# Newly Discovered Chinese-Khotanese Bilingual Tallies

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Since 2005, the National Library of China has acquired in succession a group of 35 Chinese-Khotanese bilingual wooden tallies. These (Set I below) are all records of tax collection, dated in the 10th year of the Kaiyuan era of the Tang dynasty (618-907) = 722 CE.

In 1998, Aziz Abdurashit of the Bureau of Cultural Relics of Khotan published the Chinese texts of four other bilingual tallies (Set II below),<sup>1</sup> which were also noticed by Yutaka Yoshida.<sup>2</sup> Aziz Abdurashit's readings, however, contained many errors which we have endeavoured to correct using new photographs. These tallies are very similar to those in the National Library collection and date from 727, only five years later. We therefore thought it would be appropriate to publish them together.

In addition to the Chinese and Khotanese inscriptions, the tallies all contain notches indicating the amount of grain delivered. Deep notches indicate the number of *shuo* 碩 or *kūsas* (a measure) while shallower ones indicate the number of *dou* 斗 (originally in the vernacular form 异) or *samga/kha*. Every deep notch has a small ink dot, and every tenth is painted black, no doubt to facilitate counting. The use of tallies with such notches was common practice in pre-modern Asia, and similar tallies have also been discovered in the Bactrian language.<sup>3</sup> However no such tallies have been found in China proper, at Dunhuang, or at Turfan after the eighth century, when paper was most widely used as means of recording. The use of tallies in Khotan may therefore have followed a Central Asian tradition.

The information on the tallies is contained in the Chinese and Khotanese texts and in the system of notches. The Chinese text is written (vertically) from the top of one side of the tally (recto) and then continued on the opposite side (verso). Where there were already deep notches, the Chinese scribe avoided them. The Khotanese text was written (horizontally) where the Chinese ended and in some cases, when there was no room on the recto or verso, on the narrow side of the tally (to the right or left of the Chinese recto). Tally no. 14 was cut square and has four flat sides, with the texts written on adjacent sides. The notches were presumably carved first, then the Chinese text was added, and finally the Khotanese. On each tally, a hole was drilled, perhaps for attaching it to the containers in which the grain was delivered. There are still short strings in the holes of tallies 24, 35, and 36-39. The grain was delivered by local Khotanese, and, in the tallies of Set II, the deliverer bore the title *chi ban* 叱半 (with variant *chu ban* 處半),<sup>4</sup> Khot. *chau pam*.<sup>5</sup> From the tallies and other documents, it appears that one of the major responsibilities of a *chi ban* was to collect tax from local villagers, which he would then hand over to higher officials in the government of Khotan and in the Chinese army of Khotan Garrison.<sup>6</sup>

Local Chinese officials played key roles in the recording process. In both sets of tallies we have two kinds of officials belonging to the Tang administrative system of the Garrison of Khotan. The title guan 首 (here: "official") is short for panguan 判官 (an administrative assistant), a term attested in Khotanese as *phani-kvani*.<sup>7</sup> In Tang bureaucracy, the position of *panguan* is higher than that of *dian* 典 (a subordinate clerk; here: "clerk"), although the panguan is mentioned after the dian in the Chinese text on the tallies. The reason for this is that most of the Chinese texts were written by one and the same person, presumably the clerk, while the administrative assistants added their signatures later for authorization. In Set I, there were apparently two administrative assistants who signed the tallies at different times. Their handwriting was very cursive, so our readings of their names, especially the character bing 並 in Zhang Bing 張並 and xiang 相 in Xiang Hui 相惠 and Xiang Daohui 相道惠 are tentative.

The Khotanese text was written after the Chinese by an anonymous scribe or other official, who, in some cases, was not aware of the content of the Chinese, as suggested by the discrepancies between the Chinese and Khotanese texts.

One important aspect of these tallies is their relative antiquity, as they are among the oldest dated Chinese documents discovered in the Khotan area.<sup>8</sup> Another is the involvement of Chinese officials in the local tax-collection of Khotan at this early period, indicating that Chinese influence was greater than was previously thought.

#### TRANSCRIPTION AND TRANSLATION

The tallies in Set I were recently acquired by the National Library of China. They are still being conserved and have not yet been assigned library numbers. The tallies in Set II are in a private collection in Khotan, and we have only pictures of them. The following transcriptions and translations are arranged chronologically. To facilitate understanding, punctuation marks are added in the Chinese texts. A single slash / marks a second line below the first line.

### SET I

- 1. Dimensions: 35.9 x 2.6 cm.
- Chinese:
  - r. 拔伽不遶俱,送小麥叁碩貳斗。開元十年八月四日,典
  - v. 何仙, 官张並、相惠。
  - "Buraoju of Bajia delivered 3 *shuos 2 dous* of wheat on the 4th day of the 8th month of the 10th year of Kaiyuan (= 722). Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."
- Khotanese:
  - || istākajā puñekulā ganaṃ hauḍā kūsa 2 ṣaṃga 3 ṣau marṣi / salya ||
  - "Puñekula of Ustāka delivered 2 *kūsa*s 3 *ṣaṃga*s of wheat in the year of the *ṣau* Marṣa."
- Khotanese:
  - Note: The amount of grain is less in the Khotanese. This may be an error on the part of the scribe.

2. Dimensions: 39.5 x 2.4 cm.

- Chinese:
  - r. 拔伽勃邏道才,送小麥柒碩。開元十年八月四日,典
  - v.何仙,官張並、相惠。
  - "Boluodaocai of Bajia delivered *7 shuos* of wheat on the 4th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."
- Khotanese:
  - *birgamdara bradāysai ganam haudi kūsa 7 ṣau marṣā salya* "Bradāysaa of Birgamdara delivered 7 *kūsas* of wheat in the year of the *ṣau* Marṣa."
- 3. Dimensions: 36.1 x 2.6 cm.

#### Chinese:

- r.拔伽伊里喪宜,送小麥貳
- v. 拾碩壹斗。開元十年八月五日, 典何仙, 官張 並、相惠。
- "Yilisangyi of Bajia delivered 20 *shuos 1 dou* of wheat on the 5th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."
- Khotanese:

birgaṃdara īrasaṃgä ganaṃ hauḍi kūsa 20

"Īrasaṃga of Birgaṃdara delivered 20 *kūsas* of wheat." Note: The amount of grain is less in the Khotanese.

- 4. Dimensions: 28.5 x 1.8 cm.
- Chinese:
  - r.拔伽不遶俱,送青麥伍碩柒斗。開元十年八
  - v. 月六日, 典何仙, 官張並、相惠。
- "Buraoju of Bajia delivered 5 *shuos 7 dous* of highland barley on the 6th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui." Khotanese:
  - || istākajā puñekulā rrusa hauḍā kūsa 5 ṣaṃga 7 ṣau marṣi salya ||

"Puñekula of Ustāka delivered 5 *kūsas 7 ṣaṃga*s of highland barley in the year of the *ṣau* Marṣa."

5. Dimensions: 41.7 x 2.8 cm.

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Chinese:
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- r.拔伽伊里喪宜,送青麥貳拾陸碩。開元
- v.十年八月六日,典何仙,官張並、相惠。
- "Yi[li]sangyi of Bajia delivered 26 *shuos* of highland barley on the 6th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

- birgaṃdara īrasaṃgä rrusa hauḍi kūsa 26
- "Īrasaṃga of Birgaṃdara delivered 26 *kūsa*s of highland barley."

6. Dimensions: 43.5 x 1.9 cm.

Chinese: r. 拔伽本搦,送青兩碩壹斗。開元十年八月七日, 典何仙,官

v. 張並、相惠。

"Bennuo of Bajia delivered 2 *shous 1 dou* of highland [barley] on the 7th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

### Khotanese:

- || istākajā bāmdakā rrusa haudā kūsa 2 samgā 1 sau marsi' salya ||
- "Bāmḍaka of Ustāka delivered 2 *kūsas 1 ṣaṃga* of highland barley in the year of the *ṣau* Marṣa."

7. Dimensions: 31.9 x 2.5 cm.

### Chinese:

- r.拔伽勿悉莽,送青麥壹碩壹斗。開元十年八月八日,典何
- v.仙,官張並、相惠。
- "Wuximang of Bajia delivered 1 *shuo* 1 *dou* of highland barley on the 8th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

- || birgaṃdarajā visma rrusa hauḍā kūsā 1 ṣaṃgā 1 ṣṣau ma / marṣi salya ||
- "Visma of Birgamdara delivered 1 *kūsa 1 ṣaṃga* of highland barley in the year of the *ṣṣau* Marṣa."

Note: The *ma* of *marși* is at the end of line 1 and was erroneously repeated in line 2.

