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BTD Revisited -- A Reconsideration of the Han Buddhist Transcriptional Dialect

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This study confronts anew a number of issues raised in earlier studies concerning the Han Buddhist transcriptions and the dialect whose phonology they are thought to represent. New materials and approaches are brought to bear and applied, and a completely new set of phonological reconstructions is proposed. A large set of sample reconstructions is offered in the second part of the paper.

民國七十年筆者撰寫《梵漢對音隨筆》("Notes on the dialect of Han Buddhist Transcriptions")一篇。本文希望採用新的研究方法與新發現的資料來再次探索後漢梵漢對音所代表的"對音方言"語音系統。論文第二部分也提出與前文迥異的全套漢代末年擬音。

I. Introduction

1.1 In two earlier studies (1981; 1983) a number of Chinese Buddhist transcriptional forms from late Han times were gathered and evaluated as evidence for reconstructing the sound system of the language on which they may have been based. In the intervening years new materials and new approaches to the problem have come to light, suggesting that a reconsideration of the earlier work should be attempted.

1.2 The data to be used here are of three types:

1) The material published in our earlier studies, with certain corrections and emendations. A sizeable body of forms from these data could not be identified, and a list of these problematic cases was circulated among interested individuals, who were then very helpful in suggesting further Indic equivalents. I am particularly grateful to Professors E. Zücher and P. Harrison for identifying a number of these forms and also for correcting errors in the already published data. And in addition, I should like to thank Professor Harrison for kindly allowing me to use the new Lokakṣema data he has collected from T 624. But in registering these acknowledgements I must emphasize that any errors or deficiencies in the material cited here are solely my responsibility.

2) One hundred eighty-five new forms gathered from texts of the Three Kingdoms (TK) period (220-265). These data have not been published elsewhere and are cited selectively here. They derive primarily from the following sources, identified by translators' names and text numbers from the Taishō Tripiṭaka (T):

Kang Senghui 康僧會 T 152, 206

Kang Sengkai 康僧鎧 T 432

Tandi 曇諦 T 1433

Zhiqian 支謙 T 54, 76, 169, 185, 198, 210, 225, 362, 474, 493, 632, 790

According to Zürcher (1959:55), Kang Sengkai (a Sogdian) and Tandi (a Parthian) began working at Luoyang 洛陽 in about 250 A.D. Kang Senghui was of Sogdian extraction, but was born in the area of modern Hanoi, of a family which had lived for generations in India. He settled at Jianye 建業, in the state of Wu 吳, in 247 (Zürcher 1959:51). Zhiqian was a person of

Indo-Scythian ancestry who was a native of Luoyang but moved to the Wu area shortly before 220 (Zürcher 1959:48).

3) The large late Han and TK transcriptional corpus published by Yu Min (1984). In our own selection of transcriptional materials, we have limited ourselves to texts considered by Zürcher to be genuine. Yu has cast his net more widely and finds a number of forms which we have not seen. The fact that these are usually cited by him as isolated syllables rather than full compounds sometimes makes them difficult to interpret and use, but many of them are nonetheless of great value and interest.

1.3 In our earlier efforts to reconstruct the Han Buddhist Transcriptional Dialect (BTD) we took as our point of departure the Qieyun 切韻 system (QYS) reconstruction of Bernhard Karlgren. In the present study we continue to cite Karlgren's forms, as emended by F. K. Li, but their sole purpose here is to serve as an algebraic reference to the sound categories of the QYS. They do not form the basis for any of our reconstructions. Our BTD forms are on the contrary backward projections of Old Northwest Chinese (ONWC), which is our reconstruction for a set of closely related dialects spoken in northwest China at ca. 400 A.D. (Coblin 1991a). The major attested varieties of ONWC were spoken in the neighborhood of the city of Chang'an 長安 and in the Gansu Corridor. They are assumed to have been ancestral to various stages of the Chang'an dialect of the Tang period and to the Shazhou 沙州 (SZ) dialects, which were spoken in the neighborhood of Dunhuang in late Tang and Five Dynasties times. For recent studies of these later forms of northwest Chinese, see Takata (1988) and Coblin (1988; 1989; 1991c; Ms.1). All transcriptional examples given here are cited in the ONWC reconstruction, unless otherwise indicated. Only the reconstructed BTD target forms are starred.

1.4. The major varieties of late Han BTD are generally thought to have been spoken in the Luoyang area from 150-200 A.D. (Zürcher 1977:177). The TK materials derive, for the most part, from the Jiankang 建康 or "Wu" area of about 200-250 A.D. and probably represent a different dialect type. In the present paper, our definition of BTD will necessarily be broadened to cover the period from 150 to 250 A.D. and to include both the Luoyang and Jiankang varieties of transcriptional dialects. But in most cases we shall maintain a northern bias, in that our first priority will be to account consistently for the Luoyang data. Now, historically speaking, ONWC cannot have been descended from either of these earlier dialect types; and so, quite frankly, our reconstructive endeavor is from the outset an exercise in historical fiction. But it has seemed to us that the late Han ancestor of ONWC, as a variety of late Han northern Chinese, may nonetheless not have been all that different from BTD; and inspection of the BTD transcriptional data reveals that ONWC must indeed have been rather similar to whatever dialect or dialects underlay the BTD data. It is in this context that we undertake the present exercise and pursue it without direct recourse to the QYS.

A more satisfactory procedure would be to develop a Central Plains area reconstruction and use this as a basis for direct projections back to BTD. To our knowledge, no such reconstruction is currently available. It has, of course, been suggested that the QYS itself is directly based on the Luoyang dialect of ca. 600 (Wang 1961; Shao 1982), but we do not share this conviction. Nonetheless, we are not totally without information on the phonological structure of the medieval Central Plains dialects. For the Luoyang dialect we have the transcriptional corpus of Xuanzang 玄奘 (600-664 A.D.; hereafter: XZ), which has been the subject of a detailed study by Shi (1983). And for a slightly later time we have the similar corpus of Yijing 義淨 (635-713; here-

after: YJ), who was born in what is now the Peking area and grew up in a monastery near Mount Tai (Coblin 1991b). Where possible this material can be drawn upon here to elucidate moot points in the BTD reconstruction. Another transcriptional corpus which can be adduced for comparison is the Mahāmāyūrī translation of Saṅghabhara (S), which probably represents a dialect of sixth century Jiankang (Pulleyblank 1979; Coblin 1990).

1.5 Our views on the nature of the language or languages underlying the original BTD texts have been set forth at some length earlier (1981; 1983:31-33). In essence, we continue to hold with Zürcher (1977:179) that these "may be Sanskrit, any kind of Prākrit, or even some Central Asian idiom." This stance has been censured by Pulleyblank (1983:85) because he sees in it a rejection of what he calls the "Gāndhārī hypothesis," i.e. the ideas of H.W. Bailey and J. Brough on the role of the northwest Middle Indian dialect (i.e. Gāndhārī) in certain early Chinese transliterations of Indic material. Now, as I read it, this theory meant for Bailey that there were "scattered traces of the same Middle Indian dialect in Khotanese, Tibetan, Agnean, Kuchean, the earlier Chinese Buddhist transliterations, as, in particular, in the remains in Sogdian, Uigur Turkish, and in Mongol (in living use), and also in Manchu texts" (Bailey 1946:765). For Brough it involved "the *possibility* that the originals of some [emphasis added. WSC] of the earlier translations of Buddhist works into Chinese were written in Gāndhārī" (Brough 1962:50). These cautious formulations, if read as written, do not seem to be fundamentally at variance with Zürcher's position. Is it possible that Pulleyblank holds a more extreme view and would assume that all early transcriptional material is based on Gāndhārī texts? This seems unlikely. For example, he has on a number of occasions cited the BTD form 梵 (QYS bjwɒm-; ONWC buam-), Skt. brahmā, to support arguments that Chinese qusheng syllables in -m had

final breathiness of some sort in late Han times (1962; 1978:174). And yet, it is well known that the cluster -hm- became -mm- in the northwest Prakrits, giving us Gāndhārī bramma (or brama) in place of Skt. brahmā, a fact of which Pulleyblank himself is aware (see 1962.II, p. 231). In our view, Pulleyblank's use of the Sanskrit rather than the Gāndhārī form is perfectly legitimate here.It is simply an affirmation of the possibility that the late Han Chinese may have had access to texts which were written in something other than "pure Gāndhārī." And this is hardly improbable, for we know that the earliest Buddhist Hybrid Sanskrit (BHS) texts were probably "pre-Christian by more than one century" (Edgerton 1953.I:5), and that in BHS texts "Sanskritisms are constantly present cheek by jowl with Middle Indic forms, and often with hybrids which strictly are neither one or the other" (ibid. p. 4). It would seem that we should, as Pulleyblank has himself done, remain flexible regarding the Indic original underlying any particular Chinese Buddhist transcriptional form. In summary, it is probable that, in practical terms at least, there is considerable consensus among different investigators on this point, rather than substantive disagreement.

1.6 In our earlier studies of BTD we took the Eastern Han rime categories of Luo and Zhou (1958) as a primary basis for interpretation of fundamental relationships among syllable finals. Reconsideration has shown that this was fallacious and that it is on the contrary the Wei-Jin (WJ) period categories posited by Ting Pang-hsin (1975) which are the more appropriate framework within which to work with the BTD finals. The reason for this may be that, in comparison with the sound system of spoken dialects, the EH scheme was already obsolete and archaic in the second century A.D. That it is the WJ system which is most helpful may reveal that poetic riming in this period was out of step with phonetic reality by about a

century or so.

1.7 In using the WJ rime categories, we have in a number of cases departed from the now popular "one rime group, one phonemic vowel" principle of reconstruction (i.e. the "rime principle"). Two theoretical justifications can be offered for this. The first is that there is a rather good chance, in our opinion, that at least some of the larger WJ rime groups were "inherited" as part of Han poetic tradition rather than being true reflections of current phonological reality. These inherited groups may have incorporated finals which rimed in certain poetic dialects of earlier periods but which were not perfect rimes in the BTD period. Secondly, if we were absolutely certain 1) that the riming standards of Ting's rime categories were based directly on the dialect underlying the BTD transcriptions, and 2) that ONWC was a direct descendant of BTD, then it might be reasonable to adhere more strictly to the rime principle. But the first of these points is moot, and the second is an historical impossibility. For these reasons we have chosen to be guided but not constrained by the rime principle. We contemplate here the possibility that poetry written according to the standards deduced by Ting from his WJ data might not have rimed perfectly or "naturally" when read aloud in the BTD period progenitor of ONWC, or for that matter even in BTD itself.

II. The Initials

The BTD initial system of late Han times has been discussed in detail in our earlier studies, and it is probable that at least some points in that reconstruction reflect generally held views and are relatively uncontroversial. There are however, a number of matters which require further discussion, because

of fundamental revisions in the system and/or because of the different starting point (i.e. ONWC rather than Karlgren's QYS) for the backward projection to the BTD stage. In the present section we shall concentrate on changes and revisions and make only brief mention of matters on which nothing new is suggested.

2.1 The Labials. The ONWC labials, p-, ph-, b- and m- (= QYS p-, ph-, b- and m-), are well represented in the transcriptional data and generally correspond to Indic p, ph, b ~ bh ~ v, and m respectively. The ONWC forms can be projected back to BTD unchanged.

A point of interest can be raised here regarding the following example:
T 13.241.1 比丘 bii ~ bii- khu; Skt. bhikṣu; P. bhikkhu, Gd. bhikhu

The character 比 has another reading, pii:. Pulleyblank (1983:79) identifies this reading as "traditional" and prefers it in the compound 比丘. However, it should be noted that, for the northwest dialects at least, it was clearly one of the voiced initial readings which was used in this compound. This is proven by the Tibeto-Chinese transcriptions of the Emituojing 阿彌陀經 (now usually called Texts O and Oa by tibetologists), where the compound occurs and is spelled 'byi-khe'u or 'byi-'khe'u. The Chinese dialect reflected in Texts O and Oa was conservative and preserved the initial voiced/voiceless distinction well. Consequently, we can safely assume that the syllable 比 in 比丘 was pronounced with a voiced initial in the northwest.

2.2 The ONWC dentals, t-, th-, d-, and n- (= QYS t-, th-, d-, n- and ṭ-, ṭh-, ḍ-, and ṇ-) probably had at least three allophonic variants. In syllables having the ONWC vowels ë and a̤, which correspond to the various Division II vowels of the QYS, the allophones were probably quite retracted and may in fact have been true retroflexes. They are frequently used in the ONWC materials to transcribe Indic cerebrals. When standing before the ONWC

vowels i, e, a, ø, and u (phonetically perhaps [y] or [yu] in the pertinent environments), these sounds can freely transcribe foreign dentals or retroflexes in the ONWC sources. They may have been phonetically "post-dental" in some way, but were probably not as retracted as the phones standing before ë and ä. Elsewhere, this set of sounds in the main transcribes Indic dentals. The behavior of this series of initials in the BTD materials is similar to that found in the ONWC data, and I project it backward to BTD unchanged. In syllables having ONWC ë and ä, I shall posit BTD *-ɹ-, which is to be read as a syllabic feature of retroflection or rhotacism rather than as a discrete medial consonant.

ONWC l- is used to transcribe Indic l, l̥, and r. It can be projected back to BTD unchanged.

2.3 The ONWC Sibilants were ts-, tsh-, dz-, s-, and z- (= QYS ts-, tsh-, dz-, s-, and z-). ONWC s- is very common in the BTD materials and most often transcribes Indic s. ONWC ts- (or possibly dz-) occurs in the following example:

T 224.470.1 揵陀訶盡 gan da ha tsin: ~ dzin: Skt. gandhahastin

ONWC dz- definitely appears in the following:

T 152.42.2 拘婁秦 kuo luo ~ lou dzin Skt. krakucchanda

An apparent example of tsh- is the following case:

T 280.446.1 蔡呵 tshɛi- ha Skt. sahā-

This, however, raises the question of the curious role of the syllable 蔡 in the early transcriptions. Compare the following:

T 362.300.1 蔡揭 *tshɛi- gat Skt. svāgata; P. sāgata

T 362.300.2 質夜蔡 ti ia- tshɛi- Skt. tiṣya

T 362.300.3 蔡拘岑 tshɛi- kuo dẓim Skt. -saṃkusum[itābhyudgata]

In addition, at T 362.17.1 we find a long list of names in which 蔡

occurs frequently, e.g.

朱蹄（彼>）波會蔡 tśuo dėi pɑ ɣuɛi- tshɛi-	Skt. jyotiṣprabhasya
沸霸圖耶蔡 pui- pa- do ia tshɛi-	Skt. puṣpadhvajasya
（和>）私阿蔡 si ʔɑ tshɛi-	Skt. siṃhasya
尸利群蔡 si li- gun tshɛi-	Skt. śrīkūṭasya

In the Skt. version of this text, all names in the list are given in the genitive singular, and it would seem that 蔡 is used here to transcribe the masculine genitive singular ending -sya. This ending is realized as -ssa in Pali and many of the Prakrits. It would appear, then, that in the early Buddhist transcriptions 蔡 was to be pronounced something like "sa," a reading which is not attested in received dictionaries and glossaries, so far as I know. In the Jiyun 集韻 and other later lexica, 蔡 is said to be used as a variant writing for a word sât (ONWC sat), meaning "to scatter, throw away; banish;" but it seems questionable whether this reading could be involved here.

ONWC z- appears in two examples:

T 418.917.3 踰旬 iuo zuin	Skt. yojana
T 474.524.3 波旬 pa zuin	Skt. pāpīyan

Pelliot (1933) has devoted a special study to the second of these, in which he reconstructs the underlying Prakrit form as *pāvēn (1933:92). The ninth century glossist Huilin 慧琳, in notes discussed by Pelliot (pp. 88-89), states that 旬 in the text was earlier written 旬 ɣuen:,- (QYS ɣiwen:,-). Pelliot rejects this note as rank speculation, forwarded entirely in response to the phonetic difficulties posed by 旬, with its offending initial zu-. He then cites a number of examples where 隨 zue (QYS zjwe) and 墮 (which Pelliot reads as QYS dua: and everywhere emends to 隨) render foreign ve, vai, etc., in order to demonstrate that for some reason Chinese zu- could indeed render foreign v- syllables. Now, 墮 occurs in the BTD data (see section 2.8 below),

where it renders foreign ve-, etc. But, contra Pelliot, I believe its correct reading here is ONWC huie (QYS hjwie[4]). Examples of 隨 do not occur in our own BTD data. Yu (1984:317-318), however, lists several cases transcribing foreign va and vāi. And Prof. Harrison's T 624 data yield the following example:

T 624.351.3 隨藍 zue lam　　Skt. vairambha

In any case, if one would, like Pelliot, carry out wholesale emendations in those sources where it does appear, then why not emend 隨 to 墮 huie, rather than vice versa, and solve the problem this way?! As regards Huilin's editorial gloss, Pelliot's summary dismissal seems on the face of it rather arbitrary. But in his favor we can cite evidence of a very different type.

