

---

# *How the Residents of Turfan used Textiles as Money,*

---

273–796 CE

---

VALERIE HANSEN AND XINJIANG RONG

Textiles, grain, coins; people living in the Silk Road oasis of Turfan, 160 km south-east of Urumqi in today's Xinjiang, used all three items as money between 273 and 769.<sup>1</sup> The city of Gaochang (some 40 km east of today's Turfan) was one of the most important cities on the northern route around the Taklamakan Desert, and many of its inhabitants were buried in the adjacent Astana and Karakhoja graveyards. The region's dry climate has preserved an extensive group of paper documents dating to before, and after, the Tang conquest of the city in 640. The residents of Turfan buried their dead with shoes, belts, hats and clothing made from recycled paper with writing on it. These records offer an unparalleled glimpse of how people living along the Silk Road used textiles as currency.

Contracts are one of the most informative sources about the workings of the local economy at this time.<sup>2</sup> Private individuals living in what the Chinese then called the Western Regions (*Xiyu*), and what is today called the Xinjiang Uighur Autonomous Region, used contracts when they purchased or rented land, livestock, slaves and smaller goods. An unusually high number of contracts survive from the Astana graveyard: more than 250 out of several thousand non-Buddhist documents found so far, evidence of the frequent use of contracts. In 1987, two Japanese scholars, Yamamoto Tatsuro and Ikeda On, divided the Turfan contracts into different categories: “contracts of sale, purchase, and exchange” for when ownership of a particular item changed permanently; “contracts of letting and hiring” or rental for the temporary use of something; “contracts of employment”, in which someone hired someone else to work and sometimes to perform his corvée obligation; and “wills, contracts of miscellaneous and uncertain [matters]”.<sup>3</sup>

Private Chinese contracts (and contracts in other languages that were influenced by Chinese examples) usually mention money in two places: first, when giving the price of the item to be sold, rented or transferred and then in the penalty clauses. This clause usually specifies that if someone does not fulfil the terms of the contract, he or she will be fined a certain amount. The penalty clauses do not necessarily reflect real-life practices: as in our

<sup>1</sup>For a detailed survey of coins see Helen Wang, *Money on the Silk Road: the Evidence from Eastern Central Asia to c. AD 800* (London, 2004).

<sup>2</sup>Valerie Hansen, *Negotiating Daily Life in Traditional China: How Ordinary People Used Contracts, 600–1400* (London, 1995).

<sup>3</sup>In addition to giving titles for 499 contracts, Yamamoto and Ikeda transcribe them and divide them into categories. Yamamoto Tatsuro and Ikeda On, *Tun-huang and Turfan Documents Concerning Social and Economic History III Contracts (A) Introduction and Texts* (Tokyo, 1987).

own societies, people sometimes threatened each other using unrealistically large quantities of currencies or even currencies they had never actually seen.

Private individuals also included grave inventories (*yiwushu*) in their tombs. Inventories of grave goods buried in tombs also illuminate real-world values. From Turfan, 61 such lists survive: 15 from before 500 CE, 35 from 500–640 CE and 3 from the Tang (8 are undated).<sup>4</sup> These lists combine actual grave goods (often items of clothing), miniaturised equivalents (*mingqi* 冥器) and imaginary items, without specifying which is which. If one could check the inventories against the contents of a given tomb, it might be possible to distinguish among the different categories. Unfortunately, because of the damage done to the Astana tombs by robbers and the rushed nature of the excavations at the site, this is only possible in two cases: 86TAM386, studied by Albert Dien,<sup>5</sup> and 72TAM170, discussed in Zhao Feng and Wang Le's article in this issue. Otherwise, if no artifacts are known and only the tomb inventory survives, as is almost always the case for Turfan, one must work with only the written document. Many more inventories survive from the Gaochang Kingdom period (502–640 CE), when the Qu family kings ruled in Turfan, than from the earlier period.

The Tang conquest brought massive subsidies to the armies of the north-west from the central government in various types of silk and other textiles. Textiles were used as money in the Turfan area in different periods. After the middle of the seventh century, when Tang China controlled the Western Regions, the system of textiles as money prevailed throughout the Western Regions on both sides of the Tianshan Mountains. Turfan documents record the purchases and sales of the Tang army in the Tarim Basin, as well as the various payments of Tang officials' salary, travel allowances and the bills for lodging provided to envoys in the Beiting area.

Army officers on duty drew up ledgers of payments seeking reimbursement (see Document no. 1 in the Appendix). Officials listed the names of merchants who paid fines after harbouring illicit goods (see Document no. 2 in the Appendix). And, as *The Tang Code* required, officials drew up price lists for all the goods on sale at the local market, specifying if the price was given in coins or bolts of textiles. As this volume explains, other sites, like Khotan, discussed by Duan Qing, and Dunhuang, by Eric Trombert, also preserve similar material, but the Turfan documents are from an earlier period. Predating the imposition by the conquering Tang authorities of the equal-field system in 640, and continuing for more than a hundred years of Chinese rule, the Turfan documents afford an unusual glimpse of the oasis's economy.

The Turfan oasis had a mixed population: by 500, a majority of the local population consisted of Chinese who had fled the political instability of the central regions, but other groups, including the indigenous peoples descended from the original residents of the Jushi kingdom as well as Sogdian migrants from the area around Samarkand (in modern Uzbekistan) lived there as well. Before 640, multiple dynasties, including the Qu family of the Gaochang Kingdom (502–640 CE), ruled the oasis. The Turfan documents illuminate how different commodities – including rugs, silk, cotton, grain and silver coins from the

<sup>4</sup>Albert E. Dien, "The Inventory Lists of Tomb 86TAM386 at Astana, Turfan", *Journal of East Asian Archaeology* (2002a) Vol. 4, pp. 183–200, number of surviving inventories on p. 188; Dien, "Turfan Funereal Statements", *Journal of Chinese Religions* Vol. 30 (2002b), pp. 23–48.

<sup>5</sup>Dien, "The Inventory Lists", "Turfan Funereal Statements."

Sasanian empire of Iran (224–651 CE) – functioned as money in day-to-day transactions. The earliest documents are few and far between, making it impossible to establish any hierarchy of value. By the year 600, though, more documents survive, and they indicate that Sasanian coins circulated in large quantities. By that time, Turfan’s residents had come to use grain for lower-level transactions and silver coins for more costly items, reserving textiles for only limited occasions.

In 640, Tang forces entered Turfan and imposed the equal-field system. The Tang rulers adapted this taxation system from their predecessors, the Turkic Xianbei peoples of the Northern Wei dynasty (386–536 CE). *The Tang Code*, drafted in the 620s, specifies exactly how the *zuyongdiao* tax system should function: in exchange for an allocation of land, each able-bodied head of household owed the government fixed amounts of *zu*, or grain, *yong*, labour or a corvée exemption fee and *diao*, cloth.<sup>6</sup> Taxpayers sometimes substituted cloth for their grain or labour obligations. The *zuyongdiao* tax system remained in effect in Turfan until 755, when the Tang armies returned to the capital to suppress the An Lushan rebellion. (In central China, the system persisted slightly longer, until 780, when the Tang adopted the two-tax, or *liangshui*, system, as Xu Chang explains in her article in this issue).

Under the equal field system, the Tang authorities accepted multiple currencies: textiles (including woven cloth, thread and floss), grain and coins. The authorities recognised commodities already perceived as valuable; otherwise a given item could not have gained acceptance as a form of money (see Helen Wang and Angela Sheng’s papers in this issue.) After 640, most of the circulating textiles were bolts of silk or hemp made to the standard size: 40 Chinese feet (*chi*) for a bolt (*pi*) of silk, 50 for a bolt (*duan*) of hemp. Chronically short of coins, the Tang government shipped tax textiles to the north-west to buy grain and pay soldiers’ salaries. Even after the Tang conquest, the people of Turfan continued to use Sasanian coins, but by 700 they had switched to Chinese-minted bronze coins.<sup>7</sup>

### Before 640: the Evidence from Turfan (and Select Other Localities)

Textiles functioned as money at Turfan very early on. At the time of the earliest excavated documents, in the third century CE, the Jushi kings governed from Jiaohe, where different Chinese dynasties stationed garrisons. The earliest surviving Chinese-language contract, dated 273, records the purchase of a coffin for 20 bolts of degummed silk (*lian* 練) most likely by a deceased Chinese-speaking migrant.<sup>8</sup> When using silk as money, the people of Turfan consistently preferred *lian*-degummed to plain silk (*shengjuan* 生絹) or to silk that had not been degummed, and was accordingly heavier (as Angela Sheng explains in her article).<sup>9</sup> This contract may not record an actual real-world transaction: Wu Zhen, an archaeologist who had worked for many years at the Astana site, suspected that this contract served as

<sup>6</sup>The best explanation of this system in English remains that of D. C. Twitchett, *Financial Administration Under the Tang Dynasty*, 2<sup>nd</sup> edition (Cambridge, 1970), pp. 24–48, particularly pp. 24–25.

<sup>7</sup>Jonathan Karam Skaff, “Sasanian and Arab-Sasanian Silver Coins from Turfan: Their Relationship to International Trade and the Local Economy”, *Asia Major*, 3rd series XI.2 (1998), pp. 67–115.

<sup>8</sup>66TAM53:9, Yamamoto and Ikeda, *Tun-huang and Turfan Documents*, p. 3, #1.

<sup>9</sup>Éric Trombert and Étienne de la Vaissière, “Le prix de denrées sur le marché de Turfan en 743”, in Jean-Pierre Drège et al. (eds), *Études de Dunhuang et Turfan*, (Paris, 2007), pp. 1–52, reference on p. 29.

a cheaper substitute for an actual coffin.<sup>10</sup> Even if symbolic, this contract shows that the residents of Turfan conceived of *lian*-degummed silk as a means of payment.

After 327 Gaochang became a separate centre of command governed by a series of short-lived regional dynasties, all based in Gansu province: the Former Liang (317–376 CE), the Former Qin (350–394 CE), the Later Liang (386–403 CE) the Western Liang (400–421 CE) and the Northern Liang (397–439 CE).<sup>11</sup> A contract dated 367 records an exchange of camels; since this is an exchange, no money changes hands, but the fine for renegeing on the agreement is ten rugs (*tan* 毯).<sup>12</sup> The lack of detail about the dimensions of the rugs in this example suggests that a standard-sized rug was used in payments. Early Turfan contracts also chronicle transactions in bolts of cloth, sometimes recording details about the cloth – its dimensions, type of textile, pattern – and at other times giving standardised lengths with no descriptive details at all. The absence of detail points to the use of a standard length of cloth, usually a bolt, in payments.

