

Manuscript Technologies, Writing and Reading in Early 20th Century Kashgar

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Ambassador Gunnar Jarring and his colleagues' assiduous collections of Central Asian material resulted in a substantial corpus of text manuscripts, as well as dictionaries, lexicons, and annotated translations of some manuscripts. As the manuscripts range from legal documents to poems and descriptions of everyday activities, they reveal details of ordinary cultural practices that were little documented. Linguistically, we witness the transition from middle and late Chaghatay to early Modern Uyghur. We learn how distinct Kashgar Chaghatay language and culture was from that of the northern Tarim basin. And we can delineate diachronic cultural and linguistic trends on the basis of these materials.

Using two texts on paper-making, writing, and scripts as an example, I provide some of the historical, cultural, and linguistic contexts of these activities, thus highlighting the value of the Jarring corpus and its analytic materials. The texts are critically annotated and evaluated in their historical context. They also provide valuable cultural information in their discussion of the different styles of the Perso-Arabic script in use at the time of writing (1905–1910).

The Manuscript Collection

Collection Overview and Provenance

The Jarring Collection at the Lund University Library is one of the most important corpora of primary source materials in late Chaghatay and early Modern Uyghur (together with nearby languages) in the world. With manuscripts dating from the 16th–20th centuries, the corpus consists of 560 manuscripts, which range in length from one to several hundred pages each. The manuscripts reveal the linguistic development of Chaghatay and Qarakhanid Turkic into early Modern Uyghur and Uzbek, and show the lexical influence of Persian and Arabic on these Turkic languages. (In addition to late Chaghatay, there are

manuscripts in all of the above-mentioned, as well as other, languages, including many Persian classics translated into Chaghatay.¹)

The collection includes a wide range of text genres on many topics. For a literary scholar or corpus linguist, the collection provides crucial contrasting formal and informal text types (for example, judicial and religious documents vs. procedural texts). For a historian or ethnographer, the collection's range is also valuable: "Besides reflecting the Eastern Turkestan society and culture with classic and folk literature, Islamic religious manuscripts, judicial and historic documents, manuals of medicine, trades, and mysticism, etc. The collection also includes many items from the activities of the Swedish Mission in Eastern Turkestan" (Törnvall 2006:1).

The materials were collected primarily by those associated with the Swedish Mission, including Gustaf Ahlbert, David Gustafsson, Sigfrid Moen, Gustaf and Hanna Raquette, as well as by Gunnar Jarring himself. Many manuscripts were bought or copied from itinerant booksellers at local bazaars, some materials were commissioned (e.g. Raquette's Prov. 207 materials described below), and others were written down by missionaries (e.g. the proverbs and poetry written down by Moen). These materials, which together constitute the current Jarring Collection, were acquired by the Lund University Library starting in 1931 and still stored there at present.²

The missionary-surgeon Gustaf Raquette lived in Eastern Turkestan nearly continuously between 1896 and 1921 as a medical missionary with the *Svenska Missionsförbundet* [Mission Covenant Church of Sweden]; he resided in Kashgar during the periods of 1896–1901 and 1913–1921, and in Yarkand from 1904–1911, as well as in Baku and Bukhara. During his 25 years in Eastern Turkestan, Raquette collected manuscripts. He also had Kashgari acquaintances write down short texts describing daily life; these form the basis for the collec-

1 Besides late Chaghatay, the collection contains manuscripts in Arabic, Ottoman Turkish, Persian, and Uzbek, a few manuscripts in Chinese, Kazakh, Mongolian, Tibetan, and possibly Azeri, as well as a number of Chaghatay and early Uyghur manuscripts for which translations in Arabic, English, French, Persian, and Swedish is available.

2 In 1931 and 1932, 72 manuscripts were acquired from Jarring, and a number of others from Raquette and Gustafsson; other manuscripts were acquired over the next 65 years from other Swedish missionaries. Jarring donated his remaining manuscript collection to this library in 1982 (<<http://laurentius.uu.se/jarring/>>, last accessed 2016–01–10). Within that manuscript collection, the number of manuscripts originating from each Swedish missionary was the following: "Gustaf Ahlbert (1884–1943; 109 mss.), David Gustafsson (1879–1963; 75 mss.), Sigfrid Moen (1897–1989; 59 mss.), Gustaf (1871–1945) and Hanna Raquette (1884–1979; 48 mss.), Oskar Hermansson (1889–1951; 42 mss.) and Gunnar Hermansson (1895–1962; 31 mss.)" (Törnvall 2006:4).

tion, Prov. 207, described below. Raquette produced important contributions to the study of turn-of-the-century Eastern Turki (late Chaghatay and very early Modern Uyghur). These include, most notably, a grammar (Raquette 1912–1914) and dictionary of early Modern Uyghur (Raquette 1927), and also an introductory article on the language (Raquette 1909), and a German translation of a Chaghatay romantic *dastan* (versified narration or song), *Tahir und Zohra* (Raquette 1930).

Back in Sweden, Raquette became a lecturer at Lund University in 1924, under whom Gunnar Jarring was trained as a philologist of the so-called Eastern Turki language, as well as Turkish. Jarring made what would be his sole research trip to Kashgar between September, 1929, and March, 1930; three years later, he completed a thesis on early Uyghur phonetics (Jarring 1933). During his Kashgar stay, Jarring had been asked by Lund University to collect manuscripts; he ended up returning to Lund with 115 of them (Törnvall 2006:4; Ekström and Ehrensverd 1988:7–8).

Two years later, unable to reach Kashgar itself, Jarring interviewed traveling East Turkestanis from Kashgar, Yarkand, Khotan, Kucha, Tashmaliq, and Guma in Srinagar, Kashmir. This trip resulted in nearly 500 pages of texts, mostly published in Jarring 1946–1951. *An Eastern Turki-English Dialect Dictionary* published by Jarring in 1964 was based on samples from these texts. Jarring also made some wax cylinder recordings, and donated them to the Lund University Library.