In sound glosses of the Eastern Han period, QYS z- interchanges primarily with s- and with other sibilants such as ts- and dz-. However, there is an interesting body of exceptions to this (examples cited from Coblin 1983: 51, with ONWC values substituted for QYS forms):

Zheng Zhong 72	訓	hun	馴	zuin
Xu Shen 480	姰	ɣuėn-	旬	zuin
1142	楥	zuan	圜	uan, ɣuän
Zheng Xuan 165	旬	zuin	均	kuiin

The z- initial syllables in these glosses seem to have an affinity for words with guttural fricative initials followed by the vowel u, and it is noticeable that our problematic word 旬 occurs in two of the examples. Perhaps the situation in the Eastern Han dialects reflected here was similar to that observed in our slightly later transcriptional language. To account for this state of affairs, we shall tentatively suggest that ONWC zu- in such cases be derived from earlier *w-, followed by the vowel *-i- plus some other vowel. As will become clear in section 2.7 below, our BTD *w- is envisaged as

having had two different allophones, [ɦʷ] and [ɣʷ]. The shift to later zu- may have been a fronting process similar to that which occurred widely in modern northern dialects when earlier *hy- shifted to later ɕy-. According to this theory, 旬 would be reconstructed as BTD *wiin. The word 榬 would be restored as BTD *wian, and 隨 would be *wie.

Pulleyblank (1983:86) has expressed doubts about the use of later z- to transcribe -j- in yojana. I am not sure whether these are really justified. But if they are, then perhaps we can do Huilin one better and suppose that 旬 in this form is a corruption of 匀 iuin! As will be outlined in section 2.5 below, this could be reconstructed as BTD *juin, a step which might help to account for the transcription of Indic -j- here.

In summary, we tentatively posit two earlier origins for ONWC z-. In the majority of cases we can perhaps continue to derive it from *z-. In certain others we shall restore it as *wi- followed by some other vowel.

2.4 Of the ONWC retroflexes, tṣ-, tṣh-, dẓ-, and ṣ- (= QYS tṣ-, tṣh-, dẓ- and ṣ-), tṣ- is not attested in the data at all. For dẓ- we have one example:

T 362.300.3 蔡拘岑 tshɛi- kuo dẓim　　Skt. -saṃkusum[itābhyudgata]

ONWC ṣ- transcribes Indic ṣ, s, śr and ś, e.g.

T 13.236.3 沙門 ṣa mon　　Skt. śramaṇa; Gd. ṣamaṇo

T 224.431.1 伊沙 ʔii ṣa　　Skt. īśāna

T 224.434.1 洴沙 bəŋ ṣa　　Skt. bimbisāra

T 280.445.1 兜沙 tou ṣä　　Skt. tuṣara

ONWC tṣh- transcribes Indic kṣ, e.g.

T 418.913.3 剎利 tṣhät li-　　Skt. kṣatriya

T 224.434.2 羼提 tṣhän:,- dėi　　Skt. kṣānti

T 224.458.1 阿閦 ʔɑ tṣhuk　　Skt. akṣobhya

T 458.438.2 達儞 dɑt tṣhin-　　Skt. dakṣīnā

If the syllables in which these initials occur are reconstructed with the retroflex feature, *-ɹ-, the entire series can be treated as retroflex allophones of the sibilant series.

2.5 ONWC syllables beginning with the vowel i- form a group which is assigned to a single initial class, ji- (i.e. the yusi 喻四 initial) in the traditional QYS. Three different uses of such syllables are found in the early transcriptions. The first two of these can be illustrated by the following examples:

I. Transcriptions of Indic y

T 224.427.3 摩訶衍 mɑ hɑ ian: Skt. mahāyāna

T 418.917.3 踰旬 iuo zuin Skt. yojana

II. Transcriptions of Indic c, j, ś, and s

T 224.432.1 閻浮利 iam bu li- Skt. jambudvīpa

T 280.445.3 活逸 ɣuɑt it Skt. vajra; P. and BHS vajira

T 280.446.1 墮樓延 huie lou ian Skt. vairocana

T 458.435.2 迦葉 ka iap Skt. kāśyapa

T 184.464.1 阿夷 ʔɑ i Skt. asita

T 196.148.1 悅頭檀 iuat dou dɑn Skt. śuddhodana

T 152.9.1 耶利 ia li- Skt. jāli

T 362.300.3 偸樓俱路蔡 iuo lou kuo lou- tshɛi-

Skt. sūrakūṭa

Interpretation of this material is complicated by the fact that Indic intervocalic y can change to z in some of the Prakrits. And it is also noteworthy that one and the same Chinese character can represent either y or one of the consonants such as c, j, etc., e.g.

夷

T 224.429.1 梵迦夷 buam- ka i Skt. brahmakāyika

T 224.431.1 優婆夷 ʔu bɑ i Skt. upāsika

T 280.446.2 惟夷羅 iui i lɑ　　Skt. vicāra

翼

T 224.429.1 拘翼 kuo ik　　Skt. kauśika

T 224.434.1 迦翼 ka ik　　Skt. kāyika

鹽

T 224.439.3 鹽 iam　　Skt. yāma

T 196.157.1 拘鹽尼 kuo iam ni　　Skt. kauśāmbī

To account for the varied behavior of syllables of this type, I suggest that they be reconstructed with an initial semivowel, *j-, which can be assumed to have had strong frication, resembling ź. Sounds of this type have been described for Chinese dialects of Hainan by Ting (1986:6), and Woon (1987: 12). Among non-Chinese languages of East Asia they have been observed, for example, by Matisoff (1973:5-6) in Lahu, a Tibeto-Burman language, and Svantesson (1988:69) in U, an Angkuic language. Since the use of *j- to render foreign affricates and fricatives is particularly common in compounds where it occurs intervocalically, we can suppose that the assumed frication was especially prominent in this environment.

Where *j- is reconstructed, following *i can be deleted as redundant, except in syllables where it serves as main vowel, thus:

葉 *jap > iap　　鹽 *jam > iam　　夷 *ji > i　　翼 *jik > ik

The third type of transcriptional application for QYS ji- is represented in the following examples:

T 626.394.2 惟摩羅 iui mɑ lɑ　　Skt. vimala

T 626.404.2 惟首陀 iui śu dɑ　　Skt. viśuddha

T 196.161.2 維耶離 iui ia lie　　Skt. vaiśālī

T 196.163.2 維衛 iui uei-　　Skt. vipaśyin

T 474.535.3 阿維羅提 ʔɑ iui la dèi　　Skt. abhirati (= Pkt. *avirati ?)

T 54.848.2 迦維衛兜 ka iui uei- tou　　Skt. kapilavastu (= Pkt. *kavila- ?)

T 624.363.3 遺摩羅涅 iui ma la nėt　　Skt. vimalanetra

In these examples, ONWC iui (= QYS jiwi) transcribes Indic syllables beginning in v, whether original or as Prakritic developments from other labials. Here it seems best to assume that initial iu- was originally *u-, which broke to iu- by ONWC times. 惟, 維, and 遺 would then all be restored as BTD *ui. It should be noted, however, that this conclusion does not necessarily give us license to reconstruct ONWC iu- as *u- across the board. On the contrary, there are cases where it should probably be derived from *ju- instead, e.g.

T 196.148.1 悅頭檀 iuat (< *juat) dou dan　　Skt. śuddhodana

T 224.429.3 悅叉 iuat (< *juat) tṣha　　Skt. yakṣa

T 362.300.3 兪樓倶路蔡 iuo (< *juo) lou kuo lou- tshɛi-　　Skt. śūrakūṭa

What should be done in each case must be decided on the basis of textual evidence, which is unfortunately not always available.

2.6 Among the ONWC palatals, the initials tś-, dź-, ś-, ń- (= QYS tś-, ź-, ś-, ńź-) generally transcribe Indic c, j, ś, and ń respectively. ONWC tśh- is absent from the data. These consonants can be projected back to BTD unchanged.

In the following example a syllable having ONWC tś- probably transcribes foreign k:

T 224.467.3 羅麟那 (杖那 >) 枝都 lɑ lin nɑ tśe to　　Skt. ratnaketu

In this case we can posit BTD *kie for 枝 and assume that earlier *k was palatalized when followed by *-ie. In taking this step we build on a general theory regarding palatalization of early Chinese velars, to be presented in a forthcoming study by Professor Axel Schuessler (Schuessler Ms.). BTD *k in this position may already have been phonetically highly palatalized,

accounting for the following case where it probably stands for Indic c:

T 602.170.2 辟支 piek tśe — Skt. pratyeka; P. pacceka; Gd. prace'a; Māhārāṣṭrī pāḍiēkka; Ardhamāgadhī patteẏa (On the Gāndhārī form, see especially Norman 1983:96-8.)

By Tang times ONWC -e in 枝 and 支 had merged into a general -i final. The same change had occurred in the Central Plains dialects. In the S dialect of sixth century Jiankang, k- was still a guttural in words such as 支 and 枝 (see Shi 1983; Coblin 1990; 1991b).

Words having ONWC ź- (= Karlgren's QYS dź-) occur in several BTD forms and present special problems. We can begin with the following example:

T 626.393.1 荼毘 --- bii — P. jhāpita

The character 荼 has two different QYS readings, i.e. duo, dźja (= ONWC do and źa), and from outside the QY tradition there are further readings: ḍa and śjwo (= ONWC da and śø). The reading ONWC źa could be the valid one here, and we could perhaps retain it for the BTD period. However, since we are using ONWC as our point of departure, we should note that 荼 occurs in the works of all three major ONWC period translators, and it is consistently used by them to render Indic ḍa and ḍā. It would thus seem to be the ONWC reading dä (= QYS ḍa) which was the generally current one in the northwest dialects. It is possible that BTD, which we suspect was a Central Plains dialect rather than a northwest one, had a palatal-initial reading here. But to posit a palatal proto-form for the ONWC syllable dä seems unwarranted.

The syllable 術 źuit occurs a number of times in the data. Let us first consider the following examples:

T 224.435.1 兜術陀 tou źuit dɑ Skt. tuṣita

Yu (1984:284): 漚術曇惟訶 ʔou,- źuit dɑm iui hɑ Skt. uṣijdharmaviha (sic!)

Here 術 renders Skt. ṣit and ṣij. I believe Yuchi (1985:40) is correct in suggesting that in both these cases N may be a scribal error for 衛 ṣuit. We can perhaps exclude these two examples from consideration.

Note now the following:

T 313.758.3 那術 nɑ- źuit Skt. nayuta

Here, 術 transcribes foreign -yut-. Yu (1984.280) mentions a similar case, where 術 renders -yut- in ayuta, but he does not quote the example in full. He plausibly proposes that -yut- was probably *-źut- in the underlying Prakrit form. This suggests that our ONWC form źuit can be posited for BTD as well. A related example can be cited from Prof. Harrison's materials:

T 624.363.3 和陀波利（林 > ）秫代 ɣuɑ dɑ pɑ li źuit dɛi

Skt. vrataparišuddha

Here too it seems probable that Chinese 秫 źuit represents Prakrit *-źut-, corresponding to Skt. -šud-.

This, however, brings us to our final and most problematic examples:

T 602.173.1 術闍 źuit dźa Skt. vidya; Gd. vija, P. vijjā

T 362.300.3 阿術祇陀揭蠡 ʔɑ źuit tśe dɑ gat luɑ Skt. avidyāndhakāra

Here it seems that 術 transcribes Indic vid-, but why a syllable beginning in ź- would have been chosen to do this remains unclear. A possibility is that 術 in these examples is a copyist's error for some less familiar graph, such as 菀 uit (< BTD *wit) or 眓 huiit. Another approach would be to reconstruct 術 as BTD *uit and assume that this syllable type regularly yielded later źuit. Perhaps this źuit arose first in compound internal position and later everywhere. We might even suppose that early BTD 術 *uit (> later BTD *źuit) became standard as a rendering for vidya and was later retained for derived

forms such as avidya. These possibilities are offered here for further consideration.

Finally, Yu (1984:280) gives a very interesting form, 蛇蛇, transcribing Indic yaśas (See T 196.149.1. Edgerton 1953.II:445 also gives yaśa as a form of this word.). In the well-known sense "snake" the graph 蛇 has the QYS reading dźja (= ONWC źa), with obscure variant thâ (= ONWC thɑ). It is QYS dźja which seems to lie behind modern dialect readings, such as Pekingese shé, for "snake." In addition there are rare, literary readings, QYS jia and jie (= ONWC ia and ie) with other meanings. The literary reading ia would solve our problems here, for we could assume a form *ja ja, in which the second initial *j- had strong frication and resembled ź. But it seems almost perverse not to suppose that the transcriber intended 蛇 here to be pronounced in the common and universally known reading of the word "snake." This leads to an interesting possibility. Perhaps the "basic" or "etymological" reading of "snake" was once indeed *ja > ia. From a northwest perspective such an assumption is in fact not inappropriate, for the Jiyun tells us that the word for snake in the Guanzhong (i.e. Chang'an) area was in fact pronounced as QYS jia ([余遮切] 關中謂毒蟲曰蛇). Now, early Chinese vernaculars prefixed the syllable 老 lɑu: to the names of familiar but disliked or feared creatures (see Norman 1988:113), and the form 老蛇 is in fact still current in the Fuzhou dialect (Hanyu fangyan cihui, p. 62). We might speculate that in early times there existed the vernacular compound 老蛇 *lɑu ja "snake," which was phonetically realized in northern dialects as [lɑuźa]. (We make the assumption here that the distinction between *j- and *ź- would have been neutralized intervocalically.) Later, this compound would have been "unetymologically" reduced to a monosyllabic word *źa in many vernaculars. Alternatively, of course, one might simply reconstruct 蛇 as BTD źa and

leave its function in the first syllable of yaśas unexplained. In any case, in the last analysis it seems safest to restore ONWC ź- as *ź- in BTD, unless we find evidence to the contrary.

2.7 The traditional yusan 喻三 category (QYS j-) corresponds in ONWC to syllables beginning with vowels other than i-. By far the majority of these have ONWC initial u-. The most prominent exceptions to this are the literary enclitic particles 矣 -ə: and 焉 -an.

In the BTD data ONWC syllables beginning in u- are used primarily to transcribe foreign v, whether original or derived, in the Prakrits, from earlier labial stops, e.g.

T 150.875.3 迦羅越 ka lɑ uat　　Skt. kulapati (= Pkt. *kulavati ?)

T 224.447.2 遮迦越羅 tśa ka uat lɑ　　Skt. cakravartirāja

T 224.468.2 摩訶惟曰羅 mɑ hɑ iui uat lɑ　　Skt. mahāvaipulya (= Pkt. -vevula ?)

T 280.446.1 鬱單曰 ʔut tɑn uat　　Skt. uttarakuravaḥ

T 224.425.2 薩芸若 sɑt un ña:　　Skt. sarvajña

T 280.446.1 弗于逮 put uo dėi-　　Skt. purvavideha

T 362.317.1 那惟于 nɑ iui uo　　Skt. nāgābhibhū (= Pkt. *nāgāvivū ?)

Interestingly, such ONWC syllables could only be used to transcribe "compound-internal" -v-. For absolute initial v-, other transcriptional strategies were utilized (cf. sections 2.5 and 2.8).

A less common application of ONWC u- syllables was to render intervocalic -h-:

T 224.435.1 惟于潘 iui uo phan　　Skt. bṛhatphala; cf. P. vehapphala

T 184.462.2 羅雲 lɑ un　　Skt. rāhula

T 474.523.2 羅云 lɑ un　　Skt. rāhula

Yu (1984:319): 曰 uat Skt. haṭh 越 uat　　Skt. hul.

And we also have the following interesting example:

T 362.300.3 須耶［惟］于沙 suo ia [iui] uo ṣä Skt. sūryaghoṣa

The character 惟 here seems to be a scribal accretion of some sort.

Taken together, these examples suggest that ONWC syllables beginning in u- may have had an initial consonant of some sort in the BTD period. A likely value for this sound would seem to be the labio-laryngeal [ɦʷ]. In our reconstruction we shall transcribe this initial as *w- and assume that, in parallel with BTD *j-, it had rather strong friction. The following vowel -u- can be deleted as redundant, except in syllables where it is the main vowel, e.g.

越 *wat > uat 有 *wu > u

In dealing with transcriptional forms where Indic -h- is rendered, it might be useful to add a phonetic form in brackets, e.g.