During the third and fourth centuries, the residents of Niya, then an independent oasis kingdom on the southern Silk Road, also used rugs for their exchanges. Some of the Niya documents similarly record fines and payments in bolts of silk, but these are usually made by outsiders to the village, often royal envoys, and not by the villagers themselves.<sup>13</sup> At Turfan, silk also appears as an alternative to rugs. One early affadavit, dated 423, describes the payment of a bolt of wideloom plain silk (*dajuan* 大絹) to an agricultural worker.<sup>14</sup>

An inventory from the same year lists “100 bolts of” (*baipi* 百匹) a missing item, most likely some kind of textile, since only textiles were measured in bolts.<sup>15</sup> The first certain reference to textiles, 1,000 bolts of coloured silk (*sebo* 色帛), appears in an inventory dated 437, and is probably symbolic since it is unlikely that the tomb contained such a large quantity of silk.<sup>16</sup> Later tomb inventories mention even larger quantities of silk, such as 99,999 bolts, that must be fictive.<sup>17</sup>

In 439, after the Northern Wei dynasty (386–534 CE) eliminated the Northern Liang dynasty, two brothers from the fallen royal house of the Northern Liang, Juqu Wuhui 沮渠無諱 and Juqu Anzhou 安周, fled from Dunhuang to the Shanshan kingdom (south of Lop Nor), and then went northwards and conquered Gaochang in 442. Kan Shuang 闕爽, whom they drove away, fled to the Rouran Qaghanate in Mongolia. The Juqu brothers established

<sup>10</sup>VH conversation with Wu Zhen, 29 March 2006, in Urumqi.

<sup>11</sup>Zhang Guangda and Rong Xinjiang, “A Concise History of the Turfan Oasis and its Exploration”, *Asia Major*, 3<sup>rd</sup> series 11.2 (1998) Vol. 11, No. 2, pp. 13–36, especially pp. 14–15; see also Wang Su, *Gaochang Shigao tongzhi bian* [Draft history of the Gaochang Kingdom, section on governance] (Beijing, 1998) which provides valuable information about the fifth century not in the Zhang and Rong article.

<sup>12</sup>65TAM39:20; photograph and transcription in Tang Zhangru *et al.* (eds), *Tulufan chutu wenshu* (Beijing, 1992–1996) volume I, p. 2. The notes cite the four-volume set of Turfan documents and photographs, which is more reliable than the earlier ten-volume set.

<sup>13</sup>Valerie Hansen, “The Place of Coins – and their Alternatives – in the Silk Road Trade”, in Shanghai Bowuguan (ed.), *Sichou zhilu guoguo qianbi ji silu wenhua guoji xueshu taolunhui wenji / Proceedings of the Symposium on Ancient Coins and the Culture of the Silk Road* (Shanghai, 2011), pp. 83–113.

<sup>14</sup>The amount of the payment is not legible. 66TAM59:4/1(b), transcribed and photographed in *Tulufan chutu wenshu* vol. I, p. 16; Wang, *Money on the Silk Road*, pp. 78, 86.

<sup>15</sup>66TAM59:2, *Tulufan chutu wenshu*, I.12.

<sup>16</sup>63TAM2:1, *Tulufan chutu wenshu*, I.85. Earlier inventories exist, but they do not mention bolts of cloth.

<sup>17</sup>“Tulufan BeiLiang Wuxuan Wang Juqu Mengxun furen Pengshi mu” 吐魯番北涼武宣王沮渠蒙遜夫人鵬氏墓 [Tomb of Lady Peng, wife of Juqu Mengxun, the Wuxuan king of the Northern Liang in Turfan], (*Wenwu* 1994) Vol. 4, pp. 75–81.

the Daliang 大涼 kingdom in Gaochang, which was allied with the Rouran confederacy. In 450, Juqu Anzhou's army conquered Jiaohé (Yar-khoto), the stronghold of the Jushi 車師 kingdom, which was allied with the Northern Wei in China, and unified the Turfan Basin. Then for some unknown reason, Juqu Anzhou turned against the Rouran confederacy, and the Rouran attacked Gaochang and destroyed the Daliang kingdom in 460.<sup>18</sup> According to the account in *Beishi* [History of the Northern Dynasties], in the chapter on the Western Regions, Gaochang “was annexed by the Ruru (i.e. Rouran) in the first year of Heping 和平 era (460 CE). The Ruru helped Kan Bozhou 闕伯周 to become the king of Gaochang” (*Heping yuannian, wei Ruru suobing. Ruru yi Kan Bozhouwei Gaochang wang* 和平元年, 為蠕蠕所并。蠕蠕以闕伯周為高昌王).<sup>19</sup> The author's emphasis on the fact that Gaochang was annexed by Rouran indicates that although the kingdom under Kan Bozhou was the first to actually use “Gaochang” as its name, it was nonetheless a puppet authority under the control of the Rouran Qaghanate.<sup>20</sup> And Kan Bozhou, though himself the king of Gaochang, adopted the same reign year as the Rouran, a clear sign of political affiliation. Kan Bozhou died around 477 and was succeeded by his son Kan Yicheng 闕義成. In the next year, however, he was killed by his brother Kan Shougui 闕首歸, who then became the king of Gaochang. In 487, the Fufuluo tribe of Gaoju rebelled against its former powerful ally, the Rouran, and migrated from the northern Taklamakan desert westwards to the north of Gaochang. In the next year, or soon after, it replaced the Rouran as the controlling power of Gaochang kingdom, and Afuzhiluo 阿伏至羅, the king of Gaoju, killed Kan Shougui, the king of Gaochang and his brother, and chose Zhang Mengming 張孟明, who was from Dunhuang, as the king of Gaochang.<sup>21</sup>

During this era of political uncertainty, the residents of Turfan used silk, both degummed and not, rugs and cotton as money. Cotton (*xingdie* 行疊) appears for the first time in a contract dated 477 for the purchase of a 30-year-old Iranian slave from a Sogdian merchant for 137 bolts of cotton.<sup>22</sup> Historical records mentioning cotton coupled with archaeological

<sup>18</sup>For the history of Turfan between 439 and 460, see Rong Xinjiang, “Juqu Anzhou's Inscription and the Daliang Kingdom in Turfan”, in D. Durkin-Meisterernst et al. (eds), *Turfan Revisited – The First Century of Research into the Art and Cultures of the Silk Road*, (Berlin, 2004), pp. 268–275 and plates 1–3, figures 1 and 2.

<sup>19</sup>Li Yanshou, *Beishi* [History of the northern dynasties] (Beijing, 1974), 97:3213.

<sup>20</sup>The people living under the Northern Wei regarded Gaochang as part of Rouran. In the epitaph of Lü Bosheng who was buried in the 10<sup>th</sup> month of the second year of Xinghe era of Eastern Wei, it is recorded that “his grandfather was the second son of the ruler of Ruru, who after surrendering, succeeded to the rank of king of Gaochang and his office in government reached as high as Situgong”. See Zhao Wanli 趙萬里, *Hanwei Nanbeichao muzhi jishi* 漢魏南北朝墓誌集釋 [Collected and annotated tomb epitaphs from the Han, Wei, Northern, and Southern dynasties] (Beijing, Kexue chubanshe, 1956), plate 591; History Institute of Chinese Academy of Social Sciences 史料編纂組 (ed.), *Rouran ziliao jilu* 柔然資料輯錄 [Materials about the Rouran] (Beijing, Zhonghua shuju, 1962), p. 54. The fact that the court of Northern Wei gave the title of king of Gaochang to the son of a Rouran ruler demonstrates this point.

<sup>21</sup>Zhang Guangda and Rong Xinjiang, “A Concise History”, pp. 16–17. At the time of writing, consensus had not yet been reached among scholars on the time of the end of the Kan family rule in Gaochang and the westward migration of Afuzhiluo of Gaoju because materials conflicted with each other. Here we follow Wang Su and adopt the most widely believed date for the migration of Gaoju and for the end of Gaochang under the Kan family. See Wang Su, *Gaochang shigao, tongzhibian*, pp. 270–275.

<sup>22</sup>97TSM1:5, transcribed and photographed in Rong Xinjiang et al. (eds), *Xinhua Tulufan chutu wenshu* (Beijing, 2007) I.125.

finds at Niya point to its arrival in the Western Regions sometime during the third or fourth centuries.<sup>23</sup>

A document recording the different expenditures by government officials, dating to approximately 482, provides the earliest evidence of the simultaneous use of different forms of money (see Document no. 1 in the Appendix). The document was found in tomb No. 90 of the Karakhoja graveyard. Since the text was not finished on the front page, it continued on the back. It is an account book listing the arrangements and supplies provided for envoys by Zhang Wan 張綰, Recorder 主簿 of Gaochang kingdom. Since another document dated in the 17<sup>th</sup> year of the Yongkang 永康 reign period (482) was discovered in the same tomb, one may assume that this account book dates to roughly the same time.<sup>24</sup> thus, approximately the period of Kan family rule in the Gaochang kingdom. In the document, there are some titles and names of the Rouran Qaghanate, such as Ruomin Teqin, Wuhushen, Zuodushi Mohebo, Tudi Teqin Wugen, Chulun Wugen and Toutou[fa].<sup>25</sup> The Gaochang government ordered its officials to pay textiles to the Rouran envoys from Mongolia as either tax payments or tribute gifts.

Fragmentary, Document no. 1 in the Appendix to this article lists 17 payments and gifts of carpets, cotton, red *wei* leather and *jin* brocaded silk from Shule (modern Kashgar). One payment combined three different commodities: “one bolt of cotton”, “five carpets” and a certain number of “pieces of red leather” (the exact amount is illegible).<sup>26</sup> Several other fragmentary lists of carpets and bolts of silks, undated but from 460–488, confirm the simultaneous use of these different textiles as money.<sup>27</sup> We can surmise that officials donated these particular items – cotton, carpets, red *wei* leather – to the Rouran because they received them as taxes from the local residents.

Unusually, two contracts from central China, which survive from roughly the same time period, shed light on the use of textiles as currency under the Northern Wei, the first dynasty to implement the equal-field system. One, dated 477, is from Lingtai county, Gansu and records the purchase of 35 *mu* (sixth-acres) of land for 40 pecks (*dou*).<sup>28</sup> This unit of volume must have been unfamiliar, because the contract also gives the equivalent by weight (50 pounds, or *jin* 斤), and – more important for our purposes – its equivalent in textiles (40 feet of cloth, or *bu* 布). At this early time, people living in central China knew how to calculate the value of a certain amount of grain in cloth. The other contract, from Zhuozhou

<sup>23</sup>Éric Trombert, “Une trajectoire d’ouest en est sur la route de la soie: La diffusion du coton dans l’Asie centrale sinisée”, in *La Persia e l’Asia Centrale. Da Alessandro al X secolo* (Rome, 1996), p. 212, notes 25 and 27; Li Fang (ed.), *Taiping yulan* 太平禦覽 [Imperially reviewed encyclopedia of the Taiping Tianguo reign (976–983)] (Beijing, 1960), 820.3652–3653, entry for “baidie” (cotton).

<sup>24</sup>Two personal names, Zuo Shouxing 左首興 and Deqian 得錢, also appear in another account book of taxes and labour in the Yongkang era, discovered in tomb No. 1 of Yanghai graveyard, east of Gaochang city in 1997 (97TSYM1). Rong Xinjiang et al., *Xinhuo Tulumfan chutu wenxian* [Newly discovered Turfan documents] 新獲吐魯番出土文獻 (Beijing, 2008), 1.129–145. For Zuo Shouxing, see pp. 130 and 139; for Deqian, pp. 130, 140.

<sup>25</sup>See Luo Xin 羅新, “Gaochang wenshu zhong de Rouran zhengzhi minghao” 高昌文書中的柔然政治名號 [On several political terms of the Rouran tribe found in the Gaochang documents], *Tulumfanxue yanjiu* 吐魯番學研究 (2008) No. 1, pp. 38–41.

<sup>26</sup>75TKM90:20(a), 20(b), *Tulumfan chutu wenshu* 1.122–123.

