

Was the *Mahāparinirvāṇa-sūtra* 大般涅槃經 T7 Translated by ‘Faxian’?: An Exercise in the Computer- Assisted Assessment of Attributions in the Chinese Buddhist Canon^{*}

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Keywords: Faxian, Guṇabhadra, *Mahāparinirvāṇa-sūtra*, Chinese Buddhist canonical ascriptions, computational philology

DOI: <https://dx.doi.org/10.15239/hijbs.02.01.08>

Abstract: In the *Taishō* canon, the *Mahāparinirvāṇa-sūtra* 大般涅槃經 T no. 7 is attributed to Faxian 法顯. However, on the basis of an examination of reports in the catalogues about various Chinese versions of the ‘mainstream’ *Mahāparinirvāṇa-sūtra*, Iwamatsu Asao 岩松浅夫 once questioned whether Faxian ever translated any such text. Iwamatsu argued further, on the basis of unspecified features of translation terminology and phraseology, that T no. 7 should instead be reascribed to Guṇabhadra 求那跋陀羅. This paper will examine the problem of the attribution of T no. 7 on the basis of a detailed examination of its language.

^{*} I am grateful to Hsue Yu-na 許尤娜 for conversations in Hamburg in late 2015 that stimulated me to look more closely into the problem treated in this paper.

1. Introduction

In the *Taishō* canon, the *Mahāparinirvāṇa-sūtra* 大般涅槃經 *T* no. 7 ('FX'-MPNS) is attributed to Faxian 法顯 (d. 418–423).¹ However, on the basis of an examination of reports in the catalogues about various Chinese versions of the mainstream *Mahāparinirvāṇa-sūtra*, Iwamatsu Asao 岩松浅夫 once questioned whether Faxian ever translated any such text. Iwamatsu argued further, on the basis of unspecified features of translation terminology and phraseology, that 'FX'-MPNS should instead be ascribed to Guṇabhadra 求那跋陀羅 (394–468).² This paper evaluates Iwamatsu's hypothesis by examining the ascription of 'FX'-MPNS on the basis of internal stylistic evidence.

A cursory reading of 'FX'-MPNS in comparison to other Faxian ascriptions certainly seems initially to support the idea that 'FX'-MPNS at least cannot be by the same author as Faxian's other texts. For example, probably the most striking difference is the transcription of *nirvāṇa*, which is particularly telling given that both 'FX'-MPNS and the (Mahāyāna) *Mahāparinirvāṇa-mahāsūtra* 大般泥洹經 *T* no. 376, also ascribed to Faxian, concern themselves centrally with the *parinirvāṇa*. Famously, Kumārajīva 鳩摩羅什 (350?–409?) seems to have coined the new transcription *niepan* 涅槃, whereas prior to Kumārajīva's time, other transcriptions were used, like *nihuan* 泥洹/泥垣, *niyue* 泥曰, etc. Kumārajīva's transcription seems largely to have supplanted the older transcriptions, and this term is therefore among the most famous watershed markers of chronology in the Chinese Buddhist canon. In this light, it is striking that the older transcription, *nihuan* 泥洹, is used copiously in *T* no. 376 and

¹ Glass, 'Guṇabhadra', 190, note 17, notes that Faxian's dates have been the subject of disagreement. Legge suggests he might have been as young as twenty-five when he went to India (Legge, *A Record*, 3). Deeg (*Das Gaoseng-Faxian-Zhuan*, 29) suggests he might have been thirty or forty.

² Iwamatsu, '*Nehan gyō*'; '*Daihatsunehan gyō*'. The ascription to Faxian is also questioned in Mochizuki, *Bukkyō daijiten*, 4:3358-9, s.v. *Daihatsunehan gyō* 大般涅槃經.

the *Gaoseng Faxian zhuan* 高僧法顯傳 *T* no. 2085—despite the fact that both texts were produced after Kumārajīva³—but never in ‘FX’-MPNS; whereas *niepan* 涅槃 is copious in ‘FX’-MPNS, but never used in *T* no. 2085, and only twice in *T* no. 376. Even more strikingly, in the remainder of the ‘Faxian’ corpus, *banniepan* 般涅槃 for *parinirvāṇa* only appears two times in the Mahāsāṅghika Vinaya 摩訶僧祇律 *T* no. 1425.⁴

Similarly, further following the language associated with the particular theme and setting of the *parinirvāṇa* genre, ‘FX’-MPNS transcribes Kuśinagara with the rare *jiushina* 鳩尸那, but *T* no. 376 and *T* no. 2085 both use *juyi* (*cheng*) 拘夷(城). ‘FX’-MPNS transcribes the name of Cunda (a key personage) *chuntuo* 淳陀, whereas *T* no. 376 transcribes *chuntuo* 純陀.⁵ ‘FX’-MPNS uses the rare transcription *doupo* 兜婆 for *stūpa*, which never appears in any other Faxian text, whereas other Faxian texts use *ta* 塔. For the *śāla* trees among or between which the Buddha passes into *parinirvāṇa*, ‘FX’-MPNS uses the transcription *suoluo* 娑羅, whereas *T* no. 376 uses *jiangu* (*lin*) 堅固(林). Finally, for the verb ‘weep’ or ‘lament’, ‘FX’-MPNS uses *tiqi* 涕泣, which is otherwise only ever found twice in *T* no. 1425 of the ‘Faxian’ corpus, whereas *T* no. 376 uses *tiku* 啼哭, which is conversely never found in ‘FX’-MPNS.

Such anecdotal observations might suggest that Iwamatsu was correct, at least inasmuch as we should dissociate ‘FX’-MPNS from Fax-

³ Especially in *T* no. 2085 (where Faxian was presumably the sole author), this perhaps reflects the fact that Faxian had his formative education before Kumārajīva’s activity and was conservative in this wording.

⁴ The matter is complicated further by the fact that in the Faxian group’s *Vinaya* translations, *T* no. 1425 and *T* no. 1437 include both transcriptions, though *nibuan* is still numerically dominant; *T* no. 1427 (a short text) includes one instance of *niepan* only. The instances in which *niepan* is used in *T* no. 376 are interesting precisely because they break this usual pattern. Both appear in verse: 1) 圓應神通眼/無量功德相/為眾生哀請/捨涅槃方便, *T* no. 376, 12: 1.858a29–b1; 2) 異法修無我/無量諸煩惱/異法修常存/佛性及涅槃, 885c12–13.

⁵ There is one apparent exception at *T* no. 376, 12: 1.858a9, but SYMP have the v.l. 純陀.

ian's name. However, for various reasons, the assessment of ascriptions of Chinese Buddhist translations on the basis of style is a complex matter and requires that we marshal as much evidence as possible, as I will discuss in more detail below. Therefore, the best approach is to systematically compare the style of 'FX'-MPNS with other Faxian ascriptions and see whether or not any clear and significant commonalities and differences can be established. If we do find differences, we can then proceed to examine their possible significance, including whether they might point to a concrete alternative ascription.

This study therefore compares 'FX'-MPNS to other texts ascribed to Faxian. The other texts generally ascribed to Faxian at present are:

the (Mahāyāna) *Mahāparinirvāṇa-mahāsūtra* 大般泥洹經 *T* no. 376;

the **Kṣudrakapīṭaka* 雜藏經 *T* no. 745.⁶

the Mahāsāṅghika Vinaya 摩訶僧祇律 *T* no. 1425;

the Mahāsāṅghika Bhikṣuṇī Vinaya 摩訶僧祇比丘尼戒本 *T* no. 1427;

the Sarvāstivāda Bhikṣuṇī *Prātimokṣa* 十誦比丘尼波羅提木叉戒本 *T* no. 1437;

Faxian's biography/travelogue, *Gaoseng Faxian zhuan* 高僧法顯傳 *T* no. 2085.⁷

In the study of such questions, we should work conservatively to identify texts most certainly ascribable to the putative author of the text(s) under investigation, and take the style of those texts as a benchmark. In this light, we should note that there are reasons to be wary of taking *T* no. 1427 and *T* no. 1437 as direct representations of the Faxian style. Generally speaking, in the study of the Vinaya texts translated in the first decades of the fifth century, we need to be aware of extensive verbatim correspondences between them, which indicate

⁶ On *T* no. 745, see Tokiwa, *Gokan*, 55–56 and de Jong, 'Fa-hsien', 105–07 (who saw no reason to doubt that Faxian translated this text).

⁷ On *T* no. 2085, see Deeg, *Das Gaoseng-Faxian-Zhuan*; Liu, 'Stories Written and Rewritten', especially 5–10.

heavy borrowing or recycling of wording. This problem potentially affects *T* no. 1427 and *T* no. 1437 particularly heavily, since they are both short texts (one fascicle each, compared to the forty fascicles of *T* no. 1425), so that the dilution affected by such verbatim borrowing is proportionally more intense.⁸ I therefore provisionally exclude them from our benchmark corpus.⁹

By contrast, I know of no particular reasons to doubt the ascriptions of *T* no. 376, *T* no. 745, *T* no. 1425, and *T* no. 2085, and in the course of research for this paper, I was unable to discover any.¹⁰ I have therefore tentatively kept all these texts in the mix.¹¹

⁸ For examples, see Appendix I.

⁹ This is a strictly methodological measure, and I do not intend by it to imply any judgment as to the reliability of the ascription of these texts to Faxian.

¹⁰ Special considerations apply to *T* no. 2085, Faxian's travelogue, which is quite different from the other texts in the 'Faxian' corpus. First, it is not a translation at all. This means that it is not a collective work in the sense they are; and that it belongs to an entirely different genre. Its idiom is closer to standard classical Chinese than almost any translation literature. We could naturally expect that many types of language that frequently recur in translation literature would not occur here—formulaic phrases of various types, common lists or pericopae for various doctrinal concepts, and so on. On the other hand, *T* no. 2085 is also the most likely source in which we might find preserved, undiluted, Faxian's own 'voice', and thereby, pinpoint traces of his individual contribution to the other more collective works.

These factors might lead us both to expect and to hope to find considerable stylistic differences between *T* no. 2085 and other 'Faxian' texts. In the event, however, my methods allow me to discover in *T* no. 2085 only a surprisingly small number of items of language that (possibly) are not content-related (e.g. do appear in other translation literature), and also appear in no other Faxian ascription: e.g. 毀壞 'destroy'; 貝多 'palm leaf'; 石柱 'stone pillar'; 彼土 'that country'; 校飾 'ornamented(?)' (in varying orthography, this word is otherwise strongly associated with the Dharmarakṣa idiom); 佛處 'where the Buddha is/was'; 頂骨 '(Buddha's) skullbone, "uṣṇīṣa bone"'. At one fascicle, *T* no. 2085 is a relatively short text. Even allowing for this factor, however, these differences seem minimal. For the present, this means that despite differences in genre,

This study was undertaken with the assistance of TACL ('Text Analysis for Corpus Linguistics'), a suite of computer tools I am currently developing in collaboration with Jamie Norrish.¹² As applied to the analysis of Chinese Buddhist texts, TACL allows a conceptually simple comparison of the n-grams¹³ (strings of length n characters, where n is defined by the user), in two or more texts or corpora of any size, up to and including the entire canon, in either of two ways: (1) What n-grams are found only in A, and not in B (or vice versa)? (2) What n-grams are found in both A and B? The tool generates full lists of n-grams matching these criteria, which the researcher can then examine in context, in conjunction with digital searches via the CBETA CBReader.¹⁴

idiom and compositional process, it is safe to leave it in the reference corpus for 'Faxian' style.

