Epilogue to *The Riddle of the Bamboo Annals*[*]

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In this book I have explored the hypothesis that the "Modern Text" 今本 of the *Bamboo Annals* (hereafter BA) tries to be a faithful copy of the text of the *Zhushu jinian* 竹書紀年 , discovered in Jijun 汲郡 , Henan, around 280 C.E., having been buried since about 295 B.C.E. I have assumed that for the most part the BA is as transcribed by Xun Xu 荀勖 and his colleagues in the Western Jin dynasty, without changing the buried text other than standardizing the notation of dates. In November 1979 I found that I could use the BA in reading the dates of some Western Zhou bronze inscriptions, if I assumed that in Zhou reigns in the BA initial two-year mourning-completions had not been counted. In the BA, apparently these two years had been deleted in the reigns-of-record of eight of the twelve kings, the second, third and fourth kings before the fifth king Mu Wang 穆王 , and five of the seven kings following Mu Wang, who were harder to identify. The BA dates for Mu Wang are 962–908; therefore his reign was 956–918. (956 I confirmed by bronze inscriptions. It was one hundred years after 1056, when Zhou moved its capital to Feng 豐 , signalling its claim to supremacy. Mu Wang's death date I owe to Professor Edward L. Shaughnessy.[1]) Only within the last year did I assure myself that the five after Mu Wang must be (6) Gong Wang 共王 ,

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* I am publishing this "Epilogue" in English here in the *Journal of Chinese Studies,* before the publication of the Chinese revised edition of my book *The Riddle of the Bamboo Annals* (Taipei: Airiti Press, 2009; hereafter *Riddle*). This has required additions (in footnotes, and a supplement) for the benefit of readers who may not have access to the book published in 2009.

1 Edward L. Shaughnessy (Xia Hanyi 夏含夷), now a distinguished professor in the University of Chicago, was a Stanford University graduate student three decades ago. He came to Stanford with a project in hand on the *Yi jing* 易經 . The Department of Asian Languages accepted it as a doctoral project, and I accepted his request that I be his professor, although I do not pretend to be a *Yi jing* scholar. I had been working informally since 1971 with Professor David N. Keightley, University of California at Berkeley: my own research on problems of ancient Chinese grammar required me to investigate *jiagu* 甲骨 and bronze

(*Continued on next page*)

(7) Yih Wang 懿王 , (9) Yi Wang 夷王 , (10) Li Wang 厲王 , and (11) Xuan Wang 宣王 . (I had been supposing incorrectly that (12) You Wang 幽王 was one of the five, and that (9) Yi Wang was not. This has required important corrections, made in my revision.[2]) The dates for Xuan Wang may have been corrected before the text was buried.[3] In all this I benefited from the help of Shaughnessy, though we disagree on

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(Note 1—*Continued*)

inscriptions, and I had appealed to Keightley for help in getting started. Later I was leading seminars on inscriptions at Stanford, Shaughnessy being one of the seminar students. Keightley himself came to the seminar. At that time Stanford allowed graduate students to enroll in courses with Berkeley professors. Shaughnessy thus became an enrolled student of Keightley, working on inscriptions and on Shang and early Zhou history. His first major article began as a paper for Keightley, published in *Early China,* which Keightley had just founded. I too was publishing some of my research on Shang *jiagu* inscriptions in *Early China*. Thus in a limited sense Shaughnessy was formally my student, but in a deeper sense we have been fellow students of Keightley. Inevitably we have become friendly rivals, often helping each other but with enduring and stubborn disagreements. The most serious disagreement came to a head in 1989. I will discuss this later.

2 The problem that led to these difficulties in dating is presented in my monograph, "The Authenticity of the Mao Kung *Ting* 毛公鼎 Inscription," in *Ancient Chinese and Southeast Asian Bronze Age Cultures,* ed. F. David Bulbeck and Noel Barnard (Taipei: SMC Publishing, 1996–97), pp. 311–44. The Mao Gong *ding* and Shi Hong *gui* 師訇簋 texts are so similar in style that I judged them to be contemporary, and the décor and design of the Mao Gong *ding* requires (I thought) dating it very late in Western Zhou. The solution, I think, is that the existing Mao Gong *ding* is a Xuan Wang or You Wang copy, of a Gong Wang original which was perhaps by Mao Qian 毛遷 , the Mu Wang general who became a high official under Gong Wang in 909. Close examination of the ink-squeeze reveals that there must have been a dedication in the original, which was omitted in the copy. I admitted, both in the monograph and in *Riddle* (p. 226), that I was uncertain about the dates of these vessels. In *Riddle,* I had tried to date the Shi Hong *gui* in You Wang's reign, assuming (incorrectly) that the reign as recorded must have begun after a mourning-completion for the predecessor. This did not happen, because You Wang's regime was destroyed with him, and thus there was no recorder to leave such a record. The Shi Hong *gui* must be dated to 917, the succession year of Gong Wang.

3 I am still uncertain about this. (It is possible, though I think unlikely, that the present BA gives us Xuan Wang dates that have been corrected by the Jin editors on the basis of the *Shiji* 史記 .) The problem affects the question how we should interpret the ambiguous data given by Fan Ye 范曄 in the "Xi Qiang zhuan" 西羌傳 in his *Hou Han shu* 後漢書 . It also bears on the possibility that Shaughnessy and I made a systematic error in handling certain Xuan Wang dates in our article on the Jin Hou Su 晉侯蘇 bell set inscriptions, in "The Jin Hou Su Bells Inscription and Its Implications for the Chronology of Early China," *Early China* 25 (2000 [actually 2002]), pp. 29–48; and in "Jin Hou de shixi ji qi dui Zhongguo gudai jinian de yiyi" 晉侯的世系及其對中國古代紀年的意義 , *Zhongguo shi yanjiu* 中國史研究 , 2001, no. 1, pp. 3–10. (The error, if there be one, would not affect our main conclusions.)

at least two issues: Was the BA a faithful copy of the discovered text? And was the original text in good order?

I

I worked at first on the date of the Zhou conquest, given in the BA as 1050 with (1) Wu Wang 武王 reigning five years after that, to 1045. In 1984, Shaughnessy discovered that a strip had been moved from the chronicle of (2) Cheng Wang 成王 into the chronicle for Wu Wang, giving him an extra three years; so actually he reigned for only two years after the Muye 牧野 victory.[4] Eventually I determined that Cheng Wang's reign was 2 + 30 years, 1037/35–1006, the seven-year regency of Zhou Gong 周公 being the first seven, 1037–1031.[5] So the conquest date was 1040. (Shaughnessy's dates: 1042–1006, conquest 1045.) Work in my Stanford seminar had determined that the last Shang king Di Xin's 帝辛 reign in the BA, 1102–1051, had been extended back sixteen years, his actual first year being 1086. D. W. Pankenier confirmed that the conjunction of planets dated 1071 in the BA actually occurred in May of 1059. Xi Bo Chang 西伯昌 (Wen Wang 文王) of Zhou died nine years after the conjunction, and was given a reign of fifty-two years, 1113–1062, in the BA. But elsewhere he is given only fifty years. Thus his reign in Zhou was 2 + 50 years, 1101/1099–1050, set back twelve years, with earlier Zhou dates. Pankenier and I used the "Xiao Kai" 小開 chapter of *Yi Zhou shu* 逸周書 , dating to March 1065 an eclipse of the moon in Wen Wang's 35th year, to confirm Wen Wang's post-mourning dates 1099–1050.

II

In making his strip discovery, Shaughnessy had taken his cue from Xun Xu's preface to another Jijun text, the *Mu tianzi zhuan* 穆天子傳 : it was in 40-space strips, the strip bundles bound in undyed silk, suggesting it was a treasure, perhaps in good condition—and this is true of four of the surviving six *juan* 卷 .[6] Could this be true also

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4 Edward L. Shaughnessy, "On the Authenticity of the *Bamboo Annals,*" *Harvard Journal of Asiatic Studies* 46, no. 1 (June 1986), pp. 149–80.

5 The inscription in the He *zun* 何尊 I believe describes events in the last year of the Regency. It is dated "5th year" (counting from 1035).

6 Rémi Mathieu, "*Mu t'ien tzu chuan* 穆天子傳 ," in *Early Chinese Texts: A Bibliographical Guide,* ed. Michael Loewe (Berkeley, CA: Society for the Study of Early China and Institute of East Asian Studies, University of California, Berkeley, 1993), pp. 342–46.

of the BA? Shaughnessy at first thought this possible. In the article cited (p. 180) he says that he has shown that his transposed strip text

> is exactly as it came out of the ground in 280 A.D. . . . with not even a single graph having been added or deleted in the ensuing seventeen centuries of traditional textual transmission. And if even one passage of the text can be proven in this way to be not a "post-Song fabrication," then I would suggest that we must be open to the possibility that the entirety of the "Current" *Bamboo Annals* has been transmitted with similar fidelity.

He soon became less open to this possibility; but we both noticed that from the beginning of the Cheng chronicle to the gap—years 15, 16, and 17—from which the transposed strip had come was 10 x 40 character-spaces, which would be exactly ten strips. (There must be a blank space at the end of a year.) I tried arranging the rest of the Wu Wang and Cheng Wang chronicles on strips, and found I could, if I allowed each strip to be two half-strips of twenty character spaces. But when I worked on into the Kang Wang 康王 chronicle I realized that I was just guessing, so I set this project aside—for almost twenty years.

III

Pankenier had claimed dates for Shang: The BA says Shang lasted 496 years. If the Zhou-heralding conjunction of 1059 marked the last *de jure* year of Shang, the first year must be 1554.[7] The BA says that in year 10 (1580) of the last Xia king Di Gui 帝癸 "the five planets moved in turn [*wu xing cuo xing* 五星錯行],[8] and stars fell like rain" (this was obviously a meteor shower). From this Pankenier fixed the date as 1576. He later published another discovery, that there had been a very dense conjunction of the planets in February 1953 B.C.E., which he convincingly

7 David W. Pankenier, "Astronomical Dates in Shang and Western Zhou," *Early China* 7 (1981–1982, appearing in 1983), pp. 2–37. Pankenier's figure 496 years comes from the end-of-Shang summary. I think Shaughnessy is wrong in holding these end-of-dynasty summaries to be post-discovery additions. (See my comments in *Riddle* on strips 121, 182, and 283 on pp. 169, 172, and 174 respectively.)