<sup>27</sup>For example, 97TSYM1:10–1, and other fragments, photographed and transcribed in Rong Xinhuo *Tulumfan*, 1.146–149.

<sup>28</sup>Transcribed in Yamamoto and Ikeda, 1987, p. 2, *cankao* #10; translation, Hansen, *Negotiating Daily Life*, pp. 26.

in Hebei (or possibly from Chang'an – the provenance is not entirely certain), dated 507, records the sale of a funeral plot for nine bolts of *juan*-silk.<sup>29</sup> This, like the contract for the purchase of a coffin, may be a fictive transaction, but, if cloth was thought to function as money in the netherworld, surely it did so as well in the world of the living.

After a period of disturbance, the Qu family ascended to the throne of the Gaochang Kingdom in 502, and the Gaochang Kingdom under the Qu family continued for over 100 years. The first mention of silver coins, 100 of them, at Turfan comes in a grave inventory dated 543, fully 41 years before the earliest real-world contract refers to silver coins.<sup>30</sup> Interestingly, this document lists six different types of cloth: 10 sheets (*zhang*) of Persian brocaded silk (*Bosi jin* 波斯錦), 10 sheets of Chinese brocaded silk (*Wei jin* 魏錦), 10 bolts of wideloom *heman* (合蠻) silk *ling*-twill, ten bolts of narrowloom silk twill with a stone pillar (*shizhu* 石柱) pattern, 40 bolts of plain white *juan*-silk and 200 bolts of cotton (*budie* 布疊). The terminological distinction between Persian and Chinese brocaded silk suggests that people knew the difference; so too with silk twill woven on a wide or narrow loom. This is an extravagant list; it is as if the author has imagined all the most valuable commodities on this earth and then decided to have them – or perhaps models of them – placed in the tomb for use in the next life.

As the tomb inventories make clear, textiles were thought to function as money in the realm of the dead, but there was no single type of textile that people used in their real-life transactions. A few contracts from the Gaochang period (502–640 CE) document the use of brocaded silk. In 506 the younger brother of a monk borrowed a textile from a man named Di Shaoyuan 翟紹遠, whose family name suggests that he belonged to the Gaojue people, the indigenous residents of Turfan. The loan contract specified that a sheet of “Chinese brocaded silk with a yellow background of the Kucha type made in Gaochang” (*Gaochang suozuo huangdi Qiuci zhong jin* 高昌所作黃地丘慈中錦) had both warp and weft made from spun silk (*jinjing jinwei* 錦經錦緯) and measured 9 feet 5 inches by 4 feet 5 inches.<sup>31</sup> In 514, Di Shaoyuan lent another piece of brocaded silk to a different Buddhist monk; in this case too, the contract specifies the dimensions, indicating that the loan was of a particular piece of cloth and not simply a piece of brocaded silk.<sup>32</sup> Yet, in both these transactions the monks promised that, if they failed to return the specific piece of cloth on time, they would pay interest in brocaded silk. As it was standard practice that interest was payable in whatever form of money a loan was originally made, it is clear that brocaded silk also functioned as a form of money. And when Di Shaoyuan purchased a female slave in 509, he paid a price of 3.5 sheets of Kucha brocaded silk.<sup>33</sup> A contract dated to 551 denominates a loan of brocaded silk in feet (it does specify that the brocaded silk had a cypress-tree leaf pattern) in addition

<sup>29</sup> Transcribed in Yamamoto and Ikeda, 1987, p. 2, *cankao* #11; translation, Hansen, *Negotiating Daily Life*, pp. 26–27.

<sup>30</sup> 72TAM179, *Tulufan chutu wenshu*, I.143; François Thierry, “Entre Iran et Chine, la circulation monétaire en Sérinde de 1er au IXe siècle”, in *La Sérinde, terre d'échanges: Art, religion commerce du Ier au Xe siècle. XIVes Rencontres de l'Ecole du Louvre* (Paris, 2000) pp. 121–147, especially p. 128.

<sup>31</sup> 75TKM88:1(b), *Tulufan chutu wenshu*, I.89.

<sup>32</sup> 75TKM99:6(b), *Tulufan chutu wenshu*, I.94–95.

<sup>33</sup> 75TKM99:6(a), *Tulufan chutu wenshu*, I.92–93.

to one of 60 feet of cotton (with no pattern specified).<sup>34</sup> These transactions suggest that the brocaded silk functioned as money some of the time but as distinct pieces of textiles at others.

These early materials do not reveal why the local people preferred one form of money to another. Only in the late 500s and early 600s do sufficient materials survive that shed light on this problem. Six Turfan documents were reused to make a paper shoe, discovered in Tomb No. 84 in the Astana graveyard. They share the same style of writing and have similar contents, indicating that they belonged to the same original group of documents. On the front faces of Document 2 (a fragment of the record from year 14 [574] of the Yanchang 延昌 Era of the Gaochang kingdom) and Document 4 (a fragment of the record from the Gaochang kingdom concerning a fine for harbouring stolen goods [*zangqian* 贓錢, literally “illicit money”] paid to the government), in the areas of the documents that were glued to the next sheets, we find identical signatures reading “Xuan 暄”,<sup>35</sup> indicating that these fragmentary documents made up a series, dating from 574 (See Document no. 2 in the Appendix.)

The significance of *qian* (coin) in the term *zangqian* 贓錢 is controversial, essentially because the metal of the coin is not specified. Lu Kaiwan noted that *zangqian* does not indicate whether the coins were made of silver or copper, adding that if silver, then the income would be very considerable.<sup>36</sup> Zheng Xuemeng thought that it was indeed silver coinage, and drew attention to the text of lines 6 and 8: “1 bolt of Deva brocaded silk, equal to 50 coins . . . , . . . bolt of . . . , equal to 51 coins”, which seems to show that 1 bolt of Deva brocaded silk was worth 50 coins, and 3 bolts 153 coins. Citing the text in line 9 “2 bolts of red brocaded silk, equal to 90 coins”, he pointed out that the coins mentioned here are silver coins, and that the term *ping qian* 平錢 was also presented as *ping yinqian* 平銀錢.<sup>37</sup> Jiang Boqin also thought that *zangqian* was paid in silver coins, because of the “official *zang* 贓, 13 and a half silver coins” mentioned in the document: “Account of the receipt of silver coins from Kang Ji [missing character] 康雞□ . . . and other people in the Gaochang kingdom”.<sup>38</sup>

What, then, was this *zangqian*? In the past, several scholars have argued that it was a tax that was levied on business transactions in the Gaochang kingdom. Non-resident Sogdian merchants were also required to pay this kind of tax.<sup>39</sup> However, after detailed examination

<sup>34</sup>60TAM326:014, *Tulufan chutu wenshu*, II.249. These three contracts are also transcribed in Yamamoto and Ikeda, 1987, pp. 15–16 (#36, 37, 38) (we follow their dating here). They are summarised in Wang, *Money on the Silk Road*, p. 79, Table 32.

<sup>35</sup>Tang Zhangru (ed.), *Tulufan chutu wenshu* 吐魯番出土文書, II (Beijing, 1992), pp. 1, 3.

<sup>36</sup>Lu Kaiwan 盧開萬, “Shilun Qushi Gaochang shiqi de fuyi zhidu” 試論麴氏高昌時期的賦役制度 [On the taxes and corvée in the period of the Gaochang kingdom under the Qu family], in Tang Zhangru (ed.), *Dunhuang Tulufan wenshu chutan* 敦煌吐魯番文書初探 [Preliminary studies on Turfan and Dunhuang documents] (Wuhan, 1983), p. 97.

<sup>37</sup>Zheng Xuemeng 鄭學檬, “Shiliu guo zhi Qushi wangchao shiqi Gaochang shiyong yinqian de qingkuang yanjiu” 十六國至麴氏王朝時期高昌使用銀錢的情況研究 [Studies in the use of silver coins in Gaochang from the Sixteen Kingdoms to the Gaochang kingdom under Qu family rule], in Han Guopan (ed.) 韓國磐, *Dunhuang Tulufan chutu jingji wenshu yanjiu* 敦煌吐魯番出土經濟文書研究 (Xiamen, 1986), p. 301.

<sup>38</sup>Document 60TAM337:11/37, discussed in Jiang Boqin 姜伯勤, *Dunhuang Tulufan wenshu yu Sichou zhilu* 敦煌吐魯番文書與絲綢之路 [Dunhuang–Turfan documents and the Silk Road] (Beijing, 1994), p. 182.

<sup>39</sup>Zhu Lei 朱雷, “Qushi Gaochang wangguo de ‘chengjiaqian’” 麴氏高昌王國的“稱價錢” [Scale fees in the Gaochang kingdom under the Qu family], in his *Dunhuang Tulufan wenshu luncong* 敦煌吐魯番文書論叢,

of the evidence Lu Xiangqian came to the conclusion that the term *zangqian* 贓錢 (“good money”) was actually a homophonous substitution for the original *zangqian* 贓錢 (“stolen money”), meaning a fine imposed for stealing or harbouring stolen goods. He demonstrated that Zhang Agou and the *hu* (Sogdian) merchant Wojiyān<sup>40</sup> were accused of being accessories (*zuocong* 作從), and after assessing the value of the property that they were harbouring, the local government fined them half of its total value. This is why Zhang Agou had to “pay *zangqian* of 50 and a half coins” and Wojiyān had to “pay *zangqian* of 157 coins”. We follow Lu’s interpretation of the text, and his restorations are indicated by square brackets in the appendix.<sup>41</sup>

Gaochang (Turfan) was a transfer point on the east–west trade route. Both the local resident Zhang Agou and the Sogdian merchant Wojiyān obtained Deva brocades from Long Zhezina. His name indicates that he was probably from the kingdom of Yanqi (Karashahr), which had a close relationship with Gaochang, and many people from Yanqi resided in Gaochang, as residents, sojourners or travelling merchants.<sup>42</sup>

In this period, large quantities of Sasanian silver coins entered Turfan, and it seems likely that they displaced textiles in many transactions. An additional 35 contracts survive for the leasing of land between 584 and 640; the rents are denominated in grain (15 examples), silver coins (11 examples) or the information is missing (6).<sup>43</sup> The same pattern – payment in grain or coins but not in textiles – holds true of the six labour-hire contracts that survive from 565–637.<sup>44</sup> Overall, the surviving contracts from Turfan from the Gaochang period confirm the use of grain or Sasanian silver coins to make purchases, to borrow money or to hire labourers. In the decades before and after 600, the local people used textiles only occasionally when making payments.

This limited use of textiles as money may reflect the small scale of the transactions recorded in contracts (many sources indicate that textiles were reserved for major expenditures only), and the correspondingly low social position of those signing the contracts. One example of expenditures at the absolute highest social level survives from 630, some 10 years before the Tang conquest of Turfan. In that year, when the Gaochang king bade farewell to the monk Xuanzang (c. 596–664 CE), he gave him 24 letters of introduction to the kaghan of the Western Turks and ample money for his travelling expenses: 100 ounces of gold, 30,000 silver coins and 500 bolts of plain silk and silk twill.<sup>45</sup> The huge size of the gift indicates that the Gaochang kingdom did not suffer from a shortage of coins as did the Tang dynasty, probably because an ample number of Sasanian silver coins circulated in Turfan.<sup>46</sup> Presumably the

(Lanzhou, 2000), p. 81; Jiang Boqin, *Dunhuang Tulufan wenshu*, pp. 181–182; É. de la Vaissière, *Sogdian Traders. A History*, translated by James Ward (Leiden, 2005), pp. 133–134.