¹¹ It is also *a priori* plausible that Faxian translated these texts. Faxian is supposed to have obtained in India manuscripts of the *Mahāpari-nirvāṇa-mahāsūtra*, the Mahāsāṅghika Vinaya, and the Sarvāstivāda Vinaya (among other texts); Glass, 'Guṇabhadra', 194–95. It would make sense that he would have translated those texts upon his return to China. However, his name may also have been associated with the texts because he supplied the manuscripts; or the ascription to him could function as the (quasi-talismanic) guarantor of authenticity in the form of the living link with India.

¹² The code repository for TACL may be found at: <https://github.com/ajenh/tacl/>.

¹³ The use of n-gram analysis for Chinese Buddhist texts has been pioneered by Ishii Kōsei. Ishii's methods differ somewhat from mine, but his ground-breaking work was an important source of inspiration. See Ishii, '*Daijō kishin ron*'; Ishii, 'Shintai kan'yo bunken'. I also gratefully acknowledge the benefit to my work of email discussions with Professor Ishii, and his generosity in sharing with me some of his unpublished data.

¹⁴ Other studies using TACL are Radich, 'On the Sources' (part of a larger study with Radich, 'Tibetan Evidence'); Funayama, '*Da fangbian Fo bao'en jing*'; Radich and Anālayo, 'Were the *Ekottarika-āgama*...'. For other studies using these tools, see Radich, 'Problems of Attribution'. For a little more discussion of TACL and its application, see Radich, 'On the Sources', 208.

The present study is intended in part as an introduction to TACL-assisted methods, and a showcase of their power to solve our research questions. For this reason, I have deliberately pursued a heuristic mode of exposition, which risks appearing somewhat mannered. To this end, I mimic the steps that such an investigation might take, beginning with the state of knowledge as we find it in the primary sources and the secondary literature, and ‘walking the reader through’ by steps to my final conclusions.

2. ‘FX’-MPNS is closer to ‘Guṇabhadra’ than to ‘Faxian’

With the assistance of TACL, we can discover in ‘FX’-MPNS numerous terms and phrases that never appear in any other text ascribed to Faxian. At the same time, many of these terms and phrases do appear in various ‘Guṇabhadra’ ascriptions. However, as I will discuss below, it turns out that these phrases are not evenly distributed, but appear most frequently in a particular subset of the Guṇabhadra corpus. For this reason, and because the evidence is copious and threatens to be overwhelming, I present here data for only a select subset of the Guṇabhadra corpus:¹⁵

Samyuktāgama 雜阿含經 T no. 99;
 the Mahāyāna *Angulimāla-sūtra* 央掘魔羅經 T no. 120;
Guoqu xianzai yinguo jing 過去現在因果經 T no. 189 (abbreviated *Guoqu*);
Pusa xing fangbian jingjie shentong bianhua jing 菩薩行方便境界神通變化經 T no. 271;
 **Ratnakāraṇḍavyūha-sūtra* 大方廣寶篋經 T no. 462;
Laṅkāvatāra-sūtra 楞伽阿跋多羅寶經 T no. 670.

¹⁵ I did not especially target these texts in my searches. Rather, I searched equally over the whole corpus of ascriptions to Guṇabhadra in the *Taishō*. These texts emerged from such searches as most frequently containing phraseology linking them to ‘FX’-MPNS.

The terms and phrases in question are shown in Table 1. Throughout this paper, the translations or equivalents supplied for each item are approximate only (in any case, for some markers the meaning can shift somewhat depending on context, so that it is artificial to provide a single equivalent)—to aid readers in absorbing the information, and for the purposes of subsequent discussion about the types of language involved.

TABLE 1 Markers in ‘FX’-MPNS, but never in other Faxian texts, found in key ascriptions to Guṇabhadra

Faxian reference corpus (‘FX’): *T* no. 376, *T* no. 745, *T* no. 1425, *T* no. 2085.

	‘FX’-MPNS	FX	<i>T</i> no. 99	<i>T</i> no. 120	<i>Guoqu</i>	<i>T</i> no. 271	<i>T</i> no. 462	<i>T</i> no. 670
宮城 ‘palace’	5	-	-	-	9	-	-	-
寶輿 ‘jewelled carriage’	5	-	-	-	1	-	-	-
四兵 ‘fourfold army’	6	-	9	4	2	1	1	-
大叫 ‘cry out’	6	-	-	3	-	-	-	-
勝進 ‘to advance’	1	-	12	-	-	1	1	6
聰慧 ‘intelligent, intelligence’	1	-	12	-	4	2	1	-
極為 ‘extremely’	15	-	6	3	19	2	2	-
俄爾 ‘suddenly’	2	-	1	-	10	-	-	-
寂默 ‘silent(ly)’	2	-	9	-	-	-	-	-
天及人 ‘gods and men’	2	-	1	16	-	-	1	-
無上正真道 <i>anuttarasamyaksambodhi</i>	1	-	-	-	1	13	2	-
外境 ‘external object’	1	-	36	-	1	-	-	3
踰闍那 <i>yojana</i>	10	-	-	-	9	-	-	-
擇法 <i>dharmapracicaya</i>	1	-	54	-	-	-	-	-
正語 ‘right speech’	1	-	53	-	-	-	-	-
道跡 ‘ <i>srotaāpanna</i> ’	1	-	268	-	10	-	-	-
曼陀羅花 ‘ <i>mandāra</i> flower(s)’	5	-	-	-	2	-	-	-
天龍 ‘ <i>devas</i> and <i>nāgas</i> ’	7	-	5	8	12	-	2	-
滅盡定 <i>nirodhasamāpatti</i>	7	-	1	-	-	-	-	1

	‘FX’-MPNS	FX	T no. 99	T no. 120	Guoqu	T no. 271	T no. 462	T no. 670
兜婆 ¹⁶ <i>stūpa</i>	18	-	-	-	2	-	-	-
鳩尸那(城) ¹⁷ Kuśinagara	18	-	1	-	-	-	-	-
迦比羅旃兜 Kapilavastu ¹⁸	1	-	7	-	-	-	-	-
富蘭那迦葉 Pūrāṇa-kāśyapa	2	-	12	-	-	-	-	-
既聞 ‘having heard’	5	-	-	-	17	-	1	-
今者宜~ ‘should now...’	11	-	-	-	4	-	-	-
答之 ‘replied to him’	9	-	4	-	6	-	-	-
遠塵離垢得法眼淨 ‘get rid of all defilements, and attain the pure [Dharma-] eye’	8	-	19	-	13	-	-	-
嗚呼苦哉 ‘Alas! Alack! Woe is me!’	8	-	3	1	-	-	-	-
歌唄讚歎 ‘hymns and paeans’	5	-	-	-	2	-	-	-
微聲 ‘in a feeble voice’	6	-	-	-	3	-	-	-
心自思惟 ‘thought to himself’	6	-	-	-	24	-	-	-
已畢 ‘were finished, had finished’	5	-	5	-	7	-	1	1
說種種法 ‘expounded various <i>dharma</i> s’	5	-	6	-	3	-	-	-
作此念已 ‘having had this thought’	5	-	1	-	12	-	-	-
時彼天子 ‘then that <i>devaputra</i> ’	1	-	225	-	-	-	-	-
從座起 ‘rose from his seat’	6	-	155	-	5	1	-	-
於後夜 ‘in the later watch of the night’	1	-	104	-	1	-	-	-
鹿野苑中 ‘in Deer Park’	2	-	47	-	3	-	-	-
坐一面。爾時... ‘...and sat to one side. Then...’	2	-	33	1	-	-	2	-
坐一面而 ‘sat to one side and...’	2	-	18	-	-	-	-	-
舍衛國 ‘Śrāvastī’	1	-	949	4	3	-	3	-

¹⁶ In ‘translation’ literature, 兜婆 (in this meaning) is otherwise found (in isolated instances in each text) only in *Guoqu* (ascribed to Guṇabhadra), *T* no. 405, and *T* no. 613.

¹⁷ In ‘translation’ literature, otherwise found only in *T* no. 99, *T* no. 245, *Mahāmāyā*, and *T* no. 1331. It is striking that apart from *T* no. 99, these texts are all thought to be Chinese compositions.

¹⁸ See further note 58 and accompanying text.

	‘FX’-MPNS	FX	T no. 99	T no. 120	<i>Guoqu</i>	T no. 271	T no. 462	T no. 670
坐一樹下 ‘sat under a tree’	1	-	30	-	1	-	-	-
端坐思惟 ‘sat in meditation’	1	-	2	-	8	-	-	-
則能 ‘can then’	2	-	28	1	2	-	-	5
生貪欲 ‘conceived of a desire [for]’	1	-	24	-	1	-	-	2
漏盡意解 ‘defilements exhausted and mind liberated’	3	-	1	-	3	-	-	-
則是 ‘is therefore/thus’	2	-	21	2	2	1	-	6
為汝說[:]何 ‘teach you[:] What...’	1	-	21	-	-	-	-	-
大福利 ‘great merit/benefit’	2	-	20	-	-	-	-	-
說偈曰 ‘recited a <i>gāthā</i> saying...’	1	-	17	-	-	1	-	1
佛即答 ‘the Buddha then replied...’ ¹⁹	4	-	18	-	-	-	-	-
阿難聞佛 ‘Ānanda heard the Buddha...’	5	-	18	-	-	-	-	-
有侍者 ‘had/there was an attendant’	1	-	17	-	-	-	-	-
...也。爾時... ‘[sentence-final particle +]’ ²⁰ Then...’	4	-	4	1	16	-	1	2
古昔 ‘[in days] of yore’	1	-	16	-	7	-	-	-
嬉戲 ‘enjoy oneself, take one’s pleasure’	1	-	16	1	1	-	-	-
生梵天 ‘was reborn in the Brahma heaven’	1	-	7	-	1	-	-	1
佛此語 ‘these words of the Buddha’ ²¹	16	-	-	-	2	-	-	-
作此言已 ‘upon uttering these words’ ²²	4	-	-	-	7	-	-	-
墮於 ‘fall into’	1	-	12	-	3	6	1	4
王又 ‘Moreover, the king...’	2	-	2	-	15	15	-	-

¹⁹ This phrase is surprisingly rare throughout the translation literature. The other text in which it is most concentrated is the **Ratnamegha* T no. 658(8x). In all other translation texts, it only appears once.

²⁰ I term markers like this ‘juxtaposition markers’. They are constituted by the recurring combination of two or more habitual usages—here, for instance, a sentence marked with the final particle 也 and the habit of beginning a new sentence with 爾時 for ‘at that time’. As ‘wallpaper’ (see p. 251), such markers may be particularly telling, though easily overlooked, and in application to some problems, they may combine to comprise a substantial set of evidence in their own right.

	‘FX’-MPNS	FX	T no. 99	T no. 120	Guoqu	T no. 271	T no. 462	T no. 670
略說法要 ‘expound briefly the essentials of the Dharma’	1	-	14	-	-	-	-	-
力/壯士屈伸臂頃 ‘the time it takes a strong man to bend or stretch out his arm’ ²³	1	-	10	-	3	-	-	-
精勤思惟 ‘cultivate the thought [that]’	1	-	14	-	-	-	-	-
生憂悲 ‘be sad’	1	-	13	-	-	-	-	-
答我言 ‘said in reply to me’	2	-	13	1	-	-	5	-
鬚髮自落袈裟著身 ‘his beard and hair fell out of their own accord, and a <i>kāṣāya</i> appeared on his body’	2	-	-	-	10	-	-	-
即成沙門 ‘immediately became a <i>śrāmaṇera</i> ’	2	-	-	1	10	-	-	-
深生~ ‘to feel profound [surprise, wonder etc.]’	4	-	-	-	12	-	-	1
讚嘆 ‘exclaim in praise’	1	-	12	-	-	-	-	-
從禪起 ‘to arise from meditation’	1	-	11	-	-	-	-	-
世尊即便 ‘the Blessed One then...’	11	-	-	-	9	-	1	-
於我滅後 ‘after my [<i>pari</i>] <i>nirvāṇa</i> ’	3	-	4	-	-	-	-	-
眾多上座比丘 ‘many senior monks’ ²⁴	1	-	9	-	-	-	-	-
而不覺知 ‘and was unaware [of it]’	2	-	6	-	-	-	-	1
四大海水 ‘the waters of the four great oceans’	1	-	5	-	2	-	-	-
斷諸煩惱 ‘extirpate the defilements’	1	-	8	2	2	-	-	-
於林中 ‘in[to] the forest’	1	-	8	-	1	-	-	-
之中有 ‘in/among [X] there was...’	7	-	1	-	-	1	1	-
娑羅林中 ‘in the <i>śāla</i> grove’	7	-	3	-	-	-	-	-

²¹ Again, this phrase is surprisingly rare—it occurs only sixteen times in the remainder of the translation literature, and no more than twice in any other given text.