8. Dimensions: 36.6 x 2.5 cm.

### Chinese:

- r. <u>拔伽賀</u>悉捺,送小麥叁碩貳斗。開元十年八月九日, 典何
- v. 仙, 官張並、相惠。

"[He]xina of [Bajia] delivered 3 *shous 2 dous* of wheat on the 9th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

### Khotanese:

- || birgaṃdarajä haskadattä ganaṃ hauḍi kūsa 3 ṣaṃga 2 ṣo / marṣi salya ||
- "Haskadatta of Birgaṃdara delivered 3 *kūsas 2 ṣaṃga*s of wheat in the year of *ṣau* Marṣa."
- Note: *so* instead of *sau* at the edge, here and elsewhere (POS).
- 9. Dimensions: 34.0 x 3.0 cm.

### Chinese:

r.拔伽阿亮隅,送青麥壹碩貳斗。開元十年八月廿 二日,典何仙,官

v. 張並、相惠。

"Aliangyu of Bajia delivered 1 *shuo 2 dous* of highland barley on the 22nd day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

*birgaṃdara aryaṃgulä rrusa hauḍä kūsi 1 kha 2* "Aryaṃgula of Birgaṃdara delivered 1 *kūsa 2 kha*s of highland barley."

10. Dimensions: 28.0 x 1.8 cm.

### Chinese:

- r.拔伽桑□,送青麥捌斗。開元十年
- v. 八月廿二日, 典何仙, 官張並、相惠。
- "Sang[...] of Bajia delivered 8 *dous* of highland barley on the 22nd day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese: birgamdara samgatä rrusa haudi kha 8

"Saṃgata of Birgaṃdara, delivered 8 *kha*s of highland barley."

11. Dimensions: 41.7 x 2.0 cm.

### Chinese:

r. 拔伽勿悉朗,送青麥肆碩。開元十年八月廿二 日,典何仙,

v. 官張並、相惠。

"Wuxilang of Bajia delivered 4 *shous* of highland barley on the 22nd day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui." Khotanese:

birgamdara visaram rrusa hauḍi kūsa 4

"Visaram of Birgamdara delivered 4 *kūsas* of highland barley."

12. Dimensions: 39.5 x 2.0 cm.

### Chinese: r. 拔伽<u>勿</u>悉朗,送小麥叁碩陸斗。開元十<u>年</u>八月廿 二日,

v. 典何仙, 官張並、相惠。

"[Wu]xilang of Bajia delivered 3 *shuos 6 dous* of wheat on the 22nd day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

birgamdara visaram ganam haudi kūsa 3 kha 6

"Visaraṃ of Birgaṃdara delivered 3 *kūsa*s 6 *kha*s of wheat."

13. Dimensions: 36.0 x 2.3 cm.

Chinese:

- r. 拔伽悉木那,送床壹碩捌斗。開元十年八月廿八 日,
- v. 典何仙, 官張並、相惠。

"Ximuna of Bajia delivered 1 *shuo 8 dous* of millet on the 28th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

### Khotanese:

- || birgaṃdarajä sumauna āysaṃ hoḍä kūsä 1 ṣṣaṃga 8 ṣau marṣi / salya ||
- "Sumauna of Birgaṇḍdara delivered 1 *kūsa 8 ṣaṇŋga*s of millet in the year of the *ṣau* Marṣa."

Note: The character song 送 was erroneously repeated.

14. Dimensions: 26.9 x 1.7 cm.

- Chinese (written on two adjacent sides of the square cut tally):
  - side I. 拔伽悉那木,送粟捌斗。開元十年八月廿八日,典何仙,
  - side II. 官張並、相惠。
  - "Ximuna of Bajia delivered 8 *dou*s of millet on the 28th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Note: Xinamu 悉那木 has a transposition sign between *na* 那 and *mu* 木 and should be read Ximuna 悉木那.

Khotanese:

- || birgamdarajä sumauna gau'sä haudä samga 8 / so marsä salya ||
- "Sumauna of Birgamdara delivered 8 *samga*s of millet in the year of *sau* Marsa."

Note: *so* for *sau* presumably because the scribe thought there was too little room below *bi* (POS).

15. Dimensions: 41.7 x 2.5 cm.

### Chinese:

r.拔伽伊里喪宜,送粟壹拾壹碩捌斗。開元十

v.年八月廿八日,典何仙,官張並、相[惠]。

"Yilisangyi of Bajia delivered 11 *shous* 8 *dous* of millet on the 28th day of the 8th month of the 10th year of Kaiyaun era. Clerk: He Xian. Officials: Zhang Bing, Xiang [Hui]."

Khotanese:

|| birgamdarajā īrasamgā gausā hodi kūsa 11 ssamga 8 ssau marsi salya ||

"Īrasaṃga of Birgaṃdara delivered 11 *kūsas 8 ṣaṃgas* of millet in the year of the *ṣṣau* Marṣa."

Note: hodi for haudi at the edge.

16. Dimensions: 33.9 x 2.3 cm.

Chinese:

- r. 拔伽伊里喪宜,送床壹碩伍斗。開元十年八月廿 八
- v. 日, 典何仙, 官張並、相惠。

"Yilisangyi of Bajia delivered 1 *shuo 5 dous* of wheat on the 28th day of the 8th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

- || istākajā aryaṃgulā āysaṃ hauḍā kūsā 1 ṣa ṣaṃga 5 ṣo marṣi salya ||
- "Aryaṃgula of Ustāka delivered 1 *kūsa 5 ṣaṃgas* of millet in the year of the *ṣau* Marṣa."
- Note: The scribe was apparently dissatisfied with the *sa* of *samga* and wrote it once more (POS).

17. Dimensions: 46.0 x 2.7 cm.

Chinese:

r. 拔伽勃邏道才,送床柒碩壹斗。開元十年九月三 日,典何仙, 官

v. 张並、相惠。

"Boluodaocai of [Bajia] delivered 7 *shous* 1 *dou* of millet on the 3rd day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. [Officials:] Zhang Bing, Xiang Hui."

### Khotanese:

|| istākajā bryadāysai āysaṃ hauḍā kūsa ⁊ ṣaṃgā 1 ṣṣau marṣi salya ||

"Bryadāysaa of Ustāka delivered *7 kūsas 1 ṣaṃga* of millet in the year of the *ṣau* Marṣa."

18. Dimensions: 29.6 x 2.1 cm.

### Chinese:

- r. 拔伽勃邏道才,送粟壹碩伍斗。開元十年九月三日,
- v. 典何仙, 官張並、相惠。
- "Boluodaocai of Bajia delivered 1 *shou 5 dous* of millet on the 3rd day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

|| istākajā bryadāysai gausā hauḍā kūsā / 1 ṣaṃga 5 ṣau marṣi' salya ||

"Bryadāysaa of Ustāka delivered 1 *kūsa 5 ṣaṃga*s of millet in the year of the *ṣau* Marṣa."

19. Dimensions: 28.1 x 2.8 cm.

Chinese:

- r. 拔伽薩夢那,送床貳斗。開元十年九月三日,典
- v.仙,官張並、相惠。
- "[Sa]mengna of Bajia delivered 2 *dous* of millet on the 3rd day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Note: The reading of sa  $\overline{k}$  is tentative.

Khotanese:

|| *birgaṃdarajä sumauna gausä hauḍä ṣaṃga 2* "Samauna of Birgaṃdara delivered 2 *ṣaṃga*s of millet."

Note: The type of grain differs in the two languages. One of the two must be a mistake.

20. Dimensions: 30.2 x 1.9 cm.

Chinese:

r. 拔伽裴捺,送青麥叁碩叁斗。開元十年九月五 日,典

v.何仙,官張並、相惠。

"Peina of Bajia delivered 3 *shuos 3 dou*s of highland barley on the 5th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

ustākaji puñadatti rrusa hauḍi kū[sa 3] kha 3

"Puñadatta of Ustāka delivered 3 *kūsa*s 3 *kha*s of highland barley."

21. Dimensions: 32.2 x 3.0 cm.

Chinese:

r.拔伽本搦,送床壹碩伍斗。開元十年九月七日,

v. 典何仙, 官張並、道相惠。

"Bennuo of Bajia delivered 1 *shou* 5 *dous* of millet on the 7th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Note: In the signature, *dao* 道 is written below *bing* 並 and *xianghui* 相惠 below them, upside down.

Khotanese:

|| istākajā bāmdakā gau'sā haudā kūsā / 1 ṣṣamga 5 ṣau marṣi' salya ||

"Bāmḍāka of Ustāka delivered 1 *kūsa 5 ṣaṃga*s of millet in the year of the *ṣau* Marṣa."

Note: The type of grain differs in the two languages. One of the two must be a mistake.

