

Dmitry Bondarev and Nikolay Dobronravin

# Standardisation Tendencies in Kanuri and Hausa Ajami Writings

**Abstract:** The Kanuri and Hausa manuscript cultures had a standard model of the Arabic writing system whose uniformity is grounded in Arabic literacy in its Qur'anic and Classical forms. The scribes of both cultures (Kanuri starting from the mid-17<sup>th</sup> century and Hausa from the early 19<sup>th</sup> century) adhered to the principle of total orthographic uniformity in writing the Arabic texts but they used variable orthographic systems for writing in local languages (Ajami). Having been in contact for a long time, Kanuri and Hausa manuscript cultures share a similar type of Arabic script and belong to the Central Sudanic area of Ajami writing characterised by specific graphemic choices for some sounds.

Both Kanuri and Hausa orthographies developed from conservative simplified systems strictly modelled on Arabic letters to a more elaborated encoding of sounds. However, unlike Hausa writing of a later period, Kanuri tradition remained largely unaffected by graphemic innovation. Both cultures have identifiable sets of grapheme-phoneme combinations which were stable within a restrictive range of the phonemic and graphemic inventories. From a diachronic perspective, Hausa writing shows a tendency towards a closer match between the number of phonemes and graphemes, whereas in Kanuri there is a tendency of the retention of the spelling of some high-frequency lexical and grammatical items.

## 1 Introduction

The expression 'standardisation tendencies' in the title of our chapter might trigger unintended connotations, both positive and negative. On the positive side, 'standard' is usually equated with 'stability' and 'norm', and standardisation is customarily seen as a process of reaching an orderly state out of the chaos of variation. The development of a standard orthography is seen as progress, and as an explicit expression of widespread assumptions 'about the empowerment and liberating effects of literacy' (Blommaert 2004, 645). Various attempts by UNESCO to standardise orthographies for the world's languages speak vividly for the assumed high value of a standard.

On the other hand, the same title may be read negatively by scholars who challenge and problematise the ideologies of 'graphocentrism' which dominate

modern society whereby ‘a language is not seen as “complete” unless it has acquired a standard orthography’ (Blommaert 2004, 645). The expression ‘standardisation tendencies’ may thus be understood as an attempt to highlight the ‘evolutionary positive’ side of otherwise chaotic spelling, and to present writings in Kanuri and Hausa as systems aspiring to improvement by developing proper literacy.

Discussing standardisation tendencies in this chapter, we neither defend nor deconstruct the assumed evolutionary unidirectionality of writing systems towards a standard form (albeit, as will become clear, our approach lies nowhere near any evolutionary model of orthography development).

Our task is to document ranges of orthographic variation and uniformity and, where possible, identify their underlying causes in two writing cultures largely unaffected by European-driven standardisation policies. In doing so, we consider orthography as a system of graphemic combinations conditioned by various factors rather than as a fixed system of spelling rules. Thus, we avoid the more restrictive notion of orthography commonly defined as ‘the standardized variety of a given, language-specific writing system’ (Coulmas 2003, 35) or as ‘the set of conventions for writing words of the language’ (Sebba 2007, 10–11). When dealing with diachronic and synchronic variation in a given orthographic system, we first outline a graphemic set for each phoneme of the language and then analyse which linguistic and extra-linguistic factors licence the selection of graphemes for such a set. For example, a phoneme /b/ can be written as <b, f, m, p>, but not as <s> or <k>. Or /g/ can be written as <g> or <k> but not as <b>, or /l/ as <ɖ> or <l, r> but not as <g> or <b>, and so on. The sets of phoneme–grapheme correspondences may have different degrees of stability conditioned by linguistic domains, such as phonology, morphology, syntax, lexicon, prosody, genre, etc. For example, in various Kanuri Arabic-based orthographies, monosegmental and bisegmental consonantal sequences [nasal] – [plosive] (are typically written as single letters used for plosive consonants be it word-initial or word-medial (/ndārā/ = <dara> ‘where’, /ʃasundogi/ = <ʃasudūgi> ‘they know’) but in a specific morphological environment the nasal consonant may be written as a separate grapheme (/ʃundogi/ = <ʃundūgi> ‘he knows’). The nasal segment can also be explicitly written in the etymological spelling of words borrowed from Arabic (Bondarev 2014b, 128–132).

Part of this approach involves tracing the development of such graphemic sets over time, and examining the components of an identified set as to whether they changed or were reduced to a one-to-one correspondence. Such chronological variations reflect possible phonological changes and/or cultural exchanges between different writing systems, be it in contact areas or under the hegemony

of a prestige orthographic system. Chronological graphemic variations may also account for the emergence of fixed restrictive conventions, or of a standard.

From this point of view, we consider orthography not in terms of the ‘standard versus nonstandard’ dichotomy, but rather as a combination of tendencies, not necessarily unidirectional. Thus, we can talk about patches of standard spelling within a system of internally organised sets conditioned by a multiplicity of linguistic and extra-linguistic factors. One set may be leaning towards a one-to-one representation, while the other may expand the scope of graphemes and thus become more variable.

A good example of such changing orthographic practices in contact manuscript cultures involves the Arabic-based orthographies used in various historical periods for writing Kanuri and Hausa. This chapter is an attempt to compare the variation and consistency of general orthographic tendencies in Kanuri and Hausa manuscript cultures and to identify the graphemic sets particularly prone to standardisation.

## 2 Kanuri and Hausa: shared and different history

The Kanuri and Hausa manuscript cultures have long been in contact with each other. Both were situated in the Sahelian region in what is now northern Nigeria and its neighbours to the north and east, and both grew out of early sub-Saharan Islamic polities. The Kanuri manuscript culture is rooted in the ancient Kanem-Borno whose ruling dynasty was one of the earliest in the Sahel to adopt Islam. The early Muslim elite society of Kanem can be traced back to the 11<sup>th</sup> century, and from the late 12<sup>th</sup> century onwards we find accounts of ‘considerable development of Islamic learning in Kanem’ (Hunwick 1995, 16). The Arab written sources from the 12<sup>th</sup> to the 16<sup>th</sup> century as well as local 16<sup>th</sup> century accounts about scholarly activity in Kanem-Borno can be taken as indirect evidence of the antiquity of the Kanuri manuscript tradition. However, the earliest manuscripts belonging to the Kanuri manuscript culture only go back to the 17<sup>th</sup> century with one manuscript dated 1669 (Bivar 1960, Bondarev 2006, 2014a).

The legendary history of Islam in Hausaland starts with the arrival of foreign scholars such as al-Fāzāzī (d.626/1230) or al-Maghīlī (d.909/1503–4 or 910/1504–5) travelling through Borno or from ancient Mali (Lippert 1900; Palmer 1908; Starratt 1993). More Islamic books were reportedly brought to Kano by the Fulani from Mali in the reign of Yakubu, son of Abdulahi Burja (dated by Palmer as 856–867/1452–1463 [Palmer 1908, 76–77]). Local written culture in Arabic, also linked with migrant scholars, already existed in Kano and Katsina in the

17<sup>th</sup> century (for more details see Hunwick 1995). However, the earliest substantial manuscript data related to Hausa goes back only to the first decades of the 19<sup>th</sup> century (see e.g. Hiskett 1975, 18). Thus, the development of the Kanuri manuscript culture can be observed over a time span of about 350 years while Hausa manuscript culture is only observable over the last 200 years. This makes any comparative study of these two cultures slightly anachronistic.

Such comparison is also complicated by historical interference created by the Western and Central Sudanic cultures between which the Hausa manuscript tradition developed. In the 15<sup>th</sup> century, the Hausa cities Kano and Katsina came into the sphere of activity of the Wangara (Wangarawa) – the merchants and clerics who came from the west, from ancient Mali and Songhay polities. It may be argued that the Wangarawa in Hausaland belonged to the Jahkanke scholarly lineages, ultimately stemming from the Soninke-speaking communities in what is now western Mali; however, their linguistic identities changed over time.<sup>1</sup> According to one hypothesis, the Wangarawa who reached the Hausa city-states in the 15<sup>th</sup> century spoke a Mande language (possibly Jula, see Al-Hajj 1968, Akinwumi and Raji 1990); according to another, they spoke Songhay (Lovejoy 1978). Later, with the expansion of Borno in the 16<sup>th</sup> century, the Hausa became increasingly exposed to Kanuri culture, including Kanuri administrative systems and their manuscript tradition, especially discernible in the script style. Sometime in the 18<sup>th</sup> century, Hausa states again came under western influence, this time from the Toronkawa Fulani Muslim scholars among whose circles reformist ideas developed into the jihad movements, ultimately resulting in the creation of the Sokoto Caliphate in the early 19<sup>th</sup> century (Hiskett 1957, Levtzion 2000, 83–86).

