

Mongol Globalism Attested by the Uigur and Mongol Documents from East Turkestan

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Introduction

Since the end of the 19th century, the archaeological expeditions out of Europe, Japan and China have led to the discovery of a great number of manuscripts and printings from the oases in East Turkestan (or modern Xinjiang), which are written in various languages such as Chinese, Old Indian (Sanskrit, Prakrit, Gandhārī), Tocharian (Agni = Tocharian A, Kuchaeen = Tocharian B), Middle Iranian (Sogdian, Parthian, Bactrian, Middle Persian, Khotanese), Tibetan, Xixia (Tangut) Old Uigur (Old Turkic) and Mongolian. These unearthed texts have been utilized in historical studies on ancient and mediaeval Central Asia and the Chinese dynasties which dominated the region.

Among them, the Old Uigur texts were written by the Uigurs, who had been originally nomadic people in Mongolia but migrated to modern Xinjiang in the mid-9th century to transform the region into “Turkestan” and shift to sedentary life during the 10th–14th centuries. Most of these Uigur texts, as well as the Mongol texts, belong to the 13th–14th centuries,¹ when the empire of Mongol nomads established their dominion over the greater part of Eurasia — from the Coast of the Japan Sea in the east to the Black Sea and the Mediterranean Sea in the west.

Even though the Eurasian-wide dominion of the Mongol empire was eventually divided into several dynasties and administrations, they were generally united under the supremacy of the Emperor of the Yuan dynasty (Mong. *Dai-Ön yeke Mongγol ulus*). The Mongol administrations as the whole adopted administrative systems more or less in common, and cultural exchanges between the East and the West were obviously activated. Such phenomenon, which may be called as “Mongol Globalism”, have been reconstructed through the historical sources in Chinese, Arabic, Persian and European languages, which were compiled in the eastern and the western end of the Mongol dominion.

On the other hand, the Uigur and Mongol texts from East Turkestan contain contemporary

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¹ For the criteria for relative dating of the Uigur documents, see Moriyasu 2004a: 228–229 = Moriyasu 2004b: 7–9.

information and can be seen as the primary sources produced by the Uigurs and Mongols, who occupied the intermediate region on the ground between the East and the West. Moreover, the global academic situation after the end of the Cold War made the Uigur and Mongol documents, which have been preserved in the institutes and libraries of various countries, more available than before — nearly half of them are accessible on the Internet.

In this paper, I would like to present the Uigur and Mongol documents from East Turkestan that attest to “Mongol Globalism”. I will focus on the unification of the currency system and the weights and measures system. Furthermore, cultural exchange between China and Iran during the Mongol period will be examined from the viewpoint of the Old Uigur studies.

1. Unification of Denomination System

It is well known that the fifth Mongol emperor, Qubilai (世祖 Shi-zu, r. 1260–94), developed the system of exchange bills (Chin. 交子 *jiao-zi*) into the currency system, in which paper currency 交鈔 *jiao-chao* was linked with silver ingot. Nevertheless,

it seems not so well known that the system of currency denomination (or weights of silver ingot) was also unified throughout Eurasia during the Mongol period. It is the great contribution of a Japanese scholar, 前

田直典 Maeda Naonori (1915–49), that clarified the unification of the currency units under the Mongols, as displayed in Table A.²

We may note that the Old Uigur contract documents unearthed from East Turkestan assumed a key role in Maeda’s argument to establish the correspondence of the three Uigur units of denomination, *yastuq*, *stīr* and *baqīr* to the Chin. 錠 *ding*, 兩 *liang* and 錢 *qian* respectively.³ According to Maeda’s scheme, the Uigurs in East Turkestan themselves also played an important part in the unification of the system. Having

Table A The unified system of denomination under Mongol rule

Weight (gramm ca.)	Chinese	Mongol	Uigur	Persian
2000	錠 <i>ding</i>	<i>sūke</i> “axe”	<i>yastuq</i> “pillow”	<i>bālīš</i> “pillow”
40	兩 <i>liang</i>	<i>sījīr</i>	<i>stīr</i> ~ <i>sītīr</i>	<i>stīr</i>
4	錢 <i>qian</i>	<i>bakīr</i> ~ <i>baqīr</i>	<i>baqīr</i>	<i>mišqāl</i>