羅雲 *lɑ wun [ɦʷun] > lɑ un rāhula

須耶［惟］于沙 *suo ja wɔ [ɦʷɔ] sɹa > suo ia uo ṣä sūryaghoṣa

The graph 焉 -an appears in the following form:

T 198.180.3 尼焉若提 ni -an ña: dėi Skt. nirgranthajñāta; Cf. P. nigaṇṭha; Ardhamāgadhī niẏaṇṭha (Pischel 1981: 269)

The letter y˙ in the Prakrit form represents the ya-śruti of the Prakrit grammarians, which, according to Brough (1962:86) "may be considered as marking only the separation of syllables, presumably without glottal closure." Perhaps enclitic or "non-initial" 焉 was simply -an in the BTD period. From the standpoint of the northwest dialects, at least, the two QYS readings for 焉 , i.e. ʔjan and jan (= ONWC ʔan and -an) may have been merely positional variants, with the former occurring in initial position, while the latter appeared enclitically. (For a similar suggestion, involving QYS reconstructions rather than dialect materials, see Pulleyblank 1986:8.) It is interesting to note that in one Tibetan transcriptional text of the Shazhou period (i.e. Text TD,

lines 58-59), enclitic 焉 is transcribed in the following ways: ʔin, ʔyin, ʔen, yen (contra Takata 1988:276, who writes ʔyen for the fourth example). Here we see that in the Shazhou period enclitic 焉 was usually read with a glottal stop initial, though this apparently could be dropped. The deletion of ʔ- was perhaps determined by the speed at which the text was read or the amount of stress placed on the final particle in a particular instance.

2.8 The ONWC gutturals, k-, kh-, g-, and h- tend to transcribe Indic k, kh, g ~ gh, and h respectively. They can be projected back to the BTD period unchanged. Here we may add that the combination hu- is used in several examples to transcribe Indic initial v-, e.g.

T 280.446.1 墮樓延 huie lou ian　　Skt. vairocana

Syllables beginning with ONWC ʔ- usually transcribe foreign syllables with plain vocalic onset, e.g.

T 602.163.3 安般 ʔan pan　　Skt. ānāpāna

This initial can perhaps be retained for BTD.

The last ONWC guttural with which we must deal is ɣ-. From the standpoint of its behavior in the early transcriptions, examples of this consonant can be divided into two types:

Type A. Syllables in which ɣ- is immediately followed by ONWC u, where u is invariably the first member of a diphthong. In the BTD data these syllables transcribe Indic v, whether original or derived from earlier labial stops, e.g.

T 150.877.1 須陀洹 suo da ɣuɑn　　Skt. srotāpanna; cf. P. sotāpanna (= Pkt. *sotāvana ?)

T 224.433.1 薩和 sɑt ɣuɑ　　Skt. sattva

T 280.445.3 活逸 ɣuɑt it　　Skt. vajra; P. and BHS vajira

Type B. Syllables where ɣ- is followed by vowels other than u. Here

Indic g, k, or h are transcribed. The following is a complete listing of the BTD examples cited in our earlier studies:

T 13.233.2 阿含 ʔɑ ɣɑm	Skt. āgama
T 150.877.1 阿那含 ʔɑ na ɣɑm	Skt. ānāgāmin
T 150.877.1 斯陀含 sie dɑ ɣɑm	Skt. sakrdāgāmin
T 224.433.1 恆 ɣəŋ	Skt. gaṅgā
T 313.753.3 摩睺勒 ma ɣou lək	Skt. mahoraga

Beginning with examples of type B, our original conclusion (1981; 1983) was that later ɣ- should here be reconstructed as BTD *g- and that the final form, for mahoraga, should be considered exceptional. Pulleyblank (1983:82-83), takes a very different tack. He suggests that in the underlying language of the Indic texts intervocalic -g- had weakened to -ɣ- (cf. Brough 1962:86). QYS ɣ- should then be restored for the BTD period as *ɣ-. The transcription of gangā would then be exceptional and would be accounted for by him by supposing that it "probably reflects the influence of the more conservative upper class dialect."

My initial reaction to Pulleyblank's suggestion was incredulity. Indic intervocalic -g- is fairly well represented in the BTD data, where it is usually rendered by QYS g- (= ONWC g-). The northwest Prakritic shift to -ɣ- can therefore not have been a primary feature of the languages underlying the Indic originals of the majority of BTD texts. However, a closer look at the material throws a different light on the matter. The examples in question here (i.e. the first three in the list above) all occur for the first time in the transcriptions of An Shigao 安世高, a Parthian who was the earliest BTD translator (see Zürcher 1959:32-34). No such cases appear in the other Han-period BTD data. And, in addition to this, though An Shigao's corpus is rather small, it seems significant that it contains no cases where Indic

intervocalic -g- is transcribed by QYS g-. Though, as just noted, these appear in the works of other Han translators, they are absent from An's materials. Thus, Pulleyblank's theory can be applied here if we assume that An's Indic originals were written in a northwest Prakrit and/or his oral rendition of the texts reflected the pronunciation of such a language. The texts and/or pronunciations of the later BTD transcribers would presumably have been of a different type. But what of the problematic form gaṅgā? Pulleyblank's appeal to an otherwise unknown "upper class dialect" seems ad hoc and unacceptable. But the data themselves suggest an alternate and plausible solution. The fact is that ONWC ɣ- in the Chinese transcription of gaṅgā is in absolute initial position, while in all other forms in our list it is found in "compound-internal" position, which in effect means that it is intervocalic in the cited Chinese compounds. (We have no evidence on its form when it was "compound-internal" and preceded by a consonant, such as *-n or *-t.) This allows us to assume that in BTD the initial in question had two phonetic forms. In word-initial position it was [g], while its intervocalic form was [ɣ]. This is a well-known pattern of allophonic distribution in various languages, north German dialects being a commonly cited example. The BTD initial, which is in complementary distribution with our already reconstructed *g-, can also be phonemically transcribed as *g-, with the phonetic form added in brackets where this is felt to be useful, e.g.

摩睺勒 * mɑ gou [ɣou] lək > mɑ ɣou lək　　Skt. mahoraga

恆 *gəŋ > ɣəŋ　　Skt. gaṅgā

In addition to the BTD forms cited above, Yu (1984:311-312) gives several more:

曷 ɣɑt, for Skt. gat

合 ɣɑp, for Skt. gup

Both examples come from Yu's Zhiqian corpus. Since we are not given the environments in which they occur, it is difficult to determine whether or not they contradict the hypothesis outlined here. But the following case from our own TK data is clearly a counter-example:

T 152.42.2 拘那鎗牟尼 kuo na ɣam mou (< *mu ?) ni Skt. kanakamuni

Intervocalic k probably underwent the very common Prakritic voicing to g in the Indic text underlying T 152, as for example in:

T 152.21.1 摩竭 ma gat Skt. makara

There is no evidence that it was here further reduced to -ɣ- as in the north-west Prakrits. However, it should be noted that T 152 belongs to those texts which were translated in the Wu area rather than in the Central Plains. Perhaps in this region QYS ɣ- was phonetically [g] in "compound-internal" position in the TK period. If need be, the same argument could perhaps be applied to Yu's Zhiqian examples, for Zhiqian's transcriptional œuvre is also supposed to stem from Wu.

Turning now to cases of type A above, we find that these are essentially different from those of type B. The initial they reflect bears a certain resemblance to our *w- in that it can transcribe foreign v. But it differs from *w- in that it can freely render either absolute initial or "compound-internal" v. And also important is the fact that it never transcribes foreign h. In ONWC syllables it occurs exclusively before the vowel -u- as the first member of diphthongs. It does not appear before the ONWC absolute final *-u (= QYS -jəu). A guess would be that it was phonetically [ɣʷ]. We might suppose that the element [ɣ] here was not satisfactory for transcribing foreign intervocalic -h-, whereas our laryngeal *w- [ɦw] could serve this function. Since [ɣʷ] occurs exclusively before u, and this u is never the main vowel of the syllable, we can delete u as redundant. Once this step is taken, we note the

interesting fact that [ɣʷ] and *w- are in complementary distribution, with the former occurring only before the ONWC vowels ė, ə, o, ɑ, ë, and ä, and the latter in various other environments. Within our BTD system, the two can be considered allophones of the same phoneme: */w/ [ɦʷ], [ɣʷ]. Adopting this solution, we can in conclusion diagram the proposed developments from BTD to ONWC in the following way:

BTD		ONWC
*/g/	[g] > g-	Before front vowels and *u
	[g] > ɣ-	Elsewhere
	[ɣ] > ɣ-	
*/w/	[ɣʷ] > ɣu-	
	[ɦʷ] > Øu=-	

III. Finals

The BTD finals will be treated in groups corresponding to the WJ rime categories posited by Ting (1975). Departures from Ting's system will be discussed where necessary. At the beginning of each section the pertinent ONWC finals will be listed, preceded by the corresponding QYS forms in square brackets. In certain cases, possible Central Plains variant forms will be suggested in round brackets.

3.1 The Hai 咍 Group. This group consists of the following ONWC finals:

(1) [-ậi] -ɛi ~ (-ɑi)　　(2) [-uậi] -ɛi ~ (-uɑi)

(3) [-ăi] -ëi　　(4) [-wăi] -uëi

Final (1) is rare in the early northwest materials. Where present it transcribes foreign e. We have tentatively restored it as [ɛi]. Phonemically, it could be written as *-ɑi or *-əi in our ONWC system. This final is somewhat

more common in the S data, and there too it transcribes e. In the XZ data it renders foreign ai and ay (Shi 1983:44). In the YJ data it transcribes ay (Coblin 1991b). It would appear that in the early medieval dialects final (1) had at least two realizations, one perhaps as [ɑi], representing the Central Plains, and the other as [ɛi] or the like, found in certain other regions.

Final (1) appears twice in the TK text materials:

T 362.300.1 不乃 pu- nɛi: Skt. pūrṇa

T 362.300.1 難特 nɑn dɛi: Skt. nanda

For the late Han period we have:

T 280.445.2 占倍洹 tśam bɛi- ɣuɑn Skt. *campakavarṇa

T 624.363.3 和陀波利（林＞）栻代 ɣuɑ dɑ pɑ li źuit dɛi-

Skt. vratapariśuddha

These examples point to a vowel which may have been similar to Indic short a. I suggest that this vowel be restored as *ə. The T 280 form might suggest the presence of a final guttural in 倍, but this is problematic. The WH Chang-an poets occasionally rimed such qusheng syllables with rusheng words in -k, but the EH Chang-an poets never used such rimes (Coblin 1986; 1987). It is possible that the transcriptional form has been reduced and originally contained another syllable representing foreign ka. This interpretation is supported by the T 624 example, where Chinese 代 dɛi- (< *də) stands for foreign -dha.

The entire group can be reconstructed as follows:

(1) *-ə (2) -uə

(3) *-ɹə (4) *-ɹuə

Sample Reconstructions:

I. 來 *lə > lɛi 載 *tsə > tsɛi:,- 海 *hə > hɛi: 乃 *nə > nɛi: 待 *də > dɛi: 態 *thə > thɛi- 背 *pə > pɛi- 倍 *bə > bɛi-

灰 *huə > huɛi 賄 *huə > huɛi: 悝 *khuə > khuɛi

II. 戒 *kɹə > këi- 埋 *mɹə > mëi 豺 *dzɹə > dẓëi 怪 *kɹuə > kuëi-

3.2 The Zhi 之 Group. This group comprises the following ONWC finals:

(1) [-jɪ] -(i)ə (2) [-ji] -i (3) [-jwi] -ui

Final (1) occurs in the following TK examples:

T 474.522.2 基耶今（離波＞）波羅 kiə ia kim pɑ lɑ Skt. keśakambala

T 474.522.2 比盧持 bii lo diə Skt. vairaṭi-

Yu (1984:292) lists several more cases, all from the Zhiqian corpus:

笫 tṣiə Skt. ci 輜 tṣiə Skt. ji 持 diə Skt. ti (sic) 駛 ṣiə:,- Skt. ṣya

(At 1984:313 Yu has not ti but ṭi for the third case here. The latter is probably the correct form, corresponding to our T 474 example above.) This group has frequent contacts with the Hai group, and the distinction between the two is therefore somewhat problematic (Ting 1975:204). Contacts with Zhi 支 and Zhi 脂 are also common, but there are no interchanges with the Jie group (section 3.9). The ONWC form *-(i)ə can perhaps be retained here, with the assumption that *-ə was phonetically higher after palatals and *i.

The group can be restored as follows:

(1) and (2) *-(i)ə, (3) *-uiə (> *-ui)

Sample Reconstructions:

III. 基 *kiə > kiə 期 *giə > giə 之 *tśə > tśə 恥 *thiə > thiə: 以 *jə > *iə:

似 *ziə > ziə: 耳 *ñə > ñə: 市 *dźə > dźə: 士 *dzɹiə > dźiə:

輜 *tsɹiə > tṣiə 駛 *sɹiə > ṣiə:,- 持 *diə > diə 治 *diə > diə-

矣 *-ə > -ə: (enclitic only) 丕 *phiə > phi 備 *biə > bi-

軌 *kuiə > kui:

3.3 The You 幽 Group. This group contains the following ONWC finals:

(1) [-əu] -ou

(2) [-jəu] -u (3) [-jiəu] -iu

Final (1) is well attested in the Han data, where it transcribes Indic u in 75% and Indic o in 25% of the cases, e.g.

T 224.434.2 迦樓羅 ka lou la — Skt. garuḍa; cf. P. garuḷa

T 280.446.1 墮樓延 huie lou ian — Skt. vairocana

T 626.404.2 羅陀那羈頭 la da na ke dou — Skt. ratnaketu

T 418.903.1 難頭和難 nan dou ɣua nan — Skt. nandopananda

Final (2) commonly transcribes u, and occasionally o, in the BTD materials, e.g.

T 13.241.1 比丘 bii khu — Skt. bhikṣu, Gd. bhikhu, P. bhikkhu

T 224.440.1 首陀衛 śu: da uei- — Skt. śuddhāvāsa

T 313.753.3 迦留羅 ka lu la — Skt. garuḍa

T 626.404.2 惟首陀 iui śu da — Skt. viśuddha

T 313.753.3 摩休勒 ma hu lək — Skt. mahoraga

For final (3), Yu (1984:296) lists the word 由 iu transcribing foreign yu, and more rarely, yo. A case of the latter type from our data is the following:

T 474.527.1 由延 iu ian — Skt. yojana

For all finals of this group, the ONWC forms can be retained for the Han period.

Sample Reconstructions:

I. 叟 *sou > sou: 茂 *mou > mou- 購 *kou > kou- 口 *khou > khou:
厚 *gou > ɣou: 偶 *ŋou > ŋou: 走 *tsou > tsou: 豆 *dou > dou-
仆 *phou > phou- 樓 *lou > lou
母 *mou > mou: 剖 *phou > phou: cf.
謀 *mu > Early ONWC mu ? > mou 牟 *mu > Early ONWC mu ? > mou

III. 求 *gu > gu 九 *ku > ku: 首 *śu > śu: 修 *su > su 由 *ju > iu
酉 *ju > iu: 袖 *zu > zu- 丑 *thu > thu: 秋 *tshu > tshu 舟 *tśu > tśu

壽 *dźu > dźu: 搜 *sɹu > ṣu 浮 *bu > bu 憂 *ʔu > ʔu 留 *lu > lu 休 *hu > hu 否 *pu > pu: 不 *pu > pu- 富 *pu > pu- 謀 *mu > Early ONWC mu ʔ > mou 牟 *mu > Early ONWC mu ʔ > mou 又 *wu > u- 有 *wu > u: 彪 *piu > piu 謬 *miu > miu 糾 *kiu > kiu 幼 *ʔiu > ʔiu-

3.4 The Hao 豪 Group. This group contains the following finals:

(1) [-âu] -au

(2) [-au] -äu

For this group there is one BTD example:

T 224.425.3 忉利 tâu ljі- Skt. trāyastriṃśa, P. tāvatiṃsa, Khotanese ttāvatrīśa

There are many rime contacts with the Xiao group (see section 3.5), suggesting that the two were probably rather similar.

Sample Reconstructions:

I. 告 *kɑu > kɑu- 道 *dɑu > dɑu: 草 *tshɑu > tshɑu: 寶 *pɑu > pɑu: 高 *kɑu > kɑu 號 *gɑu > ɣɑu- 刀 *tɑu > tɑu 老 *lɑu > lɑu:

II. 包 *pɹɑu > päu 茅 *mɹɑu > mäu 巧 *khɹɑu > khäu: 教 *kɹäu > käu- 效 *gɹɑu > ɣäù- 爆 *pɹɑu > päu- 貌 *mɹɑu > mäu-巢 *dzɹau > dźäu

3.5 The Xiao 宵 Group. This group comprises the following ONWC finals:

(1) [-jäu^{3}] -au

(2) [-jiäu^{4}] -iau

(3) [-ieu] -ėu

Two forms from this group are attested in the BTD data:

T 280.446.1 照頭摩羅 tśau- dou mɑ lɑ Skt. cāturmahārājika

T 26.517.2 招提（僧舍>·）舍僧 tśau dėi śa sg7 Skt. caturdeśasaṃgha

Note that Skt. catu- yields ca'u- in the northwest Prakrits (see Brough 1962:299).