22. Dimensions: 45.0 x 2.7 cm.

Chinese:

r.拔伽裴捺,送粟壹碩柒斗。開元十年九月七日, 典何仙,官張

v. 並、相道惠。

"Peina of Bajia delivered 1 *shou 7 dous* of millet on the 7th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

|| istākajā puñadattā gau'sā hauḍā kūsā 1 ṣṣaṃga 7 ṣṣau marṣi' salya ||

"Puñadatta of Ustāka delivered 1 *kūsa 7 ṣaṃga*s of millet in the year of the *ṣṣau* Marṣa."

23. Dimensions: 52.6 x 2.7 cm.

### Chinese:

- r. 拔伽伊里喪宜,送粟玖碩。開元十年九月七日, 典何仙,官張
- v. 並、相惠。
- "Yilisangyi of Bajia delivered 9 *shous* of millet on the 7th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang [Bing], Xiang Hui."

Khotanese:

- || *istākajā īrasamgā gausā haudā kūsa 9 ṣṣau marṣi' salya* || "Īrasamga of Ustāka delivered 9 *kūsa*s of millet in the year of *ṣṣau* Marṣa."
- Note: The scribe presumably omitted the hook in *gausä* because there was no room at the edge (POS).

24. Dimensions: 29.1 x 2.6 cm.

- Chinese:
  - r.拔伽口口,送床壹碩柒斗。開元十年九月
  - v. 八日, 典何仙, 官張並、相道惠。
  - " [...] of Bajia delivered 1 *shuo 7 dous* of millet on the 8th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese (on recto below the Chinese):

- || istākajā virśa āysaṃ hoḍā kūsā 1 ṣaṃga 7 ṣau marṣā salya ||
- "Vi*rśa* of Ustāka delivered 1 *kūsas 7 ṣaṃgas* of millet at the year of *ṣau* Marṣa."
- Note: The reading of the second akṣara of Vi*rśa* is uncertain (POS).

25. Dimensions: 39.2 x 2.0 cm.

### Chinese:

- r. 拔伽阿兩隅,送粟貳碩叁斗。開元十年九月十九 日, 典何仙, 官
- v. 張並、相道惠。

"Aliangyu of Bajia delivered 2 *shuos* 3 *dous* of millet on the 19th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

- birgamdara aryamgulä gau'si haudi kūsa 2 kha 3 mūtcacajä māśtä ṣau marṣa salya
- "Aryaṃgula of Birgaṃdara delivered 2 *kūsas 3 kha*s of millet in the month of Mūtcaca of the year of the *sau* Marṣa."
- 26. Dimensions: 28.8 x 2.5 cm.

### Chinese:

r. 拔伽阿兩隅,送青麥肆斗。開元十年九月十九 日, v. 典何仙, 官張並、相道惠。

"Aliangyu of Bajia delivered 4 *dous* of highland barley on the 19th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

aryaṃgulä

"Aryaṃgula."

27. Dimensions: 44.9 x 2.5 cm.

- Chinese:
  - r. 拔伽伊里喪宜,送床拾碩。開元十年九月十九 日,典何仙,

v.官張並、相道惠。

"Yilisangyi of Bajia delivered 10 *shuo*s of millet on the 19th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

@ birgamdara īrasamgā āysam haudi kūsa 10 şau marşā salya mūtcacaji māśtä

28. Dimensions: 39.0 x 2.5 cm.

- Chinese:
  - r.拔伽賀悉雞捺,送粟壹碩叁斗。開元十年九月廿 日,典何
  - v. 仙, 官張並、相道惠。

"Hexijina of Bajia delivered 1 *shuo 3 dous* of millet on the 20th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

|| haskadati birgaṃdara

"Haskadatta of Birgaṃdara."

29. Dimensions: 28.0 x 2.7 cm.

Chinese:

r.拔伽不你俱,送粟肆斗。開元十年九日廿三日,

v. 典何仙, 官張並、相道惠。

"Buniju of Bajia delivered 4 *dous* of millet on the 23th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

puñekulī

"Puñekula."

30. Dimensions: 33.3 x 1.7 cm.

Chinese:

r.拔伽賀捺,送床壹碩肆斗。開元十年九月廿四

- v. 日, 典何仙, 官張並、相道惠。
- "Hena of Bajia delivered 1 *shuo 4 dous* of millet on the 24th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

<sup>&</sup>quot;Īrasaṃga of Birgaṃdara delivered 10 *kūsa*s of millet in the month of Mūtcacaja of the year of the *sau* Marṣa."

Khotanese: *haskadati birgada* "Haskadatta of Birgaṃda[ra]."

31. Dimensions: 18.7 x 2.4 cm.

Chinese:

r.拔伽賀悉捺,送青麥壹斗。開元十年九月

v. 廿四日, 典何仙, 官張並、相道惠。

"Hexina of Bajia delivered *1 dou* of highland barley on the 24th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui." Note: The Chinese character *hui* 惠 is written upside down

Khotanese (on recto below the Chinese): *haskadati birgada* "Haskadatta of Birgamda[ra]."

32. Dimensions: 35.5 x 3.3 cm.

Chinese:

- r. 拔伽裴捺,送小麥貳斗。開元十年九月廿四日, 典何仙,官
- v. 張並、相道惠。

"Peina of Bajia delivered 2 *dous* of wheat on the 24th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Khotanese:

|| istākajā puñadattā ganam haudā ṣṣamga 2 ṣau marṣi salya ||

"Puñadatta of Ustāka delivered 2 *ṣaṃga*s of wheat in the year of the *ṣau* Marṣa."

33. Dimensions: 41.5 x 3.3 cm.

- Chinese:
  - r.拔伽伊里喪宜,送粟壹碩捌斗。開元十年九月廿 四日,典何仙,官張
  - v. 並、相道惠。

"Yilisangyi of Bajia delivered 1 *shou 8 dou*s of millet on the 24th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui."

Note: mi  $\bigcirc$  corrected into su  $\bigcirc$ . See below.

# Khotanese:

|| istākajā īrasamgā gau'sā hauḍā kūsā 1 ṣṣamga 8 ṣau marṣi' salya ||

"Īrasaṃga of Ustāka delivered 1 *kūsa 8 ṣaṃga*s of millet in the year of the *sau* Marṣa."

### 34. Dimensions: 35.2 x 2.0 cm.

### Chinese:

r.拔伽勃亮道才,送粟壹碩叁斗。開元十年九月廿 六日,典

v.何仙,官張並、相道惠。

"Boliangdaocai of Bajia delivered 1 *shou 3 dous* of millet on the 26th day of the 9th month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Daohui." Khotanese:

(a) istākajā bradāysai gau'sā haudā kūsā 1 samga 3 sau marsā' salya

"Bryadāysaa of Ustāka delivered 1 *kūsa 3 ṣaṃga*s of millet in the year of the *ṣau* Marṣa."

35. Dimensions: 22.7 x 2.2 cm.

### Chinese:

r.拔伽伊里喪宜,送粟陸斗。開元十

- v.年□月十日,典何仙,官張並、相惠。
- "Yilisangyi of Bajia delivered 6 *dous* of millet on the 10th day of the [...] month of the 10th year of Kaiyuan. Clerk: He Xian. Officials: Zhang Bing, Xiang Hui."

Khotanese:

*gau'sä* "Millet."

# SET II

36. Second tally from top, dimensions not known Chinese:

- r. 屋悉貴叱半伊里桑宜,納小麥肆斗。開元十五年 九月十一日,
- v. 典劉德, 官李賢賓。
- "Yilisangyi, *chi ban* of Wuxigui, paid 4 *dous* of wheat on the 11th day of the 9th month of the 15th year of Kaiyuan (=727 CE). Clerk: Liu De. Official: Li Xianbin."

Khotanese:

*birgamdara śudamgulä rrusa kha 4 śyeye ṣau hvimdū salye* "Śudamgula of Birgamdara [delivered] 4 *khas* of highland barley in the *ṣau* Hvimdū's second year."

Note: The type of grain differs in the two languages. One of the two must be a mistake.

37. Bottom tally

# Chinese:

- r. 屋悉貴叱半一里桑宜, 納青麥柒斗。開元十五年 九月十三
- v. 日, 典劉德, 官李賢賓。

"Yilisangyi, *chi ban* of Wuxigui, paid 7 *dou*s of highland barley on 13th day of the 9th month of the 15th year of Kaiyuan. Clerk: Liu De. Official: Li Xianbin."

# Khotanese:

- birgamdara śudamgulä rrusa kha 7 śyeyye sau hvimdū sal[y]e
- "Śudaṃgula of Birgaṃdara [delivered] *7 kha*s of highland barley in the *sau* Hviṃdū's second year."

38. Third tally from top

- Chinese:
  - r. 屋悉貴叱半桑俱(?),納小麥伍斗。開元十五年九 月廿四日,典劉德,官
  - v.李賢賓。

"Yilisangyi, *chi ban* of Wuxigui, paid 5 *dous* of wheat on the 24th day of the 9th month of the 15th year of Kaiyuan. Clerk: Liu De. Official: Li Xianbin."