<sup>40</sup>The second character in the name is not clear.

<sup>41</sup>Lu Xiangqian 盧向前, “Lun Qushi Gaochang zangqian” 論麴氏高昌贓錢 [On the illicit money in the Gaochang kingdom], *Beijing daxue xuebao*, (1991) No. 5, pp. 83–90; also in his *Dunhuang Tulufan wenshu lungao* 敦煌吐魯番文書論稿 (Nanchang, 1992), pp. 201–216.

<sup>42</sup>On the people from Yanqi in Turfan, see Rong Xinjiang, “Longjia kao” 龍家考 [On the Longjia tribe from Karashahr], *Zhongyuan xuekan*, 4 (1995), pp. 145–146.

<sup>43</sup>See Table 33, in Wang, *Money on the Silk Road*, pp. 83–85.

<sup>44</sup>See Table 34, in Wang, *Money on the Silk Road*, pp. 86.

<sup>45</sup>Huili 慧立, *A Biography of the Tripitaka Master of the Great Cī'en Monastery of the Great Tang Dynasty*. Translated by Li Rongxi. (BDK English Tripitaka 77, Berkeley, 1995) p. 33; *Da Cī'en si Sanzang Fashi zhuan* 大慈恩寺三藏法師傳 [Biography of the Tripitaka master from the Great Cī'en Monastery] (Beijing, 2000) p. 21.

<sup>46</sup>Skaff, “Sasanian and Arab-Sasanian Silver Coins from Turfan”, pp. 67–155.

silks occupied a middle range: the monk could use silver coins for smaller purchases, silks for medium purchases such as an animal or a slave, and gold for major expenditures.

Also from a higher social level is the sole surviving Sogdian-language contract from Astana, documenting the sale in 639 of a female slave for 120 “very pure” silver coins.<sup>47</sup> Very limited information about the use of textiles as money survives from the homeland of the Sogdians, the immediate area around Samarkand. Multiple artworks depict Chinese-style silks, but these textiles did not necessarily function as money.<sup>48</sup> When the city of Samarkand surrendered in 712 to the caliphate armies, the residents agreed to pay 2,000,000 silver *dirhams* on the spot and an additional 200,000 *dirhams* each year. They gave the value in *dirhams* of slaves (200), large garments, most likely of brocaded silk (100), small garments (60), and strips of silk (28).<sup>49</sup> The scarce data suggest that silver coins, not textiles, were the primary currency in the Sogdian world in the seventh and eighth centuries when coins, grain and textiles all circulated in Turfan and China.

While the Turfan contracts indicate that before 640 the local people used grain and silver coins far more frequently than textiles in their daily spending, textiles did function as money but not among the lowest reaches of society, who used coins and whose transactions the Astana materials capture. Since no document from before 640 gives the exchange rate between coins and textiles, we must piece together the surviving evidence to form a hierarchy of currencies. Xuanzang’s travel expenses indicate that the wealthiest people used gold, silver coins and silks, whether *juan*-silk or *ling*-twill. During these same centuries, ordinary people used grain and silver coins for most of their daily transactions, reserving textiles for only a few real-world exchanges and continuing to list them in inflated quantities in their grave inventories.

### Turfan’s Economy under Tang-dynasty Rule

In 640, the Tang armies defeated the Gaochang kingdom and brought the oasis under direct rule, along with Beiting (Jimsar) and Hami. After 658, the Tang dynasty created the Anxi Protectorate to exercise military and administrative authority in the Western Regions. Recognising grain, coins and textiles, the Tang authorities used an aggregate unit — silk bolt—hemp bolt—hank—string of coins—picul (*pi-duan-tun-guan-shi* 匹端屯貫石, as explained in Arakawa Masaharu’s article) — to calculate the government’s total revenue and expenditures. Over the course of the dynasty, there were never enough coins, and one regulation, which survives from 734 in *The Collected Statutes of the Tang Dynasty* (*Tang Huiyao*) but probably echoed earlier, now lost regulations, specified that all purchases of houses, slaves

<sup>47</sup>Yoshida Yutaka, “Appendix: Translation of the Contract for the Purchase of a Slave Girl Found at Turfan and Dated 639”, *T’oung Pao* (2003) No. 89, pp. 159–161.

<sup>48</sup>Kageyama Etsuko, “Use and Production of Silks in Sogdiana”, in Matteo Compareti, Paola Raffetta, Gianroberto Scarcia (eds), *Ēran ud Anērān: Studies presented to Boris Ilich Marshak on the Occasion of His 70<sup>th</sup> Birthday* (Venice, 2006). Available on-line at: <http://www.transoxiana.org/Eran/> (accessed 23/11/10).

<sup>49</sup>Étienne de la Vaissère, *Sogdian Traders*, pp. 268–271; Trombert and de la Vaissère, “Le Marché de Turfan”, pp. 29–32 offer a tentative analysis of prices for certain commodities in Turfan, Dunhuang and Sogdiana in the eighth century.

and animals had to be paid for in textiles.<sup>50</sup> The state's logic is clear: if purchasers used textiles to purchase costly items, which would free up coins and help keep them in circulation.

The Tang sent enormous payments of textiles to support its troops stationed in the north-west. The documents from the grave of a single militia soldier named Zuo Chongxi (c. 616–673 CE) clarify the impact of these subsidies at Turfan.<sup>51</sup> Militia soldiers were ordinarily farmers who served as soldiers in wartime, and this particular soldier happened to be wealthy. His tomb preserves two copies with identical content of a ledger detailing how he spent government funds on an expedition to Khotan that passed through Tumshuq, Aqsu and Kucha. Both copies are partially preserved, with different parts missing from each. Since it is not possible to restore perfectly all of the missing parts by comparing the two fragments, we give the transcription and translation of each copy separately in the translation of Document no. 3 in the Appendix.

Among the documents from Zuo Chongxi's tomb, the contract of Zhao Chouhu 趙醜胡, an enlisted member of the *Xiyu Dao* (Western Regions Circuit) campaign, records that he asked for a loan of some *lian*-degummed silk from Zuo Chongxi, the *fubing* (the Assault-resisting Garrison) soldier of Qianting *fu* 前庭府 in Gaochang county. We know that around the 15<sup>th</sup> day of the 8<sup>th</sup> month in the 2<sup>nd</sup> year of the Linde 麟德 Era (665 CE), the Tang government conducted a military campaign in the Western Regions. The Tang sent armies to the north-west to take Khotan back from the Tibetans. The campaign was directed by the Governor of Xizhou Prefecture, Cui Zhibian 崔知辯, and the General of the Left Wuwei Guard, Cao Jishu 曹繼叔. Judging from the place names mentioned in the text, such as Jushide (Gyāzdi, modern Tumshuq),<sup>52</sup> Bohuan (Aqsu) and Anxi (Kucha).<sup>53</sup> This document seems to be an account book listing the expenses in coins and silk from the entire campaign. Since it was found in the tomb of Zuo, an enlisted member of the campaign, it is not too much to posit that this account book was used by the military of the *Xiyu Dao* campaign.<sup>54</sup>

Zuo recorded his expenditures day by day. Just as the later laws required, Zuo used bolts of *lian*-degummed silk (not coins) to buy horses and a sheep (lines 1, 5). When he bought a slave, he did not have a single bolt of cloth, and had to pay in coins instead (the price is missing) (line 6). Half-bolts or whole bolts of *lian*-degummed silk were used to purchase husked millet (*mi* 米), rugs and horse feed. Whenever he made smaller expenditures, for example, to pay for a vegetarian feast (*zuozhai* 作齋) (line 10), alfafa (line 12), meat (line 6), leguminous fodder (line 2), vinegar and bowstrings (line 4), he paid using coins. The ledger

<sup>50</sup>Wang Pu, *Tang huiyao* [Important documents of the Tang] (Beijing, 1955) 89.1627; Trombert and de la Vaissière, "Le Marché de Turfan", p. 29.

<sup>51</sup>Zuo's tomb is 64TAM4, and all the documents recovered from it are in Tang, *Tulufan chutu wenshu*, III.208–229. They appear in Wang's *Money on the Silk Road*, Charts 31, 32 and 33. For more about this tomb, see Hansen, 1995, pp. 33–39, and "Why Bury Contracts in Tombs?", *Cahiers d'Extrême-Asie*, (1995) No. 8, pp. 59–66.

<sup>52</sup>On the place name, see Rong Xinjiang, "The Name of So-called 'Tumshuqese'", *Bulletin of the Asia Institute*, new series, (Iranian and Zoroastrian Studies in Honor of Profs Oktor Skjaervo), 2005 Vol.19 (published 2009), pp. 119–127.

<sup>53</sup>On the last two place names, see P. Pelliot, "Notes sur les anciens noms de Kučā, d'Aqsu et d'Uč-Turfan", *T'oung Pao* XXII (1923) pp. 126–132.

<sup>54</sup>See Rong Xinjiang, "Xinchu Tulufan wenshu suojian Xiyu shi erti" 新出吐鲁番文书所见西域史二题 [Two events in the Western Region based on the newly discovered Turfan documents], *Dunhuang Tulufan wenshan yanjiu lunji* 敦煌吐鲁番文献研究论集 Vol. 5 (Beijing, 1990), pp. 339–354.

mentions both silver and copper (probably copper alloy rather than pure copper) coins. The silver coins are Sasanian silver coins, while the copper coins are Chinese, or locally made coins. In Turfan Chinese bronze coins replaced Sasanian silver coins only around 700, but Zuo must have encountered them because of his position in the military.<sup>55</sup>

While the ledgers shed light on Zuo's expenditures while on duty, the 14 intact contracts buried in his tomb document evidence of his moneylending activities. The burial of intact contracts is itself unusual: almost all the other Turfan contracts survive because they were recycled as shoe soles or other items of clothing for the dead. Zuo, or his living kin, must have buried these contracts in the hope that Zuo could recover unpaid debts in the courts of the underworld that he had not been able to collect during his lifetime.<sup>56</sup> These contracts, which record a variety of transactions, raise the issue of choice: why did Zuo use coins for so many of his transactions and textiles for so few?

Six contracts are for straightforward loans of silver coins (in amounts ranging from 10 to 48) and charge interest of around 10 per cent each month (sometimes with a 10-day grace period). Four other contracts record the rental of land; in three instances Zuo gives out only coins, while in the fourth he paid a combination of grain and coins. An eleventh contract records the purchase of grass for silver coins. Another intact document from the tomb – a letter, not a contract – indicates that Zuo kept a large number of coins in his house. In an effort to clear his name (and possibly to prevent Zuo from pursuing him in the underworld courts), a household servant wrote a letter to the deceased in which he denied stealing 500 silver coins.

The three contracts requiring payment in textiles involve larger amounts. Zuo made two loans in cloth: one of 30 bolts of *lian*-degummed silk (with 14 per cent interest each month to be paid in degummed silk) and one of 3 bolts of degummed silk with no interest for the first 10 days.<sup>57</sup> When he purchased a 15-year-old slave (named Jiade 甲得, possibly a boy), he paid six bolts of degummed silk (*shuilian* 水練) and five coins. Why the combination of coins and silk? As Tang government regulations specified, the purchase of a slave was a major expense requiring the use of silk. A bolt of silk was a large denomination and the five coins functioned as a kind of change.