And from Yu Min's data we can add (1984:297):

驕 kau Skt. kau 橋 gāu Skt. gav, gāu

Final (3) occurs a number of times in the form 調 dėu, rendering foreign deva.

In ONWC the vowel ė is assumed to have been rather high and also non-front, perhaps resembling in some way the vowel ė in Lhasa Tibetan (Coblin 1991a). We shall retain this vowel in our BTD reconstruction and offer two hypotheses regarding its phonetic nature in this period. First, where *ė occurs in final position, before velars, or before the vowel *i, we suppose that it was phonetically either monophthongal, or perhaps diphthongal with a final "e-like" or "shwa-like" offglide, i.e. [ėᵉ] or [ėə]. In all other environments, we suggest that *ė was phonetically diphthongal and had as its second element an "a-like" vowel or offglide, i.e. [ėᵃ] or [ėa]. This peculiarity allowed it to rime with finals having the vowel */a/ and also in certain instances to transcribe foreign a or e with seemingly equal ease. Here one thinks particularly of the yuan and yue groups (see sections 3.21 and 3.32 below), where, for example, 先 sėn renders foreign sen or sañ ~ saṃj, and 涅 nėt stands for net or nad. Finally, we propose that in the early Tang period the vowel [ė] was fronted to [i] in the diphthong [ėa], resulting, by Shazhou times, in complete merger of [ėa] with already existing -ia-. This can be illustrated as follows:

BTD and ONWC		Common Shazhou	QYS
*-au	---------->	-iau	-jäu³
*-iau	---------->	-iau	-jiäu⁴
*-ėu [ėau]	---------->	-iau	-ieu
*-an	---------->	-ian	-jän³
*-ian	---------->	-ian	-jiän⁴

*-ėn [ėan] ----------> -ian -ien

*-at ----------> -iar -jät[3]

*-iat ----------> -iar -jiän[4]

*-ėt [ėat] ---> -iat ---> -iar -iet

Sample Reconstructions:

III. 驕 *kau > kau 橋 *gau > gau 翹 *giau > giau 表 *pau > pau:

標 *piau > piau 廟 *mau > mau- 渺 *miau > miau: 夭 *ʔau > ʔau 要 *ʔiau > ʔiau 超 *th(i)au > thau 趙 *d(i)au > dau: 焦 *ts(i)au > tsiau

小 *s(i)au > siau: 昭 *tśau > tśau 姚 *jau > iau 韶 *dźau > dźau

燒 *śau > śau 少 *śau > śau:

IV. 皎 *kėu > kėu: 堯 ŋėu > ŋėu 吊 *tėu > tėu- 僚 *lėu > lėu 迢 *dėu > dėu

叫 *kėu > kėu- 條 *dėu > dėu 蕭 *sėu > sėu 雕 *tėu > tėu 調 *dėu > dėu

3.6 The Yu 魚 Group. This group includes the following ONWC finals:

(1) [-uo] -o

(2) [-jwo] -ø (< -io ?)

(3) [-ju] -uo

Final (1) appears in the following late Han transcriptions:

T 224.425.3 須菩提 suo bo dėi Skt. subhūti

T 224.425.3 菩薩 bo sat Skt. bodhisattva

T 418.908.3 三藐三菩提 sam miau: sam bo dėi Skt. samyaksaṃbodhi

T 184.468.1 阿奴摩 ʔa no ma Skt. anomiya; cf. P. anomā

From the TK materials we have the following examples:

T 206.519.1 姑 ko Skt. kaḥ, Pkt. ko "who"

T 1432.1042.2 布薩 po- sat Skt. poṣadha

T 362.300.3 滿呼群 man: ho gun Skt. mahāguṇ-

T 362.317.2 沸霸圖耶 pui- pä- do ia Skt. puṣpadhvaja

T 474.522.2 比盧持 bii lo diə　　Skt. vairaṭi-

T 790.729.3 蒲鄰奈 bo lin nɛi- ~ nɑC　　Skt. varanasi

Final (2) is absent from our Han transcriptions. Yu Min cites two examples of it (1984:300):

如 ñø Skt. nya　　疏 ṣø Skt. ṣya

The first of these examples is attributed to Shemoteng 攝摩騰 (Kāśyapa Mātaṅga ?) and Zhu Falan 竺法蘭 (Dharmaratna ?). It has surely been taken by Yu from the form 憍陳如 Kauṇḍinya, found in an addendum at the beginning of the famous Sishierzhang jing 四十二章經 (T 784.722.1, n. 10). However, the authenticity of this section, and indeed of the text as a whole, is questionable; see Zürcher 1959:30, notes 61-64. We must handle it with caution and perhaps with a certain amount of skepticism. The second example is attributed to Zhiqian. Fortunately the full form has been given by Yu in a different paper (1989:57): 替疏 thèi-ṣø Skt. tiṣya. We should note that the Gd. form corresponding to Skt. -ṣya would be -śa, while other Prakrits might have had -ssa or -śśa. We may guess that the Indic form underlying Chinese here may indeed have been something like -ṣya.

Forms having final (3) can be conveniently divided into two groups, depending on whether they rimed in the Yu 魚 or Hou 侯 categories of the traditional Shijing rime system. Four examples of the former type occur in our Han transcriptions:

T 224.471.1 曇無竭 dɑm muo gat　　Skt. dharmodgata

T 196.157.1 瞿師羅 guo ṣi lɑ　　Skt. ghoṣila

T 224.435.1 惟于潘 iui uo phɑn　　Skt. bṛhatphala; cf. P. vehapphala

T 280.446.1 弗于逮 put uo dèi- ~ dɛi-　　Skt. pūrvavideha

Here we can also compare Yu (1984:300): 吁 huo, uo-　Skt. upā-; Gd. va-~ uva-. Examples of "hou-type" finals are more numerous in the Han data.

They render Indic u in about 55% and o or au (= Pkt. o) in about 45% of the examples, e.g.

T 150.877.1 須陀洹 suo da ɣuan — Skt. srotāpanna; cf. P. sotāpanna

T 224.467.1 須彌 suo mie — Skt. Sumeru

T 418.917.3 拘利 kuo li- — Skt. koṭi

T 196.147.3 摩南拘利 ma nam kuo li- — Skt. mahānāmakoliya

In the TK data we find the following examples:

T 1432.1041.1 曇無德 dam muo tək — Skt. dharmaguptaka

Zürcher (1959.338, n. 168) suggests a possible Pkt. form *dhamma-uttaka. A plausible phonetic realization of the combined elements would presumably be *dhammottaka.

T 362.300.3 須耶 [惟] 于沙 suo ia [iui] uo ṣa — Skt. sūryaghoṣa

T. 362.317.1 那惟于 na iui uo — Skt. nāgābhibhū ; Pkt. *nāgāvivū ?

T 362.300.3 旃陀遫臾 tśan da sok iuo — Skt. candra-sūrya-; cf. Gd. sūri'u for Skt. sūrya (Brough 1962:311)

The WJ rime group set up by Ting agrees fairly well with the values we have posited for ONWC. Final (2) is entirely absent from the ONWC data used in our recently published study of early northwest Chinese (Coblin 1991a) and may have had a value which was inappropriate for transcribing Indic sounds. Our form -ø is simply a backward projection of the reconstruction set up for northwest dialects of ca. 600 A.D. But it is possible that the ONWC value was -io [iø ?], allowing for perfect phonemic interriming during the early Six Dynasties period. Some corroborative evidence for this has since come to light in texts not used in the 1991 study and is included in a more recent paper (Coblin Ms. 2)

The Han material suggests that final (1) was o-like in second-century

Luoyang. The TK material, stemming mainly from Wu area (i.e. T 206, 362, 474, 790) points to an a-like value for the Jiankang area. This feature of the Wu pronunciation has already been alluded to by Pulleyblank (1962: [Pt. II] 214). Several more such examples from the Wu area are given by Yu (1984: 300):

吐 tho: Skt. tā　　屠 do Skt. dha

And he also cites one northern example, attributed to Zhu Foshuo 竺佛朔:

度 do- Skt. dha

As we have noted, final (2) is absent from the Han-time data. Yu Min's TK form 疏 , transcribing ṣya, points to an element -i-, followed by an a-like vowel, for the Wu area.

In the Han data, final (3), when stemming from the earlier hou category,transcribes u and o. But when this final derives from the yu group, it can also transcribe foreign syllables in a. Pulleyblank (1983:83) questions the validity of these examples of 于 , but later he seems to reverse himself on this matter without further comment (1984:175).

Beginning with final (3) in the Luoyang dialect, it seems clear that we must divide it into yu and hou types, the former having the qualities of both a and o and the latter having no a-like timbre at all. The two varieties could be restored as *uɔ and *uo respectively. Final (1) was primarily o-like in Luoyang and a-like in Jiankang. In poetry of the late Han and Wei-Jin periods it rimed freely with finals (2) and (3). Historically it is widely thought to have had an a-like vowel in mid-Han and earlier periods. As a compromise, we can perhaps restore it as *-ɔ. In a similar compromise, final (2) can be reconstructed as *-iɔ. In the north it may have been phonetically something like [iɜ] or [iø].

The set of forms suggested here leaves a gap in the reconstruction, for

we now no longer have a plain *o in the system. The reason for this, we may suspect, is that an earlier *o, originally belonging to the Hou group, had broken to -ou (= QYS -əu). Syllables of this type, which we have placed under final (1) of our You category above, transcribe Indic u-syllables in 75% and o-syllables in 25% of the cases in the Han data. Their final clearly was rather unlike our *-uo (derived from the Hou group and corresponding to QYS -ju) and did not rime with it in Ting's WJ data. The system proposed here would thus be as follows:

Pre-BTD		BTD		ONWC
*-o	>	*-ou	>	-ou
*-uo	>	*-uo	} ----->	-uo
*-uɔ	>	*-uɔ		
*-ɔ	>	*-ɔ	>	-o
*-iɔ	>	*-iɔ	>	-io > -ø (?)

It will be noted that the finals postulated here for the "pre-BTD" period are among those which are widely recognized as having rimed together fairly freely in Han times (Luo and Zhou 1958), and it could be objected with reference to our reconstruction that such interriming between -o and -ə would have been unnatural. However, as suggested elsewhere (Shao 1983; Coblin 1986:127-8), this rime pattern seems to have been based on standards derived from the works of the great Western Han fu poets of Shu 蜀, in whose dialect there may have been a true merger of the various finals involved here. It is therefore unnecessary for us to assume such mergers for the progenitors of BTD, ONWC, etc. Speakers of such dialects as these might have fashioned their rimes according to tradition rather than on the basis of their own sound systems.

Sample reconstructions:

I. 惡 *ʔɔ > ʔo- 度 *dɔ > do- 古 *kɔ > ko: 五 *ŋɔ > ŋo: 姑 *kɔ > ko
都 *tɔ > to 奴 *nɔ > no 祖 *tsɔ > tso: 素 *sɔ > so- 布 *pɔ > po-
孤 *kɔ > ko 狐 *gɔ > ɣo 污 *ʔɔ > ʔo 誤 *ŋɔ > ŋo-

III. 據 *kiɔ > kø- 許 *hiɔ > hø: 庶 *śɔ > śø- 絮 *śɔ > śø- 如 *ńɔ > ńø
余 *jɔ > iø 女 *niɔ > nø: 除 *diɔ > dø 疏 *sɹiɔ > ʂø 瞿 *guɔ > guo
懼 *guɔ > guo- 虞 *ŋuɔ > ŋuo 于 *wɔ > uo 雨 *wɔ > uo: 夫 *puɔ > puo
父 *buɔ > buo: 無 *muɔ > muo 區 *khuo > khuo 樞 *tśhuo > tśhuo
輸 *śuo > śuo 俞 *juo > iuo 柱 *duo > duo: 取 *tshuo > tshuo:
樹 *dźuo > dźuo- 赴 *phuo > phuo-侮 *muo > muo- 芻 *tshɹuo > tʂhuo
數 *sɹuo > ʂuo- 孺 *ńuo > ńuo 需 *suo > suo

3.7 The Ge 歌 Group. This group comprises the following ONWC finals:

(1) [-â] -a (2) [-uâ] -ua

(3) [-a] -ä (4) [-wa] -uä

(5) [ja] -a, -ia

Finals of this group are very common in the transcriptional materials and are used to render Indic a and ā. The graphs 迦 ka, 佉 kha, and 伽 ga are widely thought to have been specially invented for use in transcriptions of foreign words. They do not occur in Ting's rimed texts.

Sample Reconstructions:

I. 多 *tɑ > tɑ 何 *gɑ > ɣɑ 賀 *gɑ > ɣɑ- 左 *tsɑ > tsɑ: 波 *pɑ > pɑ
婆 *bɑ > bɑ 摩 *mɑ > mɑ 歌 *kɑ > kɑ 可 *khɑ > khɑ: 果 *kuɑ > kuɑ:
坐 *dzuɑ > dzuɑ: 墮 *duɑ > duɑ:

II. 加 *kɹɑ > kä 駕 *kɹɑ> kä- 沙 *sɹɑ > ʂä 麻 *mɹɑ > mä
家 *kɹɑ > kä 下 *gɹɑ > ɣä: 牙 *ŋɹɑ > ŋä 詐 *tsɹɑ > tʂä- 怕 *phɹɑ > phä-
馬 *mɹɑ > mä:
瓦 *ŋɹuɑ > ŋuä; 化 *hɹuɑ > huä-
瓜 *kɹuɑ > kuä 寡 *kɹuɑ > kuä: 華 *wɹɑ > ɣuä

III. 蛇 *źɑ (or *jɑ ?) > źa 嗟 *tsiɑ > tsia

借 *tsiɑ > tsia- 寫 *siɑ > sia: 謝 *ziɑ > zia- 社 *dźɑ > dźa

車 *tśhɑ > tśha

迦 *ka > ka 佉 *kha > kha 伽 *ga > ga

3.8 The Zhi 支 Group. This group comprises the following ONWC finals:

(1) [-aī] -ëi (2) [-wäi] -uëi

(3) [-je^3] -e (4) [-jwe^3] -ue

(5) [-jie^4] -ie (6) [-jwie^4] -uie

(7) [-iei] -ėi (8) [-iwei] -uėi

In this group we have made two changes from our earlier ONWC reconstructed forms. Final (5), earlier written as -iė, is now simplified as -ie. Final (6) has been changed from -uė to -uie. These finals correspond for the most part to Skt. i, ī, e, and ai (= Pkt. e) vowel syllables in the data, e.g.

(3)

T 602.170.2 辟支 piek tśe — Skt. pratyeka; P. pacceka; Gd. prace'a; Māhārāṣṭrī pāḍiĕkka; Ardhamāgadhī patteya

T 626.404.2 羅陀那羈頭 lɑ dɑ nɑ ke dou — Skt. ratnaketu

(4)

T 196.149.3 優爲羅 ʔu ue lɑ — Skt. uruvilva; P. uruvela

(5)

T 224.427.3 阿僧祇 ʔɑ səŋ gie — Skt. asaṅkhya ~ asaṅkhyeya

T 224.431.2 摩祇 mɑ gie — Skt. maghī

T 224.467.1 須彌 suo mie — Skt. sumeru

T 418.905.1 阿彌陀 ʔɑ mie dɑ — Skt. amitābha

T 224.434.1 波斯匿 pɑ sie nik — Skt. prasenajit

T 418.903.1 波羅斯 pɑ la sie — Skt. Vārāṇasī

(6)

T 280.446.1 墮樓延 huie lou ian　　Skt. vairocana

(7)

T 224.431.1 提和竭羅 dėi ɣuɑ gat lɑ　　Skt. dīpaṃkara

T 184.461.2 提和衛 dėi ɣua uei-　　Skt. devāvatāra

For this group the ONWC forms can be retained with two modifications, i.e., 1) we shall assume that no finals of the group ended in high front final *-i and, and 2) we shall restore 支 tśe as BTD *kie. Compare also 祇 and 岐, both ONWC gie, which, with Schuessler (Ms.), we speculate did not undergo palatalization in the presence of final *-ie. Finally, as pointed out in section 3.5 above, we suppose that final *-ė was phonetically perhaps something like [ėᵉ].