² Maeda 1944 = Maeda 1973: esp. 23–34. The actual weight for each unit as silver ingot was clarified by Moriyasu 1997, 9–13. Moreover, I added Persian *mišqāl* as the institutional correspondent of Chin. 錢 *qian* = Mong. *bakīr* ~ *baqīr* = Uig. *baqīr*, according to the Persian historian Vaṣṣāf, who witnessed “in their (i.e. the Yuan dynasty’s) terminology, *bālīš* of paper currency (*čāv* < Uig.-Mong. *čao* < Chin. 鈔 *chao*) is 50 *stīr*, whose value is 10 *dīnār*, but [the weight of] *bālīš* of gold and silver [ingot] is 500 *mišqāl*” [Vaṣṣāf: 22]. It may be noted that Uig. 必兒米思哈 < *bir mišqa* “one *mišqa* (< Pers. *mišqāl*)” is translated into Chinese as 一錢 “one *qian*” in the Sino-Uigur vocabulary of Ming, 畏兀兒館譯語 *Wei-wu-er-guan yiyu*. See Shōgaito 1984: 157, No. 825; Matsui 2004a: 200 = Matsui 2004b: 158.

³ The Uigur contract documents (USp, Nos. 47, 12, 51, 61) has been revised in SUK as Lo19, Mi17, Pl02, Sa21, though it does not affect Maeda’s analysis at all.

kept commercial ties with China on the eve of the Mongol expansion, they were the first to borrow the Chinese system of denomination of the units 錠 *ding*, 兩 *liang* and 錢 *qian*, create the corresponding units of their own, and then transfer the system to the Mongols and the Persian Muslims. The Persian unit *bālīš*, equivalent to Chin. 錠 *ding* and originally meaning “pillow”, reflects that it was borrowed from the Uigur equivalent *yastuq*, also originally meaning “pillow”.

Concerning the usage of paper currency and the denomination units of the Uigurs, an Uigur account book recently published by Prof. Osman Sertkaya (Istanbul) is also an important source. The account book was made by a Buddhist monastery to sum up the donations (Uig. *lab*) from the local inhabitants in the Turfan area, and some of the donations were paid in paper currency, even mentioning the unit of currency *vun*, smaller than *baqir*.⁴ This unit *vun* is a transcription of Chinese 分 *fen*, a tenth of 錢 *qian*.⁵ It clearly displays that, under “Mongol Globalism”, the paper currency *čao* was circulated among the Uigurs in East Turkestan so much that they accepted even the smallest unit of denomination 分 *fen* from China.⁶

2. Unification of Measures

In their course of sedentarization in East Turkestan, the Uigurs borrowed units for measuring grain, mainly from the Chinese, who had been the majority in the region before the Uigurs. The Uigur units *šīγ* is a borrowing from Chin. 石 *shi*(*dan*), ca. 60 liters; Uig. *kūri* is from Tocharian, corresponding to Chin. 斗 *dou*, ca. 6.0 liters; Uig. *šing* is from Chin. 升 *sheng*, ca. 0.6 liter; Uig. *qav* is from Chin. 合 *ge*, ca. 0.06 liter.⁷

In 1996, however, an Uigur loan contract of wheat from the Mongol period (the 13th–14th cc.) was published, and it carries the following passages: “I have borrowed 3 *tayar* and 2 *kūri* of wheat Of the wheat [written] on this contract, 2 *tayar* [belong] to Īrasul himself, 1 *tayar* and 2 [*kūri*] to [the co-debter] Sulayman”.⁸ From this context, it is clear that the grain measure unit *tayar*, larger than *kūri*, was equivalent of *šīγ*.

⁴ Sertkaya 2006: 131–132, T III M Kloster 2 Nr. 134 (128/044): 13–14 *bir stīr üč baqir üč vun čao* “1 *stīr*, 3 *baqir* and 3 *vun* of papar currency”; 25–26 *iki stīr üč baqir yiti vun čao* “2 *stīr*, 3 *baqir* and 7 *vun* of papar currency”; 47–48 *biš stīr yiti baqir üč vun čao* “5 *stīr*, 7 *baqir* and 3 *vun* of papar currency”; 52–54 *iki stīr iki baqir toquz vun čao* “2 *stīr*, 2 *baqir* and 9 *vun* of papar currency.”

⁵ Maeda 1944 = Maeda 1973: 19–20, 24; Moriyasu 2004b: 29–31. The Sino-Mongolian glossary of the Ming dynasty carries an entry of Chin. 分 *fen* = Mong. *vun*, in the same form of the Uigur script with Uig. *vun* [HY: 177]. Undoubtedly the Mongol unit is a loan from Uigur.

⁶ This situation contrasts with that in the Ilkhanate, the Mongol dynasty established in Iran, to have also installed paper currency system under the reign of Geikhatu (r. 1291–95) but to finally fail [Satō 1986 = Satō 1998: 189–232], even though the installation itself may be a proof of the unity among the Mongol dynasties.