8 In October, Jupiter and Saturn were evening stars; in November, Venus and Mercury were evening stars; Venus continued as evening star in December, and in mid-December the other four planets were in tight conjunction before dawn.

(I thought) linked to Shun's 舜 ceding power to the first Xia king Yu 禹.[9] In December 1988, I learned of work by Kevin D. Pang 彭陛鈞 , who thought he had identified an eclipse of the sun recorded in the BA as occurring in the 9th month of year 5 of the fourth Xia king Zhong Kang 中康 , dated 1948 in the chronicle. Pang's date was 16 October 1876. I at once put together Pankenier's conjunction of 1953 and BA reign lengths, assuming that gaps of irregular length between reigns in the BA ought to be all two years, for completion of mourning. My calculation gave me Pang's date for the eclipse. He and I published this in 1990 in *Early China* 15—over Shaughnessy's objections. Shaughnessy had just become editor, and has never accepted my chronology for history before late Shang.[10] We almost had a public fight about this, avoided only by someone (probably Keightley) proposing the article be a "forum" target.

I continued analysing the BA for Xia and pre-Xia, using the same method, and got dates for all reigns for Xia, and before Xia back to Yao 堯 : 2145 in the BA, actually 2026, I argued. In this way I obtained 17 February 1577 as the first day of the fourteenth Xia king Kong Jia 孔甲 . The day was a *jiazi* 甲子 (01) day, so I conjectured that probably *gan* 干 names of kings—a few in Xia, but all thirty in Shang—were obtained from the *gan* of the first day (either succession or post-mourning) of each reign. This rule could be only a first approximation for Shang: *gui* 癸 (*gan* of the founder's father Shi Gui 示癸) must be avoided; the *gan* of the predecessor must be avoided. And usually a complete reign count began with the death year of the predecessor, making the mourning-completion count three years rather than two. I had to seek a "best explanation" solution; but the solution had to meet severe constraints, as one will see in *Riddle,* p. 49 (Table V).

But by 1990 I had a complete chronology for Shang, confirmed by explaining otherwise baffling things: why the fifth generation king Tai Wu 太戊 was given an

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9 D. W. Pankenier, "*Mozi* and the Dates of Xia, Shang, and Zhou: A Research Note," *Early China* 9–10 (1983–1985, appearing in 1986), pp. 175–83.

10 In early 1989 I had proposed to Pankeneier and Pang that we publish together. Pang accepted. I drafted a "research note" for *Early China* and sent it to Shaughnessy, who had just become editor. He responded, saying that he had decided to have all "research notes" reviewed (in effect destroying the category). In due course he received two reviews, and broke a tie, saying no. I objected that he should send the piece out for another review; he resisted. I wanted to publish quickly, before someone else used the information; so I pointed out that there was the appearance of conflict of interest: Shaughnessy was known for his view that the BA could not be exploited for pre-Zhou chronology, which was just what our "note" was doing, dramatically. He still resisted; so I suggested that this might be a matter for the associate editors. He then did seek another review, which was favourable, urging use of the "forum" format, appropriate scholars being invited to submit criticisms, and authors (Nivison and Pang) responding. This is what appeared in *Early China* 15 (1990).

impossible reign of seventy-five years, and why his successor Yong Ji 雍己 is put before him in all chronologies. I also confirmed the year of death (1189) of the twenty-second king Wu Ding 武丁 in several independent ways.

For Xia, I had a surprise: my calculation gave me Pankenier's date for the end of Xia—1555 exactly—as the last year of the next-to-last king Fa 發. I concluded tentatively that Di Gui (Jie 桀) must be an early Warring States invention: you don't get an exact figure like this just by accident. But why? What factors were operating to produce such drastic alterations in an original correct chronology? I see three: The biggest was numerology: The false date 2145 for Yao had been set by making his reign begin one thousand years before 1145, which my analysis of Shang had shown me was the true succession year of the twenty-seventh Shang king Wu Yi 武乙. In that year the king had received at court the Zhou chieftain Dan Fu 亶父, granting him status as a border lord; and the Zhou founding ancestor Hou Ji 后稷 was claimed to have been minister of agriculture for Yao. So dates had to be pulled back to make 2145 Yao's first year. This opened up gaps, filled in by invention. Numerology and astrology were factors in altering dates in the Zhou conquest era. Another factor was the elimination of overlaps of reigns, e.g., caused by usurpations. This would push dates back. And finally, there was the deletion of mourning-completions at the beginnings of reigns in Shang and Western Zhou, which had the effect of stretching the middle reigns—Tai Wu in Shang, and Mu Wang in Zhou—and altering other dates. (Apparently Shaughnessy accepts none of this analysis.)

IV

It took me another decade to see what to do with the information that there had been no Di Gui in Xia. If Di Gui was fiction, but Pankenier's date 1576 for the oddly behaving planets was true, then that datum must originally have been in year 2 of the fourteenth king Kong Jia; so when the Di Gui chronicle was invented, the Kong Jia chronicle must have been rewritten. I examined it again, finding that Kong Jia years 1, 3, 5, and 7 took up forty character spaces. After that there were 135 characters of legendary narrative subtext. 136 would be 4 x 34, or 8 x 17. I guessed that this might be the key to the arrangement of the many (mostly mythical) subtexts in the first half of the BA. I counted, and found that I was right in most cases:[11] They were apparently distinguished from main text by leaving the top three and the bottom three spaces in a 40-space strip blank.

[11] Conspicuous exceptions are subtexts in the chronicles for Huang Di 黃帝, Yao, and Shun. The Jin editors have broken them up and distributed them according to sense. When reassembled, they count as expected. Also, a subtext could begin with the bottom half of a strip, or end with the top half.

This enabled me (in 2003) to take up again the problem of strip arrangement which I had set aside almost two decades ago: I found several places where I could count main text characters between blocks of subtext, getting a first approximation for a set of rules for arranging the whole BA—main text and subtexts—onto bamboo strips.[12] I had given up in the middle of the Kang Wang chronicle, looking ahead for a place to stop counting and finding none. Now I went ahead, finding that if I assumed that the strips were in bundles of sixty, the last strip of the fourth bundle was a subtext summary of Mu Wang's travels in the West, which exactly filled that last strip. This was strong confirmation that I was right. By 2006 I had worked out a long text—five 60-strip bundles—down to 679, a date almost as important as an end-of-dynasty date. In that year the Zhou king had recognized the lord of the Quwo 曲沃 lineage in Jin 晉 as the *de jure* ruler in that state, thus terminating a half-century of civil war in Jin. Allowing some exceptions for missing text, especially near the beginning, I believe I now had more than enough confirmation to be reasonably sure I had solved the problem as a whole: I had the original strip arrangement of almost three-fourths of the original text. Working this out was like breaking a code.[13]

V

Among many discoveries as I worked, I discovered that Huang Di's 皇帝 (fictitious) rites in the 7th month of his 50th year had been dated exactly 100 *zhang* 章 (of nineteen years each) before the victory over Zhi Bo 知伯 in 453, which had established Wei 魏 as an independent state. This proved that Shaughnesy's transposed strip had been put in its present location before the BA was buried, and not as he thought by the Jin scholars. Huang Di 50 is supposed to be 2353. Deducing this requires all the chronological data in the received BA, plus seven years of mourning for Huang Di found in a quotation in the *Lu shi* 路史 . The BA conquest date 1050 requires the three years in Shaughnessy's transposed strip. Therefore, if those three years were not there, Huang Di 50 would be 2350, which is not 100 *zhang* before 453. It is important to notice that the count back from 453 is not just in years, but is precise *in days*. The date of the rites is *gengshen* 庚申 (57), 7th month (first of the month, mid-summer day, assumed). The first of the 7th month of 453 (1,900 years later) was *yihai*

12 See *Riddle,* pp. 115–17.

13 I carefully note places where I have to assume an error in the text. Shaughnessy calls attention *only* to these places, and implies that my solution is imaginary. By attending (in his review, as discussed in my section VII) only to what he can construe as evidence favouring what he wants to prove (i.e., my occasional incompetence, which hardly needs proof), Shaughnessy is arguing in a circle. See section VI and note, also section VII and notes.

乙亥 (12)—*in fact*—and that is exactly what the mathematics of the *zhang-bu* 章蔀 intercalation cycle requires.[14] I think that there is no room for reasonable doubt that I have deciphered the intent of the text.

I think it follows that when the Huang Di chronicle and subtext were invented, the transposed strip text which Shaughnessy discovered must have been already in its present location. And I also think it is obvious that the Huang Di date must have been fixed in Wei, in Warring States, when everyone would think of 453 as the most important date in their history.

One more difficulty for Shaughnessy is what is *said* in the first ten strips of text in the Cheng chronicle revealed (as he agrees) by his discovery: In year 13 (in what would be the tenth strip) Zhou Gong is honoured with a *di* 禘 rite—proper only for a deceased king. Zhou Gong had royal status, but in this text he was still alive, dying in year 21. Obviously the text had been mutilated in order to get the desired words in strip position.[15]

Here is the text in the Cheng chronicle, showing exactly what was done. (I have used punctuation for blanks, to keep track of spacing.)

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14 The mathematics of the intercalation cycle requires that in calculating a day date back one hundred *zhang* one must move the *ganzhi* 干支 back fifteen days, and that is just what one finds in the chronicle and subtext at Huang Di 50: the day named is *gengshen* (57), which is fifteen days before *yihai* (12) in the cycle of sixty. (If 365.25 days = 1 year, then 1 *zhang* (19 years) = 6939.75 days, and 1 *bu* = 27,759 days; dividing by 60 leaves a remainder of 39 days. Through 25 *bu* [= 100 *zhang*] the accumulated remainder is 975 days, = 15 days more than 60n days.) The calculation was precise, and the motive was a Wei motive.

