



Title	Internal Relationships and Dating of the Tocharian B Monastic Accounts in the Berlin Collection
Author(s)	Ching, Chaojung; Ogihara, Hirotoshi
Citation	内陸アジア言語の研究. 2010, 25, p. 75-135
Version Type	VoR
URL	<a href="https://hdl.handle.net/11094/26143">https://hdl.handle.net/11094/26143</a>
rights	
Note	

*The University of Osaka Institutional Knowledge Archive : OUKA*

<https://ir.library.osaka-u.ac.jp/>

The University of Osaka

# Internal Relationships and Dating of the Tocharian B Monastic Accounts in the Berlin Collection\*

CHING Chaojung 慶 昭蓉

Hirotooshi OGIHARA 荻原裕敏

## Introduction

There are at least 7600 numbers of manuscripts with Tocharian text,<sup>1</sup> of which less than 800 are secular documents.<sup>2</sup> In spite of two documents written in Tocharian A (found in Shorchuk) which seemingly concern some internal affairs of a monastery, all the Tocharian secular documents are written in the B language (i.e. Kuchean) and found in the area between today's Kucha and Maralbashi. Because the European expeditions paid much attention to the Buddhist sites in this region, most of the documents are monastic accounts. The *Staatsbibliothek zu Berlin* now holds the largest collection of them, which comprises mainly the discoveries in the Kizil caves. Since Kuchean documents are mostly written in a less formal ductus, and since their contents concern people's daily life – a subject which seems far removed and obscure in the eyes of modern scholars – they have not yet received the attention that they deserve. Even though a small part of them have been published, these are not yet well understood. However, Tocharian materials are important for recovering the history of

---

\* This article is written on the basis of the oral report of the same title given in the irregular lecture series *Collegium Turfanicum* No. 36 (July 2, 2008, BBAW, Berlin). We would like to express our most sincere gratitude toward the study group of the *Turfanforschung* and *Staatsbibliothek zu Berlin - Preussischer Kulturbesitz Orientabteilung* for their hospitality and interest in our work. Especially many heartfelt thanks are due to Prof. Desmond DURKIN-MEISTERERNST and our supervisor Prof. Georges-Jean PINAULT for their support and for improving our English.

1 Cf. Malzahn (2007: 79).

2 The definition of 'document' here basically follows that in Old Uighur studies (see for example *SUK* 2: viii-xv; Moriyasu 2004a: 7 n. 33; Moriyasu 2008: 127-130).

the Silk Road. Thus the aim of this article is to announce the joint authors' project, a study of the Tocharian secular documents kept in Berlin and to present some of our initial discoveries.

As it will be demonstrated in the first half of this article, many features reflect strong connections among certain Berlin documents. In fact, around 80% of the Berlin documents belong to the same monastic community (*saṃgha*) living in the Kizil grottoes. For convenience, here we call this majority as the 'main group'. Just as the monastic accounts found at Duldur-akhur, this group provides detailed data about a *saṃgha*. Only some series found in Dunhuang and Turfan can be compared to these two assemblages.<sup>3</sup> In the second part, we try to date the *main group*. It has been assumed that the Kuchean secular documents written on paper reflect the final stage of the Tocharian languages. A representative work is written by Dr. Schmidt (2001), who suggests that they must be dated between the 10<sup>th</sup>-11<sup>th</sup> centuries, in the period of the Uighur Kingdom.<sup>4</sup> But in our view, no matter when the Tocharian languages ceased to be in use – this is another issue in the Tocharian studies – it would be better to place most paper documents between the late 7<sup>th</sup> century and the early 9<sup>th</sup> century. While this statement is rather safe for those kept in Paris,<sup>5</sup> more arguments need to be established in order to draw the same conclusion for the ones kept in Berlin. Thus we will demonstrate several pieces of evidence, especially the local currency, the dating of the king *Kṣemārcune* mentioned in the *main group*, as well as a few administrative

---

3 The concept of assemblage is borrowed from archaeology: it means a group of different artifacts found in association with one another. In other words, a document assemblage in this article is assumed to be excavated from the very same locus, possibly belonging to the same social group in the past.

4 Precisely speaking, the kingdom of the West Uighurs (*westuigurisches Königreich*), ca. the second half of the 9<sup>th</sup> century to the 13<sup>th</sup> century CE (cf. Moriyasu 1991: 3; Moriyasu 2004c: xvi).

5 Some arguments are presented in Ching *forthcoming* and Ching and Ogihara *forthcoming*. More discussions are given in Ching (2010).

terms and customs borrowed from Chinese (including *kapci* ‘finger-measure’).

## I. Internal relationships

In 1948, Krause gave a general description of the ‘original texts not translated from the Sanscrit’ in the Kuchean manuscripts kept in Berlin. He divided them into three categories: (1) ‘A fairly large number of monastery-accounts.’ (2) A business letter found together with the monastery-accounts. (3) ‘The middle part of a love-poem.’ Then in Sieg’s monumental article (1950), the accounts<sup>6</sup> were sorted into two types, of which the second is characterized by the occurrences of a strange word *kapci*.<sup>7</sup> Sieg and Siegling’s posthumous work, *TochSprR(B)II*, provided the transliteration of a certain number of Kuchean economic texts kept in Berlin (Nr. 433-494), of one Kuchean letter kept in London (Nr. 495) and of the love poem (Nr. 496).<sup>8</sup> However, the grouping of these scholars becomes very problematic when the unpublished

---

6 Sieg (1950: 208) states that these materials were evidently written with brushes instead of reed pens. However, Prof. MORIYASU Takao, with whom we consulted the problem, considers that the usage of reed or wooden pens is still possible for some fragments among them. Since there are ambiguous cases, we would prefer not to dwell on this issue for the moment.

7 Krause notes that illiterate persons signed the documents with ‘the measure of their thumbs’. This expression (see also Sieg 1950: 216-217 ‘*Daumenmaß*’) was unfortunately misunderstood as 拇印 (‘thumbprint’) and ‘fingerprint’ by Inokuchi (1961) and Adams (1999), respectively. See n. 86.

8 Following Sieg’s observations, the texts Nr. 433-489 are classified in *TochSprR(B)II* into four groups:

1) Nr. 433-458 : an ordinary type of monastic accounts.

2) Nr. 459-473 : another ordinary type characterized by *kapci*.

3) Nr. 474-483 : a mixed type between 1) and 2).

4) Nr. 484-489 : another kind of accounting reports (*Rechenschaftsberichte anderer Art*).

This classification was slightly modified by Inokuchi (1961).

pieces (especially THT2679-2950)<sup>9</sup> are taken into account. Our new scheme will be introduced in the following section; this will also revise the classification of the published documents (see Table 1).

### A. Material features

The first step to trace back the internal connections among the Berlin documents is to look at the provenance. However, the information presently available is not precise enough to allow us to do this. Generally these materials are found in the Kizil grottoes,<sup>10</sup> but only a few pieces are characterised with specific findspots such as *obere Berghöhle*.<sup>11</sup> All the wooden pieces are also temporarily excluded, because there is no evidence for any possible connection to the paper ones. For the rest of the documents, only the running numbers after the letters MQ (*Ming-öi Qizil*) exist. But these running numbers in the most cases merely show the order of putting the pieces into packages, taking them out and conserving them, thus they are far from sufficient to indicate the exact finding spot(s). The documents THT2679 to 2950 even lack running numbers.

Therefore the physical features have to be observed. Firstly, several pieces can be easily sorted out by their different appearances as regards paper texture, paper condition, ductus and other features.<sup>12</sup> They are in contrast with the remaining ones with similar paper and in similar state of preservation. These latter similar pieces

---

9 In the numbers THT2679-2950, THT2805 and 2806 are religious texts, and 2808 a writing exercise. THT2807 is a religious text written on the verso of a fragment of the Chinese *Mahāparinirvāṇasūtra* (cf. T. 374, p. 439a19-26; T. 375, p. 680c11-19).

10 Cf. Sieg 1950: 208.

11 Namely the assemblage of Nr. 459, 461, 462, 469, 471 (= THT459, 461, 462, 469, 471) with the mark “MQ 5 *obere Berghöhle*”. The small fragments under the number of THT2847 without the mark of findspot should belong to it as well.

12 The documents with unusual features include a small set consisting of THT2692 and 2852, two paper *laissez-passer* (THT1555 and 1586), a fragment THT2701 and several other ones. They are treated in Ching 2010.

consist of the overwhelming part of the *main group*. But some pieces with a different appearance should nevertheless also belong to this group. For instance, Nr. 463 (= THT463), a more greyish and dirty piece with a different ductus, undoubtedly belongs to the *main group* because of the characteristic signatures of the two active clerks, *Yotkolau*<sup>13</sup> and *Swāmi Aśari* (see *infra*). The lost letter Nr. 492 (= THT492) possibly belongs to the same group, too, because the addressee *Āryawarme* (Skt. *Ārya-varman-*)<sup>14</sup> is also the name of an active clerk appeared in that assemblage. Though no photograph of Nr. 492 survives, it was once reported that the ink had faded notably.<sup>15</sup> Thus it is legitimate to guess at the quite distinct appearance that it will have had from other published pieces. Nevertheless, these atypical fragments would require much more space than can reasonably be allotted to them in an introductory article of this kind.

### Shape

Generally speaking, the accounts in the *main group* were written on one side only (except for a specific sign on the verso, see p. 95). Paper edges are significantly damaged, so that no intact piece of paper is preserved except for the long specimen Nr. 433 (= THT433) that Sieg (1950) presented. Accordingly, it is nearly impossible to order them by their contents, since the notation of years and months, if it was ever written in one of the corners, has been lost for most leaves. Fortunately, the damage is informative in itself. In fact, since many documents resemble each other in shape, they must have been kept in stacks when they were found by the excavators. In order to restore the stacking

---

13 In Berlin documents *Yotkolau* was usually written as *Yotkolo* with a monophthongization of the last syllable.

14 In this article, all the proper names, titles and/or positions attested in Kuchean sources are always given as such. The corresponding forms in other languages shall not be directly used but noted in parentheses.

15 *TochSprR(B)* II: 305-306.

sequence, the features of the fragments must be recorded as meticulously as possible.<sup>16</sup>

### Texture, color and stains

On the basis of our research, it is safe to say that the paper color of the overwhelming majority of the *main group* is highly homogenous.<sup>17</sup> However, as to the paper thickness, cloudiness and pulp ingredients, we can only say that the *main group* appears much the same according to human vision, since these fragments are conserved between sheets of glass and certain published pieces are even glued on backing paper. The significant physical homogeneity implies that these accounts may have been written over a rather limited period, instead of being accumulated by several generations.

The pattern of stains and moldy patches on the pieces of paper is very helpful for verifying the sequence. These kinds of dirt are generally due to the moldiness of the paste (used for glueing the paper at junctures), the effects of water, and a sort of water-soluble purple dyestuff of uncertain origin.<sup>18</sup> Since the outer edges of the paper are more likely to break off during the excavation and later processes, the subtle traces of stains and mold give us more reliable information about the actual sequence the fragments were in when they were found by the Germans. The result of this cross-check

---

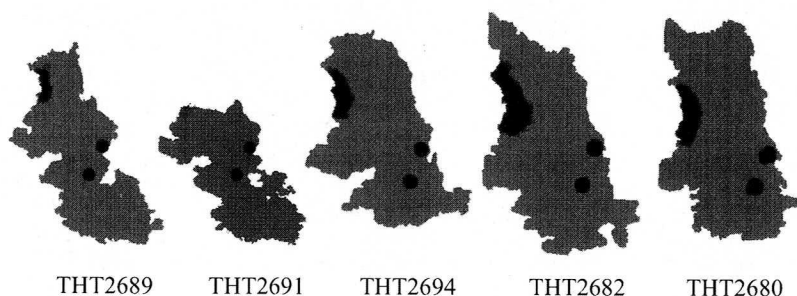
16 To start with, several sub-groups were established by sorting and arranging them roughly according to their contours by using Adobe Photoshop. The result of this preliminary sequencing is served as the operational basis for later analysis. But numerous fragments remain hardly classifiable, mainly due to their tiny size or their severe mutilation.

17 Judging from the TITUS images, the paper color seems highly variable. But actually it mostly falls into the range of 10YR7/3 'very pale brown' to slightly darker 10YR6/3 'pale brown' according to the Munsell Soil Color Charts (Year 2000 Washable Edition). The color 10YR7/3 corresponds to '*chamois a*' as termed by French scholars. On the Munsell color system, see the evaluation of it in Drège (1987-1988).

18 If Le Coq's description is reliable, this kind of violet-red dye may result from the excrement of cave-nesting pigeons which used to feed on certain fruit rich in natural pigment (Le Coq 1985[1928]: 143).

is quite intriguing. Not only can the preliminary sequencing be confirmed to a large degree, but also can certain operational subgroups be then integrated into some longer series.<sup>19</sup> These traces even help greatly to regulate the sequencing when the shape of two or three leaves just look indistinguishable. Hence we know that the bulk of the *main group* was originally kept or deposited in a very few piles before the discovery.

**Figure 1: Some diagnostic stains  
(shadowed area) on the fragments**



### **Wire lines (French *vergeure*, Chinese 簾紋, Japanese 漉き縞)**

Drawing on the results of Pan Jixing's research, the interval of wire lines is an important parameter to judge if the paper was made in Northwestern China (a geographical area lacking bamboo) or imported from a more temperate region. In local products of Xinjiang around the 7<sup>th</sup>-9<sup>th</sup> centuries, whenever wire lines are observable, these should be of an interval approximately between 5 to 7 lines/cm, significantly looser than the contemporary products in the east, of which the interval is between 9 to

<sup>19</sup> The piling direction presented in **Plate I-III** is so arranged for easy looking. It is possible that it was effectively in reverse, but right now this is uncertain. However, if the monks had put the older accounts on the top of piles, then THT2683 (i.e. the bottom illustrated in **Plate I**) can be seen as the top of that pile.



15 lines/cm.<sup>20</sup> The paper of the *main group* is characterized by the interval of 5 to 5.5 lines/cm – whenever the measurement are not impeded by the backing paper – with the wire lines often a little curved. We may say that the paper of the *main group* is very probably a local product, principally rough but of stable quality.

## B. Content

The content also indicates a high correlation inside the *main group*. As a result, these accounts can be classified according to the contents as follows:

Type 1. Cereal consumption and donation/giving

1-a. Internal: Daily consumption inside the *saṃgha* and the relevant donation/giving.

1-b. External: Daily consumption for the “outsiders”.

1-c. Combination of internal and external expenses.

Type 2. Oil and ghee consumption (and donation/giving)

Type 3. Management affairs

An essential fact must be emphasized before presenting each type: this typology is highly correlative to the typology based on the fragment outlines. The shape of the Type 1-c document (only THT2705) is symmetrical.<sup>21</sup> As to those more fragmentary

---

20 The statement drawn here is a largely simplified one extracted from the work of Pan (1979: 63, 185, 188-189).

21 It is interesting that the outlines of several fragments of Type 1 are either symmetric (i.e. Nr. 440 and probably THT2704) or approximately corresponding with each other with a mirror image symmetry according to the horizontal axis (e.g. Nr. 446 and 447, Nr. 443 and 444, see the TITUS images). Another part of the axial symmetric fragments is in Type 3 (e.g. Nr. 464-466 = THT 464-466). It implies that some Type 1 and Type 3 documents were folded upside down when they were found, thus not all of the monastic accounts were piled as illustrated in **Plate I-III**.