²² Otherwise only *Dirghāgama* T no. 1(1x), T no. 69(1x), T no. 203(1x), T no. 834(1x), T no. 1450(1x).

²³ The form 壯士屈伸臂頃 is unique to *Guoqu* in the Guṇabhadra corpus.

²⁴ This phrase is unique to ‘FX’-MPNS and T no. 99 in all the translation literature.

	'FX'-MPNS	FX	T no. 99	T no. 120	<i>Guoqu</i>	T no. 271	T no. 462	T no. 670
妙花 'wondrous flowers'	1	-	1	1	6	-	-	-
不動搖 'is not shaken, does not waver'	1	-	6	-	-	1	-	-

By contrast, we also find a large number of words and phrases that occur in more than one text among *T* no. 376, *T* no. 745, *T* no. 1425, and *T* no. 2085, but not in 'FX'-MPNS (with very few exceptions, nearly all the items listed below occur at least ten times across the Faxian corpus as a whole).²⁵

TABLE 2 Language found in Faxian, but not in 'FX'-MPNS

4 texts:

聚落 'settlement [place of habitation]'
金銀 'gold and silver'
怖畏 'fear'
行乞(食) 'go on begging rounds'
還復 'to return, [go/put etc.] back'
無數 'countless'
眾僧 'the congregation of monks'
福德 'good fortune, merit'
塔 ' <i>stūpa</i> '
天眼 'heavenly eye', <i>divyacakṣus</i>
釋迦 Śākya (including in Śākyamuni)
恒水 'Ganges River'

²⁵ I ask readers to be patient with the quantity of this evidence. I present it in full because an important part of the case I am presenting is that such copious evidence all points in the same direction; because I make use of the same evidence again below in a different connection; and because I believe the quantity of such evidence is significant methodologically.

不與 ‘not give/not with’
 是惡 ‘is bad/this bad ~’
 其家 ‘his home/family’
 所作 ‘what one does/should do, done’
 是人 ‘this person’
 不信 ‘not believe/trust’
 餘者 ‘the others/the remaining ~’
 人間 ‘someone asks’
 後當 ‘after [X...], should/will...’
 飲酒 ‘drink alcohol’
 佛為 ‘the Buddha, for [the sake] of...’
 作大~ ‘made/became a great ~’
 不盡 ‘not exhaust(ed)’
 能知 ‘can know’
 是身 ‘this body’, ‘is [of] the body’

3 texts:

樹木 ‘tree’
 石蜜 ‘sugar [etc.]’
 盜心 ‘thieving intent’
 王子 ‘prince’
 酥油/蘇油 ‘butter/ghee’
 飯食 ‘food’
 獵師 ‘hunter’
 曠野 ‘wilderness, desert’
 草木 ‘trees and grasses, plants’
 衣服 ‘clothing, dress’
 寶物 ‘valuables’
 甘蔗 ‘sugar cane’, Īkṣvākus
 財物 ‘wealth’
 醫藥 ‘medicine’
 城邑 ‘city’
 諸方 ‘directions, regions’
 河邊 ‘riverside, riverbank’
 粳米 ‘millet’
 群臣 ‘[royal] ministers’
 天神 ‘a god’
 彫/雕文刻鏤 ‘carved patterns and inlay’

浴池 ‘bathing pond’
 草蓐/褥 ‘grass mat’
 妄語 ‘speak frivolously/falsely’
 剃髮 ‘shave the head’
 設供²⁶ ‘to offer, make offerings’
 自稱 ‘claim for/of oneself that...’
 稽首 ‘kowtow, pay obeisance with the head’
 執持 ‘hold, bear, carry’
 示現 ‘show, demonstrate’
 長大 ‘to grow/be tall’
 娛樂 ‘take pleasure, disport oneself, dally’
 殺生 ‘kill, take life’
 遣人 ‘dispatch someone [e.g. as a messenger]’
 敷置 ‘to spread out [a seat or bed]’
 欺誑 ‘deceive, deception’
 可信 ‘trustworthy, reliable, to be believed [in]’
 無畏 ‘fearless(ness), dauntless(ness)’
 愁憂 ‘sad, sorrow’
 微妙 ‘subtle, wondrous’
 所欲 ‘[which is] desired’
 盛滿 ‘full’
 泥洹 *nirvāṇa* (also 般泥洹 *parinirvāṇa*)
 大德 *bhādanta*
 方便 ‘an expedient, [*kuśāla*] *upāya*’
 沙彌 *śrāmaṇera*
 悔過 ‘repent for an infraction’
 甘露 ‘ambrosia’, *amṛta*
 優鉢羅 *utpala* (flower), Utpalā (nun)
 惡行 ‘evil conduct’
 天女 ‘heavenly maid’, *apsaras*
 佛塔 ‘*stūpa* of the Buddha’
 戒律 ‘precepts and Vinaya’
 所欲 ‘[which is] desired’
 象王 ‘king of elephants’
 出家人 ‘renunciant, ascetic’

²⁶ This word, which is to be distinguished from the phrase 設供養, is quite rare.

龍王 ‘*nāga* king’
 華香 ‘flowers and incense’
 楊枝 ‘tooth-stick, *dantakāṣṭha*’
 目連 Maudgalyāyana
 恒河 ‘Ganges River’
 波斯匿 Prasenajit
 魔波旬 Māra Pāpiyas
 亦名 ‘is also called’
 國名 ‘country is called’
 故說 ‘teach for [the reason that]’
 非法 ‘not right, *adharma*’
 見已 ‘seeing ~, having seen ~...’
 是語 ‘[say] this [these words]’
 諸大 ‘great ~ [plural]’
 人中 ‘among people, among men’
 此非 ‘this is not’
 世尊制(戒) ‘the World-Honoured one laid down [a rule/precept] that...’
 比丘皆 ‘*bhikṣus* all...’
 處處 ‘everywhere’
 水中 ‘in the water’
 人為 ‘person is/people are’, ‘person/people for’
 死者 ‘death/dead [+ topic marker/nominaliser]’
 作何 ‘do what [-]?’
 過是 ‘exceed/pass this ~’
 住此 ‘live/stay here’
 眾生故 ‘for the sake of sentient beings’
 不爾 ‘[if] it is not so’
 口中 ‘in the mouth’
 治罪 ‘exact/make amends for sin’
 在道 ‘on the road’
 多有 ‘there are many, has many’
 著地 ‘touch the ground’
 汝若 ‘if you...’
 人間 ‘among people, among humans, the human realm’
 無餘 ‘no more ~, no other ~’

²⁷ See note 20.

耶汝 ‘...? You...’²⁷

唯除 ‘with the sole exception of’

不敢 ‘dare not’

雨時 ‘when it rains’

人皆 ‘...people all...’

我請 ‘my request/invitation’

是思惟 ‘this thought’

不同 ‘not the same’

當為汝(等) ‘will... for you’

終不 ‘never’²⁸

國有 ‘in...country there is...’

我不能 ‘I cannot...’

相與 ‘together with’

人能 ‘person can...’

風吹 ‘wind blows’

有客 ‘there is a guest [monk]’

此經 ‘this *sūtra*’

城內 ‘in the city’

而取 ‘and take [it]’

何況 ‘let alone.../ how much the more...?’

惡心 ‘evil mind, ill intent’

知足 ‘be [easily] satisfied’

一宿 ‘stay one night’

不了 ‘not understand’

有國 ‘there is a country’

也復 (‘[sentence-final particle]. Moreover...’ juxtaposition marker²⁹)

威儀庠序 ‘comportment is dignified’

山中 ‘in/among the mountains’

已, 乃... ‘having [X-ed], then...’³⁰

恭敬供養 ‘offer respectfully’

見而 ‘see, and...’³¹

²⁸ The sole instance in *T* no. 745 is slightly different in meaning: 將終不久, *T* no. 745, 17: 1.559a23.

²⁹ See note 20.

³⁰ See note 20.

³¹ See note 20.

云何不 ‘why not [V]?’
 入其 ‘enter its/his/that...’
 不惜 ‘do not begrudge the cost [in money, even of one’s life etc.]’
 恭敬問訊 ‘ask respectfully’
 彼國王 ‘the king of that country’
 答曰 ‘replied’
 遂便 ‘then, immediately, before long’
 兩邊 ‘both sides’

2 texts:

男子 ‘man’ (including 善男子, *kula-putra*)
 姊妹 ‘sister(s)’
 小兒 ‘child’
 賈客 ‘merchant’
 織師 ‘weaver’
 愚癡人 ‘imbecile, sot’
 王家 ‘royal household/family’
 樹葉 ‘leaf’
 寡婦 ‘widow’
 湯藥 ‘medicinal broth’
 魚肉 ‘fish [and?] meat’
 美食 ‘delicacies’
 王大臣 ‘principal royal minister’
 種子³² ‘seed’
 世俗 ‘the customs of the world’
 手足 ‘hands and feet’
 手脚 ‘hands and feet’
 錢財 ‘money’
 乳酪 ‘sour cream’, *dadhi*
 驕慢 ‘pride, arrogance’
 果樹 ‘fruit tree’
 奴婢 ‘slave, servant’
 自活 ‘livelihood, living’
 邊地 ‘borderland, frontier region’
 相貌 ‘appearance’

³² To be distinguished from 釋種子 *śākyaputra*.