#### Khotanese:

- birgamdara śudamgulä ganam kha 5 śyeyye sau hvimdū salye
- "Śudaṃgula of Birgaṃdara [delivered] 5 *kha*s of wheat in the *sau* Hviṃdū's second year."

#### 39. Top tally

- Chinese:
  - r. 屋悉貴叱半伊里桑宜,納粟陸斗。開元十五年十 月十日,典劉
  - v.德,官李賢賓。

"Yilisangyi, *chi ban* of Wuxigui, paid 6 *dou*s of millet on the 10th day of the 10th month of the 15th year of Kaiyuan. Clerk: Liu De. Official: Li Xianbin."

Khotanese (pictured upside down):

śidaṃgulä spā — śūresa

"Śidaṃgula (to?) General Śūresa"

Note: Cf. *șau śūresa* in M.T. i.0028 [Mazar Toghrak], year 22 (POS).<sup>9</sup>

### COMMENTARY

To facilitate further discussion, the basic information in the tallies is tabulated in Table 1.

			Group I	. Tallies of the year	722			
	Toponyms		Names of the deliverer		Dates		Grains*	
	Ch.	Kh.	Ch.	Kh.	m.	d.	Туре	Amount
I	拔伽	Ustāka	不遶俱	Puñekula	8	4	ganaṃ	2.3 kūsas
2	拔伽	Birgaṃdara	勃邏道才	Bradāysaa	8	4	ganaṃ	7 kūsas
3	拔伽	Birgaṃdara	伊里喪宜	Īrasaṃga	8	5	ganaṃ	20 <i>kūsa</i> s
4	拔伽	Ustāka	不遶俱	Puñekula	8	6	rrusa	5.7 kūsas
5	拔伽	Birgaṃdara	伊里喪宜	Īrasaṃga	8	6	rrusa	26 kūsas
6	拔伽	Ustāka	本搦	Bāṃḍaka	8	7	rrusa	2.1 <i>kūsa</i> s
7	拔伽	Birgaṃdara	勿悉莽	Visma	8	8	rrusa	1.1 kūsa
8	拔伽	Birgaṃdara	賀悉捺	Haskadatta	8	9	ganaṃ	3.2 <i>kūsa</i> s
9	拔伽	Birgaṃdara	阿亮隅	Aryaṃgula	8	2.2	rrusa	1.2 kūsa
IO	拔伽	Birgaṃdara	桑口	Saṃgata	8	2.2	rrusa	0.8 kūsa
II	拔伽	Birgaṃdara	勿悉朗	Visaram	8	2.2	rrusa	4 kūsas
12	拔伽	Birgaṃdara	勿悉朗	Visaram	8	2.2	ganaṃ	3.6 <i>kūsa</i> s
13	拔伽	Birgaṃdara	悉木那	Sumauna	8	2.8	āysaņ	1.8 kūsa
14	拔伽	Birgaṃdara	悉木那	Sumauna	8	2.8	gau'sa	0.8 kūsa
15	拔伽	Birgaṃdara	伊里喪宜	Īrasaṃga	8	2.8	gau'sa	11.8 <i>kūsa</i> s
16	拔伽	Ustāka	伊里喪宜	Aryaṃgula	8	2.8	āysaņ	1.5 kūsa
17	拔伽	Ustāka	勃邏道才	Bryadāysaa	9	3	āysaņ	7.1 kūsas
18	拔伽	Ustāka	勃邏道才	Bryadāysaa	9	3	gau'sa	1.5 kūsa
19	拔伽	Birgaṃdara	薩夢那	Samauna	9	3	gau'sa	0.2 kūsa
20	拔伽	Ustāka	裴捺	Puñadatta	9	5	rrusa	3.3 <i>kūsa</i> s
21	拔伽	Ustāka	本搦	Bāṃḍaka	9	7	gau'sa	1.5 kūsa
2.2	拔伽	Ustāka	裴捺	Puñadatta	9	7	gau'sa	1.7 kūsa
23	拔伽	Ustāka	伊里喪宜	Īrasaṃga	9	7	gau'sa	9 kūsas
24	拔伽	Ustāka		Virsa	9	8	āysaņ	1.7 kūsa

#### Table 1. Places, people, dates, and commodities

\*The type and amount of grains here tabulated follow what was recorded in the Khotanese. Any slight differences in the Chinese are noted in the transcriptions.

25	拔伽	Birgaṃdara	阿兩隅	Aryaṃgula	9	19	gau'sa	2.3 kūsas
26	拔伽		阿兩隅	Aryaṃgula	9	19	rrusa	0.4 <i>kūsa</i> s
27	拔伽	Birgaṃdara	伊里喪宜	Īrasaṃga	9	19	āysaņ	10 <i>kūsa</i> s
2.8	拔伽	Birgaṃdara	賀悉雞捺	Haskadatta	9	20	gau'sa	1.3 kūsa
29	拔伽		不你俱	Puñekula	9	2.3	gau'sa	0.4 <i>kūsa</i>
30	拔伽	Birgaṃda[ra]	賀捺	Haskadatta	9	24	āysaņ	1.4 kūsa
31	拔伽	Birgaṃda[ra]	賀悉捺	Haskadatta	9	24	rrusa	0.1 <i>kūsa</i>
32	拔伽	Ustāka	裴捺	Puñadatta	9	24	ganaṃ	0.2 kūsa
33	拔伽	Ustāka	伊里喪宜	Īrasaṃga	9	24	gau'sa	1.8 kūsa
34	拔伽	Ustāka	勃亮道才	Bryadāysaa	9	2.6	gau'sa	1.3 kūsa
35	拔伽		伊里喪宜			IO	gau'sa	0.6 kūsa

Group II. Tallies of the year 727								
	Toponyms		Names of the deliverer		time		grains	
	Ch.	Kh.	Ch.	Kh.	m.	d.	grain	amount
36	屋悉貴	Birgaṃdara	伊里桑宜	Śudaṃgula	9	II	rrusa	0.4 <i>kūsa</i>
37	屋悉貴	Birgaṃdara	一里桑宜	Śudaṃgula	9	13	rrusa	0.7 kūsa
38	屋悉貴	Birgaṃdara	桑俱(?)	Śudaṃgula	9	2.4	ganaṃ	0.5 kūsa
39	屋悉貴		伊里桑宜	Śidaṃgula	IO	IO	gau'sa	0.6 kūsa

#### Toponyms

The tallies record transactions that took place in two places, referred to in the Chinese as Bajia 拔伽 (Mid. Chin. *be:t gia*) and Wuxigui 屋悉貴 (Mid. Chin. *?awk sit kuj<sup>h</sup>*).<sup>10</sup> Both are known from other documents. Among documents found by Stein in Mazar-Toghrak, a site in the Domoko oasis, several similar tallies mention Wuxigui,<sup>11</sup> and Bajia is found on a tally in the Hedin collection.<sup>12</sup> In Set I, both Birgamdara and Ustāka correspond to the Chinese Bajia, whereas, in Set II, Birgamdara corresponds to the Chinese Wuxigui. Judging from their phonetic values, it is natural to assume that the Chinese Bajia transcribes Birgamdara while Wuxigui transcribes Ustāka.<sup>13</sup>

Birgamdara is commonly considered to be one of the socalled "Six Villages,"<sup>14</sup> or, at least, to be located within the area of the "Six Villages," if the term no longer corresponded to a geographical reality,<sup>15</sup> and this new evidence does not exactly make the use of the term clearer. We cannot discuss this complicated matter in detail here and will limit our remarks to issues closely related to these particular tallies.