### Type 1. Cereal consumption and donation/giving

**Nr. 434 (= THT434)**

2    ///  [p] · <sup>1</sup> r · <sup>2</sup> śsiyempa śka śem, yaksai śawā – <sup>3</sup> ///


*pas*

4 pañcwarike cittaraksite lyāka  saṅkastere [ā]ryawarme śa[r]sa ||








7 pañcwarike cittarakṣite lyāka  saṅkaṣṭere āryawarme śarsa 

10 pañcwarike cittarakṣite lyāka  saṅkastere āryawarme śarsa

( 83 )

- 11 *ñu meñantse ne kapyāres, klese wi taum, wākte tau wi ša(n)kaṃ amokc[e]s*  
 12 *[y]ikšye tau*  
 13 *[pa]ñcwarike cittarakṣite lyāka*  *saṅkāstere āryawarme (śarsa)///*

(SIGNATURE ON VERSO)

- 1 */// To (someone): [wākte] ... ///*  
 2 *///*  *... arrived here with .... He/They ate yaksai: ///*  
*back(?)*  
 3 */// To the artisans: yikšye, 5 pints. \_\_\_\_\_ ///*  
 4 *Cittarakṣite the Pañcwarike has seen.*  *Āryawarme the Saṅkāstere has*  
*recognized. ///*  
 5 *On the seventh day of the month. To the kapyāres, klese is gone: three pecks.*  
*wākte, two pecks.*  
 6 *To the artisans: yikšye, 5 pints. \_\_\_\_\_*  
 7 *Cittarakṣite the Pañcwarike has seen.*  *Āryawarme the Saṅkāstere has*  
*recognized.*   
 8 *On the eighth day of the month. To the kapyāres: klese, (one) peck, five pints;*  
*wākte, (one) pecks. ... ///*  
 9 *The shepherd women went to Tenke. To the artisans: yikšye, 5 pints.*  
 10 *Cittarakṣite the Pañcwarike has seen.*  *Āryawarme the Saṅkāstere has*  
*recognized.*   
 11-12 *On the ninth day of the month. To the kapyāres: klese, two pecks; wākte, (one)*  
*peck, two pints. To the artisans: yikšye, (one) peck.*  
 13 *Cittarakṣite the Pañcwarike has seen.*  *Āryawarme the Saṅkāstere (has*  
*recognized.)*

**Notes on the transliteration:** [line 2] 1. *[p]* or *[ʃ]* 2. *r[i]* or *r[e]* 3. Perhaps *śawā[te]* (med.-pass. pret. 3sg. of *śu-* ‘eat’) or *śawā[re]* (med.-pass. pret. 3pl. of *śu-*).

**Note on the translation:** [line 9] *Tenke* may be an ethnic or a tribal name, which may be compared with a non-Chinese habitant whose surname was written as 鄧 *dèng* in Cp.32b, cf. Trombert 2000. However Adams (2009: 6) thinks that it means ‘± (sheep) fold, (lambing) pen’.

As shown above, the consumption was registered by the day. Generally after every four to five days, a clerical authentication was introduced:

<i>Pañcwarike</i> A <i>lyāka</i> [SIGNUM]	<i>Saṅkāstere</i> B <i>śarsa</i> [SIGNUM]
A the <i>Pañcwarike</i> has seen.	B the <i>Saṅkāstere</i> has recognized.

In this formula, *lyāka* is pret. 3sg. of the verb *lāk-* ‘see, look at’ and *śarsa* pret. 3sg. of the verb *kārs-* ‘know’. It is very comparable with the expressions 見 *jiàn* ‘see’ and 知 *zhī* ‘know, recognize’<sup>23</sup> in the tradition of Chinese documents. Moreover, there seems to be two levels of clerks supervising the anonymous scribe, who may have been the real person charged with handling the foodstuffs. Such a frequent and

23 For example, in a Turfan Chinese account dated before 640 CE (高昌某寺月用麥·粟·錢·酒帳, cf. Chen 1997: 355-360), where the ‘Owner/Chief-of-the-monastery’, simultaneously a high-level monk (上座寺主 *shàngzuò sìzhǔ*), checked the text and left the notation ‘recognized’ (知 *zhī*, cf. *ibid.*: 64-65). It is interesting that a *Pañcwarike* called *Dharmasene* (Skt. *Dharma-sena-*) signed with 見 *jiàn* ‘sight, see’ in the upper fragment of THT2690. Another *Pañcwarike* called *Indrarakṣite* (Skt. *Indra-rakṣita-*) signed with *ṣotri* (lit. ‘signature, mark’, THT2679.9) and even simply *ṣo* (THT2680.6).

intensive control is rarely found elsewhere.<sup>24</sup> However, it is difficult to judge whether this procedure was followed for ‘each single delivery’ as Krause (1948: 49) had claimed. The frequent appearance of the position *Pañcwarike* is noteworthy. Ching supposes it to be the equivalent of an unknown Sanskrit form *\*pañca-vārika-*,<sup>25</sup> which could either mean the monk ‘charged-with-five-matters’, or alternatively, five monks to be nominated for the same position. As thus far known to us, the word *Pañcwarike* is only attested in the Kizil documents, thus we cannot deny the possibility that it was a local invention.

Cereal consumption was generally divided into two categories – one for the provision of the *saṃgha* and the other for the food given to lay people, mostly lay workers and servants. But in Nr. 433 (Type 1-a), donation or food giving was also recorded with the consumption.<sup>26</sup> The lay consumers including



24 For example, in the account mentioned in n. 23, the supervising clerks checked the accounts once a month. And so did the clerks of another Gaochang monastery for their account published in *TCW* 3: 225-234 (高昌乙酉丙戌歲某寺條列月用斛斗帳歷). The severity of control revealed in the *main group* can be compared with a series of pre-Tang monastery accounts (高昌僧眾糧食帳) published in *TCW* 3: 356-360, and a Tang one (唐于闐神山某寺支用歷) found in Khotan (i.e. Or. 8211/969-72, cf. Chavannes 1913: 205-216; Ikeda 1996; Chen 1997: 489-499).

25 On the element *-vārika-*, cf. Schopen 1990 and Silk 2008: 101-125. The etymology proposed by Sieg (1950: 212) which was adopted by Pinault (1994: 97) for *pañcwarike* as Skt. *pañca-vaṭika-* ‘*contrôleur des cinq sortes de figuiers*’ should be overridden.

26 We see at least a donor *Taiṣṣi* (Nr. 433.14), which was previously read *naiṣṣi* due to the fact that the difference between the *n* and *t* in the varieties of informal *brāhmī* script are usually indistinguishable. *Taiṣṣi* can be understood as 大師 *dāshī* ‘master’ or 大使 *dāshī* ‘great commissioner’. See the recent comments on Khot. *thaiṣṣī* by Yoshida (2006: 23, 43 n.33; 2007: 467-469; 2008: 114-115). Given that the verbs *kāl-* ‘lead, bring’ and *kālp-* ‘get, obtain’ are normally used for denoting tenants’ payment and harvest conveyance in Kuchean documents (cf. TH476, 477 belonging to the *main group*), we intend to see the “giving” in these accounts as donation.



4     /// (sā)ñ(k)i(ś) śaly[w]e masa śaṅk kewye \_\_\_\_\_ ///

5             /// l(y)āka              saṅkāstere āryawire śar[s]a [  ]

---



6                             /// – ///

1     /// ... ///

2     /// for the lamp in (the place of) *warwantsa* ..., ///

3     ///[cow's]. \_\_\_\_\_ On the fourth day, the oil/ghee to the *saṃgha*: (one) pint,  
cow's. \_\_\_\_\_ ///

4     /// the oil/ghee [to the *saṃgha*] was spent: (one) pint, cow's. \_\_\_\_\_ ///

5     /// (the *Pañcwarīke*) has seen.  *Āryawire* the *Saṅkāstere* has recognized. [  ]

6     /// ... ///


**Note on the translation:** [line 2] *warwantsa* seems to be a kind of occupation or identity, formed with the suffix *-ntsa* (cf. n. 43). But presently we are not sure whether it comes from the verb *wārp-* ‘partake’ (subjunctive stem *wārpā-*) or *wārp-* ‘surround’ (subjunctive stem unattested).

#### THT2721

1     /// –        ///

2             /// – *kalāś*\_\_\_\_\_ ///

3             /// – (śa)l(yw)e [yw]ārtsa śaṅk\_\_\_\_\_ ///

4     ///  (sañ)[kast](e)[r](e) āryawarme śarsa ///

5     /// *ne* kawye<sup>1</sup> śalywe ywārtsa śaṅ<sup>2</sup> \_\_\_\_\_ ///

6     /// *saṅkastāṃne*<sup>1</sup> *cokiś* śaṅ *mlyakat*[au](ś)ś(e)<sup>2</sup>





accounts.<sup>33</sup> But as reflected in THT2843, the internal and the external expenses are combined together. The same fragment seems to also combine the records of ghee and that of *mlyokotau* oil, as well as the usages for cooking and lighting – if the readers accept that the *warwantsa*\* people would not deserve cow's ghee for their lamp oil. The combination of all the involved outgoings may due to the minor quantity of *şalywe* compared with the staple foods.<sup>34</sup>


Let us return now to the aspect of monastic organization. Two *Saṅkāsteres* are commonly seen in both Type 1 and 2, *Ślacandre* and *Āryāwarme* (Skt. *Śīla-candra* and *Ārya-varman*-). A handover from *Ślacandre* to *Āryawarme* is seen in Nr. 433 (Type 1-a), while another handover in the reverse direction can be seen in the unpublished THT2705 (Type 1-c). So we cannot exclude the possibility that even the high position of *Saṅkāstere* may have alternated among the elders. Therefore, although *Saṅkāstere* is literally equivalent to Skt. *saṃgha-sthavira*-, we avoid translating this position in the *main group* straightforwardly as 'the senior-most monk in the monastery'.<sup>35</sup> The rate of alternation of the *Pañcwarike* seems to be more frequent. According to texts of Nr. 433 and the unpublished manuscripts THT2689 (Type 2), the tenure varied from one or two days (*Sarwaṇatewe*, Nr. 433.13), two or three days (*Prajñākaracaṃdre*, Nr. 433.19), four days (*Āryatewe*, Nr. 433.23-30) to five days (*Kṣemarakṣite*, THT2689.9). More than that, the names and the signatures of the *Pañcwarike* appearing on the Type 1 accounts and those on the Type 2 accounts during the tenure of the same *Saṅkāstere* do not overlap, so there seems to be at least two *Pañcwarikes* at the same time in this *saṃgha*. Thus we can suggest that with respect

33 The Kuchean verb *ai*- 'give' is perceptible in THT2715, 2719 and 2839, but they are severely broken. Interestingly, according to THT2693 (type 2 or 3, **Plate I**), the monastery bought the *mlyokotau* oil needed for one year (at least 6.1 pecks) and it seems that the monastery acquired some *mlyokotau* oil by processing or bartering *mlyokotau* seed.

34 On the measure units attested in the *main group*, see Appendix I.

35 Translation cited from Silk 2008: 144, which is well granted by *Vinaya* texts.



4     ///                      *Ṣarṣire* has seen. This (is) the finger-measure. 

5     /// ... we have done. I gave an announcement-letter(?) (and) coins: hundred.

**Note on the transliteration:** [line 5] *[ka]ṃte* can also be read as *[ka]ṃn(t)e*.

**Note on the translation:** [line 5] Given the shift of accent on *parso* ‘letter’, *pārso-ṇatti* must be a compound. We think that the second element *ṇatti* (a hapax) is a Prākṛit form of Skt. *jñapti*, cf. Pāli *ṇatti* ‘declaration, announcement’.

**THT2773 + 2920 + 2927**

1     /// –    *waltsauc[c]ai* ///

2     ///     *yirpṣuki putteyāne · e* ///

[BLANK: 1 LINE]

3                      */// · e yarkne yi* ///                      */// lo* ///

1     /// ...    ... the miller(?) ///



2     ///     *Putteyāne* the *Yirpṣuki*(’s finger-measure) ///



3                      */// ...* ///

**Note on the translation:** [line 1] *waltsauc[c]ai* (a hapax) must be the oblique form of *\*waltsauc(c)a*, a position or an occupation derived from *wālts-* ‘grind, crush’.



Cf. *TEB*(I): 189 (§323). The broken word *k · [r]c[c] · ///* in the next specimen stands seemingly for another position or occupation. [line 3] *yarkne* (a hapax) may relate to the root \**yärk-*, cf. Toch. B *yarke* ‘honor’.


# **THT2791 + 2928**


- 1 [illegible]
- 2 *///*  *k · [r]c[c] · ///*
- 3 *///*  *yirpşuki putte[yā] ///*
- 4 *///* *sucāne lyāka se ka[pci] ///*

- 1 [illegible]
- 2 *///*  *... ///*
- 3 *///*  *[Putteyāne] the Yirpşuki('s finger-measure) ///*
- 4 *///* *Sucāne* has seen. This (is) the finger-measure *///*

# **THT2748 + 2787 + 2817 + 2923**

- 1 [illegible]
-  (SIGNATURE ON VERSO)
- 2 */// - tt · wyai kşuttar yap*
- 3 */// (me)ñatse ne puttātāse yap ri[n]e ///*
- 4 */// - re [y]o[t]kolo lyāka*  *[p]u · t · - - ///*
- 5 *///* *yirpşuki putt · y(ā)ne(nt)[s]e ///*

- 1 [illegible]  
 2 /// ... outlay of miscellaneous barley.  
 3 /// in ... (day) of the ... month, *Puttatāse* (Skt. *Buddha-dāsa*-) ... barley in/to  
 the city/town ///  
 4 /// ... the *Yotkolo* has seen.  ... ///  
 5 /// *Putteyāne* the *Yirṣuki*'s (finger-measure) ///

**Note on the transliteration:** Line 1 may be reconstructed as: (*śar*)[*s*](*a*) (~~——~~)  
 (*Yirṣ*)[*uk*](*i*) (*P*)[*u*]- ///

**Note on the translation:** [line 2] Actually it means ‘miscellaneous expense of barley’.

#### THT2749 + 2818

- 1 /// (*t*) · *wyai kṣuttar* · *yap* ·  
 2 /// [*k*]ne *ñu śāmnasa śwaiylyāṅk yap*<sub>[~]</sub> · *e* - · *e* ///  
 3 /// [*ok*]o - *t<sub>u</sub>[n]ek* · *man*<sub>1</sub> · *yirpse*[*m*] · ///
- 1 /// ... outlay of miscellaneous barley.  
 2 /// in (... day?), in (the amount for) nine persons, the barley for the tax of  
*shùiliáng*... ///  
 3 /// [fresh grains] ... Therein we have checked ... ///

This kind of documents involves the business of milling, seed preparing for sowing, the storing of grains by the gross, animal husbandry, records about money and other affairs. Although they are usually quite fragmentary, a specific set of titles is often

detectable. Two among them – *Swāmi Aśari* and *Yotkolau* – must refer to certain important members of the clergy. The former seems to be the ultimate controller of the external management, because this position occurs with the supervisory formula ‘(he) has recognized’, while the position *Yotkolau* is combined with the formula ‘(he) has seen’ whenever the passages of the authentication are perceptible. These two clerks generally left their signatures on the left side of the piece of paper. On the right side, another person identified as *Yirpşuki\** (m.) authenticated himself by a *kapci*. In several cases, a female person identified as *Yirmakka\** (f.) also made a *kapci* together with the *Yirpşuki\**.

The word *Swāmi* in the expression *Swāmi Aśari* very probably came from Skt. *svāmin*- ‘owner’, and *aśari* is the Kuchean form of Skt. *ācārya*- ‘master’ (through a Prākṛit intermediary). It is not easy to determine whether this expression is a real compound or only a juxtaposition of an occupation and a honorary title. However, with regard to the rule of accents in Kuchean, it seems preferable to separate these two words. Its function may have been similar to that of Skt. *Vihāra-svāmin*- ‘Owner-of-the-Monastery’.<sup>36</sup> On the other hand, the position *Yotkolau* is derived from the causative stem meaning ‘command, order’ of the verb *wātk*- as indicated by Pinault, who has recently identified this title as the Kuchean correspondence of Pāli *ārāmika-pesaka*-.<sup>37</sup>

The terms *Yirpşuki\** and *Yirmakka\** are thus far attested particularly in the *main group*. They no doubt derived respectively from the Kuchean verb *yārp*- ‘oversee, observe, take care of’ and the noun *yarm\** ‘measure’ by adding the suffixes

36 Cf. Schopen 1996 and Silk 2008: 130, 135, 142 n.24. There is no space here to discuss the ownership of the monasteries in Xinjiang in the 6<sup>th</sup>-9<sup>th</sup> centuries, but at least one thing is clear: in the Turfan area, the position 寺主 *sizhū* ‘Owner/Chief-of-the-Monastery’ was frequently occupied by monks both before and during Tang rule, as witnessed by many documents published in *TCW*.