Given these connections with various scholarly Muslim communities, it is safe to suggest that the Hausa manuscript tradition developed in contact with cultures both to the west (Wangarawa, Fulani) and to the east (Kanuri), probably with varying influence from each side. For example, the most common Hausa script style (defined as ‘Kanāwī’ or ‘Hausāwī’) derives from the Borno calligraphic tradition (Brigaglia and Nobili 2013), whereas some Sokoto scribes were apparently more familiar with the Western Sudanic and Saharan styles (for a tentative classification see Nobili 2011). The techniques of glossing the Arabic texts in Hausa, e.g. the marking of glosses as ‘*jm* (Ajami), were possibly influenced by the Western Sudanic tradition, but this remains an open question.

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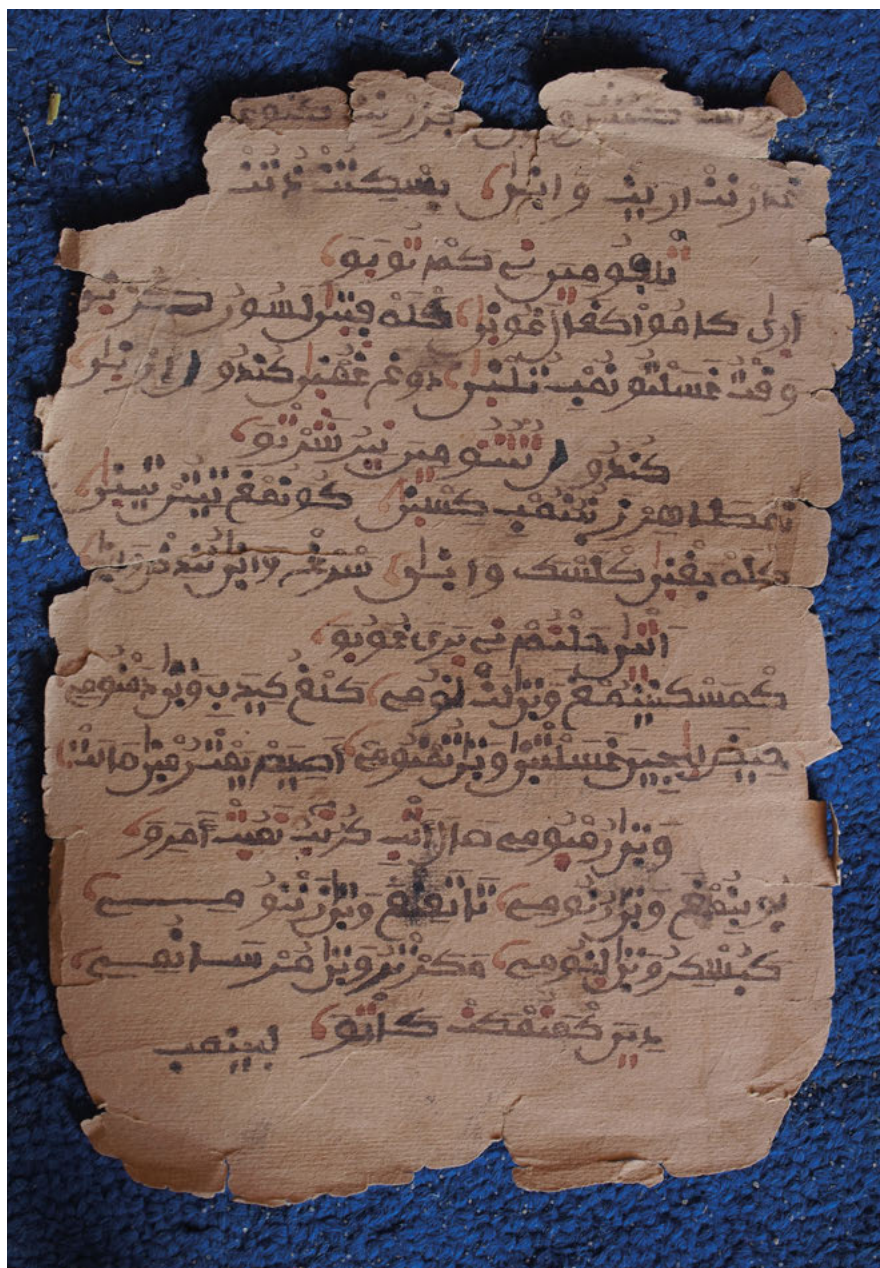
<sup>1</sup> According to Lamin Sanneh, the family name (*jamu*) of ‘Abd al-Rahmān Zaiti or Zagaiti, the head of the Wangarawa who came to Kano, should be read as Jakhite. Sanneh saw the Wangarawa as a Manding-speaking community of the Jakhanke (Sanneh 1989, 32–35).

Interestingly, most of the surviving manuscripts recognised as originating in the Kanuri and Hausa cultures coincide with the earliest attestations of writing in these languages. Therefore, the material side of Kanuri and Hausa manuscript cultures is validated both on linguistic grounds and by the evidence of codicological and palaeographic features. Thus (if we disregard the question of the application of a literary language to wider cultural and regional domains), when we see Hausa or Kanuri in manuscripts, it is typically the most solid evidence for the existence of these manuscript cultures, whereas script style is much less indicative as a feature of attribution, and layout even less. This is still more relevant for Hausa, because extant Hausa manuscripts come from a vast array of cultural and sociolinguistic contexts ranging from the 19<sup>th</sup>-century Caribbean and Brazil to West and North Africa.

### 3 Kanuri literacy in Arabic script

There are several sociolinguistic dimensions to the study of Kanuri texts in Arabic script, or Kanuri Ajami. The earliest written evidence of literacy in the area northwest of Lake Chad comes from annotated Qur'an manuscripts dating to the 17<sup>th</sup> century and produced in the Borno Sultanate, what is today northeast Nigeria and southeast Niger. The annotations were written in a distinct linguistic variety called Old Kanembu or Tarjumo, closely related to modern-day Kanuri (Bondarev 2013a, b, 2014a, b). Kanembu, as part of the term Old Kanembu, refers to a prominent dialect cluster of Kanuri spoken around northern, northeastern and eastern areas of Lake Chad. This was the region of the Kanem Sultanate, or Kanem – an influential Islamic polity established around the 12<sup>th</sup> century. Kanem is considered to be a political and religious predecessor to the Borno Sultanate and the annotated Qur'anic manuscripts are the earliest surviving witnesses to literacy practices in the domain of Islamic education spread between the region of Kanem and Borno. The linguistic variety used in the annotations of the Borno Qur'ans took on the wider role of a specialised language used exclusively for the purpose of translating Arabic texts at various intermediate and higher stages of Islamic education. This tradition still survives in northeast Nigeria, albeit diminishing under the pressure of a growing influence of non-Kanuri speakers and of reformist-oriented religious leaders.

There is some inconclusive evidence that Old Kanembu had developed into a classical language used for composition and unrelated to the translation function. Thus, a five-line verse poem (visually resembling a classical *takhmis* style) in a variety of Kanembu found by Bondarev in Mao, Chad, in 2011 (Fig. 1) shows features which are typical of Old Kanembu in the Borno Qur'ans. However, there



**Fig. 1:** Poem in Kanembu on religious and secular duties. Mao, Chad, Mala Abbakar Abdala's collection. Courtesy of SOAS University of London, SOAS Digital Collections, Borno and Old Kanembu Islamic Manuscripts, *qasida* in Kanembu in *wu'āz* genre.

are many features in the language of the poem which set this variety apart from both Old Kanembu and Kanembu dialects, giving the impression of a pan-dialect idiom that could only have been used for literary compositions.

Another dimension of literacy in Kanuri Ajami has to do with writing in the western (non-Kanembu) varieties of Kanuri dialects. The earliest evidence for writing in the western dialects of Kanuri dates to the beginning of the 20<sup>th</sup> century and it comes from historical records, mostly dealing with the lists of the Kanem and Borno rulers and a summary of their deeds. This genealogical and historical genre known in Kanuri as *gargam/girgam* might have existed in written form as early as the 1790s (Bondarev 2014a, 120–121). All known copies of *gargams* originate from the area of Borno, situated west of Lake Chad, and account for the use of (western) Kanuri dialects. To date, no written *gargams* from the east of the historical Kanem-Borno (in what is now Kanem province in the Republic of Chad) have come to light, and it is impossible to say whether the same *gargam* genre was written in a variety of Kanembu.