A few other documents in the tomb illustrate Zuo Chongxi's patterns of spending. His tomb inventory gives a sense of which goods he (or his descendants) thought useful in the next world: 10,000 pieces (*duan*) of white degummed silk (*bailian* 白練), 50,000 piculs of grain and three pounds of pure silver coins (*baiyin qian* 白銀錢). (On this occasion the quantity of silver coins is given by weight and not by the number of coins.) There are no surprises here in the use of these imaginary currencies: silk, grain and silver are precisely the three forms of money in use in the equal-field system of Tang-dynasty Turfan. This document also informs the underworld authorities that Zuo paid an unspecified number of silver coins to 500 monks as payment for the recitation of texts.

The materials from Zuo Chongxi's tomb offer a vivid picture of the Turfan economy during the period of Tang-dynasty rule. As a paid militia soldier, Zuo received bolts of cloth

<sup>55</sup>Skaff, "Sasanian and Arab-Sasanian Silver Coins from Turfan."

<sup>56</sup>Hansen, "Why Bury Contracts in Tombs?"

<sup>57</sup>The second contract uses the term *bolian* 帛練 for degummed silk. The word "bo" may mean "white" in this context. Wang Le, personal communication, 5 December 2010.

from the government for his expenditures while on military campaign; he used these bolts to purchase horses and sheep. He converted them into coins for smaller expenditures (and for when he bought a slave or when he had no bolts of cloth available). His own household often used coins; we know that, on at least one occasion, when he was robbed, he had 500 coins in the house, and that most of his loans and purchases were in coins. In only one instance he combined grain with coins to rent some land; he used silk to buy a slave and for two loans.

Although the materials in Zuo's tomb provide no information about exchange rates, a few later documents from Turfan give specifics. A receipt for a horse used for long-distance transport relay (*changxing ma* 長行馬) in 692 (1<sup>st</sup> year of the Ruyi 如意 reign period in Empress Wu Zetian's reign) records that the officer of the residential ward (or village elder) Shi Xuanzheng 史玄政 received money for purchasing horses: "two silver coins, equal to 64 copper coins" (*yingqian erwen, zhun tongqian lushisi wen* 銀錢貳文, 准銅錢陸拾肆文) which shows that in 692 the exchange rate was one silver coin to 32 copper coins.<sup>58</sup> "The Account of harmoniously purchasing (*hedi* 和糴) highland barley during the Tang period" states that "one hank of cotton floss equals five silver coins at a lesser price; two hanks of cotton floss equals one bolt of plain *lian*-degummed silk" (*mian yi tun zhun ci gu zhi yinqian wu wen, liang tun dang lian yi pi* 綿壹屯准次沽直銀錢伍文, 兩屯當練壹疋).<sup>59</sup> This tomb is dated to the reign periods of Emperor Gaozong (649–683 CE) and the Empress Wu Zetian (690–705 CE), so the exchange rate at that time was 10 silver coins to one bolt of *lian*-degummed silk. During the Tang army's march in the Western Regions, they used silk, copper coins and silver coins to make purchases, and clearly *lian*-degummed silk was the most valuable of the three forms of money.

Following the exchange rates in the two documents above, we can calculate that in 692, one bolt of silk was worth 10 silver coins, or 320 bronze coins. This was still the approximate rate in 731–732, when another set of documents records the exchange rate as 300 bronze coins for one bolt of largeloom degummed silk (see lines 18–19 in Document no. 4 in the Appendix). In 1973 a group of records of receipt of expenses such as salaries and other items, dated from 731–732 (19<sup>th</sup> and 20<sup>th</sup> years of the Kaiyuan Era), were found in Tomb No. 506 at the Astana graveyard, and these record in detail the payment of the Tang officials' salary (*liaoqian* 料錢 or *yueliao* 月料), travel allowances (*chengliao* 程料) and the bills for lodgings provided to envoys (*tingliao* 停料). One of the two documents in the Appendix is dated 731 (19<sup>th</sup> year of the Kaiyuan Era); the other does not give a year but can be assigned to the same year on the basis of the day and month which it mentions. They both consist of long lists of payments, with one entry following another.<sup>60</sup>

Han Guopan has investigated the relationship between coins and silk in these two documents, and found that there are 22 instances of the receipt of coins and 21 instances of the receipt of *lian*-degummed silk. One example seems to be scribal error, and mistakenly records a payment of coins that was actually made in *lian*-degummed silk; therefore, the real figure is 22 instances of *lian*-degummed silk and 21 instances of coins. The first document

<sup>58</sup>Document no. 64TAM35:28, in Tang Zhangru (ed.), *Tulufan chutu wenshu*, III. 517.

<sup>59</sup>Document no. 73TAM214:148(a), in Tang Zhangru (ed.), *Tulufan chutu wenshu*, III. 163.

<sup>60</sup>Since the same personal names often reappear, we can expand some abbreviated names.

records the receipt of 48 bolts of *lian*-degummed silk in total, while the second one records even more. The total sum of payments in coinage from both texts is only 1,390 coins; since one bolt of *lian*-degummed silk was equal to 300 coins, it is clear that the value of the payments in *lian*-degummed silk was considerably higher. Han Guopan sought to argue that *lian*-degummed silk was used alongside coinage as an alternative currency even in the first half of the eighth century, when copper coins were widely used.<sup>61</sup>

Recently an article by Huang Lou has focused on these documents, pointing out that these texts found at Turfan seem to originate from Beiting, judging by the official titles and place names mentioned in them. He examined every entry in the document and sought to define the three kinds of *liaoqian* mentioned in the texts: (1) the *yueliao* (monthly salary), which served as part of the local official's salary during the initial stages of the Tang period, and includes *yueliao*, *keqian* 課錢 (income from service fees paid by the population in place of various services they owed officials) and *zagei* 雜給 (miscellaneous expenses); (2) the *chengliao*, which was the travel allowance allocated to envoys and their attendants for the return journey after the completion of a diplomatic mission and payable by the local governments of the regions that they passed through; and (3) the *keshi tingliao* 客使停料, sometimes abbreviated to *keshi liao* or *tingliao*, which apparently referred to money for the expenses on food and lodging incurred by envoys staying at state-run guesthouses. Here *ting* means "to lodge".<sup>62</sup> The *yueliao* payments mentioned in this document have also been studied in a recent article by Lin Xiaojie.<sup>63</sup> These documents show that the state paid salaries, travel allowances and the costs of room and board at the state-run guesthouses using *lian*-degummed silk and not coins in Beiting during the Tang period.

The best information about exchange rates comes from the two price lists from the summer of 743 for the Turfan markets studied first by Ikeda and more recently by Éric Trombert and Étienne de la Vaissière.<sup>64</sup> Following the stipulations of *The Tang Code*, they give three prices (high/medium/low) for each item listed. The prices of horses and camels are in broad bolts of degummed silk; everything else (oddly, including cattle, which is contrary to government regulations) is priced in coins. (By 743, the coins are definitely Tang-dynasty bronze coins; no one in Turfan was using Sasanian or Arab-Sasanian coins any longer.) This list of over 350 commodities includes 33 different textiles sold variously by the bolt, piece, section or foot. The officials start with a wideloom bolt of degummed silk first: 470/460/450 coins per bolt. The price of plain silk was exactly the same per bolt as for a broad bolt of degummed silk (470/460/450), but the prices of other textiles varied enormously. The highest price was

<sup>61</sup> Han Guopan, "Supplement to the Relations between Coins and Silk from Gaochang Kingdom to Xizhou Prefecture" 高昌西州四百年貨幣關係補缺, in Zhu Lei (ed.), *Tangdai de lishi yu shehui. Zhongguo Tangshi xuehui diliujie nianhui ji guoji Tangshi xuehui yantaohui lunwen xuanji* 唐代的歷史與社會——中國唐史學會第六屆年會暨國際唐史學會研討會論文選集 (Wuhan, 1997), pp. 320–325.

<sup>62</sup> Huang Lou 黃樓, "Studies in the Documents Concerning *yueliao*, *chengliao*, and *keshi tingliao*" 吐魯番所出唐代月料、程料、客使停料文書初探——以吐魯番阿斯塔那506號墓開元十九年料錢文書為中心, *Dunhuang Tuluhan yanjiu* 敦煌吐魯番研究 11, (Shanghai, 2008 [published 2009]), pp. 249–267.

<sup>63</sup> Lin Xiaojie 林曉潔, "Time and Space in the Daily Life of Officials in Xizhou Prefecture under Tang" 唐代西州官吏日常生活的時與空, *Xiyu yanjiu* 西域研究, (2008.) No. 1, pp. 79–82.

<sup>64</sup> Ikeda On ordered and transcribed the document in *Chūgoku kodai sekichō kenkyū* [Studies in ancient Chinese household registers] (Tokyo, 1979), pp. 447–462; Trombert and de la Vaissière, "Le Marché de Turfan"; Éric Trombert, "Produits Médicaux, aromates et teintures sur le marché de Turfan en 743", in Catherine Despeux (ed.), *Médecine, religion et société dans la Chine Médiévale: étude de manuscrits chinois de Dunhuang et de Turfan*, Vol. II (Paris, 2010).

630/620/610 coins for a bolt of Henan plain weave *shi* silk using threads of varying thickness (Henan fu sheng shi 河南府生繩). The lowest was 390/380/370 coins for a bolt of Zizhou (Sichuan) degummed silk woven on a small loom (*Zizhou xiaolian* 梓州小練).

Some of these textile types – *shi*-silk, plain silk dyed red (*manfei*), *lian*-degummed silk, *juan*-plain silk – also occur in P3348, the document dated 745 that lists the textiles shipped to the Dunhuang garrison (discussed in Arakawa Masaharu’s article). Dunhuang was 550 km from Turfan, and it is likely that the soldiers garrisoned at Turfan received the same, or at least a similar, mix of textiles from the central authorities. These payments from the central government were huge: the two payments of 10,000 bolts of silk dwarf all the individual transactions recorded in the Turfan documents, which involve at most a few hundred bolts of silk.<sup>65</sup> The payments to the military could be even larger: Niu Xianke, Vice Military Commander of Hexi, who served from 729 to 737, mentions a one-time payment of 200,000 bolts of silk, which was ten times higher than the annual payment to the Dunhuang garrison recorded in P3348.<sup>66</sup>

The Turfan documents show what happened when these payments entered the local economy. The authorities issued these textiles to local officials for multiple purposes: to individual soldiers like Zuo Chongxi, to envoys for their various expenses and to purchase grain for those serving in the garrisons or for their salaries. Once the government officials disbursed the bolts, they circulated in the local economy, which is why 33 different textiles were for sale in the Turfan market in 743.

### Conclusion

In his *Encyclopaedic History of Institutions* (*Tongdian* 通典), the institutional historian Du You (735–812 CE) recorded the revenues of the Tang state between 742 and 755: 25 million piculs of grain, 27 million pieces of textiles (including 16 million pieces of hemp, 7.4 million bolts of silk and 1.85 million hanks of silk floss) and 2 million strings of coins.<sup>67</sup> The Tang authorities had no choice: given the persistent shortages of coins they faced, they had to make payments in textiles and grain, which constituted their largest holdings.

