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, Kuchea = 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, 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 Mongol 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 Uighurs 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 Uighur 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 Uighur 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 Uighur 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

<table>
<thead>
<tr>
<th>Weight (gram ca.)</th>
<th>Chinese</th>
<th>Mongol</th>
<th>Uighur</th>
<th>Persian</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>錢 ding</td>
<td>sikē “axe”</td>
<td>yastug “pillow”</td>
<td>bālīs “pillow”</td>
</tr>
<tr>
<td>40</td>
<td>錢 liang</td>
<td>sījīr</td>
<td>sīn sī</td>
<td>sīr</td>
</tr>
<tr>
<td>4</td>
<td>錢 qian</td>
<td>bakīr ~ baqīr</td>
<td>baqīr</td>
<td>misqāl</td>
</tr>
</tbody>
</table>

We may note that the Old Uighur contract documents unearthed from East Turkestan assumed a key role in Maeda’s argument to establish the correspondence of the three Uighur units of denomination, yastug, sīr and baqīr to the Chin. 錢 ding, 錢 liang and 錢 qian respectively.³ According to Maeda’s scheme, the Uighurs in East Turkestan themselves also played an important

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 misqāl as the institutional correspondent of Chin. 錢 qian = Mong. bakīr ~ baqīr = Uigh. baqīr, according to the Persian historian Vassāf, who witnessed “in their (i.e. the Yuan dynasty’s) terminology, bālīs of paper currency (cār < Uigh-Mong. cāo < Chin. 錢 chao) is 50 sīr, whose value is 10 dinār, but [the weight of] bālīs of gold and silver [ingot] is 500 misqāl” [Vassāf: 22]. It may be noted that Uigh. 必兒米思哈 < bir misqa “one misqa (< Pers. misqāl)” is translated into Chinese as 一銖 “one qian” in the Sino-Uighur vocabulary of Ming, 使兀兒部詞語 Wei-mu-er-guan yiyu. See Shōgaiō 1984: 157, No. 825; Matsui 2004a: 200 = Matsui 2004b: 158.

³ The Uighur contract documents (USp, Nos. 47, 12, 51, 61) has been revised in SUK as Lo19, Mi17, Pi02, Sa21,
part in the unification of the system. Having 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 錢 ding, 銖 liang and 銖 qian, create the corresponding units of their own, and then transfer the system to the Mongols and the Persian Muslims. The Persian unit bālis, equivalent to Chin. 錢 ding and originally meaning “pillow”, reflects that it was borrowed from the Uigur equivalent vastuq, 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 baquir. This unit vun is a transcription of Chinese 分 fen, a tenth of 銖 qian. It clearly displays that, under “Mongol Globalism”, the paper currency ciao was circulated among the Uigurs in East Turkestan so much that they accepted even the smallest unit of denomination 分 fen from China.

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 šəy is a borrowing from Chin. 石 shi (dan), ca. 60 liters; Uig. küri is from Tocharian, corresponding to Chin. 斗 dou, ca. 6.0 liters; Uig. şing is from Chin. 升 sheng, ca. 0.6 liter; Uig. qaş is from Chin. 合 ge, ca. 0.06 liter.

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 tatar and 2 küri of wheat ...... Of the wheat [written] on this contract, 2 tatar [belong] to İrasal himself, 1 tatar and

though it does not affect Maeda’s analysis at all.

4 Sertkaya 2006: 131–132, T III M Kloster 2 Nr. 134 (128/044): 13-14th c. baqir cią baquir ści vun çao “1 stı, 3 baqir and 3 vun of papar currency”; 13-14th c. baqir ści vun çao “2 stı, 3 baqir and 7 vun of papar currency”; 13-14th c. baqir ści vun çao “5 stı, 7 baqir and 3 vun of papar currency”; 13-14th c. baqir ści vun çao “2 stı, 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 Ilkhanaate, 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.

2 [kiiri] to [the co-debter] Sulayman". From this context, it is clear that the grain measure unit 
tayar, larger than kiiri, was equivalent of šīy.

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. 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. 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. In Iran, in the west, ʿAzān (r. 1295–1304), the great-grandson of Hūlegū, 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.

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 Turkestan: 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 kiiri and šīng 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 gap and tāmbin. It had been known that 1 gap is equal to 30 tāmbin, 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

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10 YDZ, chap. 57: 2223, “Prohibition of the private container, balance and scale”, in AD 1286; YDZ, chap. 57: 2224, “The containers, measures and the brokers”, in AD 1312.
constitutes a loanword from Mong. *saba* “bag, container”, in the following contexts: “1 bag (saba) of brandy (aragh)” and “[they shall deliver] 3 tāmbin of brandy with their container (saba)”.

From these attestations, we may assume that 1 *saba* as a liquid measure unit was equal to 3 tāmbin.

The unit *saba* and tāmbin 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 tāmbin (< Uig. tāmbin) 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 tāmbin, the latter’s 2 *saba* is equal to 6 tāmbin, 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 (麪 mian), one 升 sheng of liquor (酒 jiu), and one 升 sheng of rice (米 mi).