A distinct corpus of writing in Kanuri consists of Ajami manuscripts commissioned by pre-colonial European explorers and colonial administrators. In terms of their relevance to the study of spelling conventions in Kanuri and Kanembu manuscripts, the most interesting are those Ajami texts written by those Kanuri speakers schooled in the traditional system of literacy based on Arabic and Islamic learning. This type of Ajami is represented in the short folktales published in 1911 by Philip Askell Benton, a colonial officer (formally called Assistant Resident) who collected the texts some time at the beginning of the 20<sup>th</sup> century (Benton 1911; treated in Bondarev 2014b, 132, 139–140). Ajami writings commissioned by Europeans and transcribed by scribes who did not belong to the Kanuri-speaking cultural area are of lesser relevance to the present study because these scribes had their own spelling conventions which were idiosyncratic or influenced by other cultural areas. The earliest such examples are Kanuri texts and word lists collected by James Richardson, an English traveller, during his expeditions to sub-Saharan Africa between 1848 and 1851 (Bondarev 2007, 67–68). Specimens of Kanuri Ajami written outside the Kanuri and Kanembu speaking cultural areas were also published by the German scholar Rudolf Prietze (1914, 1930).

In more recent times, Kanuri writing in Arabic script has remained visible in two distinct genres: translations of Arabic texts, and religious didactic poems. Translations are written in a variety of Old Kanembu, a continuation of the practices found in the commentaries of the ancient Borno Qur'anic manuscripts. The Islamic didactic poems are written in a literary variety of Kanuri, possibly similar to the registers used in the *gargams* and folktales. The texts of both genres are circulated in printed market editions – cheap facsimile reproductions of hand-written originals.

### 3.1 Kanuri orthographic conventions

Tendencies in the orthographic conventions of the Old Kanembu Ajami writing used in the Borno Qur'ans have been described in Bondarev 2006, 2007, 2014b. The present section gives a short summary of previous findings in the study of the orthography of Old Kanembu: consonantal graphemes and a quite detailed analysis of the development of vowel encoding, followed by a presentation of general graphemic features that withstood the test of time and regional differences.

The scribes who wrote in earlier varieties of Kanuri and Kanembu were conservative users of the Arabic script adapted for the languages of West Africa. Unlike many other Ajami graphic systems which gradually developed special signs for their non-Arabic phonology (see a comprehensive list in Mumin and Versteegh 2014, 1–22), Ajami writing in Kanuri and Kanembu remained graphemically minimalistic even in the more recent manuscripts and facsimile editions. Thus, there have been no graphemic innovations throughout the whole history of Kanuri and Kanembu Ajami writing outlined in the previous section.<sup>2</sup>

### 3.2 Consonants in Kanuri Ajami

One possible reason for graphemic conservatism is veneration of the Arabic script as the written emanation of God's word – a factor difficult to prove for earlier manuscripts (due to the absence of written testimonies left by the Borno scribes) but impossible to rule out in a Muslim society. The question of veneration aside, the lack of graphemic innovations might plausibly be accounted for by the phonological system of Kanuri, especially in the domain of consonants. In the different analyses, and depending on the Kanuri dialect, the number of consonants ranges from 19 (Cyffer 1998, 19) to 21 (Hutchison 1981, 17) to 25 (Lukas 1937), and 24 in Mowar (Bulakarima 2001, 42). In Kanembu dialects, Jouannet (1982) postulates from 20 to 26 consonants for Ngaldoukou Kanembu and Lukas (1931) 26

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<sup>2</sup> There may be slight evidence to the contrary. In 1885, Jean Marie Le Roux met a Kanuri-speaker (from Kukawa) in Algeria who wrote several pages at his request. According to Le Roux, 'He wrote from top to bottom. His writing bears a lot of resemblance to Arabic writing; but it should be noted that it employs a greater number of letters than does the Arabic alphabet'. (Le Roux, 1886, x, fn1) (Ce nègre écrivit, en ma présence, quelques pages que j'ai conservés. Il écrivait de haut en bas. Son écriture a beaucoup de ressemblance avec l'écriture arabe ; mais il est à remarquer qu'il emploie un plus grand nombre de lettres que ne comporte l'alphabet arabe.) It is however possible that the French author was just confused by the peculiarities of the Central Sudanic writing style.



consonants for Kaidi Kanembu. For Old Kanembu – the earliest written variety of Kanuri and Kanembu – 23 consonants have been reconstructed (Bondarev 2014b). Compared to these numbers, Arabic has 28 consonants represented in writing by 28 graphemes. Of the lesser numbers of Kanuri / Kanembu consonants, only two are potentially problematic for choosing an appropriate Arabic letter. One is a bilabial plosive /p/ (occurring only in syllable final position) and the other is a voiceless alveolar affricate /tʃ/ (or in earlier text /ts/). The consonant /b/ is written either as <b> or <f> and the consonant /tʃ/ as <ṭ>.

Other choices of Arabic consonantal letters are based on almost straightforward correspondences between the remaining Kanuri consonants and hom-organically similar Arabic consonants. The fact that Kanuri has four prenasalised stops *mb*, *nd*, *ndʒ* (\**ndz* in Old Kanembu) and *ŋg* (analysed differently as monosegmental or bisegmental) which are absent in Arabic does not complicate orthographic choices, because these consonants can be written with the existing Arabic letters either as monographemic non-sonorant consonants or as digraphs. Monographemic encoding of prenasalised stops is the most typical convention so that *mb*, for example, is written as <b>. Digraphic orthography is usually applied for nasal-plosive sequences when they occur at syllable boundaries (Bondarev 2014b, 128–32). Such sequences are perfectly normal in Arabic and writing them in Old Kanembu or Kanuri does not require any graphemic innovation. Thus, the sequence /n-d/ is written as <nd> both in Old Kanembu/Kanuri and Arabic, for example, *andī* ‘we’ and *inda* ‘at’ respectively.

Given that the choices of appropriate consonant letters were not complicated by any implosive or glottalised consonants (nonexistent in Kanuri, unlike Hausa) and given that the number of Arabic graphemes is higher than the number of consonants in Kanuri or Kanembu, there was no apparent need for Kanuri and Kanembu scribes to invent new graphemes.

The consonant letters which stand for the Arabic phonemes absent in Old Kanembu were not redundant, rather they were utilised in two different ways. One was the retention of Arabic spelling for Arabic loanwords, and the other was free spelling variation. These nine letters are *ṣād*, *qād*, *ṭāʾ*, *ẓāʾ*, *ʿain*, *qāf*, *xāʾ*, *ḍāʾ*, and *ṣīn*.

Retention of Arabic spelling in Old Kanembu writing is illustrated here by the letter *qād*. One of the most frequent words in Old Kanembu is <larḍ> /lārdə/ from Arabic *al-ʿarḍ* ‘earth’. This is typically written above or in close proximity to the Arabic source word. Another example is the verb <ḍaro> ‘to harm’ from Arabic *ḍarra*. Similar to <larḍ>, <ḍaro> occurs in visual proximity to the Arabic *ḍarra*. However, it is also often written above the Arabic *ḍalama* ‘to do wrong; to harm’. This means that the spelling of Old Kanembu <ḍaro> was not simply dependent on visual correspondence with the Arabic graphemic source word but rather was

an abstract orthographic rule which could be reconstructed as prescribing that ‘Arabic loanwords be written with the relevant Arabic consonants’ (an etymological spelling comparable to the orthography of the English loanwords *cliché*, *haute*, *kitsch*, or *oeuvre*).

These same nine letters are sporadically used in free variation with the letters encoding homorganic phonemes or phonemes which have a similar manner of articulation. For example, in Old Kanembu writing, *šin* ~ *ṭā* ~ *sīn* are used for /s/, *ṣā* ~ *dāl* ~ *zāl* for /z/ and *qāf* ~ *kāf* for /k/.

In the earlier Old Kanembu manuscripts these spelling variants are much less common than in the later ones. The Borno Qur’an manuscript MS.1YM (most probably written before the end of the 18<sup>th</sup> century) is a good example, showing more frequent variation than the Borno Qur’ans of the 17<sup>th</sup>-century.