⁷ Yamada 1965: 171; Yamada 1971: 491–493.

⁸ Matsui 2004a: 198 = Matsui 2004b: 162.

The Persian sources tell that the unit *tayar* was used by the Mongols as a grain measure unit for military provision since early times of their expansion, while a Mongol-Chinese bilingual document discovered in Inner Mongolia attests that Mong. *tayar* was equal to Chin. 石 *shi (dan)*, ca. 84.0 liters in the Mongol period.⁹ Consequently, the Uigur contract mentioned above allows us to surmise that the new system of grain measure units according to the Mongol standard must have been installed among the Uigurs in East Turkestan.

This supposition is well supported by the situation in other regions under Mongol rule recorded in the Chinese, Persian and Latin-European sources. In China, after the conquest of the Song dynasty, the Yuan dynasty frequently gave an official notice to prohibit the use of Song units of measure to prevent the inconvenience caused by differences from the Mongol standard.¹⁰ The Franciscan friar Odoric of Pordenone, who stayed in Southern China under the Mongol rule during ca. 1324–28, calculates the revenue of a certain rich man with the unit *tagar*, apparently a transcription of the Mongol unit *tayar*.¹¹ In Iran, in the west, ʿAzan (r. 1295–1304), the great-grandson of Hülegü, issued a decree standardizing weights and measures around AD 1302. In his decree translated into Persian, *tagār* (< Mong. *tayar*) was chosen as the standard grain measure unit, and the traditional Islamic units *kīla* and *mann* were linked with *tayar* in the decimal system.¹²

Table B

Provision	Chinese	Nr. 72	Nr. 74
肉 meat	1 斤 <i>jīn</i>	2 <i>köl</i>	2 <i>köl</i>
酒 liquor	1 升 <i>shēng</i>	5 <i>tembin</i>	2 <i>saba</i>
麵 grain	1 斤 <i>jīn</i>	3 <i>badman</i>	2 <i>badman</i>
米 rice	1 升 <i>shēng</i>		

In short, the Mongol administrations, even if more or less abortively, installed the grain measure unit *tayar* in its subordinate territories, and former units there were equalized or linked with *tayar*. It is plausible that the same standardization took place in East Turkistan: During the Mongol period, the value of Uig. *šīy* was, officially or institutionally, equalized to Mong. *tayar* (ca. 84 liters) and other Uigur units of grain measure such as *kūri* and *šing* were also linked to *tayar* in a single decimal system.

Besides the grain measure units, the Uigur documents attest the liquid measure units such as *qap* and *tämbin*. It had been known that 1 *qap* is equal to 30 *tämbin*,¹³ though their actual value had been unclear.

However, we can solve the problem by means of the newly published Uigur official administrative documents. The documents provide attestations of another liquid measure unit *saba*, a loanword from

⁹ Matsui 1997: 28–29, 37; Matsui 2004a: 199 = Matsui 2004b: 162–163.

¹⁰ YDZ, chap. 57: 2223, 禁私斛斗秤尺 “Prohibition of the private container, balance and scale”, in AD 1286; YDZ, chap. 57: 2224, 斛斗秤尺牙人 “The containers, measures and the brokers”, in AD 1312.

¹¹ Yule 1916: 254–255.

¹² Honda 1972 = Honda 1991: 333–341.

¹³ Yamada 1965: 180–182; Yamada 1971: 493–495.

Mong. *saba* “bag, container”, in the following contexts: “1 bag(*saba*) of brandy(*araqı*)” and “[they shall deliver] 3 *tämbin* of brandy with their container(*saba*)”.¹⁴ From these attestations, we may assume that 1 *saba* as a liquid measure unit was equal to 3 *tämbin*.

The unit *saba* and *tämbin* are mentioned also in two Mongol decrees granting a license for postal relay issued by the Chaghatai khanate in the 14th century (BTT XVI, Nrn. 72, 74). They declared the daily provision for users of the postal relay as follow: “5 *tembin* (< Uig. *tämbin*) of wine, 2 shanks(*köl*) of meat and 3 *badman* of provision (i.e. grain)” (Nr. 72), and “2 shanks of meat, 2 *saba* of beverage (i.e. wine) and 2 *badman* of provision (i.e. grain)” (Nr. 74). Here, if we can apply my estimation that 1 *saba* is equal to 3 *tämbin*, the latter’s 2 *saba* is equal to 6 *tämbin*, then the whole amount of the provision of the latter is almost similar as that of the former.

