

“The particle yān 焉, and the phonological reduction of prepositional phrases in Old Chinese.”

First draft, for circulation and comment.

Date: 01/27/12

Words: 13374

Fonts and encodings: Unicode Ext-B (𠄎)

Adam Daniel Smith
Columbia University
Society of Fellows
as3758@columbia.edu
www.cangjie.info

TODO:

- check all citations and translations.
- Read: Künstler, Mieczyslaw Jerzy. *Les formations adverbiales à quasi-suffixe en chinois archaïque et dans la langue de l'époque Han*. Warszawa: Państwowe Wydawn. Naukowe, 1967.
- Read: Serruys, Paul L-M. “Review of Les Formations adverbiales à quasi-suffixe en Chinois Archaïque et dans la langue de l'époque Han by Mieczyslaw Jerzy Künstler.” *Journal of the American Oriental Society* 89, no. 1 (January 1, 1969): 241-252.
- Consider cuts to reduce length.

Figure 1. Forms for wū 烏 and yú 於: a. JC2841; b. and c. JC5429; d. SW4a:82 *xiaozhuan*; e. and f. SW4a:82 *guwen*; g. JC2840-B-3.



a



b



c



d



e

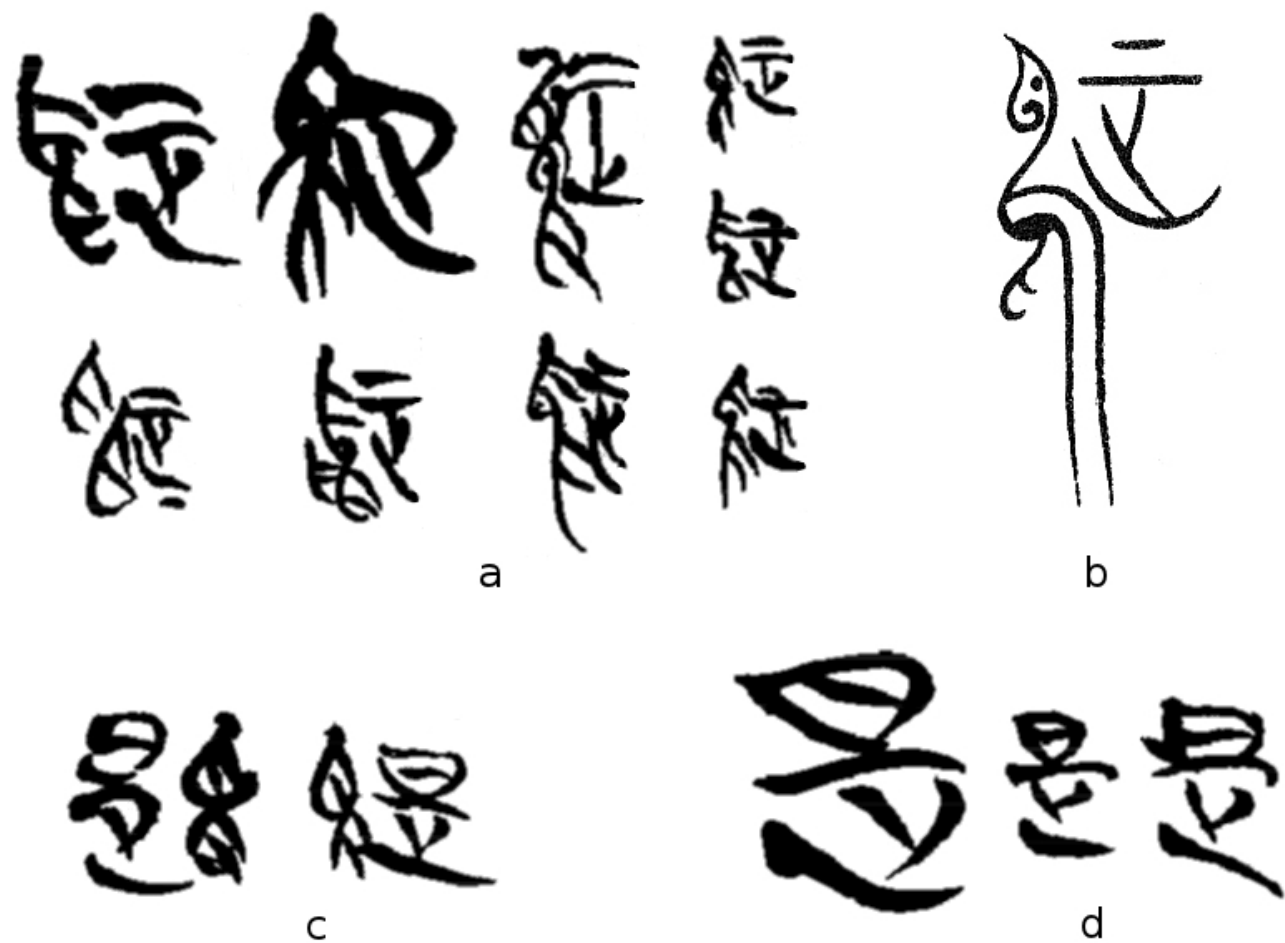


f



g

Figure 2. Forms for yān 焉 and shì 是: a., c. and d. Wenxian covenants, after (Henansheng Wenwu Yanjiusuo 1983); b. JC9735-4B.



The particle yān 焉, and the phonological reduction of prepositional phrases in Old Chinese.

1. Introduction

There is general agreement that, in some contexts, the Old Chinese (OC) particle yān 焉 behaves semantically and syntactically in a manner similar to a prepositional phrase (PP) consisting of the preposition yú 於 and a third-person pronoun (3pp) (Yang Bojun and He Leshi 1992, 19–20; Pulleyblank 1995, 80–81). This was first clearly stated by Kennedy (1940a; 1940b; 1953), who additionally noted that, in two of the three Middle Chinese (MC) readings for yān 焉, the initial (ʔ- 影) is the same as that of the preposition yú 於. Kennedy saw that this syntactic and semantic equivalence with a PP was the result of a diachronic process that reduced the bisyllabic PP to a monosyllabic “fusion word”. Kennedy was writing before the growth of a substantial literature on grammaticalization in the 80s and 90s (Hopper and Traugott 1993). We can now describe the origins of yān 焉 in terms of irregular (i.e. lexically specific) phonological reduction concomitant with grammaticalization.

The issue of which 3pp was the second element in the original PP was never resolved. Two errors in Kennedy’s original presentation went uncorrected and proved a distraction in most subsequent treatments. The first problem is Kennedy’s phonological argument, which concluded that the 3pp should be pronounced like *-an* (1940b, 204). The second, a mistake which long precedes Kennedy, is an incorrect analysis of the graph 焉.¹

This paper reaffirms Kennedy’s proposal that the particle yān 焉 is, historically, the result of a phonological reduction of a high-frequency PP involving the preposition yú 於 and a 3pp. It further shows that this was part of a more general process which affected high-frequency PPs combining

¹ In this paper, when I refer to “yān 焉”, I am referring to a linguistic item (a “word”, loosely speaking), or a collection of related linguistic items, without making any implications about how they are written. A written form will be referred to as, e.g., “the graph 焉”, without making any implications about what word is being written. The reader can expect to encounter phrases like “the particle yān 焉 written with the graph 安.”

several different prepositions (the discussion will be confined to yú 於, yú 于) and several different 3pps (including zhī 之, shì 是 and hé 何). The MC readings for yān 焉 derive from the PP yúshì 於是. The graph yān 焉 arose from a hégén (合文) writing for the PP yúshì 於是.

2. The syntax and semantics of yān 焉

There is consensus regarding the syntactic and semantic behavior of the particle yān 焉, but divergence in the terminology used to express it. It is important to distinguish the historical origins of the particle from its synchronic properties in the language of the Warring States (mid 5th c. - 221 B.C.) to Han period (206 B.C. - 220 A.D.) literary texts in which it is most extensively attested. This is a good reason to avoid referring to a hypothetical PP when describing its synchronic behavior: although the resemblance is often apparent, in many cases it is less obvious. The synchronic behavior of yān 焉 can be conveniently summarized under the following five categories.

Usage 1: 3pp, oblique-case verb complement

Note that the semantics of the oblique case are highly variable, and determined by the verb to which the 3pp is a complement.

- (#) 見其二子焉。
[He] presented his two sons *to him*.
- (#) 莫大焉。
Nothing is bigger *than that*.
- (#) 不得免焉。
[They] obtained no escape *from them*.
- (#) 然，昔者吾舅死於虎，吾夫又死焉，今吾子又死焉。
It is so. Formerly, my husband's father was killed by a tiger. My husband was also killed *by it*, and now my son has been killed *by it*.

This 3pp usually only appears after the verb. Exceptions, such as the following, are rare.

- (#) 我周之東遷，晉、鄭焉依。
When our Zhou removed to the East, it was Jin and Zheng *on which* they relied.

As Kennedy (1940a, 15–18) clearly stated, this unusual word order is an example of a more general phenomenon of verb participants other than the subject being “exposed” before the verb, and “resumed” by a pronoun (Pulleyblank 1995, 70–71).

Usage 2: pro-adverb (“there; in this; then; thereby; thereupon”)

- (10) 懼有伏焉。
[I] feared that there was a trap *there*.
- (11) 就之而不見所畏焉。
On approaching him I saw nothing to inspire awe *there* (*in him* [?]).
- (12) ...而封宋向戌焉。
...and enfeoffed Xiang Xu of Song *there*.

The pro-adverb is to a greater degree than the 3pp omissible without serious disruption to the sense. It is less dependent on the particular verb for its semantics, which consistently refer to background truth-conditions of location, time or circumstance. A syntactic difference is the more frequent appearance of the particle in the adverbial slot in front of the verb.

- (#) 焉能治之
Thereby one can govern it. (Goldin/Pulleyblank)
- (#) 故先王焉為之立中制節。(Li Ji)
Thus, the former kings and sages *thereupon* established for them the constraints of a reasonable institution.

The contrasting features of Usages 1 and 2 can be described in terms of the complement (Usage 1) vs. adjunct (Usage 2) distinction (e.g. Dowty 2003), and this terminology will be adopted in the discussion of PPs below. In addition to clear-cut cases, there are also intermediate examples that are hard to classify decisively as either Usage 1 or Usage 2.