In fact, this inconsistency in the use of toponyms may have reflected an aspect of the local administrative system in the kingdom of Khotan hitherto overlooked, namely, the difference between places of different sizes, clarified by another Chinese-Khotanese bilingual document in the National Library of China collection.<sup>16</sup> As Duan Qing shows, in her article in this volume, the Khotanese word *bisā*-, well known with the meaning "house," corresponds here to Chinese *cun* <sup>†</sup> "hamlet" or "village." The relationship between Birgamdara and Ustāka is further clarified by a Khotanese receipt for  $m\bar{u}r\bar{a}$  coins, where *ustākajä*  $m\bar{a}matt\bar{i}$  "Māmattī of Ustāka," who delivered 426  $m\bar{u}r\bar{a}s$ , is listed under the heading of *tti buri birgamdara salokä mūri nāti* "these many  $m\bar{u}ras$  Saloka received in Birgamdara."<sup>17</sup> This is a clear indication that Ustāka is a smaller place in the area of Birgamdara. Moreover, the short Or.12637/13 contains the phrase *ustākajāňa biśa chau pam arsa-*, which Skjærvø translated as "The Ustākian Biśa, Chau Pam (and) Arsa(?)."<sup>18</sup> Since the title usually preceded personal names in Khotanese, in light of Duan's discovery, *biśa* is now seen to be the locative singular of *bisā-*, and the phrase must be translated as "The *chau pam* official (Chinese *chi ban* 叱半) Arsa- in the hamlet of Ustāka."<sup>19</sup>

Hiroshi Kumamoto, in his 1996 discussion of the "Six Villages," stated: "it must be pointed out here that the term *au* 'village' (in Late Khotanese) is never used either in conjunction with one of the place names such as Birgamdara, Āskura, Gaysāta as well as those which Vorobyova-Desyatovskaya considers to be "villages," or in referring to any of them, although the collective term "Six Villages" is frequently used. This may indicate that the term no longer stands for the actual collection of six communities at the time of our documents."<sup>20</sup> This is, however, not the case. In Or.9268A/b3 one finds *birgamdara.*<sup>21</sup> In the same document (line c3), we also have *phamnāja auvya* "villagers of Phamaa," and, elswhere, the inhabitants of Birgamdara.<sup>222</sup> This clearly shows that Birgamdara, Phamnaa,

and other places were called *au* and belonged to the "Six Villages."

The local Tang administrative system may help us understand better the relationship between au and bisā-. Tang *Liudian* 唐六典, the official compilation of legal documents, recorded that "One hundred households constitute a  $li \equiv$  'village' and five *lis* constitute a *xiang* 鄉 'sub-district.' From the Two Capitals to various zhous 州 'prefecture' and xians 縣 'district,' cities are divided into fangs 坊 'wards' and the area outside the city into cuns 村 'hamlets.' In either li or cun and fang, a zheng 'head' is placed in charge of supervision."<sup>23</sup> A Chinese monastery account book dated in the Kaiyuan era (c. 721 CE) discovered by Stein in Mazar-Tagh, a site to the north of Khotan City, records the "chau pam Boyaonuo of Zhengsheng" Ward of the City" 市城政聲坊叱半勃曜諾 (I12), "chau pam Shemi of Anren Ward of the City"市城安仁坊叱半蛇蜜(II 12) and "chau pam Sadong of Juemigong Hamlet, Boningye Sub-district of Xihe" 西河勃寧野鄉厥彌拱村叱半薩董 (III 13).<sup>24</sup>

The fact that *chau pam* appeared after both ward and hamlet is in accordance with the Tang code which put both of them on the same administrative level. As proved by Duan Qing, the Khotanese *bisā*- corresponds to the Chinese *cun*. In Or.12637/13 we find *ustākajāña biśa chau pam* in which *chau pam* was used with *bisā*-. This puts *bisā*- also on the same administrative level as *cun* and *fang*. We may also compare this *chau pam* with the *zheng* "head" which was said to have existed in both *cun* and *fang*.

According to the Tang administrative system, xiang "subdistrict" was immediately above cun. Since Ustāka was a bisāor *cun*, we may assume that the area of Birgamdara, which was an *au* in Khotanese, may have been a *xiang* according to the Chinese system. We have had no direct evidence for this so far, but, by chance, an unpublished document in a private collection in Beijing, mentions Jiexie Xiang 傑謝鄉, Gaysāta xiang. Judging from numerous Khotanese texts, Gaysāta must have been an *au*, just like Birgamdara,<sup>25</sup> so *xiang* and *au* may also be on the same administrative level. Moreover, as shown long ago, ksa au equals Chinese liucheng 六城 "Six Towns." The word au therefore corresponds to both Chinese xiang 鄉 and cheng 城. Note that, in previous studies, kṣvā auvā is usually translated as "in the Six Villages." With reference to the Chinese document, "in the Six Towns" may be a more appropriate translation.

The relationships discussed above can be tabulated as follows:

Table 2. Local administrative units in Khotan

Khotanese	Chinese	
аи	xiang 绑	cheng 城
bisā-	<i>cun</i> 村	fang 坊

In view of this, the discrepancies in the use of the toponyms may tentatively be explained by assuming that Birgamdara and Ustāka were adjacent to one other but that the term Birgamdara, perhaps the larger of the two, also referred to the larger area comprising these two villages as well as others. Thus, in the tallies of Set I, people from both Birgamdara and Ustāka were considered as from the greater area of Bajia in Chinese. In fact, in the Khotanese part, Bradāysaa was regarded as being from Birgamdara in no. 2, but from Ustāka in nos. 17, 18 and 34. Since these tallies are closely related to each other, Irasamga and Aryamgula, who can hardly be different people sharing the same names, should similarly be regarded as being from both Birgamdara and Ustāka. This further proves that Ustāka must have been within the area of Birgamdara. In the tallies of Set II, the wuxigui chi ban (chau pam of Ustāka) Yilisangyi was, of course, also an inhabitant of Birgamdara, indeed he may well have been the same Yilisangyi as the one in Set I, but perhaps, because *chau pam* was a lesser official of a *bisā*-, he could only be referred to as *wuxigui chi ban* (*chau pam* of Ustāka) rather than *bajia chi ban (chau pam* of Birgamdara, an *au*).

#### Personal names

With the exception of tally 16, the Khotanese and Chinese proper names in Set I correspond and so provide further material for the study of Khotanese and Chinese phonetics. In tally 16, the Chinese has Yilisangyi 伊里喪宜, which corresponds to Khotanese Īrasaṃga, while the Khotanese has Aryaṃgula, which is Chinese Aliangyu 阿亮隅 elsewhere. Here, one of the two may be mistaken. In the four tallies of Set II, the name Yilisangyi (伊里桑宜 or 一里桑宜) is used three times, and another name, which we tentatively read as 桑俱, appears once, but, here, the Khotanese has Śudaṃgula.

The proper names in these dated documents have other historical significance, as well. As noted by Skjærvø, of the four documents on two wooden tablets from the reigns of Viśa' Sīhya and Viśa' Dharma, three (IOL Khot Wood 1/1; IOL Khot Wood 1/2; Urumchi 1) concerning legal matters in Birgamdara "had been written by the same person, the *ka'rä* (scribe?) Khuradatta."<sup>26</sup> Among names found in these documents, at least four proper names also appear in the two sets of tallies discussed in this article: Īrasamga, Bradāysaa, Puñadatta, and Virsa. As argued above, even those labelled as being from Ustāka are also inhabitants of the greater area of Birgamdara, and it is tempting to compare them with those mentioned in the wooden tablets. Further study is needed for this, however.

The name of the *sau* official in Set I, Marṣa', Chinese *moshi*  $\overline{\times}\pm$ , also occurs in Hedin 16 (Ms. 1941.36.13), line 23 with the title of *spāta*. But *sau* is usually regarded as a higher position than *spāta*, and Hedin 16 was written, according to Zhang Guangda and Rong Xinjiang, almost 80 years later (801)<sup>27</sup> than the tallies of Set I. The two Marṣa' can therefore not have been the same person.

The correct reading of the sau official in Set II as Hvimdū was kindly pointed out by P. O. Skjærvø who also reminded us of the two other documents in which this name appeared, namely Or. 9268A which mentions his second year (viśa' dharmä ... śe'yye sau hvimdū salya<sup>28</sup>) and Or. 12637/21.3a which also mentions his (first?) year (salī 1 și' kṣuṇā yauvarāyä gyastä ttye scye / sau hvimdū salya<sup>29</sup>). To this we may add another document, SI M 33 (sau hv[i]mdū salya).<sup>30</sup> As seen from these examples, *sau* was often used in the dating formula of Khotanese documents. Sau was a very high level official in the Khotan administrative system and we may assume, therefore, that a limited number of people held this position. Hvimdū in Set II was in all probability the same official as the Hvimdū of the three other documents mentioned above. From Set II we know that the second year of sau Hvimdū is 727. Therefore the document Or. 9268A may be dated in the same year. This can help us to determine the date of the beginning of the reign of the Khotanese king Viśa' Dharma.

#### Terms of measurement

From the two sets of tallies it is clear that  $k\bar{u}sa^{31}$  corresponds to Chinese *shuo* 碩 or *shi* 石, whereas *saṃga* and *kha* both correspond to Chinese *dou* 斗.<sup>32</sup> This is probably the reason for the "complementary distribution" of these two terms noted by Skjærvø.<sup>33</sup> Since *siṃga* is usually regarded as the equivalent of Chinese *sheng* 升, we clearly have a threefold decimal system similar to the Chinese system:<sup>34</sup>

### $1 k\bar{u}sa = 10 khas = 10 samgas = 100 simgas.$

The reason why both *kha* and *samga* denote the same amount deserves further discussion. Bailey considered *kha* to be cognate with Old Indic *khāra*<sup>35</sup> and attributed an Iranian origin to *samga*.<sup>36</sup> In the Kharoṣṭhī documents, however, the term *khi* denoted a relatively small amount of grain.<sup>37</sup> If it is cognate with Khotanese *kha*, the difference between *kha* and *samga* may be a chronological one and *kha* a local term on the southern rim of the Taklamakan Desert used from at least the third century, when the Kharoṣṭhī documents were written, whereas *samga* may be later in origin. This hypothesis requires another table (Table 3).