Jarring created thorough metadata for all 560 manuscripts in 1982 and 1997; these metadata are now accessible online at the Lund University Library's Jarring Collection site. Jarring's provisional manuscript numbering system (e.g. "Prov. 1," "Prov. 2") was never replaced and is now quasi-conventionalized, so the Library's database is organized according to this system (Törnvall 2006:6). In recent years, the library has scanned and put images online for about 10–15% of the manuscripts (with funding from the Wallenberg Foundation and the Luce Foundation). Nonetheless, the vast majority of these manuscripts remain unpublished.

Publications from the Collection

Despite his duties as a prominent diplomat, during and after his career Ambassador Jarring managed to produce over one hundred publications, including about a dozen critical edition monographs based on texts and sub-collections within the Lund University Library corpus (Jarring 1975, 1980, 1981, 1982, 1985, 1987, 1989, 1991, 1992, 1993, 1996, and 1998). The monographs focus on one to ten short texts; most contain a transliteration of the text into Latin script with cultural and philological notes, a facing-page English translation, a facsimile of

the handwritten Perso-Arabic manuscript, and a bilingual vocabulary index. These critical editions are largely based on the descriptions of everyday life and popular poetry found in Provs. 207 and 208.

The Collection as a whole, and these critical editions in particular, served not only as a basis for his dictionary of the language (Jarring 1964),³ but also as a partial basis of his dictionary of Tarim Basin and other Central Asian place-names (Jarring 1997).

In recent years, scholars have begun to delve into the collection for anthropological and historical purposes, including e.g. Bellér-Hann 1998, 2010, Sugawara 2010, and others. My team and I, primarily for linguistic purposes, have recently begun building a linguistically annotated corpus of late Chaghatay and its descendants, including Jarring Collection texts (Dwyer 2013); a pilot corpus is currently accessible. This essay exemplifies the potential of the Jarring archive for several scholarly disciplines.

Prov. 207

Prov. 207⁴ is a sub-corpus of 169 pages of essays on everyday life in the southern Tarim Basin in the early 20th century. The short descriptive essays are from one to five pages in length, authored (“probably around 1905–1910,” notes Jarring) by two individuals recruited by the missionary-surgeon Gustaf Raquette, mostly as a basis for the latter’s grammar (Raquette 1912–1914), and a dictionary of early Modern Uyghur (Raquette 1927). Taken together, these texts—neatly handwritten on ruled and unruled ordinary paper—offer an ethnographic view on the everyday norms for Kashgaris interacting in three realms: with the natural environment, with the spiritual world, and with each other.

Two Kashgar residents were asked by Raquette to compose these texts. Most were authored by Muhammad Ali Damolla, “a language teacher employed both by the British Consulate General in Kashgar and the Swedish Mission there” (Jarring 1992); his texts constitute the first 117 pages (sub-numbered MA 1–83). The second author was Abdu Vali Akhon,⁵ whose texts constitute the remaining 52 pages, and have the sub-numbers AV 1–53 (<[3 On the new edition of Jarring’s 1964 dictionary, see Schlyter, this volume. Jarring was finally able to return to Kashgar on a courtesy visit in 1978, 49 years after his initial stay \(Jarring 1979\).](http://laurentius.</p>
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4 During a 1999 archival visit, Ambassador Jarring and the Lund University Library kindly gave me permission to make photocopies of a broad range of manuscripts, including of the Prov. 207 texts.

5 Jarring first wrote *Abul Vahid akhon* in his metadata, but he corrected this spelling in his own hand to *Abdu Vali akhon*. Texts AV 37–38 and AV 40–51 were intended by Raquette but apparently never collected (<http://laurentius.ub.lu.se/jarring/catalogue/207_1.html, <[207_5.html](http://laurentius.ub.lu.se/jarring/catalogue/207_5.html)>, last accessed 2016–01–10).

ub.lu.se/jarring/volumes/207.html>, last accessed 2016-01-10). “Of Abdu Vali Akhon, it is only known that he was an ordinary mullah of good reputation” (Jarring 1998).

Since relatively few were literate then, these two authors represent an educated, if not elite, level of society. Their vocabularies are fairly elaborated, including numerous Persian and Arabic terms. Nonetheless, the texts are written informally in a simple colloquial style, as one might tell a story to a friend. There is little evidence for complex sentence structures. Phonological and morphological features specific to Kashgar Chaghatay are abundant in the texts.

This near-conversational style distinguishes them from most of the other formal-style manuscripts in the Jarring Collection, such as religious treatises, hagiographies, manuals, and other works. The Prov. 207 manuscripts are also stylistically distinct from the transcriptions of popular oral literature found abundantly in the Collection, such as poetry, proverbs, songs, tales, and legends. The Prov. 207 manuscripts constitute two main text genres: narratives and procedures. These genres have predictable formal properties. The narratives are typically descriptive, presented as a kind of generic and timeless view into everyday life. Procedural texts explain how to do something: how to conduct rituals, how to prepare foods and materials, and how to interact with all sorts of beings (e.g. newborns, spirits, and Christians). Both types tend to have a linear chronological timeline. Since the authors purport to express timeless societal truths, the sentences of both genres are overwhelmingly in the simple present and aorist tenses (a feature these texts share with proverbs).

The collection also predated the establishment of a standard orthography for the written language. As Jarring explained, “[i]t has to be remembered that Eastern Turki in those days had no officially recognized orthography. In the prints of the Swedish printing-office the missionaries tried to introduce a consistent spelling of Eastern Turki, Arabic, and Persian loan-words. ...With Gustaf Ahlbert’s [1929:1] guide to spelling, the *Kitāb-i ilm-i imlā*, the foundation was laid for a normalized orthography of Eastern Turki as spoken in southern Xinjiang ...” (Jarring 1991:6). The writing in Prov. 207 shows inconsistencies in the spellings of vowels and velar consonants. Such orthographic variation was normal at the time and in no way detracts from the value of these texts. Two of Jarring’s monographs published in his lifetime were based on thematically-selected Prov. 207 texts: eleven texts in Jarring 1992, and ten texts in Jarring 1998.