- 諸病 'illnesses'
 勢力 'force, power, strength'
 毒蛇 'venomous snake'
 牛羊 'cows and sheep'
 華鬘 'garland'
 幟幟 'pennant, flag'
 恐畏 'fear'
 諂曲 'fawning, flattery'
 諸患 'misfortunes, calamities'
 財寶 'wealth, valuables'
 叢林 'grove, forest'
 黠慧 'cleverness, intelligence'
 隨順 'accord with, follow'
 覆藏 'conceal, hide'
 教誡 'instruct and admonish'
 習近 'be(come) intimate/familiar with'
 驅出 'expel'
 饒益 'profit, benefit, aid'
 長養 'grow, make flourish, make thrive'
 呵責 'scold, reprimand'
 殺人 'commit murder'
 毀訾 'slander, malign'
 誹謗 'slander, malign'
 堪忍 'tolerate, bear'
 變易 'transform, change'
 尊重 'to respect, to venerate'
 自殺 'kill oneself'
 愛念 'to love, feel affection for'
 破壞 'destroy'
 水灑 'sprinkle with water'
 解知 'understand'
 噉 'eat'
 積聚 'gather, accumulate'
 隱覆 'conceal'
 救護 'save, protect'
 敬信 'venerate and believe in'
 暴害 'do violence to'
 長老 'venerable'

自恣 'unrestrainedly, freely'
 毒藥 'venom(ous)'
 賢聖 'holy (person), saint(ly)'
 諸惡 'evil, bad [plural]'
 無憂 'sorrowless'
 殊勝 'excellent, unusual'
 中間 'within/among'
 同一 'the same'
 若使 'if'
 假使 'if'
 爾許 'so many, so much'
 精舍 *vihāra*
 釋子 *śākyaputra*
 聲聞 'disciple, *śrāvaka*'
 應供 *arhat*
 瞋恚 'aversion, anger'
 房舍 'monk's quarters'
 由延 *yojana*
 契經 *sūtras*
 人法 'human *dharma*/law/ways'
 犯戒 'violate the precepts'
 舊比丘 'old *bhikṣu*, *bhikṣu* of long standing'
 阿練若處 'in the *āraṇya* ('wilderness')'
 犯罪 'commit an infraction'
 等正覺 *saṃyaksambodhi/saṃyaksambuddha*
 糞掃 'rubbish heap [*paṃśu*]'
 無間罪 *ānantaryakarma*
 法師 'Dharma master, **dharmabhāṇaka*'
 泥犁 *niraya*, 'hell'
 顛倒 *viparyāsa*
 起塔 'erect a *stūpa*'
 阿修羅 *asura*
 重罪 'grave infraction'
 多羅樹 '*tāla* (palmyra) tree'
 旃陀羅 *caṇḍāla*
 阿毘曇 Abhidharma
 諸天世人 'gods and humans'
 道人 'religious practitioner'

染污 'taint, defilement'
 頌曰 '[pronounced/sang] a *gāthā*, saying...'
 人身 'human body, incarnation as a human'
 教法 **deśitadharma*, 'the teaching'
 淨想 'notion of purity'
 良福田 'field of merit'
 彼岸 'the other shore, the further shore'
 滅度 'attain extinction, enter *nirvāṇa*'
 梵志 'Brahmin'
 大乘 *Mahāyāna*
 達多 -*datta* [in transcribed names]
 文殊師利 *Mañjuśrī*
 拘睺彌 *Kauśambī*
 拘夷(城) *Kuśinagara*
 迦維羅衛 *Kapilavastu*
 梨車 *Licchavis*
 彌勒 *Maitreya*
 釋迦文 *Śākyamuni*
 阿那律 *Aniruddha*
 巴連弗 *Pāṭaliputra*
 娑婆 *Saha* (world)
 是名 'this is called'
 即名 'is called'
 不名 'is not called'
 何名 'What is called...?'
 皆名 'are all called'
 佛住 'the Buddha stayed at'
 作是念 'had this thought'
 當作 'should do/act...'
 佛問 'the Buddha asked'
 說若 '...said, "If..."'
 (作)是說 'say this'
 知而 'knew, and [so]...'
 何道之有 'how could that be [acceptable]?'
 便作 'then/thereupon did...'
 應問 'should ask'
 汝何以 'why do you...?'
 不如是 'not like this'

法應 ‘...*dharmā* should’
 不語 ‘not speak’
 自手 ‘oneself, with one’s own hand’
 若過~ ‘if [a certain amount of time] passes, if more than [a certain amount of time]’
 無病 ‘free of illness’
 當如 ‘it should be understood’
 不和合 ‘not in accord/harmonious’
 事者 ‘matter [+ topic marker/nominaliser]’
 莫作 ‘do not [imperative]’
 此處 ‘here, this place’
 不問 ‘not ask’
 言:「云何... ‘said: How...?’³³
 亦得 ‘can also/also obtain’
 如前 ‘as before, as above’
 久住 ‘stay for long’
 不也 ‘No’, ‘It is not so’
 後人 ‘people of later times’
 云何為 ‘what/how/why is...?’
 令捨 ‘induce to give up’
 年年 ‘every year’
 一子 ‘a son’
 令彼 ‘cause/induce him/that to...’
 其實 ‘in fact’
 以何 ‘with what...?’
 諦視 ‘scrutinise/look carefully’
 不死 ‘not die, deathless’
 地中 ‘on/in the ground’
 母人 ‘every person’
 所受 ‘[which is] received’
 捉杖 ‘grasping a stick’
 有因 ‘has a cause, there is a reason’
 未至 ‘not [yet] reached/arrived’
 幾許 ‘how long [in time]?’
 後時 ‘later’
 無數劫 ‘countless *kalpas*’

³³ See note 20.

於自~ 'in one's own ~'
 是輩 'them, these people'
 有過 'is guilty of an error'
 其性 'its nature, his/her nature, that nature'
 惡法 'bad *dharmas*'
 我等當 'we will/should'
 或能 'some [people] can', 'or...can'
 漸漸 'gradually, little by little'
 當從 'should follow'
 向此 'towards here, towards this ~'
 往看 'go and see'
 所言 '[that which is] said'
 怪哉 'Remarkable! Oh my goodness!'
 何因緣故 'Why? For what reason...?'
 一切皆 'all alike'
 夢中 'in a dream'
 彼女 'that woman, she'
 以神足 'by means of supernatural powers (**ṛddhipāda*)'
 ...故欲... 'therefore want to...'
 爾時佛 'At that time, the Buddha...'
 短壽 'short lifespan'
 食而 'eat, and...' ³⁴
 人云 'person says/people say'
 作失想 'think [something is] lost'
 惡比丘 'bad *bhikṣu*'
 所犯 '[which (infraction)] is committed'
 其心 'his/her/that mind'
 悉知 'know [them] all'
 是呪 'this spell'
 他國 'an/other country/ies'
 皆應 'should all'
 (不)能壞 '(in)destructible'
 能說 'can expound'
 若干 'a certain number, various'

³⁴ See note 20.

Thus, we find that 'FX'-MPNS and the remainder of the corpus ascribed to Faxian differ strikingly in the exact way they repeatedly phrase a wide range of terms and ideas. It is important to note that the above Tables include a wide range of types of language: ordinary nouns, verbs, and adjectives; words and phrases to do more specifically with Buddhism, in both its more technical aspects and in the more general 'worldview' that comes bundled with it; proper names; and recurring phrases, some betraying habitual preferences in conjunctions, pronouns and adverbs (in all lists in this paper, I have arranged markers very roughly into categories in this order). It is exactly this sort of recurring, diverse, and copious difference that adds up to a style, and these global differences between 'FX'-MPNS and other Faxian ascriptions indeed suggest that there was something fundamentally different about the compositional process behind each side of the comparison, and the person(s) responsible for them.

I believe it is safe to say that the application of these techniques shows us for the first time the quantities of such evidence to be found in a given body of text. TACL's first strength is the fine grain of the vision it bestows. It is as if we have been handed a microscope, which enables us to see features of the texts too fine to have been visible to the 'naked eye' of a human reader equipped only with ordinary philological acumen. The power of the tool is further increased by its scope. It is possible for TACL to work through the entire canon in a few minutes or hours, examining every fine detail of each text (if only details of a certain very narrowly circumscribed type), whereas the same task would take a human reader multiple years at best. Finally, an additional strength of these methods derives from the brute blindness of the machine. Buddhologists steeped in Buddhist problems and texts have tended overwhelmingly in prior studies to notice and exploit markers with an explicitly Buddhist colour—formulaic textual clichés (especially at the opening and closing of *sūtras*), doctrinal categories, proper names, and the like. By contrast, TACL does not know or care what kind of word or phrase an item is—it trades indifferently in all contiguous strings of characters. This enables us to expand our purview, as above, beyond such explicitly and saliently 'Buddhist' markers, to include a wide range of more ordinary language typically too nondescript to catch our attention. (I call such markers 'wallpaper'.)

It is typical of work with TACL, as here, to discover that two texts or bodies of text are distinguished by a large number of such recurring fine-grained differences. This discovery is both exciting and challenging. On the one hand, it suggests that use of such internal evidence may eventually make possible much greater headway than we have achieved to date on questions of ascription, dating, and intertextual relations. At the same time, it also opens more than one new can of worms, each squirming with a lively knot of slippery problems.

One such problem is that it is difficult in many cases to differentiate with absolute clarity between content-related and stylistic material. For example, one area in which lexemes differ between texts because of content is Vinaya terminology (much of which appears for the first time in texts translated in Faxian's generation).³⁵ Some of this terminology also appears in *T* no. 376, mostly likely because some content in *T* no. 376 is also *Vinaya*-related.

However, against these considerations, we should note first that the above evidence includes a copious number of particular renderings of a wide range of items very common in *sūtra* literature. In total, we found over eighty items systematically differing from Faxian in the three fascicles of 'FX'-MPNS; and over 350 items systematically differing from 'FX'-MPNS in the Faxian reference corpus (a total of forty-eight fascicles). It is unlikely that such wide-ranging differences could be produced by accidents of content alone.

In the present case, we can also control for the possible confound of content by the fact that we find different translations or transcriptions for items identical in meaning: 'FX'-MPNS 兜婆 vs. FX 塔 for

³⁵ Examples in the Faxian corpus include: 波夜提 *pāyantika*; 羯磨 *karma* (in the sense of monastic ritual); 某甲 'so-and-so, such-and-such a person'; 越比尼 'commit an infraction of the Vinaya'; 床褥 'bed, couch'; 革屣 'leather sandals'; 受具 'received [precepts, ordination]'; 迦絺那(衣) *kāṭhina*; 偷蘭(遮) *sthūlātaya*; 和上 *upādhyāya* (和尚); 布薩 *poṣadha*; 非時漿 'irregular fluids'; 長衣 'robes in excess of the permitted quota' (*atirekacīvara*); 夏安居 'summer retreat'; 非律 'not [in accord with] *Vinaya*'; 破僧 'cause a schism in the Saṅgha'; 阿梨耶[僧聽] *śṛṇotu me ārya saṃgho* (Nyānatūsita, s.v. DDB); 學法 *śaikṣadharmā*; 式叉摩尼 *śikṣamāna*; 阿浮呵那 *āvāhana*; 發露 'confess'; 摩那埵 *mānatva*, etc.

stūpa; ‘FX’-MPNS 踰闍那 vs. FX 由延 for *yojana*; ‘FX’-MPNS 鳩尸那(城) vs. FX 拘夷(城) for Kuśinagara; ‘FX’-MPNS 迦比羅施兜 vs. FX 迦維羅衛 for Kapilavastu; ‘FX’-MPNS 天及人 vs. FX 諸天世人 for ‘gods and humans’; ‘FX’-MPNS 說偈曰 vs. FX 頌曰 to introduce a *gāthā*.³⁶ These are reasonably common items in Buddhist discourse. The fact that they are systematically rendered differently on each side of our comparison strengthens the likelihood that we are dealing with various authors or translators.³⁷ A single person or group would be unlikely to switch between different renderings for such common terms, and if they were in the habit of alternating, we would expect to find both renderings occurring within single texts, rather than the clean split between texts that we see here.

In the present case, we also have an additional control against the possible confound of content. In addition to ‘FX’-MPNS, the Chinese canon contains two other independent translations of the (Mainstream, non-Mahāyāna) *Mahāparinirvāṇa-sūtra*: the *Fo ban-nihuan jing* 佛般泥洹經 *T* no. 5 ascribed to Bo Fazu 白法祖,³⁸ and the anonymous *Bannihuan jing* 般泥洹經 *T* no. 6, which appears in the *Taishō* with a by-line dating the text to the E. Jin 東晉 (317–420), but which scholars have predominantly thought is probably by Zhi Qian.³⁹ In both *T* no. 5 and *T* no. 6 we find a large number of the exact markers listed in Table 2 above as distinguishing the Faxian

³⁶ In ‘FX’-MPNS, 頌 only occurs in the phrases 歌頌讚歎 and 歌唄讚頌. In other Faxian ascriptions 偈 never occurs in direct combination with 曰, as in ‘FX’-MPNS; rather, it appears in the compound 偈頌, or with the verb of speech 言 (偈言), or with a verb of speech preceding, 說偈 (with no second verb of speech following), etc.