Concerning the regulation of daily provisions for postal relay couriers in the Mongol empire, we can refer also to Chinese historical sources. According to regulations, the daily provision per person was one 斤 *jin* of meat (肉 *rou*), one *jin* of flour (麵 *mian*), one 升 *sheng* of liquor (酒 *jiu*), and one 升 *sheng* of rice (米 *mi*).¹⁵

It must be noted that the ratio of numerical value of meat : grain(or flour) : liquor(or beverage) for provision in the Chinese sources, namely 1 : 1 : 1, is exactly the same as that in the Mongolian decree Nr. 74 above(see Table B). The decree Nr. 74 was probably for two postal relay couriers, and the daily provision per person was 1 shank(*köl*) of meat,¹⁶ 1 *saba* of beverage and 1 *badman* of grain. Here, we can assume that the Uigur-Mongolian liquid measure unit *saba* corresponds to Chin. 升 *sheng*, because the Mongol unit of weight *badman* (< Uig. *batman*) also corresponds to Chin. 斤 *jin* (= ca. 640 g), as shown by the quadrilingual inscription of the weight balances of the Yuan dynasty.¹⁷

The correspondence between Uig.-Mong. *saba* and Chin. 升 *sheng* may be supported by another Uigur document preserved in the Berlin Academy(U 5308), an administrative order of delivery of provision for postal relay users during the Mongol period.

¹⁴ Matsui 1998b, texts 4 and 15.

¹⁵ Zhanchi I: 10, 12–13, 16, 18, 53–54; YDZ, chap. 16: 713–714, 715; YS, chap. 101: 2584. Sometimes the liquor is measured with 瓶 *ping* “bottle”, but the value of 升 *sheng* and 瓶 *ping* were the same. See Zhanchi I: 42, the 17th year of 至元 Zhiyuan (1279), 是月 *shi-yue* (= the 6th month): 仍定每瓶準酒一升爲數 “Still more it is determined that every 瓶 *ping* should be estimated as identical with one 升 *sheng* of liquor”.

¹⁶ Mong. *köl* “leg, shank” used as a unit for meat could be a certain unit of weight, which was approximate to Chin. *jin*. In 飲膳正要 *Yinshan zhengyao*, the collection of recipes for the Yuan imperial court edited by 忽思慧 Hu-si-hui in 1330, a term 腳子 *jiao-zi* “shank, leg” is frequently used in measuring mutton or bear meat. Also we know that Uig. *saq*, a loan word from Persian *sāq* “shank”, is used as a unit of meat in an Uigur official document. See Matsui 2002: 109.

¹⁷ See Matsui 2002: 111–112. For examples of the weight balance of the Yuan dynasty with the quadrilingual inscriptions, see Qiu 1992: 466–467, Nos. 221, 222.

- 1 it yil bigrminč ay iki otuz-qa
- 2 yanga buqa yočın ilči-kä altı
- 3 otuz-qa-tägi kâzig aš-qa bir qap
- 4 bor-ni biküş buqa borluq-ı birzün

“On the 22nd [day], the 11th month, the year of the Dog. ²⁻³For the regular provisions(*kâzig aš*) until the 26th [day] to [be delivered to] Yanga-Buqa and Ambassador Yočın, ³⁻⁴Biküş-Buqa’s vineyard shall deliver 1 *qap* of wine”.

In this text, 1 *qap* of wine is to be delivered as the provision for five days(22nd – 26th). This 1 *qap* of wine is for two persons, Yanga-Buqa and Ambassador Yočın. Then, with Yamada’s proof that 1 *qap* = 30 *tâmbin*, we can calculate the daily amount of wine per person as 3 *tâmbin*(= 30 *tâmbin* x 1/5 x 1/2), i.e., 1 *saba* or 1 *sheng* according to my estimation above. The amount of daily provision in the Uigur document becomes reasonably consistent with the Mongol regulation. Consequently we can move to further estimation as follows: 30 *tâmbin* = 1 *qap* = 10 *saba* = 10 升 *sheng* = 1 斗 *dou*, ca. 8.4 liters in the Yuan times; 1 *tâmbin* = 1/30 *qap* = 1/30 斗 *dou* = 1/3 升 *sheng* = ca. 0.28 liter.

The result of my analysis on the units of measure above will be presented in Table C.¹⁸ It indicates that units of capacity, grain and liquid measure in Chinese, Mongol, Uigur and Persian fit into a single unified system over the Eastern and Western Eurasia in the Mongol period, and it tallies with the unified system of currency units or weight of silver ingot as displayed in Table A above.