15 I demonstrate this in *Riddle,* pp. 118 and 190. (The illustration below is from p. 190, but more exact.)

BA Mutilated Text

年春正月王如豐唐叔獻嘉禾王命唐叔歸禾于周文公王命周平公治東都。十二年王師燕師城韓	217
王錫韓侯命。十三年王師會齊侯魯侯伐戎夏六月魯大禘于周公廟。十四年齊師圍曲城克之。	218
武王沒成王少周公旦攝政七年制禮作樂．．．	219
．．．。賴先王兮恩澤臻。于胥樂兮民以寧。	223
十五年肅愼氏來賓初狩方岳誥于沫邑冬遷九鼎于洛。十六年箕子來朝秋王師滅蒲姑。十七年	*
冬洛邑告成。十八年春正月王如洛邑定鼎鳳凰見遂有事于河。十九年王巡狩侯甸方岳召康公	224
從歸于宗周遂正百官黜豐侯。二十一年除治象周文公薨于豐。二十二年葬周文公于畢。二十	225

Original Text

年春正月王如豐唐叔獻嘉禾王命唐叔歸禾于周文公王命周平公治東都。十二年	216
葬周文公于畢王師燕師城韓王錫韓侯命。十三年王師會齊侯魯侯伐戎夏六月魯大禘于周公廟	217
武王沒成王少周公旦攝政七年制禮作樂．．．	218
．．．。賴先王兮恩澤臻。于胥樂兮民以寧。	222
。十四年齊師圍曲城克之。十五年肅愼氏來賓初狩方岳誥于沫邑冬遷九鼎于洛。十六年箕子	223
來朝秋王師滅蒲姑。十七年冬洛邑告成。十八年春正月王如洛邑定鼎鳳凰見遂有事于河。十	224
九年王巡狩侯甸方岳召康公從歸于宗周遂正百官黜豐侯。二十一年除治象[16]。二十	225

[16] In the manipulation, the date "22nd year" had to be created; so five characters were overwritten and lost.

[17] The strip numbering is from *Riddle,* p. 155. The transposed strip (*) became strip 207 (p. 153). (In BA strip 223, Cheng Wang's closing song, I have inserted blanks for musical pauses [*Riddle,* p. 117, note 5].)

This could only have been done in Warring States Wei. Wei propaganda required 1050 to be the conquest year, said in the *Guo yu* 國語 to be a Chun Huo 鶉火 (station 7) year for Jupiter, because 1035 was made the year when Tangshu Yu 唐叔虞 was made lord of Tang, his heir becoming lord of Jin, and the *Guo yu* says that when Jin began Jupiter was in Da Huo 大火 (station 10). That year had to be 1035, because it was seven hundred years before 335, when Wei Huicheng Wang 魏惠成王 declared himself king.[18] And dating the conquest 1050 required Wu Wang to live three more years than he did. The strip without a number, transposed, gives him those three years.

VI

Shaughnesy's conception has been that the strip got into the Wu Wang chronicle because the discovered BA text was a disordered mess. The strip was loose, he supposed, and the spot in the Wu Wang chronicle was available, he supposed. That means that the Wu Wang and Cheng Wang chronicles were in disorder, so the whole book was in disorder, like most other discovered texts. He has been so sure of this that he has been unwilling to bother to try to refute my arguments or even look at my evidence: his attitude seems to have been, why waste time on what I just know is impossible?[19]

VII

This is why we collided in 1989, and why we are in a renewed discussion right now. I am referring here to Shaughnessy's review in The Chinese University of Hong Kong's *Journal of Chinese Studies* for January 2011.[20] He graciously gave me a copy

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18 Seven hundred years was the predicted length of Zhou, according to *Zuo zhuan* 左傳 , Xuan 宣 3.5. For the significance of seven hundred years at the time the BA was finalized, see *Riddle,* pp. 186–88.

19 In the review I am about to mention (section VII), Shaughnessy praises me for saying in one of my papers that when a scholar avoids looking at a piece of evidence weighing against a theory he favours, he is in effect arguing in a circle. Actually when I wrote this I was thinking not just of the PRC Three Dynasties Project but also of Shaughnessy himself. In a paper ("Shaughnessy's slip") for a panel I organized in the 1995 meeting of AAS in Washington I tried in vain to prod Shaughnessy into looking at what that strip says. It records events picked up by other Warring States texts as in Wu Wang's reign—proof enough that it was already in the Wu Wang chronicle.

20 Edward L. Shaughnessy, "Of Riddles and Recoveries: The *Bamboo Annals,* Ancient Chronology, and the Work of David S. Nivison," *Journal of Chinese Studies* (*Zhongguo wenhua yanjiusuo xuebao*), 52 (January 2011), pp. 269–90. In his review, he ought to have told his readers about the many years of disagreement between us.

before publication but after the text was out of his hands. This led to some vigorous exchanges between us, from which I gained a much deeper understanding of his thinking. Previous work he sees as a picture of texts in disorder, so we must accept disorder as the most probable state of the BA as it was discovered: we shouldn't "go beyond the evidence," but just work on problems as they arise, hoping that a clearer picture will emerge. In contrast, I saw indications of order in the book, explored them and found more signs of order; so I looked for a hypothesis that would explain everything.

My reconstruction of the strip text of the BA assigns sixty strips each to pre-Xia rulers, Xia, Shang, Western Zhou through Mu Wang's travels in the west, and the rest of Western Zhou (forty strips), followed by year 770 through the first series of Jin civil wars (twenty strips), ending with the Zhou king certifying Wu Gong 武公 of Quwo as victor in 679. I conclude that the remainder was in disorder. Shaughnessy wants to know why I think any of the text was in better order, and insists that the strip he found to have been moved shows that the whole text was too disordered for me to have done what I claim to have done. His own work, he says, was based on the premise that the Jin editors "were trying to make the best sense they could out of a confused bundle of manuscripts. I would suggest that all we have learned since then about the editing of unearthed bamboo-strip manuscripts supports this view of what may have happened" (Review, pp. 283–84).

Shaughnessy challenges me to explain why the Wei people in Warring States "went to great trouble" to move text around in the Cheng chronicle rather than simply changing a date in the Wu Wang chronicle. (I will answer this challenge below.) He continues, "Passions evidently run high regarding this particular strip, such that I cannot envision a response that would satisfy him" (Review, p. 284). I would be satisfied if he would explain how the Cheng Wang chronicle has Zhou Gong getting a *di* rite before he dies, without admitting that his strip was carefully created by the Wei experts. He cannot respond that it was all confusion, because that *di* rite, in the text as we have it, is in the last of the first ten strips in the Cheng chronicle, which he admits to be in good order. In fact, he reproduces those ten strips *as strips,* in an illustration in his first article on this subject.[21] And in those first ten strips, Zhou Gong is very much alive. I insist that he must face this problem.

Related to the torturing of the Cheng Wang chronicle is its subtext on Zhou Gong. I get scolded for accepting it as authentic, in spite of its containing the words "Qin 秦 and Han 漢." Shaughnessy says my argument is one that he "cannot possibly replicate here" (Review, p. 282). I simply ask, which would be the greater intrusion

[21] Shaughnessy, "On the Authenticity of the *Bamboo Annals,*" p. 171. The illustration is given again, slightly modified, in Shaughnessy's book *Gushi yiguan* 古史異觀 (Shanghai: Shanghai guji chubanshe 上海古籍出版社 , 2005), p. 371.

into the text: inserting five strips of subtext? Or rewriting four characters? I choose to see 訖于秦漢 (down to Qin and Han) as a rewriting of an original 以訖于今 (down to the present), the Jin editors feeling that the latter was ambiguous. They ought not to have done this. But my restoration is not arbitrary, as I make clear: the words are the last phrase in *Shi* 詩 (Ode 245), which the author of the Zhou subtexts has just been using. Further, this subtext is out of place in the BA. The Jin scholars have put it after the record of the placing of the *ding* 鼎 (cauldrons) in Luo 洛 , where it breaks a strip, failing to see that it has nothing to do with the cauldrons. (The fact that the Jin editors both misunderstand and misplace the subtext shows that they didn't invent it.) It is an encomium for Zhou Gong, and belongs after the record of the *di* rite for him. That record ends a strip, once the text for his death and burial are put back where they should be; the subtext then begins the next strip. That correction at once proves that the original text of the transposed strip wasn't a strip at all. I demonstrate this twice in my book: first, in my analysis of the subtext, which Shaughnessy admits he has read; and second (illustrated above), in an argument directed to Shaughnessy *by name.*

Shaughnessy does not try to refute me on my own ground, and does not even look at that ground. He is in effect taking his *explanatory theory*—that the BA as discovered was a disordered mess—as unchallengeable *fact.* From this "fact" he then infers that I am "getting ahead of [my] sources" in trying to work out the chronology of Xia and Shang by analysing the BA. What Shaughnessy does not see is that the steps I take "beyond" the evidence are for me hypothetical *theories,* which I then test, with confirming evidence and by seeing how they work out. I find often that I have a similar but opposite objection to his work: he fails to notice evidence that ought to cause him to give up a hypothesis.

VIII

An example of this is his "discovery" of a disguised half-strip transfer from the Zhou Xuan Wang text into the text for Di Yi 帝乙 of Shang, where it becomes the text for Di Yi 3rd year: 三年王命南仲西拒昆夷城朔方夏六月周地震 : "3rd year, the king ordered Nan Zhong to oppose the Kun Yi on the west, and to wall off Shuo Fang [the north]. In the summer, 6th month, there was an earthquake in Zhou" (Review, pp. 284–87). He argues that these nineteen characters were the bottom half of a strip beginning with twenty characters which are the BA text for Xuan Wang 12, and that an original character for 十 (ten) in the date 十三年 (13th year) was broken off when the strip was broken in two pieces. We both agree that something is wrong with the Di Yi text: Nan Zhong was a general serving under Xuan Wang in 815, celebrated in *Shi* (Ode 168), and confirmed by inscriptions. Di Yi 3 would be 1109 in the BA

system, hence (reduced by 16) 1093. Furthermore we both agree that the date in the text was originally "13th year."[22]

But there are very serious difficulties with this strip move hypothesis: First, the strip would have to be forty-one character spaces, because there must be an empty space before 十三年 . Second, one would expect "Zhou" to refer to the *state* Zhou before the conquest. Third, Ode 168 has Nan Zhong battling the Xianyun 玁狁 , not the Kun Yi. And fourth, the words 夏六月周地震 refer to an earthquake that *did occur in Zhou in the sixth month of 1093,* discussed in a story in the *Lü shi chunqiu* 呂氏春秋 ("Zhi Yue" 制樂 chapter in the "Ji Xia" 季夏 section), where the date is not in the Shang (BA) calendar but in Wen Wang's calendar.[23]

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22 My theory is that the Di Yi 3 text reflects a mistake made in Warring States before the BA was finalized and while the chronicle adapted by Wei still had the nineteen-year reign for Di Yi revealed in *jiaguwen* 甲骨文 (rather than the BA's nine years). Shaughnessy finds that the *Mao Shi* 毛詩 makes Nan Zhong a contemporary of Wen Wang, and suggests that this could have prompted the Jin editors of the BA to put his supposed half strip in the Di Yi reign. But he also says that the *Mao Shi* puts many poems belonging in Xuan Wang's reign back in Wen Wang times. A massive error like this must have had a pre-Han source. (Perhaps the "Nan Zhong" 南仲 mistake arose from Wen Wang's having had an associate named Nangong Kuo 南宮括 , according to the *Shang shu da zhuan* 尚書大傳 .) This could easily explain the error of someone rewriting the BA *ur*-text in earlier Warring States. Such a person would change Xianyun to Kun Yi, knowing from other parts of the BA that it was the Kun Yi who were major enemies of the Chinese in late Shang.