³⁷ For a more extended application of this method, see Radich and Anālayo, ‘Were the *Ekottarika-āgama*...?’

³⁸ Iwamatsu and Park argued that *T* no. 5 is by Zhi Qian, but Nattier does not find these arguments convincing; Iwamatsu, ‘*Nehan gyō*’; Park, ‘New Attribution’; Nattier, *Guide*, 126, note 39, 127–28.

³⁹ Nattier, *Guide*, 126–27. Nattier cites Ui, *Yakukyōshi*, 517–23. Iwamatsu, ‘*Nehan gyō*’, argues that *T* no. 6 was probably by Dharmarakṣa. Park, ‘New Attribution’, also treats the text as by Zhi Qian.

corpus from 'FX'-MPNS: in *T* no. 5, approximately 122 items;⁴⁰ and in *T* no. 6, also 122 items.⁴¹ Because these are parallel translations of the same text as 'FX'-MPNS, we can expect that differences in recurring wording between these texts and 'FX'-MPNS would primarily not inhere in content, but rather, in style.⁴²

⁴⁰ 一子, 不了, 不問, 不敢, 不死, 不爾, 不盡, 不與, 不語, 中間, 事者, 云何不, 人中, 人問, 人法, 人為, 人皆, 人能, 人間, 以何, 何況, 佛問, 佛為, 作何, 入其, 兩邊, 其家, 其心, 國有, 地中, 大德, 天女, 天眼, 天神, 奴婢, 妄語, 小兒, 山中, 彌勒, 後人, 後當, 惡心, 惡比丘, 憍慢, 所作, 所受, 所欲, 所犯, 所言, 故欲, 教誡, 文刻鏤, 方便, 是人, 是惡, 是語, 是身, 是輩, 有國, 有過, 未至, 梵志, 樹木, 此非, 死者, 殊勝, 殺生, 比丘皆, 水中, 泥洹, 浴池, 滅度, 無憂, 無數, 無數劫, 無病, 無餘, 當作, 當如, 當從, 皆應, 相與, 眾僧, 瞋恚, 知足, 石蜜, 福德, 稽首, 答曰, 精舍, 終不, 美食, 群臣, 能壞, 能知, 自活, 舊比丘, 若干, 若過, 草木, 草蓐, 華香, 著地, 行乞, 衣服, 諸大, 財寶, 財物, 賢聖, 起塔, 過是, 道人, 還復, 醫藥, 釋迦, 釋迦文, 長老, 阿那律, 雨時, 非法, 飯食, 龍王.

⁴¹ 不也, 不信, 人中, 人能, 佛住, 入其, 其性, 國有, 在道, 大乘, 大德, 天眼, 奴婢, 娛樂, 山中, 巴連弗, 微妙, 悉知, 惡比丘, 我請, 所言, 是身, 是輩, 有國, 有過, 死者, 母人, 法師, 無憂, 無數劫, 無餘, 真諦, 瞋恚, 等正覺, 終不, 美食, 能壞, 自恣, 草蓐, 著地, 行乞, 解知, 說若, 賢聖, 長老, 雨時, 非法, 魔波旬, 不敢, 不死, 不與, 久住, 亦得, 人皆, 令彼, 何況, 佛問, 佛為, 作何, 其心, 國名, 地中, 天神, 寶物, 已乃, 彌勒, 彼岸, 後當, 惡法, 惡行, 戒律, 所作, 所受, 所欲, 拘夷, 教誡, 方便, 是名, 是語, 梵志, 樹木, 此非, 殊勝, 殺生, 比丘皆, 汝何以, 河邊, 泥洹, 浴池, 滅度, 無數, 無畏, 無知, 甘露, 由延, 當作, 當如, 當從, 盛滿, 眾僧, 福德, 稽首, 答曰, 精舍, 群臣, 聲聞, 能知, 自稱, 若干, 若過, 華香, 處處, 衣服, 諸患, 象王, 起塔, 道人, 金銀, 阿那律, 頌曰, 飯食, 飲酒.

Although the number of markers of Faxian against 'FX'-MPNS is the same in both *T* no. 5 and *T* no. 6, this is something of a coincidence—only a little under two thirds of the markers (about 78) are shared between the two texts. Some of the language that is shared between the two texts could be accounted for by the fact that *T* no. 5 may be a revision of *T* no. 6; Nattier, *Guide*, 127.

⁴² This is naturally not to deny that there do indeed exist differences in details of content between *T* no. 5, *T* no. 6 and 'FX'-MPNS. The existence of such differences is well known. Careful analysis of the patterns of such difference (and contrasting commonalities) between these and other versions of the text (*T* no. 1(2), Pali, fragmentary Sanskrit, versions incorporated in the *Vinayas*) formed

Nattier adduced strong reasons to think that *T* no. 6 is by Zhi Qian, and further, on the basis of relations between *T* no. 5 and the *Fo mu bannibuan jing* 佛母般泥洹經 *T* no. 145, that *T* no. 5 was ‘likely... produced in the Wu kingdom in the third century CE’.⁴³ In showing the presence in *T* no. 5 and *T* no. 6 of markers more characteristic of Faxian than of ‘FX’-MPNS, I therefore do not mean to suggest that either *T* no. 5 or *T* no. 6 should instead be ascribed to Faxian. Rather, my point is that *even these two texts* are closer to the style of the ‘Faxian’ corpus than ‘FX’-MPNS, and this evidence therefore serves as an indication of the significant distance between ‘FX’-MPNS and other Faxian texts. It also shows that differences in content cannot be responsible for this distance between ‘FX’-MPNS and other Faxian texts.

To sum up the argument thus far: We have found over eighty terms and phrases recurring in ‘FX’-MPNS, that never appear elsewhere in ‘Faxian’, but do repeatedly appear in Guṇabhadra. On the other hand, we also found over 350 items recurring in the remainder of the ‘Faxian’ corpus, which never occur in ‘FX’-MPNS. We can exclude the possibility that these differences are based upon differences in content between ‘FX’-MPNS and other ‘Faxian’ texts, because the same terms are sometimes translated differently on either side of the comparison, and because the markers otherwise characteristic of ‘Faxian’ do occur repeatedly in *T* no. 5 and *T* no. 6, which are parallel translations to ‘FX’-MPNS. This evidence shows very strongly that ‘FX’-MPNS is far closer, on stylistic grounds, to the Guṇabhadra corpus than it is to the Faxian corpus.

3. Complications

On the basis of the evidence surveyed thus far, it would be easy to leap to the conclusion that the above results resoundingly confirm Iwamatsu’s hypothesis—‘FX’-MPNS is stylistically closer to (some)

the basis of a line of serious studies with historicist aspirations, such as Bareau, ‘Les récits’; Waldschmidt, *Die Überlieferung*.

⁴³ Nattier, *Guide*, 126–28.

texts ascribed to Guṇabhadra than those ascribed to Faxian, and we are therefore warranted in ascribing the text to Guṇabhadra. However, matters are in fact more complicated.

The study of ascriptions of Chinese Buddhist translations on the basis of stylistic evidence is complicated by the fact that translators often worked in teams, and the composition of those teams could shift over time. Insofar as we can show empirically that certain regular and consistent features are shared by a group of texts most firmly associated with the name of a given translator and his group, it is nevertheless still reasonable for us to seek to discriminate between works more or less typical of that ‘author’ and others. That is to say, we can reinterpret the names associated with texts in traditional ascriptions as labels for a translation group or atelier (for example, ‘Faxian’ = ‘the Faxian group’) and proceed from there. This is the approach taken here.⁴⁴

In the case of Faxian, however, these questions are further complicated by the fact that Faxian himself may not have been the person doing the principal work of actual ‘translation’ in the teams he worked in, but rather, the ‘grunt work’ of translation may have been done by Faxian’s erstwhile travel companion, Baoyun 寶雲 (372?/376–449). In the case of the (Mahāyāna) *Mahāparinirvāṇa-mahāsūtra* T no. 376, we have direct evidence that this was the case.⁴⁵ This is consistent with

⁴⁴ One useful approach to such questions, suggested by Nattier, is to think in terms of ‘rhetorical communities’, identifiable by ‘tracers’ (distinctive terms of limited circulation), and divisible on occasion into further sub-groups. Such an approach has the advantage of shaking the problem of style loose from assumptions about named individuals (or even their ateliers). On the one hand, several such ‘translators’ could be members of a single ‘rhetorical community’; while on the other, the corpus ascribed to a single ‘translator’ might comprise several separable ‘rhetorical communities’. These two possibilities do not need to be mutually exclusive in a single case, since for various purposes, we might analyse a problem along a spectrum from coarse- to fine-grained. See Nattier, *Guide*, 5, 162–63, and especially 166–68.

⁴⁵ 禪[*var.* 神]師佛大跋陀。手執胡[*var.* 梵]本。寶雲傳譯。於時坐有二百五十人, T no. 2145, 55: 8.60b9–10. On conflicting reports about Baoyun’s date of

a wider pattern indicating that Baoyun may have been the foremost Sanskrit-Chinese translator of his age.⁴⁶ We must therefore consider the possibility that Faxian, despite his extensive time in India, may not have actually been a real ‘translator’ (in our terms) after his return, and that any stylistic characteristics we can find in his corpus may in fact be the fingerprints of Baoyun (or someone like him).

This is a particular problem for consideration of the present question. The *Chu sanzang ji ji* 出三藏記集 (CSZJJ) biography states that Baoyun did the main work of translation for at least some of the texts ascribed to Guṇabhadra, just as he did for Faxian.⁴⁷ Elsewhere, in a note to a list of thirteen texts, Sengyou writes, ‘These texts... were all recited/read 宣出 by the Indian Mahāyāna Dharma Master Guṇabhadra...and translated 傳譯 by the śrāmaṇera Shi Baoyun and his disciple *Bodhidharmodgata 菩提法勇’.⁴⁸ Our primary sources also famously present evidence that Guṇabhadra himself may have been virtually incapable of speaking Chinese.⁴⁹ In other words,

birth, see Yoshikawa and Funayama, *Kō sō den*, 274, note 4. The birth date of 372, reported in the *Ming seng zhuan* 名僧傳, does not stack up with Baoyun’s supposed age at death.

⁴⁶ See particularly indications in Baoyun’s biographies, CSZJJ *T* no. 2145, 55: 15.113a5–b2; GSZ: *T* no. 2059, 50: 3.339c18–340a14; also MSZ *X* no. 1523, 77: 1.358c7–14. Other indications of Baoyun’s importance are found in prefaces to the **Samyuktābhidharmahrdaya* *T* no. 1552, *T* no. 2145, 55: 10.74c3–7 (also 104c21–24, 12b20–21) and the *Śrīmālādevīsīmhanāda-sūtra* *T* no. 353, *T* no. 2145, 55: 9.67b3–5; and in the biography of Guṇabhadra, *T* no. 2145, 55: 14.105c14–20; GSZ, *T* no. 2059, 50: 3.344b3–10; Yoshikawa and Funayama, *Kō sō den*, 334–35. See also note 49 below.

⁴⁷ 頃之眾僧共請出經。於祇洹寺集義學諸僧。譯出雜阿含經。東安寺出法鼓經。後於丹陽郡譯出勝鬘楞伽經。徒眾七百餘人。寶雲傳譯。慧觀執筆, *T* no. 2145, 55: 14.105c14–20; GSZ, *T* no. 2059, 50: 3.344b3–10; Yoshikawa and Funayama, *Kō sō den*, 334–35.