Also to be included here is 地 dii-, which rimes in this group and is found by Yu Min in one transcription (1984:314): 地 dii- Skt. dhi

Sample Reconstructions:

II. 罷 *bɹe > bëi: 解 *kɹe > këi: 買 *mɹe > mëi: 債 *tsɹe > tṣëi-

柴 *dzɹe > dẓëi 曬 *sɹe > ṣëi-

卦 *kɹue > kuëi- 畫 *wɹe > ɣuëi-

III. 奇 *ke, ge > ke, ge 施 *śe, je > śe, ie- 移 *je > ie 離 *lie > lie

离 *thie > thie 皮 *be > be 靡 *me > me

cf. 地 *de (?) > dii-

祇 *gie > gie 企 *khie > khie:,- 知 *tie > tie 易 *je > ie-

此 *tshie > tshie:

賜 *sie > sie- 是 *dźe > dźe: 寘 *tśe > tśe- 兒 *ńe > ńe 卑 *pie > pie

避 *bie > bie- 弭 *mie > mie:

支 *kie > tśe 妓 *ge > ge: 芰 *ge > ge- 岐 *gie > gie

爲 *we > ue 虧 *khue > khue 跪 *gue > gue: 危 *ŋue > ŋue

隨 *wie > zue 吹 *thue > thue

墮 *huie > huie 規 *kuie > kuie

IV. 繫 *kė, gė > kėi-, ɣėi- 雞 *kė > kėi 睨 *ŋė > ŋėi- 帝 *tė > tėi-

提 *dė > dėi 麗 *lė > lėi-

圭 *kuė > kuėi 攜 *wė > ɣuėi

3.9 The Jie 皆 Group. This group contains the following ONWC finals:

(1) [-ậi] -ɛi (~ -ai) (2) [-uậi] -uɛi (~ -ɑi)

(3) [-ăi] -ëi (4) [-wăi] -uëi

(5) [-iei] -ėi (6) [-iwei] -uėi

A qusheng example of final (1) occurs in the following case:

T 224.438.1 三昧 sɑm mɛi- Skt. samādhi

This transcription of samādhi also occurs in longer compounds in the data.

Ting (1975:106-7; 212) found a single qu/ru rime contact involving final (2) and a few cases of interriming with the Ji and Tai categories (sections 3.12 and 3.11). These point to the existence of a final coronal consonant in qusheng syllables having this final. We shall represent the said consonant as *-C here.

In the Han data, final (5) most commonly transcribes Indic syllables having the vowel i. It is also represented in the following examples, where ai and ay are rendered:

T 224.440.2 泥犁 nėi lėi Skt. niraya

T 196.149.3 泥蘭禪 nėi lan dźan Skt. nairañjanā

And in the TK data we find:

T 198.180.3 稽舍今陂犁 kėi śa- kim phɑ li Skt. [ajita] keśakambala

In the following examples it is uncertain whether it is final (5) or final (1) which is represented:

T 224.434.2 惟逮 iui dɛi- ~ dėi- Skt. virya

T 280.446.1 弗于逮 put uo dėi- ~ dɛi- Skt. pūrvavideha

But with Yu (1984:292) I suspect that ONWC dėi- is the syllable in play here. The transcription of virya is curious, and it seems possible that 逮 there is an error* for some other word, such as 隸 *lėi-.

Finals (1) and (2) can be reconstructed with the main vowel *ə. Final (5), which renders a range of different sounds, such as i, e, ai (= Pkt. e ?), can perhaps be restored as *-ėi. The entire group can then be reconstructed as follows:

(1) *-əi, -əC (2) *-uəi, -uəC

(3) *-ɹəi (4) *-ɹuəi

(5) *-ėi (6) *-uėi

Sample Reconstructions:

I. 哀 ʔəi > ʔɛi 鎧 *khəi > khɛi: 逮 *dəC (?) > dɛi- 妹 *məC > mɛi-

昧 *məC > mɛi- 配 *phəC > phɛi-

潰 *wəC > ɣuɛi- 桅 *ŋuəi > ŋuɛi 罪 *dzuəi > dzuɛi: 雷 *lùəi > luɛi

隊 *duəC > duɛi- 摧 *tshuəi > tshuɛi 內 *nûəC > nuɛi-

II. 皆 *kɹəi > këi 諧 *gɹəi > ɣëi 齋 *tsɹəi > tʂëi 槐 *wɹəi > ɣuëi

懷 *wɹəi > ɣuëi 排 *bɹəi > bëi

IV. 齊 *dzėi > dzėi 稽 *kėi > kėi 計 *kėi > kėi- 弟 *dėi > dėi: 禮 *lėi > lėi:

西 *sėi > sēi 迷 *mėi > mėi 泥 *nėi > nėi 逮 *dėi (?) > dėi-

睽 *khuėi > khuėi 惠 *wėi > ɣuėi-

3.10 The Zhi 脂 Group. This group contains the following ONWC finals:

(1) [-jei] -i (2) [-jwei] -ui

(3) [-ji, -ji[3]] -i (4) [-jwi, -jwi[3]] -ui

(5) [-i[4]] -ii (6) [-wi[4]] -uii

To begin, we should note that finals (1) - (3) and (2) - (4) form two

common entities, -i and -ui, in ONWC, whereas in the QYS they are analyzed as four distinct finals. I do not find final (1) in the data at all. Yu (1984:318) lists two occurrences of final (2), but I have not seen the examples on which they are based:

韋 ui Skt. ve 圍 ui Skt. ve

The following qusheng examples of final (2) occur in my data:

T 186.147.3 提謂 dèi ui- Skt. trapuṣa; cf. P tapussa, Khotanese tträväysa-

T 362.317.2 沸霸圖耶 pui- pä- do ia Skt. puṣpadhvaja

It seems probable that this final had final *-C in qusheng words.

QYS finals -ji (non-chongniu) and -i[4] are the preferred renderings of foreign i in these materials, e.g.

T 224.434.2 尸 śi Skt. śila

T 224.431.1 優婆夷 ʔu bɑ i Skt. upāsika

T 13.241.1 比丘 bii- khu Skt. bhikṣu; cf. Gd. bhikhu; P. bhikkhu

T 224.431.1 伊沙 ʔii ṣä Skt. īśāna

Final (4) is used to transcribe foreign vi, or occasionally ve (< vai):

T 626.394.2 惟摩羅 iui mɑ lɑ Skt. vimala

T 626.404.2 惟首陀 iui śu dɑ Skt. viśuddha

T 196.161.2 維耶離 iui ia lie Skt. vaiśālī

T 196.163.2 維衛 iui uei- Skt. vipaśyin

T 624.363.3 遺摩羅涅 iui ma la nèt Skt. vimalanetra

The following qusheng example of this final perhaps attests to the existence of final *-C:

T 196.155.2 尼拘類 ni guo lui- Skt. nyagrodha; P. nigrodha

Pulleyblank (1983:100, n. 12) has remarked that in my earlier treatment of BTD (1981) I neglected this example and "passed over it in silence." In fact however, my doubts about its interpretation were mentioned in a footnote to

this example (1981:174, n. 333), and it was these doubts which led to my hesitation about including it in my discussion of the *-C problem. The fact is that the same early transcriber (i.e. Kang Mengxiang) also renders Nyagrodha as 尼拘陀 ni guo dɑ (T 184.461.1; no. 292 in the data list). These competing examples make it difficult to decide whether Indic -dh- in the form Nyagrodha represents a stop, dh, or the Prakrit *z suggested by Pulleyblank. A possibility is that both forms are variants or corruptions of an original *尼拘類陀. It is equally possible, in my view, that T 196 represents an original Prakritic text of the type envisioned by Pulleyblank, while T 184 is based on some other language, where intervocalic -dh- was a true stop. In any case, I have no objection to the example as a possible representation of *-C.

QYS final -ji^{3} occurs in the following example:

T 224.425.3 耆闍崛 gi dźa gut　　Skt. grdhṛakūṭa; P. gijjhakūṭa

Since Skt. examples of this type are sometimes used to argue for a rhotacized or r-like quality in QYS -ji^{3}, it is worth noting that the Pkt. value for the first syllable 耆 here was probably gi. Cf. Gāndhārī gihi (Skt. gṛhin-), kici (Skt. kṛtya), etc. Compare also Yu (1984:311), who finds 耆 transcribing Skt. gi and giḥ. The character 耆 occurs in a number of other transcriptional forms, where it renders foreign ji or, in one case, ci. I suspect that there it may be a scribal error for 嗜 dźi-.

This group as a whole can be reconstructed as follows:

(1) - (3) *-i, (-iC ?)　　(2) - (4) *-ui, -uC, -u(i)C (?)

(5) *-ii　　(6) *-uii

Sample Reconstructions:

III. 幾 *ki > ki 氣 *khi(C) ? > khi- 衣 *ʔi > ʔi 歸 *kui > kui 圍 *w(u)i > ui
飛 *pui > pui 沸 *puC > pui- 謂 *wuC > ui- 未 *muC > mui-
肆 *si(C) ? > si- 器 *khi(C) ? > khi- 肄 *ji(C) ? > i- 悲 *pi > pi

飢 *ki > ki 祁 *gi > gi 耆 *gi > gi 旨 *tśi > tśi: 示 *dźi > dźi-
(n.b. not źi- in ONWC sources) 矢 *śi > śi: 至 *tśi > tśi- 二 *ñi > ñi-
四 *si > si- 師 *sɹi > ṣi 遲 *di > di 利 *li > li- 夷 *ji > i
眉 *mi > mi 姊 *tsi > tsi: 死 *si > si:
維 *ui > iui 帥 *sɹu(i)C > ṣui- 位 *wiC ? > ui- 醉 *tsu(i)C > tsui-
類 *lu(i)C > lui- 櫃 *gu(i)C > gui- 穗 *wiiC ? > zu(i)C > zui-
龜 *kui ? > kui (This word rimes in the present group in WJ poetry, in the you category in Han poetry, and in the zhi 之 category in pre-Han texts!)
寐 *mii > mii- 棄 *khii- > khii- 比 *pii, bii > pii:,bii-
癸 *kuii > kuii: 季 *kuii > kuii-

3.11 The Tai 泰 Group. This group contains the following ONWC finals:

(1) [-âi] -ɛi ~ -ɑC (2) [-uâi] -uɛi ~ -uɑC
(3) [-ai] -ëi (4) [-wai] -uëi

Most examples for this group involve finals (1) and (2), the ONWC forms for which differed by sub-dialect. In the Chang-an area they were apparently open and "e-like." In the Gansu Corridor they had an "a-like" vowel and ended in a consonant, which we transcribe as -C and whose basic phonetic value may have been sibilant-like and palatal (Coblin 1991a). In compounds this consonant may have undergone various assimilatory sandhi changes depending on the phonetic nature of an immediately following syllable initial consonant. A similar situation is also observable in the S dialect of sixth century Jiankang (Coblin 1990). It is probable that the Corridor Dialect was the more archaic here, and we consequently cite reconstructions for this dialect in the following examples.

T 184.472.2 貝多 pɑC tɑ Skt. pattra
T 196.147.3 波羅奈 pɑ lɑ nɑC Skt. vārāṇasī

T 224.431.1 阿會亘修 ʔɑ ɣuɑC suan su	Skt. ābhasvara + śu(bha)
T 280.446.1 阿會亘羞 ʔɑ ɣuɑC suan su	Skt. ābhāsvara + śu(bha)
T 418.913.3 賴毘 lɑC bii	Skt. raśmi
T 458.437.2 賴吒和羅 lɑC tä- ɣuɑ lɑ	Skt. rāṣṭrapāla
Yu (1984:315) 唄 bëi-	Skt. paṭh(aka)

It is clear that final -C was present in BTD and that it could be used to represent various foreign coronal consonants. We shall restore it as *-C. It seems not unlikely that BTD *-C was subject to sandhi changes of the sort found in the S dialect and the Gansu Corridor variety of ONWC and that its behavior in the texts can be explained in similar ways. However, in order to maintain this theory in the face of certain counter examples, it would be necessary to ignore or "explain away" the offending cases. We could, for example, begin by hypothesizing that in BTD *-C was phonetically [ś], the value we suspect it had in ONWC and the one we seem to observe for it in the rendering of raśmi above. For a form like pattra we can assume that *-C assimilated to following syllable-initial t-. But what is to be done with Yu's transcription of paṭhaka? We might hypothesize that the form originally contained more characters following 唄 and that they have since been deleted. The first of these might, for example, have been a Chinese syllable beginning with a coronal stop, which would have led [-ś] to change by assimilation to a similar stop. The BTD texts contain many transcriptions such as 佛 "Buddha" and 菩薩 "bodhisattva" which surely derive ultimately from longer forms that were presumably shortened at a later date. Perhaps 唄 is a case of this type. But in the end all this remains a speculation, because we have no direct textual evidence for longer renderings of paṭhaka in the early texts. It would seem that for the moment we must leave matters as they stand and continue writing *-C.

The syllable 蔡 tshaC ~ tshɛi- presents special problems in the BTD materials. It has been discussed in section 2.3 above.

Sample Reconstructions:

I. 害 * gɑC > ~ ɣɑC ~ ɣɛi- 大 *dɑC > dɑC ~ dɛi- [蔡 *tshɑC > tshɑC ~ tshɛi-]

會 *wɑC > ɣuɑC ~ ɣuɛi- 外 *ŋuɑC > ŋuɛC ~ ŋuɛi- 兌 *duɑC > duɑC ~ duɛi- 貝 *pɑC > pɑC ~ pɛi-

II. 蠆 *thɹɑC > thëi- 敗 *pɹɑC, bɹɑC > pëi-, bëi- 唄 *bɹɑC > bëi-

快 *khɹuɑC > khuëi- 話 *wɹɑC > ɣuëi-

3.12 The Ji 祭 Group. This group comprises the following ONWC finals:

(1) [-ăi] -ëi (2) [-wăi] -uëi

(3) [-jai^3, -jʊi] -ei (4) [-jwäi^3, -jwʊi] -uei

(5) [-jiäi^4] -iei

(6) [-iei] -:i (7) [-iwei] -u:i

Finals (3), (4), (5), and (6) are attested in the data. They usually transcribe foreign syllables in a, e.g.

T 13.233.2 舍衛 śa- uei-	Skt. śrāvastī
T 152.12.1 分衛 pun uei-	Skt. piṇḍapāta
T 184.461.1 迦維羅衛 ka iui lɑ uei-	Skt. kapilavastu
T 184.461.2 提和衛 dèi ɣuɑ uei-	Skt. devāvatāra
T 196.163.2 維衛 iui uei-	Skt. vipaśyin
T 224.440.1 首陀衛 śu: dɑ uei-	Skt. śuddhāvāsa
T 224.440.2 世多羅 śei- ta la	Skt. śāstṛ
T 418.903.1 加羅衛 kä la uei-	Skt. kapilavastu
T 418.903.1 阿闍世 ʔa dźa śei-	Skt. ajātaśatru
T 418.906.1 偈 gei-	Skt. gāthā
T 152.9.1 闕拏延 kei- nä ian	Skt. kṛṣṇājinā

T 362.300.1 厲越 lei- uat　　Skt. revata

T 224.435.1 須蠆祇耨 suo tėi- tśe nou-　　Skt. sudarśana; P. sudassi; cf. Gd. daśayadi (Skt. darśanti)

T 224.435.1 須蠆 suo tėi-　　Skt. sudrśa; cf. P. sudassa

With one exception, these examples point to the existence of final *-C in this group. The use of 厲 to transcribe foreign re is atypical and is more reminiscent of examples found in the ONWC data. I cannot explain it, unless it is a late intrusion of some sort.

The first five finals of this group are reconstructed with *-aC. Finals (6) and (7) are restored as *-ėC and *-uėC , which, as outlined in section 3.5 above, are assumed to have been phonetically [ėᵃC] and [uėᵃC] respectively.

Sample Reconstructions:

II. 介 *kɹaC > këi- 瘵 *tsɹaC > tṣëi- 殺 *sɹaC > ṣëi- 拜 *pɹaC > pëi-
　　蠆 *wɹaC > ɣuëi-

III. 艾 ŋaC > ŋei- 揭 *khaC > khei- 偈 *gaC > gei- 藝 *ŋiaC > ŋiei-
　　世 *śaC > śei 制 *tśaC > tśei- 祭 *tsaC > tsei- 厲 *laC (?) > lei-
　　斃 *biaC > biei-
　　穢 ʔuaC > ʔuei- 肺 *phaC > phei > phuei 吠 *baC > bei > buei-
　　廢 *paC > pei > puei- 劌 *kuaC > kuei- 衛 *waC > uei- 歲 *suaC > suei-
　　銳 *juaC > iuei- 說 *śuaC > śuei-

IV. 契 *khėC > khėi- 蠆 *tėC > tėi-
　　慧 *wėC > ɣu:i-

3.13 The Deng 登 Group. There is a single final in this category:

[-əng] -əŋ

This final is attested several times in the BTD data:

T 607.230.3 僧伽 səŋ ga　　Skt. saṃgha

T 224.433.1 恆 ɣəŋ　　Skt. gaṅgā

The ONWC value can perhaps be retained here.