The current essay explores the cultural activities associated with literacy, and is an ethnographic and linguistic study of a particular historical period. The two texts selected for this study were published once before (Scharlipp

1998). That publication, which combines Jarring's English translations with Scharlipp's phonetic transcriptions, contains invaluable etymologies, although several lines of the original text manuscripts were omitted and a number of key terms were misunderstood. Beyond amending errors and lacunae, the current essay endeavors to understand how the practices described in these texts reflected local and regional trends in literary and para-literacy activities.

On Writing, Paper-Making, and Scripts in the Early 20th-Century Tarim Basin

Two thematically similar texts from Muhammad Ali Damolla's sub-corpus are: *Pütükchining zörür lazimlıq nerseleri* [*A scribe's necessities*] (text MA-1), and *Oqumaqning beyani* [*A description of reading*] (text MA-2).⁶ This essay focuses on the cultural, historical, and linguistic significance of these two texts.⁷

Writing and Paper-Making

Muhammad Ali Damolla's first text, *A scribe's necessities* (MA-1), opens with a discussion of pen and ink manufacturing. Text 1 begins with a description of how the nib (*qelem uchi*) of a reed pen (*qomush qelemleri*) must be trimmed with a knife and split, so that it can absorb ink. The pen is then dipped into an inkwell (*duva:t*; cf. modern Persian *دوات* id.).

In making ink, the primary colorant is described as being made of a mixture of soot (carbon, Uyghur *chiragh isi* 'lamp-black', lit. 'lamp smoke') and burnt *kironj* 'resin.' This is called 'pitch' (cf. modern Persian *قیر* id.), a technique often employed in the making of Greco-Roman ink (cf. Allen 2013). Alum (Chinese *jjing*; cf. Modern Uyghur *zemche~zemchiwel*) is ground up into a powder and added as a binding agent to the soot and resin. Besides its usage as a flocculant in cosmetics and a mordant in wool-dyeing, alum is widely used to control the absorbency of certain papers, as is used on rice paper in the Chinese painting tradition.

6 Both transcribed texts were written by Muhammad Ali Damolla and transcribed to Latin-script Uyghur by Gülnar Eziz; editing and English translations were done by Arienne Dwyer and Akbar Amat. This work was done for the Uyghur Light Verbs corpus project (U.S. National Science Foundation BCS-1053152), with markup and interface implementation by C.M. Sperberg-McQueen. Ambassador Jarring originally titled the first essay as "Things Necessary for Writing."

7 For further linguistic analysis, the reader is urged to consult the interlinear glossed text analysis of the Chaghatay 2.0 Corpus Project (<<https://uyghur.itcc.ku.edu>>, last accessed 2016-01-10).

The text then describes a common manual paper-making technique using Chinese-style wood pulp (*jumle* ‘pulp’; cf. Modern Persian خمیر) as the raw material, especially from mulberry root bark.⁸ Soaked fibers are put into a screen mold with a wooden frame, which is lowered into water until the fibers arrange themselves in a thin coating on the screen. Basins were rarely available at the time; thus, the author describes the screen being lowered into a tamped-earth ‘basin’ hollowed out of the ground and filled with standing water (*tuyghun su*; cf. Modern Standard Uyghur *turghun su*).

After the arranged fibers are put out to in the sun to dry, the paper is sized with a thick creamy resin paste, used to control its porosity and make the paper more moisture-resistant. The paper is finished by rubbing it between two smooth stones until it achieves a smooth finish—‘as smooth as glass.’

A short section on the physical act of calligraphy describes how the scribe sits or kneels with one knee raised, placing the writing paper on a bookstand (*juzgir*)⁹ made of leather or goatskin.

The remainder of the essay is devoted to the practice of writing. Muhammad Ali Damolla states that ruled paper and margins (created by hand with a ruler and silk guide-threads) are a necessity for neat writing, and mistakes are corrected by scraping the dried ink away and rubbing the paper with a smooth stone. He says that one should avoid separating the words of the essay in two parts (over separate lines), although he sometimes ignores this principle (e.g. lines 25–26 of Text 1). Some orthographic rules of the time are mentioned, for example, the omission of *ghayn* before *alif*. Sheets of written paper are referred to in lines 22 and 36 as *sefhe*, which must be derived from Arabic صحيفة ‘leaf,’ ‘written sheet,’ and in modern Arabic is used to mean ‘newspaper.’ Besides book copying, the text suggests that letters of greeting¹⁰ and bookkeeping were the most common forms of everyday writing. Metal pens (*polat qalemi*) rather than reed pens were preferred for these tasks. Postal service must have been rather new, so the process of addressing, weighing, and affixing a stamp to an envelope, and sending off a letter at the post office is discussed. Even the envelope is described as a ‘paper pouch.’ Finally, the author describes proper pen care; both metal and reed pens have split nibs that require trimming; if the nib

8 The Chinese eunuch Cai Lun is credited with inventing paper-making in the first century CE from bark, hemp, cloth rags, and even fishing nets (Needham 1985:40).

9 *juzgir* ‘a contrivance for keeping a book open when reading or writing, a portfolio’ (Steingass 1957:362 in Scharlipp 1998:11).

10 Here ‘letters of prayer and greeting’ *dua: ve salam xet*, then more commonly termed *dua:i-sela:m* (Jarring 1964:89 via Scharlipp 1998:116); cf. Modern Standard Uyghur *salam xet*.

is not smooth, it will destroy the paper. Metal pens must be stored dry so as not to rust; reed pens must be cut after the wood is seasoned ('dry').

A Scribe's Necessities

The handwritten text is transliterated here in Uyghur Latin (Til-Yez.Kom. 2008).¹¹ Utterances (i.e. sentences or intonation units) are left-aligned; line breaks within the text are marked with angle brackets; and numerals in parentheses were included by the original author, Muhammad Ali Damolla.

<1> *Pütükchining zörür lazemlik nerseleri* A Scribe's Necessities¹²

<2> (1) *Qalem uchini pishiq qomush qalemtira:sh bilen qalem qirip uchini yirmaq.* The nib of a pen is made by scraping a ripe reed with a penknife, and splitting the pen's nib.