Usage 3: 3pp, interrogative oblique-case verb complement

Clear examples (distinguishable from Usage 4) are relatively hard to find, but the yān 焉 of Usage 1, seems to have an interrogative counterpart.²

- (#) 吾將焉致乎魯國?
On whom shall I confer the state of Lu? (Goldin p. 169)
- (#) 王曰：子焉聞之？對曰：犀首告臣。
The king said, “*From whom* did you hear it?” He answered, “Xi Shou told me.”

This 3pp always comes before the verb, as is usual with interrogative pronouns more generally (Pulleyblank 1995, 91–97).

Usage 4: interrogative pro-adverb (“how?; where?; whither?”)

This is an interrogative counterpart to Usage 2, and occurs frequently.

- (#) 焉有仁人在位。罔民而可為也？
How would ensnaring the people be acceptable if there were a benevolent person ruling?
- (#) 未能事人，焉能事鬼？
If one is unable to serve people, *how* is one able to serve spirits of the dead?

Often, sentence position can distinguish the interrogative adverb from its non-interrogative counterpart. However, as noted above, the non-interrogative adverb is also found before the verb, leading to an ambiguity that can only be resolved on pragmatic grounds. For example, (#) could also be read as “How can one govern it?”

Usage 5: adverb suffix

A number of adverbs of manner, typically reflecting the psychological state of an agent, are formed from a stative verb followed by yān 焉 (Künstler 1967) CHECK REF.

² Even in the examples cited, I see little to choose between the 3pp interpretation, and the adverbial alternative: “*How* shall I dispose of the state of Lu?” or “*How* did you hear of it?”

- (17) 夫狡焉思啓封疆以利社稷者，何國蔑有？
Now, what state lacks men who *deviously* would seek to expand territory to profit the altars of earth and grain [i.e. to profit the state]?
(He Leshi 1989, 325)

The term before the yān 焉 suffix is sometimes duplicated:

- (18) 閔閔焉如農夫之望歲，懼以待時。
Anxiously like a farmer looking to the seasons, with fear I await the time.
(He Leshi 1989, 327)

In some cases what appear to be adverbs formed in this way are deployed as predicates in their own right. Note that in the following example they still reflect the manner in which an agent performs an action.

- (19) 禹、湯罪己，其興也悖焉。桀、紂罪人，其亡也忽焉。
Yu and Tang blamed themselves. Their rise was *swift*. Jie and Zhou blamed others. Their fall was *sudden*.
(He Leshi 1989, 326)

Of the 877 occurrences of the particle listed in a grammatical survey of the *Zuo Zhuan* (He Leshi 1989, 289–334), only a handful of cases cannot readily be accommodated into the five categories just described.³

2. The graph 焉

Big dictionaries begin their entry for yān 焉 with the gloss “*niao ming* 鳥名 [the name of a bird]” (e.g. *Hanyu da zidian bianji weiyuanhui* 1993, 924). Discussions of the particle yān 焉 have all assumed that the graph was a pictographic (*xiangxing* 象形) writing for a bird word, loaned to write the particle yān 焉 (Kennedy 1940b, 205; Goldin 2003, 173; He Linyi 1998, 983). Two considerations should make us suspicious. Firstly, the use of the graph to write a bird word is unattested in OC.

References to it are dependent on a peculiar, verbose entry in the received *Shuowen Jiezi* 說文解字

3 He Leshi (1989, 327–329) identified six instances of yān 焉 that by her analysis fall outside the five syntactic categories proposed here. However, at least three of these (including the example from my citation #) can readily be analyzed as either an oblique 3pp or an adverb meaning “there”.

(SW4.82). Secondly, a bird pictogram *is* the source of the graph used to write yú 於, the preposition in the “fusion” that Kennedy proposed as the origin of yān 焉 (He Linyi 1998, 439).

The graph 烏 is a pictogram for wū < ^{a/}qa “crow”.⁴ The graph is well attested in inscriptions from the first half of the first millennium B.C. where it wrote the first syllable of the exclamation wūhū < ^{a/}qa-^{a/}q^ha “Ah!”. The ca. 600BC Qi *bo* 齊罇 bell (JWJC271, (Ma Chengyuan 1990, 4:533–535, #843)) is usually cited as the earliest example of its use to write the preposition 於 yú < ^{b/}qa (He Leshi 1989, 110). In the second half of the first millennium BC, its use in that sense became commonplace. However, the form of the graph used to write the high-frequency preposition underwent more rapid graphic deformation (*ebian* 訛變) than the low-frequency usage to write “crow”. The two graphs underwent a split resulting in the two distinct graphs of received orthography, 於 for the preposition and the more conservative 烏 for “crow” (Fig. 1). The *Shuowen* deals with both graphs and both words in a single entry (SW4.82). This much is uncontroversial (Rong Geng 1985, 265–266, #0653; He Linyi 1998, 439–440).

***** Fig. 1 ABOUT HERE *****

The 烏 “crow” pictogram is also the bird component in the graph 焉. The two elements are written identically in the inscriptions from the late 4th c. BC tomb of the king of Zhong Shan 中山 (Mattos 1997, 104–111), for example (figs. 1g and 2b). In most Warring States period exemplars, the graph 焉 has 烏 (於) on the left and 正 – a horizontal bar over the 止 “foot” pictogram – on the right (figs. 2a and 2b). An important variant appears in the oath texts from Wenxian 温縣 (Henansheng Wenwu Yanjiusuo 1983; Weld 1990; see also the photographs in Ai Lan and Xing Wen 2004, pl. 4–18; Tang Zhibiao 2009, 222–225). The oaths date to ca. 500 BC, and are the earliest large collection of Chinese brush-written documents that survives. The oaths include many repetitions of the same formula, written out by different hands and with the names of participants plugged in. The “adverbial suffix” variety of yān

4 For relevant principles of OC reconstruction and its notation, see the following section on phonology.

焉 (Usage 5) appears in the oath formula.

- (#) 自今以往，NAME 敢不歆歆焉忠心事其主...
From henceforth, should NAME dare not *gladly* and with a loyal heart serve his lord...

The reduplicated word to which yān 焉 is suffixed is written with a puzzling diversity of graphs, not all the components of which can be readily explained. This has entailed some uncertainty over the word that is intended (Henansheng Wenwu Yanjiusuo 1983, 80–81). Nevertheless, reasons for feeling confident that it is 歆 ~ 愔 xīn < ^{b/}q^həm “glad; willing” include the following: 1/ it would account for most of the components that occur in the variant writings, 2/ the reduplicated form is attested in received literature⁵, and 3/ it makes perfect sense in context.

The graphs used to write yān 焉 show considerable variety (fig. 2a and 2c). Some correspond to the standard Warring States writing (fig. 2a). In others, it is not zhèng 正 but shì 是 (fig. 2c). The latter is a compound of yú 於 and shì 是, and is the full, original form of the graph, undoubtedly coined to write yān 焉, or its PP precursor yú shì 於是 and not “the name of a bird”.⁶

This is an unusual way of structuring a graph, one that is otherwise unattested in OC texts. It probably arose from the frequent writing of the PP yú shì 於是 “in this, etc.” There is a tendency for early Chinese scribes to adopt *hewen* 合文 ligatures for certain high-frequency collocations, in which two graphs are packed into a single space in a column of text and notated for the reader with a double dot. The Houma 侯馬 covenants, contemporary with and intimately related to those from Wenxian, have several examples of *hewén* (dà fū 大夫, zhī suǒ 之所, Hán Dān 邯鄲, zǐ sūn 子孫, zhì yú 至于, see Shanxisheng Wenwu Gongzuo Weiyuanhui 山西省文物工作委員會 1976, 355). The zhōng xīn 忠心 “with a loyal heart” of the Wenxian covenant formula is also written in this manner. I suggest that yú shì 於是 had been similarly represented in an orthography ancestral to that of the Wenxian covenants. Note,

5 ZZ Zhao12.

6 Note that this analysis is to be preferred to the alternative offered by He Linyi (1998, 983).

though, that in the Wenxian texts the graph is no longer a *hévén* since it lacks the double dot notation: the prepositional phrase had already been reduced to a monosyllable and reanalyzed as a single morpheme.

The phonological reduction and reanalysis of the PP *yú shì* 於是 that produced the particle *yān* 焉 meant that the original motivation for the graph *yān* 焉 became opaque to later users of the script. The omission of the *rì* 日 “sun” element, and subsequent graphic deformation effectively rendered the original structure of the graph unrecoverable, leading to the peculiar entry in the received *Shuowen*.

3. The phonology of *yān* 焉

The OC phonological scheme and notation used in this paper is fundamentally that of Baxter (1992), with the few modifications described here. Superscript ^{a/} or ^{b/} are used as an abstract notation for the OC origins of MC non-division III (type a) and division III (type b) syllables.⁷ Modern standard Chinese forms are those with tone marks, and MC forms are those with neither tone marks nor the a/b superscripts. Aspirated stops and labialized stops are written with superscripts ^h and ^w respectively. The vowel which Baxter (1992) writes as *ɨ* will be written as *ə*. MC will be transcribed as in Baxter (1992).

The only significant departure from Baxter’s system is, following Pan Wuyun (1997; 2000, 333–350), the reconstruction of a set of uvular initials (*q-*, *q^h-*, *g* and their labialized counterparts, *q^w-*, *q^{wh}-*, *g^w-*). The series of OC uvular initials was proposed by Pan as the source of the MC initials *ʔ-* (影), *x-* (曉) and *hj-* (喻三 / 云), and as one source of MC *h-* (匣). Although a number of points of uncertainty remain, Pan’s proposal has been accepted by some others working in the field (Sagart 2007; Zheng-Zhang Shangfang 2003, 89).

