhang Peiyu 張培瑜, Chen Meidong 陳美東, Bo Shuren 薄樹人, and Hu Tiezhu 胡鐵珠. 2008.
29 *Zhongguo gudai lifa* 中國古代曆法. *Zhongguo tianwenxueshi daxi* 中國天文學史大系.
30 Beijing: Zhongguo kexue jishu chubanshe.
- 31
32