Sample Reconstructions:

I. 登 *təŋ > təŋ 崩 *bəŋ > bəŋ 恆 *gəŋ > ɣəŋ 朋 *bəŋ > bəŋ 僧 *səŋ > səŋ

3.14 The Zheng 蒸 Group. This group contains one final:

[-jəng] -iŋ

This final does not occur in our BTD data. Yu (1984:296) finds one example of it:

陵 liŋ Skt. lavim(k)

In WJ poetry it has large-scale rime involvement with the Deng group, and Ting (1975:214) is in fact hesitant about separating the two categories. We can tentatively restore it as *-iəŋ.

Sample Reconstructions:

III. 兢 *kiəŋ > kiŋ 繩 *źəŋ > źiŋ 蠅 *jəŋ > iŋ 凝 *ŋiəŋ > ŋiŋ 澄 *diəŋ > diŋ

勝 *śəŋ > śiŋ- 仍 *ńəŋ > ńiŋ 冰 piəŋ > piŋ

3.15 The Dong 東 Group. This group contains the following ONWC finals:

(1) [-ung] -oŋ

(2) [-ảng] -äŋ

(3) [-jwong] -uoŋ

These finals are not attested in the transcriptional data. Final (2) can be restored as *-ɹoŋ to account for the WJ rime evidence.

Sample Reconstructions:

I. 工 *koŋ > koŋ 東 *toŋ > toŋ 送 *soŋ > soŋ- 蒙 *moŋ > moŋ

II. 巷 *gɹoŋ > ɣäŋ- 講 *kɹoŋ > käŋ: 雙 *sɹoŋ > śäŋ 邦 *pɹoŋ > päŋ

撞 dɹoŋ > däŋ-

III. 恭 *kuoŋ > kuoŋ 凶 *huoŋ > huoŋ 雍 *ʔuoŋ > ʔuoŋ 重 *duoŋ > duoŋ-

用 *juoŋ > iuoŋ 龍 *luoŋ > luoŋ 衝 *tśhuoŋ > tśhuoŋ 誦 *zuoŋ > zuoŋ-

封 *puoŋ > puoŋ 奉 *buoŋ > buoŋ:

3.16 The Dong 冬 Group. This group contains the following ONWC finals:

(1) [-uong] -ɑuŋ (?)

(2) [-ảng] -ăŋ

(3) [-jung] -uŋ ~ -iuŋ

These finals do not occur in the transcriptional data. Final (1) is attested in the ONWC materials in only one example, where the character 農 transcribes the Indic syllable nahu-. The vocalism of this final is therefore problematic. The riming patterns observed by Ting can be provisionally accounted for by reconstructing final (2) as *-ɹuŋ.

Sample Reconstructions:

I. 冬 *tɑuŋ > tɑuŋ 宗 *tsɑuŋ > tsɑuŋ 農 *nɑuŋ > nɑuŋ

II. 降 *gɹuŋ, kɹuŋ > ɣäŋ, käŋ-

III. 崇 *dzɹiuŋ > dẓuŋ 躬 *kuŋ > kuŋ 窮 *guŋ > guŋ 中 *tuŋ > tuŋ

終 *tśuŋ > tśuŋ 戎 *ñuŋ > ñuŋ 隆 *luŋ > luŋ 豐 *phuŋ > phuŋ

弓 *kuŋ > kuŋ 雄 *wuŋ (?) > ɣuŋ 馮 *buŋ > buŋ

夢 *muŋ > moŋ

3.17 The Geng 耕 Group. This group comprises the following ONWC finals:

(1) [-ɑng, -ɛng] -ëŋ (2) [-wɑng, -wɛng] -uëŋ

(3) [-jʊng] -eŋ (4) [-jwʊng] -ueŋ

(5) [-jäng] -ieŋ (6) [-jwäng] -u(i)eŋ

(7) [-ieng] -ėŋ (8) [-iweng] -uėŋ

From this group, final (7) is attested in a number of variant BTD transcriptions of the name Bimbisāra (~ Bimbasāra), where the characters 瓶, 萍, and 洴, all bėŋ, render foreign bim-.

At the outset, one can perhaps reconstruct final (7) as *-ėŋ. (*-iŋ would of course also be a possibility.) Finals (1) and (2) can then be restored as *ɹeŋ and *-ɹueŋ respectively.

Dong (1978:247-249) argues convincingly that finals (3) and (5) were not distinguished by the glossist Yan Shigu in the early seventh century. Final (5) does not occur in the ONWC data at all. Final (3) appears in one northwest transcriptional form of Dharmakṣema:

T 192.2.2 央（烏明反）耆羅 ʔjang ~ ʔjʊng (read: ʔ[uo + m]j[w]ʊng) gji^{3} lâ

Skt. aṅgiras

Here 央 renders foreign aṅ-, and we are told by the appended fanqie gloss that QYS ʔjʊng is the appropriate reading of the graph. To account for this, QYS -jʊng was restored as *-eŋ [æŋ] for the ONWC stage, while for QYS -jäng we tentatively retained *-ieŋ as our ONWC form (Coblin 1991a). We have no evidence at all about the corresponding hekou finals, (4) and (6).

The majority of words having final (3) rimed in early Han and pre-Han poetry with the yang category of those periods and are thought to have undergone a major shift to the geng group at a later time. The word 央 in the T 192 example above is in fact a syllable of this type. Ting (1975:218) has found that in WJ texts these words are unique in that they rime fairly freely with both the yang and geng groups, and he identifies this as "a phenomenon of the period of transition." We can perhaps signal this peculiarity by reconstructing final (3) in such cases as *-eŋ, as against *-ieŋ for final (5).

Ting (1975:219) has noted that in the works of WJ poets of the northwest area the geng group finals as a whole have a slight riming affinity for the yang category. He recognizes this as a dialectal feature. This coincides with the fact that as late as early Tang times these finals, as manifested in northwest dialects of that period, were rendered in the earliest layer of Tibeto-Chinese transcriptions as Tibetan -ang. For the late Han and WJ periods it may have been the case that these finals had high, i-like vowels in

Central Plains dialects of the type underlying the BTD transcriptions, and lower, a- or æ-like vowels in the northwest.

Sample Reconstructions:

II. 耕 *kɹeŋ > këŋ 幸 *gɹeŋ > ɣëŋ: 爭 *tsɹeŋ > tṣeŋ 迸 *pɹeŋ > pëŋ-

生 *sɹeŋ > ṣëŋ 橙 *dɹeŋ > dëŋ 繃 *pɹeŋ > pëŋ

更 *kɹeŋ > këŋ 行 *gɹeŋ > ɣëŋ 孟 *mɹeŋ > mëŋ-

嶸 *wɹeŋ > ɣuëŋ 宏 *wɹeŋ > ɣuëŋ

橫 *wɹeŋ > ɣuëŋ

III. 頸 *kieŋ > kieŋ: 清 *tshieŋ > tshieŋ 性 *sieŋ > sieŋ- 淨 *dzieŋ > dzieŋ-

貞 *tieŋ > tieŋ 正 *tśeŋ > tśeŋ- 成 *dźeŋ > dźeŋ 名 *mieŋ > mieŋ

鳴 *meŋ > meŋ 平 *beŋ > beŋ

慶 *kheŋ > kheŋ- 迎 *ŋeŋ > ŋeŋ 英 *ʔeŋ > ʔeŋ 鯨 *geŋ > geŋ

景 *keŋ > keŋ:

兵 *peŋ > peŋ 病 *beŋ > beŋ- 明 *meŋ > meŋ

兄 *hueŋ > hueŋ

傾 *khu(i)eŋ > khu(i)eŋ 瓊 *gu(i)eŋ > gu(i)eŋ

榮 *weŋ > ueŋ

永 *weŋ > ueŋ:

IV. 經 *kėŋ > kėŋ 刑 *gėŋ > ɣėŋ 青 *tshėŋ > tshėŋ 星 *sėŋ > sėŋ

丁 *tėŋ > tėŋ 萍 *bėŋ > bėŋ 溟 *mėŋ > mėŋ 定 *dėŋ > dėŋ-

扃 *kuėŋ > kuėŋ 熒 *wėŋ > ɣuėŋ

3.18 The Yang 陽 Group. This group comprises the following ONWC finals:

(1) [-âng] -aŋ (2) [-wâng] -uaŋ

(3) [-jang] -(i)aŋ (4) [-jwang] -uaŋ, -aŋ

These finals are not attested in the transcriptional data. The ONWC forms are here tentatively projected backward to BTD. In words like 相 siaŋ and 強 giaŋ it is difficult to know whether the BTD form should be reconstructed

with *-iaŋ or *-aŋ. Either form would "work" in our system, but we lack BTD evidence to make a cogent choice. A hint for the syllable 強 is perhaps to be found in the following transcription of Dharmaraksa 竺法護, a northwest translator of the third century:

T 77.886.1 盧耶強耆 lo ia giang gi Skt. lomasakaṅgiya

We can suspect that ONWC giang here should be projected back to earlier *gang in the northwest dialects.

Words like 長 are reconstructed for the early Shazhou period as dźaŋ (Tibetan spelling: jang). For the ONWC period, in the absence of textual evidence, we reconstruct ONWC *dang. However, from the Central Plains materials of Tang times we have evidence which points in another direction. In the YJ data we find:

T 985.466.2 [Tk 23] 烏長 QYS ʔuo ḍjang Skt. ōḍiyānika

This suggests that after the so-called sheshang initials, such as ḍ-, this QYS final began with a high front element in YJ's language. A very similar example occurs in the XZ data, where Shi (1983:43) finds Chinese 仗 (QYS ḍjang:) transcribing Skt. dyān. It is possible that BTD, as a probable direct ancestor of XZ's Tang-time Luoyang dialect, actually realized 長 as *diaŋ. But earlier *daŋ yielding a later *diaŋ in the Luoyang area is also a possibility. The matter remains uncertain.

Sample Reconstructions:

I. 剛 *kaŋ > kaŋ 康 *khaŋ > khaŋ 行 *gaŋ > ɣaŋ 堂 *daŋ > daŋ
藏 *dzaŋ > dzaŋ 喪 *saŋ > saŋ
光 *kuaŋ > kuaŋ 皇 *waŋ > ɣuaŋ 旁 *baŋ > baŋ 荒 *huaŋ > huaŋ

III. 姜 *k(i)aŋ > kiaŋ 羊 *jaŋ > iaŋ 祥 *z(i)aŋ > ziaŋ 強 *g(i)aŋ > giaŋ
長 *d(i)aŋ > daŋ 良 *l(i)aŋ > liaŋ 相 *s(i)aŋ siaŋ 讓 *ñaŋ > ñaŋ-
商 *śaŋ > śŋ 霜 *sɹaŋ > ṣaŋ 常 *dźaŋ > dźaŋ 莊 *tsɹaŋ > tṣaŋ

章 *tśaŋ > tśaŋ 醬 *ts(i)aŋ > tsiaŋ-

王 *waŋ > uaŋ 狂 *guaŋ > guaŋ 匡 *khuaŋ > khuaŋ 方 *paŋ > paŋ > puaŋ

房 *baŋ > baŋ > buaŋ 亡 *maŋ > maŋ > muaŋ

3.19 The Zhen 眞 Group. This group combines finals belonging to two large rime categories of the pre-Han period. Ting treats it as a single group in the Wei period but divides it into three separate classes for the Jin period:

A. Hun 魂 Category

(1) [-ən] -ən (2) [-uən] -on

B. Wen 文 Category

(3) [-jən] -in (4) [-juən] -un

C. Zhen 眞 Category

(5) [(-jɛn),-jen^3] -in (6) [-juen^3] -uin

(7) [-jien^4] -iin (8) [-juien^4] -uiin

Ting (1975:219-220) does not reconstruct different Wei and Jin values for these finals and in fact does not claim that the temporal differences in rime classes here represent phonological changes. It seems possible that varying poetic rime conventions underlie these differences. The statistical table Ting gives (1975:213) leads me to doubt the validity of the distinction between categories B and C. It seems clear, however, that A was distinct from B and C in some way.

Final (1) is absent from the data. Final (2) is represented by two characters:

T 13.236.3 沙門 *ṣä mon Skt. śramaṇa

T 418.905.1 須門 *suo mon Skt. sumanā

T 458.438.1 婆羅門 *bɑ lɑ mon Skt. brāhmaṇa

T 152.44.3 優奔 *ʔu pon Skt. utpalaka

These examples suggest that 門 and 奔 had unrounded vowels in the BTD

period, and we can restore them as *mən and *pən respectively. We can assume that in such examples earlier *ə was later labialized by the preceding initials. Examples for non-labial initial syllables are absent from the data. In such cases one could perhaps posit *uə, as is done in a number of the current QYS reconstructions. In non-guttural initial syllables, plain *ə could be reconstructed.

Final (3) is absent from the data. Final (4) frequently renders Indic syllables having the vowel u, e.g.

T 224.454.1 分漫陀尼弗 pun mɑn- dɑ ni put Skt. pūrṇamaitrāyaṇīputra

T 313.754.1 分陀利 pun dɑ li- Skt. puṇḍarīka

T 224.431.1 釋迦文 śek ka mun Skt. śākyamuni

T 152.34.3 拘文 kuo mun Skt. kumuda

T 184.462.2 羅雲 lɑ un Skt. rāhula

T 474.523.2 羅云 lɑ un Skt. rāhula

T 280.445.3 群那 gun nɑ- Skt. guṇa

However, there are also cases where Indic syllables in a are transcribed. e.g.

T 224.425.3 文殊師利 mun dźuo ṣi li- Skt. mañjuśrī

T 224.426.2 薩芸若 sɑt un ña: Skt. sarvajña

In the first of these examples we may suspect that the underlying Prakrit form had muñ-; cf. Gd. muṃjavaṃda = Skt. mañjuvāda-, Gd. muṃjukrita = Skt. mañjukīrti- (Fussman 1989:466-67).

And one case rendering Indic i is attested:

T 152.12.1 分衛 pun uei- Skt. piṇḍapāta

How such differing forms should be reconciled seems unclear. For the nonce it seems best to retain the ONWC value here.

As Yu (1984:295) has noted, finals (5) and (7) usually transcribe foreign syllables in i. However, final (7) transcribes an a-syllable in one case.

Compare:

T 196.163.2 頻頭 biin dou　　Skt. bandhumā

T 362.300.3 賓儐 piin ŋiə:　　Skt. -bhijña

I can offer no explanation for this as it stands. Could it be that the Prakrit form underlying bandhumā is *bundhumā and the character 頻 here is an error for 頒 bun? Somewhat similarly, the graph 粼 lin is used in these materials not only for syllables such as -lin- and -ṇḍin- but also for -raṇ-. The same behavior is observable for 憐 lėn. I believe this is due to graphic confusion, with 粼 being the original or "correct" form for -in type transcriptions and 憐 for the -an type.

The graph 邠 pin is used to represent both -pin- and purṇ-. Another graph which is used for pūrṇ- is 頒 bun. I believe that these two have been scribally confused and that 邠 should be used only for unrounded syllables like -piṇ-.

Final (6) appears in the syllables 輪 luin and 論 luin, lon-, both transcribing foreign -ruṇ-. ONWC contains no syllable lun to contrast with luin. It is possible that luin derives from earlier *lun here. But it could also be that an earlier *luin was the best possible choice and was used for this reason. This is the solution we shall provisionally adopt.

In conclusion, I assume that sub-category types B and C formed a common rime group in which the high vowel syllables *-in and *-un could interrime. Type A would have constituted a final *-ən class which occasionally rimed with B and C.

Sample Reconstructions:

I. 根 *kən > kən 恩 *ʔən > ʔən 吞 *thən > thən (?)

魂 *wən > ɣon 盆 *bən > bon 奔 pən > pon 本 *pən > pon:

門 *mən > mon 存 *dz(u)ən > dzon 昏 *huən > hon 損 *s(u)ən > son:

論 *l(u)ən > lon- 臀 *d(u)ən > don

III. 振 *tśin > tśin- 晨 *źin, dźin > źin, dźin 忍 *ñin > ñin:

吝 *lin > lin-巾 *kin > kin 貧 *bin > bin 勤 *gin > gin

近 *gin > gin:,- 斤 *kin > kin 訢 *sɹin > ṣin 莘 *sɹin > ṣin

引 *jin > in: 眞 *tśin > tśin 神 *źin > źin 人 *ñin > ñin 申 *śin > śin

腎 *dźin > dźin: 愼 *dźin >dźin- 進 *tsin > tsin- 信 *sin > sin-

陣 *din > din- 珍 *tin > tin

文 *mun > mun 君 *kun > kun 雲 *wun > un 群 *gun > gun

窘 *guin > guin: 隕 *win > uin: 芬 *phun > phun 問 *mun > mun-

春 *tśhuin > tśhuin 純 *dźuin > dźuin 順 *źuin > źuin-

匀 *uin or *juin (?) > iuin 筠 *win > uin 旬 *wiin > zuin

洵 *suin > suin

緊 *kiin > kiin: 因 *ʔiin > *ʔiin 賓 *piin > piin 頻 *biin > biin

民 *miin > miin

均 *kuiin > kuiin

3.20 The Han 寒 Group. This group comprises the following ONWC finals:

(1) [-an] -an (2) [-uân] -uɑn

(3) [-an] -än (4) [-uan] -uän

Finals (1) and (2) are fairly common in the data, e.g.