⁴⁸ ...天竺摩訶乘法師求那跋陀羅...宣出諸經。沙門釋寶雲及弟子菩提法勇傳譯, *T* no. 2145, 55: 2.12c19–13a8.

⁴⁹ *T* no. 2145, 55: 14.105c20–27; cf. Funayama, Butten, 87–89; Saitō, *Kango butten*, 40–44.

Baoyun may often have been the real translator in Guṇabhadra's group as well, in which case, it could be meaningless to reascribe a text from 'Faxian' to 'Guṇabhadra'.

Indeed, it is sobering to note that when we search in the Guṇabhadra corpus for the items in Table 2, which distinguish Faxian from 'FX'-MPNS, they appear most copiously in:

- T* no. 99 (320–323 items,⁵⁰ i.e. almost all the items in the table);⁵¹
- T* no. 120 (197–198 items);
- Guoqu* (172–174 items);
- T* no. 670 (150–151 items);
- T* no. 462 (128 items);
- the **Mahābherihāraka-sūtra* 大法鼓經 *T* no. 270 (not listed in Table 1;⁵² 126–127 items);
- T* no. 271 (111 items);
- the *Śrīmālādevīsīmhanāda-sūtra* *T* no. 353 (not listed in Table 1;⁵³ 71 items).

These are exactly the texts that also feature the largest concentration of the items in Table 1, which distinguish 'FX'-MPNS from Faxian. With the exception of *T* no. 270 (in which only eight items from Table 1 appear), this means that largely the same texts in the Guṇabhadra corpus are most like 'FX'-MPNS, *and* most like 'Faxian'. We must therefore consider the possibility that 'FX'-MPNS represents something more specific than a 'Guṇabhadra' text that was mis-ascribed by the tradition to 'Faxian'.

⁵⁰ Unlike CBETA, TACL has the capacity to search the Taishō apparatus for variant readings in other witnesses. Counts for a given word or phrase sometimes differ between witnesses.

⁵¹ This is likely to be in part because *T* no. 99, at fifty fascicles, is very large. See below.

⁵² *T* no. 270 features only 8 of the markers listed in Table 1.

⁵³ *T* no. 353 also features only 8 of the markers listed in Table 1.

4. A smaller corpus associated especially closely with ‘FX’-MPNS

Recall that as Table 1 shows, our markers of ‘FX’-MPNS against other Faxian works are far from evenly distributed in the Guṇabhadra corpus. When we consider the length of the texts, moreover, we see that the imbalance is even greater:

Guoqu has 54 items in 4 fascicles (13.5:1);
T no. 353 has 8 items in 1 fascicle (8:1);
T no. 271 has 15 items in 2 fascicles (7.5:1);
T no. 462 has 18 items in 3 fascicles (6:1);
T no. 270 (not in Table 1) has 8 items in 2 fascicles (4:1);
T no. 120 has 16 items in 4 fascicles (4:1);
T no. 670 has 15 items in 4 fascicles (3.75:1);
T no. 99 has 67 items in 50 fascicles (1.3:1).

Thus, the markers in Table 1 are nearly twice as frequent in *Guoqu* as in any other ‘Guṇabhadra’ text. By this crude measure, ‘FX’-MPNS lies closer to *Guoqu* than any other text in that corpus by a considerable margin.

It is also possible to find other evidence pointing in the same direction—phrasing shared by *Guoqu* and *T* no. 7, and entirely unique to them in all of the translation literature (in many cases, appearing more than once in one or both texts):⁵⁴

⁵⁴ Some of these terms and phrases are also found in one other text—the *Yinguo benqi jing* 因果本起經, which was excluded from the canon, but preserved with an ascription to Guṇabhadra in the Fangshan stone canon (text no. 69 in Zhongguo Fojiao xiehui, *Fangshan shi jing*): 迦比羅旃兜 Kapilavastu; 自傷貧乏 ‘beggaring themselves’; 非為小緣 ‘this is no trivial circumstance’. But these overlaps are to be explained by the fact that F69 is largely verbatim identical to about the first half of the first fascicle of *Guoqu* (*T* no. 189, 3: 1.620c15–623b27). Note that this makes F69 an important witness for the textual study of corresponding portions of *Guoqu*.

TABLE 3 Terms and phrases unique to 'FX'-MPNS and *Guoqu* in translation literature

在尼連禪河側 'on the banks of the Nairañjanā River' ⁵⁵
心大悲惱 'greatly sorrowing and troubled in mind'
迦蘭仙人 [Ālāra] Kālāma/ *Arāḍaḥ Kālāma
喚言善來比丘鬚髮自落袈裟著身即成沙門 '...called [to him,] "Come, O Monk!" [where-upon] his hair and beard fell out of their own accord, and <i>kāṣāya</i> robes appeared on his body, and he immediately became a <i>śrāmaṇera</i> '
作此言已即便 'immediately upon uttering these words...'
其數凡有八萬四千 'in all, they were 84,000 in number'
我四部眾:比丘、比丘尼、優婆塞、優婆夷 'my fourfold Saṅgha: <i>bhikṣus</i> , <i>bhikṣuṇīs</i> , <i>upāsakas</i> and <i>upāsikās</i> '
良久微聲而[...問/言] 'after a long pause, [said/asked etc.] in a quiet voice...'
統理民務 'the duties of governing the people'
極大巨富 'extremely wealthy'
還歸宮城 'returned to the palace'
俄爾之頃 'in the twinkling of an eye'
緣路而[V] 'along the road'
而見答言 'and replied' ⁵⁶
堪為世間作上福田 'can be the supreme field of merit for the world'
迦毘羅旃兜 Kapilavastu ⁵⁷
自傷貧乏 'beggaring themselves [? viz., by the lavishness of their offerings]'
非為小緣 'this is no trivial circumstance [i.e. this is a fateful, weighty matter]' ⁵⁸

⁵⁵ 尼連禪河側 (without 在) also has a telling distribution: 'FX'-MPNS, *T* no. 99; *Guoqu*, *T* no. 192; *Mahāmāyā*, *T* no. 1509.

⁵⁶ The syntactically peculiar use of 見答 here may be a reflex (at what remove?) of an Indic passive; cf. the related 唯願見答, which is entirely unique to *Guoqu*.

⁵⁷ In *Guoqu*, the reading 迦毘羅旃兜 in K hides this phrase from ordinary CBETA searches, but SYM and Shōgozō all record a v.l. identical to 'FX'-MPNS; in F69 (see note 54) we encounter the slight variant 迦毗羅旃兜.

⁵⁸ Note also 迦毘羅旃兜 Kapilavastu (note 18).

Other items shared between ‘FX’-MPNS and *Guoqu*, though not entirely unique to these two texts, are still extremely rare, and provide additional evidence of close links between the two.⁵⁹

Where these rare pieces of phraseology appear in ‘FX’-MPNS and *Guoqu* respectively, with one partial exception, in content and context that would indicate direct borrowing from one text to the other.⁶⁰ This means that they indicate, rather, some unusually close relation between the idiom of these two texts, and the person(s) who composed them.

At the same time, when we look further abroad, it turns out that one work outside the Guṇabhadra corpus has even closer links to ‘FX’-MPNS than any of the Guṇabhadra works listed above,⁶¹ excepting *T* no. 189—the **Mahāmāyā-sūtra* 摩訶摩耶經 *T* no. 383 (hereafter

⁵⁹ For example, the two texts share a verse, though the context differs in each text: 諸行無常/是生滅法/生滅滅已/寂滅為樂, *T* no. 7, 1: 3.204c23–24, *T* no. 189, 3: 1.623c21–22. This verse otherwise appears only in the anonymous *Samyuktāgama* *T* no. 100, *Dharmakṣema’s *Mahāparinirvāṇa-mahāsūtra* *T* no. 374 (and *T* no. 375), and the *Mile da cheng Fo jing* 彌勒大成佛經 *T* no. 456 ascribed to Kumārajīva.

⁶⁰ The exception is a passage in *Guoqu* in which the Buddha refuses Māra’s request, on the banks of the Nairāṇjanā River, to enter into *parinirvāṇa*, *T* no. 189, 3: 3.649a16–24. With the exception of a very few words, this passage is matched verbatim in a slightly longer and more repetitive passage at *T* no. 7, 1: 1.192a22–b12. However, even this long pericopae is set in a different larger context in each of the two texts: *Guoqu* is describing the initial encounter of Māra and the Buddha, at the beginning of the Buddha’s teaching career; whereas ‘FX’-MPNS is describing the reminiscence of this occasion forty-five years later, at the end of his career, when the Buddha agreed with Māra that he would enter *parinirvāṇa* three months later.

⁶¹ The *Abhinīṣkramana-sūtra* 佛本行集經 *T* no. 190, ascribed to *Jñānagupta, features the next largest gross number of Table 1 markers after *T* no. 99 and *Guoqu*. But it is a large text at sixty fascicles. Further, as the name suggests, *T* no. 190 comprises a collection of various other texts relating narratives about the Bodhisatva/Buddha’s lives. As such, *T* no. 190 probably incorporates the linguistic features of *Guoqu* because it in large part cannibalised it.

abbreviated *Mahāmāyā*), ascribed to Tanjing 曇景 (fl. ca. 479–502). This text features twenty-five items from Table 1, in a span of only two fascicles (12.5:1).

Utsuo argued that *Mahāmāyā* was composed in China, and further, that ‘FX’-MPNS was among its principal sources.⁶² Certainly, a close link between the two texts is corroborated by some very long and exact verbatim matches in phrasing.⁶³ However, not all the distinctive phraseology overlapping between the two texts can be accounted for by *Mahāmāyā* borrowing and reworking whole passages from ‘FX’-MPNS, suggesting that the relation between the two texts might have some other dimension. These clues suggest that ‘FX’-MPNS and *Guoqu* might belong together with *Mahāmāyā* in a group of texts sharing some quite specific interrelation.

As we will see immediately below, further investigation shows that in fact, these three texts share a considerable quantity of quite specific phraseology, and moreover, that the same characteristics are shared (to a lesser degree) by two more texts: the *Buddhacarita* 佛所行讚 *T* no. 192, ascribed to *Dharmakṣema, and the closely related *Fo benxing jing* 佛本行經 *T* no. 193, ascribed to none other than Baoyun.

The ascription of both *T* no. 192 and *T* no. 193 has been contested, and their interrelations shown to be complex. Some version of the *Buddhacarita* 佛本行贊 [var. 讚] 經 is ascribed to Baoyun in the primary biographical sources,⁶⁴ but it is uncertain whether this text was in fact *T* no. 193, which bears Baoyun’s name in the *Taishō*. Sakaino noted close relations between both texts, and further, with the *Fo chui banniepan lüe shuo jiaojie jing* 佛垂般涅槃略說教誡經 *T* no. 389 (without passing opinion upon the ascriptions of any of these texts).⁶⁵ According to Willemen, Ōminami Ryūsho held that it

⁶² Utsuo, ‘*Makamaya kyō*’, 11–14.

⁶³ For example: 以金棺內銀棺中，又以銀棺內銅棺中，又以銅棺內鐵棺中，*T* no. 7, 1: 3.206a26–28; *T* no. 383, 12: 2.1011b9–10; 鳩尸那(竭)國力士生地熙連河側娑羅雙樹間，*T* no. 7, 1: 2.198c4–5, 199a3–4; *T* no. 383, 12: 2.1011a23–24.

⁶⁴ 雲性好幽居以保閑寂。遂適六合山寺。譯出佛本行贊 [var. 讚 SYMP] 經; GSZ *T* no. 2059, 50: 3.340a7–9; cf. CSZJJ *T* no. 2145, 55: 15.113a24–26.