Dates	samga	kha	Catalogue signatures	Publications
Viśya Vikrraṃ year 14		×	Or.12637/14.1	Catalogue, 124
722 CE	×	×	Set I	
727 CE		×	Set II	
Viśa' Vāhaṃ year 7	×		Hedin 26 (Ms. 1941.32.1)	KT 4, 38-39, 140-41
Viśa' Vāhaṃ year 15	×		SI P103. 49	SDTV 3, 156
Viśa' Vāhaṃ year 17	×		Or.6392/1 (M.9) Hoernle 1	Catalogue, 3
Viśa' Vāhaṃ? year 20	×		Or.6396/1 (G.1)	Catalogue, 7-8
Viśa' Vāhaṃ? year 20	×		SI P103.23	SDTV 3, 144-45
Viśa' Vāhaṃ? year ?		×	Or.6393/2 (M.9)	Catalogue, 4-5
Unknown king year 4	×		SI P 93.1	<i>SDTV</i> 3, 90
Unknown king year 7	×		IOL Khot Wood 14	Catalogue, 559
Unknown king year 7 Year of the Hare	×		IOL Khot 157/5	Catalogue, 352-53
Unknown king year 7	×		IOL Khot 177/2	Catalogue, 393
Unknown king year 15		×	IOL Khot 201/1	Catalogue, 442
Unknown king year 21	×		Hedin 4 (Ms. 1941.36.4)	KT 4, 23-24, 74-79
Year of Cock	×		SI M 1	SDTV 3, 174-75

#### Table 3. *Ṣaṃga* and *kha* in dated documents

From Table 3 we see no clear-cut chronological difference, except that, in documents generally regarded as from the Tibetan era, the use of *samga* is almost exclusive.<sup>38</sup>

Another difference between *kha* and *samga* was the context in which both terms were used. The term *samga* was very often followed by the smaller unit of *simga* = Chinese *sheng*  $\mathcal{H}$ , which is never used with *kha*. Indeed, it seems that no terms indicating a smaller unit of weight was ever used with *kha*. For example, In IOL Khot Wood 58, 3.5 *khas* was represented by *kha* 3 1/2 rather than *kha* 3 *simga* 5.<sup>39</sup> This may also imply an earlier date of *kha* since the wide use of *simga* was possible only after the Chinese occupation.

The relationship between *samga* and *simga* was assumed to be 1 *samga* = 4 *simga* by Emmerick in his study of the medical text *Jīvaka-pustaka*,<sup>40</sup> and this equation was later adopted by Skjærvø.<sup>41</sup> But Emmerick's conclusion conflicted with his argument since, as he mentioned, the relationship of 2.5 *simga* = 1 *prastha* was well established in proscript 5, 8, 18, 33, 39, 50, and 61 of the *Jīvaka-pustaka*, making it impossible for *simga* to be "the equivalent of Sanskrit *prastha*."<sup>42</sup> Many instances in other secular documents contradicted Emmerick's assumption as well.<sup>43</sup> Since the number of *simgas* used included 7 and 8, it is only natural to assume that most secular documents, including the medical texts, adopted a system of measurements similar to the decimal ones established above.<sup>44</sup>

In addition to *simga* and *samga*, the term *thamga*, like *simga*, is a Chinese word *cheng* 秤, as convincingly demonstrated by Yoshida.<sup>45</sup> All three terms are frequently used in *Jivaka-pustaka*, but are conspicuously absent from the *Siddhasāra*, as noted by Emmerick.<sup>46</sup> One may wonder why this is so, and, although we cannot discuss this complicated issue at present, suffice it to mention that this fact may provide evidence for when and

where these two medical texts were composed and under what circumstances.

### Names of grains

In Bailey's *Dictionary*, the grains are identified as follows:<sup>47</sup>

āysam: millet, Panicum miliaceum

ganam: wheat

gau'sa: millet, Panicum italicum

rrusa: barley

Bailey's suggestion was largely accepted by later scholars. Yoshida has now identified *ganaṃ* as 小麥, *rrusa* as 大麥, *gau'sa* as 栗, *āysaṃ* as 床 and *a'sparaji jsāra* as 青麥,<sup>48</sup> and, with the help of our bilingual tallies, Yoshida's identifications may be further refined and corrected:

āysam: millet 床 Panicum miliaceum ganam: wheat 小麥 Triticum aestivum

gau'sa: millet 栗 Setaria italica

rrusa: highland barley 青麥Hordeum vulgare var. nudum

Since  $\bar{a}ysam$  ( $\bar{R}$ ) and gau'sa ( $\bar{R}$ ) both denote millet, but of different kinds, they probably resembled each other and may have sometimes been confused, as in tallies nos. 19 and 21, where Chinese  $\bar{R}$  erroneously corresponds to Khotanese gau'sa. However, the fact that in tally no.33, the scribe of the Chinese part changed the name of the grain from  $\bar{R}$  to  $\bar{R}$ , corresponding to Khotanese gau'sa, indicates that the difference was maintained and the correct relation between Chinese and Khotanese words was fully understood. Despite these scribal errors, the corresponding relations established above are still valid.<sup>49</sup>

# Notes

\* This article is part of of a project on the Khotan collection in the National Library of China, Beijing, conducted jointly by the Rare Book Section of the Library and Peking University. We should like to express our gratitude to Duan Qing for her assistance with the Khotanese. We should also like to thank Zhang Zhiqing, Director of the Rare Books Section of the National Library of China; Yu Zhiyong, Vice-Director of the Xinjiang Institute of Archaeology, who provided excellent photos of both sets of tallies and kindly allowed us to publish them; P. O. Skjærvø, who made many valuable suggestions (his notes are marked POS); Shi Rui, National Library of China, who helped us with reading the Chinese texts; and Ursula Sims-Williams for her help with the English.

<sup>1</sup> Aziz Abdurashit 艾再孜.阿布都熱西提, "Hetian faxian hanwen yutianwen shuangyu mujian 和田發現漢文、于閩文雙語木簡 [New bilingual documents discovered in Khotan]," *Xinjiang wenwu* 3 (1998): 104. <sup>2</sup> Y. Yoshida, *Kōtan shutsudo 8-9 seiki no Kōtango sezoku monjo ni kansuru oboegaki 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 eighth to ninth centuries unearthed from Khotan] (Kōbe: Kōbe-shi Gaikokugo Daigaku Gaikokugaku Kenkyūjo, 2006), 109-10.

<sup>3</sup> Bactria in particular, see N. Sims-Williams, "Bactrian Tallies," in *Chomolangma, Demawend und Kasbek: Festschrift für Roland Bielmeier zu seinem 65. Geburtstag*, eds. B. Huber, M. Volkart and P. Widmer (Halle (Saale): International Institute for Tibetan and Buddhist Studies, 2008), 525-32.

<sup>4</sup> Cf. Yoshida who regards this term as a title of low rank: "Some Reflections about the Origin of *čamūk*," in *Chūō Ajia shutsudo bunbutsu ronsō*中央アジア出土文物論叢 [Papers on the pre-Islamic documents and other materials unearthed from Central Asia], ed. T. Moriyasu (Kyōto: Hōyū Shoten, 2004), 133.

<sup>5</sup> The Khotanese *chau pam* had a different meaning, cf. Y. Yoshida, "On the Taxation System of Pre-Islamic Khotan," Acta Asiatica 94 (2008): 109. The Khotanese term occurs in SI P 103.46 (R. E. Emmerick and M. I. Vorob'ëva-Desjatovskaja, Saka Documents Text Volume III: the St. Petersburg Collections (London: School of Oriental and African Studies, 1995), abbreviated as SDTV 3, 154-5); SI P 103.49 (SDTV 3, 156-57); and Or.12637/13 (P. O. Skjærvø, Khotanese Manuscripts from Chinese Turkestan in the British Library: a Complete Catalogue with Texts and Translations, with contributions by U. Sims-Williams (London: British Library, 2002, corrected repr. 2003), abbreviated as *Catalogue*, 123). For the Chinese term, cf. É. Chavannes, Les documents chinois découverts par Aurel Stein dans les sables du Turkestan oriental (Oxford: Impr. de l'Université, 1913), 207, lines 12, 13. The form *chu ban* is also found in Chinese documents discovered in Duldur-aqur near Kucha, cf. É. Trombert, Les manuscrits chinois de Koutcha: Fonds Pelliot de la Bibliothèque nationale de France, avec la collaboration de Ikeda On et Zhang Guangda (Paris: Institut des hautes études chinoises du Collège de France, 2000), 49.