23 See Nivison, *Riddle,* p. 55. My analysis shows that the writer of the text in the *Lü shi chunqiu* is quoting an earlier text but misunderstands it, thinking that the word *sui* 歲 in a date—a very rare usage—means "in the [same] year" (i.e., is essentially meaningless); it actually means "in a year," i.e., a year hence. This makes him take the date as "8th year" rather than 9th year, giving Wen Wang a reign of "fifty-one years" rather than fifty-two. One can see from this that he is not making something up. The story as told thus confirms the BA's implied date 1093, the 9th year in Wen Wang's succession calendar.

My complete theory for this difficult stretch of time is that Wu Yi 武乙 (1145/43–1109) gave his heir Wenwu Ding 文武丁 his own calendar in 1118, and died in year 10 of that calendar. Wenwu Ding's reign after Wu Yi's death was 1108–1106, three years; and the Di Yi reign was 1105–1087, nineteen years. (I base all this on *jiagu* inscriptions. See Nivison, *Riddle,* pp. 232–40.) I assume that Warring States chronologists would not accept the idea of overlapping reigns, and resolved the problem by moving Di Yi 1 from 1105 to 1095 (backed sixteen to 1111 in the BA), giving Wenwu Ding thirteen years instead of 10 + 3 years, and cutting Di Yi from nineteen years to nine years (so that "13th year" became "3rd year").

This theory offers an explanation for something else: If originally Di Yi 1 was 1105, then Di Yi 15 was 1091. The legendary literature has the often repeated statement that "Wen Wang in [his] 15th [year] fathered Wu Wang" (文王十五而生武王). We can suppose that the

(*Continued on next page*)

The last difficulty is the most serious, and although I refer to the earthquake in the very text of my 2009 book that Shaughnessy quotes at length, he passes over the matter in silence. If he could prove that a half strip had been moved by the Jin editors from the Xuan text to the Di Yi text, he would not only have scored another triumph like his earlier strip move discovery; he would also have confirmed his claim that the whole book was in disarray. One can understand his eagerness. But it seems to have blinded him to insuperable counter-evidence right in front of him: The words 夏六月周地震 ("In the summer, 6th month, there was an earthquake in Zhou") *cannot* have been in the Xuan Wang text. He runs on for pages about this in his review.

IX

This half-strip transfer argument is one of two main arguments Shaughnessy uses in order to enforce his claim that my work, beyond my discovery of the two-*yuan* 元 principle and other things concerning Western Zhou (in my *HJAS* article in 1983[24]), is completely wrong. This includes all of my pre-Zhou chronology, and all of my strip-text reconstruction, i.e., the most important and new parts of the whole book. The other main argument he uses (and has used, already in his *HJAS* article in 1986[25]) is that my argument is circular, and therefore proves nothing. Here Shaugnhessy is simply confused. In that article he writes the following:

> Nivison's arguments for the authenticity of the data that he has utilized in one fashion or another in his chronological reconstruction are open to suspicions of circularity. His chronology must be correct for his interpretation of a multi-stage editorial process in the making of the *Bamboo Annals* to be correct, and, the same is true, to some extent, in reverse. But, it is never acceptable methodology to prove one unknown with another unknown.

In my book (pp. 3–5) I replied that in the arguments to which he objected I was fitting together logically various items having low initial probability, and that it was

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(Note 23—*Continued*)

original meaning was "Wen Wang in year 15 fathered Wu Wang," i.e., that Wu Wang was born in 1091. The BA says that he died in his 54th year, which would be 1038. This date is correct, I think, and it implies that the conquest was in 1040. So, *mutatis mutandis,* any independent proof that the conquest date was 1040 (and there is much) is also indirect proof that Di Yi's first year was 1105. (Incidentally, 1105 began with a *yi* 乙 -day.)

24 David S. Nivison, "The Dates of Western Chou," *Harvard Journal of Asiatic Studies* 43, no. 2 (December 1983), pp. 518–24.

25 Shaughnessy, "On the Authenticity of the *Bamboo Annals,*" p. 150.

the *coherence* of the whole structure (and the virtual impossibility of that coherence being accidental) that had proof value, provided that some elements were tied down empirically. But let me now focus attention directly on Shaughnessy's review. He objects that irregular breaks between Xia reigns seem more reasonable to him than the regular two-year breaks that I propose. His intuitions are relevant only in revealing that he doesn't see what is going on: my argument structure is *hypothesis* followed by *confirmation,* and the two-year interregnums are part of my *hypothesis*.

Where, then, is the circularity that Shaughnessy saw as invalidating my work, two "unknowns" proving each other, the editorial process and the claimed true dates? I do *conclude* that I have proved them; but I begin by offering them as *hypothesis*. Each *must* assume the other; otherwise my hypothesis would be inconsistent, and therefore false before I had gone any farther. Shaughnessy has simply confused the *consistency* required in my hypothesis with a supposed *circularity* invalidating my whole argument.

At the end, Shaughnessy repeats his praise for my two-*yuan* theory, and tells everyone how good my first article on the chronology of Zhou was—actually it contains many naïve errors, though I did get some important things right. (These include the two-*yuan* idea and the four-quarters interpretation of lunar phase terms, both of which Shaughnessy accepts.) Then, having built up some credit, he allows himself to criticize me "harshly," assuming that he has destroyed my later work with his argument about the supposed transposed half-strip and his charge of circularity. So he says, "How is it that Nivison has been able to do so much, and yet still be so wrong?" (Review, p. 289) With this he grants himself the status of historical sage: he is "quite sure" of this, "quite sure" of that,[26] does "not believe" this, does "not believe" that, condemning my entire pre-Zhou chronology (with no criticism of a single detail of it), his only argument being that it must be wrong because I worked it out "[as] part of a complete system based on [my] reconstruction of the *Bamboo Annals*." But "part of" does not have to mean "dependent on." Actually for my Xia-Shang chronology references to astronomical events in Xia and in late Shang suffice, when combined with given BA data. His words "for the Shang and earlier periods, we have a couple of ambiguous astronomical records" and no more, simply show his ignorance of astronomy—ignorance which he admits, at the beginning of his review.

X

But being prodded into working out the foregoing analysis has been both exhilarating and very valuable for me. Edward. L. Shaughnessy is still, and always, my favourite

[26] Shaughnessy insists that *I* am too sure of myself. I am too amused by this to be annoyed.

sparring partner. More than that, in analysing the BA and dating bronze inscriptions I have often found his advice good, and sometimes I have been dependent on it. The dates for Huicheng Wang of Wei in the BA are one year off. For several years I thought the error arose in Wei. Shaughnessy insisted that it was due to a mistake by the Jin scholars. He was right. In my 2009 book I dated the Shi Hong *gui* 師訇簋 in You Wang's reign, albeit tentatively, admitting it might belong to Gong Wang. Shaughnessy was sure it is a Gong Wang inscription, and a year ago he sent me a draft of a paper on recent discoveries, with new data proving he was right. That change has forced me to make a major correction in my dating of the last four Western Zhou kings, included and explained in detail in this edition of my book.[27] I am grateful for this help. And I am grateful also for his clear, full, and convincing presentation of our two-*yuan* hypothesis, and his equally clear criticism of the errors of the Three Dynasties Project.

XI

From here on, I add things that will not be in my "Epilogue" but will be included elsewhere in my revised book in Chinese. First, here is a complete explanation (Collingwood "rethinking") of BA interregnums after Xia kings. From Qi 啟 through Fa 發 they are 4, 2, 2, 40, 2, 2, 0, 1, 3, 0, 3, 2, 2, 2, 0 (as in *Riddle,* p. 45).

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[27] I had proposed a completion of mourning at the beginning of the reign of the last king, You Wang, dating the Shi Hong *gui* 783. But a new discovery, the Shi You *ding* 師酉鼎, probably by Shi Hong's father, must be dated in Gong Wang's reign, and this requires that the Shi Hong *gui* date is 917. Therefore there was no completion of mourning in the You Wang calendar, whose dates remain 781–771. This forced me to refigure the dates of Yi Wang and Li Wang. In the BA they are 861–854 (eight years) and 853–828 (twenty-six years). Counting my You Wang error, I had supposed dates 867/65–860 (2 + 6) and 859/57–828 (2 + 30). The correct dates I believe are Yi Wang 867/65–858 (2 + 8) and Li Wang 857/55–828 (2 + 28). I have corrected all tables and diagrammes accordingly. Shaughnessy would have done a valuable service if he had put his finger on this defect in my book. But if he had tried doing it, crediting me with having accepted his criticisms, he would have quickly noticed that he could not at the same time paint a picture of me as a person too sure of himself, as he has tried to do. On this matter, Shaughnessy has forgotten what I said in my 1999 monograph "The Key to the Chronology of the Three Dynasties: The 'Modern Text' *Bamboo Annals*" (*Sino-Platonic Papers,* 93 [January 1999], pp. 1–68) 1.3 and 1.3.1 (subsequently revised by myself and then translated into Chinese by Shao Dongfang 邵東方 as "Sandai niandaixue zhi guanjian: 'Jinben' *Zhushu jinian*" 三代年代學之關鍵：「今本」《竹書紀年》, published in *Jingxue yanjiu luncong* 經學研究論叢, 10 [Taipei: Taiwan Xuesheng shuju 臺灣學生書局, 2002], pp. 223–309): there I explicitly warn that my work is experimental.