<3> (2) *Siya:hini chiragh isi bilen ve ya kironjni qurutup köydürüp qilidur.* Ink is made by drying lamp soot and resin, and burning them.

<4> (3) *Duva:t siya:h chilaydurghan qacha misdin ya tömür parchisidin ve ya safalidin.* The inkwell is a bowl in which the ink is dunked, made either of brass, metal, or stoneware.

<5> (4) *Duva:tqa saladurghan jijingni soqup yumshatip siya:h bilen duva:tqa salidur;* The alum that is put in the inkwell is ground until soft and mixed with the ink in the inkwell;

siya:hni chilap ve ya bir shishege salip, pütün siya:hni shishe salghandin ki:n, and after dunking the ink or putting it in a glass bottle, after putting the ink in a bottle,

11 In Uyghur Latin (Til-Yez.Com. 2008), orthographic <e>, <é>, and <j> have the IPA values [ɛ], [e] and [dʒ]; vowel length (:) and back i [i] have been added here. This rendering of late Chaghatay is midway between transliteration and transcription: it reproduces as faithfully as possible the graphemes of the original Perso-Arabic orthography (written alif as <a: >, -Din as <tin> if written as such, even when following a voiced grapheme), while orthographically unrepresented short vowels are inferred from their apparent phonological context.

12 This text can be accessed via the unique identifier chg1905_1910_kg_p207-ii in the online Chaghatay corpus at <<http://uyghur.ittc.ku.edu/2013/intros/texts.html#jarring>> (last accessed 2016-01-10).

<7> *chalghutup ta ki chalghulmaqtin ayrip*; it is shaken until it separates;

pütün siya:h qalmay su birle bir bolghanda duva:tqa <8> quymaq kérek. (so as to) not let the ink sit once it has become mixed with the water, it is necessary to pour the ink into the inkwell.

<9> (5) *Yaxshi kaghez chinte jümlesidin yasalur.* Good paper is made from pure cotton.

Shundagh ki Orus kaghez Qoqand kaghez ve ya <10> Xoten kaghezini üzhme derixining yildizining qobzaqini soyup, Such (high-quality paper) is Russian paper, Qoqand paper, or Khotan paper made by peeling mulberry root bark and grinding it until soft,

soqup yumshatip <11> yaghachdin qa:löpni chaha:rsu qölöp; (The soaked fibers) are spread into the bottom of a wooden screen mold;

tégige hem bir katöp tujqun su üstide qoyghanda <12> suni chalghutup bergende tékshe bolur. Then this frame is lowered onto a pool of standing water, and then the liquid is shaken until the mixture becomes even.

Andin qalöp bilen aqtabda qoyghanda qurup ka:ghez bolur. Then (the mixture) is put inside the form out in the sunshine to dry and become paper.

<13> *Kaghezni yaxshi qilay dese kironjni qaynatöp, kironj süyini yéne qaynatöp qava:m qilghane <14> taki bir qaymaq ve ya meske dek yumshaq bolur.* To make paper well, one boils resin and boils it again to make a thick paste of the proper consistency, until it is as soft as cream and butter.

Ani ka:ghez üstide qoyup qoligha bir xalte <15> kiyip xalte bilen tekshi qaghezge suwap ka:ghezni ala künesherde qoymaq kérek. This (paste) is spread on top of the paper, which one plasters flat, with a hand covered in a bag used to make the paper even; the paper should be spread out to dry in a place dappled with sunshine.

Qurghanda <16> alöp shundagh tertü yüzge hem suvap qurutup alghanda, While drying, the paper is plastered down on the reverse side in this way to dry,

zer tash yeni siliq bir tash bilen <17> *sürgende shishedek siliq kaghez bolur*. scraping it with a smooth polishing stone known as a *zer tash* makes the paper as smooth as glass.

Xet qilghali yaxshi Qoqand qaghezining siliq bolur. For calligraphy, it will be as smooth as a good Qoqand paper.

<18> *Kita:bat qilghanda kaghez tégide juzgi:r yeni qirim ve ya köndin qilghan nersini ayturimiz. Ol juzgi:r dur*. When writing, a leather or goatskin bookstand is put it underneath the paper; we call it a *juzgi:r*.

<19> *pütügende juzgi:r üstide kaaghezni qoyup, kaaghez bashini kaghez ayaghidin sahal igizrani* <20> *tutup olturghanda, bir putuni tegige basip, bir ayaghini tiklep tizlanip olturghaylar*. The paper is placed on top of the *juzgi:r* bookstand and one holds the top of the paper up a bit higher than the bottom, and sits with one foot on the floor and one leg raised.

<21> *Xet qilghanda kaghezge mistar salip qaghezni jirjimaq kérekdur*. To put letters to paper, it is necessary to use a ruler to draw lines on the paper.

Mistar salmasa <22> *xet qiyiq chiqip qalur*. If the paper is unlined, the handwriting will be askew.

Mistarni bir nechche ka:ghez bilen bir sefhe qalinraq qilip her setir xet <23> *xet araliqigha chize bilen tengshep tanap, meshut yip bilen satir araliqigha qoyup,* <24> *ka:ghez bash terefidin ha:shiye qoyup pütügay*. One makes a page thicker with some sheets of paper, adjusting the spaces between every word with a ruler, putting a silk thread in the space between, and leaving a margin towards the top of the paper, one can begin writing.

Ve pütügende mumkin bolsa qitayi kelime qilmaghay, <25> *chünki qitayi kelime yeni bir kelime sözni oturadin bolap, tengini setir* <26> *nüing ayaghigha ve tengini setirning bashigha bolmasun*. If possible when writing an essay, one should avoid separating the words of the essay in two parts [over separate lines]; write down the first part at the end of the first line, and the second part at the beginning of the second line.

Mistar iki qisim dur. There are two kinds of ruled lines.

Birini ka:ghhez bilen yip bilen dédük. One of them is made with paper and string, we say.

<27> *Yene bir qismi üst bir texte rastlap jiji qılmaq.* Another is made by preparing the upper part of a board.

ka:ghhez sefhesige qarındash qalem bilen <28> xetke muva:fiq jjiımaq kérek. On the page, it is necessary to draw appropriate words with writing devices.