The *Guang Yun* 廣韻 lists three pronunciations for *yān* 焉, two with the MC initial *ʔ-* (影) and one

⁷ The nature of this distinction has been much discussed, though no solution has found general acceptance. See Sagart (1999, 42–49) for an overview.

with *hj-* (喻三). Kennedy noted that the former matched the initial of preposition *yú* < ʔjo 於. Together with the similarities in sentence position and semantics between *yān* 焉 and PPs involving this preposition, that persuaded Kennedy that *yān* 焉 originated from a bisyllabic PP (1940b, 206). The analysis of the graph 焉 given above confirms that he was correct. However, Kennedy's claim about the phonology of this PP was more problematic. The original first syllable of the PP was the preposition *yú* 於, while

...the second element ought to be (-)an, that is, it should supply at least an *a* vowel coloring and a final nasal, and may include other elements that have disappeared. This *an* would presumably be a pronoun. (1940b, 204)

This conclusion has influenced most subsequent English-language treatments of the problem. Since there is no OC 3pp pronounced like (-)an, various alternatives have been proposed. Pulleyblank (1995, 80; 1991; cf. Schuessler 2007, 76, 584) proposed “a suffix *-n inherited from Sino-Tibetan that may originally have been a mark of non-perfective or durative aspect, the anaphoric pronominal meaning being a secondary development.” Norman (1988, 86) suggested that *yān* 焉 “must originally have arisen in a dialect” which had a 3pp with initial *n-*, precursor to the *nà* 那 “that” of later dialects. Goldin's (2003; 2004; Pulleyblank 2003) approach was to “show that the mysterious word is ... *yan* itself.” Like Kennedy, he took non-interrogative *yān* 焉 as a fusion of preposition plus pronoun, but identified the pronoun as interrogative *yān* 焉.

The graph 焉 indicates clearly that the 3pp was *shì* 是 “this”. The proposals just mentioned can therefore be rejected. This was previously stated by Dobson (1964), on the grounds that the 3pp would only likely be drawn from the attested repertoire of OC 3pps. Though correct, Dobson did not provide careful phonological reasoning.

Unlike Karlgren's system which Kennedy was using, all modern schemes for OC phonology agree in reconstructing the same vowel (-a-) in *yú* 於 as in *yān* 焉. There is thus no need to attribute the

-a- vowel to the 3pp. Consequently there is no need to attribute the -n coda of yān 焉 to the coda of the 3pp: it could equally be from the initial. (Norman 1988, 86 appears to have realized this.) Indeed, amongst the known OC examples of what Kennedy called “fusion words”, those with obstruent codas derive that coda from the initial, not the coda, of the second fusing element.

(#) 何 + 不 = 盍
^{a/}gaj + ^{b/}pə = ^{a/}gap
 What? + not = why not? (rhetorical question marker)

This allows us to give up the fruitless search for Kennedy’s hypothetical pronoun *-an*. On the model of hé 盍, consider instead the likely result of a fusion between yú 於 and shì 是. The reconstruction of yú 於 is straightforward.

(#) yú < ʔjo < ^{b/}qa 於 (preposition)

The reconstruction of the demonstrative pronoun shì 是 “this” presents a few puzzles. My purpose is not to advocate a particular resolution to them here, but shì 是 is probably best thought of as one of a family of variant 3pps that include the following.⁸

(#) shì < dzyeX < ^{b/}deʔ 是 ~ 氏 3pp
 (#) shí < dzyi < ^{b/}də 時 3pp
 (#) shí < dzyik < ^{b/}dək 寔 3pp

That an OC dental initial (rather than a palatalizing velar, say, or a lateral) is the source of the MC palatal initial is indicated by the phonetic series for 是 as a whole.⁹ With these reconstructions in hand, the fusing PP then becomes:

8 For brief summary of these 3pps and a statement of their likely relationship, see Pulleyblank (1995, 85–86, 89).

9 In some texts, including the Warring States period Zhong Shan inscriptions, shì 是 “this” is written shì 氏. I take this to imply that shì 氏 “clan” is also to be reconstructed as ^{b/}deʔ. However, evidence from other words in the phonetic series for shì 氏 seems to imply that shì 氏 “clan” has a velar initial (see e.g. Schuessler 2009, 121). Since the dental initial in shì 是 “this; true” seems secure (and is made more so by the analysis of yān 焉 presented here), I suggest that an alternative account needs to be found for the evidence pointing to a velar initial in shì 氏 “clan”.

(#) 於 + 是
^{b/}qa + ^{b/}deʔ

On the model of hé 盍 above, we would expect this to yield the non-canonical syllable ^{b/}qad. A plausible canonical alternative under the assumption that this is a case of phonological reduction would be ^{a/b/}qan (preserving the dental and voicing features of the -d). Whether we would expect a type-a or type-b syllable to result would depend on our theory of the nature of that distinction.¹⁰ In fact, the type-b value corresponds regularly to one of the MC readings for yān 焉, while the type-a value corresponds to the MC reading for ān 安.

(#) yān < ʔjon < ^{b/}qan 焉

(#) ān < ʔan < ^{a/}qan 安

The graph 安 is a common alternative writing for the particle yān 焉 (see below). The phonology of the words involved is thus fully compatible with the claim that yān 焉 is a grammaticalized and phonologically reduced form of the PP yú shì 於是.

The situation is made more complicated by two further readings for yān 焉 that are recorded in the *Guang Yun*, and which require explanation. Both would appear to reflect a medial -r- in OC.¹¹ The first is:

(#) yān < ʔjen (III) < (?) ^{b/}qran 焉

For several reasons, it is likely in this case that the variant MC finals -jon and -jen (III) reflect a single OC form, and that the medial -r- implied by the latter reading is spurious.¹²

10 If the type-a / type-b distinction were a feature of the initial consonant, as in Baxter & Sagart's recent reconstructions, deriving from proposals by Norman (1994), one would expect the outcome of the fusion also to be type-b (like yú 於). Type-a would seem less unlikely if the distinction were "prosodic" (Pulleyblank 1996) or connected with vowel-length as in the systems of Pan Wuyun (2000) and Zheng-Zhang Shangfang (2003).

11 Baxter (1992, 209–210 and n. 151; 269–287).

12 The reading for ān 安 unambiguously indicates a syllable without medial -r-. Yú 於 is also unlikely to have had the medial since its graph is historically 烏, writing wū "crow" which is unambiguously without -r-. Baxter notes (1992, 834 n. 151) that the MC rhymes -jon (in 元) and -jen (III) (in 仙) "seem to be in the process of merging [in the *Qiè Yùn*], so the *-r- in the Old Chinese form [for yān 焉] may be artificial." Baxter provides no explicit support for the claim, but

The second variant pronunciation, *hjen* (III), is more interesting. As in the previous case, we probably need to think of the final *-jen* (III) as indistinguishable from *-jon* for the purposes of reconstruction, and should take it as reflecting OC *-an* rather than *-ran*. The initial *hj-* (喻三, a.k.a. 云) has previously attracted considerable comment (Pulleyblank 1962, 96–97; Sagart 2007; Baxter 1992, 209–210; Pan Wuyun 2000, 348–350). There is a strong tendency for words with MC initial *hj-* to be *hekou* (合口), that is, to have either a medial *-w-* or a rounded vowel in MC. Only two exceptions occur with any frequency. These are the reading under discussion for the particle *yān* 焉, and the reading for the sentence-final particle *yī* 矣. It is likely, then, that the occurrence of initial *hj-* in these two syllables is the result of an irregular (lexically specific and contextually determined) sound change affecting unstressed grammatical particles. For *yān* 焉 the change seems to involve voicing ([q] > [g]) and frication ([g] > [ɦ]), directional changes reducing stops in “weak” phonological environments.¹³ There is clear lexicographic and orthographic evidence that this is correct. The *Guang Yun* glosses for *yān* 焉, although inadequate to capture the full range of the particle’s behavior with precision, nevertheless imply that the readings with MC initial ʔ- (影) apply to interrogative uses (Usages 3 and 4), while the reading with initial *hj-* (喻三) corresponds to Usages 1 and 2. A more explicit statement appears in the *Yan Shi Jia Xun* 顏氏家訓 (Kennedy 1940b, 194–196). Rather than the interrogative vs. non-interrogative distinction *per se*, however, it is instead the phrasal position and thus the phonological environment of the particle that is likely to have been important. As we have seen, interrogative uses of *yān* 焉 are always phrase-initial, while non-interrogative uses are often the last element in a phrase. The MC reading for *yān* 焉 with initial *hj-* is thus likely to be a phonologically reduced form conditioned by

certainly by the period of Late Middle Chinese, the relevant parts of the 元 and 仙 rhymes had merged (E. Pulleyblank 1984, 235, rhymes 55-56).

13 Baxter and Sagart’s recent approach to uvular initials (Sagart 2007) suggests that *yī* 已 “to stop; already” may be reconstructed as ^bgəʔ. It has previously been suspected (Pulleyblank 1995, 116–117) that *yī* 已 “already” may have been the etymological source of sentence-final *yī* < hiX 矣. I tentatively suggest that both of these proposals are correct, and that *yī* 矣 is derived from ^bgəʔ by irregular frication parallel to that affecting *yān* 焉.

its typically phrase-final position (cf. Kennedy 1953, 228; Baxter 1992, 209–210; Pulleyblank 2003, 636–637).

An orthographic contrast between 安 and 焉 in some received texts tells the same story. Some texts employ the graph 焉 to write all forms of the particle in all contexts. Other texts allow phrase-initial instances (interrogative or not) to be written with 安, contrasting with phrase-final instances written with 焉 (Goldin 2003, 171).¹⁴ This reflects the contrast between the unreduced and reduced initials, and possibly also a type-a (安) vs. type-b (焉) distinction.¹⁵ Consider the following passages of parallel text.

- (#) 然則何以三年也? 曰: 加隆焉爾也, 焉使倍之, 故再期也。《禮記·三年問》
然則 三年何也? 曰: 加隆焉, 案使倍之, 故再期也。《荀子·禮論》
This being so, why [do some people extend mourning into] the third year? I say it is to add magnificence *to it*. *Thus*, they cause it to be doubled, and so there is another year.

Some excavated manuscripts (the Warring States Chu texts from Guodian and the Shanghai Museum) seem to ignore this distinction, while others, such as the following Qin-period legal manual, seem to mark it.

- (#) 甲取人亡妻以為妻, 不智亡, 有子焉, 今得, 問安置其子?
Person A takes someone else's runaway wife to be his own wife, not knowing that she has run away, and has children *with her*. Suppose now she is captured. Question: *how* (or *where*, or *with whom*) are the children to be placed? (SHD:D147).