T 14.241.3 阿難 ʔɑ nɑn Skt. ānanda

T 224.471.3 難檀桓 nɑn dɑn ɣuɑn Skt. nandanavana

Finals (3) and (4) are not attested.

Sample Reconstructions:

I. 干 *kɑn > kɑn 安 *ʔɑn > ʔɑn 難 *nɑn > nɑn 贊 *tsɑn > tsɑn-

滿 *mɑn > mɑn:

冠 *kuɑn > kuɑn 緩 *wɑn > ɣuɑn: 段 *duɑn > duɑn-

II. 姦 *kɹɑn > kän 雁 *ŋɹɑn > ŋän- 刪 *sɹɑn > ṣän 慢 *mɹɑn > män-

板 *pɹɑn > pän:

關 *kɹuɑn > kuän 頑 *ŋɹɑn > ŋuän 饌 *dzɹuɑn: > dẓuän:

3.21 The Yuan 元 Group. This group comprises the following ONWC finals:

(1) [-ăn] -än (2) [-wăn] -uän

(3) [-jʊn, -jän[3]] -an (4) [-jwʊn, -jwän[3]] -uan

(5) [-jiän[4]] -ian (6) [-jwiän[4]] -uian (?)

(7) [-ien] -ėn (8) [-iwen] -uėn

Of these, (1), (3), (4), (5), and (7) are attested, as exemplified in the following:

(1)

T 224.434.2 羼提 tṣhän:,- dėi — Skt. kṣānti

(3)

T 224.438.3 健陀羅 gan- da la — Skt. gandhārva

T 224.435.1 乾陀羅 gan da la — Skt. gandhārva

T 607.232.3 栴檀 tśan dan — Skt. candana

T 32.814.2 目揵連 muk gan lian — Skt. maudgalyāyana; P. moggallāna

T 280.445.2 訖連桓 kit lian ɣuɑn — Skt. *hiraṇyavarṇa

T 185.476.2-3 尼連禪 ni lian dźa — Skt. nairañjanā; P. nerañjanā ~ nirañjanā

(4)

T 224.475.2 鳩垣 ku uan — Skt. kumbhāṇḍa

T 302.300.3 樓夷垣羅 lou i suan la — Skt. lokeśvara

(5)

T 224.427.3 摩訶衍 ma ha ian: — Skt. mahāyāna

T 474.527.1 由延 iu ian — Skt. yojana

(7)

T 224.465.1 尼惟先 ni iui sėn　　Skt. naivasaṃ[jñānāsaṃjñāyatanopaga];
P. nevasañ[ñānāsaññāyatanūpaga]

T 152.33.1 摩因先 mɑ ʔiin sėn　　Skt. mahendrasena

T 198.180.3 先跪鳩墮羅知 sėn ŋue ku huie lɑ ti
Skt. sañjayi-vairattī ~ sāñjaya-vairaṭi

This example is corrupt in some way, but the first portion seems clear.

T 474.522.2 先比盧持 sėn bii lo di　　Skt. saṃjāyin vairaṭi

T 790.729.1 卑先匿 pie sėn nik　　Skt. prasenajit

T 196.157.2 優塡 ʔu dėn　　Skt. udayana

T 418.902.3 迦憐 ka lėn　　Skt. kalandaka

T 418.903.3 陀憐尼 da lėn ni　　Skt. dhāraṇī

Yu (1984:314): 塡 dėn　　Skt. dyan, P. den

Finals (3) - (5) can be reconstructed with their ONWC values. Final (6) is very rare, and there is no information on it in either the BTD or ONWC data. Final (7) transcribes both e and a vowel syllables. As argued in section 3.5 above, I tentatively reconstruct this final as *-ėn [ėan].

The character 焉 , which rimes in this group and appears in the TK data, has been discussed in section 2.7 above.

Sample Reconstructions:

II. 間 *kɹan > kän 閑 *gɹan > ɣän 山 *sɹan > ʂän 棧 *dzɹen > dʐän:
辦 *bɹan > bän- 艱 *kran > kän 限 *gran > ɣän: 盼 *phran > phäan-
幻 *wɹan > ɣuän-

III. 建 *kan > kan- 言 *ŋan > ŋan 乾 *gan > gan 衍 *jan > ian:
遣 *khian > khian:,- 焉 *ʔan > ʔan, *-an > -an (enclitic only)
連 *l(i)an > lian 淺 *tsh(i)an > tshian: 羨 *jan, z(i)an > ian-, zian-
展 tan > tan: 戰 *tśan > tśan- 禪 *dźan > dźan 免 *man > man:

辯 *ban > ban: 便 *bian > bian- 面 *mian > mian-

反 *puan > puan: 萬 *muan > muan- 元 ŋuan > ŋuan 援 *wan > uan

遠 *wan > uan: 圈 *guan > guan:,- 院 *wan > uan- 權 *guan > guan

卷 *kuan > kuan- 倦 *guan > guan- 絹 *kuian > kuian- (?)

轉 *tuan > tuan:,- 全 *dzuan > dzuan 椽 *wian > zuan

宣 *suan > suan 專 *tśuan > tśuan

IV. 見 *kėn > kėn-, *gėn > ɣėn- 前 *dzėn > dzėn 邊 *pėn > pėn

片 *phėn > phėn- 先 *sėn > sėn 典 *tėn > tėn: 殿 *dėn > dėn

賢 *gėn > ɣėn 電 *dėn > dėn- 田 *dėn > dėn 年 *nėn > nėn

憐 *lėn > lėn 縣 *wėn > ɣuėn- 旬 *wėn > ɣuėn;,- 玄 *wėn > ɣuėn

淵 *ʔuėen > ʔuėn

3.22 The Qin 侵 Group. This group comprises the following finals:

(1) [-ậm] -ɑm

(2) [-jəm] -im

(3) [-jung] -uŋ

In both the Han and TK period data these finals transcribe Indic syllables having the vowels a, ā, or ī , e.g.

T 13.233.2 阿含ʔɑ ɣɑm — Skt. āgama

T 418.903.1 須深 suo śim — Skt. susīma

T 474.522.2 基耶今 (離波 >) 波羅 kiə ia kim pa la — Skt. keśakambala

T 280.445.3 楓摩 puŋ mɑ — Skt. brahmā

From the TK data there are also examples transcribing foreign rounded vowel syllables. For example, from Yu Min's data we have (1984:298):

金 kim Skt. kum 三 sɑm Skt. sum

And in our own TK material we find:

T 362.300.3 蔡拘岑 tshɑi- kuo dẓim — Skt. -saṃkusum[itābhyudgata]

Examples of this type stem from the Wu area, and it seems possible that

they represent a southern dialect which had a rounded vowel here.

A possibility in dealing with this group is to adopt a "traditional" reconstruction in which final (1) is restored as *-əm and (2) as *-iəm. But the latter form is not satisfactory, either for our Han or TK examples of final (2). This leads us back to Ting's rime data (1975:168-172) for a review of his delineation of this rime category. At the outset we find that examples of final (1) are rather scant in the corpus as a whole while final (2) is very common. Cases where finals (1) and (2) interchange in Ting's materials occur in the poetic works of Lu Ji 陸機, Lu Yun 陸雲, Zheng Feng 鄭豐, and Zhang Han 張翰. Now the Lu's and Zhang Han were all natives of the Wu area. Zheng Feng was by ancestry a native of Peijun 沛郡 but was the son of a prominent official of the Wu state and probably grew up in that area. For Guo Pu 郭璞, a native of the Central Plains area, Ting lists the following rime sequence: 潭參蠶 (帝女桑贊). Ting considers 參 here to belong to rime (2), but I believe that in this poem it should be read as QYS tshậm, sense of "to intertwine, intermingle (sc. branches of a mulberry tree)." What emerges here is the realization that in this period interriming between finals (1) and (2) was a feature of the Wu area, which, as Ting (1975:262-264) has shown, probably had special dialect features of its own. Though these two finals interrime in poetry of Han and earlier times, there is no real evidence that this was so in WJ poetry of north China. In the north, the two finals may also have already been distinguished in dialects such as BTD. Our solution for the present will be to adopt the ONWC value for final (2) and to restore final (1) as *-əm.

In Ting's data final (3) belongs firmly in the Dong 冬 group (see section 3.16). There is no question about its WJ period assignment there. But in our material the transcription of brahmā in the T 280 example suggests that it

belongs in the present category in BTD. It can be reconstructed as *-uəm (< *-əm), as suggested elsewhere (Coblin 1991c). In connection with this final we also tentatively include here the word 熊 "bear." Modern northwest dialects (which read çyə̃ or çyuŋ for this word) point to an earlier form *ɣuŋ at some pre-modern stage, but from material representing the Gansu Corridor dialect of ONWC we have the following example:

T 664.387.1 波羅熊摩阿奴 pɑ lɑ [QYS jung] mɑ ʔa no Skt. brahmānu

Here 熊 represents foreign -hm- and may reflect ONWC ɣuəm (> later ɣuŋ ?). Perhaps this is derivable from earlier *wəm.

Sample Reconstructions:

I. 感 *kəm > kɑm: 南 *nəm > nɑm 三 *səm > sɑm

III. 今 *kim > kim 音 *ʔim > ʔim 林 *lim > lim 品 *phim > phim:

深 *śim > śim 心 *sim > sim 森 *sɹim > śim

風 * (pləm ? >) puəm > puŋ (9)

熊 *wəm (?) > *ɣuəm (?) > ɣuŋ

3.23 The Tan 談 Group. This group comprises the following ONWC finals:

(1) [-âm] -ɑm

(2) [am, -ăm] -ăm

(3) [-jʊm, -jäm[3]] -am (4) [-jiäm[4]] -iam (5) [-jwʊm] -uam

(6) [-iem] -ėm

Finals (1), (3), (4), and (5) are attested in the data, all transcribing foreign syllables in a, e.g.

T 280.445.3 曇摩 dɑm mɑ	Skt. dharma
T 224.471.3 占匐 tśam bək	Skt. campaka
T 224.439.3 炎 iam	Skt. yāma
T 224.432.1 閻浮利 iam bu li-	Skt. jambudvīpa
T 13.236.2 梵 buam-	Skt. brahmā

Sample Reconstructions:

I. 甘 *kɑm > kɑm 藍 *lɑm > lɑm 談 *dɑm > dɑm 暫 *dzɑm > dzɑm-

II. 監 *kɹam > käm 讒 *dzɹam > dẓäm 鹹 *gɹam > ɣäm 減 *kɹam > käm:

湛 *dɹam > däm:

III. 嚴 *ŋam > ŋam 欠 *kham > kham- 貶 *pam (?) > pam: (The development of this word is irregular, since we would expect BTD *pam to yield later *puam.) 檢 *kam > kam: 驗 *ŋam > ŋam- 淹 *ʔam > ʔam 厭 *ʔiam > ʔiam- 鹽 *jam > iam 炎 *jam > iam 纖 *s(i)am > siam

泛 *pham > phuam- 凡 *bam > buam 梵 (*blam ? >) *bam > buam-

IV. 兼 *kėm > kėm 恬 *dėm > dėm 念 *nėm > nėm-

3.24 The De 德 Group. This group contains the following ONWC finals:

(1) [-ək] -ək (2) [-wək] -uək

(3) [-ɛk] -ëk (4) [-uɛk] -uëk

Final (1) is attested in the BTD data, e.g.

T 196.150.3 阿摩勒 ʔɑ mɑ lək Skt. āmalaka

Yu (1984:294) gives an example for final (2): 或 ɣuək Skt. vak

Sample Reconstructions:

I. 克 *khək > khək 德 *tək > tək 墨 *mək > mək

國 *kuək > kuək 或 *wək > ɣuək

II. 革 *kɹəgk > këk 或 *mɹək > mëk

馘 *kɹuək > kuëk

3.25 The Zhi 職 Group. This group comprises the following ONWC finals:

(1) [-jək] -ik (2) [-jwək] -uik

Final (1) is attested in examples such as the following:

T 280.446.1 俱耶匿 kuo ia nik Skt. godānīya

T 224.429.1 拘翼 kuo ik Skt. kauśika

T 224.434.1 迦翼 ka ik Skt. kāyika

T 196.150.3 閻逼 iam pik　　Skt. campaka

In this example, 逼 is possibly an error for 匐 bək, which occurs in other forms of the transcription of campaka.

A possible example for final (2) is given by Yu (1984:317-318):

域 uik　Skt. vik

We can perhaps retain the ONWC values for these finals.

Sample Reconstructions:

III. 極 *gik > gik 直 *dik > dik 翼 *jik > ik 織 *tśik > tśik 識 *śik > śik

色 *sɹik > ṣik 逼 *pik > pik

淢 *huik > huik 域 *wik > uik

3.26 The Wo 沃 Group. This group comprises the following finals:

(1) [-uok] -ɑuk (or -ouk ?)

(2) [-ȧk] -äk

(3) [-juk] -(i)uk

(4) [-iek] -ėk

Final (3) appears in our BTD data:

T 32.814.2 目揵連 muk gan lian　　Skt. maudgalyāyana; P. moggallāna

T 607.230.3 天竺 thėn tuk　　Old Iranian hinduka

T 224.458.1 阿鬥 ʔɑ tṣhuk　　Skt. akṣobhya

And Yu (1984:310, 316, 317) gives the following examples:

目 muk　Skt. muk, muc　　郁 ʔ(i)uk　Skt. ug, yug

It seems probable that the main vowel of final (3) was an u-like sound, though it may have had o-like qualities as well. For the nonce it seems best to retain the ONWC value here. For the remaining finals we have only Ting's rimes to guide us. Final (1) can then be retained as *-ɑuk, a value which is in itself problematic, and final (2) can be derived from earlier *-ɹuk. Final (4) is rare in Ting's materials, but where it occurs it has a

noticeable affinity for final (1); see Ting (1975:177-78). Perhaps it can be restored as *-ėuk.

Sample Reconstructions:

I. 告 *kɑuk > kɑuk 毒 *dɑuk > dɑuk

II. 覆 *bɹuk > bäk 學 *gɹuk > ɣäk

III. 腹 *puk > puk 目 *muk > muk 竹 *tuk > tuk 宿 *suk > suk

縮 *sɹiuk > ouk 祝 *tśuk > tśuk 六 *luk > luk 叔 *śuk > śuk

鞠 *kuk > kuk 畜 *huk, thuk > huk, thuk 育 *juk > iuk

福 *puk > puk 服 *buk > buk 囿 *wuk > uk

IV. 迪 *dėuk ? > dėk 戚 *tshėuk ? > tshėk

3.27 The Wu 屋 Group. This group contains the following finals:

(1) [-uk] -ok

(2) [-åk] -åk

(3) [-jwok] -uok

Final (1) is attested in three examples:

T 626.399.1 拘速 kuo sok　　Skt. kusuma

T 626.401.3 拘遫摩 kuo sok mɑ　　Skt. kusuma

T 362.300.3 旃陀遫臾 tśan dɑ sok iuo　　Skt. candra-sūrya-

These transcriptions point to an u-like vowel for final (1), and we are hard put to differentiate this vowel from the *u we have posited for the Wo group. But it seems worth noting that our examples themselves are not without their peculiarities, for it is difficult to account for the use of final -k in rendering the open Indic syllables here. Now, in the cases from T 626 it seems very probable that the form at T 626.399.1 is a shorter variant of that found at 401.3, and it is thus possible to suppose that 速 in the former has been simplified from 遫 in the latter. And from here we may hazard a guess that 遫 in all these cases is really an error for 欶 sou-, which lacks the

problematic -k and would be a regular rendering for foreign su. If this were true, it would leave us with no transcriptional examples at all for this group. In any case, for the present I propose to retain *-ok as the BTD final for the entire category.