Still, textiles had certain advantages that are not obvious to modern observers, accustomed as we are to our own monetary system. Among the earlier economic historians who have weighed the advantages and disadvantages of coins and textiles, Michel Cartier published two tables showing the changing values of coins and textiles and concluded that prices were particularly stable during Xuanzong’s reign, 712–755, less so before and after.<sup>68</sup> Éric Trombert, building on Cartier’s work, makes a persuasive case that textiles served as a better medium of exchange than coins. Textiles had significant advantages over coins (which could

<sup>65</sup>See for example, the dispute between Li Shaojin and Cao Lushan over the loan of 275 bolts. (*Tiufan chutu wenshu* (photos) 3.242–247). For a discussion and partial translation of this document, see my article, “How Business was Conducted on the Chinese Silk Road during the Tang Dynasty”, in William Goetzmann (ed.), *Origins of Value* (Oxford, 2005), pp. 43–64.

<sup>66</sup>Zhang Jiuling, *Tang Chengxian Qu Jiangzhang xianshen wenji*, (Sibu congkan edition) 12.72a; Dong Gao 董浩 (ed.), *Quan Tangwen* 全唐文 [Complete writings of the Tang] (Beijing, 1983) 287.2909.

<sup>67</sup>Michel Cartier, “Sapèques et Tissus à l’époque des T’ang (618–906): remarques sur la circulation monétaire dans la Chine médiévale”, *Journal of the Economic and Social History of the Orient*, Vol. 19, No. 3 (1976), p. 338; Du You, *Tongdian*, 6.110–111; Twitchett, *Financial Administration*, pp. 153–156 translates and explicates the document.

<sup>68</sup>Cartier, “Sapèques et tissus”, pp. 323–344, charts on pp. 327, 340.

be counterfeited or debased) and grain (which spoiled easily). Most important, textiles were significantly lighter than coins; a string of coins could weigh more than four kilograms. In addition, textiles retained their value with fewer fluctuations than coins.<sup>69</sup> When the copper content of bronze coins was worth more than their face value, they would be melted down for their metal content. If we believe official rhetoric, counterfeit, or more likely, privately made substandard bronze coins circulated widely. Textiles had another advantage: if necessary, one could cut a bolt up and make a suit of clothes. The stipulated length of 40 Chinese feet required for a Tang-dynasty bolt of tax silk contained just enough cloth for a suit of clothes, as Angela Sheng explains in her article.

Even before the imposition of Tang-dynasty rule in 640, the various contracts show that the residents of Turfan used multiple co-existing forms of money (grain, rugs, cloth and coins). Before 550, smaller transactions involved rugs, grain and coins; larger ones, silk. In the years approaching 600, Sasanian coins flooded the local economy, and few documented transactions involved textiles; still, textiles were a sufficiently important currency that, in 630, the Gaochang king gave Xuanzang a generous gift of 5,000 bolts of silk in addition to 100 ounces of gold and 30,000 silver coins.

The prices of different types of textiles varied greatly we learn from the Turfan market register of 743. Keeping track of these values, and doing conversions from one currency to another, must have been cumbersome, but everyone was accustomed to having a complicated currency system, and people managed somehow.

Using different media posed some challenges. Since a bolt of silk had a much greater value than did a single coin (whether Sasanian silver or Chinese bronze) or a single measure of grain, it was as difficult to spend a bolt of cloth as it is today to use a \$100 bill or a 100€ note. For this reason, Zuo Chongxi used coins for most of his dealings, and the market register listed almost all prices in coins.

When we read the Turfan documents, we may wish for additional information – or the gaps in the texts to be magically restored – but we cannot deny the value of the extraordinary detail that survives from the site. They contrast with so much of the Chinese historical record – the official histories, encyclopaedias and collected writings of different officials – that describes the monetary system from the point of view of the state. The materials from Turfan are valuable precisely because they permit us to see how such an unwieldy monetary system worked in real life. Quite simply, Turfan is the one place in the entire Chinese empire where we can see a multicurrency system in use before and after the Tang conquest.

VALERIE HANSEN  
*Yale University*  
 XINJIANG RONG  
*Peking University*

<sup>69</sup>Éric Trombert, “Textiles et tissus sur la Route de la soie”, in *La Serinde, terre d'échanges*, pp. 107–120, reference on p. 108.

## Appendix

Document No. 1: An Account of Purchases<sup>70</sup>

- 1 [ ] 匹，毯六張半，付索寅義，買厚絹，供涑。  
 ... bolt, 6 and a half carpets to Suo Yinyi to buy thick silk (*houjuan*) to give to Lai [gap in text].
- 2 [ ] 半斤，付雙愛，供涑。  
 ... half pound to Shuang'ai to give to [gap in text] Lai.
- 3 [ ] 出行縹卅匹，主簿張縮傳令，與道人曇訓。  
 ... gave out 40 bolts of cotton (*xingdie*) by order of Zhang Wan, the Recorder, for the Monk Tanxun.
- 4 [ ] 出行縹五匹，付左首典 (興)，與若潛提勳。  
 ... gave out 5 bolts of cotton (*xingdie*) to Zuo Shouxing for Ruomin Teqin.
- 5 [ ] 出赤違一枚，付愛宗，與烏胡慎。  
 ... gave out one piece of red leather (*wei*) to Aizong for Wuhushen.
- 6 [ ] 阿錢條用毯六張，買沾纈。  
 ... Aqian paid 6 carpets to buy felt (*zhanzan*).
- 7 [ ] 匹，付得錢，與吳兒折胡真。  
 ... bolt to Deqian for Zhehuzhen from Wu (a Southern dynasty in Central China).
- 8 [ ] 赤違一枚，付得錢，與作都施摩何勃。  
 ... a piece of red leather (*wei*) to Deqian for Zuodushi Mohebo.
- 9 [ ] 縹一匹，赤違一枚，與禿地提勳无根。  
 ... one bolt of cotton (*die*) and one piece of red leather (*wei*) to Tudi Teqin Wugen
- 10 [ ] 月廿五日，出縹二匹，付富買肉供。  
 ... 25<sup>th</sup> of the [gap in text] month, gave out 2 bolts of cotton (*die*) to [gap in text] Fu, to buy meat for [gap in text].
- 11 [ ] 出毯一張 [ ]  
 ... gave out one carpet, ...
- 12 [ ] 出行縹 [ ]  
 ... gave out [gap in text] (bolt) of cotton (*xingdie*), ...
- 13 [ ] 行縹 [ ]  
 ... gave out cotton (*xingdie*) ...
- 14 [ ] 行縹三匹，赤違三枚，付隗已隆，與阿祝至火下。  
 ... gave out 3 bolts of cotton (*xingdie*) and 3 pieces of red leather (*wei*) to Wei Yilong for Azhuzhihuoxia.
- 15 [ ] 張縮傳令，出疏勒錦一張，與處論无根。  
 ... under the order of Zhang Wan, one piece of Shule *jin* brocaded silk was given out to Chulun Wugen.

<sup>70</sup>“Gaochang zhubu Zhang Wan deng chuangong zhang” 高昌主簿張縮等傳供帳 (75TKM90:20(a), 20(b)), Tang Zhangru 唐長孺 (ed.), *Tuifan chutu wenshu* 吐魯番出土文書, I, [Excavated documents from Turfan] (Beijing, 1992), pp. 122–123. The character 縹 *die* can also be read as *xie*; see Eric Trombert's article in this issue, especially fn 22 and 25.

16 \_\_\_\_\_ 摩何

... Mohe ...

17 \_\_\_\_\_ 縹一匹，毯五張，赤違枚，各付已隆，供鑰頭\_\_\_\_\_

... one bolt of cotton (*[xing]die*), 5 carpets, [gap in text] pieces of red leather (*wei*), each given to [Wei] Yilong for Toutou[fa].

Document No. 2: A Record Concerning Illicit Money to Gaochang Kingdom under the Qu Family<sup>71</sup>

1 \_\_\_\_\_ 布二匹半，平[錢]\_\_\_\_\_

... 2 and a half bolts of cloth, equal to ... [coins] ...

2 \_\_\_\_\_ 半文。張申武[出臧錢]\_\_\_\_\_ 百 [文]\_\_\_\_\_

... half a coin. Zhang Shenwu [paid *zangqian* of] ... hundred(s) coins ...

3 \_\_\_\_\_ 泮作人秋富二[人]\_\_\_\_\_ 蒲桃中趙武[尊]\_\_\_\_\_

... pan and the wrongdoer Qiufu, they both ... in grapes ... Zhao Wu[zun] ...

4 \_\_\_\_\_ 所藏綾十三匹，[平錢]— (二) 百廿一文\_\_\_\_\_

... harbour 13 bolts of silk twill (*ling*), [equal to] 1(2)21 [silver coins] ...

5 \_\_\_\_\_ [出]臧錢一百一十文[半]。\_\_\_\_\_ 出臧錢一百一十文[半]，\_\_\_\_\_

... [paid] 110 and a half coins of *zangqian*. ... paid 110 and half coins of *zangqian*.

6 \_\_\_\_\_ [張]阿苟作從，藏龍遮(之捺)提婆錦一匹，平錢五十[文]\_\_\_\_\_

... as accessory, [Zhang] Agou harboured Long Zhe[zhu's] 1 bolt of *tipo* (Deva) *jin* brocaded silk, equal to 50 [silver coins] ...

7 \_\_\_\_\_ [匹]，平錢五十一文。張阿苟出臧錢五十半。次傳\_\_\_\_\_

... bolt of ... , equal to 51 [silver] coins. Zhang Agou paid 50 and a half coins of *zangqian*. Next summon ...

8 \_\_\_\_\_ [商胡握畿]延作從，藏龍遮之捺提婆錦三匹，平錢一百五[十文]；\_\_\_\_\_

... as accessory, [foreign merchant Woji]yan harboured Long Zhezhu's 3 bolts of *tipo* (Deva) *jin* brocaded silk, equal to 15[0] [silver] coins, ...

9 \_\_\_\_\_ 紅錦二匹，平錢九十文；祁守義提婆錦[匹]，平錢五十文；]\_\_\_\_\_

... 2 bolts of red brocaded silk, equal to 90 [silver] coins, Qi Shouyi's 1 bolt of *tipo* (Deva) *jin* brocaded silk, [equal to 50 silver coins,]

10 \_\_\_\_\_ [平錢二十四]文。商胡握畿延出臧錢一百五十七[文]，\_\_\_\_\_

... equal to 24 silver coins. Foreign merchant Wojiyan paid 157 coins of *zangqian*, ...

11 \_\_\_\_\_ 臧盡。趙武尊\_\_\_\_\_

... all of *zangqian* was paid. Zhao Wuzun ...

Document No. 3: An Account from the Tang Military in the Western Regions under Tang<sup>72</sup>

A. Account book No. 1 listing the expenses paid in coins and silk:

1 \_\_\_\_\_ 三將去，五匹校尉買去，二匹用買何堀馬。練\_\_\_\_\_

<sup>71</sup>“Gaochang tiaolie chu zangqian wenshu canzou” 高昌條列出臧錢文數殘奏 (67TAM84:20), Tang, *Tulufan chutu wenshu*, II.2.

<sup>72</sup>“Tang zhiyong qianlian zhang 1” 唐支用錢練帳一 (64TAM4:46/1), Tang, *Tulufan chutu wenshu*, III.225–226.