In summary, multiple lines of evidence allow us to reconstruct a cline of phonological reduction leading away from an original PP *yú shì* 於是.

14 The manuscripts from Guodian and in the Shanghai Museum collection regularly use 安 to write *yān* 焉 in all positions (Goldin 2003, 171–172; Zhang Yujin 2008). Or more correctly, they regularly use either 安 or, more commonly, a graph that has 女 as a component, and which is also the standard writing in these manuscripts for *ān* 安 “to be settled”. Since I don’t think that the distinction between these two graphs affects the arguments presented here, I will write both graphs as 安. It should be emphasized, contra Pulleyblank (2003, 637), that the regular use of 安 to write *yān* 焉 cannot be taken to indicate “a feature of the contemporary Chu dialect”. There is nothing improbable about the use of the graph 安 to write phonologically reduced phrase-final forms of the particle. A contrast between reduced and unreduced initials, if there was one in the language in which these manuscripts were read, is simply invisible behind this orthographic convention.

15 There are a number of reasons for thinking that type-b syllables are phonologically unmarked vis-a-vis type-a (Norman 1994), and phonetically weaker, high-frequency grammatical particles are almost all type-b. In bisyllabic *Odes* rhymes, where the second syllable of the rhyme can be presumed to be stressless, the second syllable (most often *xī* 兮 or *zhī* 之) is typically type-b.

(#) ^{b/}qa-^{b/}deʔ > *^{a/}qad > ^{a/}qan > ^{b/}qan > (phrase-finally) ^{b/}ʃan

One other variant writing for yān 焉 may be usefully discussed here. It provides an additional illustration of the susceptibility of the particle's initial consonant to assimilatory change when the particle appears unstressed at the end of a verb phrase (VP). It also illustrates, as with the contrast between 安 and 焉, how orthography can sometimes reflect relatively subtle changes of this kind.

As noted above, the Guodian manuscripts write the particle yān 焉 using the graph 安 with great consistency. The only exceptions of which I am aware occur in the “Liu De 六德” text, where the following passage occurs on strips 33-34.¹⁶

(#) 男女別生言，父子親生言，君臣義生言。
The distinction of man and woman arises *there* (or *from this*); the kinship of father and son arises *there*; the right conduct of lord and vassal arises *there*.

The editors of the primary edition (Jingmen shi bowuguan 1998, 71, 188) made no comment on the function of the graph 言 in this passage. Liu Zhao's (2005, 109, 118) edition identifies it as a phonetic loan for yān 焉. It is admittedly unclear exactly what “there” or “from this” refers back to in the preceding rather difficult passage in the text. However, there is no doubt that this is an instance of the particle yān 焉 (in Usage 2). Shēng yān 生焉 “arises there” is a very common collocation in received literature. Linguistically similar passages include the following:

(#) 天下失道，而後仁義生焉，國家不治，而後孝子生焉，民爭不分，而後慈惠生焉，道逆時反，而後權謀生焉。
Only when the world has lost the Way do humanity and rightness arise *in consequence*; only when a state is not governed do filial sons arise *in consequence*; only when conflict among the people is incessant does kindness arise *in consequence*; only when the Way is opposed and the seasons inverted does political strategy arise *in consequence*. (Shuo Yuan “Za Yan”).

However, a simple phonetic loan in the “Liu De” text seems unlikely given the availability and routine use of the graph 安 in that and other Guodian texts, and the mismatch in initial consonants.

16 Liu Zhao (2005, 118–119) identifies two additional examples of strip 36 of the same text. These identifications seem less compelling.

yān < ^{b/}ŋan 言 “to speak; speech”

yān < ^{b/}qan ~ ^{b/}fian 焉 “(particle)”

It is more likely that the anomalous use of the graph 言 for yān 焉 reflects an assimilation of the initial consonant of the particle to the final consonant of the preceding verb.¹⁷

(#) 生焉 ^{b/}sreŋ-^{b/}qan > 生言 ^{b/}sreŋ-^{b/}ŋan

4. The PP yú shì 於是

In the previous two sections we have seen how the reduction of the PP yú shì 於是 accounts for both the orthography and the phonology of yān 焉. In this section we will attempt to account for the syntax and semantics of yān 焉 with reference to its origin as a PP. The unreduced PP continues to appear with high frequency in the same corpora in which yān 焉 is attested. We can compare their behavior.

The behavior of PPs with the preposition yú 於 can be helpfully analyzed by distinguishing their use as adjuncts from their use as verbal complements (see Dowty 2003, on which the presentation here is largely based), while noting that in some cases there is little to choose between the adjunct and complement interpretation. Roughly speaking, an adjunct PP specifies some additional background condition (of time, location, perspective) under which the sentence as a whole is true. A complement PP supplies a syntactic argument of the verb, one that is indicated for by the lexical entry of the verb itself.

Adjuncts are less dependent for their semantics on the verb. Adjunct PPs with yú 於 indicate a background condition (time, location, etc.) independently of the particular choice of verb. Similarly, the presence or absence of the adjunct PP does not affect the semantics or syntax of the verb: adjuncts are often omissible. Complement PPs in contrast are more dependent for their semantics on the particular

17 A particle written 言 and similar in behavior to the particle yān 焉 occurs frequently in the *Odes*. I will discuss this particle subsequently. Here I merely note that it cannot be explained in terms of assimilation to a preceding consonant in the same way as the “Liu De” particle.

choice of verb. The notoriously diverse semantics of the preposition yú 於 in complement PPs – including marker of passive and comparative constructions, and a variety of indirect objects – is highly dependent on the verb. Similarly, the presence or absence of the complement PP, or the substitution of an alternative complement, typically has a marked impact on the syntax and semantics of the verb: complements are not omissible.

Consider the PP yú Chǔ 於楚. When functioning as an adjunct, this PP indicates location - “in Chu”, and does not depend for that interpretation on its association with a particular verb.

- (#) 則徐君死於楚。(Xin Xu “Jie Shi”)
Thus the Lord of Xu died *in Chu*.

Semantically, Chu is not a participant in the event of the death – the only participant is the subject, the Lord of Xu. Chu is merely the location of that event. The interpretation of the PP as indicating location is not dictated by any lexical feature of the verb sǐ 死 “to die”.

Contrast the following VPs in which the same PP functions as a complement.

- (#) 乞師於楚 (Shuo Yuan “Zun Xian”)
requested an army *from Chu*
- (#) 亡於楚 (Shuo Yuan “Zun Xian”)
was defeated *by Chu*
- (#) 皆服於楚矣 (Shuo Yuan “Zhi Wu”)
submitted *to Chu*

In none of these cases does the PP indicate location. Rather it identifies Chu as one of several participants in the event referred to by the verb. The semantic details of that participation are specifically determined by the verb in question. For example, a lexical feature of the verb fú 服 “to submit” is that it licenses two participants: the submitter indicated by the grammatical subject, and the receiver of the submission, identified with a PP with yú 於.

To these semantic aspects of the distinction between complement and adjunct PPs we can add a syntactic one. Because complement PPs are tightly linked to the verb, they cannot occur outside the VP.

In none of the examples (#-#) can the PP yú Chǔ 於楚 be moved before the verb and retain its status as a complement. With adjuncts, there is sometimes greater freedom.

- (#) 於崇吾得見王 (Mencius “Gongsun Chou xia”)
At Chong I got to see the King.

The syntactic independence of adjunct PPs also means that they can be nominalized with zhī 之.

- (#) 富貴之於我，如秋風之過耳。
Wealth and prestige are, to me, like the autumn wind blowing in the ear.

Turning now to the PP yú shì 於是, it can function as either complement or adjunct. Consider the verb yì 異 “to be different from”. The lexical properties of this verb license, and determine the semantics of, a following complement PP with yú 於. In the following citation, the PP yú shì 於是 fulfills this role.

- (#) 我則異於是 (Lun Yu “Wei Zi”)
I, though, am different from them.

The particle yān 焉 fulfills the same syntactic role with the same semantics in the next citation.

- (#) 同焉者是也，異焉者非也。(Xunzi “Zheng Lun”, tr. Knoblock)
What was identical to them would be right. What was different from them would be wrong.

The comparative use of adjectival verbs also licenses a complement PP with yú 於, which can be instantiated by yú shì 於是.

- (#) 孰大於是? (Mencius “Jin xin shang”)
What is greater than this?

Notice once again that the semantics of the complement PP (comparative “than this”, as opposed to, say, “from this”, “to this”, “by this” etc.) are dictated by the verb. Again, we can identify cases where the behavior of the PP yú shì 於是 is exactly matched by that of the particle yān 焉.

- (#) 孰大焉 (Xunzi “Yi Bing”)
What is greater *than this*?

Instances of yān 焉 that substitute in this way for the complement PP yú shì 於是 correspond to what we identified as Usage 1 in Section 1 above, as a case-marked 3pp. Notice also how the properties of Usage 1 are precisely accounted for by its status as a complement. It can only occur within the scope of a VP.¹⁸ It always corresponds to a verb participant. Its diverse semantics (“than this,” “from this,” “to this,” “by this” etc.) are determined in any particular instance by the verb with which it occurs.

Let us now look at the adjunct PP yú shì 於是. The semantics of the adjunct PP are much less variable and are independent of the main verb, having a consistent sense of “against this (temporal, locational or other) background circumstance”. The adjunct PP occurs most frequently outside the main VP.

- (#) 思天下惟羿為愈己。於是殺羿。(Mengzi “Li Lou”)
He reflected that under heaven it was only Yi who surpassed him. *So* he killed Yi.

When the adjunct PP occurs outside the VP, it is often expanded by an additional syllable hū <^aGa 乎, which appears to be simply a phonological manifestation of the phrase-boundary between the PP and VP. We will later encounter other examples of adjunct PPs with 於 that attract this additional syllable.

- (#) 魏於是乎始强。
Wei *thereupon* began to be powerful.

The adjunct PP yú shì 於是 can also appear within the VP. Word-order is then indistinguishable from that of the complement PP, but the semantics are still distinctly those of a background condition, rather than that of a participant role in the verb event.