How were Xia dates in the BA created, starting with what I assume to be the original dates? I assume that reign-lengths in the BA for Xia are accurate, and that interregnums between reigns were all two years each (for completion of mourning for the preceding king). At some time in Warring States, probably in the Lu 魯 stage of the text when the first year for Yao was being pushed back from 2026 to 2145 (a *bu*-1st-year for the ancient Lu intercalation calendar[28]), and while the first year of Shang was still 1589 (back from 1554, but before the invention of the reign of Di Gui), the Xia chronology was altered so as to make the reigns of the original sixteen kings be exactly four hundred years, beginning with the *de jure* reign for Yu, 1989.[29]

The *de facto* beginning of Xia (Shun's transfer of power to Yu in Shun 14) was moved back one *bu,* seventy-six years, from 1953 (Pankenier's conjunction year) to 2029, giving Xia the 471 years in the BA summary for Xia. The first forty years (to Shun 50, then mourning for Shun) were counted as *de facto* years for Yu. Thus the beginning of Yu's *de jure* eight-year reign became 1989. (From here on, think of these dates as fixed.)

At the same time, the three mournings for the Class-A sage kings Yao, Shun, and Yu were increased from two years to three years. Since Shun died during Yu's *de facto* tenure, this was an increase of two years for Xia. To compensate for this, the two-year mourning-interregnum for the second Xia king Qi was (temporarily) reduced from two years to zero.

The date of the fourth king Zhong Kang's solar eclipse had been put back one *bu* (seventy-six years, with the set-back for Xia 1). If the correct date of the eclipse —on the 1st of the Xia 9th month—was 1876, it must have been set back to 1952. But this needed to be a year when on the *shuo* 朔 of the 9th month the sun was in Fang 房 (*Zuo zhuan* 左傳 , Zhao 昭 17.2). The date was tested by subtracting one *ji* 紀 of 1,520 years, to 432, which failed the test. The first date that did pass the Fang test after 432 was 428, and the *shuo* of the (Xia) 9th month was day *gengxu* 庚戌 (47). (There was an intercalary 8th month in this year; so Zhang Peiyu's 12th month is the

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28 On the date 2145, see section XVII below. The ancient intercalation cycle: 19 years (7 intercalations) = 1 *zhang* 章 ; 4 *zhang* = 1 *bu* 蔀 ; 20 *bu* = 1 *ji* 紀 . For 2145, see Zhang Peiyu 張培瑜 , *Zhongguo xian Qin shi libiao* 中國先秦史曆表 (Jinan 濟南 : Qi-Lu shushe 齊魯書社 , 1987), p. 252, left column: add one *ji* (1,520 years) to 625, which is a *bu* first year in the Lu Li 魯曆 system. Thus 625 could be used in place of 2145 in any calculation; e.g., in a pro-Zhou subtext, strips 035 and 040 (*Riddle,* p. 131), there is the date "Yao 70 . . . 2nd month, day *xinchou* 辛丑 (38)" : using 625 instead of 2145, Yao 70 becomes 556, BA (*yin* 寅 month = 1st month) 12th month = Lu Li (*zi* 子 month = 1st month) 2nd month of 555, first day *xinchou* (38) (*Zhongguo xian Qin shi libiao,* p. 80).

29 *Riddle,* pp. 45–46, 48, 52.

Xia 9th month.) So the date selected was 428 + 1520, = 1948, the day being *gengxu,* as in the *Annals*. The "Classical Six Calendars" 古六曆 for 428 (Zhang's *Libiao,* p. 180) all have *jiyou* 己酉 (46) for this day instead of *gengxu* (47); so the calculator was not using one of these calendars but was using a contemporary record; and to apply the *zhang-bu* system he must have had accurate dates back at least to 1953 B.C.E., to get 2029 as the beginning of Xia.[30] This four-year move down required inserting four years at an earlier point in the BA Xia chronicle. The "zero" interregnum after Qi's reign was used for this, giving the second king Qi an interregnum of four years —the only four-year interregnum in the BA Xia chronicle. (This calculation matches Kevin Pang's eclipse date, 16 October 1876.) The net on-going set-back is now 76 minus four years = 72 years.

The forty-year Han Zhuo 寒浞 interregnum after Xiang 相 was invented, replacing a two-year interregnum. This filled in thirty-eight years of the remaining seventy-two-year set-back, cutting it to thirty-four years.

This made the period from the beginning of Yu's *de jure* reign through the end of mourning for the eighth king Fen 芬 be 202 years. So Fen's mourning-completion-interregnum of two years was eliminated, increasing the set-back to thirty-six. Thus the first eight Xia kings were allotted two hundred years, so the last eight were allotted two hundred years, making 1789 year 1 for the ninth king Mang 芒 , and 1589 the first year of Shang.[31]

A two-year interregnum was inserted after the reign of eleventh king Bu Jiang 不降 , forgetting that he had retired. This moves the set-back down again to thirty-four.

Counting back from 1589, it was found that the last eight kings (Mang through Fa) had 201 years, including interregnums; so the interregnum after the ninth king Mang was reduced from two years to one year. This moves the set-back up to thirty-five.

It was then noticed that there ought *not* to have been a two-year interregnum after Bu Jiang; so this was eliminated, and the kings before and after (Xie 泄 and Jiong 扃) had their mourning-completions (i.e., interregnums) increased from two years to three years, so as to keep the year-count the same as before.

The first year of Shang was reset down thirty-one years from 1589 to 1558, by the insertion of the thirty-one-year reign of Jie (Di Gui) at the end of Xia. Deleting mourning-completions from Tai Wu down through Wu Ding had totalled thirty-one

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30 David S. Nivison and Kevin D. Pang, "Astronomical Evidence for the *Bamboo Annals'* Chronicle of Early Xia," *Early China* 15 (1990), p. 92. See *Riddle,* pp. 4–6.

31 This is consistent with the table at *Riddle,* p. 52, column (2); it shows that cumulative date set-backs due to eliminating overlaps (caused by usurpations, etc.) pushed the first year of Shang back to 1589.

years. (See *Riddle,* Table VI, p. 52.)[32] By the late fifth century the false date 2145 for Yao 1 was firmly established; so the first year of Shang could not be moved down (to accommodate the deletion of mourning-completions) unless something was filled in, to keep earlier Xia dates unchanged. This is why Di Gui had to be created. The set-back thus is now 35 minus 31 = 4, which is what one should expect, since the correct first year of Shang was 1554, not 1558. For this four-year difference, see *Riddle,* Table VI.

Notice that *this entire hypothetical analysis has to conform to, and is thus confirmed by, astronomy,* at least five times: First is Pankenier's discovery that the conjunction of February 1953 B.C.E. probably marked the transfer of power to Yu in Shun's 14th year. Second, when I assumed that Xia reign-lengths are correct, and that interregnums were for completion of mourning, implying that all of them should be two years, I deduced that the 1st of the 9th month of the 5th year of Zhong Kang must be 16 October 1876, verifying Kevin Pang's identification of an eclipse on that date, north of Xia but reportable (and apparently not reported, prompting the "Yin *zheng*" 胤征 episode). Third, the sun was in Fang on the test day of 428. Warring States calculators tried to check this Fang requirement by using the intercalation cycle (on the eclipse date already altered by using that cycle), and were driven to conclude that the eclipse was four years later, as reflected in the four-year interregnum after the reign of Qi. Fourth, with my assumptions so far confirmed, I deduced that the reign of Kong Jia began on a *jiazi* day, 1st of the Xia 1st lunar month of 1577; and the suggested rule that *gan* of first days of reigns normally determined royal *gan* names turned out to be right. Fifth, all of this had to agree with Pankenier's date 1554 for the beginning of Shang, determined by counting back 496 years from the conjunction of 1059. This led to my discovery that the reign of Jie was an invention. And the result was exact: When I started with 1953, treated interregnums as two-year mourning-completions, and accepted BA reign-lengths, I got 1555 as the last year of Fa, the *sixteenth* king. There was no seventeenth king.

The standard mode of scientific inquiry is to survey a surprising range of details, and hunt for the best possible account that would tie them all together. Then one adopts the account tentatively as one's hypothesis, and hunts for implications of the account by which it can be empirically confirmed or refuted. This is what I think I have been doing.

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32 Other mourning deletions in Shang were handled differently. Deletions from the beginnings of reigns five through eight (Wo Ding 沃丁 through Tai Wu) of three years each clear twelve years before Tai Wu 1st year, held at 1475 (one hundred years after 1575). The twelve years of ninth king Yong Ji are then put in before Tai Wu, whose reign is extended through what had been Yong Ji's years (*Riddle,* pp. 50–52), giving Tai Wu a seventy-five-year reign.

XII

A possible objection: The figure "496 years" for the *de jure* length of Shang comes from the half-strip chronological summary at the end of the *Bamboo Annals* chronicle for Shang.[33] Shaughnessy continues to insist that these summaries are additions made by the Jin scholars after 280 C.E. He has two reasons: (1) The summary at the end of the chronicle for Western Zhou contains confirming absolute dates expressed in *sui* 歲 -names (*ganzhi* 干支 used for years), and this usage is unknown before Western Han. (2) In the *Annals* summary, the 496-year count is from 1558 as first year of Shang to 1062 as the first year of Zhou, given there as the first year of Wu Wang but actually according to the Shang chronicle text the death year of Wen Wang; and the Mu Wang chronicle beginning in 962 has an in-text note saying that from Wu Wang to Mu Wang was one hundred years. But the *Jin shu* 晉書 biography for Shu Xi 束晳 says that from Zhou's "receiving the Mandate" to Mu Wang was one hundred years. Shaughnessy thinks that this statement must be taken as an eye-witness account,[34] because Shu Xi was one of the second group of Jin scholars working on the original text. Even if one accepts the death-year of Wen Wang as the succession-year (hence "first" year) of Wu Wang, it is Wen Wang who must be regarded as "receiving the Mandate," not Wu Wang. Shaughnessy apparently thinks this shows that the original text of the *Annals* has been altered so much that the dates in the original for the conquest era and Mu Wang are unrecoverable; and the summaries and notes are Jin inventions. (They imply that his strip has already been moved.)