One of these nine letters, *šin*, becomes more stable in the manuscripts of the 19<sup>th</sup> and 20<sup>th</sup> centuries, in the sense that it is not used as a variant of *sīn* to encode the phoneme /s/ but is only used to represent /š/. The emergence of *šin* as a letter in its own right was most probably conditioned by emergence of palatal consonants in Kanuri (e.g. \**sin* > *šin* ‘eye’, see Bondarev 2014b).


Approximately around the same post-18<sup>th</sup>-century period, the letter *ḏā* – hitherto a rare variant of *zāl* for /z/ – became much more prominent in the Old Kanembu of the Qur’an manuscripts, in the Kanuri of the kings’ lists (*gargam*), in Kanuri writings commissioned by colonial officers and scholars, and in the Tarjumo and Kanuri didactic poems of the late 19<sup>th</sup> century. It is still unclear what conditioned this increase in frequency.


### 3.3 Vowels in Kanuri Ajami

As is typical for other sub-Saharan Ajami traditions, the vowels in most Kanuri and (Old) Kanembu texts are written with the vocalic diacritics borrowed from Arabic vocalised writing. Some rare examples of writing vowels in *plene* – by means of the three Arabic letters used for long vowels – have been found in an Old Kanembu manuscript in Leeds University Library (MS 357, Bondarev 2007, 69). At present, we do not know whether this spelling convention existed alongside the more typical diacritic-based spelling of vowels or whether it was a one-off innovation.


The number of vowel phonemes in Kanuri and Kanembu ranges from 6 to 11 depending on dialect and/or analysis: 6 vowels in Mowar Kanuri (Bulakarima 2001); 7 vowels in Yerwa Kanuri (Hutchison 1981, Cyffer 1998); 11 in Ngaldoukou Kanembu (Jouannet 1982). The number of vowels in Old Kanembu cannot be established conclusively, but there were at least six (i, e, ə, a, o, u). Other possible numbers of vowels may have been seven, nine or eleven. Given that the six pho-

nemes are clearly distinguishable in Kanuri and (most of the) Kanembu Ajami texts, we will only be dealing here with orthographic conventions used in writing these vowels. Of the six, the most ambiguous are /o/ and /u/ since they are underspecified, being represented by the same diacritic sign *ḍamma*, used in Arabic for the short vowel /u/. However, even in the earliest extant manuscripts, the /o/ in word final position was often differentiated from /u/.

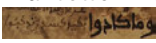
The most typical graphemic solution for encoding /o/ in final position was a combination of the *ḍamma* with the letter *wāw* followed by the letter *alif* surmounted by a *sukūn* sign. The earliest spelling of this type occurs in the Qur'an manuscript MS.3ImI in the annotations written before 1669. For example, in *kasikō* 'it will be' (fol. 13r; Q.2:137). 

Another manuscript of a similar age (written before 1689) has the same orthography for final /o/. One can see a *sukūn* above *alif* in *tatarṭō* 'he will enter' (Q.84:12; MS.Arabe 402, fol. 250r). 

The same spelling is found in the Qur'anic manuscript MS.2ShK (e.g. Q.2:19, and is very consistent throughout the manuscript) and in three other early manuscripts such as MS.4MM, MS.Konduga, and MS.Kaduna.AR.33-1. The historical *gargam* texts written in Kanuri show the same *ḍamma-waw-alif-sukun* encoding of final /o/ (MS.H 279–282, Bondarev 2014a).

Nevertheless, variations in spelling do occur in most of the manuscripts. One common spelling is marking /o/ with the same combination of letters and diacritics but without a *sukūn* above *alif* as in MS.Arabe 402 *sasikō* 'they will be (in hell)' Q.82:14, fol. 249r. 

A less frequent variant of the previous spelling of final /o/ is using only *ḍamma* and *wāw*. Although potentially ambiguous with /u/, it is very consistent in MS.Kano.Tahir.

The combination '*sukūn* above *alif*' is undoubtedly modelled on an orthographic rule in the Qur'an manuscripts, namely, marking the *alif* as a silent letter in the ending of the perfect forms of the verbs in the 3<sup>rd</sup> person plural, e.g. *qālū* 'they said'. The frequency of this form in the Qur'an is very high and many Old Kanembu glosses are written next to such verb forms, creating an orthographic harmony between the spelling of the Qur'an and that of the commentary in Old Kanembu. For example, in the dated Qur'an MS.3ImI, the Qur'anic phrase Q.2:71 *wa mā kādū yaf'alūn* 'they almost did not do it' or 'they were on the point of not doing it', where the underlined verb *kādū* is written with the final *alif* surmounted by a *sukūn*, is translated into Old Kanembu *bukiyā kisadiro tadikibū*, with the final vowel in the last word written exactly as in the Qur'anic *kādū* (fol. 8r; Q.2:71).<sup>3</sup> 

3 It is unclear whether *kisadiro* is written with *ḍamma* above *rā'* or with a *sukūn*.

This particular case can be ambiguous because the negative suffix *bo* might have been pronounced [bu:] as in Tarjumo, but other instances of such spelling clearly correspond to final /o/ as in the examples above.





A peculiar type of marking /o/ in final position is found in MS.Konduga, where the letter *hā* is vocalised by a *ḍamma* (e.g. fol. 18r; Q.2:199) <walsikin-ruhu> corresponding to what can be reconstructed as \**walsikinrō* ‘from where they emerged’, the final *-ro* possibly being an adverbial marker).


Some lexical items with final /o/ (such as in *agō* ‘thing’) were written with reduced notation (using only *ḍamma* + *wāw*) and are found as early as the 17<sup>th</sup> century in MS.3ImI. The spelling of this word has been consistent throughout the history of Ajami in Old Kanembu and Kanuri, starting from the Borno Qur’ans of the 17<sup>th</sup> and 18<sup>th</sup> centuries to the early 20<sup>th</sup> century (as seen in Benton 1911, VII). However, some items with final /o/, for example the indirect marker *-ro*, were written in an underspecified manner, that is by using only *ḍamma* – the sign for either /o/ or /u/. What is remarkable is that, in all known manuscripts, *-ro* was never written differently, which shows that the underspecified spelling of *-ro* was highly conventionalised across time and manuscripts.

In general, the final vowels in graphic words (not necessarily matching the lexical units) had the highest tendency for standardisation, on condition that these words occur frequently. One such item is the 3<sup>rd</sup> person singular suffix *-i* in perfective verb forms which tends to be written with the letter *yā* (*guljī* ‘he said’). Another item is the adverb *afī* (reconstructed as *abī*, modern form *awī*) ‘what’ having already been standardised in the 17<sup>th</sup>-century manuscripts (Q.82:18, Arabe 402, fol. 249r).

It is interesting that, starting from the earliest manuscripts, most of the orthographic conventions were already in place. Indeed, the spelling principles of many frequent items did not change over time, including *agō* ‘thing’, *afī* ‘what’ / ‘which’, *sikī* ‘there is’ (e.g., MS.3ImI Q.3:78; MS.2ShK Q.2:157), demonstratives *tī* ‘that’ and *nī* ‘those’, independent pronouns *hū* ‘I’, *nī* ‘you’, *tī* ‘he/she’, *handī* ‘we’, *nadī* ‘you (pl.)’ and *tandī* ‘they’.

One significant exception to the spelling of the final /i/ in the pronouns is MS.3ImI, where this segment is written in four different ways. The first (and infrequent) spelling uses a single vocalic sign *kasra* (e.g. *tandī* ‘they’) and the three other spelling combinations are based on the letter *hā*’; these *hā*’-based spellings are as follows: (1) *kasra* followed by the letters *yā*’ and *hā*’ (*tandīh*); (2) *kasra* followed by *yā*’ and the letter *hā*’ vocalised by *kasra* (*nandīhi*); (3) *kasra* followed by *hā*’ and *kasra* (*tandīhi* ‘they’, *nandīhi* ‘you pl.’).

1.  *tandih* (Q.3:20–21)
2.  *nandihi* (Q.3:28)
3.  *nandihi* (Q.2:233)  *tandihi* (Q.3:91)

The word final *hā'* deserves special attention because of its several usages in Old Kanembu and Kanuri writings. Beside the above examples where the use of *hā'* could have been motivated by phonological features such as high tone or length of the vowel, the same (earliest) manuscript MS.3ImI has the letter *hā'* for demarcating the terminus of the graphic (and possibly also prosodic) unit *isnuyi-ka* 'to the deceased' written as <isnuyikah>:  *isnuyika* (deceased.DO) '(Allah will bring life) to the deceased ones' Q2:73.