¹⁸ In almost all cases, this means that its position will be after the verb. Note that the pre-verbal instance in citation (#), though highly unusual, is *not* an exception to the rule that Usage 1 can only occur within the VP. In that example, the particle is still a complement of the verb yī 依 “to rely (on)”, but the usual head-complement order of the VP has been reversed. This is a reminder of the relative inadequacy of conventional descriptions of OC syntax in terms of surface patterns (“pre-verbal”, “post-verbal” etc.) compared with a more sophisticated phrase-structural model.

- (#) 君何患於是?
What is there for you to be troubled about *in this*?

Usage 2 of the particle yān 焉 I suggested was best described as a pro-adverb, “there; in this; then; thereby; thereupon,” occurring either in the typical adverb slot before the verb, or after the verb. It is thus fully accounted for, syntactically and semantically, by the hypothesis that it is a reduced form of the adjunct PP yú shì 於是.

- (#) 君何患焉?
What is there for you to be troubled about *in this*?

Although the behavior of the particle yān 焉 in Usages 1 and 2 is very similar to that of the PP yú shì 於是, we see clear signs also that the particle is not simply a reduced phonological realization, with its own orthography, of an underlying PP. Rather, the process of grammaticalization has been completed and the particle has an independent lexical status of its own. For one thing, the distributions of Usage 2 and of the adjunct PP are not precisely the same. The sense “there (in that location)” can be expressed in Warring States and Han literature by yān 焉, but never to my knowledge by the ungrammaticalized PP.

- (#) 東敗於齊，長子死焉。(Mengzi “Liang Hui Wang shang”)
To the east I was defeated by Qi. My eldest son died *there*.

We do not find this, during the period in question, expressed with a PP composed of yú 於 and shì 是, or any other pronoun. Additionally, there are several examples where the adjunct PP yú shì 於是, outside the main VP, is itself augmented by the particle yān 焉, indicating their distinct status in the lexicon.

- (#) 於是焉河伯欣然自喜。(Zhuangzi “Qiu Shui”)
At this the River Lord was delighted.

- (#) 隱於是焉而辭立 (gongyangzhuan):
At this Yin Gong declined to inherit the dukedom.

We can now turn to Usage 5, the adverbial suffix. Unlike Usages 1 and 2, there appear to be no examples of the PP *yú shì* 於是 behaving in precisely the same way as the particle of Usage 5.

However, it is easy to see how the adjunct PP and Usage 2 relate to Usage 5. We find many examples of VPs consisting of an adjectival verb expressive of psychological attitude together with an adjunct (PP with *yú* 於 or pro-adverb *yān* 焉) referring to the focus of that psychological attitude.

- (#) “然後快於心與？”王曰：“吾何快於是？”(Mengzi “Liang Hui Wang shang”)
“Having done so, would you then be pleased in your heart?” The king replied: “How would I [_{VP} be pleased *at that*]?”
- (#) 君子恥焉。(Qian Fu Lun “Wu Ben”)
A gentleman would be [_{VP} ashamed *at that*].
- (#) 子何喜焉？(Guo Yu “Jin Yu 5”)
What have you to be [_{VP} pleased about *in that*]?

Usage 5 of the particle *yān* 焉, I suggest, represents a deployment of this kind of VP as an adverbial adjunct. The following examples were given previously but are presented again here with alternative translations intended to convey the spirit of this proposal.

- (17) 夫狡焉思啟封疆以利社稷者，何國蔑有？
Now, what state lacks men who, [_{VP} devious *in this*], would seek to expand territory to profit the altars of earth and grain?
- (18) 閔閔焉如農夫之望歲，懼以待時。
[_{VP} Anxious *in this*], like a farmer looking to the seasons, with fear I await the time.

In summary, the syntax and semantics of Usages 1, 2 and 5 are fully compatible with an origin for *yān* 焉 in the phonological reduction and grammaticalization of the PP *yú shì* 於是.

The biggest difficulty in providing a unified account of the behavior of the particle *yān* 焉 in terms of an origin in a reduced PP *yú shì* 於是 is to explain how it takes on an interrogative force in Usages 3 and 4.¹⁹ This is a hard problem to which I have no fully compelling solution.

19 Kennedy (1940b, 204), Pulleyblank (1995, 165 n. 37) and Goldin (2003, 170) all noted this problem with Usages 3 and 4. The solutions they offered, however, are incompatible with the account offered here of Usages 1, 2 and 5.

The first thing to note is that in all the text corpora available to us, the PP *yú shì* 於是 never has an interrogative force independently of the presence of other question words in the sentence. A possibility that should be pursued, then, is that independently interrogative *yān 焉* (Usages 3 and 4) developed from non-interrogative *yān 焉* (Usages 1 and 2) used together with some other interrogative word or words which later became omissible (cf. Hopper and Traugott 1993, 58–62).

Consider the two possible interpretations of the following rhetorical question.

- (#) 子焉得與魏成子比乎!
Interpretation 1: “Are you *thus* able to be compared with Wei Chengzi?”
Interpretation 2: “*How* can you be compared with Wei Chengzi?”

Under the first interpretation, *yān 焉* is an example of Usage 2, without any interrogative force, and the final particle 乎 *hū* marks a yes/no question. Under the second interpretation, *yān 焉* is Usage 4, with independent interrogative force, and the final particle 乎 *hū* is a (now redundant) question marker. Similar examples of rhetorical questions with *yān 焉* and an optional final *hū 乎* are very common. However, other constructions that might have provided a similar bridge between interrogative and plain *yān 焉* seem to be rare. The following is one interesting possible example:

- (#) 何書焉存?
In what books is it [an account of the dangers of fatalism] preserved?

If I understand the this example correctly, *yān 焉* is best analyzed as an interrogative oblique-case 3pp (“in what?”) placed before the verb. Yet, its interrogative force is redundant given the presence of *hé shū* 何書 “what books?” Interrogative *yān 焉* may have been seeded by special cases such as these, where reanalysis (Hopper and Traugott 1993, 32–62) is possible, and then generalized by analogy.

These suggestions are offered tentatively. In the following section, I consider the possibility that the generalization of interrogative *yān 焉* may have taken place by analogy with *wū 惡* “how? where?”, but without the conviction that this provides a complete solution to the problem.

5. Phonologically reduced PPs as a more general phenomenon.

I have proposed a unified account of yān 焉 in terms of the grammaticalization and phonological reduction of the PP yú shì 於是. I suggest that parallel developments, affecting high-frequency PPs with pronouns, can be used to account for the features of other grammatical particles in OC. Here I limit the discussion to particles that may have developed from PPs headed by the prepositions yú 于 and yú 於.

These two prepositions are very similar. They both indicate locations, destinations, and recipients of actions. They are also phonologically close, both having the -a rhyme, and (in the system adopted for this paper) uvular stop initials.

(#) 于 yú < hju < ^{b/}ɣ^wa “at; towards; to”

(#) 於 yú < ʔjo < ^{b/}qa “at; towards; to”

Surviving texts from the late second millennium and early first millennium BC appear only to use the former preposition, while the second is standard for Warring States period literature. The two appear to be in free variation in the inscriptions from the late 4th c. BC Zhong Shan tomb. Whether the similarities are accidental, or whether the two forms are related in some way is unclear. Pulleyblank (1986; 1995, 53–54) has presented arguments for their etymological independence. For the purposes of this paper, I will assume that the writings 于 and 於 correspond consistently with the forms given in (#) and (#), and will treat them as two independent words.

Yuán 爰: pro-adverb “there; thus; thereupon”

Kennedy (1940b, 205–206) and Dobson (1964, 297–299) noted that in the earliest received texts, notably the *Odes*, the particle yuán 爰 plays some of the same roles that yān 焉 does in later texts. Yang Bojun (1984) counted 38 examples of yuán 爰 in the *Odes* with a particular concentration in the earlier sections. Kennedy noted that, in their readings given in MC sources, yuán 爰 shares an initial with the

preposition yú 于, and the two tend to occur in the same texts, just as yān 焉, which tends to occur in the same texts as yú 於, shares an initial with that preposition. Dobson proposed that yuán 爰 was an “allegro form” of a prepositional phrase, possibly yú shì 于時.

A development of yuán 爰 from a PP yú shí 于時 or yú shì 于是 would be phonologically exactly parallel with the development of yān 焉 described above.

(#) 于 + 時 = 爰
 $\text{b/G}^{\text{w}}\text{a} + \text{b/d}\dot{\text{a}} = \text{b/G}^{\text{w}}\text{an}$

The behavior of yuán 爰 in the *Odes* consistently matches Usage 2 of yān 焉, i.e. a pro-adverb meaning either “there (in that place)” or “thus, thereby (on account of that)” or “thereupon (at that time)”. It only occurs in a position before the verb. There are no examples of its use as an oblique-case 3pp or as an adverbial suffix. Although Zheng Xuan’s commentary on the *Odes* identifies several interrogative examples, the text of the *Odes* itself does not compel that interpretation in any instance that I can identify. The distribution of yuán 爰 is thus almost identical with that of the phonologically unreduced PP yú shí 于時.

(#) 築室百堵，西南其戶，爰居爰處，爰笑爰語。
 They built a hall of a hundred cubits, / West and south its doors, / *There* to stay and *there* to dwell, / *There* to laugh and *there* to talk. (斯干(P.383-2))

Zheng Xuan glosses yuán 爰 as yú 於, and paraphrases using yú shì 於是, in keeping with the interpretation given here. A very close parallel, substituting yú shì 于時 for yuán 爰, occurs in the following *Ode*.²⁰

(#) 京師之野、于時處處、于時廬旅、于時言言、于時語語。
 The open fields of the town / *There* to dwell, / *There* to house his entourage, / *There* to talk, / *There* to debate.

The *Documents* also include a number of clear examples.

(#) 其在祖甲，不義惟王，舊為小人。作其即位，爰知小人之依，能保惠于庶民。

²⁰ For this, and an additional version of what must have been an established literary pattern, see Yang Bojun (1984, 53).

In the time of Zu Jia, Zu Jia thought it wrong that he should be king, and for a long time lived as a commoner. When he took up the kingship, he *thus* knew the needs of commoners, and could maintain kindness toward the masses. (Shang Shu – Wu Yi)

Zheng Xuan, paraphrasing with 於何 “where?”, identifies examples like the following as interrogative uses of yuán 爰, as though they involved a question-and-answer dialog. However, a non-interrogative interpretation seems equally compatible with the *Odes* text. The Mao commentary simply glosses yuán 爰 as yú 於.