From this we can conclude that the Mongol empire on the whole had a policy to unify not only the denomination system but also the system of measurement throughout the area under its rule in order to develop the contemporary Eurasian-wide system of commerce. This may be regarded as an aspect of “Mongol Globalism”.

Table C The unified system of the measure units

Value (liter, ca.)	Chinese (capacity)	Mongol		Uigur		Persian (grain)
		(grain)	(liquid)	(grain)	(liquid)	
84.0	石 <i>shí(dan)</i>	<i>tayar</i>		<i>šīγ / tayar</i>		<i>tağār</i>
8.4	斗 <i>dou</i>	<i>šim</i>		<i>kūri</i>	<i>qap</i>	<i>kīla</i>
0.84	升 <i>sheng</i>	<i>šingsi</i>	<i>saba</i>	<i>šing</i>	<i>saba</i>	<i>mann</i>
0.28			<i>tembin</i>		<i>tâmbin</i>	
0.084	合 <i>ge</i>			<i>qav</i>		

3. Cultural Exchanges under the Mongol Rule

I would like to pick some of the fruits of recent studies on the Uigur materials, to place them within the

¹⁸ For the Mongol grain measure units *šim* and *šingsi*, see Matsui 1997: 36–43; Matsui 2004a: 198 = Matsui 2004b: 161.

historical context of Eurasian-wide cultural exchanges under the Mongol rule.

First to be mentioned are the Persian genealogical source *Šu'ab-i Panğgāna* (translated in Japanese as 五分枝 or 五族譜) and the Chinese Buddhist history 佛祖歷代通載 *Fozu lidai tongzai*. The former carries the genealogical trees of the “Five Imperial lineages”, i.e., of the Jews, Arabs, Mongols, Franks and Chinese, and is supposed to have been compiled in close connection with the early manuscript of the global history in Persian, *Ġāmi' al-Tavārīḥ*, completed in ca. AD 1310 by Rašīd al-Dīn, the famous historiographer of Ilkhanate. The latter was compiled by a Buddhist monk 念常 Nianchang and published in South China in AD 1347. One of the leading Japanese scholars of Mongol history, 杉山正明 Sugiyama Masa'aki, displayed the genealogical tables for the ancient countries of China of the 春秋 Chunqiu and the 戰國 Zhanguo ages from both of the two above works, and proved that they were based on a common source of information, in other words that they reflect the close cultural interaction between the east and the west under the Mongol domination.¹⁹

Here I would like to add an Uigur fragment from the Northern Caves of 敦煌 Dunhuang (B59:69), which has been identified by 張鐵山 Zhang Tieshan as the Uigur version of 佛祖歷代通載 *Fozu lidai tongzai*.²⁰ In the Mongol period, the Uigurs set their center of activities at Dunhuang and surrounding oases in 甘肅 Gansu, where were connected with East Turkestan by the Buddhist pilgrimages of the Uigurs.²¹ We may accept the possibility that the Uigurs in Central Asia, who were well acquainted with Buddhism and Chinese culture, had the source of information in common with *Šu'ab-i Panğgāna* and 佛祖歷代通載 *Fozu lidai tongzai* and, even more, could be the intermediary between the two works of China and Iran.

Next is a Persian work titled as *Tanksūq-nāma-yi Ilhānī dar funūn-i 'ulūm-i Hītāy* “The treasure book of the *il-qans* concerning arts and science of China”, also compiled by Rašīd al-Dīn in AD 1313. It is composed of four books, one of which is a Persian translation of the Chinese medical text 脈訣 *Maijue*. 羽田亨一 Haneda Kōichi identified its Chinese original as 晞范子脉訣集解 *Xifanzi maijue jijie* by 李嗣 Li Si (or 李子埜 Li Ziye).²² Through an analysis of the Chinese pronunciation system transcribed in the Arabic script, it is thus far recognized that the work was translated in cooperation between Chinese informant(s) and the Persians.²³ In the Persian translation of 脈訣 *Maijue*, the translator transcribed the whole Chinese passage in the Arabic Script — e.g., Chin. 按之不足舉之餘 *an zhi bu zu ju zhi yu* > Pers. *ān jī bu kīū tsūū*

¹⁹ Sugiyama 2000: 74–76.

²⁰ Zhang 2003: 83–86. Now I am preparing revision and addition of the text to lend support to Zhang's identification.

²¹ Moriyasu 1982; Moriyasu 1985, 86–88; Moriyasu 1988; Matsui 2008a; Matsui 2008b; Matsui 2008c.