This 'otiose' use of the letter *hā'* is less common in some manuscripts and more common in others. Some pages of MS.2ShK give the impression that there was a strong tendency for *hā'* to become a standard convention for marking the final demarcation of lexical and phrasal units. The idea that something was going on in the scribes' minds about the usage of this letter in final position can be inferred from the variant spellings of the final graphemic segments. Firstly, *hā'* is most frequently marked with a *sukūn* (a zero-vowel sign), but sometimes it is left unmarked as in later manuscripts. Secondly, the items which do not have *hā'* at the end are all function words, grammatical markers and pronouns, such as the direct object clitic *ka*, indirect/adverbialiser clitic *ro*, ablative postposition *kan*, definitive determiners *tī* <tī> 'this' and *anī* <anī> 'those'. The only grammatical items written with the final *hā'* (rarely with a *sukūn* above) are the subject marker *-yi* <yih> and the genitive *-bi* <bih>. Thus, the tendency in the manuscript MS.2ShK is as follows: the final *hā'* is used in content words. Exceptions are the content words with final /o/ which are written in "full" orthography (*ḍamma-wāw-alif-sukūn*).<sup>4</sup>

Two grammatical elements – the subject marker *yi* and genitive marker *bi* – are written with *hā'* at the end. No other function word ends with the letter *hā'*. One representative example of this spelling convention in MS.2ShK is the recto of folio 13 corresponding to Q.2:120–125.

<sup>4</sup> The use of final *hā'* with or without *sukūn* may be influenced by the various ways of writing wordfinal /-a/ in Arabic. The same explanation may apply to such uses of *hā'* in Hausa manuscripts from the 19<sup>th</sup> century up to the present (see below).

This (leaning towards an) orthographic rule of writing the letter *hā'* in MS.2ShK does not feature in other manuscripts. For example, in the Borno Qur'an manuscript from Konduga (MS.Konduga), *hā'* is used for tagging the end of a content word, except for the content words with final back vowels *u* and *o*. But *hā'* is also used to signal the end of most of the grammatical and functional items, including the subject marker *-yi* <yih> and the genitive *-bi* <bih>, but excluding the partitive clitic *kami* 'from within'.

In the genealogical *gargam* manuscripts of the late 19<sup>th</sup> century, *hā'* is not used at all, with the exception of MS.H 282, where the diphthong *ai* in the word *mai* 'ruler' is written with a final *hā'* <mayh> (the same encoding of the diphthong in the word *mai* is also attested in the earlier Qur'an manuscript MS.1YM).

In more recent manuscripts of the *qasida* genre there seems to be a tendency to write the final *hā'* when there is phonetic (non-phonological) aspiration after *a* and *o* at the end of each hemistich. This is shown in the following line of a didactic poem on the fundamentals of Islam.

<Allah meji din-ro no'ataḥ                      gabtuma ṭamun numbuḍnaḥ>

*Alla méjī dīnro noáta,                      ngabtéma sámun nambuzána*

'The eternal existence of God is known, (it is) like (something) remaining endlessly'

(al-Barnawi 1997, 2)

The hemistich final *e*, *a* and *u* that have prosodic lengthening (i.e. phonetically long vowels) motivated by poetic intonation, and also final *i*, are typically not marked by the letter *hā'*.

Writings in Kanuri, Kanembu and Old Kanembu belong to what we call the 'imāla type' of Ajami; this is manifested in a specific representation of /e/. *Imāla* is a dot below the letter indicating a fronted /a/ pronounced closer to [e] in the Qur'anic Arabic of the Warsh variety, i.e. the variety used in the Qur'anic reading tradition transmitted by 'Uṭmān ibn Sa'īd al-Quṭbī.

In the Old Kanembu of MS.2ShK, *imāla* indicates a vowel /e/ (e.g. Q.2:137). The combination *imāla* + *alif* in the form of *yā'* (*alif maqṣūra*) + a short *alif* above may have been used for either prosodic long [ē] or a high tone /é/ (Q.2:140). Given the temporal proximity of this manuscript to the dated (1669) MS.3ImI (Bivar 1960, Bondarev 2014a), this is probably the earliest attestation of the use of *imāla* for this purpose. However, in many other cases what corresponds to /e/ in the later manuscripts (e.g. MS.1YM) or in modern Kanuri, Kanembu and Tarjumo is written using *kasra*, which is the default grapheme for /i/. For example, the agentive marker *ye* and genitive *be* are always written as <yī> and <bi>.

In contrast, the scribe of the dated MS.3ImI writes *kasra* for what corresponds to *imāla* in MS.2ShK or to /e/ in all known modern varieties. Nor does the 17<sup>th</sup> century manuscript (MS.Arabe 402) have *imāla*. This is interesting because fronted /a/ in the Qur'anic Arabic transmitted in the Warsh version is written with *imāla* and it is unclear why the scribes of these two early manuscripts did not copy the diacritic sign for a similar sound in Old Kanembu (as many other scribes did). It would be tempting to assume that, historically, there was no /e/ in Old Kanembu and thus it was absent in the language that served as the source for this learned variety. This is however hardly plausible. Firstly, all known Saharan languages to which Old Kanembu belongs have /e/. Secondly, the scribes of the manuscripts contemporary with these two do use *imāla* for the same lexical and grammatical items.

Out of the six vowels that can be reconstructed for Old Kanembu, the mid-central schwa /ə/ has the most unambiguous orthography. It is typically written with *sukūn* (zero vowel). This is found in all later manuscripts and types of Kanuri Ajami.

### 3.4 General tendencies in Kanuri orthography

As can be seen in the examples described above, orthographic conventions tend to stabilise in one single manuscript and differ from manuscript to manuscript (see also Bondarev 2014a, 145–6, 2014b, 113). One possible factor for the internal regulation (or levelling) of a manuscript's orthography is the shared space in terms of both writing support and the physical location of the manuscript within the same group of scribes. As suggested previously:

In the past, the manuscripts served a surrogate role of public platforms in the competition of the auditory-vocal and written forms, i.e. when paper was more expensive the written form was visually shared by more people – teachers and students – and so conventions in spelling were due to a collective writing space. (Bondarev and Tijani 2013, 133)

However, there are a number of orthographic conventions which remain the same across manuscripts, irrespective of the time and place of their production. For Kanuri, six such stable tendencies may be identified.

1. Underrepresentation of the nasal segment in prenasalised stops, such as *mb*, *nd*, *ndʒ* (\**ndz* in Old Kanembu) and *ng* written as <b>, <d>, <j> and <g> respectively.
2. Retention of Arabic spelling for Arabic loanwords.
3. The letter *kāf* used for *k* and the letter *ghain* for *g* (as in Hausa Ajami discussed in Section 4 below).
4. Writing schwa ə with a *sukūn* sign.

5. Tendency to distinguish between *o* and *u* at the end of graphic words or graphic phrases (not necessarily matching lexical or phrasal units).
6. Orthographic uniformity of higher frequency lexical and grammatical items.

Some of the conventions listed above are more widespread and found in several writing traditions (for example, underrepresentation of the nasal segment in prenasalised stops), while others are more region-specific and only shared within a literacy contact area (like the letter *kāf* for *k* and *ghain* for *g*, or the Arabic “weak” letters used for suprasegmental features such as the combination of stress and tone); yet other conventions are language-specific (like schwa written with the *sukūn* in Kanuri and Old Kanembu).

Some high frequency items in Old Kanembu could also have been encoded in a more standardised way due to their prosodic prominence at the end of an intonational phrase, as is evidenced in modern day practices of commenting the Qur’an in Tarjumo. Many phrase-final and sentence-final items (e.g. [tʃiɡi:] ‘there is’, [gɛn:] ‘in’) have such a prominent pitch and length in Tarjumo recitations that the whole practice of commenting the Qur’an is sometimes referred to by laymen as ‘*cigi* and *gen* recitation’.

One factor accounting for the orthographic uniformity of many lexical and grammatical items in the Kanuri Ajami writings of the later period (e.g. the *gargams* and texts commissioned by Europeans) might have been the scholarly background shared by the scribes:

the gargams [the late nineteenth century] are written in a careful, sometimes calligraphic hand comparable to [...] the Borno Qur’anic manuscripts [...] The [...] conventions in Benton’s texts [1910s] [...] together with the confident calligraphic hands [...] betray their authors’ affiliation with the ‘ulamā’ circles and suggest that they were used to write commentaries in a more codified Old Kanembu (Bondarev 2014b, 139–40).