- (#) 爰采唐矣、沫之鄉矣。
Where to gather the dodder? / [In] the villages of Mei.
Alternatively: *There gather the dodder, / [in] the villages of Mei.*

One reason for feeling skeptical about Zheng Xuan’s commentary as testimony for an interrogative use for yuán 爰 is the following *Odes* passage, characterized by very similar syntax. Here, Zheng Xuan adopts an entirely different approach, glossing yuán 爰 as yuē 曰, and with no suggestion of an interrogative interpretation for the particle. I will show below that this yuē 曰 gloss reflects a phonologically reduced PP, much like yuán 爰. In this context, yuán 爰 is again best understood as “there; in that place”.

- (#) 爰有寒泉、在浚之下。
There is, in that place, a cool spring, / Beneath the town of Jun.

Once these and other similar problematic instances in the *Odes* and their early commentaries have been dealt with, the claim that yuán 爰 in the *Odes* is a pro-adverb meaning “then,” “there,” or “thus” can be applied with considerable generality.

In the later received literature of the Warring States period, the particle yuán 爰 is essentially absent, except for *Odes* citations, its function having apparently been replaced by yān 焉. Three texts stand out as departures from this general characterization: the “Tian Wen” 天問 poem in the *Chu Ci* 楚辭 collection, the *Shan Hai Jing* 山海經, and the *Mu Tian Zi Zhuan* 穆天子傳 (Wang Jianjun 2008; Xu

Shenyi 2007; Yang Bojun 1984; Zhang Guibi 1990). In all three texts, the behavior of the particle matches that in the *Odes*: a pro-adverb meaning “then”, “there”, or “thus”. Significantly perhaps, even in the “Tian Wen”, a text made up entirely of questions, there are no examples of the particle independently carrying interrogative force (Liao Xudong 1995, 161–199).

Since these three texts also contain plentiful instances of the particle yān 焉, they present an opportunity to observe distributional contrasts between the two particles. The *Shan Hai Jing* shows a clear contrast between yuán 爰 in pre-verbal position and yān 焉 in the post-verbal position. Xu Shenyi (2007) counts 470 instances of yān 焉 and 26 instances of yuán 爰, mostly in the sense “there; in that place.” The two graphs, and thus presumably the two forms they are used to write, are in almost exact complementary distribution, syntactically speaking. All 26 instances of 爰 occur pre-verbally.

- (#) 爰有嘉果。
In that place there are fine fruit trees.
- (#) 百藥爰在。
Hundreds of medicinal herbs are *there* [lit. “*in that place* are located”].

The 470 examples of 焉 occur post-verbally with only two exceptions.

- (#) 有獸焉。
There are beasts *there*.
- (#) 后稷葬焉。
Hou Ji is buried *there*.

This is somewhat reminiscent of the complementary distribution, in certain texts, of ān 安 and yān 焉, noted above. Although it is not a reason to doubt that the two particles have distinct origins in PPs headed by distinct prepositions, it does suggest the possibility that the language of the *Shan Hai Jing* treated the two as positionally-determined variants of the same particle, with yān 焉 being used to write a phonologically reduced form enclitic on the preceding verb or verb-phrase.

In summary, the derivation of yuán 爰 from a PP is parallel with that of yān 焉. The case of yuán

爰 is, in a sense, less complex, since the particle has exactly the same distribution and semantics as the PP from which it is derived.

Wū 惡 ~ 烏: interrogative pro-adverb, “how? where?”, and interrogative 3pp, “from whom? by what?”

As noted above, the biggest difficulty in accounting for the behavior of the particle yān 焉 in terms of a reduced PP, is its interrogative force in Usages 3 and 4. The particle wū 惡 appears in received texts of Warring States date (but not in collections of earlier material such as the *Odes*), where it is distributed in precisely the same syntactic environments as the two interrogative uses of yān 焉 (or ān 安). It is also semantically indistinguishable from them, in the sense “how? where?” or as an oblique-case 3pp (“from whom?”, “by what?” etc.).

- (#) 《戰國策·趙策第三》：“先生又惡能使秦王烹醢梁王？”
How can you, Sir, make the King of Qin roast the King of Liang? (cited in Wang Li 2000, 320)
- (#) 惡在其為民父母也? (citation and translation from Pulleyblank 1995, 96)
Wherein lies his being father and mother to the people? (Mengzi 1A/4)
- (#) 非子思，吾惡聞之矣?
Were it not for Zi Si, how [or perhaps from whom] would I have heard it. (GD-LMG7-8)

Pulleyblank (1995, 96–97) has stated that wū 惡 is “equivalent in meaning to” and likely “derived from yú hé 於何.” This is surely correct. Although the PP yú hé 於何 “in what? by what? from what?” is somewhat unusual in OC texts, it does occur, and behaves similarly to wū 惡. The only obvious difference in their behavior is that the PP may occur after the verb.

- (#) 禮起於何也? (Xunzi – Li Lun)
From what does ritual arise?
- (#) 於何本之? 上本之於古者聖王之事。(墨子非命上)
In what is it to be rooted? It is to be rooted above in the doings of the sage kings of antiquity.

Wū 惡 can be derived from the PP yú hé 於何 “in what? by what? where?” by a phonological reduction that closely parallels that reconstructed for yān 焉 and yuán 爰.

於 + 何 = 惡
^{b/}qa ^{a/}gaj ^{a/}qak (subsequently ^{a/}qa)

There are two things to note about the phonology. First, the initial of the second syllable again becomes the coda of the reduced form, and since ^{a/}qag would not be a legitimate syllable, the reduced form appears as ^{a/}qak. Here the parallel with yān 焉 and yuán 爰, where a voiced stop initial became a nasal coda, is inexact. Since we have little insight into the detailed progress of the respective changes, it is difficult to say anything more about this. Second, although the graph 惡 unmistakably indicates the OC rhyme -ak, with a stop coda, the MC reading for the interrogative particle indicates an open OC rhyme: -a. As with the variant forms reconstructed for yān 焉 (citation #), is it likely that the contradictory graph and MC reading reflect different stages in the phonological reduction of the PP.

(#) ^{b/}qa-^{a/}gaj > *^{a/}qag > ^{a/}qak > ^{a/}qa

Note also that there are several other examples of high-frequency words that lose their velar codas over an approximately similar time frame (來 ^{a/}mərə(-k) “to come”, 若 ^{b/}nak > 如 ^{b/}na “be like; resemble”, 亡 ^{b/}mang > 無 ^{b/}ma “there is no”). In a small minority of cases, mostly in received texts of later date, the particle is written with the graph 烏, clearly indicating an absent coda (Pulleyblank 1995, 97; for examples, see Yang Bojun and He Leshi 1992, 338).

(#) 烏能與齊縣衡?
How can X be held up for comparison with Qi? (zhanguoce qince 3 – 1.178)

In addition to the unreduced PP yú hé 於何, and the forms written with 惡 and 烏, we also find wūhū 惡乎 ^{a/}qak-^{a/}ga serving an identical function.

(#) 惡乎原之? 察眾之耳目之請? (Mo Zi “Fei Ming III”)
 How is it to be verified? Examine the perceptions of the eyes and ears of the common masses.

(#) 卒然問曰: “天下惡乎定?” 吾對曰: “定於一。” (cited in Yang Bojun and He Leshi 1992, 166)
 Suddenly he asked: “*By what means* is the world to be settled down?” I replied: “It is to be settled down by means of unity.” (Mencius)

It is Pulleyblank's suggestion that the bisyllabic form wūhū 惡乎 is the developmentally prior form, and that wū 惡 alone represents a further phonological reduction. It seems more likely that this hū 乎 is parallel to that in yú shì hū 於是乎 (cf. Citation #), a phonological manifestation of the phrasal boundary between the PP and the syntactic elements that follow it.

In the discussion of yān 焉 above, I mentioned the difficulty of explaining interrogative yān 焉. I speculated above that non-interrogative yān 焉 may have derived an interrogative force through being used frequently with other question words, which became redundant and omissible once the interrogative sentence pattern became established. It is also worth noting that interrogative yān 焉 and wū 惡 (wūhū 惡乎) are syntactically and semantically indistinguishable. One can always swap one for the other without affecting the acceptability or meaning of the sentence. Indeed there are examples of parallel texts where we find exactly that substitution (though it is hard to say in which direction).

- (#) 無天地惡生? 無先祖惡出? 無君師惡治? 三者偏亡, 焉無安人。《荀子·禮論》
無天地焉生? 無先祖焉出? 無君師焉治? 三者偏亡, 無安之人。《大戴禮記·禮三本》
Without Heaven and Earth, *from where* would things come into existence? Without ancestors, *from where* would things emerge? Without lords and teachers, *by whom* would things be governed?

Given that similarity, and given that it is easier to see how wū 惡 derives from a reduced PP than interrogative yān 焉, a further hypothesis suggests itself: that after interrogative yān 焉 emerged through the reanalysis of non-interrogative yān 焉 in association with other questions words (Citations ##, above), it then generalized to other contexts through analogy with wū 惡. If that were so, we would expect non-interrogative yān 焉, and wū 惡, to appear earlier than interrogative yān 焉.

We have seen that the earliest instance of any of the three is the non-interrogative yān 焉 (in Usage 5) in the Wenxian covenants. But although there are many examples, they are all from a single, repeated formula. In the Guodian 郭店 and Shanghai Museum Chu manuscripts (ca. 300 BC), non-interrogative yān 焉 is very common (approximately 50 instances, consistently written 安). I am aware

of two secure instances of interrogative yān 焉 (Guodian “Xing Qing Lun 性情論”, strip 13; and Shanghai “Jian Da Wang Bo Han 柬大王泊旱” strip XYZ), and one of wū 惡 (Guodian “Lu Mu Gong Wen Zi Si 魯穆公問子思”, strip XXX, citation # above). This relatively meager evidence is not yet sufficient to build a compelling model for the distribution of the items in question, but further accumulation of excavated materials may make this possible.

Odes yān 言: pro-adverb “there; then” and adverb suffix.