Setir setir jjiılur, yene bir xetdin jjiılur. Qarındash <29> qalemni jingchige qılıp yénik jjiıghay. Line after line is drawn; one makes the pencils thin and should draw lightly.

Eger bir yerde bir neme ghelt bolsa, xet qurughanda <30> ittik pichaqda yénik qirip chıqarip, xet ornini siliq bir tash bilen sürüp siliq <31> qılıp, ornighe xet pütümek kérek. If there is some error in one spot, once the letters are dry, scrape (the paper) softly with sharp knife to erase the mistake; rub a smooth stone on the letters until they are smooth, and then one can write in this place.

Bu qismi qılıp pütülgen xetler kitab pütümekning <32> bayanıdur. This is a description of finishing letters and writing books.

Mumkin bolsa zede qılmay hashiye chıqarmay, pütülse her nuqtini her herfnıng <33> öz bara:berighe qoyup, imla:h bila:n yeni alif kéledurghan sözge ayn pütülmesun. If possible, without making mistakes nor writing outside the margin, put down diacritics on each letter, [and write] according to the orthography when writing; this means that words with [the letter] *alif* are not written together with a *ghayn*.

Imla:h <34> bila:n pütülse mutabar ro:shen xet bolur. Writing according to the orthography, the letters are correct and clear.

Imla:hni saqlamaq zörür, ahqa:mı iken. It is necessary and possible to preserve the orthographic conventions.

<35> *Ikinji xetni dua: ve salam xetdur, polat qalem bila:n pütülur.* The second kind of letter is a letter of greeting, which should be written with a metal-nibbed pen.

Aksar bu polat qalemni <36> sodagerler defter ve du'a: ve salam xet üçhün ishletur. In earlier times, this metal-nibbed pen was used for merchants' bookkeeping and letters of greeting.

Tatlatmay ishletse bu hem <37> yaxshi qalemdur, quruq saqlasa tatlamaydur. This is also a good pen if you do not let it rust; it doesn't rust if stored dry.

Her yerge iba:redurghan xetni lifa:fe dep bir ka:ghezdin <38> qilinghan bir xaltedir. The letters that we send anywhere are put into a paper pouch called a *lifafe*.

Aning ichige salip yemlep lifa:fe üstige xet qilip, ibareledurghan <39> yerge vezn xetni mula:heze qilip, özige köremege chaplap poshtexanege tashlar. (The letter) is put inside it and sealed, and (the address) is written on top of the envelope, and considering the weight according to where the letter will be sent, a postage stamp is affixed, and the letter is sent off at the post office.

<40> Xet yetküzülür. The letter will arrive (at its destination).

Qalemning uchini keskende xa:h qumush qalem, xa:h polat qalem bolsun <41> qalemni yirghandin ki:n qalem uchi iki tilliq bolur. When one trims the nib of the pen, be it of reed or metal, after bending the pen, the nib should have a split tip.

Ong terifening uchi sol terefidin zereche <42> igizrek bolur. The right side of the (pen) nib will be somewhat higher than the left side.

Qalem uchi hemmishe késilip tursa xet saq chiqadur. The letters will appear right if the nib of the pen is kept trimmed.

qaghez sefhesige <43> mistar salip setirlarni tüz chiqarmaq, mistarsiz xet qilsa tüz qilmaq kérek boladur. One draws lines on the page with a ruler so that the writing will come out straight; if one writes without a ruler, it is necessary to write straight.

<44> Qumush qalem yöl késilse rishte chiqip qalur, qurutup kesmek lazem bolur. If a reed pen is cut while wet (green), it will be crooked; it is necessary to cut it while dry.

Discussion

Carl Gustaf Mannerheim, who was in Guma during the same period as Muhammad Ali Damolla, was writing in Kashgar. He provided a similar description of the paper-making process at the time:

The manufacturing of paper is very primitive. The bark of the mulberry tree is used as raw material. The inner bark is separated from the outer, which is thrown away, and soaked for 24 hours in the river and then boiled for about an hour. The sticky pulp secured by this method is laid on a millstone and beaten with a wooden club until the fibres are separated and the pulp has become loose. The papermaker sits with bent knees beside a square hole in the ground filled with water. By his side is part of the pulp in a wooden cylinder, let into the ground. The pulp is diluted with water as required. The man places in the water-hole a mould of four narrow boards with a thin muslin-like cloth at the bottom. With a ladle made out of mangold he takes a clot of the pulp and puts it in the mould floating before him and spreads it out in the water by whirling a small wooden cross, fastened to a handle, round in the water and pulp in the mould. Then the mould is taken out of the water and allowed to dry for 24 hours. (Mannerheim 1969 [1940]:81–82, entry from 24 November 1906)

According to the Kasghar text by Muhammad Ali Damolla, all sorts of material was used for paper-making, though both authors describe paper-making from mulberry bark. These were everyday papers, which were rough and crude, but sold well, likely due to having no competition (Mannerheim 1969:82).

For higher quality paper, sometimes silk scraps were used: “Silk ... is also found profitable to send the ‘waste’ to the Almati market, where it is purchased for Russian paper manufactories (it is a rumor that Russian [bank] notes are made from silk ‘waste’).” (Trotter 1875:154).

In the early 20th century in the Tarim basin,

[p]rinted books were exceptional, and were mostly lithographed works imported from Tashkent, Bukhara, and Samarkand. Most of the books were handwritten in Arabic script, and were copied according to need and demand, usually on indigenous Khotan paper. This Eastern Turki literature consisted partly of Islamic religious and moralistic works, partly of tradition-bound folklore, mainly tales, legends, and popular poetry. In addition to this folk literature, the works of well-known Islamic classical authors were also represented. (Ekström and Ehrensvärd 1988:187)

Given that most books were copied by hand, there was a need for a steady supply of paper and ink, as well as knowledge of the mechanics of writing, page layout, and orthographies. The second text below addresses these latter issues.