37 Pinault 2008: 383-384.

-uki and -(k)ka respectively.<sup>38</sup> So they mean approximately ‘overseer, observer’ and ‘(female) measurement-checker’. It is noteworthy that the names of some lay servants or agents is very possibly of Iranian or even Sogdian origin. The name of the only person identified as a *Yīrpsuki\**, *Putteyāne* (*pwtyy’n*), has already been recognized by Schmidt as being Sogdian (cf. Weber 1975: 97). In addition, Ching detects a woman *Puttešira\** (gen. *Putteširatse*, cf. Sogd. *šyr* ‘good, well’), who was also a *Yirmakka\**,<sup>39</sup> a man *Puttemānce* (cf. Sogd. *m’n* ‘heart’ and the productive suffix -č in the same language) and a woman *Ušiya\** (gen. *Ušiyatse*, perhaps from Sogd. *wšy* ‘remembrance’).<sup>40</sup>

Male and female herdsmen are found in these documents. The personal occupation which was previously read *\*šattalyai* in a Type 3 fragment (= Nr. 472, THT472, the larger fragment) is better read as *šantalyai* (cf. nom./obl. sg. *šaiyye* ‘goat/sheep’; nom./obl. pl. *šānta*).<sup>41</sup> The modification has been carried out in our reading of Nr. 434. A related title or occupation (*ša*)*ntalyācai* (obl. sg.)<sup>42</sup> preceding a woman called *Nantiña\** is seen in THT2694.4. This fragment is very interesting

38 On the suffix -uki, cf. *TEB*(I): 189(§324) and Schaefer 1997.

39 The women designated as *Yirmakka* include *Kimña* (lit. ‘women of *Kim*’, Nr. 460 = THT460, Nr. 466 = THT466), *Wilāsiñi* (Nr. 460), *Lariška* (lit. ‘little lovely’, Nr. 465 = THT465), *Puttešira* (THT2900 and probably THT2821). The possible etymology of *Kim* as 金 *jīn* and the interesting signature of a *Pañcwarike Dharmarakṣite* with 金 in Nr. 440 (= THT440) have been noted by Krause (1953: 14). The signature with 金 is further seen in THT2698.

40 For Sogd. *wšy*, cf. Gershevitch 1954: 14(§102), 139(§948). A more comprehensive evaluation of the traces of the Sogdians in Kuchean documents is provided in Ching 2010.

41 The suggestion to revise the reading *\*šattalyai* to *šantalyai* as an occupation was made by Ching in a written report (2008.05.13) to Pinault with other reading notions for preparing the reading class of SI B Toch./9 and 13. In Adams’ newly issued article (2009), he suggests to the modification to *šanta*<sup>o</sup> as well. However, he tries to prove it by interpreting its meaning as ‘breeding animal’.

42 The correct form should be *\*(ša)ntalyācai*, cf. *TEB*(I): 151(§233). The genitive plural form *šantālyat[c]as* occurs in Nr. 475.3, previously read as *šattāly[a]t[y]as*. We think that it is an erroneous or hasty spelling of *\*šantālyacamts*, which is a colloquial genitive plural form of *šantālyaca\**.

because there are two broken passages juxtaposed with the woman *Nantiña\**: in line 2, a broken word *k · wyomntsai* before a woman called *Sumapriška\**; and in THT2694.8, a broken word *[k]e · [o]* – before a man called *Sumaiŷe\**. They no doubt referred to the same title *kewyomntsai* (obl. sg.), approximately ‘cattle-keeper’.<sup>43</sup>

### C. Personal signatures

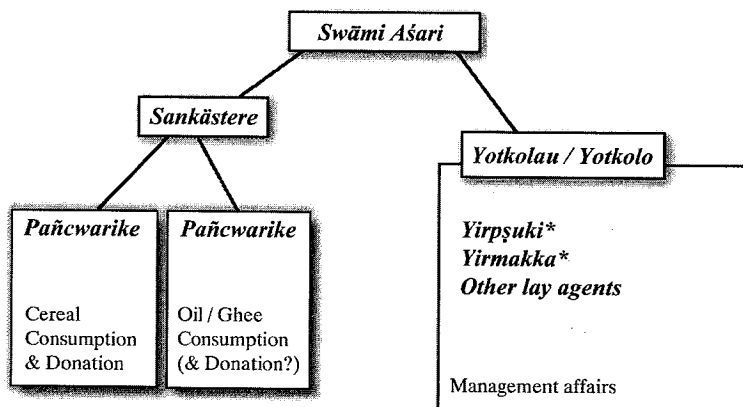
Most of the signatures found in the *main group* are monograms of *akṣaras*. But some clerks also chose to sign simply by an *akṣara* in their names (e.g. *Āryawire* in THT2843, who always signed with an *ā* lying on its side). The signatures well reveal the associations inside the *main group*. Above all, a peculiar sign nearly always appears on the verso, covering the two jointed leaves around the middle of the juncture lines. It was mentioned by Sieg (1950: 208) as ‘some Chinese characters’ when he described the longest account Nr. 433. But actually it is the signature of the *Swāmi Aśari* who undersigned many Type 3 fragments on the recto. We can still read the right part of it as *rḱšte* (Skt. °*rakṣita*-). The left part is perhaps *jva-* (for Skt. *jīva-*), so his name may be *Jīvarakṣite*. Although we must not draw too hasty conclusions about his status in the monastery, he apparently played a leading role in order to control the accounting.<sup>44</sup> The *Yotkolau* in the *main group* seems to refer to a single person as well, whose sign can be analyzed as a *satva-* lying on its side and a surrounding line. Accordingly, we would like to propose a framework of monastic institution as far as it is visible in the accounts as the following figure:

43 *\*kewyomntsai* may be solved as a combination of *ke<sub>u</sub>* ‘cow’ with the subjunctive stem *yonm-* of the verb *yām-* ‘obtain; reach’ and *-ntsai*, a suffix denoting a career or an occupation. That is, *kewyomntsai\** < *ke<sub>u</sub>* + *\*yonm* + *-ntsai*. On the suffix *-ntsai*, see Schmidt (2001b: 20) and Pinault (2008: 618).

44 For instance, in a monastic account (Or. 8211/969-72, cf. n. 24) dated around 720 CE found in Mazar-tagh, it is the Dean (上座 *shàngzuò*) as the top of the Tang system of 三綱 *sāngāng* ‘the three supervisory members’ who signed on the paper juncture. On the *sāngāng* system, the brief explanations by Gernet (1956: 7 n. 3) and Ikeda (1996) can be referred to.



**Figure 2: The monastic institution  
perceived in the main group**



A *Sankāstere* supervised more than one *Pañcwarike* in order to separately look after the daily expense and donation/giving of cereal and oil. For the bulk business, the *Yotkolau* supervised the work of lay agents or servants, among whom were responsible male(s) and females called *Yirpşuki\** and *Yirmakka\**. The *Yotkolau* responded directly to his chief, the *Swāmi Aśari*, who was very probably the final processing clerk of all the accounts in the *main group*. Presently it is difficult to decide which of the positions *Sankāstere* and *Swāmi Aśari* had the higher status in a *saṃgha*. But it seems more reasonable that the *Sankāstere*, as a religious figure, would be the most reverend one, whereas the *Swāmi Aśari* was the most active clerk in the economic domain, therefore being the most powerful person in this sense.

## II. Dating

Since the building of the Kizil grottoes stopped significantly earlier than that of the

other Xinjiang grottoes located in the east,<sup>45</sup> one may assume that the monks living there would have been forced to leave after the Tang conquest of Kucha (648 CE), because the district is far away from the center of the Kucha, and the Kuchean aristocracy might have been no longer strong enough to support those monks economically. Nevertheless, given the economic activities such as seed preparing, animal husbandry and even farming rental (*pautke*) seen in the *main group*, the Kizil grottoes very probably owned herds and estates. In this case, even if the power of Kuchean royalty became weak, the local *samgha* would have survived for some years after 648 CE.

Several inscriptions left by Chinese soldiers from the second half of the 8<sup>th</sup> century up to the 9<sup>th</sup> century imply that a significant amount of these caves have been abandoned in that period for military reasons.<sup>46</sup> Furthermore, it is notable that the Old Uighur texts discovered there are extremely scarce.<sup>47</sup> Thus, we doubt if the documents of the *main group* would be written as late as the Uighur period. Unfortunately, the highly cursive scripts found in the *main group* do not permit us to precisely date these materials with a paleographical analysis. So we choose other features to develop of our arguments.

### A. Material features

As demonstrated above, the paper used in this assemblage is rough but of rather stable quality. If one compares it with the paper used for Old Uighur documents, the latter will seem often larger and thicker. The width (or the height for the upright writing

---

45 On the review of the dating theories of the Kizil caves, see Zhao (2006).

46 Cf. Huang 1958: 36-38, Chao 2006[1993] and Xinjiang Kuche Institute of Grottoes 2000.

47 There are sporadic Old Uighur inscriptions found in the Kizil grottoes (including MIK III 420 [perhaps graffito], cf. Maue 1996: XVI, 202. See also Xinjiang Kuche Institute of Grottoes 2000). By the way, the 'Old Uighur texts' excavated at Duldur-akhur indicated by Pelliot must be Sogdian ones, which include at least Pelliot Chinois D.A. 77 and 220, cf. Trombert 2000 and La Vaissière 2005: 127 n. 29.

direction of Chinese) in particular is an important variable: the height of ordinary Chinese paper corresponds more or less with the length of one Chinese foot, but the value of this slowly increased from the 4<sup>th</sup> century to the 12<sup>th</sup> century.<sup>48</sup> The width of the paper preserved in Nr. 433 (27.5~28.0cm) corresponds well to the usual height of the Tang documents discovered in Xinjiang.

## B. Contents

We have already described how the accounts in the *main group* are characterized by the Chinese recording customs, such as the signatures on the juncture lines and the horizontal lines as marks of the end of items. Considering the wooden accounts conserved in Saint Petersburg and a few others on display in the Kucha Institute of grottoes in Xinjiang, the traditional line-end mark in Kuchean accounting is a curl like  $\partial$ , in order to avoid confusing the punctuation ‘◆’ and the figure ‘1’ which look very similar in informal *brāhmī* writing. In the *main group*, a few clerks even signed with Chinese characters (cf. notes 23 and 39). Meanwhile, it is interesting that indicators of the West Uighur Kingdom period seem to be lacking. There is no addition in Old Uighur, nor can we find any proper name or title that clearly reflects the Uighur period.<sup>49</sup> This *argumentum ex silentio* is more considerable when we know that there are several Tocharian B *Vinaya* texts found in the Turfan region with sporadic Old

---

48 Cf. Pan 1979: 64, 80-81, 173-174; especially pp. 175, 182-183.

49 There is, indeed, a combined title *Mpek Ccor* (from *bäg* and *čor* in Old Turkish, rendered in Medieval Chinese as 𐰽𐰺 *fū* and 𐰽𐰺 *chuò*, cf. Geng 2005: 13-14) attested in unpublished Cp.5, Cp.35 and Cp.38 as indicated by Pinault (2009: 237-238). But these two titles were already widely used in the period of Göktürk Empire. Another title *yapko\** found in SI B Toch./13 is ancient and continuously used (Turk. *yabyu*, Bac. *iaßyo*, Chin. 翕侯, 葉護, etc. See Pinault 1998 and Sims-Williams 2002). Thus they are not good chronological indicators to date the Tocharian materials.

Uighur notes, sometimes in *brāhmī* and sometimes in the Sogdian/Uighur script.<sup>50</sup> In fact, we can even exclude the possibility that the *main group* would have presented a *saṃgha* in the Uighur period in a more isolated environment. Here we will only mention the most decisive points.

### Units of value and currency

The money used in the *main group* is *cāne* (from Chin. 錢 *qián* ‘coins’).<sup>51</sup> As Moriyasu and many other scholars have indicated, the units of value and the currency in the West Uighur Kingdom was principally cotton bolts (*quanpu*, from Chin. 官布 *guānbù*; or *bōz*), before later shifting to silver ingots.<sup>52</sup> This fact also distinguishes the *main group* from certain Kuchean wooden documents, such as the two MQ tablets published in Sieg 1950 (= THT490, 491), which called the money *k<sub>u</sub>śāne*, literally ‘Kuchean coins’. Recently Ogihara suggested that it was derived from the combination of *\*k<sub>u</sub>śi* ‘*Qiuci* (i.e. Ancient Kucha)’ and *cāne*.<sup>53</sup> If so, the creation of *k<sub>u</sub>śāne* implies the pre-existence of the notion of *cāne* and even the concurrence of two currencies in some unknown period. Considering the diversity of the imported and

---

50 These Old Uighur glosses in published Tocharian Buddhist texts have been studied by Dr. Maue recently. According to his table (Maue 2009: 3), none of the published Tocharian manuscripts with Old Uighur annotations was found in the region of Kucha. They were found exclusively in the eastern zone between Shorchuk and Turfan.

51 Nr. 463.5, THT2730.2 and possibly THT2731.1.

52 Moriyasu (2004a and 2004b) has discussed in detail the use of copper coins as currency in the period of the Uighur Kingdom. According to him (esp. 2004a), although copper coins are very rarely attested in Uighur civil documents, certain other sources imply their usage as a local currency on a small scale, to complement the more expensive cotton and/or silver. But the importance of copper coins reflected by the Kuchean secular documents is obviously far greater.

53 The element *\*k<sub>u</sub>śi* is recovered from the Toch. B adjective *k<sub>u</sub>śiññe* ‘belonging to Kucha’ (Adams 1999: 186) with the productive adjective suffix *-ññe*. In addition to the introduction about Kuchean money in Wang (2004), a more extensive discussion of *k<sub>u</sub>śāne* against the historical and numismatic background is given in Ching and Ogihara *forthcoming*.

the locally manufactured copper coins of Chinese styles found in Kucha,<sup>54</sup> how can we know which currency is being referred to in the *main group*?

In our view, a crucial hint lies in the fact that in the Kuchean documents written on Chinese paper, money was always simply called *cāne*,<sup>55</sup> but *k<sub>u</sub>śāne* appears thus far uniquely on wooden ones.<sup>56</sup> It has been proven that Toch. B *k<sub>u</sub>śāne* corresponds to Toch. A *kśāñ*.<sup>57</sup> In exactly the same passage in the Tocharian A *Maitreyasamiti-Nāṭaka* noted by Moriyasu, Ogihara finds *kśāñ* corresponding to Old Uighur *baqir*, which has been demonstrated by Moriyasu to be mostly ‘copper coin’ in Old Uighur documents.<sup>58</sup> But as yet we do not know of any attestations of *k<sub>u</sub>śāne* or *cāne* in the Kuchean Buddhist literature, except for a broken word *k<sub>u</sub>ś(a)nemañe* meaning approximately ‘treasury’ in the Kuchean *Prātimokṣasūtra*.<sup>59</sup> Though it is too early to interpret the historical meaning of the usage of *kśāñ* in the Tocharian A literature and thus to draw conclusions about the area of its circulation, Xuanzang’s report about the multiple currencies as ‘gold coins, silver coins and small copper

54 Cf. Thierry 2000; Wang 2004: 24-29, 39-41.

55 There are, of course, several wooden pieces attesting the word *cāne*. But most are perforated small tags (so to speak ‘*étiquette*’ in Pinault 2007), and this way of labeling may have still been in common use even after the Tang conquest of Kucha (648 CE).