In section 3, above, I identified three instances in a passage in a Guodian text of the particle yān 焉 written as 言 (citation #). I accounted for this choice of graph in terms of assimilation of the initial to a preceding -ŋ coda. In the received Odes there are many instances of a particle written 言 that has syntactic and semantic similarities with yān 焉.²¹ Dobson (1964) proposed that the two were developmentally related. Jiang Xiao (2003), without mentioning Dobson’s earlier work, reached a similar conclusion based on a more comprehensive survey of *Odes* citations.²²

The clearest parallels in usage fall within the scope of Usage 2 (“there,” “then”), and Usage 5 (adverb suffix).

- (#) 陟彼南山，言采其蕨。(國風/召南/草蟲)
I climb that southern hill, *there* to gather (some plant).
- (#) 靜言思之，寤辟有標。
Silently I think of it, and waking beat my breast. (國風/邶/柏舟)

Citation (#), one of a dozen similar examples in the *Odes*, is particularly important as it is clearly an instance of the same plant-gathering “evocation” (*xing* 興) as that seen with yuán 爰 in citation (#).

21 Han-period commentaries on the *Odes* frequently gloss this yān 言 as a first-person pronoun (wǒ yě 我也). See Jiang (2003, 320) for examples and for a demonstration of the inadequacies of this interpretation. *Odes* transmission and exegesis during the Han was marked by the influence of an Eastern or “Qi” 齊 dialect, one of the features of which was a confusion of the OC codas -n and -j (Wang Qiming 王啓明 1998, 144–161). This goes some way towards explaining why yān < ^bŋan 言 was glossed as wǒ < ^aŋajʔ 我.

22 Other recent studies of the particle appearing as 言 in the *Odes* include those by Guo Xiaolong (2008) and Zhai Yujun (2007).

Dobson's proposal is probably correct. The similar behavior of yān 焉 and *Odes* yān 言, and the common rhyme -an indicated by the two writings make it likely that the two particles are historically related. The difficulty, though, which Dobson did not address, is problem with the initials discussed previously. The conditioning factor that explained the Guodian example – assimilation to a preceding -ŋ – does not apply to the majority of *Odes* examples.²³

Conceivably, 言 was simply used as an alternative phonetic writing for ^{b/}qan, but this seems unlikely from the point of view of *xiesheng* relationships more generally, especially given the availability of the graph 安 as a much better phonetic speller. An alternative possibility is that those *Odes* which employ the writing 言 for the particle represent a dialect of OC in which a version of the reduced PP was pronounced with initial ŋ- or some close approximation to it (due to regular or irregular developments within that dialect). I can see no additional evidence in support of this claim, however. In at least two *Odes* (62 and 203 “Da Dong 大東”) particles written 焉 and 言 appear in the same verse, without any obvious contrast. Given these complications, it seems unlikely that any further progress can be made on the details of the developmental relationships between 焉 and 言 without additional material in early orthographies becoming available. Early manuscript versions of those *Odes* that employ the writing 言 in their received versions would be particularly helpful.

Yuē 曰: pro-adverb, “thus; thereupon; then”

Given that yú 于 and yú 於 are high-frequency prepositions, and that zhī 之 is a high-frequency 3pp, it is remarkable that PPs that combine them do not occur in received literature (Pulleyblank 1995, 56).²⁴ One way of explaining this absence would be to suppose that PPs 于之 and 於之 had already

23 Jiang (2003, 321) is aware of the problem but his attempt to account for it is confusing.

24 The preposition yǐ 以 similarly fails to form PPs with zhī 之 (Pulleyblank 1995, page?), I suspect for similar reasons.

undergone phonological reduction before the period when the orthography of received literature became established, and so appear only in disguise. But disguised as what? Gassmann and Behr (2005, page?) propose that yú zhī 於之 appears in received texts as yān 焉. But much of this paper has been spent showing that the PP yú shì 於是 is more easily accommodated to the palaeography and phonology of yān 焉 than yú zhī 於之.

Here I will examine evidence for the existence of a phonologically reduced form of the PP 于之, distinct from yān 焉 and yuán 爰.²⁵ (I can find no trace of yú zhī 於之.) The evidence is concentrated in the pre-classical language of the *Odes* and in the early commentaries on them.

If the PP yú zhī 于之 were to undergo phonological reduction according to the model that has been deployed three times already in the preceding analyses, we would expect the following.

$$\begin{array}{c} \text{于} \\ \text{b/G}^{\text{w}}\text{a} \end{array} + \begin{array}{c} \text{之} \\ \text{b/t}\text{ə} \end{array} = \begin{array}{c} \text{曰} \\ \text{a-b/G}^{\text{w}}\text{at} \end{array}$$

Three lines of evidence point to the existence of a pre-classical particle ^{a-b/G}wat meaning “and then” or “thus” (i.e. comparable to yuán 爰, and to Usage 2. of yān 焉). The first is the particle yuē 曰 in the *Odes*. The second is a problematic gloss on the particle yuán 爰 that recurs in Zheng Xuan’s commentary on the *Odes*. The third is the anomalous use of the graph 于 as a phonetic speller in words with coda -t.

Consider the following examples of *Odes* yuē 曰, that I translate with “then; and then”.

- (#) 朋酒斯饗、曰殺羔羊。
Two jars of beer are enjoyed, / *And then* a lamb or sheep is killed.
- (#) 天方艱難、曰喪厥國。
Heaven now inflicts calamities, / *And thus* destroys the State.
- (#) 摯仲氏任、自彼殷商、來嫁于周、曰嬪于京。

²⁵ I can find very little trace of PP yú zhī 於之. The occasional use of 於 as a phonetic speller for t-final words is suggestive, perhaps, but no more than that. 闕 ~ 遏 è < ʔot < ^{a/}qat “to block; obstruct”; chán-yè 單闕 < dzyen-ʔjot < ^{b/}dan-^{b/}qat “4th year of the Jupiter cycle”.

Ren, the middle daughter of the Zhi lineage, / From the Yin-Shang / She comes to be wed in Zhou, / *and thus* to be a wife in the capital.

The particle in these and similar examples is, I claim, a reduction and grammaticalization of the PP *yú zhī* 于之, parallel with the contemporary *yuán* 爰 and the later *yān* 焉. Han period scholarship was aware of the parallel, but only imperfectly. The *Er Ya* (ref.) records equivalences between the following, presumably all grammaticalized particles, but without giving any details about semantics, syntax or context of use.

粵	yuè < hjwot < ^{b/} G ^w at
于	yú < hju < ^{b/} G ^w a
爰	yuán < hjwon < ^{b/} G ^w an
曰	yuē < hjwot < ^{b/} G ^w at

Zheng Xuan's commentary on *Odes* 32 and 184 (citation # above, ref) applies this equivalence, using 曰 as a gloss for 爰. But having done so, the commentary goes on to understand *yuē* 曰 as “to say”. Yang Bojun (1984, 53) is surely correct that “there; in that place” is more likely for 爰 in these two *Odes*. In other words, this commentary inherited a knowledge of the equivalence of 曰 and 爰, presumably via lexical lists like the *Er Ya*, and understood that it was relevant to these two *Odes*.²⁶ But it lacked the additional information required to interpret the equivalence correctly. Nevertheless, the set of equivalences itself, preserved in the *Er Ya* and deployed in Zheng Xuan's commentary, must reflect an earlier scholarly understanding of these particles more in line with that presented in this paper.

The final piece of evidence for the existence of a reduced form of the PP *yú zhī* 于之 is the anomalous use of 于 as a phonetic speller for t-final words. The graph 粵 that appears in the list of equivalences from the *Er Ya* previously mentioned, was originally a compound of 雨 and 于. This seems already to have become obscure by the time the entry for 粵 in the received *Shuo Wen* was

26 Interestingly, several glosses preserved in the *Guang Yun* seem to reflect an awareness that the equivalences are connected with reduced PPs. 于 is glossed as 曰也 (SBGY073.21), and 曰 is glossed as 辭也, 於也, 之也 (SBGY478.08).

written (ref). The Shuo Wen has a separate entry for 雩, which in origin is the same graph.

The graph has a reading without coda -t in the sense “summer rain dance” (SW***, GY073.25, 074.16). This is what one would expect if 于 were the phonetic speller for this word. However, at least two words with coda -t are written with the graph in Warring States or earlier texts. This is particularly anomalous given the presumed contemporary availability of -at phonetic spellers like 戛 and 曰.

粵 ~ 越 yuè < hjwot < ^{b/}G^wat “Yue (southern state or people, rival of Wu)”
粵 ~ 越 yuè < hjwot < ^{b/}G^wat “then; next; subsequently; at the time when (?)”

The first occurs in the inscriptions from the Warring States Zhong Shan tomb (ca. 300 BC). The second occurs as early as the Western Zhou bronze inscriptions. Its semantics are not completely clear, but it is an adverbial that serves to set the temporal frame, or to relate it to a previous one.

(#) 清幽高祖，在微靈處，粵武王既戡殷，微史烈祖迺來見武王。
Pure and retiring was the High Ancestor. He was at the numinous place of Wei. *When* King Wu had already defeated Yin, the Wei scribes and valorous ancestors then came to present themselves to King Wu. (Shi Qiang *pan* 史牆盤 JC####, tr. Shaughnessy 1991, 3, 189)

I suspect that this second use is to be identified with the reduced PP written yuē 曰 in the Odes.

As the PP 于之 underwent reduction, the phonetic speller for the first syllable became associated with the resulting fused syllable with -t coda. It was then available to spell the name of the southern state of Yue.

6. Conclusion and discussion

The evidence that non-interrogative yān 焉 (Usages 1, 2 and 5) resulted from a reduced PP yú shì 於是 is very strong: orthography, phonology and semantics all support this conclusion. The existence of a more general pattern of reduced high-frequency PPs headed by yú 於 or yú 于 and involving 3pps also seems secure (table 1). Although beyond the scope of this paper, PPs with 3pps and headed by the prepositions 如, 與 and 以 are also likely to have participated in this pattern. They, and the outstanding issues surround the development of interrogative yān 焉, deserve further scrutiny.

Table 1: OC particles deriving from reduced PPs headed by yú 於 or yú 于.