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, 1 saba of beverage and 1 badman of grain. Here, we can assume that the Uighur-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.

<table>
<thead>
<tr>
<th>Table B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision</td>
</tr>
<tr>
<td>肉 meat</td>
</tr>
<tr>
<td>酒 liquor</td>
</tr>
<tr>
<td>麪 grain</td>
</tr>
<tr>
<td>米 rice</td>
</tr>
</tbody>
</table>

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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), is月 三月 shi-yue (= the 6th month): 仍定每瓶酒一升為數 “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 古儀正要 Yunsan zhengyao, the collection of recipes for the Yuan imperial court edited by 息思懽 Hu-si-hui in 1330, a term 瓶子 jiao-zi “shank, leg” is frequently used in measuring mutton or bear meat. Also we know that Uig. sāg, a loan word from Persian sāgh “shank”, is used as a unit of meat in an Uighur 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.
<table>
<thead>
<tr>
<th>Value (liter, ca.)</th>
<th>Chinese (capacity)</th>
<th>Mongol</th>
<th>Uigur</th>
<th>Persian (grain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>84.0</td>
<td>石 shì (dan)</td>
<td>tayar</td>
<td>šiy / tayar</td>
<td>togär</td>
</tr>
<tr>
<td>8.4</td>
<td>斗 dou</td>
<td>šim</td>
<td>kūrī</td>
<td>gap kīla</td>
</tr>
<tr>
<td>0.84</td>
<td>升 sheng</td>
<td>šingsi</td>
<td>saba</td>
<td>saba mann</td>
</tr>
<tr>
<td>0.28</td>
<td>合 ge</td>
<td>tembin</td>
<td></td>
<td>tāmbin</td>
</tr>
<tr>
<td>0.084</td>
<td></td>
<td></td>
<td></td>
<td>qov</td>
</tr>
</tbody>
</table>

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.

1. it yil bigrminę ay iki otuz-qa
2. yanga buqa yočın ilči-kä altı
3. otuz-qa-tägi käzig aż-qa bir gap
4. bor-nię biküš buqa borluq-ı birzün

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

In this text, 1 gap of wine is to be delivered as the provision for five days (22nd - 26th). This 1 gap of wine is for two persons, Yanga-Buqa and Ambassador Yočın. Then, with Yamada’s proof that 1 gap = 30 tāmbin, we can calculate the daily amount of wine per person as 3 tāmbin (= 30 tāmbin 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 tāmbin = 1 gap = 10 saba = 10 升 sheng = 1 斗 dou, ca. 8.4 liters in the Yuan times; 1 tāmbin = 1/30 gap = 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.\textsuperscript{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.

\textsuperscript{18} For the Mongol grain measure units šim and šingsi, see Matsui 1997: 36-43; Matsui 2004a: 198 = Matsui 2004b: 161.
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”.

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

First to be mentioned are the Persian genealogical source Šu‘ab-i Panğğān (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, Francs and Chinese, and is supposed to have been compiled in close connection with the early manuscript of the global history in Persian, Čāmi‘ al-Tavārīh, completed in ca. AD 1310 by Raṣīd 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 Chunqi 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 Panğğān 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 Tansūq-nāma-yi Ilbānī dar fūmīn-i ‘ulūm-i Hitāy “The treasure book of the il-gans concerning arts and science of China”, also compiled by Raṣīd al-Dīn in AD 1313. It is composed of four books, one of which is a Persian translation of the Chinese

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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.
medical text 脉訣 Maijue. 羽田亨一 Haneda Kōichi identified its Chinese original as 睦范子脉訣集解 Xifanzì maijue jījie by 李勣 Li Si (or 李子埳 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 informants(s) and the Persians.23 In the Persian translation of 脉訣 Maijue, the translator transcribed the whole Chinese passage in the Arabic Script — e.g., Chin. 按之不足舉之餘 an zhī bu zu jù zhī yú > Pers. ān jī bu kū tīsū ā jī yū — then translated the text into Persian. Scholars have regarded this method as most curious: The Persian transcription ān jī bu kū tīsū ā 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 庄垣內正弘 Shōgaitō Masahiro, carries such a sentence: yun ting ěr yu bulūt sākrīdī yaymūr yaydī "yun ting ěr yu (< Chin. 雲勝致雨 yun teng zhì yù) [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 Tankšūg nāma, and we may perceive some cultural influence of the Uigurs in the method of translation and the composition of Tankšūg 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 attest 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

25 In the transcription system of Chinese adopted in Tankšūg 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; Shōgaitō 1987; Yoshida 1994:
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

Abbreviations & Bibliography


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:


26 My argument in Chapter 1 & 2 should be related with the recent study by Prof. Kuroda Akinobu, who proved 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.


Matsui Dai 松井 太 2008c: Revising the Uigur Inscriptions of the Yulin Caves. SIAL 23: 17–33.


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