<sup>6</sup> This was already noticed by Chavannes, *Les documents chinois*, 221, n. 7.

<sup>7</sup> Cf. Hedin 16 (Ms. 1941.36.13) now housed in the Museum of Ethnography, Stockholm. (See H. W. Bailey, *Indo-Scythian Studies: being Khotanese Texts* 4 (Cambridge: Cambridge University Press, 1961; repr. 1979) hereafter referred to as *KT* 4, 108); SI P 95.11 (*SDTV* 3, 108).

<sup>8</sup> Zhang Guangda and Rong Xinjiang, "Bashiji xiaban zhi jiushiji chu de Yutian 八世紀下半至九世紀初的于隣 [Khotan between the second half of the eighth century and early ninth century]," *Tang yanjiu* 3 (1997): 344-45, list all the dated Chinese documents published before 1996.

<sup>9</sup> IOL Khot 51/1, Skjærvø, *Catalogue*, 286.

<sup>10</sup> Middle Chinese forms are cited from E. G. Pulleyblank, *A Lexicon of Reconstructed Pronunciation in Early Middle Chinese, Late Middle Chinese and Early Mandarin* (Vancouver: UBC Press, 1991).

<sup>11</sup> Chavannes, *Les documents chinois*, 218, pl. 37.

<sup>12</sup> Hedin Collection Ms. 1941.33.52, cf. Zhang Guangda and Rong Xinjiang, "Guanyu Hetian chutu Yutian wenxian de niandai jiqi xiangguan wenti 關於和田出土于閩文獻的年代及其相關問題" [On the chronology and related problems of the Khotanese documents discovered in Khotan], *Tōyō Gakuhō* 69 (1988): 75, 76, pl. 2.

<sup>13</sup> This was already noted by Yoshida in his review of Skjærvø's *Catalogue* in *Kōbe gaidai ronsō* 神戸外大論叢 = *The Kobe Gaidai Ronso* 55/7 (2004); Yoshida *Kōtango sezoku monjo*, 51, 53.

<sup>14</sup> Zhang Guangda and Rong Xinjiang, "Sur un manuscrit chinois découvert à Cira près de Khotan," *Cahiers d'Extrême-Asie* 3, (1987): 82. M. I. Vorobyova-Desyatovskaya, in "The Toponym 'Six Villages' according to Khotanese Business Documents," in *La Persia e l'Asia centrale da Alessandro al X secolo* (Roma: Accademia Nazionale dei Lincei, 1996), 171-78, made similar attempts to identify all the "Six Villages," but, as argued by Hiroshi Kumamoto, in "The Khotanese Documents from the Khotan Area: with an Appendix by Saitô, Tatuya," *The Memoirs of the Toyo Bunko* 54 (1996): 27-64, her conclusions were not wholly reliable.

<sup>15</sup> Kumamoto, "Khotanese Documents," 43-50.

<sup>16</sup> National Library of China Ms. X15, see Duan Qing, "*Bisā-* and *Hālaa*in a New Chinese-Khotanese Bilingual Document," in this volume.

<sup>17</sup> Or.12637/12.1 a-b, d-f, see Skjærvø, *Catalogue*, 123.

<sup>18</sup> Skjærvø, *Catalogue*, 123.

<sup>19</sup> Similarly, in the partly bilingual document Hedin 16, the Chinese equivalent of the Khotanese *ksvā auvā phamňa suhadatti u kharamurraa tcinaji* was 六城潘野娑狳、可里没来 "Six Villages, Phaṇna Suhadatti and Kharamurraa." The place name *tcina* has no equivalent and 潘野 translated both Phaṇña and Tcina. Bailey, *KT* 4, 30, 173.

<sup>20</sup> Kumamoto, "Khotanese Documents," 48.

<sup>21</sup> Thus Skjærvø, *Catalogue*, 67.

<sup>22</sup> Or.8212/1720, Skjærvø, *Catalogue*, 64; IOL Khot Wood I, inside of cover tablet, line a4, Skjærvø, *Catalogue*, 557.

<sup>23</sup> Tang Liudian 唐六典 [Six Institutions of the Tang] (Beijing: Zhonghua Bookstore, 1992), 73. <sup>24</sup> M.T.b.009, Chavannes, Les documents chinois, 207-9; On Ikeda, Chūgoku kodai sekichō kenkyū: gaikan, rokubun 中国古代籍帳研究: 概 観. 錄文 [Ancient Chinese household registers and related documents: a historical study] (Tōkyō: Tōkyō Daigaku Tōyō Bunka Kenkyūjo, 1979), 348-9; Sha Zhi and F. Wood, 斯坦因第三次中亞考古所獲漢文文獻 (非佛經部分) = Sitanyin disancizhongyakaogusuohuo hanwenwenxian (feifojingbufen) [Chinese documents acquired by M. A. Stein in his third Central Asian expedition: non-Buddhist documents] (Shanghai: Shanghai ci shu chubanshe, 2005), 325, 327, 329.

<sup>25</sup> "The villagers of Gaysāta" (*gaysātaja auya*) are mentioned in Or.6395/2 (Skjærvø, *Catalogue*, 7), SI P 103.38 (*SDTV* 3, 151), and Hedin 26 (Ms. 1941.32.1. Bailey, *KT* 4, 38-9, 140-1). The frequent *auva-hamdasta* of Gaysāta (SI P 94.14 [*SDTV* 3, 100-1], SI P 94.22 [*SDTV* 3, 103-4], SI P103.39 [*SDTV* 3, 151-2], SI P103.42 [*SDTV* 3, 153], SI P103.45 [*SDTV* 3, 154], etc.) also illustrate this point.

<sup>26</sup> P. O. Skjærvø, "Kings of Khotan in the Eighth Century," in *Histoire et cultes de l'Asie centrale préislamique*, eds. P. Bernard and F. Grenet (Paris: Editions du CNRS, 1991), 262.

<sup>27</sup> Zhang and Rong, "Bashiji xiaban," 345-56, 354.

<sup>28</sup> Skjærvø, *Catalogue*, 67.

- <sup>29</sup> Skjærvø, *Catalogue*, 131.
- <sup>30</sup> SDTV 3, 222.

<sup>31</sup> The word *kūsa*- is thought to be an Iranian word, see H. W. Bailey, *Dictionary of Khotan Saka* (Cambridge: Cambridge University Press, 1979), 64.

 $^{32}$  The Chinese term itself may also occasionally have been used, if this is how *dau*- in SI P 94.7 (*SDTV* 3, 98) is to be understood.

<sup>33</sup> Skjærvø, *Catalogue*, lxxvi. Very rarely, these two terms are found together in the same document, see IOL Khot 38/5 (Skjærvø, *Catalogue*, 263-4), IOL Khot Wood 32 (Skjærvø, *Catalogue*, 568).

<sup>34</sup> A similar system borrowed from Chinese was used in Tokharian B, the local language of the kingdom of Kucha, which was also one of the Tang dynasty Four Garrisons. Cf. G.-J. Pinault, "Aspects du bouddhisme pratiqué au Nord du désert du Taklamakan, d'après les documents tokhariens," in *Bouddhisme et cultures locales: quelques cas de réciproques adaptations: actes du colloque franco-japonais de septembre 1991*, eds. F. Fukui and G. Fussman (Paris: École française d'Extrême-Orient, 1994), 93.

<sup>35</sup> Bailey, *Dictionary*, 70.

<sup>36</sup> Bailey, *Dictionary*, 406.

<sup>37</sup> T. Burrow, *A Translation of the Kharosthi Documents from Chinese Turkestan* (London: Royal Asiatic Society, 1940), no. 25 (6); no. 140 (25); no. 154 (28) etc. This has already been pointed out by Yoshida, *Kōtango sezoku monjo*, 91, n. 28.

<sup>38</sup> Yoshida has made an attempt to sort the Khotanese secular documents into three archives (Yoshida, *Kõtango sezoku monjo*, 49-66; Yoshida, "On the Taxation System of Pre-Islamic Khotan," 97-100). In documents of Archive 3 (some Hedin documents, Or.11252, Or.11344), which Yoshida assigns to the beginning of Tibetan rule in Khotan, only *samga* is used.

<sup>39</sup> In IOL Khot Wood 63, the expression "2 *khe* 9" was translated by Skjærvø as 2 (*samgas*) 9 *khas* (Skjærvø, *Catalogue*, 572), but, even if one considers the first term of measurement as being omitted, the natural assumption should be 2 *kūsas* and 9 *khas*. In Khotanese, the terms of measurement usually precede the numbers, although, in several cases (IOL Khot 173/10, IOL Khot Wood 14, IOL Khot Wood 26, SI P 95.6 etc.), the contrary does occur. Therefore the possibility that "2 *khe* 9" means 2.9 *khas* cannot be excluded.