⁶⁵ Sakaino, ‘*Butsu yuikyō gyō*’.

was actually *T* no. 192 that was by Baoyun, and in presenting a full translation of the work, Willemen follows Ōminami in this regard.⁶⁶ Willemen also reports that Hikata Ryūshō believed *T* no. 193 was written after Zhi Qian and before Kumārajīva.⁶⁷ On the basis of a somewhat unconvincing computer-assisted analysis, Gotō argued that *T* no. 193 was translated by Dharmarakṣa 竺法護 (fl. ca. 284–306) rather than Baoyun; in the course of the same study, he appears to assume that *T* no. 192 is in fact by (Buddhabhadra and) Baoyun.⁶⁸

The evidence presented immediately below is ambiguous with regard to this question. It shows that *T* no. 192 and *T* no. 193 sport features that associate them closely with ‘FX’-MPNS, *Guoqu*, and *Mahāmāyā*, but such features can be found in either text, and sometimes in both. This may be at least in part because one text could have been prepared in consultation with the other. This question, and the question of the ascription of both texts, deserves further study, but for present purposes, it will suffice to show the special relation enjoyed by both texts with the others in this group.

TABLE 4 Terms and phrases shared by ‘FX’-MPNS, *Guoqu*, *T* no. 192/ *T* no. 193, and *Mahāmāyā*, but never in ‘Guṇabhadra’

Table 4 presents a sampling of phraseology distinguishing *Guoqu* from other texts ascribed to Guṇabhadra, but shared by texts in the group comprising ‘FX’-MPNS, *Guoqu*, *T* no. 192/193, and *Mahāmāyā*. For each item, I specify, after the item itself, whether it appears in T192, T193, or both.

All 4 ‘texts’:⁶⁹

-
- 舉世 ‘the whole world, everyone’ (*T* no. 192)
 欄楯 ‘balustrades’ (*T* no. 193)
 親戚 ‘kinsfolk, relations’ (*T* no. 192)
-

⁶⁶ Willemen, *Buddhacarita*, xiv, 209, note 1.

⁶⁷ Willemen, xv.

⁶⁸ Gotō, ‘*Butsu hongyō kyō*’.

⁶⁹ For the purposes of such counts, I have treated *T* no. 192 and *T* no. 193 as ‘one text’, because of the difficulties with these texts discussed immediately above.

- 辭別 ‘to take one’s leave’ (*T* no. 192/193)
 嚴辦 ‘to lay out [ritual implements], to prepare/array’ (*T* no. 193)
 戀慕⁷⁰ ‘to feel poignant affection for, to be unable to bear parting with’ (*T* no. 192/193)
 號哭 ‘to wail and lament’ (*T* no. 192/193)
 怖懼 ‘terror, terrified’ (*T* no. 192)
 曼陀羅花 ‘mandāra flowers’ (*T* no. 192)
 解脫路 ‘the road to liberation’ (*T* no. 193; very rare)
 覩如來 ‘see the Tathāgata’
 ~之眼 ‘the eye of ~’ (*T* no. 192/193; usually only once)
 以梵音 ‘with [his] *brahmā* voice’ (*T* no. 193)
 國內 ‘in the kingdom’ (*T* no. 193)
 世尊既~ ‘when the World-Honoured One had...’ (*T* no. 192)
 我國 ‘our kingdom’ (*T* no. 192/193)
 既得 ‘having obtained/being able to’ (*T* no. 192)
 步步 ‘step for step, at every step’ (*T* no. 192/193)
 飾以 ‘to ornament/decorate with’ (*T* no. 192/193)
 共同聲 ‘with one voice’ (*T* no. 193)
 [V]已即還 ‘having [V-ed], returned immediately’ (*T* no. 193)
 所應度者 ‘those who can/should be saved’ (*T* no. 193)
 於中路 ‘in/on the road’ (*T* no. 192)
 眾妙花 ‘various wondrous flowers’ (*T* no. 192)
 而答之 ‘and replied to him/her/them’ (*T* no. 193)
-

3 ‘texts’:

- 明星 ‘a (bright) star’ (*Guoqu*, *T* no. 192/193, *Mahāmāyā*)
 父子 ‘father and son’ (*Guoqu*, *T* no. 192/193, *Mahāmāyā*)
 卿等 ‘you [pl.]’ (‘FX’-MPNS, *Guoqu*, *T* no. 193)
 後宮 ‘the inner palace [i.e. the royal harem]’ (‘FX’-MPNS, *Guoqu*, *T* no. 192)
 號泣 ‘to weep and wail’ (‘FX’-MPNS, *Guoqu*, *T* no. 192)
 拔濟 ‘to save’ (*Guoqu*, *T* no. 192/193, *Mahāmāyā*)
 死至 ‘death comes’ (*Guoqu*, *T* no. 192/193, *Mahāmāyā*)
 積財 ‘accumulate wealth’ (*Guoqu*, *T* no. 192/193, *Mahāmāyā*)
 明曜 ‘bright, shining, well lit’ (‘FX’-MPNS, *Guoqu*, *T* no. 192/193)
 澄清 ‘clear, limpid’ (‘FX’-MPNS, *Guoqu*, *T* no. 192)
-

⁷⁰ HYDCD lists this word, but the earliest instance it gives is in the Ming.

[V]已悲號... ‘having [V-ed], set to woeful wailing’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 天鼓 ‘heavenly drum(s)’ (often 天鼓自然, 天鼓自鳴, 天鼓自然鳴 etc.) (‘FX’-MPNS, *Guoqu*, T no. 192/193)
 ‘Mt. Tai’ 太山 (*Guoqu*, T no. 192/193, *Mahāmāyā*)
 悉達 Siddhārtha (in *Guoqu* in 薩婆悉達; in T no. 192 in the two *bapax legomenon* transcriptions 悉達羅他, 悉達阿羅陀; in *Mahāmāyā* in 悉達多⁷¹)
 阿私陀 Asita (*Guoqu*, T no. 192, *Mahāmāyā*)
 藍毘尼園 Lumbinī (‘FX’-MPNS, *Guoqu*, T no. 192,—extraordinarily specific⁷²)
 或在~ ‘sometimes in ~’ (‘FX’-MPNS, *Guoqu*, T no. 192)
 汝等宜 ‘you [pl.] should...’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 節節 ‘every limb/member [of the body]’ (‘FX’-MPNS, *Guoqu*, T no. 192/193)
 諫王 ‘petition the king’ (‘FX’-MPNS, *Guoqu*, T no. 192/193; surprisingly rare in translation literature)
 歡喜踊躍不能自勝 ‘jumped uncontrollably for joy’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 降神 ‘his spirit descended [into his mother’s womb—referring to the moment of conception]’ (‘FX’-MPNS, *Guoqu*, T no. 192/193)
 歌唄讚歎 ‘hymns, paeans, and joyous praise’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*; extremely rare)
 利益無量眾生 ‘benefit countless sentient beings’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 彼諸商人 ‘those merchants’ (‘FX’-MPNS, *Guoqu*, T no. 192)
 出遊觀 ‘go out on a tour of inspection’ (*Guoqu*, T no. 192/193, *Mahāmāyā*)
 聞此語已 ‘on hearing these words’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 語之言:「汝... ‘said to him, “You...”’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 佛福田 ‘the field of merit of [= that is] the Buddha’ (*Guoqu*, T no. 193, *Mahāmāyā*)
 今者宜應 ‘should now...’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 當爾之時 ‘at that time’ (‘FX’-MPNS, *Guoqu*, T no. 193)
 ~之光 ‘the light of ~’ (*Guoqu*, T no. 193, *Mahāmāyā*)
 既到 ‘when [he] had arrived’ (‘FX’-MPNS, *Guoqu*, *Mahāmāyā*)
 前至 ‘advance to [a place], go to’ (*Guoqu*, T no. 192, *Mahāmāyā*)
 驚喜 ‘in a shock of joy’ (*Guoqu*, T no. 193, *Mahāmāyā*)
 ~交流 ‘[tears and snout, or tears and blood] flow together’ (涕泣交流, 涕泗交流, 泣血而交流) (‘FX’-MPNS, *Guoqu*, T no. 192/193)
 寶輿 ‘jewelled cart’ (‘FX’-MPNS, *Guoqu*, T no. 192/193; very rare)

⁷¹ Setting aside appearances in later texts, the only other place 悉達多 ever appears in this period is *Dharmakṣema’s MPNMS T no. 374 (and T no. 375).

⁷² Other than ‘FX’-MPNS, *Guoqu* and T no. 192, the only translation texts ever to feature this transcription are T no. 386 (Narendrayaśas) and T no. 1450 (Yijing).

Utsuo's work might give us reason to suspect that at least *Mahāmāyā*, in particular, shares such distinctive language with the other texts because it takes them as its sources. In fact, however, in very many cases, where these items occur in these texts, we do not generally find relations between contexts and content of the type that would show such borrowing. Moreover, as with earlier sets of evidence, we see recurring here all types of language. Again, these recurring features together constitute evidence of a style, which sets these four texts apart from 'Guṇabhadra' and ties them closely to one another. Further, much of this shared phraseology is otherwise rather rare in Chinese Buddhist translation literature as a whole. This suggests that these 'four texts' (treating *T* no. 192 and *T* no. 193 together for the time being) are the product of the same close context or group. Future investigation should aim to discover whether these texts are linked by other features (including features of content), and whether more can be discovered about their context and links to other literature.

5. Conclusions

On the basis of the evidence presented above, we can conclude that the *Mahāparinirvāṇa-sūtra* *T* no. 7 is much closer to the style of certain texts ascribed to 'Guṇabhadra' than it is to 'Faxian'. Indeed, by the same yardstick, even 'FX'-MPNS's sister texts, *T* no. 5 and *T* no. 6, are closer to 'Faxian' than 'FX'-MPNS itself. We should, therefore, overturn the ascription to Faxian carried by 'FX'-MPNS in the *Taishō*.

At the same time, however, it is not safe to follow Iwamatsu and simply re-ascribe the text to 'Guṇabhadra'. In fact, markers distinguishing 'FX'-MPNS from the 'Faxian' corpus are found much more densely in the *Guoqu xianzai yinguo jing* than in any other 'Guṇabhadra' text. Further, a range of highly specific markers associate 'FX'-MPNS and *Guoqu* very closely with two further bodies of material, the **Mahāmāyā-sūtra*, and the *Buddhacarita* *T* no. 192 and/or the *Fo benxing jing* *T* no. 193. Stylistically speaking, these four (or five) texts comprise a tightly interrelated group, which are also connected by common themes and content.

As we saw, historical evidence strongly suggests that Baoyun may have been the real translator in the production of several important works ascribed to both Faxian and Guṇabhadra. In this light, it is very tantalising to note that *T* no. 193 is one of only three texts ascribed to Baoyun in the present canon,⁷³ and among those texts, this is the ascription that is supported by the strongest external evidence. This might make it tempting to think that the ‘FX’-MPNS-*Guoqu*-*T* no. 192/*T* no. 193-*Mahāmāyā* group might have especially close links with Baoyun himself, or that the features discussed above, which unite those texts, comprise together a fingerprint of Baoyun’s own style. In fact, however, the range of texts in which Baoyun is likely to have had a hand is much broader than only this group, and the problems involved in their study are considerable.⁷⁴ Those broader questions would take us well beyond the bounds of this study, but until they are resolved, we can say nothing reliable about the likelihood that Baoyun was involved in any or all of these texts. For the present, then, we can safely conclude only that ‘FX’-MPNS is probably not by the exact same translator(s)/author(s) as the remaining core ‘Faxian’ texts (*T* no. 376, *T* no. 745, *T* no. 1425, and *T* no. 2085); and that our best indications tie it closely, rather, to *Guoqu*, *T* no. 192 and/or *T* no. 193, and *Mahāmāyā*.