56 The only evidence of co-occurrence is a tablet of the Russian collection, Si Strelkov D/51, where three kinds of money are noted: *k<sub>u</sub>śāne*, *cāne*, and *tinār\** (pl. *tinārānta*, from Buddhist Skt. *ḍināra*- ‘denarius’). This tablet is very valuable because it is hitherto the only attestation for *tinār\** in Kuchean documents. Linguistically, Toch. B *tinār\** corresponds to Toch. A *tinār* (Adams 1999: 298). Although the denarius was originally made of silver in the Roman system, *tinār\** should mean golden coins in the Tocharian context as it does in Indian texts. Actually Toch. B *tinār\** corresponds to 金錢 *jīnqián* ‘golden coins’ in H 149.add 99 (= IOL Toch 222)b3, cf. Ogihara (2009: 374-375, 553).

57 Cf. Ji *et al.* 1998: 48 n. 10.

58 Cf. Moriyasu 2004a: 19-23.

59 In a passage of the *Pārājika-dharma* 2. However the Kuchean content there differed from the Chinese and the Sanskrit versions, so there is no correspondence for this word in the other languages. See Ogihara 2009: 182-184.

coins' in pre-Tang Ancient Kucha and Ancient Karashahr is still an important issue.<sup>60</sup> For the moment, the lack of evidence for the Sasanian silver *drahm* in Kuchean documents is noteworthy.<sup>61</sup> To the east, the *drahm* circulated widely in Turfan since the second half of the 6<sup>th</sup> century.<sup>62</sup> Thus it is legitimate to ask if the Kucheans possibly called *drahm* by the Chin. *qián*, just as the people living in Gaochang (today's Turfan) did in the late 6<sup>th</sup> century. In such a complicated and inconclusive historical condition, how can the exact designation of *cāne* in the *main group* be established?

The essential point is that there is no trace of differing coins in Kuchean paper documents thus far available to us. This situation is different from that reflected in the Chinese manuscripts of the 7<sup>th</sup> century discovered in Turfan, where notably the concurrence of Tang coins side by side with the Sasanian *drahms* endured for more than half a century. In that transitional period (ca. 640~710 CE),<sup>63</sup> they were usually distinguished as 銅錢 *tóngqián* 'copper coins' and 銀錢 *yínqián* 'silver coins'. It makes one think that the lack of distinction for *cāne* in the *main group* and other paper documents in the Pelliot collection should mean that there was no necessity for further definition. Thus, we think that *cāne* mentioned in these documents are Tang coins, and we will indicate below some traces which reflect the actuality and effectiveness of

60 Cf. *Xiyuji*: 54-55, 48.

61 But Huang Wenbi did find a Sasanian *drahm* in the renowned complex of Buddhist sites called Subashi (cf. Huang 1958: 28, 110), in contrast to Thierry's statement '... on doit, à cet égard, mettre en parallèle l'absence de découverte de monnaies d'argent à Kucha et l'absence de mention de monnaies d'argent dans les documents koutchéens' (Thierry 2000: 129). Besides, in a medical or magical text (W-11a6) there is a possible Kuchean equivalent of *drahm*: */// tanāñā ywā[r]c trau śakkār trākām pissau trākām '/// grains a half trau, sugar a trākām, pissau ('?') a trākām'* (cf. Adams 1999: 313). But it seems that *trākām*, even if it corresponds to *drahm*, is used as an unit of weight in the text.

62 On the circulation of *drahms* in the Gaochang kingdom (the beginning of the 6<sup>th</sup> c. ~ 640 CE) and the Xizhou Prefecture (640 ~ ca. 790 CE), namely today's Turfan region, there are several important treatises such as Lu 1992 and Skaff 1998.

63 See Lu 1992: 261.

Tang control, so that there is no better identification for *cāne* in these documents.

### The king

It was Winter who first identified the name of king *Kemārcune* (Skt. *Kṣemārjuna*) in a MQ fragment (Nr. 486 = THT486), now classified as belonging to the *main group*. Referring to Lévi's early notion (1933: 23) that there was a king called *Kṣemārcune* (his second regnal year a tiger one) in a St. Petersburg document and Lüders' remark that the element *arjuna* is perceptible in some Agnean royal members' names, he thought *Kemārcune* in the Kizil accounts is an Agnean king.<sup>64</sup> Lévi's notion about the Russian collection was then verified by Pinault's publication (1998), where the king is found in the correlated documents SI B Toch./9 and 13. A king with a very similar name *Kṣe[m]ār[j]une* in an inscription in Subashi (G-Su34) in the region of Kucha was also published by Pinault, which says that the sixth year of his rule was a horse one. As Peyrot has indicated, the king appearing in SI B Toch./9 and 13 seems to be the same as the king in G-Su34 by the agreement of the year cycle, and he is very possibly the king *Kemārcune* in Nr. 486.<sup>65</sup> Thus Winter's view to identify this king as an Agnean one is quite questionable. What we would like to add to this is that, when we looked through the *main group*, only the records of one single king have been left to us, i.e. the king *Kṣemārcune*. We found a better preserved date in THT2691 and several damaged ones.<sup>66</sup>

---

64 Winter (1955: 223) states: 'In any case, the question remains also how these texts came to Ming-öy Qizil. One assumption would be that just the documents were transferred, another, that one would have to think of a monastery transplanted to the West'. For his references, see Lüders 1940[1930]: 618-622.

65 See Peyrot 2008: 196. For the transliteration of G-Su34, see Pinault 1987: 151-152.

66 Other more damaged passages can be found in THT2824.1, 2700 (the upper fragment).5, 2832.1, 2878.1 and 2887.1.

**THT2691.1**     /// wi kšuntsa k(š)e[m]ā[r](cu)ne lānti mewyai pikule ///

‘in the second regnal year of the king [*Kšemārcune*], a year of the tiger ///

This evidence indicates three points. Firstly, the variant *Kemārcune* attested in Nr. 486 is very probably due to careless writing by the scribe. Secondly, the majority of the *main group* must have been written around a tiger year. Thirdly, the king attested in the *main group*, in G-Su 34 and in SI B Toch./9 and 13 is in all probability the same person. As Lévi had indicated in 1933, the element *arjuna* is in the authors’ opinion not necessarily an indicator of the Agnean regime. It is also attested in a story about a Kuchean King 阿主兒 *Āzhūr*, effectively a variation of the legend of the ‘Golden Flower King’ depicted in *Xiyuji*.<sup>67</sup> In addition, the authors discovered a king called *Kšemārjune\** (gen. *Kšemārjuni*) on the wooden tablet TS43, which is found in Kizil.<sup>68</sup>

Considering the St. Petersburg documents SI B Toch./9 and 13 where *Kšemārcune* is found, Pinault assumed that they are to be placed in the second half of the 7<sup>th</sup> century by intuitively putting them after the kings *Svarṇābūšpe* and *Svarṇatepe\**. But Schmidt proposed to place them in the 10<sup>th</sup>-11<sup>th</sup> centuries, though his argument is in our eyes unconvincing.<sup>69</sup> Some loanwords from Chinese can be used to solve the dating of this king, because they reflect the traces of the Tang rule.

<sup>67</sup> Lévi 1933: 22-24, cf. *Xiyuji*: 57-58.

<sup>68</sup> See Ching and Ogihara *forthcoming*. As Lüders (1940[1930]: 615-618) and Moriyasu (2004d) have discussed, there should be plural Kuchean kings called by the same name ‘Golden Flower’ (Chin. 金花 *jīnhuā*, Skt. *Suvarṇa-puṣpa-*, Toch. B *Svarṇābūšpe*, rendered in Chin. 蘇伐勃駛 *sūfábóshǐ*). Therefore, *Kšemārjune* may be another traditional name for the kings of Kucha. In this case, the king attested on the wooden tablet TS43 may be an earlier namesake.

<sup>69</sup> See Pinault 1998: 3 and Schmidt 2001a: 160-161 respectively. Pinault’s reading of the king *Ysuhkwā* is beyond doubt after a close looking of relevant originals by ourselves. Thus, Schmidt’s intention of relating *\*Hwahkwā* with the Old Uighur rulers (*qayan*) is not plausible.



## Some administrative terms borrowed from Chinese

First see the phrases in the St. Petersburg documents where *Kṣemārcune* is found:

- (1) *śkañce śak<sub>ṣ</sub>, śwerne ypay moko raktakullentse ccākkare yauekṣintse*<sup>70</sup>  
*pakana aiyye alaṃ pkuweṣ<sub>ṣ</sub>, śaiyye wasa ṣeme* (SI B Toch./9.9-10)

‘On the fourteenth (day) of the tenth (month), for the sake of *yauekṣi*\*, *Ccākkare* gave an ovine, one-year-old,<sup>71</sup> male *śaiyye* (i.e. sheep/goat) to the provincial leading official *Raktakulle* (Skt. *Rakta-kula*-); one.’<sup>72</sup>

Ching supposes that the previously unsolved word *yauekṣi* was transposed from Chin. 游奕使 *yóuyishǐ* (EMC juw-jiajk-ṣi’/ṣi’, LMC jiw-jiajk-ṣr̃), the designation of a Tang military official charged with patrolling the vast area near fortifications.<sup>73</sup> Relevant titles are well attested in certain Chinese documents found in Kucha and Khotan.<sup>74</sup>

---

70 Pinault’s previous reading is *ṇauyikṣentse*. It was then revised after the consultation of the original by the authors together with Pinault in April 2009.

71 The interpretation given here basically agrees with Schmidt’s opinion to see the adjective *pku* as an indicator of animal age (Schmidt 1999[2002]: 10-11), instead of ‘combing’ as Pinault (1998) had suggested. However, the etymology of *pku* still waits to be pursued.

72 On the official *Ypoy-moko*, see the discussion in Ching and Ogihara *forthcoming*.

73 At first glance the Kuchean spelling <yau> in *brāhmī* may seem troublesome when compared to EMC juw or LMC jiw. But it should be noted that, in the Kuchean writing custom, the vocalic notion <a> adopted in the scripts does not represent a phonetic [a], but very probably a more closed vowel, which is indicated as /ʌ/ by Pinault (2008:415).

74 In Pelliot Chinois D.A. 57 ( 遊奕官 *yóuyiguān* ‘the *yóuyì* officer’), cf. Trombert 2000: 73; in Dx. 18917 ( 遊奕副使 *yóuyìfùshǐ* ‘the vice-*yóuyishǐ*’), cf. Zhang and Rong 2002 and Kumamoto 2007.

- (2) *saṅkatāse kwañye śīnkrontse aṣicce alaṃ wāsta pkuweṣ- śaiyye plyenksa wi cakaṃnma piś tom- yaptsa.* (SI B Toch./9.3-4)

‘*Saṅkatāse* sold to *Śīnkro* of *kwām\** a caprine, male, two-year-old *śaiyye* for two piculs and five pecks of barley.’

The word *kwañye* above was read as ‘*kwañpe*’ in Pinault 1998, but here we alter it on the basis of our reading of both the photograph and the original, in addition to another unmistakable attestation of the same word in SI P/117.8. It was effectively derived from a word *kwām\** by the productive adjective suffix *-(i)ye*.<sup>75</sup> The word *kwām\** may be rendered from either 關 *guān* ‘pass, barrier’ (EMC *kwain/kwɛ:n*, LMC *kwa:n*) or preferably 館 *guǎn* ‘post station, state-run hostel’ (EMC *kwan<sup>h</sup>*, LMC *kuan*) in medieval Chinese documents.<sup>76</sup> The word *kwām\** is further perceptible in the Cp. series, where a location *Olākwām\** repeatedly occurs. It is suggested by Ching to be a combination of Turk. *ulay* ‘post horse’ and Chin. 館 *guǎn*, perhaps the local name of

75 The reduction of <*ā*> to <*a*> in the stem noun alludes to the accent on the second syllable. This adjective *kwañye* would be counted as three syllables like \**kwañiye*, cf. Toch.B *ñākc(l)ye* <*ñākte* + *-(i)ye*.

76 The choice of 館 *guǎn* instead of 關 *guān* as the etymon is also based on the fact that 關 *guān* is not attested in the Chinese manuscripts found in Kucha. It is noteworthy that officially speaking, the institution 關 *guān* (the top class of military passes in the Tang) is not given to Kucha. According to *TLD*, there are only 26 *guāns* in the whole Empire. The sole one located in today’s Xinjiang is the famous 鐵門關 *tiěménguān* ‘the Iron-gate Pass’ in Agni.

a post station near today's Duldur-akhur.<sup>77</sup> Accordingly the passage in SI P/117.8 *cai kwañye puwarne šāmna* ‘the men (to be dispatched) to the fires of *kwām\**’ followed by a name list is very possibly related to the Chinese expressions 烽館之人 *fēngguǎn zhī rén* ‘the men of the beacon-posts’ or even 烽子 *fēngzǐ* (lit. ‘the beacon man’) in the manuscript Otani 8071 found in Kucha.

Another passage written during the ruling of *Yšuhkwā* is also worthwhile:

*tep- kwāmntse pelykiṃ wāsta pkuweš- alā<sub>u</sub> plyeñ(k)u(wa) ///* (SI B Toch./11.5)

‘(There arrives) *tep*. For the sake of *kwām\**, I sold a two-year-old male sheep ///’.

Here the genitive of *kwām\** is attested as *kwāmntse*. The authors suggest that *tep* stands for either Chin. 牒 *dié* (EMC *dep*, LMC *tʰiap*), a certain kind of Tang official document, or 帖 *tiě* (EMC *tʰep*, LMC *tʰiap*), a simplified form of 牒 *dié* and less formal in use.<sup>78</sup> Hence, dating these documents in St. Petersburg collection to the period of Tang rule seems unavoidable.

Within the *main group*, there is also a clear indicator of the Tang period. The obscure word *šwaiylyānk* in THT2749 + 2818.2 cited above (see Type 3) is identified by Ching as 稅糧 *shuǐliáng* ‘tax (paid in) cereal’ (EMC *ɕwjaŋ<sup>h</sup>-liāŋ*,

77 On the usage of *ulay* in Tang documents found in Central Asia, cf. Arakawa 1994a and 1994b. The attested forms include locative *Olākwañne* (Cp.37+36.19!,21-22!,31,69, exclamation mark meaning damaged word) and a derived adjective *Olākwañse* (Cp.24.5,7). Toch. B *Olākwañ* does not seem to be a native word. On the basis of the form and the context where it occurs, the first element *\*olā(k)* could be related to *ulay*. In fact, a horse (cf. Cp.37+36.21-22) and some coins (cf. Cp.24.5-6) were given by local people to the men in that place.

78 On the function of *tiě* and *dié*, cf. Arakawa 1997, Akagi 2008 and Arakawa 2009. Toch. B *tep* also occurs in Nr. 495a4-b1 (= IOL Toch 258): [*ñ*]i [*c*](*ā*)ne mā ai[t] (ot) K[u]tsauš *tep yamaskemar* ‘If you do not [give me the coins], (then) I will make a *tep* to K[u]tsau\*.’ This sentence leads us to suppose that *tep* should be an administrative term.

LMC ṣyaj`-lian).<sup>79</sup> It is noteworthy that while the terms such as 稅錢 *shuìqián* ‘tax (paid in) coins’, 稅草 *shuìcǎo* ‘tax (paid in) straw/grass’ and 稅柴 *shuìchái* ‘tax (paid in) firewood’ are easy to find in Chinese texts, thus far *shuiliáng* occurs only in a few Tang documents found in Kucha, Maralbashi and Khotan.<sup>80</sup> It would be highly questionable whether these Tang administrative terms could have survived for another one or two centuries in the local languages after the final fall of the “Four Garrisons” (ca. the 790s).<sup>81</sup> Therefore the *main group*, like other Kuchean paper documents in the French and the Russian collections, must have been written in the Tang period.