My response: The Jin scholars did not create the end-of-dynasty summaries. The only Jin alteration of the text of the summaries was to insert phrases containing *sui*-

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33 湯滅夏以至于受二十九王用歲四百九十六年 ; "496 years" is also in *Yi wei Jilantu* 易緯稽覽圖 .

34 In *Rewriting Early Chinese Texts* (Albany, NY: State University of New York Press, 2006), p. 192, Shaughnessy refers to this description of the Jijun texts as one of "these early eyewitness accounts," the others being the account in the "Hou Xu" 後序 to Du Yu's 杜預 work on the *Chunqiu* and *Zuo zhuan* (春秋左傳集解), and Xun Xu and He Qiao 何嶠 as quoted by Pei Yin's 裴駰 *Shiji jijie* 史記集解 . Du Yu's account is the account of an eyewitness: he himself examined the text and describes it. Pei Yin's commentary gives an accurate account of how Xun Xu and He Qiao read the text. But the text in the *Jin shu* on Shu Xi does not pretend to be giving an eyewitness account. It is a text about Shu Xi, and for this reason gives much detail about the Ji tomb discoveries, but we are not told the source of this information other than the *Bamboo Annals,* and there are mistakes enough to show that it is second hand and unreliable. The *Jin shu* is an early Tang book, and of course it uses earlier material, but I see no reason to assume that Shu Xi himself is the source, more than very indirectly. Shaughnessy himself (*Rewriting Early Chinese Texts,* p. 191, n. 9) seems to agree.

names in the end-of-Zhou summary, to make clearer the absolute dates. When they are deleted, the end-of-Zhou summary is one strip of forty characters. (The words which must be deleted are "*sui zai gengyin* 歲在庚寅 (27) [1051]," "*sui zai jiayin* 歲在甲寅 (51) [1027]," "*yuan nian jimao* 元年己卯 (16) [1062]," and "*gengwu* 庚午 (07) [771]." Deleting them does not alter the meaning.)

If the first year of Shang was 1554 (as Pankenier argues), 496 years later was 1058, claimed by Zhou as their "Mandate" year following the Zhou-heralding conjunction of 1059. The actual first year of Di Xin was 1086. Therefore the Mandate year 1058 was the 29th year of Di Xin, who would be called by his personal name Shou 受 in Zhou histories naming him in that year—when from the Zhou historian's point of view he was no longer *de jure* king.

This explains an annoying mistake in the end-of-Shang summary. It says, "From Tang's destruction of Xia to Shou, twenty-nine kings, was 496 years." But the *Annals* recognizes thirty kings for Shang. The word *wang* (king) must replace an original *nian* (year) and the meaning was "from Tang's destruction of Xia to the 29th year of Shou was 496 years." A change became necessary when mourning-completion periods were dropped, making Mu Wang's first year 962 instead of 956, and requiring the first year of Zhou to be 1062, as in the end-of-Zhou summary (which did not identify that year as Wu Wang's "*yuan nian*": it simply gave the year count "from Wu Wang to You Wang"). "29th year" had become obsolete for two other reasons: Di Xin's first year had been moved back sixteen years to 1102; and the Mandate year had been moved back twelve years to 1070. All of this was done in Warring States Wei, so the change from *nian* to *wang* (at least almost right) must have been done then too; and this implies that the end-of-dynasties summaries must have been in the text in Warring States.

There remains the problem of the words *shou ming* 受命 (receipt of the Mandate) as beginning the count of one hundred years to the first year of Mu Wang. What the *Jin shu* says is this (Shaughnessy's translation):

> Where [the *Annals*] differs greatly from the classics and their traditions is that it says . . . that from the Zhou receipt of the mandate until Mu Wang was one hundred years, not that Mu Wang lived to be one-hundred years old. (*Rewriting Early Chinese Texts,* p. 192)

This is a major premise of both Shaughnessy and Pankenier, both wanting the original text to have had a different conquest date from what it has now, because they have their own dates to defend. Both argue that counting the one hundred years from some "receipt of the mandate" other than Wu Wang's succession would require that the original had a conquest-era chronology quite different from the Jinben 今本 (modern text).

The *Jin shu* text cannot be used in this dispute: it is description, not quotation; it is loosely copied from some earlier text, with words missing and with egregious mis-

takes (e.g., You Wang confused with Li Wang). The *Jin shu* line's point is not the "receipt of the mandate" but the misconception of "one hundred years." The words "receipt of the mandate" (*shou ming*) are imprecise enough to be used for the beginning of a dynasty in various senses, including the succession year of a founder or a conqueror. Further, the author of the *Jin shu* biography is not pretending to be quoting the *Annals*. He is merely pointing to noteworthy information in it that is different from what people had thought. One striking difference is that the *Shang shu* 尚書 "Lü Xing" 呂刑 chapter is wrong, in dating its event to Mu Wang's 100th year. The BA exposes the error.

In the BA the first of those hundred years is the year of Wen Wang's death. The Tang writer of the Shu Xi biography would recall how the "Wen Zhuan" 文傳 chapter of *Yi Zhou shu* begins: "*Wen Wang shou ming zhi jiu nian*" 文王受命之九年, "the ninth year of Wen Wang's receiving the Mandate." Here *shou ming* would seem to a Tang writer to function as a *nian hao* 年號; and in the BA, from that period (i.e., the last year of it) to Mu Wang (1062–962) was one hundred years. This is a sufficient explanation for the words in the *Jin shu,* which are describing the BA, not quoting it.

XIII

I will review my reconstruction of the Wei state thinking behind the BA text here, for the benefit of readers new to these arguments: The Jinben says that the fief granted to Tangshu Yu beginning the Jin state was given him in 1035—a date invented for political propaganda: Wei Huicheng Wang declared himself king in 335, and the *Zuo zhuan* (Xuan 3.5) says Zhou was to last seven hundred years. The *Guo yu* says that when Jin began Jupiter was in Da Huo (station 10 of 12) and that the Zhou conquest was in a year when Jupiter was in Chun Huo (station 7). This requires 1050 as conquest date, as in the Jinben. If 1035 was a Da Huo year, so was 1059, the five-planet conjunction year. The Jinben says (and the "Wen Zhuan" chapter of *Yi Zhou Shu* implies) that Wen Wang died nine years after the conjunction, which would be in 1050. The conquest could not have been in the year of Wen Wang's death. So the Wei experts moved the planet-conjunction back twelve years (to 1071, one Jupiter cycle, keeping it in Da Huo), along with all late pre-conquest Zhou dates and Shang dates. But in addition Shang dates have to be moved back another four years, because the conjunction was actually not in a Da Huo year but in Chun Shou 鶉首 (station 6), and so 1050 was not a station 7 year but actually a station 3 year. The total set-back of Di Xin's first year therefore had to be sixteen years. In the Jinben, his first year is 1102; so the actual year must have been 1086. This is correct, as Shaughnessy and others (including me: *Riddle,* Appendix 4, section 2) have shown, analysing the dates in the set of more than seventy *jiagu* 甲骨 inscriptions pacing Di Xin's campaign against the Yi Fang 夷方 in his 10th and 11th years, which the inscriptions show must have been 1077–1076.

XIV

This analysis proves that the conquest date in the discovered text had to be 1050: indirectly, the *jiagu* inscriptions for the Yi Fang campaign confirm this. But the analysis so far leaves unexplained the Jinben dates from 1050 on. 1050 requires Shaughnessy's transposed strip to be in its present place, so if 1050 was the date of the conquest in the discovered text, the strip must have been moved in Wei, and not in Jin. Shaughnessy has objected that the required three years could have been obtained simply by making up a date; but "Nivison would have us believe" that the Wei people "went to great trouble" to move text about so as to create a strip text (Review, p. 284). He is right that this would have been easier, if it could be done; but to do it would have required getting the words "17th year" into the text, and the only way would be changing Wu Wang 14 to Wu Wang 17. But in the "14th year" is the information about Wu Wang's illness, recounted in the *Shang shu* "Jin Teng" 金縢; and that chapter—named in the BA—says that the episode occurred in the second year after the conquest, which in the Jinben system is year 14, and cannot be made to be year 17. So we have to assume that the strip-text was already in the Wu chronicle.

XV

We must assume this for other reasons.[35] Put the strip back into the Cheng Wang chronicle, and you find that its being in strip position was only made possible by moving Zhou Gong's death and burial forward ten years, causing the *di* rite for him to have been performed while he was still alive. It is obvious from his criticism that Shaughnessy is aware of this; yet he sees no need to account for it. The indicated conclusion is that the strip was *created* by manipulating the Cheng Wang chronicle text, in a way that could only have been done by Wei Warring States hands. It makes no sense to suppose that the Jin editors did it. For them, received information on Zhou Gong would have been untouchable, and giving him a *di* rite before his death would have been unthinkable; they would have had no motive for altering the Cheng Wang text in this way; and they would have known that they couldn't get away with doing it even if they had wanted to. How they *explained* the text they had transcribed is difficult to imagine; but this is a separate problem. (Their task was to transcribe the discovered text, not to explain it. Probably none of them believed that Tai Jia 太甲 killed Yi Yin 伊尹; yet the text says plainly that he did kill him. They or later copiers did move pieces of subtext around, inserted *sui*-names for succession years,

35 See section V and notes.

and omitted some very embarrassing things; but I see no evidence that they otherwise rewrote any of the text I am working on.[36])

It also makes no sense to suppose that the Wei experts would have done this without using the result, placing the strip text where it is now. My analysis showing that for them the conquest had to be in 1050 shows why they did it: Cheng Wang's succession year was 1037. To get back to 1050, the Wei experts "exported" the Regency from 1037–1031 to 1044–1038; and this meant that Wu Wang had to live until 1045, five years after 1050 rather than two.