<sup>40</sup> R. E. Emmerick, "Contributions to the Study of the *Jīvaka-pustaka*," *Bulletin of the School of Oriental and African Studies* 42/2 (1979), 240.

<sup>41</sup> Skjærvø, *Catalogue*, lxxvii.

<sup>42</sup> Emmerick, "Contributions to the Study of the *Jīvaka-pustaka*," 240.

<sup>43</sup> 1 şamga 5 śimga (Or.11252/34, Skjærvø, Catalogue, 102-3); 2 şamga 5 śimga (Or.12637/24, Skjærvø, Catalogue, 133); 2 şamga 8 śimga (IOL Khot 52/4, Skjærvø, Catalogue, 288); 1 şamga 5 śimga (IOL Khot 52/4, Skjærvø, Catalogue, 288); 3 şamga 7 śimga (IOL Khot Wood 33, Skjærvø, Catalogue, 568). <sup>44</sup> This may be the *cemgām ṣṣamgna* (Chinese *ṣamga*) mentioned in Hedin 4 (Ms. 1941.36.4. Bailey, *KT* 4, 23-4, 74-9). But there is no reason to assume that *şamga* always represented this same value. In fact, in Or.11252/2, *haudi śemgām ṣamgna* (a *şamga* of 7 *śimgas*) is mentioned (Skjærvø, *Catalogue*, 85-6). See also N. Sims-Williams and J. Hamilton, *Documents turco-sogdiens du IXe-Xe siècle de Touen-houang* (London: Corpus Inscriptionum Iranicarum, 1990), 31-32, who linked Sogdian *šnkw*, Tocharian B *şank* and Khotanese *şamga*, regarding them all as loanwords from Chinese *sheng*  $\ddagger$ . They proposed that Khotanese *simga*, also from the same Chinese word, was borrowed into Khotanese early, perhaps in Han dynasty, and that the actual amount represented by it gradually dwindled. In the Tang dynasty, the use of both large *sheng* and small *sheng* (one third of the large *sheng*) co-existed, and Khotanese *şamga* represented the large *sheng*, thus three times the amount of *simga*. This conclusion is apparently in line with Emmerick's equation of *i samga* = 4 *simga*. But, as the present authors have (hopefully) demonstrated, the relation between these two Khotanese words was actually decimal, and there is no reason to regard *simga* as being earlier than *samga*, because they were usually used together. While *simga* was certainly borrowed from Chinese  $\mathcal{H}$ , *samga* may well in fact have a different origin.

<sup>45</sup> Yoshida, *Kōtango sezoku monjo*, 156, note 20; Yoshida, "On the Taxation System of Pre-Islamic Khotan," 111-12.

<sup>46</sup> Emmerick, "Contributions to the Study of the *Jīvaka-pustaka*," 237.

<sup>47</sup> Bailey, *Dictionary*, 20, 79, 91, 367.

<sup>48</sup> Yoshida, *Kōtango sezoku monjo*, 156; Yoshida, "On the Taxation System of Pre-Islamic Khotan," 118.

<sup>49</sup> We would like to thank P. O. Skjærvø who reminded us of these differences between the Chinese and the Khotanese.



Fig. 1. Tallies 1-5. National Library of China. Photograph courtesy of the Library. (See Colour Plate 1)



Fig. 2. Tallies 6-11. National Library of China. Photograph courtesy of the Library. (See Colour Plate 2)

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Fig. 3. Tallies 12-17. National Library of China. Photograph courtesy of the Library. (See Colour Plate 3)

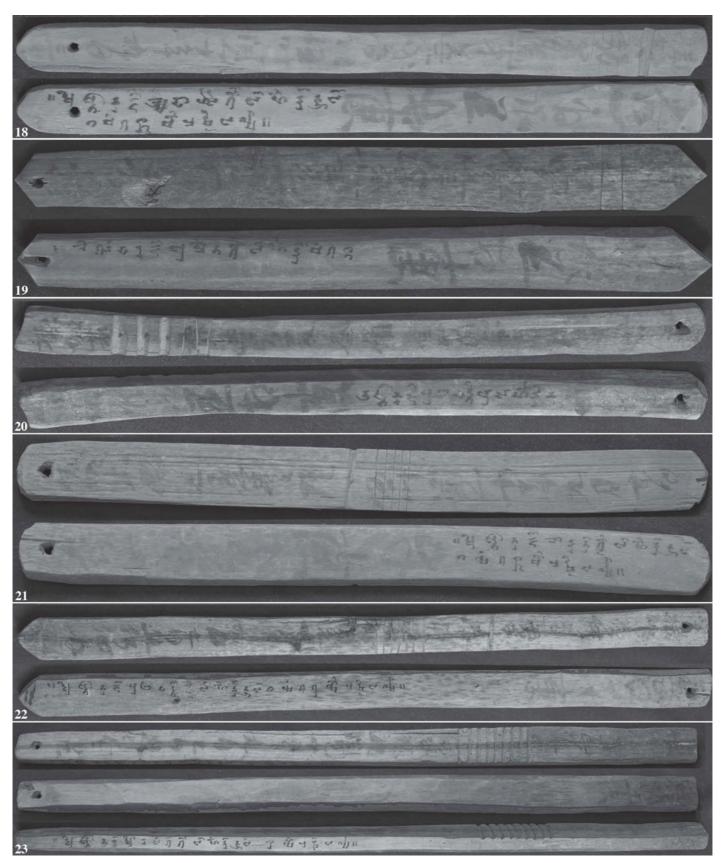


Fig. 4. Tallies 18-23. National Library of China. Photograph courtesy of the Library. (See Colour Plate 4)

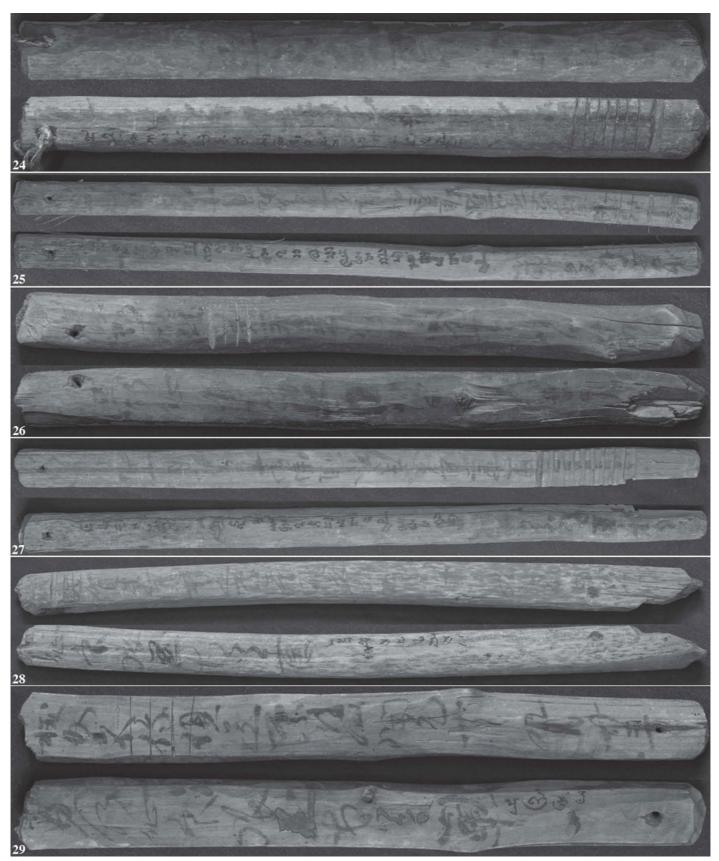


Fig. 5. Tallies 24-29. National Library of China. Photograph courtesy of the Library. (See Colour Plate 5)



Fig. 6. Tallies 30-34. National Library of China. Photograph courtesy of the Library. (See Colour Plate 6)

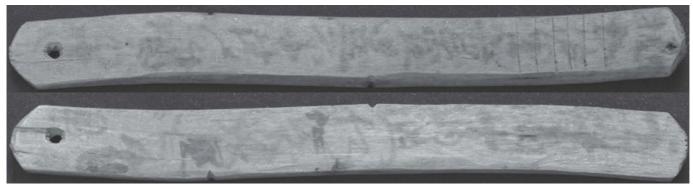


Fig. 7. Tally 35. National Library of China. Photograph courtesy of the Library. (See Colour Plate 7)



Fig. 8. Tallies 36-39 recto. Private collection. Photographer, Ali Abdullah. (See Colour Plate 8)



Fig. 9. Tallies 36-39 verso. Private collection. Photographer, Ali Abdullah. (See Colour Plate 9)