Sample Reconstructions:

I. 谷 *kok > kok 屋 *ʔok > ʔok 獨 *dok > dok 祿 *lok > lok
族 *dzok > dzok 速 *sok > sok 卜 *pok > pok 木 *mok > mok
僕 *bok > bok

II. 角 *kɹok > käk 岳 *ŋɹok > ŋäk 剝 *pɹok > päk 啄 *tɹok > täk
濁 *dɹok > däk 捉 *tsɹok > tṣäk 數 *sɹok > ṣäk

III. 曲 *khuok > khuok 欲 *juok > iuok 玉 *ŋuok > ŋuok 躅 *duok > duok
綠 *luok > luok 足 *tsuok > tsuok 續 *zuok > zuok 俗 *zuok > zuok
辱 *ńuok > ńuok 束 śuok > śuok 贖 *dźuok > dźuok

3.28 The Yao 藥 Group. This group comprises the following ONWC Finals:

(1) [-âk] -ak (2) [-wâk] -uak
(3) [-ɒk] -ëk (4) [-wɒk] -uëk (5) [-åk] -äk
(6) [-jak] -ak (7) [-jwak] -uak (8) [-jäk, -jɒk] -iek
(9) [-iek] -ėk (10) [-iwek] -uėk

Finals of this group transcribe Indic syllables having the vowels a or ā, e.g.

T 280.445.3 惹那師利 ńak na- ṣi li-	Skt. jñānaśrī
T 224.429.1 釋 śek	Skt. śakra
T 224.431.1 釋迦文 śek ka mun	Skt. śākyamuni
T 206.510.2 薩薄 sat bak	Skt. sārthavāha

Sample Reconstructions:

I. 惡 *ʔak > ʔak 各 *kak > kak 落 *lak > lak 諾 *nak > nak 度 *dak > dak
作 *tsak > tsak 薄 *bak > bak 索 *sak > sak
鶴 ɣak > ɣak 樂 *lak > lak 鑿 *dzak > dzak

郭 *kuɑk > kuɑk 穫 *wɑk > ɣuɑk

II. 客 *khɹak > khëk 格 *kɹak > këk 百 *bɹak > bëk 宅 *dɹak > dëk

索 *sɹak > ṣëk

獲 *wɹak > ɣuëk

樂 *ŋɹɑk > ŋâk 較 *kɹɑk > käk 駁 *prɑk > päk 卓 *tɹɑk > täk

III. 卻 *khak > khak 若 *ñak > ñak 箸 *tak > tak 略 *lak > lak 醵 gak > gak

虐 *ŋak > ŋak 蹻 *gak > gak 藥 *jak > iak 綽 *tśhak > tśhak

勺 *dźak > dźak 約 *ʔak > ʔak 躍 *jak > iak 弱 *ñak > ñak

劇 *giak > giek 虩 *hiak > hiek 逆 *ŋiak > ŋiek 昔 *siak > siek

夕 *ziak > ziek 籍 *dziak > dziek 亦 *jiak > iek 石 *dźiak > dźek

釋 *śiak > śek 尺 *tśhiak > tśhek 碧 *piak > piek

縛 *bak > buak 矍 *kuak > kuak

IV. 的 *tėk > tėk 溺 *nėk > nėk 激 *kėk > kėk

3.29 The Xi 錫 Group. This group contains the following ONWC finals:

(1) [-ɛk] -ëk (2) [-wɛk] -ëk

(3) [-jäk] -iek (4) [-jwäk] -uek

(5) [-iek] -ėk (6) [-iwek] -uėk

Final (3) occurs in a single example:

T 602.170.2 辟支 piek tśe Skt. pratyeka; P. pacceka; Gd. prace'a; Māhārāṣṭrī; pāḍiĕkka; Ardhamāgadhī patteẏa

This example is difficult to interpret, but for what it is worth, it seems to point to an "a-like" vowel in final (3). This brings to mind the interesting fact that this rime category, though taken as distinct by Ting, must have been very similar to the Yao group. Indeed it has 32 rime interchanges with that group, as opposed to 40 internal or "regular" contacts (Ting 1975:224, 226). This can be compared with the parallel Yang and Geng groups. They have, respectively, 711 and 774 internal contacts, as opposed to 23 mutual or

intercategory contacts. The situation in these "parallel" nasal final categories was therefore essentially different from that we face in our checked final groups.

By the ONWC period the Xi group finals had all merged with corresponding Yao category finals. In the light of the rime data and the admittedly scant transcriptional evidence, it would seem reasonable to reconstruct finals in *-ak (and *-ėk) for the Xi group and assume that they formed, in effect, a single final category with the Yao group.

Sample Reconstructions:

II. 隔 *kɹak > këk 責 *tsɹak > tṣëk 謫 *tɹak > tëk 擘 *pɹak > pëk

脈 *mɹak > mëk

畫 *wɹak > ɣuëk

III. 益 *ʔiak > ʔiek 適 *śiak > śek 脊 *tsiak > tsiek 易 *jiak > iek

辟 *piak > piek 僻 *phiak > phiek

役 *juak or *uak (?) > iuek

IV. 擊 *kėk > kėk 睨 *ŋėk > ŋėk 劈 *phėk > phėk 歷 *lėk > ïėk

剔 *thėk > thėk 錫 *sėk > sėk 績 *tsėk > tsėk

鵙 *kuėk > kuėk

3.30 The Zhi 質 Group. This group is the checked final analogue of the Zhen category. Ting (1975:226-227) recognizes two Jin period sub-groups for it:

A. The Mo 沒 Category

(1) [-ət] -ət (2) [-uət] -ot

B. The Zhi 質 Category

(3) [-jet^3, -jət] -it (4) [-juet^3] -uit

(5) [-juət] -ut (6) [-jiet^4] -iit

(7) [-jiuet^4] -uiit

Examples of attested finals:

(2)

T 362.300.3 屍利滑鼓 śi li- kot kue: Skt. śri-kūṭa

The last character in this compound seems to be an error for something else.

T 1432.1043.1 突吉羅 dot kiit la Skt. duṣkṛta

(3)

T 280.445.2 訖連桓 kit lian ɣuan Skt.*hiraṇyavarṇa

T T 224.435.1 波栗多修呵 pa lit ta suo ha Skt. parīttaśubha

(4)

T 602.173.1 術闍 źuit dźa Skt. vidyā; ād. vija, P. vijjā

T 624.363.3 和陀波利（林＞）栴代 ɣwa da pa li źuit dɛi- Skt. vratapariśuddha

T 313.758.3 那術 na źuit Skt. nayuta

T 458.435.2 阿難律 ʔa nan luit Skt. aniruddha

T 196.153.3 拘律陀 kuo luit da Skt. kolita

(5)

T 13.233.1 佛 but Skt. Buddha

T 280.445.3 鬱（沈＞）耽 ʔut tam Skt. uttama

(6)

T 224.425.3 般若波羅蜜 pan ña: pa la miit Skt. prajñāpāramitā

The forms to be reconstructed for this group parallel those posited for the Zhen category.

Sample Reconstructions:

I. 齕 *gət > ɣət 沒 *mət > mot

骨 *kuət > kot 忽 *huət > hot 卒 *ts(u)ət > tsot

III. 乞 *khit > khit 乙 *ʔit > ʔit

姞 git > git 密 *mit > mit 逸 *jit > it 栗 *lit > lit 七 *tshit > tshit

疾 *dzit > dzit 室 *śit > śit 日 *ńit > ńit 姪 *dit > dit 實 *źit > źit

櫛 tsɹit > tṣit 瑟 *sɹit > ṣit 筆 *pit > pit

弗 *put > put 物 *mut > mut 屈 *khut > khut 出 *tśhuit > tśhuit

述 (Early BTD *uit ? >) *źuit > źuit 律 *luit > luit 帥 *sɹuit > ṣuit

恤 *suit > suit 聿 *juit > iuit

吉 *kiit > kiit 詰 *khiit > khiit 必 *piit > piit 匹 *phiit > phiit

蜜 *miit > miit 一 *ʔiit > ʔiit

橘 *kuiit > kuiit

3.31 The He 曷 Group. This group contains the following finals:

(1) [-ât] -ɑt (2) [-uât] -uɑt

(3) [-at] -ät (4) [-wat] -uät

Finals (1), (2), and (3) are attested, e.g.

T 224.433.1 薩和 sɑt ɣuɑ Skt. sattva

T 280.445.3 活逸 ɣuɑt it Skt. vajra; P. and BHS vajira

T 418.913.3 剎利 tṣhät li- Skt. kṣatriya

This group is the checked final analogue of the Han category and can be reconstructed in parallel with it.

Sample Reconstructions:

I. 葛 *kɑt > kɑt 達 *dɑt > dɑt 曷 *gɑt > ɣɑt 末 *mɑt > mɑt 跋 *bɑt > bɑt

活 *wɑt > ɣuɑt 奪 *duɑt > duɑt 捋 *luɑt > luɑt

II. 轄 *gɹɑt > ɣät 瞎 *hɹɑt > hät

刮 *kɹuɑt > kuät 刖 *ŋɹuɑt > ŋuät

3.32 The Yue 月 Group. This group comprises the following ONWC finals:

(1) [-ăt] -ät (2) [-wăt] -uät

(3) [-jʊt, -jät[3]] -at (4) [-jwʊt, -jwät[3]] -uat

(5) [-jiät[4]] -iat

(6) [-iet] -ėt (7) [-iwet] -uėt

Attested finals are illustrated in the following examples:

(3)

T 224.471.1 曇無竭 dɑm muo gat — Skt. dharmodgata

(4)

T 224.471.3 揵陀越 gan dɑ uat — Skt. gandhavati

T 196.148.1 悅頭檀 iuat dou dɑn — Skt. śuddhodana

T 224.429.3 悅叉 iuat tṣha — Skt. yakṣa

(6)

T 224.427.2-3 僧那僧涅 səŋ nɑ səŋ nèt — Skt. sannāhasannaddha

T 280.445.3 涅羅師利 nèt lɑ ṣi li- — Skt. netraśrī

Yu (1984:283): 涅槃 nèt bɑn — Skt. nirvāṇa

T 152.21.2 屑末 sèt mɑt — Skt. sadāmattam

This group is the checked final analogue of the Yuan group and can be reconstructed in parallel with it.

Sample Reconstructions:

II. 殺 *sɹat > ṣät 察 *tshɹat > tṣhät 介 *kɹat > kät 拔 *bɹat > bät

八 *pɹat > pät 軋 *ʔɹat > ʔät 黠 *gɹat > ɣät

滑 *wrat > ɣuäĥ

III. 揭 *kat > kat 歇 *hat > hat 別 *bat, pat > bat, pat 傑 *gat > gat

竭 *gat > gat 滅 *miat > miat 蘗 *biat > biat 舌 *źat > źat

烈 *l(i)at > liat 哲 *t(i)at > tat 熱 *ńat > ńat

伐 *buat > buat 發 *puat > puat 月 *ŋuat > ŋuat 越 *wat > uat

蹶 *guat > guat 說 *śuat > śuat 悅 *juat > iuat 劣 luat > luat

IV. 截 *dzèt > dzèt 契 *khèt > khèt 蔑 *mèt > mèt 節 *tsèt > tsèt

結 *kèt > kèt

缺 *kuèt > kuèt 血 *huèt > huèt 穴 *wèt > ɣuèt

3.33 The Qi 緝 Group. According to Ting this group contains the following finals:

(1) [-ập] -ɑp

(2) [-jəp] -ip

But in his data (1975:192-193) I find no interriming at all between these two finals. From the standpoint of WJ riming practice they can be considered separate.

The following examples occur in the BTD data:

T 313.753.3 揵沓和 gan dap ɣua Skt. gandhārva

T 196.156.1 濕（披 >）波 śip pa Skt. śīvaka

The group can be tentatively reconstructed in parallel with the Qin group, its nasal final analogue. Yu (1984:312) includes the following example for final (1):

合 *ɣɑp Skt. gup

This example stems from the Wu area and may represent a southern dialect.

Sample Reconstructions:

I. 合 *gəp > ɣɑp 納 *nəp > nɑp 答 *təp > tɑp 雜 *dzəp > dzɑp

III. 及 *gip > gip 邑 *ʔip > ʔip 集 *dzip > dzip 入 *ñip > ñip

十 *dźip > dźip 習 *zip > zip 立 *lip > lip 執 *tśip > tśip 濕 *śip > śip

3.34 The Ye 葉 Group. This group comprises the following ONWC finals:

(1) [-âp] -ɑp

(2) [-ap, -ăp] -äp

(3) [-jʊp, -jäp[3]] -ap (4) [-jiäp[4]] -iap (5) [-jwʊp] -uap

(6) [-iep] -ėp

Finals (1), (3) and (5) are attested in the data. e.g.

(1)

T 224.435.1 盧 ʔɑp Skt. abha

(3)

T 150.880.2 劫 kap　　Skt. kalpa; Gd. kapa, P. kappa

T 458.435.2 迦葉 ka iap　　Skt. kāśyapa

(5)

T 169.411.1 栴羅法 *tśan lɑ puap　　Skt. candraprabha

This group is the checked final analogue of the Tan group and can perhaps be reconstructed in parallel with it.

Sample Reconstructions:

I. 盍 *gɑp > ɣɑp 臘 *lɑp > lɑp 蹋 dɑp > dɑp

II. 甲 *kɹap > käp 狎 *gɹap > ɣäp 壓 *ʔɹap > ʔäp 霎 *sɹap > ṣäp

夾 *kɹap > käp 插 *tshɹap > tṣhäp 洽 *gɹap > ɣäp

III. 業 *ŋap > ŋap 怯 *khap > khap 聶 *n(i)ap > niap 攝 *śap > śap

接 *ts(i)ap > tsiap 涉 *dźap > dźap 葉 *jap > iap

法 (*plap ? >) *pap > puap 乏 *bap > buap

IV. 協 *gėp > ɣėp 貼 *thėp > thėp 挾 *kėp > kėp 疊 *dėp > dėp

3.35 Summary of the Vowel System. The vowel system reconstructed for BTD is as follows:

i	ė	u
e	ə	o
a	ɑ	ɔ

Within this system, the vowel *ɔ (Yu category) is defective in distribution. It is not distinct from *o in Ting's WJ materials, and the BTD data on it are rather scant. It is on the contrary primarily the TK materials, stemming from the Jiankang area, which have led us to reconstruct *ɔ as a distinct entity. It is therefore entirely possible that some Central Plains dialects of the BTD period lacked *ɔ and had the following eight-vowel system instead:

i	ė	u
e	ə	o
	a ɑ	

The distribution and behavior of the BTD vowels with reference to allophonic variation and subsequent development of certain other sounds (such as */g/ [g, ɣ]) enables us to speculate about phonetic detail in the vowel system.

In BTD, the vowel *u probably had front and back allophones, [u] and [y]. The phone [u] would have occurred in diphthongs before non-front vowels, whereas [y] would have occurred before front vowels. The absolute final *-u (= QYS -jəu) may have been phonetically [yᵘ] or [yu] in the BTD period. The diphthong *uo was perhaps phonetically [yø] in all environments; and *uɔ was perhaps [yɔ̈]. In fact, the vowels *o and *ɔ may have been allophonically fronted whenever preceded by front vowels or by palatal consonants.

BTD *ė was probably rather high, and it was definitely non-front. When followed by any sound other than *-i or *-ŋ, it was probably diphthongal in quality, perhaps phonetically [ėa] or [ėᵃ].

BTD *e was higher when preceded by *i or *u and lower, perhaps æ-like, elsewhere.

BTD *-ii is a direct backward projection of ONWC -ii. This ONWC final was perhaps a diphthong or triphthong (phonetically [ɨɛ̈i] or [ɨəi] ??) in ONWC. In the fanqie formulae of Yan Shigu, which supposedly represent the northwest area of 600 A.D., this -ii and the corresponding labial final, -uii, take "non-yodized" guttural initials and thus behave as if they began with non-front rather than front vowels. This peculiarity is not found in contemporary fanqie of other areas, so far as I know. The phonetic value of *-ii as

restored for BTD is of course very uncertain, especially since this language was probably not a northwest dialect at all. In BTD, *-i and *-ii contrast after labial and guttural initials (i.e. the famous chongniu distinction of the QYS; here = QYS -ji^{3} vs -i^{4}). In the BTD data, both finals can transcribe foreign i. BTD *-i is quite rare, while *-ii is common. For the nonce, a guess might be that *-i was something like [ɪ] while *-ii was somehow more like [i]. I find no direct evidence in the data that *-i was rhotacized or velarized, as has sometimes been suggested; but this absence of evidence does not preclude such interpretations as theoretical possibilities. For there must have been something about *-i which made it a less appropriate match for foreign i.

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Abbreviations and Signs

BHS	Buddhist Hybrid Sanskrit
BTD	Han Buddhist Transcriptional Dialect
Gd.	Gāndhārī
P.	Pāli
Pkt.	Prakrit
ONWC	Old Northwest Chinese
QYS	Qieyun 切韻 System
S	Saṅghabhara
SZ	Shazhou 沙州
T	Taishō Tripiṭaka
TK	Three Kingdoms Period (220-265)
WJ	Wei-Jin Period (264-419)
XZ	Xuanzang 玄奘
YJ	Yijing 義淨

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