- ... 3 taken away, 5 bolts [of *lian* degummed silk] were bought by the Commandant (Xiaowei). 2 bolts [of *lian* degummed silk] to buy He Bi (Dui?)'s horse. ... *lian* degummed silk ...
- 2 臧城下，用練一匹糶馬蹄。更錢八文，亦用糶。胡乍城更用練一匹  
... in the town of [gap in text] zhi, 1 bolt of *lian* degummed silk was used to buy leguminous fodder for the horses. And 8 coins to buy (*di*) grain. In the town of Huzha, 1 bolt of *lian* degummed silk was used [to buy] ...
- 3 用錢拾文，懂[熹] 糶麥。用麥造糧。據史德城用錢  
... 20 coins, [Zuo] Chongxi used [gap in text] to buy wheat, and used it to make food. In the city of Jushide, ... coins were used ...
- 4 文，校尉用四文，糶蹄。用錢二文，買弦。更練一匹，曹師邊用糶。文  
coins, the Commandant used 4 coins to buy vinegar and 2 coins for bowstrings. And 1 bolt of *lian* degummed silk [was used] to buy the leguminous fodder from Cao Shi. ...
- 5 忌渾。用練一匹，糶麩。迴來河頭。用一匹，曹願住處買羊。更用錢  
... hun. 1 bolt of *lian* degummed silk was used to buy flour made with roasted grains (chao 麩, the “Tsampa” eaten daily by Tibetans). On the way back in the town of Hetou, 1 bolt (of *lian* degummed silk) was used to buy sheep from Cao Yuanzhu. [gap in text] coin(s) were used ...
- 6 住內(買肉)。撥換城用練半匹，糶米。買婢，闕練一匹。更用錢  
... to buy meat. In the city of Bohuan half a bolt of *lian* degummed silk was used to buy rice. For purchasing a female slave, I lacked a bolt of degummed silk and used coins
- 7 買穴(肉)。更用一匹，買白氈。用練半匹，尾乳處買氈。用錢三文  
... to buy meat. One more bolt [of *lian* degummed silk] to buy white felt. Half a bolt of *lian* degummed silk was used to buy felt from Weiru. 3 coins are used ...
- 8 安西。用錢三文，糶蹄。更用錢一文，買草。更用同(銅)錢貳拾二文，買麩  
... Anxi. 3 coins were used to buy the leguminous fodder, and one more coin was used to buy hay (or straw). 22 copper coins were used to buy the parched ...
- 9 [ ] [ ] 苜蓿。更用同(銅)錢六文，糶外。更用同(銅)錢十四文，糶  
[to buy] alfalfa. 6 copper coins were used to buy (*di*) the parched and 14 coins more to buy ...
- 10 [ ] 錢一十八文，糶外。更用同(銅)錢  
... 18 coins [were used] to buy the parched. ... copper coins were used ...
- 11 [ ] 蹄，用銀錢二文，買一腳穴。更用錢廿一文買麩  
... the leguminous fodder, 2 silver coins were used to buy 1 leg of a neat ... 21 coins were used to buy the parched ...
- 12 [ ] 練  
... *lian* degummed silk ...
- 13 [ ] 錢 [ ] 作用  
... coins [gap in text] to ...
- 14 正一文索 [ ] 用練一匹，與作。用  
... 1 coin, [gap in text] 1 bolt of *lian* degummed silk was used to do [fast]. ...
- 15 錢壹拾三文，更錢 [ ] 校尉下，銀錢六文，銅錢六  
文。

13 coins were used. And coins [gap in text] by Commandant [gap in text] 6 silver coins and 60 copper coins [were kept];

- 16 安校尉下，銀錢六文，銅錢卅一文。韓校尉下，銀錢六，銅錢伍十文。趙師下，  
by Commandant An 6 silver coins and 31 copper coins; by Commandant Han 6 silver  
coins and 50 copper coins; by Zhao Shi
- 17 銀錢十文，銅錢六十文，更銅錢廿十（衍文）六文。張師下，銀錢七文，銅錢卅  
文。  
10 silver coins and 60 copper coins, and, in addition, 26 copper coins; by Zhang Shi 7  
silver coins and 30 copper coins.

**B. Account book No. 2 listing the expenses of coins and silk:<sup>73</sup>**

- 1 \_\_\_\_\_ 二匹，用買何埵  
... 2 bolts [of *lian* degummed silk] to buy He Dui's [horse].
- 2 \_\_\_\_\_ 匹，糴馬蹄。更錢  
... [1] bolt [of *lian* degummed silk] to buy the leguminous fodder for the horses. And  
coins ...
- 3 \_\_\_\_\_ 練 \_\_\_\_\_ 馬蹄。更用錢十  
... *lian* degummed silk [to buy] the leguminous fodder for the horses. And 10 coins  
were used,
- 4 \_\_\_\_\_ 糧。據史德城用錢四文，與  
... food. In the city of Jushide, 4 coins were used, to give
- 5 索 \_\_\_\_\_ 用錢二文，買弦。更用練一匹，  
So [gap in text] 2 coins were used to buy bowstrings. And 1 bolt of *lian* degummed silk
- 6 曹師邊用糴 \_\_\_\_\_ 迴來河  
is used to buy [gap in text] from Cao Shi. ... On the way back in the town of Hetou,
- 7 頭，用練一匹，曹願住處買羊。用錢 \_\_\_\_\_ 還買肉。  
1 bolt of *lian* degummed silk was used to buy sheep from Cao Yuanzhu. [And] coins  
were used [gap in text] to buy meat.
- 8 撥換城用練半匹，糴米。買婢，闕 \_\_\_\_\_ 二文，  
In the city of Bohuan half a bolt of *lian* degummed silk [was used] to buy rice. For  
purchasing a female slave, [gap in text] were used. 2 coins,
- 9 願住處買肉。撥換更用練一匹，買白，用陳（練） \_\_\_\_\_  
to buy meat from [Cao] Yuanzhu. And 1 bolt of *lian* degummed silk was used to buy  
white felt in Bohuan. And [gap in text] *lian* degummed silk was used ...
- 10 用錢三文，作齋。更到安西，用錢三文，糴蹄。 \_\_\_\_\_  
3 coins were used to pay for a vegetarian feast. When the army arrived in Anxi (Kucha),  
3 coins were used to buy the leguminous fodder. ...
- 11 用同（銅）錢廿二文，買麩。用同（銅）錢六文，買苜 \_\_\_\_\_  
22 copper coins were used to buy the flour made with roasted grains. 6 copper coins  
were used to buy alfalfa. ...

<sup>73</sup>“Tang zhiyong qianlian zhang II” 唐支用錢練帳二 (64TAM4:47, 49, 48), Tang, *Tiufan chutu wenshu*, III.227.

- 12 更用同 (銅) 錢八文, 買四首蓆。更 [ ]  
And 8 copper coins were used to buy 4 [sheaves] of alfalfa. And ...
- 13 用錢六文, 買三束首蓆。更用同 (銅) [ ]  
6 coins were used to buy 3 sheaves of alfalfa. And ... copper [coins] were used ...
- 14 文, 買一腳。更用同 (銅) 錢 [ ]  
coins [... were used] to buy 1 leg of meat. And ... copper coins were used ...

Document No. 4: Records of Receipt of Expenses in Beiting under Tang<sup>74</sup>

The first document reads as follows:

- 2-3 伊吾軍子 (將) 權戡等壹拾捌人, 十五日料錢壹仟三百伍拾文。  
15 days' *liaoqian* allocations for 18 persons, including the Sub-Commander (*zijiāng*) of Yiwu (Hami) Army Quan Kan and others, total 1,350 coins.
- 3 九月二日康福領八月料。  
Kang Fu received his salary of the 8th month, on the 2nd day of the 9th month<sup>75</sup>
- 4 營田副使廉亓思岌加勳賜壹匹。梁悉憚領。  
The Vice Agriculture Commissioner Qi Siji was given 1 bolt [of *lian* degummed silk] for being awarded an honorary title. Received by Liang Xiyun.
- 5-6 曹司造褙子, 錦綉伍拾肆尺, 直准錢貳仟貳伯文。九月四日付主安莫。安(下為“莫”的粟特文署名)  
54 feet of brocaded silk was needed for [gap in text] Section to make pouch, equal to 2,200 coins. Paid to the master An Mo on the 4th day of the 9th month. An (with the Sogdian signature *Māk* below).<sup>76</sup>
- 7-8 支度使典陸人, 九月料錢壹仟漆伯肆拾文。開元十九年九月八日 [ ] 領。  
The *liaoqian* of the 9th month for 6 *dian* clerks of the Fiscal Commissioner total 1740 coins. Received by [a person's signature] on the 8th day of the 9th month in the 19th year of Kaiyuan Era.
- 9-10 麴庭訓領得錢陸伯叁拾文, 充九月已後料。九月十二日麴[庭]訓領。  
Qu Tingxun received 630 coins as his salary from the 9th month on. Received by Qu [Ting]xun on the 12th day of the 9th month.
- 11-12 大練叁匹, 充中館玖月客使停料。九月十五日呂 [ ] 領 |  
3 bolts of largeloom *lian* degummed silk for the *tingliao* payment for the envoys staying at the middle guesthouse (*zhongguan*). Received by Lu [gap in text] on the 15th day of the 9th month.
- 13-14 大練拾匹, 充中館 [ ] (客使) 玖月停料。九月十六日呂 [ ] 領。  
10 bolts of largeloom *lian* degummed silk served as the *tingliao* [payment for the envoys] staying at the middle guesthouse. Received by Lu [gap in text] on the 16th day of the 9th month.

<sup>74</sup>“Tang Kaiyuan shijiunian Kang Fu deng ling yongchonghiaoqianwu deng chao” 唐開元十九年康福等領用充料錢物等抄 (73TAM506:4/11(1-7)), Tang, *Tulufan chutu wenshu*, IV.402-408.

<sup>75</sup>We use a smaller font in our translation to indicate that the original had smaller characters.

<sup>76</sup>For the Sogdian signature, see Y. Yoshida, “Sino-Iranica”, *Bulletin of the Society for Western and Southern Asiatic Studies, Kyoto University*, 48 (1998), pp. 38-39.