XVI

I am assuming that Cheng Wang's dates are 1037/35–1006, 2 + 30 years, not the received 7 + 30 years. How do I know that? We know from inscriptions that Mu Wang's dates are 956/54–918. The BA gives him 962–908, starting six years early. We know from the "Bi Ming" 畢命 and the Xiao Yu *ding* 小盂鼎 that Kang Wang began in 1005/1003, and the BA starts him in 1007, two years early. So Zhao Wang 昭王 in between should be four years early, and the BA starts him at 981. His dates therefore should be 977/75–957. I infer that the BA clips out mourning-completions of two years each for three kings before Mu Wang. Therefore Cheng Wang's succession in the BA should be correct, *sans mourning*. The received reign-length is 7 + 30 years, including the Regency. This is what the BA says too.

Something is wrong: *where were the two years of mourning-completion* that got clipped out (moving Mu Wang 1 from 956 to 962), to get 7 + 30 years? They could not have been contained in either seven or thirty, because we would then have either 5 + 30 or 7 + 28; and we do not. And they could not have preceded either seven or thirty, because we know (1) that Cheng Wang's reign including the Regency began four years counting down from the conquest, and (2) that *yuexiang* 月相 dates require that the conquest be either in 1045 or 1040. The only way to work this out is to assume that the conquest was in 1040, that Wu Wang died in 1038, that the Regency began with Cheng's succession and that the succession year was 1037, mourning being complete in 1035, and Regency complete at the end of 1031. This

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36 Shaughnessy will disagree vigorously: his main purpose in writing his book *Rewriting Early Chinese Texts* seems to have been to buttress his argument that the BA got drastically rewritten by its Jin editors.

The strategy of the book is to devote the first half to the *Li ji* 禮記 chapter "Zi Yi" 緇衣 (Black Jacket) and bamboo variants, and the second half to the BA, setting up the idea in the first half that the common *zhengli* 整理 task was to "make sense of a confused bundle of manuscripts"; so we should expect creative rewriting in both cases. But the two cases are actually utterly different.

is consistent with Zheng Xuan 鄭玄 , who says that Cheng Wang was born in Wu Wang's succession year,[37] and we know this to be 1049. So Cheng Wang was thirteen *sui* when he succeeded, and took over as king with full power in 1030 at the proper twenty *sui,* after a seven-year Zhou Gong Regency. That is why the Regency was seven years.

XVII

Nonetheless, 1045 as conquest date is not simply wrong. There is evidence in the BA and elsewhere that it was widely accepted as correct in the late fifth century. Eventually a chronology had to be adapted to support it. There are residues in the BA: 2145 as first year for Yao, and 945 as the date of an assembly of lords in Mu Wang's capital. When I worked out Shang chronology, I found that 1145 was actually the succession year of Wu Yi, and was also the date when he granted recognition to Dan Fu as lord of Zhou.[38] All other dates in the set, which in my analysis become "45" dates (2145, [1145], 1045, 945), are fiction.

Why was the change made? When was it made? How was it made? "Echoing" the date 1145 seemed to me to be reason enough; and offering this answer to the "why" question helps to answer the "when" and "how" questions: As I explain in section III, adopting the date 2145 for Yao's first year required pushing the true Yao 1 back from 2026, and two moves did most of this, (1) lengthening Yao's reign to one hundred years, and (2) moving the transfer of power to Yu back one *bu* of seventy-six years. That move dragged the Zhong Kang eclipse back with it, at first to 1952; but testing that date by subtracting one *ji,* getting 432, then required looking down four years: 431, 430, 429, 428. The simplest answer to "how" would be replacing the mourning-completion years 1037–1036 with the seven years of Zhou Gong's regency, getting the chronology 1045 (conquest), 1043 (Wu Wang's death), 1042–1036 (the Regency), and 1035–1006 (Cheng Wang's thirty years). But this would have Cheng Wang taking royal power when he was only fifteen *sui*.[39]

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37 Zheng is quoted by Kong Yingda 孔穎達 in his commentary to the Odes of Bin 豳風 in the *Shi jing*.

38 The deduction: The BA makes 1159 be Wu Yi 1, and 1157 then becomes the date of the reception of Dan Fu in "the 3rd year" (translating the date into Shang terms). Wu Yi 1 must be reduced by sixteen to 1143, and then prefixed to it there has to be a mourning-completion, here two years, 1145–1144. This is confirmed by reducing 1157 by twelve, to 1145. Receiving the chieftain of Zhou, the strongest (and potentially the most dangerous) power on the West was an obvious first act for the new Shang king.

39 Shaughnessy is willing to accept this, but I think his argument is fallacious; see *Riddle,* pp. 53–56. These pages are the attachment titled "The 853 Problem," which Shaughnessy needs

(*Continued on next page*)

My theory (as published: *Riddle,* pp. 25 and 39) has been that the conquest if in 1040 was in year 17 in the 1056 calendar,[40] and Wu Wang's death was in year 12 in his own succession calendar beginning with 1049. If the calendars are not distinguished, this appears to be contradictory: so I assume it was thought that the dates must have been reversed and had to be "corrected." Using the 1056 calendar, the conquest is re-dated to 1045 (year 12), and Wu Wang's death is re-dated to 1040 (year 17), down three from 1043. Therefore the Regency would be 1039–1033, and Cheng Wang's coming-of-age year would be 1032, when he was eighteen *sui,* still less than it should be, but better than fifteen *sui*.

XVIII

This requires giving Wu Wang three more years, and for a long time I thought the transposed strip explained this. Perhaps, but perhaps not: To create the text of that strip Zhou Gong's death and burial dates had to be scrambled; and it is not likely that this was done by partisans of the date 1045, who were Zhou and Lu oriented. So what may have been done by them—perhaps late fifth century—was just what the Wei experts—late fourth century—could not do: change the date "14th year" to "17th year." They could do this, without causing alarm, if when they did it the "Jin Teng" had not yet been written. Either way, this pushed all post-Wu dates *down* three years as far as Mu 1 (which had to be one hundred years after 1056), so the date of Zhao Wang's

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(Note 39—*Continued*)

to heed (see section XX below). His argument fails because of an unnoticed circularity. Shaughnessy's book *Sources of Western Zhou History: Inscribed Bronze Vessels* (Berkeley and Los Angeles: University of California Press, 1991, p. 276) argues that the *yuan* 853 is correct, as Li Wang's first year of royal power, because two following death dates are correct. But this is to assume that the text's year numbers for those deaths are correct, and to assume this is to assume that the *yuan* is correctly dated. On this basis he concludes that Li Wang took full power as king when he was fourteen *sui*. (But he has Li Wang's birth year wrong: it should be 864, not 866; so Li Wang would only be twelve *sui,* which is even more absurd.) Shaughnessy's idea is that if Li Wang could exercise royal power at fourteen *sui,* then Cheng Wang could have done it at fifteen *sui*—which is required if the Zhou conquest was in 1045, as Shaughnessy maintains.

40 The 1056 calendar is not mentioned in any text, but can be posited from dates in the *Shiji* "Zhou Benji" 周本紀 and the *Shang shu da zhuan*. One can infer from the BA that in 1056 Zhou moved its capital to Feng. In late Xia, Cheng Tang 成湯 of Shang moved his capital to Bo 亳 , in 1575, the first year of his royal calendar. (I think that the date 1575 is historically accurate: I assume that Tang took the planet movements of 1576 as a sign of Heaven's [or Di's] will, and that this is why "*wu xing cuo xing*" was recorded.)

disaster in his campaign against Chu 楚 became Zhao 16 rather than Zhao 19. Later, the Wei experts used this chronology, pulling dates back five years, then deleting mourning-completions, and the last year of Zhao became again Zhao 19, but Zhao 16 remained, as the date of a (null) Chu campaign three years before the real one. The whole picture is surprising:

Reigns and Events	Correct Dates	1045 Chronology	1050 Chronology
Conquest	1040 (year 17)	1045 (year 12)	1050 (year 12)[41]
Death of Wu Wang	1038 (year 12)	1040 (year 17)	1045 (year 17)
Cheng Wang	1037/5–06 (2 + 30)	1039–33, 1032–03	1044–08 (37 years)
Regency 7 years	1037–31	1039–33	1044–38
Cheng 30 years	1035–06	1032–03	1037–08
Kang Wang	1005/3–978 (2 + 26)	1002/00–975 (2 + 26)	1007–982 (26 years)
Death of Bo Qin	990 = 16th year	989 = 14th year*	989 = 19th year*
Zhao Wang	977/5–957 (2 + 19)	974/2–957 (2 + 16)	981–963 (19 years)
伐楚涉漢遇大兕 **			966 = 16th year**
伐楚涉漢遇大兕 **	957 = 19th year**	957 = 16th year**	963 = 19th year
Mu Wang 1	956	956	962

* Dates of Lu Dukes down to Li Gong 厲公 are raised two years, by taking the succession year of Cheng Wang (1037), rather than his accession year (1035), as the first of Bo Qin's forty-six years. Bo Qin's death year thus becomes 992, Kang 14. The three-year down-shift of Zhou dates then applies to Bo Qin only, moving his death year from 992 to 989 and reducing his successor Kao Gong's 考公 reign from four years to one year. (See *Riddle,* p. 54.) In the change to the 1050 chronology, the supposed absolute dates of Lu dukes continued unchanged, so the year number for Bo Qin's death had to be raised by five, from 14th year to 19th year.

41 This "year 12" is Wu Wang 12: the re-dating of the conjunction back twelve to 1071 puts Wen Wang's death in 1062, making 1061 Wu Wang 1. (See the explanation in section XIII.) The end-of-Zhou summary has to use 496 years as *de jure* length of Shang, and therefore must make 1062 the first year of Zhou. (The tomb text did not call this Wu Wang's *yuan nian* [first year]; I am assuming that the words "*yuan nian jimao*" were added by the Jin editors.) This was consistent with deletion of mourning-completions, which moved Mu Wang's first year from 956 to 962, an exact century after 1062.

** The original first sentence for the last year of Zhao Wang was 伐楚涉漢遇大兕 , I think, summing the main event of the year: the king's death and the destruction of his entire army as they were crossing the Han River.[42] In the 1050 chronology, the move down three for dates beginning with Wu Wang's death was reversed, and mourning-completion periods were cancelled. Cheng Wang's original succession year was restored but was now called his coming-of-age year, i.e., the "exporting" of the Regency was continued from the 1045 chronology. Since the conquest date was moved back five, the problem of the length of Wu Wang's life was the same; but now the existence of the "Jin Teng" required a new solution: the creation and insertion of a suitable strip of text. The result of all this was that Zhao Wang's last year became "19th year" again (so that the first year of Mu Wang could continue to be one hundred years after the beginning of Zhou), but the first sentence of year 16, which had been Zhao Wang's last year in the 1045 chronology, stayed with year 16. Later (in Jin?) it was seen that 兕 *xiong* (disaster) no longer made sense, and so it was "corrected" to 咒 *si* (a mythical animal). This doesn't make much sense either (and still requires two Chu campaigns instead of one) but at least it is not glaringly wrong.