## 4 Hausa literacy in Arabic script

The development of Hausa literacy in Arabic script, or the Ajami tradition, was, until the 20<sup>th</sup> century, both successful and marginalised. The marginal character of Hausa Ajami was primarily motivated by the position of Hausa as a secondary written language (after Arabic). Marginalisation of written Hausa was both conceptual and literal, as we find many Hausa glosses on the margins of texts written in Arabic. Such glosses are rarely taken into consideration in the descriptions of the manuscripts.

It is thus not surprising that many scholars, starting with such authorities as Mervyn Hiskett, largely ignored the Hausa glosses when describing West African



Ajami writings. This is in strong contrast to the approach dominating Irish or Slavonic studies. In the latter, the early cases of ‘native’ marginal usage have been extensively studied and generally interpreted as the beginning of the respective local literacies.

Very little is known about Hausa or related Chadic languages before the 18<sup>th</sup> century, so one has to rely on linguistic reconstructions. In the 16<sup>th</sup> century, Leo Africanus stressed the role of the so-called Gobir language in the region between the Niger and Lake Chad, that is, between the Songhay Empire and Borno. Gobir was one of the Hausa states, and it is generally assumed, with some degree of certainty, that the Gobir language was an early form of Hausa. Later on, the Hausa people and language were mentioned as Afnu, apparently a Kanuri word (Afunó).<sup>5</sup>

Before the early 19<sup>th</sup> century, Hausa as a written language was in no comparable to Soninke, Fula or Berber (in any script). In Western Sudanic Africa, the spread of Ajami in scholarly varieties of Soninke, Fula and Wolof might have been influenced by the peculiarities of historical development, especially in the coastal regions where Islamisation encountered an ever growing European presence (with written contracts, treaties, etc.).<sup>6</sup> In Central Sudanic Africa, Old Kanembu (Tarjumo) was commonly used in Qur’anic glosses at that time. The written rendering of words and sentences in Old Kanembu was already a norm rather than an exception. In all such cases, a certain tendency towards standardisation was attested.

Not the slightest evidence of written Hausa can be found for that period. There are a few words (personal and place-names) in Arabic texts, but this in no way compares to the written tradition of the Middle Niger region. Later, there are a few references to the Hausa literature produced in Katsina as early as the 17<sup>th</sup> century by Wali ḍan Masani (‘Umar b. Muḥammad b. ‘Abd Allāh b. Nūh al-Barnāwī al-Kashnāwī, or Dan Masani(h), b. c.1003/1594–5, d. 2 Rajab 1078/18 December 1667).<sup>7</sup> Hausa sources mention only one by Wali ḍan Masani by Yahaya (1988, 38) and this particular work is interesting, in as much as it was recited from memory by a member of Wali ḍan Masani’s extended family three centuries after his death, and not from a manuscript. This means that the Katsina scholar could indeed have authored the text, but there is no proof as of yet that the work was ever written down.

5 Tomasz Habraszewski (1967, 63), in his study of a 17<sup>th</sup>-century vocabulary of Kanuri collected by Evliya Celebi, a Turkish traveler, suggested that one word, *gurasa* ‘bread’ written as *kurasa*, might be Hausa: ‘This is a Hausa word, not known to a Kanuri dictionary’. The word in question was a borrowing from Arabic, and is also used in the Sudanese and Chadian/Shuwa Arabic dialects with the same meaning, so it was not necessarily Hausa.

6 Tal Tamari, personal communication. Also see, e.g., Brooks and Mouser 1987.

7 On Dan Masani and his works see John O. Hunwick et al. 1995, 29–20.

It is quite possible that this poem and some other Hausa texts had been transmitted orally since the 17<sup>th</sup> centuries, but the dates for written Hausa (Dan Masani's lifetime, born c.1003/1594–5, died in 1078/1667 according to Hunwick et al. 1995, 29) suggested by Yahaya (1988, 31–42) have proved incorrect. The manuscripts referred to by Yahaya are much more recent, although we cannot exclude the possibility that some texts might have been copied from earlier works.

Yahaya's view of Hausa as a written language before the early 19<sup>th</sup>-century jihad and the creation of the Sokoto Caliphate is similar to that of Gottlob Adolf Krause, a German scholar and pioneer of Ajami studies in the 19<sup>th</sup> century.<sup>8</sup>

The first dated example of Hausa Ajami (in a multilingual text) was written in the Caribbean diaspora in 1817, although there are a few non-dated poems in Hausa which have been cited as examples of writing before the 19<sup>th</sup> century. The list of such poems is extremely short, and we do not know if any of these had been transmitted in written form prior to the foundation of the Sokoto Caliphate. In one such poem, known as 'Billahi arumu' and attributed to Muhammadu na Birnin Gwari, Hausa is referred to as *Baubauci*, literally, 'pagan language'. The unknown author also tried to explain why he dared to use this language instead of Arabic, and this type of explanation – even 'defense' – is often found in non-Arabic writings, both in Sudanic Africa and elsewhere in the Islamic world. Such a work, if dated, would mark an important step in the growth of Hausa Ajami, from simple glosses to an authored literary production. However, there is a significant discrepancy in the dates given for Muhammadu na Birnin Gwari's life. According to Hunwick et al. (1995, 233) he flourished in 1850. Yahaya refers to a much earlier date, giving 1178/1758 as the date of his birth.<sup>9</sup>

Turning to the standards of Hausa as a written language since the early 19<sup>th</sup> century, we can deduce a few general rules. First, until the end of the pre-colonial period there was no uniform tradition of Hausa literacy. Geographically speaking (as mentioned in Section 2), there were two poles of attraction. One variety of Hausa Ajami may be described as Western or Sokoto-centred and close to the written traditions of the Central Niger region. Another variety (mainly in Kano) looks like an offshoot of the venerable centuries-old tradition of Borno (Kanuri) Ajami. Both were reflected not just in their specific conventions of transcription, but also in their respective styles of handwriting. Even today, when buying an Ajami book in Northern Nigeria, one can easily refer to the style used in Kano as opposed to that of the printed Middle Eastern publications in Arabic and, interestingly, that of Zaria Ajami (Sokoto is now only a minor centre of Ajami publishing).

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<sup>8</sup> Krause 1884, 29, see footnote 10 below.

<sup>9</sup> Yahaya 1988, 45.

The east-west division in Hausa Ajami standards is not surprising, given the role of “Western” Songhay-speaking and “Eastern” Kanuri-speaking Islamic scholars and schools in the development of learning in the Hausa states. Looking to the Western tradition, Gottlob Adolf Krause wrote:

Prior to the Ful (Fulbe) the Hausa possessed a script, also Arabic – with some slight variations, and, if my inquiries are confirmed, the Songhai had written their native language before the Hausa.<sup>10</sup>

This hypothesis has only partially been confirmed, as there are many Songhay words in the historical chronicles written in Arabic, such as *Ta'riḫ al-Sūdān*. The practice of advanced studies in the “East”, that is, in Borno and adjacent Hausa cities such as Hadejia, continued well into the 20<sup>th</sup> century. At the same time, scholars coming from the “French” territory (mainly from Niger and often speaking the Songhay Zarma languages) continued to resettle in Nigeria, establishing their schools and bringing with them the ‘western’ style of writing and transcription of non-Arabic texts. On the other hand, many Songhay-Zarma speakers came to the centres of Islamic learning in Nigeria to study, so the migration was not unidirectional.<sup>11</sup>

#### 4.1 Hausa orthographic traits and conventions

Except for a very small number of publications, the marginal usage of Hausa in glosses remains largely unexplored in Ajami studies. In the present paper, we are looking at the glosses found in the Arabic manuscripts produced in the 19<sup>th</sup> century. The results of our research may be summarised as follows:

1. Vocalisation typical for the Central Sudanic cultural area, i.e. a specific vowel-sign for the /e/ vowel;
2. the ‘emphatic’ Arabic letters are either obsolete or used as symbols for those Hausa consonants which do not exist in Arabic;
3. in a few cases, there is a tendency toward new symbol-creation. However, with the exception of the letter *ṭā'* with three dots, none of these attempts can be seen as really successful;

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<sup>10</sup> ‘Vor den Fulen besaßen die Haussaner eine Schrift, ebenfalls die arabische mit einigen geringen Abweichungen, und wenn meine Erkundigungen sich bestätigen sollten, so hätten vor den Haussanern die Songhai ihre Muttersprache geschrieben’. (Krause 1884, 29).