Now it should be safe to say that the word *cāne* occurring in these paper documents refers to ‘Tang coin’. Since the standard status of this currency in Turfan is by no means earlier than the very late 7<sup>th</sup> century, and its circulation in ancient Xinjiang was significantly affected by the disruption of local manufacture and the interruption of supplies due to the wars between the Tang, the Turks and the Tibetans in the late 8<sup>th</sup> century,<sup>82</sup> the *main group* should better be dated to the 8<sup>th</sup> century.

79 This word is also attested in Cp.8 and Cp.28, written as *śwelyānk*, which Pinault (1994: 101) firstly took to be ‘*gage?*’ in French without providing an etymology. It was Ogihara who first pointed out the possible Chinese origin of this word, but Pinault’s subsequent elaboration (2008: 367-368) by assuming a hybrid of 糧 *liáng* and Toch. B *śu-* ‘eat’ is not so ideal. Thus we slightly modify the translation of Cp.8a14: *ṣkacce meñamem rāp tāñktsi kapyāres śesusa śwelyānk āyusa ysāre laiś: cakanma* 49 ‘From the 6<sup>th</sup> (month) until (the day of) *Rāp*, the wheat eaten by *kapyāres* (and) given to/as *śwelyānk* has been spent: 49 piculs.’

80 Namely, (1) *TTD* 3, Add. No. 18 [Contract of Bai Xiangyili in Kucha for lease of vineyard. Tang, year uncertain (ca. 8<sup>th</sup> c.)] found in Toquz-sarāi; (2) the Hoernle document H.4 (= Or. 6408(G.1)) said to have been bought in Kucha but seemingly with some unclear Khotanese words on it; and (3) a document newly found in Khotan published in Wen 2008: 70. In fact, 稅糧 *shuiliáng* was a common administrative term from the Song to the Qing dynasties, but *śwelyānk/śwelyānk* is by no means equivalent to this late term: because after the 8<sup>th</sup> century, the initial of Chin. *shuì* became ṣ- (LMC ṣyaj`), so the transposition by ś- rather than by ṣ- in Kuchean would be unexpected.

81 On the fall of the Chinese garison in Kucha, see Zhang and Rong 1997: 348-349.

82 Cf. Lu 1992; Thierry 1997, 2000; Rhodes 1997; Wang 2004; Moriyasu 2004a, 2004b.

### C. Personal authentication

While the features of *kapci* are common in the *main group* (belonging to Type 3), we never see the features of ‘*tamya*’ (Old Uighur ‘seal’) in these materials.<sup>83</sup> According to Yamada’s research and the following developments of it, the features of ‘*tamya*’, so to speak, the procedure of stamping personal seals, are often seen in the Old Uighur documents written in the earlier period of the West Uighur kingdom.<sup>84</sup> However, as far as we know, no document dated to the period of the West Uighur kingdom ever shows any trace of the *kapci* features. Since both procedures are of juridical importance, we must consider the implication of this distinction.

It is Konow who firstly connected the word *kapci* and the three strokes following it to the Chinese custom 畫指 *huàzhǐ* when he published the Tumshuqese

---

83 Two identical seals stamped on the Kuchean paper documents of the Russian Collection (SI Toch./9, 11, 12, 13, SI P/117 and the unpublished SI Toch./10) are very possibly counterfeit, because the stamping manner is contradictory both to the Medieval Chinese patterns and the Old Uighur ones. Namely, it does not observe any of the following principles governing its position: (1) On the place of paper juncture. (2) Over the writing of the main text, generally in the center and/or in the corners. (3) Following the words ‘to stamp, to certificate’ or other relevant expressions. In fact, in these documents there is no phrase which reveals the intention of or the demand for getting authentication. It is also strange why the two seals could have been pressed with ink of identical hue and oily texture on these documents written at different times (i.e. the 1<sup>st</sup> and the 2<sup>nd</sup> year of *Kṣemārcune*, the 14<sup>th</sup> year of *Yśuhkwā* and the 21<sup>th</sup> year of *Yāše*), whereas no common person or organization can be established for them. In other words, the texts do not suggest any need for the seals. Hence, Ching thinks that the seals were added to the blanks by someone unable to read Kuchean, undoubtedly at a time when all the documents had been written and then assembled together. So the stamping is not a crucial feature for dating the texts and the kings. We must indicate that no other Kuchean document has such a seal.

84 Cf. Yamada 1964 = *SUK* 1, IX; Yamada 1978 = *SUK* 1, XIV; Moriyasu 1994; Moriyasu 2004a: 7-8. Readers should not confuse this scholarly terminology with the stamping of official seals on the Old Uighur documents. On the latter category, see the analysis by Matsui (1998).

documents.<sup>85</sup> Noting that Tumsh. *kapci* does not phonologically well match *huàzhǐ* (EMC ɣwəijk/ɣwɛ:jk-çi), he suggested other etymons including 押指 *yāzhǐ*, 甲指 *jiǎzhǐ* and 合指 *hézhǐ* to solve the medial *-p-* in *kapci*.<sup>86</sup> His observation was then adopted by Ikeda.<sup>87</sup> On the other hand, based on Sieg's notion (1950) about *kapci*, Emmerick indicated Tumsh. *kapci* as a direct borrowing from Tocharian B.<sup>88</sup>

The practice of drawing finger joints was introduced into Turfan around the beginning of the 7<sup>th</sup> century. After Ching's preliminary research, its importance in Dunahung as a legal procedure started to decrease in the early 9<sup>th</sup> century. In the mean time, variation of the drawing and the relevant textual formula became noticeable. Thus it is legitimate to date the Kuchean documents with the drawing practice, including the *main group*, to the period before the early 9<sup>th</sup> century.<sup>89</sup> In this case, the etymons given by Konow become highly questionable, since they are hitherto unfound in Xinjiang and Dunhuang materials of the period when the drawing of finger joints was still prevalent there, namely before the early 9<sup>th</sup> century.<sup>90</sup> Thus the authors think that *kapci* is still a loanword of *huàzhǐ*, although its precise

85 Cf. Konow 1935: 774; Konow 1947: 181. See the recent discussions of the Tumshuqese documents by Rong 1992, Maue 2004 and Rong 2009.

86 In order to illustrate the evolution of *huàzhǐ* more clearly, its literal translation 'drawing the finger, finger-drawing' is retained in the present article. Niida (1939) has translated it as 'finger-seal', as adopted by Kumamoto since 1987. But 'finger-seal' is very misleading for some Western readers, so that even though Adams (1999:140) already absorbed Kumamoto's remarks, he still mistranslated *kapci* as 'thumbprint'. Therefore, Toch. B *kapci* is translated here as 'finger-measure' by applying the usage of Takeuchi (1990, 1994).

87 Cf. Ikeda 1992: 691.

88 Cf. Emmerick 1989: 228-229.

89 Cf. Appendix II.

90 Among the nearly five hundred Chinese contracts discovered in Central Asia, only a very curious specimen 押指節為憑 *yā zhǐjié wéi píng* 'to seal the knuckles as certification' is found in a late Dunhuang model document (= *TTD* 3, No. 489). It is dated to the 10<sup>th</sup> century, without a precise date or any trace of finger drawing.

borrowing process waits to be pursued.<sup>91</sup>

### III. Concluding remarks

Interestingly, our observations agree well with the <sup>14</sup>C-dating results presented by Tamai (2005). A sample, THT483, here classified as belonging to the *main group* has been dated by that method to the 8<sup>th</sup>-9<sup>th</sup> centuries, significantly earlier than Tamai's own proposition (*i.e.* Period III-1, ca. 900-1000 CE) and Schmidt's view (10<sup>th</sup>-11<sup>th</sup> c. CE). Due to space limitations, the elaboration of historical and religious issues will be postponed to further articles.

---

91 Tamai (2004: 98) has discussed briefly the etymology of *kapci*. However, the authors suppose that *huàzhī* may have first resulted in Toch. B *\*kwakei* then perhaps *\*kakci*. Later it may have become *kapci* due to the dissimilation of the two *k*. Nevertheless, both the clusters *-kc-* and *-pc-* are scarce in Tocharian B. And even if *kw > k* happened in its colloquial language, it is not a phenomenon easy to explain. A thorough phonological survey is necessary to justify this idea.

**Table 1: Reclassification of the published documents  
from THT433 to 489**

The <i>main group</i>	
-----	
Type 1	
Type 1-a	433 ☆ , 441 ☆ , 458
Type 1-b	434 ☆ , 435 (lost), 437, 440, 442, 443, 444, 445, 446, 447, 448, 453?, 454 ☆ , 455, 475
Type 1-a or 1-b (indeterminable)	436 ( ☆ ?), 438 ( ☆ ?), 450, 456, 457, 472 (the smaller fragment), 478B
-----	
Type 2	451? (see n. 32)
-----	
Type 3	449 ☼ , 460, 463 ( ☼ ?), 464, 465, 466, 467, 468, 472 (the larger fragment), 473 (the right fragment), 474, 476, 477 ( ☆ ?), 478A ☼ , 480, 481 ☆ , 482, 483, 484, 487, 488, 489 (☼?)
-----	
Type indeterminable	473 (the left fragment), 478, 478C, 479, 486
Another group of documents (see n. 11)	459, 460, 462, 469, 471
Documents with atypical features	439, 452? (see n. 32), 470, 485

(See the photographs on the website of TITUS for the distinction of plural fragments under a single inventory number.)

☆ *Swāmi Āsari*'s sign is perceptible on the verso, in the area of paper juncture.

☼ *Swāmi Āsari*'s sign is perceptible on the recto.



## Appendix I

### Measures attested in the *main group*

The measures *ṣaṅk\**, *tau\**, *cāk\** in Tocharian B have been shown to be borrowed from Chin. *shēng*, *doǔ* and *shí*.<sup>92</sup> In the *main group*, a measure unit *kalāṣe* is newly found in the Type 2 documents. Ogiwara suggests that it is borrowed from Indic languages (cf. Skt. *kalācī-/kalācika-* ‘spoon’), where Tocharian B used *-ś-* for the medial *-c-* of the Sanskrit form.<sup>93</sup> Here a few examples are provided:

**THT2714A.5** */// (san)ai kalāś- ñune sanai kalāś- —*

‘/// [one] spoonful. On the ninth day, one spoonful. — ’

**THT2688.9** */// (i)kaṃ [o]kne wi kalāśśiṃ [i]kaṃ (ñ)u(ne) ///*

‘/// On the twenty-eighth day, two spoonfuls. On the twenty-ninth day, /// ’

**THT2723.4** */// (ka)[lā](ś)[ś]iṃ śak ñune tarya kalāśiṃ ///*

‘/// [spoonfuls]. On the nineteenth day, three spoonfuls. /// ’

**THT2869.2** */// (sā)[ñ]kiś- śalywe śwāra kalāśśiṃ ///*

‘/// to the *saṃgha*, the oil/ghee: four spoonfuls. /// ’

It is remarkable that so far the numerals preceding this unit range only from one to four. Furthermore, the expressions *ywārtsa ṣaṅk* ‘half a *ṣaṅk\**’ (THT2721.3,5) or just *ywārtsa* ‘a half’ (THT451.2 = Nr. 451.2)<sup>94</sup> are founded. This phenomenon suggests

<sup>92</sup> Sims-Williams and Hamilton 1990: 32.

<sup>93</sup> e.g. Toch. B *aśari* < Skt. *ācārya-* (cf. Khot. *āśāria*) and Toch. B *apiś* < Skt. *avīci-*. These words are however possibly loanwords via Prākṛit.

<sup>94</sup> Adams’ translation (1999: 646) ‘a half *ṣaṅk* of oil’ for *ṣaṅk- ywārtsa* (THT451.2 = Nr. 451.2) is to be rejected. Regarding the two examples in THT2721 which expresses ‘half a *ṣaṅk*’ by *ywārtsa ṣaṅk-*, the passage *ṣaṅk- ywārtsa* here must mean ‘one *ṣaṅk\** and a half’. Another passage in THT2839.6 *///[trai]y [śa]ñkaṃ y(w)ārtś(a)* ‘three *ṣaṅk\** and a half’ also confirms our view.

that the quantification next to four *kalāše* would be a half of a *šaṅk\**. Thus *kalāše*, when used as the unit, is very probably equal to Chin. 合 *gě*, namely the one-tenth of Toch. B *šaṅk\**. If this suggestion is correct, the measuring system reflected in the *main group* will be:

1 <i>cāk*</i>	= 10 <i>tau*</i>	石 <i>shí</i>	‘(Chinese) picul’
1 <i>tau*</i>	= 10 <i>šaṅk*</i>	斗 <i>dǒu</i>	‘(Chinese) peck’
1 <i>šaṅk*</i>	= 10 <i>kalāše</i>	升 <i>shēng</i>	‘(Chinese) pint’
1 <i>kalāše</i>		合 <i>gě</i>	‘(Chinese) gill’

But there is another possible solution: one *kalāše* is perhaps equal to one-fifth *šaṅk\**, so that five *kalāše*s will become one *šaṅk\**.<sup>95</sup> Therefore, to see the unit of *kalāše* as one-tenth *šaṅk\** is just a provisional suggestion. The declension of *kalāše* should belong to the class V.2 in *TEB*.<sup>96</sup>

	sg.	pl.
nom.	<i>kalāše</i>	<i>kalāši</i>
obl.	<i>kalās</i>	<i>kalāšim</i> / <i>kalāššim</i>

As for the syntax for the quantification with measure units, the quantity noted at the end of an account item is in the oblique, not in the nominative as scholars used to think. In fact, previous scholars seldom paid attention to the syntax of account entries in Tocharian B. The only related discussion known to us is in *TEB*(I): 82 (§74.3), but it is extremely brief and ambiguous. However, we find some attestations

95 This alternative solution is suggested by Prof. YOSHIDA Yutaka. We express our gratitude for his remark.

96 The authors found the nominative cases in the unpublished St. Petersburg documents SI B Toch./10 and SI P/136b. See more discussion in Ching 2010.

which give the measures *tau\** (f.) (cf. Cp.8.9,10) and *kalāše* (f.) with Toch. B *sanai*, the feminine oblique of the numeral *še* ‘one’.<sup>97</sup> In those expense items where the intransitive verb *i-* ‘go’ or *lā-n-t-* ‘go out’ is explicitly written, the amount following the verb should be in the oblique as well. For example:

**THT2724.4** /// (ška)[s]n[e] *sañkiś- śalywe masa sanai* ///

‘/// [on the sixteenth day], for the *saṃgha*, the oil/ghee was spent (lit. ‘went’): one ///

The syntax of this broken phrase can be compared with the following sentence in Nr. 434.5 (= THT434.5) *klese masa: tarya tom*. ‘*klese* was spent: three pecks.’ Here the foodstuff is the subject of the sentence, but the quantity is expressed in the oblique.<sup>98</sup> Therefore, one of the functions of the oblique case in Tocharian B is to quantify uncountable stuffs such as oil and cereal.

<sup>97</sup> Among numerals in Tocharian B, only *še* has the oblique form different from the nominative.

<sup>98</sup> Although Thomas once correctly indicated *sañkāṃ* as oblique plural (cf. *TEB*(I): 131 (§184.2) and (II): 248), he did not give any further indications for *tom* and *cakanma* (plural of *tau\** and *cāk\**). His view is then rejected by Adams (1999: 646), where he regards *sañkāṃ* < \**sañkāñ* as nominative plural.