- 15 樊令詮領陰嗣瓌料錢 [ ] [九月]十七日樊[令]詮領。  
Fan Lingquan received Yin Sigui's salary [gap in text]. Received by Fan [Ling]quan on the the 17th day [of the 9th month].
- 16 樊令詮 [ ]  
Fan Lingquan [received] . . .
- 17 同日更領羅忠錢壹伯文。樊[令]詮[ ](領)。  
At the same day he also received 100 coins for Luo Zhong. Received by Fan [Ling]quan.
- 18-19 大練拾匹，充中館客使十九年玖 ( 月 ) [ ]停料，匹估叁伯文。九月十七日呂領。  
10 bolts of largeloom *lian* degummed silk served as the *tingliao* payment of the 9th month in the 19th year [of Kaiyuan Era] for the envoys staying at the middle guesthouse. Each bolt cost 300 coins. Received by Lu [gap in text] on the 17th day of the 9th month.
- 20-22 使西州市馬官天山縣尉留口、典壹人、獸醫壹人、押官壹人，伍日程料，領得錢貳伯伍拾文。開元十九年九月十九日典趙寶領。  
The Commissioner for Buying-horses of Xizhou Prefecture, the District Defender of Tianshan County, Liu [gap in text], and one *dian* clerk, one veterinarian, one Discipline Officer received 250 coins as their 5 days' travel allowance. Received by the *dian* clerk Zhao Bao on the 19th day of the 9th month in the 19th year of Kaiyuan Era.
- 23-25 呂璿儻貳人，忤馬富(?)、麴星星、趙如真、王義賓等各捌日程料，共計陸伯肆拾文。九月十九日付。[呂]璿領。  
8 days' travel allowance allocated separately to Lu Xuan's two attendants, Wu Mafu [gap in text], Qu Xingxing, Zhao Ruzhen, Wang Yibin and others, total 640 coins. Paid out on the 19th day of the 9th month and received by [Lu] Xuan.
- 26-27 伊吾軍市馬使權戡等壹拾捌人九月料，且領大練玖匹。九月十九日，康福領。  
Expenses of the 9th month for the Commissioner for Buying-horses for Yiwu Army Quan Kan and others, 18 persons in all. And 9 bolts of large-loom *lian* degummed silk received. Received by Kang Fu on the 19th day of the 9th month.
- 28-29 九月廿一日樊令詮請陰[嗣]瓌儻一人料錢貳伯玖拾文。樊[令]詮。(“詮”字署名)  
On the 21th day of the 9th month Fan Lingquan claimed the salary of 290 coins for one attendant of Yin [Si]gui. [Received by] Fan [Ling]quan. (Signature of [Fan Ling]Quan)
- 30-31 隴右市馬使儻叁人，各捌日程料，共計貳伯肆拾匹(文)。九月廿一日付魏忤口領。  
8 days' travel allowance allocated separately to 3 attendants of the Commissioner for Buying-horses for Longyou Circuit (*dao*), total 240 bolts (coins?). Paid out on the 21th day of the 9th month and received by Wei Wu [ . . . ].
- 32-33 九月廿一日安通領八月料錢陸伯捌拾文。九月廿一日，[安]通領。  
On the 21th day of the 9th month An Tong received 680 coins for the 8th month's expenses. Received by [An] Tong on the 21th day of the 9th month.
- 34-35 杜泰八日程料，并典，共貳伯肆拾文。九 ( 月 ) ( 廿 ) 五日泰。  
Du Tai 8 days' travel allowance, and *dian*, total 240 bolts (coins?). [九] ( 月 ) ( 廿 ) [五]日泰。

- 8 days' travel allowance for Du Tai and his *dian* clerk, total 240 coins. [Received by Du] Tai on the 25th day of the 9th month.
- 36–37 嘉琰、翟滔輝、康元莊等叁人捌日程料，(九)月廿五日翟滔領，計叁  
8 days' travel allowance allocated separately to [Qu] Jiayan, Di Taohui and Kang Yuanzhuang, received by Di Tao[hui] on the 25th day of the 9th month, total 320 coins. (Signature by [Di] Tao[hui])
- 38–39 九月廿五日，麴使、張判官并典、僉等料錢，領大練貳匹。闕二郎領。  
On the 25th day of the 9th month, the expenses for Commissioner (*shi*) Qu, Senior Administrative Assistant (*panguan*) Zhang, as well as their clerks and attendants, were paid 2 bolts of largeloom *lian* degummed silk. Received by Kan Erlang.
- 40–42 折衝衛神福僉貳人，權太虛等肆人各捌日程料，計陸伯肆拾文。九月廿七日付將泰虛領。  
8 days' travel allowance allocated separately to 2 attendants of the Commandant of Assault-resisting Garrison (*zhechong*) Wei Shenfu, and Quan Taixu and the other one, total 640 coins. Paid on the 27th day of the 9th month and received by Commandant [Quan] Taixu.
- 43–45 折衝朱耶彥僉壹人，麴嘉琰僉壹人，衛神子壹人，各捌日程料，計陸伯肆拾文。九月廿七日付將泰虛領。  
8 days' travel allowance allocated separately to one attendant of the Commandant of Assault-resisting Garrison (*zhechong*) Zhuye Yan, one attendant of Qü [Jia]yan and Wei Shenzi, total 640 coins. Paid on the 27th day of the 9th month and received by Commandant [Quan] Taixu.
- 46–48 梁既、神易并僉貳人，各捌日程料，(計)叁伯貳拾文。九月廿七日付僉人易領。  
8 days' travel allowance allocated separately to Liang Ji, [gap in text] Shenyi and two attendants, total 320 coins. Paid on the 27th day of the 9th month and received by the attendant [gap in text] yi.
- 49–50 丁( ? )錢( ? )得( ? )料捌拾文，同日付陸  
... 80 coins, paid on the same day, [gap in text] 6 ...
- 51–52 大練壹匹陸匹 十月二日 易領。便  
1 bolt of largeloom *lian* degummed silk, 6 bolts of [gap in text]. [Paid] on the 2nd day of the 10th month and received by Yi. Sell ...
- 53–54 十月三日 趙處各取大練貳匹，充十一月料。  
On the 3rd day of the 10th month 2 bolts of largeloom *lian* degummed silk were taken separately by Zhao Chu, to serve as the *yueliao* (monthly salary) of the 11th month.
- 55–56 伊吾軍子將權戡等一十五人(十二人白身，三人品官)各八日程料，計錢壹仟肆伯肆拾文。十月三日康福領。  
8 days' travel allowance allocated separately to 15 persons [12 are *baishen* (commoners holding no official post), 3 *pinguan* (ranked officials)], including the Sub-Commander (*zijiang*) of Yiwu Army Quan Kan and others, for a total of 1,440 coins. Received by Kang Fu on the 3rd day of the 10th month.
- 57–58 耶勒供進馬蘇壹斗(勝別冊八文估)，計肆伯捌拾，十月四日盧琛領。

- One *dou* of *su* 蘇 mare butter<sup>77</sup> sent by Yele [Defence Detachment], each pint (*sheng*) valued at 48 coins, total 480 coins. Received by Lu Chen on the 4th day of the 10th month.
- 59–60 駱意并典、儻、押官等肆人口州程料。十月四日駱意領。  
Travel allowance to [...]zhou for 4 persons, including Luo Yi and his *dian* clerk, attendant and Discipline Officer . . . . Received by Luo Yi on the 4th day of the 10th month.
- 61 安神願領十一月料錢三伯文。願  
An Shenyuan received 300 coins for his salary of the 11th month. (Signature of [An Shen]yuan)
- 62–63 石處默并儻各別日程，共計錢壹伯文。十月四日付向[輔]麟領。  
Travel allowance allocated separately to Shi Chumo and his attendant, total 100 coins. Paid on the 4th day of the 10th month and received by Xiang [Fu]lin.
- 64–65 折[衝?]楊仙等料，計大[ ]日付向麟領。  
Salaries for the Commandant of Assault-resisting Garrison (*zhechong*) Yang Xian and other, total largeloom [*lian* degummed silk] [gap in text]. Paid on the day and received by Xiang [Fu]lin.
- 66–67 大練貳匹，十月十日付支度典張藏充月料。付王庭領。  
2 bolts of largeloom *lian* degummed silk were paid on the 10th day of the 10th month to Zhang Zang, the *dian* clerk in charge of fiscal affairs, as his monthly salary. Received by Wang Ting.
- 68–69 大練兩匹，(十)月十日付館家充楊等(月)料。付向輔麟領。  
2 bolts of largeloom *lian* degummed silk are paid on the 10th day of the 10th month to the chief of the guesthouse, as Yang [gap in text] and others' monthly salaries. Received by Xiang Fulin.
- 70–71 [ ]貳丈伍尺[ ]梁價十月  
2 carpets and 5 feet of [gap in text], Liang, the 10th month

The second document reads as follows:<sup>78</sup>

- 1–4 大練貳伯叁拾伍匹貳丈肆尺，充藥直。十月十二日行人藥主蔣玄其領。玄。見人王無感。  
235 bolts 2 decafeet and 4 feet of largeloom *lian* degummed silk served as the price of the medicines. On the 12th day of the 10th month received by the merchant in the trade associations (*hangren*), the owner of the medicines Jiang Xuanqi. [Signature of Jiang] Xuan[qi]. Witnessed by Wang Wugan.
- 5–6 大練兩匹，十月十九日付充十月客料。付向輔麟領。  
2 bolts of largeloom *lian* degummed silk, were paid on the 19th day of the 10th month as the *keliao* payment to the envoys of the 10th month. Received by Xiang Fulin.
- 7 安神願領十月料大練壹匹。願

<sup>77</sup>“Su” 蘇 sometimes refers to a plant (Perilla), but this usage is rare (Eric Trombert, email, 8 February 2011).

<sup>78</sup>“Tang Kaiyuan shijunian Jiang Xuanqi deng ling qianlian chao” 唐開元十九年蔣玄其等領錢練抄 (73TAM506:4/12), Tang, *Tuifan chutu wenshu*, IV.409–411.

An Shenyuan received 2 bolts of largeloom *lian* degummed silk as his salary of the 10th month. [Signature of An Shen]yuan.

- 8 樊令詮領陰[嗣]環料錢叁伯柒拾。詮領。  
 Fan Lingquan received 370 coins as Yin [Si]gui's salary. Received by [Fan Ling]quan.
- 9–10 大練伍匹,充客使停料。十月廿六日付向輔麟領。  
 2 bolts of largeloom *lian* degummed silk served as *tingliao* payment for the envoys. Paid on the 26th day of the 10th month and received by Xiang Fulin.
- 11–12 大練壹匹,十一月一日付安[神]願充十一月料。付僉安神相領。  
 1 bolt of largeloom *lian* degummed silk was paid on the 1st day of the 11th month to An [Shen]yuan as his salary of the 11th month. Received by his attendant, An Shenxiang.
- 13–15 大練壹匹,十一月分付向輔[麟],充楊喬詮料,餘充別使料。十一月五日付向輔麟領。  
 1 bolt of largeloom *lian* degummed silk was paid in the 11th month to Xiang Fu[lin], as Yang Qiaoquan's salary. The remainder served as *tingliao* for the envoys. Received by Xiang Fulin on the 5th day of the 11th month.
- 16–17 大練伍匹,充客使料。十一月十二日向[輔]麟領。  
 5 bolts of largeloom *lian* degummed silk as *tingliao* payment for the envoys. Received by Xiang [Fu]lin on the 12th day of the 11th month.
- 18–19 安神願領十一月料大練叁匹。願  
 An Shenyuan received 3 bolts of largeloom *lian* degummed silk as his monthly salary of the 11th month. [Signature of An Shen]yuan.
- 20–21 大練叁匹,充大漠(幕)叁頂,張賞十二月二日付踏實力。(畫押)  
 3 bolts of largeloom *lian* degummed silk enough for 3 big screens, delivered to Tashili by Zhang Shang on the 2nd day of the 12th month. (Signed with an official seal)
- 22–24 安神願領拾貳月料錢叁伯文。其月九日付僉邵芬領。  
 An Shenyuan received 300 coins as his monthly salary of the 12th month. Paid on the 9th day of that month and received by his attendant Shao Fen.
- 25–26 陰[嗣]環十二月料錢肆伯貳拾文,并僉。十二月廿日樊[令]詮領。  
 Monthly salary of the 12th month for Yin [Si]gui and his attendant was 420 coins. Received by Fan [Ling]quan on the 20th day of the 12th month.
- 27–28 安[神]願料錢叁伯文,付口(練)口(壹)匹,付家生送,十二月廿日付。  
 300 coins for An [Shen]yuan's salary were paid with 1 bolt of *lian* degummed silk, delivered to Jiasheng (or a domestic slave?) and paid on the 20th day of the 12th month.