On Reading and Writing in Early 20th-Century Kashgar

The second text, “On Reading,” in Prov. 207 by Muhammad Ali Damolla concerns the physical and cognitive aspects of reading, as well as a taxonomy of different calligraphic styles of the different Perso-Arabic orthographies in use at the time. It first exhorts the reader to focus attention on the written words, and not be distracted. It described how to turn a page, and then presents a fairly detailed taxonomy of Perso-Arabic scripts used by writers in Kashgar at the turn of the 20th century.

Four calligraphic styles are discussed in the text: Kufi (line 11), Thuluth (“Sulus,” line 12), Naskh (“Nasx,” line 10), Nasta’liq (“Nasta:liq,” line 9), and Shikasteh (“Shikeste,” line 13) scripts. The first was historically a religious script, while the last three were secular scripts. These represent an abbreviated tour through the history of Perso-Arabic calligraphy in the area. The author does not mention other orthographies, which confirms that Perso-Arabic was the dominant orthography in the Kashgar area for many centuries.

Using Arabic script to represent the consonant and particularly vowel inventories of other language families like Turkic and East Iranian led to the adoption of diacritics to express sounds like the Turkic *p ö ü*. “With the spread of Islam and Arabic-Islamic civilization in Western Europe, Asia and Africa, the predominant Islamic script, Arabic, came to be adopted by languages with its realm that had many more vowels Nonetheless, the script did not undergo systematic alterations; instead, its extant supralinear signs (such as diacritical dots and miniature letters) were put to new purposes and a few new ones were invented” (Gruendler 2012:101–102). In the earliest 9th-century Arabic calligraphy, including Kufic Qur’anic manuscripts, no diacritic marks were used. By the 11th century, two diacritic systems were well developed: one system of dots distinguished consonants, another system of diacritic shorthand for long vowels (in the previous century, positional dots only indicated different *short* vowels). The 11th-century system is the basis for modern Kufic, including Uyghur Kufic.

Kufic script (in the text as *kufi xet*), named after the Mesopotamian city of Kufa, and the oldest calligraphic form of Arabic-based orthographies, is straight, angular, and elongated. As the text notes, it was in this script that the first copies of the Qur’an and Bible were written, and it was the most used script for the Qur’an until the 9th century. Regional differences existed; some were more geometric than others.

The other three calligraphic styles mentioned in the text are cursive styles, which first emerged during the 1st century CE. They are part of the six canonical classical scripts of Islamic calligraphy (*al-aqlam al-sittah*): *Thuluth*, *Naskhī*, *Muḥaqqaq*, *Rayḥānī*, *Riq'ā*, and *Tawqī'* (Stevens 1996:244). These secular cursive styles were easier to read and write and largely replaced Kufic orthographies, except for certain groups of users and for aesthetic uses, as artistic decoration (on buildings, books, coins, ceramics, and household items). The author notes on line 13 that, in early 20th century Kashgar, Kufic scripts were used by the Dungans (Sinophone Muslims).

Three versions of the first two classical cursives are discussed in Muhammad Ali Damolla's text.¹³ The *Thuluth* script (Arabic ثلث 'one-third,' Uyghur *sulus*), which first appeared in the 11th century CE, is the source of a number of modern calligraphic styles. A third of its letters are written obliquely in an elegant left-sloping style, and is still preferred for book titles rather than text. Since the 15th century, the style has been specialized for decoration (such as on a mosque or textiles) and has been refined by Ottoman calligraphers since. The *Thuluth* script formed the basis for *Naskh* script mentioned in the text.

Naskh (or *Naskhī*; Arabic نسخ *nash* 'copying,' Uyghur *nasx xet*) was developed as a cursive script in the 10th–11th centuries, primarily for correspondence and book copying with a reed pen, as the text describes. It was privileged during the Timurid period (ca. 1370–1507) and was refined in Turkey in the 16th century (Khan 2001). *Naskh* script became widespread for copying religious works (the Qur'an and commentaries), poetry, and personal correspondence. The glyphs are smaller and more legible than those of *Thuluth*. The Perso-Arabic examples in this article use a *Naskh*-type script. The *Naskh* cursive also forms, in part, the basis for the next script mentioned in the text, the *Nasta'liq* script.

Nasta'liq (from *naskh-i ta'liq*, Persian نستعلیق) developed in the 8–9th centuries, and became the major post-Sassanid-era Persian script style. It is dominant in Central Asian Turkic and South Asia, areas the script has now become associated with; besides Chaghatay and early Modern Uyghur, it has been used for Urdu, Kashmiri, Punjabi, Dari, Pashto, Afghan Turkic, as well as for Ottoman Turkish. *Nasta'liq* is a combination of *Naskh* and *Ta'liq*,¹⁴ and mentioned on line 9 of the text below. It is written with long horizontal strokes and short

13 The cursive styles not mentioned in the text (*Muḥaqqaq*, *Rayḥānī*, *Riq'ā*, and *Tawqī'*) were rarer in the Islamic world and are now generally obsolete.

14 *Ta'liq* 'suspensio' itself was likely a combination of *Tawqī'*, *Riq'ā*, and *Naskhī*, and was inspired by the sinuous forms of Avestan, but popular only during the 14th c. *Ta'liq* was superseded by the *shikasta ta'liq* (Khan 2001) mentioned in the text, which was more calligraphic.

verticals without serifs and slants to the right,¹⁵ and often used for poetry, headings, titles, and other art forms.

Shikasteh, mentioned on line 13, is a Persian variant of *Ta'liq* cursive, used in more informal contexts and still used for book titles. Also known as *Shikasteh Nasta'liq* (Persian شکسته نستعلیق lit. 'broken Nasta'liq'), it has been specialized since the 15th century (Khan 2001).

The author explains in line 10 that "some books are written in the Nasta'liq script, and other parts are written in...Nasx," and that the Qur'an and the Bible were written using these scripts <10–11>. Most likely, the text was commonly written in Naskh, and the more decorative titles in Nasta'liq. Muhammad Ali Damolla also reports that Nasta'liq was used "for writing prayers and greetings" "among the people of Kashgar and Alte Shahar" <15–16>, which may suggest that Nasta'liq was overtaking Naskh in use during the early 20th century in the southern Tarim region.