## Appendix II

### On the practice of *huazhi* in Ancient East Turkestan

#### Introduction of *huazhi* into Central Asia

Already attested in a contract of 507 CE found in Northern China (= *TTD* 3, App. No. 11), *huàzhǐ* no doubt spread to the Tarim Basin in the beginning of the 7<sup>th</sup> century regarding to two noticeable phenomena. Firstly, the concluding formulae in Turfan contracts transformed around the 640s. According to the more than thirty contracts dated to the 6<sup>th</sup> century, the typical formula was 各自署名為信 *gèzì shù míng wéi xìn* ‘Each (party) signs his name as the token of his sincerity’, followed by the list of persons with their signatures. Around the year of the Tang conquest of Gaochang kingdom (640 CE), the notion of *huàzhǐ* became to be contained in ending formulae. The earliest datable occurrence of this wording is found in a local contract dated 641 CE.<sup>99</sup> Between 640 and 660, the formulae 畫指為信 *huàzhǐ wéi xìn*, lit. ‘to draw the finger as the token of his sincerity’, and 獲指為信 *huòzhǐ wéi xìn*, lit. ‘to catch the finger as the token of his sincerity’, gradually became prevalent in local documents.<sup>100</sup>

But before writing down the word in the formulae, Gaochang people had started to draw their fingers on paper. Early evidence of drawing can be traced back at least to a contract written in 632 (ex. 1). At this initial stage, they were not used to do drawing and thus an annotation is combined within. Other documents dated

99 Cf. *TTD* 3, No.134. The last contract bearing the traditional Gaochang formula *gèzì shù míng wéi xìn* is probably *TTD* 3, No.150 (661 or 655 CE) among the present findings. The evolution of formulae since the early 7<sup>th</sup> century is quite obvious in the documents published in *TCW*. Since the initial remarks of Wu (1995), a recent detailed statistic (Yang and Li 2004) has been done.

100 It is remarkable that by the first half of the 7<sup>th</sup> century, the alternative 獲指 *huòzhǐ* occurs as frequently as *huàzhǐ* in Turfan documents. Since *huà* and *huò* had the same sound in EMC, they may be only different ways to write the same diction. *huàzhǐ* seems to prevail over *huòzhǐ* in the Turfan manuscripts in the 8<sup>th</sup> century.

before 660 also show how they treated it with caution. Fingers were marked carefully, sometimes a long explanation was provided (ex. 2), and in certain cases finger lengths were also drawn (ex. 3, 4). Usually the personal names, signatures or other words are deliberately inserted between the strokes.

ex. 1 *TTD* 3, No.123 (632 CE)<sup>101</sup>

| 指節 | 為 | 明

‘|knuckles |as |proof.’

ex. 2 *TTD* 3, No. 18 (640-649 CE)<sup>102</sup>

各自署名為信 | 以息阿豐 | 手不解 | 書  
| 以指節為 | 明

‘Each (party) signs his name as the token of his sincerity.

Since the son <i>Āfēng</i>	is unable to	write, (he draws) ’
(his) knuckles as	proof.	

ex. 3 *TTD* 3, No.16C (ca. 638 CE)<sup>103</sup>

以兄歡伯妻手不(解)  
書指節為明(證)

Since the brother <i>Huānbó</i> ’s wife is unable to	write, (she draws her) knuckles as proof.
--	---

101 Similar drawing is attested in *TTD* 3, No.14 (638 CE). However, for the examples ex. 2, 3, 4, Wu suggested an earlier date because of the rather complicated drawings. He indicated that simpler drawing (see *infra*) are already used in some local contracts dating to the 640s (e.g. *TTD* 3, No. 20 (649 CE), 136 (642 CE) and 137 (643 CE)). Therefore, Wu (1995: 241-243) thought the complicated drawings such as ex. 2, 3, 4 must be contemporary with or earlier than ex. 1.

102 息 *xī* ‘son, descendant’ may be also understood as an alternative of 媳 *xí* ‘daughter-in-law’.

103 Similar drawings are seen in *TTD* 3, No.16E (ca. 638 CE)

ex. 4 *TTD* 3, No.12 (? CE)<sup>104</sup>

(時) 見 吳海兒不 解書 至 (節為明證)

[Witness]: *Wú Hǎiér*, unable to write, (his) [knuckles] (as proof).

ex. 5 *TTD* 3, No. 66 (648 CE)<sup>105</sup>

負錢人 桓德琮 | 琮 | ‘*Huán Décóng*, the debtor. [SIGNUM]’

**The normal way of drawing**

Since the mid 7<sup>th</sup> century, the drawing manner found in Turfan documents became simpler: People simply leaving three strokes or even simply three dots on the papers. These marks are either close to or just above the notations of personal names:

ex. 1 *TTD* 3, No. 69 (661 CE)

舉練人 龍惠奴 | ‘*Lóng Huìnú*, the debtor of silk bolts.’  
保人男 隆緒 | ‘*Lóngxù*, son (of the debtor), the guarantor.’  
| | |

ex. 2 *TTD* 3, No. 157 (663 CE)

田主 趙阿歡仁 | | | ‘*Zhào Āhuānrén*, the landowner.’  
舍佃人 張海隆 | | | ‘*Zhāng Hǎilóng*, the tenant.’

104 至 *zhì* stands for 指 *zhǐ* ‘finger’.  
105 Similar specimens are seen in *TTD* 3, No.138 (648 CE) and perhaps No. 199 (655 CE).

This simplification – or rather normalization in the authors’ view– reflects Turfan people’s familiarity with the procedure in their daily life. In the local contracts of this period, various formulae developed. For example:

畫 / 獲指為記 *huà/huòzhǐ wéi jì* ‘to draw/catch the fingers as a record.’

畫 / 獲指為驗 *huà/huòzhǐ wéi yàn* ‘to draw/catch the fingers as verification.’

Moreover, from the mid 8<sup>th</sup> century on, an alternative type of formulae without wording *huà/huòzhǐ* became popular, though generally the strokes are still drawn on paper. This later type can be represented by the following example in a contract of 757 CE: 恐人無信，故立此契為 (記) *kǒng rén wúxìn, gù lì cǐqì wéi (jì)* ‘Worrying about the honesty of other parties, (we) make this contract as (a record)’.<sup>106</sup> Around the same time, noting personal ages near the strokes became normal. A concluding formula of this type together with the indication of personal age in the closing name list is also seen in a Tang document found at Duldur-akhur (Otani 1507 = *TTD* 3, No. 244).

In the non-Chinese materials found in East Turkestan other than the Old Uighur ones, finger drawing sometimes occurs at the end of documents. In Tumshuqese ones, it was to draw three lines between the *akṣaras* noting a person’s age after his name – or more probably, the three strokes were filled by the notation of age.<sup>107</sup> In Khotanese ones, the native word *hagaṣṭa* ‘finger’ was used to designate the

106 Cf. *TTD* sup. IIIT25. This is perhaps a simplification of the longer version occurring in the 8<sup>th</sup> century such as 恐人無信，故立私契，兩共平章，畫指為記 *kǒng rén wúxìn, gù lì sīqì, liǎnggòng píngzhāng, huàzhǐ wéi jì* ‘Worrying about the honesty of other parties, (we) make (this) private contract. Agreeing the text with each other, (we) draw the fingers as a record.’ This longer type can be seen in a contract in 733 in Turfan (*TTD* 3, No. 32) and several contracts in the 780s in Khotan (*TTD* 3, No. 247, 248, 249).

107 Cf. Text I, II, III, IV in Konow 1935 (= TS25 + 28, 29, 24, 31 in DTA, respectively.)

procedure.<sup>108</sup> Besides a few Chinese-Khotanese bilingual documents where the strokes were made on the side of Chinese text,<sup>109</sup> there are diverse methods for drawing fingers. The strokes were usually inset within the word *hagaṣṭa* and some words preceding it (ex. 1). But sometimes they are drawn alongside (ex. 2). In a few cases, an additional ‘||’ is marked as well, perhaps noting the joints between the palm and the fingers (ex. 3).<sup>110</sup>

### Tumshuqese

ex. TS25 (= Konow 1935, Text I)

kapci Dzātsyā sā | lyi | 63 | ‘*kapci* of *Dzātsi*, aged (lit. ‘of year’) 63.’

### Khotanese

ex. 1 Or. 6393/2 = (*KT* 5, p. 2; *SD* II, pl. XXV)

bye birgaṃdarajā surgām | darma | puñā haṃ | guṣṭi

‘Witness: *Surgām* from *Birgaṃdara*. *Darma*puñā’s finger.’

<sup>108</sup> Cf. Kumamoto 1984, 1987.

<sup>109</sup> Namely, the bilingual contract Дх. 18926 + 18928 (781 CE) published in Kumamoto 2001, 2007.

<sup>110</sup> A list of the Khotanese documents bearing the strokes of *huāzhǐ* has been provided by Kumamoto (1984: 14–15 n. 11; 1987: 153). The drawings similar to ex. 3 can be further seen in Or. 6395/1 (*KT* 5, pp. 3–4; *SD* II, pl. XXVII) and Or. 6396/1 (*KT* 5, p. 4). In some cases, drawings of different types are simultaneously adopted in the same document. For instance, the types presented by ex. 1 and ex. 2 are attested together in Or. 6397/2 (= Hoernle 4. *KT* 5, p. 6; *SD* II, pl. XXVIII) and perhaps so are in Hoernle 9 (= Or. 6401/1.2 in Skjærvø 2002) according to Bailey’s reading in *KT* 2, p. 67. In Or. 6395/1, there are nine specimens resembling ex. 3 and three resembling ex. 1. However, regarding the photographs published in *Saka Documents*, Bailey’s recording of the strokes is sometimes dubious – in a few cases he recovered even up to five strokes for a drawing similar to ex. 1. These problematic cases include M.T. i.17 (= IOL Khot 44/5. *KT* 5, p. 207; *SD* III, pl. LXII), M.T. a.i.0041 (= IOL Khot 46/2. *KT* 5, p. 386; *SD* III, pl. LVII) and Hoernle 7 (= Or. 6397/1 in Skjærvø 2002; *KT* 2, p. 66; *SD* II, pl. XXVIII), in addition to Or. 6400/1.4 (*KT* 5, p. 9) where Bailey’s reading has been revised by Skjærvø (2002).



ex. 2 Hedin 26 (*KT* 4, pp. 38-39; *SD* I, pl. VI)

|   |   |  
daḍūsä haṃguṣte

‘*Daḍūsä*’s finger’

ex. 3 Or. 6393/1 (*KT* 5, p. 1; *SD* II, pl. XXV)

|| arrjām haṃgu | ṣti   |   |   ‘*Arrjām*’s finger’

The Kuchean method thus seems to be simpler than the Khotanese and the Tumshuqese ones. Among Kuchean documents, always only three strokes were added near the word *kapci*, sometimes following by personal signs or monograms.<sup>111</sup> We never find any strokes deliberately placed between *akṣaras* (except for one case),<sup>112</sup> neither do we see any indication of personal age. This phenomenon at least implies that in these documents, Kuchean people were well accustomed to drawing their fingers, so that there was no need to combine it with further details in the way that their Turfan neighbors in the early 7<sup>th</sup> century had done when they encountered the custom.

### **Decline of *huazhi***

As a result of the fall of the Tang in the ‘Western regions’ (ca. the 790s), discoveries of later Chinese secular documents in East Turkestan are less numerous. So we need to look at Dunhuang to trace the subsequent history of *huàzhǐ*. It seems that its decline in Dunhuang began in the early 9<sup>th</sup> century. Though an adequate treatment of this topic

111 In a Turfan contract dated to 741 (= *TTD* 3, No. 33), a Sogdian person’s signs was also put on after the three strokes. And in the Duldur-akhur contract Otani 1507 mentioned above, a seemingly monogram is put near the three strokes.

112 Namely the unpublished fragment THT2701. Two of three strokes drawn on line 6 were inserted in the text. The other one, due to the lacking of space, was drawn below the line. The transliteration is as follows: /// *yolontim|ntse kapci* |

would require much more space than can reasonably be allotted to it here, some basic tendencies are worthy of note. Briefly speaking, in the first quarter of the 9<sup>th</sup> century, there are two major types of final formulae – with or without the wording of *huàzhǐ* – just like the situation in the 8<sup>th</sup> century Turfan. For the former type, the notion *huàzhǐ* ‘to draw the finger’ evolved into 書指 *shūzhǐ* ‘to write the finger’, 書紙 *shūzhǐ* ‘to write on paper’, or even 畫紙 *huàzhǐ* ‘to draw on paper’. The last two notions ‘to write on paper’ and ‘to draw on paper’ are especially ambiguous, because from the 9<sup>th</sup> century on, people in Dunhuang started to use simple signs to present themselves (e.g. cross, star, etc., called by Niida (1939) as ‘(simplified) seal-marks’).

畫指 <i>huàzhǐ</i> ‘to draw the finger’ (↓?)	→	書指 <i>shūzhǐ</i> ‘to write the finger’ ↓
( 畫紙 <i>huàzhǐ</i> ‘to draw on paper’) <sup>113</sup> (→?)		書紙 <i>shūzhǐ</i> ‘to write on paper’

It is also in the 9<sup>th</sup> century that personal seals started to come into use. Thus in some documents we see instead 荅印為記 *dǎ(?)yìn wéi jì* ‘to stamp with a seal as his record’ (TTD 3, No. 325),<sup>114</sup> 各各以將項印押署 (for 署) 為記 *gègè yǐ jiāng xiàngyìn yāshǔ wéi jì* ‘Everybody stamps with (his) neck(lace?)-seal or leaves a sign as a record’ (TTD 3, No. 434, ca. 840 CE), etc. Since the simple signs later became more common, a new type of formulae represented by 押字為定 *yāzì wéi dìng* ‘to make a

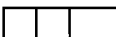
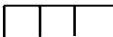
113 There is only one attestation of 畫紙 *huàzhǐ* (i.e. P. 2502V<sup>o</sup>, cf. DSJ 2: 81), but in TTD 3 (= No. 314, approximately dated to 834 CE) it is read as 書紙 *shūzhǐ* ‘to write on paper’. The character shown in the photographs of TTD and DSJ seems ambiguous.

114 The character 荅 was read as 答 *dá* ‘reply’ in DSJ 2: 133, while the initial reading 荅 in TTD 3 was subsequently taken as a variant of 花 *huā* ‘flower, design’ in the errata of TTD (supplement vol.). But another contract (TTD 3, No. 261, 851 CE) is clearly written with 荅項印為驗 *dá xiàng yìn wéi yàn* ‘to *dá* the neck (lace?)-seal as verification’. So 荅 / 答 in these examples are no doubt referring to a verb. Thus we retain the original explanation of No. 261 in TTD 3 and consider them as the simplified forms of 搭 *dā*, ‘put, put on; hit’.

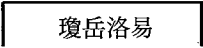
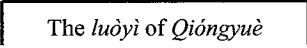
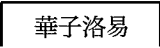
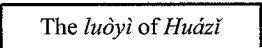
sign as the token of decision<sup>115</sup> arose in the second half of the 10<sup>th</sup> century and turned popular.

As for the drawing evidence, we still find three simple strokes in several documents dated to the 830s. But their closing formulae are 書指為記 *shūzhǐ wéi jì*<sup>116</sup> ‘to write fingers as a record’ and 書指為憑 *shūzhǐ wéi píng*<sup>117</sup> ‘to write fingers as certification’. It is also from this decade on that the drawing became more complicate and stranger. The diversity shown in contracts is presented below:

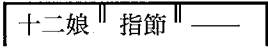
TTD 3, No. 317 (837 CE?)

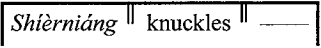
保人男屯屯  *Túntún*, son (of the debtor), the guarantor 

TTD 3, No. 320 (839 CE)

TTD 3, No. 436 (865 CE)

外甥十二娘 

*Shièrniáng*, the nephew. 

115 Here the ‘sign’ refers to effectively a signature or Niida’s “seal-mark” (cf. Niida 1939: 79–80, 87).

116 i.e. TTD 3, No. 312 (834 CE?), 313 (834 CE?), 316 (835 CE?), 321 (839 CE?).