²² Haneda 1995. It is regrettable that Allsen [2000: 141–160] overlooked Haneda's identification in his argument on *Maijue*.

²³ Endo 1994; cf. Allsen 2002: 144–145. Still noteworthy is the possibility of intermittence of Bolad, who migrated from Yuan to Iran and became well known as *Pālād Čīnksānk* “the minister Bolad”, the notorious informant in compilation of *Ġāmi' al-Tavārīḥ* by Rašīd al-Dīn. See Miya 2006: 71.

jī yū — then translated the text into Persian. Scholars have regarded this method as most curious: The Persian transcription *ān jī bu kītū tsītū jī yū* itself does not seem to make sense, for it is not accompanied by the original Chinese ideograms.

However, it is remarkable that the Uigurs of East Turkestan had a similar method of translation of the Chinese texts: They first transcribed the pronunciation of the Chinese ideograms, and followed the translation of the Chinese text. For example, in the Uigur version of the 千字文 *Qian-zi-wen*, recently published by 庄垣内正弘 Shōgaito Masahiro, carries such a sentence: *yun tīng ċu yu bulīt sākrīdī yaymur yaydī* “*yun tīng ċu yu* (< Chin. 雲騰致雨 *yun teng zhi yu*) [means] ‘clouds leaped and it rained’.” This method indicates that the Uigurs read aloud the text according to the Chinese pronunciation, and then learned the contents in Uigur.²⁴ We can easily notice that this method is exactly the same as that adopted in *Tanksūq nāma*, and we may perceive some cultural influence of the Uigurs in the method of translation and the composition of *Tanksūq nāma* itself.²⁵

Concluding Remarks

Even though most of the Uigur and Mongol documents from East Turkestan are concerned with the local domestic matters, they can, as displayed in this paper, serve as the primary sources that attests to “Mongol Globalism”, placing concrete evidence on the Eurasian-wide economic interaction during the Mongol period, or including some clue to review and reconstruct contemporary cultural exchanges.

These Uigur and Mongol texts might be assumed to be difficult to access, but studies on them are mostly based on philological method, placing the Roman transcription of the text and translation into modern language(s). There is therefore nothing to keep the texts exclusively for specialists. The scholars of our field expect their text editions to be utilized from various perspectives and viewpoints for the reconstruction and reconsideration of World History.²⁶

²⁴ Shōgaito 2003: 116–125, 137–138; Shōgaito 2004: 323.

²⁵ In the transcription system of Chinese adopted in *Tanksūq nāma*, non-nasal stops (*-b/-p*, *-d/-t*, *-g/-k*) in the syllable-final are still kept (Endo 1994: 69–75). Its system of pronunciation is more or less similar to “the inherited Uigur pronunciation of Chinese”, but does not totally coincide. Cf. Takata 1987; Shōgaito 1987; Yoshida 1994: 322–309; Shōgaito 2003: 126–136; Shōgaito 2004: 321–322.

²⁶ My argument in Chapter 1 & 2 should be related with the recent study by Prof. Kuroda Akinobu, who proved that the silver streams across Eurasia in the Mongol period caused the multiple correspondences of the units of silver weight in China, Europe and the Qipčaq khanate on the northern coast of the Black Sea. See Kuroda 2009: esp. 259.