XIX

Notice that in the foregoing analysis a single hypothesis—that the dates 17th year and 12th year were switched—resolves unrelated problems: the way 1045 was justified, why Bo Qin's death is put in the 19th year of Kang rather than in his 16th year, why the BA records two Chu campaigns, and why the "encounter" with a *si* was recorded. This analysis would not be possible unless the BA were in amazingly good shape. I can claim the same of my analysis of the *zhang-bu* cycle (sections V and XI with notes) recovering Xia dates with the help of astronomy, my recovery of Shang dates from *gan* royal names (section III, second paragraph), and my deduction that Huicheng Wang's choice of 335 to declare himself king required his BA to date Di Xin's first year back sixteen years (section XIII, verified by *jiagu* inscriptions). Only a well-preserved text would allow such precision. Professor Shaughnessy is right about that.

I assume that Shaughnessy would not agree with what I have done in these examples. For him they probably would be examples of my getting ahead of my sources. He trusts sources like Zhou bronze inscriptions. He says he does not trust

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42 For another example of this summing the action for a year in the first sentence of the text for that year, consider Cheng Wang 7th year: 七年周公復政于王春二月王如豐三月召康公如洛度邑 , etc. The words 七年周公復政于王 (7th year: Zhou Gong returned the government to the king.) state the main result of the actions for the whole year. Cheng Wang did not actually take power and function as king until the first day of the next year.

my extension of the two-*yuan* hypothesis to Xia and Shang. He is logically in error in treating it as question-begging. He disparages my use of astronomy, even though admitting that he does not understand it. I have never seen any attention in his earlier work to the *Annals*' use of the intercalation cycle, which is obviously central to my analysis of the Xia chronicle, leading on to *gan*-name theory and the whole of Shang. I see no indication that he understands or even notices this analysis. Yet at the end he claims the status of an expert, and announces that he is "quite sure" that my chronology of pre-Zhou China is worthless.

XX

Am I being fair to Shaughnessy? Perhaps not quite. I have pointed to episodes of argument and even conflict between us, which I thought he ought to have mentioned to his readers. A recent discussion with him (post review) has enlightened me.

The discussion had to do with the two-*yuan* hypothesis, which has two parts:

(1) In interpreting a *date,* we may have to count the year from the first year after the reigning king completed mourning—his "accession" year—rather than from his succession year.

(2) In interpreting a *chronology* like the one constructed from the *Zhushu jinian,* we must assume that normally a reign length—the king's reign of record—is the count from his *accession* date, omitting initial mourning-completion years.

Shaughnessy has been interested in the first part, has been only dimly aware of the second part, and was not aware at all of its importance. This is so because to the extent that he is interested in chronology at all, he accepts as sources only the hard evidence of inscriptions. For him the *Zhushu jinian* could be used tentatively in sorting out real sources, but to use "the maligned BA" as the premise in an argument, even after rigorous logical and mathematical analysis, is to "get ahead of our sources."

He now did become aware of the importance of the second part of the two-*yuan* theory, and it surprised him. This became evident to me in an email exchange between us in late February of 2011. We had been working on a problem related to the absolute dates of the tenth- and ninth- century kings. I had reminded him of the need for a pyramid-type of argument to show the effect of mourning deletions, part of which would be forty-four years for Xuan Wang, twenty-eight years for Li Wang, eight years for Yi Wang, etc., and if 781 was the first year of You Wang this would imply the false date 853 for Li Wang's *yuan,* four years late—just as in the *Zhushu jinian*. He said this now made perfect sense to him; he may have seen it once, but had forgotten it.

But this was not all he had forgotten: I saw at once that he had quite forgotten a long argument between us about that date 853. In his *Sources of Western Zhou*

History he had insisted that the *Zhushu jinian* date 853 was valid as Li Wang's coming-of-age date, because it implied dates for the deaths of rulers of Chu 楚 and Qi 齊 matching dates in the *Shiji*.[43] I had told him that his reasoning was circular. Furthermore, I had a published proof that Li Wang's coming-of-age *yuan* must be 844.[44]

I saw something else: In writing his review, he had prepared himself by only glancing at the book he was reviewing, for in that book (pp. 53–56) I have a section listed in the table of contents and titled "The 853 Problem," in which I address and challenge Shaughnessy *by name*. Obviously he had forgotten it. And in the email he grants that he had never seen (or had forgotten) how important it is that the *Zhushu jinian* assumes post-mourning reign lengths.

But my noticing that denying mourning-completions was the major cause of the warping of chronology in Shang and Zhou had been where I *began* my analysis three decades ago, applying the two-*yuan* idea to Zhou history, then extending it to pre-Zhou history and tightening the argument by showing it to be consistent with the royal *gan*-name theory. (This I had gotten from my analysis of Xia, which he does not accept.) If all of this was over Shaughnessy's head, it is no wonder that he concluded that my book is worthless. I have welcomed this revelation. It shows me now that I had been wrong in my initial reaction to his review. He was not "setting me up" by deliberately ignoring our past disagreements, and then pretending to wonder how Nivison could be "so wrong." He had *forgotten* the disagreements—and probably all of my arguments, if he had understood them—and was being quite sincere.

It also suggests something more exciting: Perhaps he is now going to start listening to me.

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43 Shaughnessy, *Sources of Western Zhou History,* pp. 276–77 and notes.

44 My own analysis (though I make some correctable errors) is in my article "The Dates of Western Chou," p. 528. (I ought not to have supposed a mourning-completion for You Wang, and I should have made 857 Li Wang's succession year.) On 844 as Li Wang's majority date see p. 552 of that article, and note 78 therein: I argue that the 3rd-year Shi Dui *gui* 師兌簋 ought to be dated 842, and the 11th-year Shi Li *gui* 師嫠簋 , with Gong He 共和 apparently functioning as regent during Li Wang's minority, ought to be dated 847. (Shaughnessy is wrong in mechanically combining BA intra-reign dates with corrected *yuan* dates. This forces him to take 866 as Li Wang's birth date, instead of 864.)

《竹書紀年解謎》後記

（中文摘要）

倪德衛

這篇〈後記〉，是我三十餘年所作研究之回顧。細數從研究之初，受學人發現而鼓舞，到後來步步深入，得到意外結果的歷程。近兩百年來，學者皆視「今本」《竹書紀年》為僞作 。但 1979 年，我則證實「今本」《竹書紀年》並非僞造。贊成我之觀點的一派中，後來又衍生出兩種意見。一種是我的意見，另一種是夏含夷（Edward L. Shaughnessy）的意見。夏含夷的意見，大抵針對我之觀點而發（下文括號內數字代表〈後記〉相應各節）。

在我看來，「今本」《竹書紀年》完好保存了公元 280 年左右出土之《竹書紀年》竹簡的原貌。該竹簡古書，約成書於公元前四世紀。除結尾幾處散亂外，均編排有序。（以「歲」記之日期，乃後人加入，屬微調，不妨害全局。）大體上，我以「今本」《竹書紀年》作底本，重訂了夏、商兩代的紀年（I–III 節），並倚賴天文學發現，對簡文加以修復，以使其更加準確。經修復的「今本」《竹書紀年》簡文，現已數量過半（IV 及 VII 節）。夏含夷與我看法相悖。他認為，竹簡出土時，已雜亂無章。晉代學者整理、編輯竹簡，必然對其加以重組、改寫（甚或杜撰）。於是，他斷言道，我所作之紀年研究，除周代部份，餘皆毫無依據，不值一提（VI–VII 節）。

此處，有一關鍵問題。即，夏含夷發現之錯簡究竟發生於何時？又為何有人將周代成王紀譜位處中段的一支竹簡，錯置於武王紀譜結尾處，致使武王在周克商後的在位年份增添三年？夏含夷以為此舉乃晉代學者所為，目的在於使亂簡看起來有序、合理。我認為，錯簡在魏國時期，即竹簡古書遭埋藏以前，必已造成。魏國時人之所以如此舉動，乃是要支持魏惠成王之在公元前 335 年宣言稱王。據我觀察，竹簡排列有序，且我研究所得結果，亦可拿來與甲骨銘文作對照（V 及 XIII 節）。

夏含夷發現之錯簡，必在移動前，即已存在。且要使錯簡成立，必得把成王紀譜中有關周公亡逝、喪葬年份往前倒退十年。結果，周公亡逝後所辦之禘禮，竟然發生在他亡逝以前。這種改動，當然也就不可能發生在晉代，而屬魏國專家有意為之（V、VII 及 XV 節）。

特別值得注意的是，我在 XI 節中解釋了夏帝仲康五年九月朔之日食。要對此加以解釋，就不得不假設戰國時代，對遠古紀年作錯誤調整的人，採用了章蔀置閏法，並據此要找到一個九月朔日時太陽位置在房的年份。他發現公元前 428 年恰

是這樣一個年份，且該年九月朔日為庚戌日。於是，他推斷從公元前 428 年往前推 1,520 年（一紀），即公元前 1948 年，情形也必相同。除此無法解釋他提出的 “1948” 和「庚戌」的說法。可是若他用此推斷法，他必得掌握一千五百年前歷史的確切記載。因為他得知道確切的夏朝起始年和確切的日食年份，才能加以推斷。這樣，我們就可以推斷，戰國時代編寫原本「紀年」的人大抵相同：均掌握確切的歷史記載，並對此記載加以「修正」（見 III 節）。我們必須找到他們的動機和誤解，才能對現存的《竹書紀年》加以利用，並推斷出遠古的真實年代和日期。此乃我寫作《〈竹書紀年〉解謎》之目的。

Keywords: two-*yuan* theory, misplaced strip, Zhong Kang solar eclipse, *zhang-bu* chronology, *di* rite for Zhou Gong

關鍵詞：雙元論　錯簡　仲康日食　章蔀年代計算　周公之禘禮