117 i.e. TTD 3, No. 379 (837 CE?).

TTD 3, No. 287 (the late 9<sup>th</sup> c.?)

地主叔陰國政 | 指節年 | 七十六 |

*Yīn Guózhèng*, uncle of the landowner. | knuckles, aged | 76 |

TTD 3, No. 273 (936 CE)

出賣舍主楊忽律哺 | 左頭 | 指 |

*Yáng Hūlǜbǔ*, owner of the house for sale. | left | thumb

出賣舍主母阿張 | 右 | 中指 |

*Āzhāng*, mother of the house-owner. | right | middle finger

TTD 3, No. 481 (944 CE)

□居人安員進 (年十五 | □手 | 中指節)

*Ān Yuánjìn*, the (co-?)habitant. (aged 15 | ... hand | knuckles of the middle finger.

The contract No. 320 (= P. 3730) is especially noteworthy. Without notion of *huàzhǐ* or *shūzhǐ* in its main text, the drawing much resembles certain types of Tibetan

variations.<sup>118</sup> In fact, the strange word 洛易 *luòyì* in No. 320 is rendered from Tib. *lag-yig*. Though this example may be exceptional, it still reveals the lack of regular drawing way in the mid 9<sup>th</sup> century.<sup>119</sup>

We are still looking for late evidence of finger drawing in East Turkestan. The Khotanese and the Tumshuqese documents mentioned above are generally dated around the 8<sup>th</sup> century.<sup>120</sup> However, in a Khotanese document P. 2786 (ca. 965-966 CE), some Khotanese envoys subject to a Dunhuang ruler's orders submitted to him a written statement and put their *hagausta* on it, saying that they are departing from Dunhuang on their own responsibility despite his advice to stay until the road became safe.<sup>121</sup> In this case, we are not sure whether finger drawing was still common in Khotan, or whether the envoys were expected to conform to the rules of Dunhuang in order to make an official deal.

According to Niida (1939), there are sporadic records about *huàzhǐ* in China in the Song and Yuan dynasties. So we can suppose that the custom was, though largely outstripped by the simplified seal-marks and other procedures in later times,

---

118 Cf. the illustration of 'Type 3 *sug-yig-tshad*' and 'Type 4 *lag-yig-tshad*' in Takeuchi 1994: 116-117. In fact, the specimens of No. 320 look very like Takeuchi's Type 4.

119 Niida's studies (1937, 1939, 1960) on the typology of finger drawing are very impressive, especially on the parallels in Tangut (Xixia), Japanese, Korean and Vietnamese traditions. But his strategy to determine which finger and which hand should be used for a typical *huàzhǐ* by concentrating on the transitional and late specimens, in addition to his aim to recover 'the primary form of *huàzhǐ* (書指本來の形式, Niida 1960: 672)', seems to be not so decisive. He apparently ignored the prevalence of the three simple strokes and preferred to perceive this 'dot-type' as merely a simplified variant come from the 'finger-shape type' (1939: 131). However, we think that the simpler manner should be the common one in the prosperous Tang period.

120 On the Tumshuqese documents, see n. 85. A more precise dating of the Khotanese documents mentioned above cannot be given presently, due to the continuous controversy about the chronology of Khotanese kings (cf. Kumamoto 2007: 152, Yoshida 2007: 467 n.15; Kumamoto 2009; Skjærvø 2009: 126-127; Zhang and Rong 2009).

121 The ruler is called 令公 *Linggōng*, probably 曹元忠 *Cao Yuanzhong*. Cf. Kumamoto 1984: 1-4; 1985: 132; 1987: 151.

still used in some circumstances in China. However, given the obvious simplicity of the *kapci* features in the Kuchean documents, and regarding to their similarity with the ones prevailing in Turfan and Dunhuang from the late 7<sup>th</sup> century up to the early 9<sup>th</sup> century, the drawings found in the *main group* must be regarded as a Tang phenomenon.

## Abbreviations

- Cp. Pelliot Koutchéen D.A. M.(507) series found at Duldur-akhur, cf. Pinault 2007: 189.
- DSJ 敦煌社會經濟文獻真蹟釋錄 *Dunhuang shehui jingji wenxian zhenji shilu* (5 vols.), edited by 唐耕耦 TANG Gengou and 陸宏基 LU Hongji, Beijing: Shumu wenxian chubanshe, 1986-1990.
- DTA *Digitales Turfan-Archiv. Depositum der Berlin-Brandenburgischen Akademie der Wissenschaften in der Staatsbibliothek zu Berlin Preussischer Kulturbesitz Orientabteilung*. See <http://www.bbaw.de/forschung/turfanforschung/dta/index.html>.
- EMC Early Middle Chinese, cf. Pulleyblank 1991.
- IDP International Dunhuang Project. See <http://idp.bl.uk>.
- KT *Khotanese Texts* = Bailey 1963 and 1969.
- LMC Late Middle Chinese, cf. Pulleyblank 1991.
- Nr. Manuscript numbers used by *TochSprR(B)*II.
- SD *Saka Documents* = Bailey 1960-1967.
- SIAL 『内陸アジア言語の研究』 [*Studies on the Inner Asian Languages*].
- TCW 吐魯番出土文書 *Tulufan chutu wenshu* (10 vols.), edited by 國家文物局 Guojia Wenwuju et al. Beijing: Wenwu chubanshe, 1981-1991.
- TEB(I) *Tocharisches Elementarbuch*, Band I = Krause & Thomas 1960.
- TEB(II) *Tocharisches Elementarbuch*, Band II = Thomas 1964.
- THT Catalogue numbers of the *Tocharische Handschriften aus den Turfanfunden*, cf. TITUS.
- TITUS Thesaurus Indogermanischer Text- und Sprachmaterialien, Tocharian Manuscripts from the Berlin Turfan Collection, digitized images and texts.  
See <http://titus.fkidl.uni-frankfurt.de/texte/tocharic/tht.htm>.
- TLD 唐六典 *Tang Liudian*, compiled by 李林甫 Li Linfu et al. in 722-739 CE, commented by 陳仲夫 CHEN Zhongfu. Beijing: Zhonghua, 1992.
- TochSprR(B)*II SIEG, Emil and Wilhelm SIEGLING, *Tocharische Sprachreste. Sprache B*, Heft 2. Göttingen: Vandenhoeck & Ruprecht, 1953.
- TTD *Tun-huang and Turfan Documents Concerning Social and Economical History*, (4 vols. + supplement). Tokyo: Toyo Bunko, 1980-2001.
- Xiyuji 大唐西域記 *Da Tang Xiyuji*, written by 玄奘 Xuanzang, commented by 季羨林 Ji Xianlin et al. Beijing: Zhonghua, 2000.

## References

ADAMS, Douglas Q.

- 1999 *A Dictionary of Tocharian B*. Amsterdam: Rodopi.
- 2009 How to tell a sheep's age and some other animal husbandry terms in Tocharian B. *Tocharian and Indo-European Studies* 11: 1-12.

AKAGI Takatoshi 赤木崇敏

- 2008 唐代前半期の地方文書行政—トゥルフアン文書の検討を通じて— [The local document administration during the first half of Tang China : The case of Turfan] 史学雑誌 *Shigaku zasshi* 117-11: 75-102.

ARAKAWA Masaharu 荒川正晴

- 1994a トウルフアン出土漢文文書に見える ulay について [On a Turkic Term “ulay” in Turfan Chinese Documents]. *SIAL* 9: 1-25.
- 1994b 唐代コータン地域の ulay について—マザル=ターク出土、ulay 関係文書の分析を中心にして— [On a “ulay” in Khotan under the Tang rule] 龍谷史壇 *Ryūkoku shidan* 103・104: 17-38.
- 1997 クチャ出土「孔目司文書」攷 Kucha shutsudo "kōmokushi monjo" kō. 古代文化 [Cultura Antiqua] 49-3: 145-162.
- 2009 唐代中央アジアにおける帖式文書の性格をめぐって Tōdai chūō ajia ni okeru chōshiki monjo no seikaku o megutte. In: 土肥義和 DOHI Yoshikazu (ed.), 敦煌・吐魯番出土漢文文書の新研究 *Tonkō Torufan Shutsudo Kanbun Monjo no Shinkenkyū* (東洋文庫論叢 *Tōyō bunko ronsō* 72), 271-291. Tokyo: Tōyō bunko.

BAILEY, Harold Walter

- 1960-1967 *Saka Documents* I-IV, *Corpus Inscriptionum Iranicarum* II/V. London : Percy Lund, Humpheries.
- 1963 *Khotanese Texts* V. Cambridge: Cambridge University Press.
- 1969 *Khotanese Texts* I-III, 2<sup>nd</sup> ed. Cambridge: Cambridge University Press.

CHAO Huashan 晁華山

- 2006[1993] 克孜爾石窟的洞窟分類与石窟寺院的組成 Kezi'er shiku de dongku fenlei yu shiku siyuan de zucheng. In: 龜茲文化研究 *Qiuci wenhua yanjiu* 3: 10-38.

CHAVANNES, Édouard

- 1913 *Les documents chinois découverts par Aurel Stein dans les sables du Turkestan Oriental*. Oxford: Clarendon Press.

CHEN Guocan 陳國燦

- 1997 斯坦因所獲吐魯番文書研究 *Sitanyin suohuo Tulufan wenshu yanjiu*, revised edition. Wuchang: Wuhan daxue chubanshe.

CHING Chao-jung 慶昭蓉

- 2010 Secular documents in Tocharian: Buddhist economy and society in the Kucha region. Doctoral thesis, École Pratique des Hautes Études.

- forthc. On the names of cereals in Tocharian B. A paper presented in *The Scientific Conference Dedicated to Centenary Since the Beginning of Deciphering of the Tocharian Texts* (Moscow – Saint Petersburg, August 25-27, 2008). To appear in *Studia Orientalia et Classica* 27. Moscow: RSUH press.
- CHING Chao-jung 慶昭蓉 and OGIHARA Hirotoishi 荻原裕敏  
forthc. A Tocharian B sale contract on a wooden tablet. To be submitted to *Journal of Inner Asian Art and Archaeology* 5.
- DRÈGE, Jean-Pierre  
1987-1988 Les Couleurs des papiers des manuscrits de Dunhuang. *Cahiers d'Extrême-Asie* 3: 147- 150; 4: 187.
- EMMERICK, Ronald E.  
1989 Khotanese and Tumschuqese. In: Rüdiger SCHMITT (ed.), *Compendium Linguarum Iranicarum*, 204-229. Wiesbaden: Reichert.
- GENG Shiming 耿世民  
2005 古代突厥文碑銘研究 [*Studies of the Old Turkic Inscriptions*]. Beijing: Zhongyang minzu daxue chubanshe.
- GERNET, Jacques  
1956 *Les aspects économiques du bouddhisme dans la société chinoise du v<sup>e</sup> au x<sup>e</sup> siècle*. Saigon: École Française d'Extrême-Orient.
- GERSHEVITCH, Ilya  
1954 *A Grammar of Manichean Sogdian*. Oxford: Basil Blackwell.
- HUANG Wenbi 黄文弼  
1958 塔里木盆地考古記 *Talimu pendu kaoguji*. Beijing: Kexue chubanshe.
- IKEDA On 池田温  
1992 契 kē. In: IKEDA On (ed.), 講座敦煌 5 敦煌漢語文獻 *Kōza Tonkō 5 Tonkō Kango bunken*, 653-692. Tokyo: Daito.
- 1996 麻札塔格出土盛唐寺院支出簿小考 Mazhatage chutu shengtang siyuan zhichubu xiaokao. In: 段文傑敦煌研究五十年紀念文集 *Duan Wenjie Dunhuang yanjiu wushinian jinian wenji*, 207-225. Beijing: Shijie tushu gongsi.
- INOKUCHI Taijun 井ノ口泰淳  
1961 大谷探險隊将来トカラ語の二断片 Ōtani tankentai shōrai Tokarago no nidanpen. In: 西域文化研究會 Seiki Bunka Kenkyūkai (ed.), 中央アジア古代語文獻 [*Buddhist Manuscripts and Secular Documents of the Ancient Languages in Central Asia*] (西域文化研究 *Monumenta Serindica* IV), 343-349. Kyoto: Hōzōkan.
- Ji Xianlin 季羨林, Werner WINTER and Georges-Jean PIANULT  
1998 *Fragments of the Tocharian A Maitreyasamiti-Nātaka of the Xinjiang Museum, China* (Trends in Linguistics, Studies and Monographs 113). Berlin: Mouton de Gruyter.
- KONOW, Sten  
1935 Ein neuer Saka-Dialekt. *Sitzungsberichte der Preussischen Akademie der Wissenschaften, Jahrgang 1935, Philosophische-historische Klasse*: 772-823.



- 1947 The Oldest Dialect of Saka. *Norsk Tidsskrift for Sprogvidenskap* 14: 156-190.
- KRAUSE, Wolfgang
- 1948 Tocharian Studies in Germany. *Word* 4-1: 47-52.
- 1953 Eigennamen in tocharischen Texten. *Ural-Altaische Jahrbücher* 25: 11-18.
- KRAUSE, Wolfgang and THOMAS, Werner
- 1960 *Tocharisches Elementarbuch*, Band I. Heidelberg: Carl Winter Universitätsverlag.
- KUMAMOTO Hiroshi 熊本裕
- 1984 Hagaŋṣṭa. sūli. 四天王寺国際仏教大学文学部紀要 [Review of International Buddhist University Faculty of Letters] 17: 1-22.
- 1985 コータン語文献概説 Kōtango bunken gaisetsu. In: 山口瑞鳳 YAMAKUCHI Zuihō (ed.), 講座敦煌 6 敦煌胡語文獻 Kōza Tonkō 6 Tonkō Ko-go bunken, 101-130. Tokyo: Daito.
- 1987 \*hagaŋṣṭa 'information' (Dict.). In: R.E. EMMERICK and P. O. SKJÆVØ, *Studies in the Vocabulary of Khotanese II*, 151-154. Vienna: Österreichischen Akademie der Wissenschaften.
- 2001 Sino-Hvatanica Petersburgensia, Part 1. *Manuscripta Orientalia* 7(1): 3-9.
- 2007 Sino-Hvatanica Petersburgensia, Part 2. In: Maria MACUCH, Mauro MAGGI and Werner SUNDERMANN (eds.), *Iranian Languages and Texts from Iran and Turan*. (Iranica 13, Ronald E. Emmerick Memorial Volume) Wiesbaden: Harrassowitz.
- 2009 A St. Petersburg Bilingual Document and Problems of the Chronology of Khotan. *Journal of Inner Asian Art and Archaeology* 3: 75-82.
- LA VAISSIÈRE, Étienne de
- 2005 *Sogdian traders: A History* (translated by James Ward). Leiden: Brill.
- LE COQ, Albert von
- 1985[1928] *Buried Treasures of Chinese Turkestan*. Oxford: Oxford University Press.
- LÉVI, Sylvain
- 1913 Le «tokharien B», langue de Koutcha. *Journal Asiatique*, 11<sup>e</sup> série, 2: 311-380.
- 1933 Le «tokharien». *Journal Asiatique* 222: 1-30.
- Lu Xiangqian 盧向前
- 1992 高昌西州四百年貨幣關係演變述略——敦煌吐魯番文書經濟關係綜述之一 Gaochang Xizhou sibainian huobi guanxi yanbian shulüe — Dunhuang Tulufan wenshu jingji guanxi zongshu zhiyi. In: Lu Xiangqian, 敦煌吐魯番文書論稿 *Dunhuang Tulufan wenshu lungao*, 217-266. Nanchang: Jiangxi renmin chubanshe.
- LÜDERS, Heinrich
- 1940[1930] Weiter Beiträge zur Geschichte und Geographie von Ostturkestan. In: *Philologica Indica*, Festgabe zum siebzigsten Geburtstage am 25. Juni 1939 dargebracht von Kollegen, Freunden und Schülern, 526-546. Göttingen: Vandenhoeck & Ruprecht. Originally published in *Sitzungsberichte der Preußischen Akademie der Wissenschaften, Philosophisch-historische Klasse*, 1930, 7-64.