<sup>11</sup> On the Zarma in Nigeria see e.g. Dobronravina 2000, 91–101; Gulbi and Bunza 2014.

4. the difference between the Western and Eastern conventions is diminishing over time, so that the only survival of it now is the difference in the styles of writing, but not in the transcription of Hausa phonemes;
5. Some conventions, or graphic strategies, do exist, but they are fluid, being more an approximation to a standard rather than a rigid set of norms. This is especially true in the case of length and tone representation, as well as that of labialised and palatalised Hausa consonants.

Each of these tendencies may now be explored in more detail.

## 4.2 Vowels in Hausa Ajami

In this section, we follow Philip Jaggar's analysis of the Standard Hausa vowel inventory. According to Jaggar,

Hausa has a 10 vowel system, comprising five basic vowels /i, e, a, o, u/ with phonemic vowel length, in addition to two diphthongs /ai/ and /au/ [...] In medial position in native words, only long /ē/ and /ō/ occur. If the syllable becomes closed by a coda as a result of a morphophonological rule, /ē/ and /ō/ automatically shorten to /e/ and /o/ and merge with centralized /a/ (only short vowels occur in closed CVC syllables).<sup>12</sup>

In the Hausa dialects, the picture is different. Ahmadu Bello Zaria wrote:

It seems to us quite difficult, if not impossible, to provide a 'comprehensive' study of vowel differentiation across the numerous Hausa dialects examined. This is because vowel oppositions may be quite unstable from dialect to dialect, from speaker to speaker and from utterance to utterance within the same idiolect.<sup>13</sup>

As for more specific variations, according to Zaria, 'final /ee/ in the standard dialect corresponds to /ii/ in the areas around Zaria and Bauchi. This kind of correspondence generally happens after a nasal' (Zaria 1982, 52). Thus, it is not surprising that in many Hausa manuscripts the same word may occur with either /i/ or /e/.

Writings in Sudanic African languages have a strong tendency to retain the vowel-signs. This may be explained by the syllable structure of African languages in the region. Nonvocalised texts are sometimes almost undecipherable; a Hausa

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<sup>12</sup> Jaggar, 2001, 9–11. Vowel length is not marked in modern Latin-script orthography.

<sup>13</sup> Zaria 1982, 183.

text is not easily understood if the vowel signs are absent in words with a CVCV or CVCVCV structure. A few exceptions with nonvocalised Hausa texts are known. However, this is highly unusual in the marginal glosses, where the very purpose of their usage is the clarification of the main Arabic text. Having studied a great number of glossed Arabic manuscripts, we can argue that a Hausa gloss is normally vocalised. As for the main text, if it is written in Hausa, it can be predicted, with a great degree of certainty, that the text will be vocalised. When vowel-signs are not marked, it may be the result of hasty (incomplete) writing. Otherwise, one could suggest that nonvocalised texts served as written supports for the oral transmission of knowledge. In any case, lack of vocalisation is not a rule, and various explanations may be found for it.

With the exception of the diasporas outside Sudanic Africa, the front vowels /i/ and /e/ are marked with different signs, known respectively as *wasali bisa* (Arabic *kasra*) and *imāla* (a loanword from Arabic). As is the case in Kanuri Ajami, *imāla* is a dot below a letter borrowed from the Warsh tradition of Qur'anic spelling. By the 19<sup>th</sup> century, *imāla* had already been used in Sudanic Africa, in Fula and Kanuri written conventions.

In contrast to the systematic transcription of front vowels, the back vowels /o/ and /u/ were usually marked with the same sign, known as *rufu'a* (in Arabic, *ḍamma*). This is interesting, as the same rule applies to local writings in Fula. On the other hand, Western Sudanic literacy in Fula and a few other languages have an additional symbol for /o/, an inverted *rufu'a*. The question remains as to whether the Central Sudanic usage is archaic, preceding that of Western Sudanic Africa, or whether this is a case of the independent development of two divergent norms of transcription. In any case, Hausa literacy may be described in areal terms as a part of the “non-o” literacies in Sudanic Africa. Although the graphic combination of the *ḍamma* with the letter *wāw* followed by the letter *alif* surmounted by a *sukūn* sign occurs both in Hausa manuscripts and in those of the Kanuri/Kanembu area, its use, unlike in Kanembu/Kanuri, is not restricted to encoding /o/. It might be argued that this feature was borrowed from the Borno tradition, but it became more decorative than graphemic.

There were a few attempts to create symbols for *o* in Hausa Ajami in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, but these were apparently rare and definitely unsuccessful. One such example is found in a Hausa manuscript from the Barne collection at Special Collections, SOAS Library, University of London (MS 380271). In this manuscript, the *o*-sound is rendered with a combination of *rufu'a* above the letter and a small *rufu'a* below the same letter. This way of writing was certainly borrowed from the Warsh tradition of Qur'anic reading, but the meaning of the combination in the Warsh was different, being a marker of long vowels in the affixed personal pronoun *-hū*. In the 20<sup>th</sup> century, a new way of writing the

*o*-sound was invented, most probably in Zaria. As the Hausa *o* is almost always long, that is /ō/, the combination used includes a supporting *wāw* with a zero-sign (*sukūn*) above it, to differentiate /ō/ from /ū/, which does not require an additional *sukūn* above the *wāw*. However, even now the /o/ is not marked in many modern publications in Hausa Ajami.

An extreme case of fluidity is demonstrated in the marking of vowel-length and tones. The latter were most probably ignored or only recognisable in combination with the length of Hausa vowels. It seems that long final vowels were left unmarked if they were combined with low tone, as in <doki> (*dōkì*) ‘horse’. The long vowels were usually marked, as in the Arabic written tradition, with an additional *wāw*, *yā*’ or *alif* respectively for /ū/, /ī/ and /ā/. In the case of long /ē/, two variants of symbol combination were initially applied, either an additional *yā*’ or a *yā*’ without dots (e.g. a stump in the medial position) with a so-called ‘red *alif*’ above the additional letter. The same ‘red *alif*’ could also be used without any supporting letter. Nowadays, the standard Ajami rule for /ē/ is the use of a *yā*’ without dots supplemented with a ‘red *alif*’, which is no longer red in colour.

In a few pre-colonial Hausa manuscripts, usually from present-day Ghana and Togo, one more method of length-marking was used before colonisation. Thus, a combination of *hamza* and *sukūn* could be found above the supporting letters (*wāw*, *yā*’, *alif*). Adam Mischlich thought this was how the ‘mid-range vowels’ were marked.<sup>14</sup> This view has not been proven by any research, and in modern Hausa Ajami no such vowels are known. It cannot be excluded that the now forgotten combination of *hamza* and *sukūn* was in fact used to mark a certain tonal pattern, but this is far from clear.<sup>15</sup>

Until the 20<sup>th</sup> century, the letter *alif* could also be combined with an additional diagonal line across the main letter (*alif mai suka*, ‘*alif* with spear’). In the glosses, ‘*alif* with spear’ was apparently not used. This variety of *alif* is uncommon in modern Hausa Ajami.

### 4.3 Consonants in Hausa Ajami

Standard Hausa has 32 consonant phonemes. Among them, the glottalised set is represented with so-called “hooked” letters in modern Latin-script orthography. According to Jaggar, ‘*ḥ* and *ḍ* are laryngealised (often implosive) bilabial and

<sup>14</sup> ‘Hamza da dāmri (Hamza in Verbindung mit dāmri) über einem Konsonanten deutet an, daß die Silbe weder lang noch kurz, also mittellang ist.’ Mischlich 1906, xxxiii.

<sup>15</sup> See also Dobronravín, 2006, 139, n. 36.

alveolar stops, hooked *k* is a glottalised velar ejective, the digraph *ts* [sʔ] is an ejective alveolar sibilant, and the digraph *ʔy* is a laryngealised palatal glide (derived via reduction of a /dʔy/ sequence). Labialised and palatalised consonants are written as digraphs. With few exceptions, as noted by Jaggar, ‘the four palatalized /fy, ky, gy, ky/ and three labialised /kw, gw, kw/ unit phonemes all contrast with the corresponding plain segments before /a(a)/ (/fy/ is a marginal phoneme)’. There are also two ‘R-phonemes’, the alveolar tap/roll /r̥/ and the retroflex native flap *r* [ɽ], not marked in modern Latin-script orthography (Jaggar 2001, 5–8).