Abbreviations & Bibliography

- Allsen, Thomas T. 2001: *Culture and Conquest in Mongol Eurasia*. Cambridge (Mass.).
- BTT XVI: D. Cerensodnom / M. Taube, *Die Mongolica der Berliner Turfansammlung*. Berlin, 1993.
- Endo Mitsuaki 遠藤 光暁 1997: 王叔和『脉訣』ペルシヤ語譯に反映した14世紀初中國音 [The Chinese Pronunciation of the Early 14th Century Reflected in the Persian Translation of *Mo-jue*]. In: Yu Aiqin 余霽芹 / M. Endo (eds.), 橋本萬太郎記念中國語學論集 *Studies in the Chinese Language in Memory of Mantaro Hashimoto*, Tokyo, 61–77.
- Haneda Kōichi 羽田 亨一 1995: ペルシヤ語譯『王叔和脈訣』の中國語原本について [On the Original Chinese Text of the Persian Translation of *Mo-chueh*]. アジア・アフリカ言語文化研究 *Journal of Asian and African Studies* 48/49: 719–726.
- Honda Minobu 本田 實信 1972: ガザン・ハンの度量衡統一 [Standardization of weights and measures by Ġāzān-hān]. In: 山本博士還暦記念東洋史論叢 *Studies in Honour of Tatsuro Yamamoto on the Occasion of his 60th birthday*. Tokyo.
- Honda Minobu 本田 實信 1991: モンゴル時代史研究 *Historical Studies in the Mongol Period*. Tokyo.
- HY: 華夷譯語 *Huayi yiyu*, 北京圖書館珍本叢刊 Beijing tushuguan zhenben congkan, vol. 6. Beijing (no date).
- Kuroda Akinobu 黒田 明伸 2009: The Eurasian Silver Century, 1276–1359: Commensurability and Multiplicity. *Journal of Global History* 4(2): 245–269.
- Maeda Naonori 前田 直典 1944: Original: 元代の貨幣單位 [Denominations of Yüan Currency]. 社會經濟史學 *Shakai keizai shigaku* 14(4) .
- Maeda Naonori 前田 直典 1973: 元朝史の研究 *Historical Studies in the Yuan dynasty*. Tokyo.
- Matsui Dai 松井 太 1997: カラホト出土蒙漢合璧稅糧納入簿斷簡 [Mongolian-Chinese Bilingual List Fragment from Qara-qota]. 待兼山論叢 (史學篇) *Machikaneyama ronsō (History)* 31: 24–49.
- Matsui Dai 松井 太 1998: ウイグル文クトルグ印文書 [Uigur Adiministrative Orders Bearing Qutluy-seals]. SIAL 13: 1–62, +15 pls.
- Matsui Dai 松井 太 2002: モンゴル時代ウイグルistanの稅役制度と徵稅システム [Taxation and Tax-collecting Systems in Uiguristan under Mongol Rule]. In: K. Matsuda (ed.), 碑刻等史料の總合的分析によるモンゴル帝國・元朝の政治・經濟システムの基礎的研究 *Research on Political and Economic Systems under Mongol Rule*, Osaka: 87–127.
- Matsui Dai 松井 太 2004a: Unification of Weights and Measures by the Mongol Empire as Seen in the Uigur and Mongol Documents. In: D. Durkin-Meisterernst et al. (eds.), *Turfan Revisited*, Berlin: 197–202.
- Matsui Dai 松井 太 2004b: モンゴル時代の度量衡 [Weights and Measures under Mongol Rule]. 東方學 *Tōhōgaku* 107: 166–153.
- Matsui Dai 松井 太 2008a: A Mongolian Decree from the Chaghataid Khanate Discovered at Dunhuang. In: P. Zieme (ed.), *Aspects of Research into Central Asian Buddhism*, Turnhout: 159–178.
- Matsui Dai 松井 太 2008b: 東西チャグタイ系諸王家とウイグル人チベット佛教徒 [The Chaghataids and Uigur-Tibetan Buddhists]. 内陸アジア史研究 *Nairiku Ajia-shi kenkyū* 23: 25–48.
- Matsui Dai 松井 太 2008c: Revising the Uigur Inscriptions of the Yulin Caves. SIAL 23: 17–33.
- Miya Noriko 宮 紀子 2006: 「農桑輯要」からみた大元ウルスの勸農政策 (上) [Agricultural Policy of the Dai-ōn Mongol ulus as Seen from the *Nengsang jiyao*, Part 1]. 人文學報 *Jinbun gakuhō* 93: 57–84.
- Moriyasu Takao 森安 孝夫 1982: An Uigur Buddhist's Letter of the Yüan Dynasty from Tun-huang. *Memoirs of the Research Department of the Toyo Bunko* 40: 1–18.
- Moriyasu Takao 森安 孝夫 1985: ウイグル語文獻 [Uigurica from Tun-huang]. In: Z. Yamaguchi (ed.), 敦煌胡語文獻 *Literature in Central Asian Languages from Tun-huang*, Tokyo: 1–98.
- Moriyasu Takao 森安 孝夫 1988: 敦煌出土元代ウイグル文書中のキンサイ緞子 [Damask (Silk) Appearing from Kinsai as Seen in the Yüan Period Uighur Documents Unearthed in Tun-huang]. In: 榎博士頌壽記念東洋史論叢 *Studies in Asian History Dedicated to Prof. Dr. Kazuo Enoki on His Seventieth Birthday*, Tokyo: 417–441.
- Moriyasu Takao 森安 孝夫 1997: オルトク (斡脫) とウイグル商人 [Ortoq and the Uighur merchants]. In: T. Moriyasu