MALZAHN, Melanie

- 2007 Tocharian Texts and Where to Find Them. In: Melanie MALZAHN (ed.), *Instrumenta Tocharica*, 79-112. Heidelberg: Universitätsverlag Winter.

MATSUI Dai 松井太

- 1998 ウイグル文クトルグ印文書 [Uigur Administrative Orders Bearing “Qutluq-seals”]. *SIAL* 13: 1-62.

MAUE, Dieter

- 1996 *Altürkische Handschriften Teil I, Dokumente in Brāhmī und tibetischer Schrift*. (Verzeichnis der orientalischen Handschriften in Deutschland XIII, 9). Stuttgart: Steiner.
- 2004 Konow Zeichen Nr. 10. In: Desmond DURKIN-MEISTERERNST, Simone-Christiane RASCHMANN, Jens WILKENS, Marianne YALDIZ and Peter ZIEME (eds.), *Turfan Revisited – The First Century of Research into the Arts and Cultures of the Silk Road*, 208-212. Berlin: Dietrich Reimer.
- 2009 Uigurisches in Brāhmī in nicht-uigurischen Brāhmī-handschriften. *Acta Orientalia Academiae Scientiarum Hungaricae* 62-1: 1-36.

MORIYASU Takao 森安孝夫

- 1991 ウイグル＝マニ教史の研究 [A Study on the History of Uighur Manichaeism. – Research on Some Manichaean Materials and their Historical Background]. 大阪大学文学部紀要 [Memoirs of the Faculty of Literature, Osaka University] 31/32.
- 2004a シルクロード東部における通貨—絹・西方銀錢・官布から銀錠へ [Currencies on the Eastern Part of the Silk Road]. In MORIYASU Takao (ed.), 中央アジア出土文物論叢 [Papers on the Pre-Islamic documents and other materials unearthed from Central Asia], 1-40. Kyoto: Hōyū shoten.
- 2004b From silk, cotton and copper coin to silver. Transition of the currency used by the Uighurs during the period from the 8<sup>th</sup> to the 14<sup>th</sup> centuries. In: Desmond DURKIN-MEISTERERNST, Simone-Christiane RASCHMANN, Jens WILKENS, Marianne YALDIZ and Peter ZIEME (eds.), *Turfan Revisited – The First Century of Research into the Arts and Cultures of the Silk Road*, 228-239. Berlin: Dietrich Reimer.
- 2004c *Die Geschichte des uigurischen Manichäismus an der Seidenstraße-Forschungen zu manichäischen Quellen und ihrem geschichtlichen Hintergrund*, translated from Moriyasu (1991) by Christian STEINECK. Wiesbaden: Harrassowitz.
- 2004d 亀茲国金花王と硃砂に関するウイグル文書の発見 [The Discovery of an Uighur Buddhist Text Recounting a Kuchean King Named Suvarṇapūṣpa]. In: 三笠宮殿下米寿記念論集 [Collected Articles and Essays in Honour of His Imperial Highness Prince Mikasa on the Occasion of His Eighty-eighth Birthday], 703-716. Tokyo: Tōsui shobō.
- 2008 Epistolary Formulae of the Old Uighur Letters from Central Asia. *Acta Asiatica* 94: 127-153.

NIIDA Noboru 仁井田陞

- 1937 唐宋法律文書の研究 *Tō-Sō hōritsu monjo no kenkyū*. Tokyo: Daian.

- 1939 A Study of Simplified Seal-Marks and Finger-Seals in Chinese Documents, with Special Reference to Document secured in the Western Regions. *Memoirs of the Research Department of the Tōyō Bunko* 11: 79-131.
- 1960 中國法制史研究—土地法・交易法— [A Study of Chinese Legal History – Law of Land and Law of Transactions –]. Tokyo: University of Tokyo Press.
- OGIHARA Hirotoishi 荻原裕敏
- 2009 Researches about Vinaya-texts in Tocharian A and B. Doctoral thesis, École Pratique des Hautes Études.
- PAN Jixing 潘吉星
- 1979 中國造紙技術史稿 *Zhongguo zaozhi jishu shigao*. Beijing: Wenwu chubanshe.
- PEYROT, Michaël
- 2008 *Variation and Change in Tocharian B*. Amsterdam: Rodopi.
- PINAULT, Georges-Jean
- 1987 Épigraphic Koutchéenne, I. Laissez-passer de caravanes, II. Graffites et inscriptions. In: CHAO Huashan, Simone GAULIER, Monique MAILLARD and G.-J. PINAULT, *Sites divers de la région de Koutcha, Épigraphie koutchéenne*, 59-196, planches 40-96. (Mission Paul Pelliot 8) Paris: Collège de France.
- 1989 Introduction au tokharien. *Lalies* 7: 3-224.
- 1994 Aspects du bouddhisme pratiqué au nord du désert du Taklamakan, d'après les documents tokhariens. In: Fumimasa FUKUI and Gérard FUSSMAN (eds.), *Bouddhisme et cultures locales. Quelques cas de réciproques adaptations*, Actes du colloque franco-japonais (Paris, 23-27 septembre 1991), 85-113. Paris: École Française d'Extrême-Orient.
- 1998b Economic and administrative documents in Tocharian B from the Berezovsky and Petrovsky collections. *Manuscripta Orientalia* 4-4: 3-20.
- 2007 Concordance des manuscrits tokhariens du fonds Pelliot. In: Melanie MALZAHN (ed.), *Instrumenta Tocharica*, 163-219. Heidelberg: Universitätsverlag Winter.
- 2008 *Chrestomathie tokharienne. Textes et grammaire*. Leuven: Peeters.
- 2009 On the formation of the Tocharian demonstratives. In: Elisabeth RIEKEN and Paul WIDMER (eds.), *Pragmatische Kategorien: Form, Funktion und Diachronie*, 221-245. Wiesbaden: Reichert.
- PULLEYBLANK, Edwin G.
- 1991 *Lexicon of Reconstructed Pronunciation in Early Middle Chinese, Late Middle Chinese, and Early Mandarin*. Vancouver: UBC press.
- RHODES, Nicholas
- 1997 Tang Dynasty Coins Made in Xinjiang. In: Katsumi TANABE, Joe CRIBB and Helen WANG (eds.), *Studies in Silk Road Coins and Culture. Papers in Honour of Professor Ikuro Hirayama on His 65<sup>th</sup> Birthday*, 181-186. Kamakura: The Institute of Silk Road Studies.

RONG Xinjiang 榮新江

- 1992 所謂‘Tumshuqese’文書中的‘gyāzdi-’ [On *gyāzdi-* found in the so-called Tumshuqese documents]. *SIAL* 7: 1-12.
- 2009 The Name of the So-called ‘Tumshuqese’ Language. *Bulletin of the Asia Institute* 19 (Festschrift in honor of Oktor Skjærvø’s 65<sup>th</sup> birthday): 121-127.

SCHAEFER, Christiane

- 1997 *waṣiḳ- kalpaṣṣuki*, Zu den westtocharischen Nominalbildungen auf *-uki*. *Tocharian and Indo-European Studies* 7: 163-176.

SCHMIDT, Klaus T.

- 1999[2002] Beobachtungen zur tocharischen Landwirtschaftsterminologie. *Die Sprache* 41-1: 1-23.
- 2001 Zeitenwende an der Seidenstrasse. Zur Sprachgeschichte des Westtocharischen nach der Schlacht von To-ho (648 n. Chr.). In: Luc DEITZ (ed.), *Tempus edax rerum, le bicente-naire de la Bibliothèque nationale de Luxembourg (1798-1998)*, 151-162. Luxembourg: Bibliothèque nationale de Luxembourg.

SCHOPEN, Gregory

- 1990 The Buddha as an Owner of Property and Permanent Resident in Medieval Indian Monasteries. *Journal of Indian Philosophy* 18: 181-217.
- 1994 The Monastic Ownership of Servants or Slaves. Local and Legal Factors in the Redactional History of Two *Vinayas*. *Journal of the International Association of Buddhist Studies* 17-2: 145-173.
- 1996 The Lay Ownership of Monasteries and the Role of the Monk in Mūlasarvāstivādin Monasticism. *Journal of the International Association of Buddhist Studies* 19-1: 81- 126.

SIEG, Emil

- 1950 Geschäftliche Aufzeichnungen in Tocharisch B aus der Berliner Sammlung. *Miscellanea Academica Berolinensia*, IV/2: 208-23.

SILK, Jonathan A.

- 2008 *Managing Monks. Administrators and Administrative Roles in Indian Buddhist Monasticism*. New York: Oxford University Press.

SIMS-WILLIAMS, Nicholas

- 2002 Ancient Afghanistan and its invaders: Linguistic evidence from the Bactrian documents and inscriptions. In: Nicholas SIMS-WILLIAMS (ed.), *Indo-Iranian Languages and Peoples*, 225-242. Oxford: Oxford University Press.

SIMS-WILLIAMS, Nicholas and HAMILTON, James

- 1990 *Documents turco-sogdiens du IX<sup>e</sup>-X<sup>e</sup> siècle de Touen-houang* (Corpus Inscriptionum Iranicarum, Part 2, Vol. 3: Sogdian, 3). London: School of Oriental and African Studies.

SKAFF, Jonathan Karam

- 1998 Sasanian and Arab-Sasanian Silver Coins from Turfan: Their Relationship to International Trade and the Local Economy. *Asia Major*, 3rd. ser. 11-2: 67-115.

SKJÆRVØ, Prods Oktor

- 2002 *Khotanese Manuscripts from Chinese Turkestan in the British Library*. London: The British Library. (Reprinted with corrections in 2003).
- 2009 The End of Eighth-Century Khotan in its Texts. *Journal of Inner Asian Art and Archaeology* 3: 119-144.

TAKEUCHI Tsuguhito 武内紹人

- 1990 On the Tibetan texts in the Ōtani Collection. In: HANEDA Akira (ed.), *Documents et Archives provenant de l'Asie Centrale. Acte du Colloque Franco-japonais* (Kyoto, 4-8 octobre 1988), 205-216. Kyoto: Société Franco-Japonaise des Etudes Orientales.
- 1994 A Study of the Old Tibetan Contracts. Doctoral thesis, Department of Central Eurasian Studies, Indiana University.

TAMAI Tatsushi 玉井達士

- 2004 On Tocharian Document No. 174 in the Tokyo National Museum. *SIAL* 19: 95-107.
- 2005 Paläographische Untersuchung und <sup>14</sup>C-Prüfung. Lecture held at the conference *Digitalisierung der chinesischen, tibetischen, syrischen und Sanskrit-Texte der Berliner Trufansammlung*, June 2, 2005, Berlin. See [www.bbaw.de/bbaw/Forschung/Forschungsprojekte/turfanforschung/bilder/Tamai.pdf](http://www.bbaw.de/bbaw/Forschung/Forschungsprojekte/turfanforschung/bilder/Tamai.pdf)

THIERRY, François

- 1997 On the Tang Coins Collected by Pelliot in Chinese Turkestan (1906-1909). In: Katsumi TANABE, Joe CRIBB and Helen WANG (eds.), *Studies in Silk Road Coins and Culture. Papers in Honour of Professor Ikuo Hirayama on His 65<sup>th</sup> Birthday*, 149-179. Kamakura: The Institute of Silk Road Studies.
- 2000 Entre Iran et Chine, la circulation monétaire en Sérinde du I<sup>er</sup> au IX<sup>e</sup> siècle. In: J.-P. DRÈGE (ed.) *La Sérinde, terre d'échanges. XIV<sup>es</sup> Rencontres de l'École de Louvre*, 13-15 février 1996, 121-146. Paris: La Documentation française.

THOMAS, Werner

- 1964 *Tocharisches Elementarbuch*, Band II. Heidelberg: Carl Winter Universitätsverlag.

TROMBERT, Éric

- 2000 *Les manuscrits chinois de Koutcha. Fonds Pelliot de la Bibliothèque nationale de France*. Paris: Institut des Hautes Études Chinoises du Collège de France.

WANG, Helen

- 2004 *Money on the Silk Road, the evidence from Eastern Central Asia to c. AD 800*. London: the British Museum Press.

WEBER, Dieter

- 1975 Sogdische Miscellen. *Indogermanische Forschungen* 80: 90-97.

WEN Xin 文欣

- 2008 中古時期于闐國政治制度研究 [Study on the Political Institutions of Pre-Islamic Khotan]. Master thesis of the Department of History, Peking University.

WINTER, Werner

- 1955 A linguistic classification of "Tocharian" B texts. *Journal of the American Oriental Society* 75: 216-225.

Wu Zhen 吳震

- 1995 吐魯番出土券契文書的表層考察 Tulufan chutu quanqi wenshu de biaocong kaocha. 敦煌吐魯番研究 [Journal of the Dunhuang and Turfan Studies] 1: 231-270.

Xinjiang Kuche Institute of Grottoes 新疆龜茲石窟研究所

- 2000 克孜爾石窟內容總錄 [Comprehensive Record of Contents of Kizil Grottoes]. Urumqi: Xinjiang meishu sheying chubanshe.

YAMADA Nobuo 山田信夫; edited and revised by ODA Juden 小田壽典, Peter ZIEME, UMEMURA Hiroshi 梅村坦 and MORIYASU Takao 森安孝夫

- 1992 ウイグル文契約文書集成 *Sammlung uigurischer Kontrakte*, 3 vols.. Suita (Osaka): Osaka University Press.

YANG Jiping 楊際平 and Li Qing 李卿

- 2004 魏晉隋唐券書常見的有關署券、執券的套話 Weijin Suitang quanshu changjian de youguan shuquan, zhiquan de taohua. In: 殷憲 Yin Xian (ed.), 北朝史研究 *Beichaoshi yanjiu*. Beijing: Shangwu yinshuguan.

YOSHIDA Yutaka 吉田豊

- 2006 コータン出土 8-9 世紀のコータン語世俗文書に関する覚え書き [Notes on the Khotanese documents of the 8<sup>th</sup>-9<sup>th</sup> centuries unearthed from Khotan] (Monograph Series in Foreign Studies, Vol. 38). Kobe: Kobe City University of Foreign Studies.
- 2007 Notes on the Khotanese Secular Documents of the 8<sup>th</sup>-9<sup>th</sup> centuries. In: Maria MACUCH, Mauro MAGGI and Werner SUNDERMANN (eds.), *Iranian Languages and Texts from Iran and Turan*. (Iranica 13, Ronald E. Emmerick Memorial Volume), 463-472. Wiesbaden: Harrassowitz.
- 2008 On the Taxation System of Pre-Islamic Khotan. *Acta Asiatica* 94: 95-126.

ZHANG Guangda 張廣達 and RONG Xinjiang 榮新江

- 1997 八世紀下半至九世紀初的于闐 [Khotan Between the Second Half of the Eighth Century and Early Ninth Century]. 唐研究 *Tang yanjiu* 3: 339-361.
- 2002 聖彼得堡藏和田出土漢文文書考釋 [Interpretation of the Chinese Documents from Khotan Preserved in St. Petersburg]. 敦煌吐魯番研究 [Journal of the Dunhuang and Turfan Studies] 6: 221-241.
- 2009 On the Dating of the Khotanese Documents from the Area of Khotan. *Journal of Inner Asian Art and Archaeology* 3: 149-156.

ZHAO Li 趙莉

- 2006 克孜爾石窟分期年代研究綜述 Kezi'er shiku fenqi niandai yanjiu zongshu. In: 龜茲文化研究 *Qiuci wenhua yanjiu* 3: 79-88.