Muhammad Ali Damolla labels both Kufic script and Thuluth cursive as "unexpected in this area" <13–14>, with Kufic being strongly associated with Sinophone Muslims (Dungans). We can infer that both of these scripts were not commonly used and rather foreign to the southern Tarim Turkophone populations of the time. The decorative Thuluth script may well not have made significant inroads past the Pamirs. The angular Kufic script was primarily associated with religious writings; it is quite possible that different Islamic orders preferred to distinguish themselves not only by religious practice, but also by script style. Thus, the Turkophone and Sinophone Muslims may well have been conventionally distinguished by language, religious order, and script choices.

Muhammad Ali Damolla then mentions the Persian calligraphic style *Shekasteh*—a successor style to *Nasta'liq*—and explains: "Persian people use this script, and also those in India and Kabul, when writing letters of respect and greeting" <13–14>. He then mentions that *Nasta'liq* predominates for these genres in the Alte Shahar (Yarkand, Kashgar, Khotan, Kucha, Aksu, and Yangi Hisar). This statement suggests a likely scribal isogloss between South Asia *Shekasteh* and Tarim Basin *Nasta'liq*. We can infer from the text that the two most predominant styles in early 20th-century Kashgar were then Naskh and *Nasta'liq*.

15 <http://en.wikipedia.org/wiki/Nasta%CA%BF1%C4%ABq_script> (last accessed 2016–01–10).

A Description of Reading

<1> *Oqumaqning béyani* A description of reading [chg1905_1910_kg_p207-i2]

<2> *Oqumaqda hemedin chong ish shubuki köngül qoymaq.* The most important thing in recitation is to pay attention.

Chünki köngül birle oqumaq, <3> *yalghuz köznüing küchi az kélédur.* Because one reads with the heart, the power of the eyes alone is small.

Tola vaqit ademning köngli bashqa terefde bolsa közi <4> *xetde bolghani birle aghzidün bashqe söz chiqip kétadur.* If the whole time a person's attention is elsewhere, even if his eyes are on the text, other words emerge from his mouth.

<5> *Kitabni achqanda bir sefheni oqub ötküzgende varaqni ong qol terefiga* <6> *öyriüey.*¹⁶ When opening a book, after a page is read through, one turns it from the right (to left).

Oqughanda mula:hize tama:m birle oqughay. When reading, one should read with perfect consideration.

Pütülgan sözde bir noqta ve ya bir kelimedede <7> *ghelet qilinghan bolsa pütülgan söznüing avval axirighe mula:hize qilghanda köngül ferqini* <8> *chiqaradur.* In written words, if a mistake is in one diacritic or one word, when considering from the beginning to the end of written words, differences of opinion ('mind') are brought out.

Shundagh her nersede köngülning kuchi chong kuchluq dur. In everything, the strength of the mind is strong.

<9> *Xetning teri:qesi, bir neche qisimdur.* There are several types of scripts.

Bir qismi xetni Nasta:liq deb ayturmiz. One kind of script is called Nasta'liq.

Shundagh ki <10> *kitablarning xeti Nasta:liq xetdur ve yene bir qismi xetni Nasx xet deb ayturmiz.* So some books are written in the Nasta'liq script, and other parts are written in a script called *Nasx* [Naskh].

¹⁶ *öyriü-* 'turn,' cf. MSU *örü-*.

<11> *Ol xetni Qur'a:ngħa ve Injilge pütübdur.* The Qur'an and the Bible were written in those scripts.

Nasx xetdur ve yene bir qismi xetni Ku:fi xet <12> ve ya xeti Sulus deb ayturmiz. This is the Naskh script, and again other scripts are written in the scripts called Kufic and Thuluth.

Andagh xet bu terefde na:g'ha:n bardur. That kind of script is unexpected in this area.

*Tungganilar Ku:fi xetni <13> istima:l qilibdurlar.*¹⁷ The Dungans use the Kufi script.

Jene bir qismi xetni Shikestemiz ayturmiz. And another type of script we call Shikestemiz.

Fars ehli <14> bu xetni istima:l qilib ve hem Hindustan, Kabul ehli du'a ve sala:m xetke Shikestemiz <15>xetni ishla:tibdur. Persian people use this script, and also those in India and Kabul, when writing letters of respect and greeting.

Ehli¹⁸ Kashqar bu Alte Sheherde defter, du'a ve sala:m xetke ishla:b <16> turghan Nasta:liq xet dur. Among the people of Kashgar and Alte Shahr, it is the Nasta'liq script that is used for writing prayers and greetings.

<17> *Xet oqumaqning shertlari, xet oqugha:nda bek xetni köziga yéqin keltürüb* In terms of recitation conditions, when reading aloud, don't make a habit of bringing the letters too close to the eyes,

<18> *oqushni özige a:det qilmagħa:y, ki:n néri tutub oquyay dése oquyalmas,* later on, if one holds them at a distance they will not be legible,

<19> *ve hem bashini midirla:tib xet oqumaqni özige a:det qilma:gha:y bir ghayib dek köre:nur.* Also, don't make a habit of moving your head back and forth as you read, this is not seen as normal.

<20> *Avval qaydagħ oqub a:det qilsa shundagh örgönör ve yene bir shert shu ki bir söz<21>nüñ ayaghüni yene bir sözge qa:tib alishturub oquma:gha:y.* If one makes a habit out of the way one starts out reading, one will read just like that;

¹⁷ Lines 13–6 are missing from Scharlipp 1998.

¹⁸ *Ehli* 'people-POSS3' is written <şly>, almost certainly a scribal error for <ahly>.

and another requirement is that one shouldn't slur one's words (lit., 'read by mixing up the ends of words with other words').

Her sözni tüge:tib <22> bir nefes alib yene bir sözning iptida:sini ba:shla:gha:y,
One should finish each word, take a breath and begin the next word,

sözni oqugha:nda cha:la: <23> cha:yina:b sözni ta:shla:ma:gha:y oqugha:nda mula:hize bila:n oqugha:y. When reading aloud, one should not half-articulate words nor omit them, one should read with consideration.