- (ed.), 近世・近代中國および周邊地域における諸民族の移動と地域開発 *Migration of Peoples and Community Development in Pre-modern and Modern China and in Surrounding Areas*, Osaka: 1-48.
- Moriyasu Takao 森安 孝夫 2004a: From Silk, Cotton and Copper Coin to Silver. In: D. Durkin-Meisterernst et al. (eds.), *Turfan Revisited*, Berlin: 228-239.
- Moriyasu Takao 森安 孝夫 2004b: シルクロード東部における通貨 [Currencies on the Eastern Part of the Silk Road]. In: T. Moriyasu(ed.), 中央アジア出土文物論叢 *Papers on the Pre-Islamic Documents and Other Materials Unearthed from Central Asia*, Kyoto: 1-40.
- Qiu Guangming 丘 光明 1992: 中國歴代度量衡考 *Researches on Weights and Measures through the Ages of China*. Beijing.
- Satō Keishirō 佐藤 圭四郎 1986: 元朝の交鈔とイルハーン朝の鈔 *câv* [The paper currency jiao-chao of the Yuan Dynasty and *câv* of the Ilkhanate]. 龍谷大學論集 *Ryūkoku daigaku ronshū* 428.
- Satō Keishirō 佐藤 圭四郎 1998: 東西アジア交流史の研究 *Historical Study of Social and Economic Relations between the Persico-Islamic World and the China*. Kyoto.
- Sertkaya, Osman Fikri 2006: Hukukî Uyğur belgelerindeki para birimleri üzerine. In: O. F. Sertkaya / R. Alimov (eds.), *Eski Türklerde para*, Istanbul: 117-137.
- Shōgaito Masahiro 庄垣内 正弘 1987: ウイグル文獻に導入された漢語に関する研究 [Chinese in Uighur Script]. *SIAL* 2(1986): 17-156.
- Shōgaito Masahiro 庄垣内 正弘 2003: ロシア所蔵ウイグル語文獻の研究 *Uighur manuscripts in St. Petersburg*. Kyoto.
- Shōgaito Masahiro 2004: How Were Chinese Characters Read in Uighur? In: D. Durkin-Meisterernst et al. (eds.), *Turfan Revisited*, Berlin: 321-324.
- SIAL : 内陸アジア言語の研究 *Studies on the Inner Asian Languages*.
- Sugiyama Masa'aki 杉山 正明 2000: 世界史を変貌させたモンゴル *The Mongols Changed the Global History*. Tokyo.
- SUK: 山田信夫 N. Yamada, ウイグル文契約文書集成 *Sammlung uigurischer Kontrakte*, 3 vols. Ed. by J. Oda / P. Zieme / H. Umemura / T. Moriyasu. Suita (Osaka), 1993.
- Takata Tokio 高田 時雄 1985: ウイグル字音考 [Sino-Uighur Pronunciation]. 東方學 *Tōhōgaku* 70: 150-134.
- USp: W. W. Radloff, *Uigurische Sprachdenkmäler*. Ed. by S. E. Malov. Leningrad, 1928.
- Vaṣṣāf: Šihāb al-Dīn' Abd Allāh Šaraf Šīrāzī (Vaṣṣāf al-Ḥaẓrat), *Tağẓīyat al-Amṣār va Tazğīyat al-A'ṣār (Tārīḫ-i Vaṣṣāf al-Ḥaẓrat dar ahvāl-i salaṭīn-i Muğūl)*. Lithograph ed., Tihṙān 1338/1959. (Original: Bombay 1853).
- Yamada Nobuo 山田 信夫 1965: ウイグル文貸借契約書の書式 [The forms of the Uighur documents of loan contracts]. 大阪大學文學部紀要 *Memoirs of the Faculty of Letters Osaka University* 11: 87-216, +pls. 1-6.
- Yamada Nobuo 山田 信夫 1971: Four Notes on Several Names for Weights and Measures in Uighur Documents. In: L. Ligeti (ed.), *Studia Turcica*, Budapest: 491-498.
- YDZ: 大元聖政國朝典章 *Da-yuan sheng-zheng guo-chao dian-zhang*. Taipei 1976.
- Yoshida Yutaka 吉田 豊 1994: ソグド文字で表記された漢字音 [Chinese in Sogdian Script]. 東方學報 *Tōhō Gakuhō* 66: 380-271.
- YS: 元史 *Yuan-shi*. Zhonghua shuqu ed. Beijing, 1976.
- Zhanchi: 站赤 *Zhan-chi*. Taipei, 1972.
- Zhang Tieshan 張 鐵山 2003: 莫高窟北區出土兩件回鶻文佛經殘片研究 [Two Fragments of the Uigur Buddhist Texts from the Northern Caves of Dunhuang Mogaoku]. 敦煌學輯刊 *Dunhuangxue jikan* 2003 (2): 79-86.