	3pp		
Preposition	是 ^{b'} de? or 時 ^{b'} də	之 ^{b'} tə	何 ^{a'} gaj
於 ^{b'} qa	焉 ~ 安 ^{b'} fian ~ ^{b'} qan ~ ^{a'} qan	?	惡 ~ 烏 ^{a'} qa(k)
于 ^{b'} g ^w a	爰 ^{b'} G ^w an	曰 ~ 粵 ~ 越 ^{b'} G ^w at	?

Bibliography

- Ai Lan 艾蘭 (Sarah Allan), and Xing Wen 邢文, eds. 2004. *Xin chu jianbo yanjiu: xin chu jianbo guoji xueshu yantaohui wenji* 新出簡帛研究：新出簡帛國際學術研討會文集. Di 1 ban. Beijing: Wenwu Chubanshe 文物出版社.
- Baxter, William. 1992. *A handbook of Old Chinese phonology*. Berlin ; New York: Mouton de Gruyter.
- Dobson, W.A.C.H. 1964. “Studies in the grammar of Early Archaic Chinese: no. 3. The word yan.” *T'oung Pao* 51 (4/5): 295-321.
- Dowty, David. 2003. The dual analysis of adjuncts and complements in Categorical Grammar. In *Modifying adjuncts*, ed. Ewald Lang, Claudia Maienborn, and Cathrine Fabricius-Hansen, 33-66. Walter de Gruyter.
- Gassmann, Robert, and Wolfgang Behr. 2005. *Antikchinesisch : ein Lehrbuch in drei Teilen*. 2nd ed. Bern etc.: Lang.
- Goldin, Paul R. 2003. “The Old Chinese particles yan 焉 and an 安.” *Journal of the American Oriental Society* 123 (1): 169-173.
- . 2004. “A Further Note on yan and an 安.” *Journal of the American Oriental Society* 124 (1): 101-102.
- Guo Xiaolong 郭小龍. 2008. “Lüe lun Shi Jing zhong de ‘yan’ zi 略論《詩經》中的‘言’字.” *Chongqing Sanxia Xueyuan xuebao* 重慶三峽學院學報 24 (4): 93-96.
- Hanyu da zidian bianji weiyuanhui 漢語大字典編輯委員會. 1993. *Hanyu da zidian* 漢語大字典. Suoyin ben 縮印本, Chengdu: Sichuan Cishu Chubanshe 四川辭書出版社 & Hubei cishu chubanshe 湖北辭書出版社.
- He Leshi 何樂士. 1989. *Zuo Zhuan xuci yanjiu* 左傳虛詞研究. Beijing: Shangwu Yinshuguan 商務印書館.
- He Linyi 何琳儀. 1998. *Zhanguo guwenzi dian* 戰國古文字典. Beijing: Zhonghua Shuju 中華書局.
- Henansheng Wenwu Yanjiusuo 河南省文物研究所. 1983. “Henansheng Wenxian Dong Zhou mengshi yizhi yi hao kan fajue jianbao 河南省溫縣東周盟誓遺址一號發掘簡報.” *Wenwu* 文物 1983.3: 77-89.
- Hopper, Paul J., and Elizabeth Closs Traugott. 1993. *Grammaticalization*. 1st ed. Cambridge: Cambridge University Press.

- Jiang Xiao 姜曉. 2003. "Qian yi *Shi Jing* xuci 'yan' 淺議《詩經》虛詞 '言' ." *Hainan Daxue Xuebao* 海南大學學報(人文社會科學版) 21 (3): 320-324.
- Jingmen shi bowuguan 荊門市博物館. 1998. *Guodian Chu mu zhujian* 郭店楚墓竹簡. Beijing 北京: Wenwu Chubanshe 文物出版社.
- Kennedy, George A. 1940a. "A study of the particle yen (part I)." *Journal of the American Oriental Society* 60 (1): 1-22.
- . 1940b. "A study of the particle 'yen' (part II)." *Journal of the American Oriental Society* 60 (2): 193-207.
- . 1953. "Another Note on Yen." *Harvard Journal of Asiatic Studies* 16 (1/2) (June): 226-236.
- Künstler, Mieczyslaw Jerzy. 1967. *Les formations adverbiales à quasi-suffixe en chinois archaïque et dans la langue de l'époque Han*. Warszawa: Panstwowe Wydawn. Naukowe.
- Liao Xudong 廖序東. 1995. *Chuci yufa yanjiu* 楚辭語法研究. Beijing: Yuwen Chubanshe 語文出版社.
- Liu Zhao 劉釗. 2005. *Guodian Chu jian jiaoshi* 郭店楚簡校釋. Fuzhou 福州: Fujian Renmin Chubanshe 福建人民出版社.
- Ma Chengyuan 馬承源, ed. 1990. *Shang Zhou qingtongqi mingwen xuan* 商周青銅器銘文選. Vol. 4. Beijing: Wenwu Chubanshe 文物出版社.
- Mattos, Gilbert. 1997. Eastern Zhou bronze inscriptions. In *New sources of early Chinese history: an introduction to the reading of inscriptions and manuscripts*, ed. Edward L. Shaughnessy, 85-123. Berkeley: Society for the study of Early China and the Institute of East Asian Studies University of California Berkeley.
- Norman, Jerry. 1988. *Chinese*. Cambridge: Cambridge University Press.
- . 1994. "Pharyngealization in Early Chinese." *Journal of the American Oriental Society* 114 (3): 397-408.
- Pan Wuyun 潘悟雲. 1997. "Houyin kao 喉音考." *Minzu yuwen* 民族語文 5.
- . 2000. *Hanyu lishi yinyunxue* 漢語歷史音韻學. 1st ed. Shanghai: Shanghai jiaoyu chubanshe 上海教育出版社.
- Pulleyblank, Edwin. 1984. *Middle Chinese: a study in historical phonology*. Vancouver: University of British Columbia Press.
- Pulleyblank, E. G. 1962. "The consonantal system of Old Chinese." *Asia Major* 9 (1): 58-144.
- . 1986. "The locative particles yü 于, yü 於, and hu 乎." *Journal of the American Oriental Society* 106 (1): 1-12.
- . 1991. Some notes on morphology and syntax in Classical Chinese. In *Chinese texts and philosophical contexts: essays dedicated to Angus C. Graham*, 21-45. La Salle IL: Open Court.
- . 1995. *Outline of classical Chinese grammar*. Vancouver: UBC Press.
- . 1996. "Prosody or Pharyngealization in Old Chinese? The Origin of the Distinction between Type A and Type B Syllables." *Journal of the American Oriental Society* 116 (1): 105-107.
- . 2003. "Once again Old Chinese yan 焉 and an 安." *Journal of the American Oriental Society* 123 (3): 635-639.
- Rong Geng 容庚. 1985. *Jinwen bian* 金文編. Beijing: Zhonghua Shuju 中華書局.
- Sagart, Laurent. 1999. *The roots of Old Chinese*. Amsterdam & Philadelphia: John Benjamins Pub. Co.
- . 2007. Reconstructing Old Chinese uvulars in the Baxter-Sagart system (ver. 0.97). In Haerbin,

- China, September 27. <http://hal.archives-ouvertes.fr/hal-00179546/fr/>.
- Schuessler, Axel. 2007. *ABC etymological dictionary of old Chinese*. Honolulu: University of Hawai'i Press.
- . 2009. *Minimal Old Chinese and later Han Chinese: a companion to Grammata serica recens*. Honolulu: University of Hawai'i Press.
- Shanxisheng Wenwu Gongzuo Weiyuanhui 山西省文物工作委員會, ed. 1976. *Houma meng shu* 侯馬盟書. Shanghai: Wenwu Chubanshe 文物出版社.
- Shaughnessy, Edward. 1991. *Sources of Western Zhou history: inscribed bronze vessels*. Berkeley: University of California Press.
- Tang Zhibiao 湯志彪. 2009. *San Jin wenzi bian* 三晉文字編. PhD dissertation, Jilin: Jilin Daxue 吉林大學.
- Wang Jianjun 王建軍. 2008. “Shan Hai Jing, Mu Tian Zi Zhuan zhong de xuci ‘yuan’ 《山海經》、《穆天子傳》中的虛詞‘爰’.” *Changjiang xueshu* 長江學術 (4): 156-160.
- Wang Qiming 王啟明. 1998. *Xian Qin liang Han Qiyu yanjiu* 先秦兩漢齊語研究. Chengdu 成都: Ba-Shu Shushe 巴蜀書社.
- Weld, Susan Roosevelt. 1990. *Covenant in Jin's walled cities: the discoveries at Houma and Wenxian*. PhD dissertation, Harvard.
- Xu Shenyi 徐沈逸. 2007. “Shan Hai Jing de jianci ‘yuan’ he ‘yan’ yanjiu 《山海經》的兼詞‘爰’和‘焉’研究.” *Lilun yuyanxue yanjiu* 理論語言學研究 1 (1): 51-62.
- Yang Bojun 楊伯峻. 1984. “Yuan” zi shanggu zuo “yan” zi yongli zheng “爰” “字上古作” 焉 “字用例證”. In *Yang Bojun xueshu lunwenji* 楊伯峻學術論文集, 45-54. Changsha: Yue-Lu Shushe 岳麓書社. (First published, 1962.)
- Yang Bojun 楊伯峻, and He Leshi 何樂士. 1992. *Gu Hanyu yufa ji qi fazhan* 古漢語語法及其發展. Beijing: Yuwen Chubanshe 語文出版社.
- Zhai Yujun 翟宇君. 2007. “Ye tan Shi Jing xuci ‘yan’ 也談《詩經》虛詞‘言’.” *Xin Zhou Shifan Xueyuan Xuebao* 忻州師範學院學報 23 (4).
- Zhang Guibi 張歸璧. 1990. “‘Yuan’, ‘yan’ yongfa yanbian kaolue ‘爰’、‘焉’用法演變考略.” *Gu Hanyu Yanjiu* 古漢語研究 9 (4): 55-60.
- Zhang Yujin 張玉金. 2008. “Chutu Zhanguo wenxian zhong ‘yan’ de yanjiu 出土戰國文獻中‘焉’的研究.” *Yuyan Kexue* 語言科學 7 (4): 406—414.
- Zheng-Zhang Shangfang 鄭張尚芳. 2003. *Shanggu yinxi* 上古音系. Shanghai: Shanghai Jiaoyu Chubanshe 上海教育出版社.