Linguistic and Historical Implications

The two texts represent—both orthographically and grammatically—a form of early Modern Uyghur, that is, between late Chaghatay and Modern Uyghur. Orthographically, certain distinctions (both phonemic and phonetic) are not represented.¹⁹ In morphology, some of the Middle Turkic pronominal system is evident, which makes premodern Uyghur resemble some features of Modern Uzbek, here e.g. *ol* 'that', 'it' (cf. Modern Standard Uyghur (MSU) *u*), *ani* (accusative of *u*).

In pronunciation, there is no evidence of vowel raising, consonant cluster simplification, or *r*-deletion in syllable coda position; so late Chaghatay *alip* 'taking,' cf. MSU *élip*; late Chaghatay *erte* 'tomorrow,' cf. MSU *ete*, but text 1 *dere* 'tree' (= MSU, cf. late Chaghatay *derext*). Certain pronunciations and lexemes are typical of the southern Tarim area (Yarkand and Kashgar) and contrast with northern Uyghur, e.g. *tu*ghun *su* 'standing water' (cf. MSU *turghun su*), *oquyay* 'let me read' (cf. MSU *oquy*; but late Chaghatay, MSU *oqu-ghay* 'may one read!'). Orthographic <f> was already pronounced [p]; e.g. <lifafe> is [lep^ha:p^he] and <nefes> was pronounced [nep^hɛs], at least in 1929 when Jarring lived in Kashgar (and perhaps earlier; Jarring 1964:183).

In lexis, regional southern Tarim terms not found elsewhere include: *qürim* 'a special kind of goat-skin' (Nazhip 1968:624 in Scharlipp 1998:115); *xa ... xa ...* '...

19 Velar voicing is not distinguished in the orthography; in fact, orthographic <k> represents /k/, /g/, and /ng/. Consonant harmony in affixes is not represented, nor are phonemic front and back rounded vowels distinguished, but both can be inferred from the lexical context and consonantism. Non-final short *a* is not represented. During this time period, the Swedish Mission Press was also quasi-standardizing a more phonetic spelling that reflected progressive rounding assimilation, e.g. [boyun] and [ølem], formerly written <boyan> and <ölem>, were printed as <boyun> and <ölüm> (cf. Sulaiman in this volume).

as well as ...', cf. MU *gah ... gah or gahi ... gahi*, or MSU *yaki ... yaki*; and the southern Tarim (prototypically Yarkandi) *yöl 'lake'*; cf. MSU *köl*.

A range of foreign lexemes, largely Perso-Arabic, occur in these texts but are rare or absent in the modern language. Many are specialized terms for obsolete technologies. From Arabic, these include: *qava:m* 'a proper degree of consistency' (Scharlipp 1998:114), *vezn* 'weight,' *mula:eze* 'consideration.' From Persian, these include: *mistar* 'ruler;' *juzgi:r* 'bookstand;' *ahqa:m* 'statues;' MSU *ehkam* 'order, directive, decree, guidelines;' cf. modern Persian  'sentence, verdict, ruling, decree.' The only Chinese term is the key binding chemical, *jijing* 'alum.'

A number of lexemes preserving Arabic morphology and semantics through the late Chaghatay period reflected in these texts have undergone morphological nativization or semantic change only recently in Modern Uyghur. MSU no longer preserves the Arabic *kita:bat* 'handwriting' seen in the late-Chaghatay Text 1, but the Arabic root /ktb/ appears in MSU *kitab* 'book' and the Perso-Arabic form *kütüpxana* 'library.' Some semantic shift occurred already in the late-Chaghatay period, e.g. Text 1's *sahal* 'a bit, slightly' from arb. *sahl* 'soft, easy' (cf. MSU *sel* 'slightly'), while other late-Chaghatay forms preserve the semantics of their Arabic cognates, e.g. *safha* 'page, written sheet' from Arabic  'leaf, written sheet,' now Arab. 'newspaper.'

The extensive Persian and Arabic lexical choices and textual contents reflect a historical period in which material and cultural exchange for southern Tarim Basin residents still ebbed and flowed primarily over the Karakorum and Pamir Silk Route passes, rather than to and from the east. China was still a distant polity. Although the physical presence of China (in the form of late Manchu Qing dynasty officials) was already familiar to these oasis communities, China's *cultural* influence had yet to be felt. So in these texts, only in conjunction with ink and paper-making does a Chinese lexeme appear.²⁰ Clearly the process of ink and paper-making in southern Tarim was still primarily a Transeurasian one, informed and refined by Chinese paper and ink manufacturing. The contents of books copied by hand onto these pages—religious and healing treatises, prose poems, tales, and legends, including Islamic classics—all index a cultural heritage that stems exclusively from west of the Pamirs. The sections on orthographies, too, reflect a continuous exchange with Muslim civilizations to the south and west, yet these Perso-Arabic orthographies had been localized

20 That *jijing* 'alum' is Chinese may suggest the primary source of the chemical came to be from the east, even though alum was and is widely available south of the Karakorum and west of the Pamirs.

enough for the author to be able to identify script preferences of the Alte Shahar.

These texts thus reflect a key historical juncture, after which certain cultural practices appear to have differentiated more sharply from those to the west and south. Up through the first quarter of the 20th century, the script styles and conventions of such documents are evidence of the extensive interchange with written cultures west of the Pamirs (in Transoxiana and later in Soviet Central Asia), as well as with the Gandhāran region southwards. Already at the time of writing, the author describes a scribal isogloss dividing South Asia Shikasteh from Tarim Basin (and Amu/Syr-Daryan) Nasta'liq. By mid-century, Perso-Arabic scripts would develop more or less independently, gaining new orthographic conventions.²¹ As the Tarim oases came to be integrated administratively closely into China, only much later over the course of the 20th century did Chinese cultural influence come to be felt. During Muhammad Ali Damolla's time, however, the key reference point was Transoxiana, and, more distantly, the Gandhāran region and Persia.

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21 E.g., the Perso-Arabic orthographies of the Tarim Basin and Xinjiang eventually gained representation of vowels and voiced velars, and required *ghayn* as an initial-vowel marker.

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