As mentioned at the outset, the above study was prepared with the aid of TACL, a suite of computer software tools designed for the discovery of evidence bearing on questions of style, attribution, and other intertextual relationships in the Chinese Buddhist canon. I hope that this study also demonstrated some of the promise and power of the careful use of those tools. It does not seem an overstatement to say that to date, without the aid of such tools, scholars in the field have been unaware of the full range, quantity and diversity of

⁷³ The others are the *Sì tiānwáng jīng* 四天王經, *T* no. 590, ascribed to Baoyun in collaboration with Zhiyan 智嚴; and the *Akṣayamati-nirdeśa* included in the *Mahāsaṃnipāta*, 無盡意菩薩品 *T* no. 397 (12), also ascribed to Baoyun and Zhiyan.

⁷⁴ I am currently preparing a systematic study of Baoyun’s possible corpus and translation style and hope to take up these questions again in that work.

evidence, like that examined here, that might exist in any given body of text. In comparison to the copious quantities of evidence discussed here, and the diverse range of types of language that can serve as distinctive markers on either side of a given comparison, I suggest that the handfuls of hand-picked (supposed) markers deployed in prior studies often now look impressionistic, scattershot and shaky. In this light, it will probably be necessary to re-examine even the small number of problematic ascriptions that have been critically studied on the basis of internal evidence in prior work.

At the same time, however, I believe that the present paper amply shows that these new tools promise to allow us to come to grips with such questions far more effectively than in the past. The mind boggles at the likely number of such problems that have probably slept for centuries beneath the surface of the canon, and the likely scale of the task of analysing the potential evidence, if it everywhere presents such an embarrassment of riches as here. If we can rise to the challenge, however, I also believe that such techniques might allow a profound and rigorous revision of the entire textual-evidential basis for many of our most important historical questions.

Appendix I

Matches Found in *T* no. 1425 and *T* no. 1427

- T* no. 1427, 22: 1.557b24–c1 = *T* no. 1425, 22: 36.521b29–c6
(nearly 100 characters);
T no. 1427, 22: 1.557c9–22 = *T* no. 1425, 22: 36.521c18–522a2
(well over 200 characters);
T no. 1427, 22: 1.558b2–9 = *T* no. 1425, 22: 37.523c26–524a8
(over 150 characters).

We also find pericopae (e.g. individual rules, or verses) shared more or less verbatim between *T* no. 1427 and other texts, some of which appear in more than two texts (including *T* no. 1421, *T* no. 1422a/b, *T* no. 1428, *T* no. 1431, *T* no. 1435):

- T* no. 1427, 22: 1.556b4–17 = *T* no. 1437, 23: 1.479a26–b10
(verse, slightly over 100 characters) = *T* no. 1422a, 22:
1.194c12–25, *T* no. 1423, 22: 1.206c1–14, *T* no. 1426, 22:
40.549a27–b11, *T* no. 1436, 23: 1.470c4–17;
T no. 1427, 22: 1.558c3–5 = *T* no. 1425, 22: 9.302b10–12
(a rule plus a gloss, over 30 characters), *T* no. 1421, 22:
4.27b28–29 (the rule only, without the gloss);
T no. 1427, 22: 1.558b22–24 (a rule, over 35 characters) =
T no. 1428, 22: 23.727c7–9, *T* no. 1431, 22: 1.1033c4–6;
T no. 1427, 22: 1.559b9–12 = *T* no. 1425, 22: 10.315b25–28
(a rule, over 50 characters), *T* no. 1426, 22: 1.551c17–20,
T no. 1435, 23: 8.54b8–12, *T* no. 1437, 23: 1.482a18–21;
T no. 1427, 22: 1.559b21–22 (a rule, over 20 characters) =
T no. 1435, 23: 8.55a17–18, *T* no. 1435, 23: 8.55a17–18;
T no. 1427, 22: 1.564c29–565a1 = *T* no. 1425, 22: 27.447a5–7
(verse, 28 characters), *T* no. 1421, 22: 7.46a12–13, *T* no.
1422b, 22: 1.206a27–28.

For *T* no. 1437, we find a similar pattern, but notably, the longest matches are most frequently with *T* no. 1435 (which, unlike *T* no. 1425, is not ascribed to Faxian, and so all the more a possible source of contamination of the ‘stylistic signal’). For example, a paragraph

around 200 characters long corresponds verbatim, with a few variant readings: *T* no. 1437, 23: 1.481a12–22 = *T* no. 1435, 23: 43.311a19–b2.

The total portion of each text comprised by such verbatim overlaps with other larger translations is large. For example, in *T* no. 1427, approx. 70% of the text is accounted for by verbatim matching strings of 8 characters or more in length with the four main *Vinaya* translations of the early fifth century (*T* no. 1421, *T* no. 1425, *T* no. 1428, and *T* no. 1435). In *T* no. 1437, the proportion of the same overlaps is approximately 67%. To give the reader some sense of the extent of this phenomenon, I have arranged each the two lists of overlaps from *T* no. 1427 above in the order in which they appear in the text.

Appendix II

TACL methods used in this study

TACL includes a range of separate functions. For the convenience of the reader, I here provide a list of the basic functions deployed in this study, keyed to the places where they were used.

tacl difference: Finds all contiguous strings unique to each side of a comparison between two (or more) bodies of text. Examples:

- ‘FX’-MPNS versus other solid ascriptions to ‘Faxian’ (*T* no. 376, *T* no. 745, *T* no. 1425, *T* no. 2085): Table 1, p. 236 ff; Table 2, p. 240 ff.
- *T* no. 2085 versus other Faxian texts (*T* no. 376, *T* no. 745, *T* no. 1425): fn. 10.
- *Guoqu* versus ‘Guṇabhadra’, Table 4.

tacl intersect: Finds all overlapping literal and contiguous strings between two or more bodies of text. Examples:

- *T* no. 1427 intersect [*T* no. 1421, *T* no. 1425, *T* no. 1428, *T* no. 1435]: Appendix I.
- *T* no. 1437 intersect [*T* no. 1421, *T* no. 1425, *T* no. 1428, *T* no. 1435]: Appendix I.
- *Guoqu* intersect F69, fn. 54.

tacl search: Takes a list of multiple n-grams (sometimes many hundreds) and searches every text in the entire canon for all of them. Outputs a list and count of n-grams from that set found in every text. This allows the user to easily find places in the canon where a given set of n-grams are most (or least) concentrated. Examples:

- Items from Table 2 in *T* no. 5 and *T* no. 6: ‘In both *T* no. 5 and *T* no. 6 we find a large number of exactly the markers listed in Table 2 above as distinguishing the Faxian corpus from “FX”-MPNS...’, p. 253–54, and fn. 40, fn. 41.
- Items from Table 1 in ‘Guṇabhadra’: ‘...our markers of “FX”-

MPNS against other Faxian works are far from evenly distributed in the Guṇabhadra corpus...’ p. 259.

- ‘...measured by the same criteria, one work outside the Guṇabhadra corpus has even closer links to “FX”-MPNS than any of the Guṇabhadra works...*Mahāmāyā*’, p. 261 ff.
- ‘The *Abhinīṣkramana-sūtra* 佛本行集經 *T* no. 190 ascribed to *Jñānagupta features the next largest gross number of Table 1 markers after *T* no. 99 and *Guoqu*...’, fn. 61.

tacl highlight: Takes the results of a **tacl intersect** test (see above) and conveniently highlights in a display of one text all the overlaps with the other text(s). Examples:

- *T* no. 1427 and *T* no. 1437 overlaps with [*T* no. 1421, *T* no. 1425, *T* no. 1428, *T* no. 1435], Appendix I (I used this function to arrive at percentage estimates of the proportion of overlap to the whole text).
- Overlaps between *Guoqu* and F69, fn. 54.
- ‘...we do not find the sorts of overlaps in content and context that would indicate direct borrowing from one text to the other... [viz. “FX”-MPNS and *Guoqu*],’ p. 261.
- ‘...not all the distinctive phraseology overlapping between the two texts can be accounted for by *Mahāmāyā* borrowing and reworking whole passages from “FX”-MPNS...’, p. 262.

Tests may also be concatenated (the results of one test may be fed as input into another test). This allows operations like the following:

- [‘FX’-MPNS intersect *Guoqu*] difference [remainder of *T* no. 1- *T* no. 1692]: ‘Terms and phrases unique to “FX”-MPNS and *Guoqu* in translation literature’, p. 260.
- [*Guoqu* difference Guṇabhadra] intersect [‘FX’-MPNS, *T* no. 192, *T* no. 193, *Mahāmāyā*]: ‘Terms and phrases shared by “FX”-MPNS, *Guoqu*, *T* no. 192/ *T* no. 193, and *Mahāmāyā*, but never in “Guṇabhadra”’, Table 4.

Readers should bear in mind that users can also define upper and

lower limits for the length of n-grams in which they are interested, for maximum or minimum number of instances of n-grams, for the maximum or minimum number of works in which n-grams must appear, and so on; and that TACL also, unlike CBETA, searches the *Taishō* apparatus, and so, in principle, can take into account all the witnesses to a text consulted by the *Taishō* editors.

It should also be emphasised that TACL is only a tool or aid to human analysis. All the potential evidence that it finds must be subjected to further informed and careful analysis in context, as it occurs in the texts themselves. This phase of the analysis can only be performed by a competent human reader, and is just as difficult, and prone to error, as any other philological work. To the best of my ability, I have subjected all the evidence presented in this paper to such analysis.

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Abbreviations

CSZJJ	<i>Chu sanzang ji ji</i> 出三藏記集 <i>T</i> no. 2145.
DDB	<i>Digital Dictionary of Buddhism</i> . See Bibliography, Sources, Muller, ed.
F	Fangshan stone canon. Numbering of texts follows Zhongguo Fojiao xiehui, <i>Zhongguo shi jing</i> .
FX	‘Faxian’ 法顯, usually used in this paper to refer to the corpus ascribed to Faxian as author or translator.
‘FX’-MPNS	<i>Mahāparinirvāṇa-sūtra</i> 大般涅槃經 <i>T</i> no. 7.
<i>Guoqu</i>	<i>Guoqu xianzai yinguo jing</i> 過去現在因果經 <i>T</i> no. 189.
GSZ	<i>Gaoseng zhuan</i> 高僧傳.
M	Ming version of a text, as noted in the apparatus of <i>T</i> under the siglum 明.
<i>Mahāmāyā</i>	* <i>Mahāmāyā-sūtra</i> 摩訶摩耶經 <i>T</i> no. 383.
MPNS	<i>Mahāparinirvāṇa-sūtra</i> , in various versions.
MPNMS	(Mahāyāna) <i>Mahāparinirvāṇa-mahāsūtra</i> <i>T</i> no. 374, <i>T</i> no. 375, <i>T</i> no. 376.
P	‘Palace library’ 宮內省 version of a text, as noted in the apparatus of <i>T</i> under the siglum 宮.
<i>T</i>	<i>Taishō shinshū daizōkyō</i> 大正新脩大藏經, as accessed via CBETA. According to the standard layout for this volume, references to the <i>Taishō</i> follow the order: Text number, volume number, <i>juan</i> /fascicle number, page, column and line number. Thus e.g. <i>T</i> no. 225, 8: 2.483b17 is text 225, volume 8, fascicle 2, page 483, second register, line 17.
S	Song version of a text, as noted in the apparatus of <i>T</i> under the siglum 宋.
Y	Yuan version of a text, as noted in the apparatus of <i>T</i> under the siglum 元.

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