The picture is different in the Hausa dialects, especially in the Western dialectal cluster and in the diaspora. The glottalised consonants in the Western dialects also include. e.g. [tʔ], [sʷʔ], [bʷʔ], [dʷʔ] (Gouffé 1969, Zaria 1982, 50). Most of these additional consonants occur and are phonemic only in word-initial position before /a/. On the other hand, the consonant [tʔ] regularly corresponds to the standard [sʔ]; in word-initial position both [tʔ] and [sʔ] occur, and the difference between them is phonemic. In the Hausa diaspora, there is a tendency towards the reduction of the glottalised set. In Ghana, the glottalised consonants are replaced with non-glottalised ones, such as /s/ instead of [sʔ] (Zaria 1982, 178). Moreover, there are local differences in the treatment of loanwords. According to Zaria, ‘in the area around Daura one finds standard /dʔ/ corresponding to /sʔ/. This kind of correspondence is limited to names which originate from Arabic’ (Zaria, 1982, 50).

Turning to the transcription of Hausa consonants, it may be said that, together with the Kanuri writing tradition, Hausa literacy belongs to the ‘*g-ghayn* area’. It means that, with a few exceptions in the diasporas, the consonant /g/ is invariably written with a *ghayn* (Hausa *angai*). The same graphemic choice is also found in Eastern Fula Ajami. To a lesser extent, the *g-ghayn* area also includes parts of the Songhay region and a few languages in the Northern part of present-day Ghana such as Mamprule and Dagbani.<sup>16</sup> The *g-ghayn* area is opposed to the *g-kāf* area in Western Sudanic and North Africa. In the literacies of the latter regions, /g/ is represented with the letter *kāf*, either as such or with three additional dots to mark the voiced counterpart to /k/.

The ‘emphatic’ Arabic letters have been used in different ways throughout the history of Hausa literacy. This variety of usage may reflect dialectal variation.

<sup>16</sup> This is witnessed in some manuscripts from the collection of the Institute of African Studies, University of Ghana, such as IASAR/28, ‘*Abd Allāh b. al-Ḥāj al-Ḥasan’s Niṣāb al-ḡahab*, composed in Dagbani in 1361/1942–43 (Hunwick 2003, 597); or IASAR/54, Alfa Muntaga’s poem in Mamprule in praise of Shaykh Aḥmad al-Tijānī (*qaṣida fī madḥ li-Shaykh Aḥmad al-Tijānī*). The xerox copies of these unpublished manuscripts were consulted by Nikolay Dobronrav in the Herskovits Library of African Studies of the Northwestern University, Evanston, USA.

In Western Hausa dialects there are two different consonants, /tʃ²/ and /s²/, both corresponding to /s²/ in modern Standard Hausa and close Hausa dialects (the so-called Kano dialect or dialect cluster). As there were two different types of Hausa Ajami literacy, one of them was probably influenced by dialectal pronunciation.

The closest example of a standard can be seen in the use of *qāf* as opposed to the letter *kāf*. By the end of the 19<sup>th</sup> century this pair had already been used to differentiate two consonants, plosive /k/ and glottalised /k/ in Hausa.<sup>17</sup> However, before this standard developed, there existed another set of rules for the transcription of Hausa consonants. In earlier manuscripts, both *kāf* and *qāf* are invariably found to denote both /k/ and /k/. The use of *qāf* for Hausa /k/ was then retained in some manuscripts, but only in loanwords from Arabic, such as <*arziqi*> (to be read as *arziqi* ‘wealth, prosperity’, from Arabic *al-rizq*, with assimilated article *al-*) or <*loqaci*> (to be read as *loqaci* ‘time’, from Arabic *al-waqt*). In modern Hausa Ajami, the use of *qāf* is restricted to the transcription of glottalised /k/, and the historical spelling of Arabic loanwords is normally ignored.

If the differentiation between *kāf* and *qāf* was made relatively early in Hausa Ajami, this was not the case of the other ‘emphatic’ letters. The letters *dāl* and *ṭā* are nowadays a regular pair representing respectively plosive /d/ and glottalised /d/. In the precolonial Hausa manuscripts and marginal glosses, this opposition was less common. Both consonants could be written as *dāl*. Comparable to the case of *kāf* and *qāf*, the choice between *dāl* and *ṭā* was apparently of little importance for the Hausa scribes, as long as they could recognise the words. In borrowings from Arabic the use of *ṭā* was more consistent than in other strata of Hausa lexicon.

The letter *ṭā* could also be used to denote another glottalised Hausa consonant, namely /s²/. As mentioned above, in modern Latin orthography this phoneme is transcribed with the digraph *ts*. In Hausa Ajami, there was no visible preference for the reading of *ṭā* as /d/ or /s²/ before the 20<sup>th</sup> century, and it seems that such preferences were more individual than regional. Until the 20<sup>th</sup> century, the letters *ṭā*, *ṣā*, *ṣīn* and *ṭā* were all used to transcribe the sound which corresponds to glottalised /s²/ in modern standard Hausa.

17 Such use of *qāf* for Hausa /k/ in loanwords is found, e.g., in the Hausa manuscript (dated 1879) written in Ghat, in today’s Libya, where one can see <*qabīla*> (to be read as *kabīla* ‘tribe’, from Arabic *qabīla*) and <*yākī*> (to be read as *yākī* ‘war’). The Ghat manuscript does not have a special sign for /e/; the final /o/ in verbs is systematically marked with a combination of *wāw* and *alif* with *sukūn*, as in <*yā-dō*>, to be read as *ya zo* ‘he came’. As a ‘Middle Eastern’ diaspora feature, the *qāf* in this manuscript has two dots above, while *fā* is written with a dot above or below the letter (Ghānim 1998).



In the 20<sup>th</sup> century, with the standardisation of Hausa in Latin script, glottalised /s<sup>ʔ</sup>/ was transcribed with an extra letter, the *ṭā*’ with three additional dots. Since the 1950s this usage has been strengthened by the publication of Boko(Latin)-Ajami transcription tables.<sup>18</sup> The same extra letter is used in modern books printed in Ajami in Nigeria. This symbol has found its way into the set of additional Arabic symbols in the Unicode of the 2000s. The creation of *ṭā*’ with three dots is a rare case of a successful introduction of a new symbol in Hausa Ajami literacy. Unlike *ṭā*’, the Arabic letter *ẓā*’ (with one diacritical dot) was only used for /z/; this letter is fairly rare in modern Hausa Ajami.

Two centuries of Hausa Ajami development have resulted in the fixation of symbols for glottalised /k/, /d/ and /s<sup>ʔ</sup>/. The rendering of /b/ and /ʔy/ is another story, or perhaps two other stories. In the pre-colonial manuscripts and marginal glosses, these two consonants were not marked separately from /b/ and /y/, that is, the letters *bā*’ and *yā*’ were used to denote them. This lack of differentiation may be explained, first of all, by the absence of corresponding ‘emphatic’ letters in the Arabic written tradition. No single Arabic letter could be easily selected for the transcription of one of these Hausa consonants. Besides, certain dialectal influence cannot be ruled out. In Western Hausa dialects, /ʔy/ is non-existent, corresponding to the sequence /dīy-/ , as in the pair *dīyauci*, modern standard Hausa ‘*yanci*’ ‘freedom’ and *dīya* (singular feminine), corresponding to modern standard Hausa ‘*ya*’ ‘daughter; (historically), free woman’; (plural) – ‘*ya’ya*’ ‘children’.

With the development of the Hausa Latin-based orthography, the letters *b* and ‘*y*’ (a graphical combination of ‘ and y) were created, and they are now used in most printed Hausa texts. This standard has also influenced Hausa Ajami. As a result, glottalised /b/ has variously been marked with one, two or even three extra dots below the *bā*’. Today’s prevalent form is a *bā*’-shaped letter with three dots below. This form is still far from convenient, as /b/ may be found in combination with the vowel /e/, resulting in an awkward combination of three plus one dot below the letter. Three dots below were also added to the letter *yā*’. In some manuscripts even today neither /b/ nor /ʔy/ is marked with any additional symbols.

Interestingly, in a few manuscripts and printed publications, the glottalised /ʔy/ is rendered with the letter ‘*ayn*’ and three additional dots above it. This is not surprising, if we take into consideration the way the letter ‘*ayn*’ has been read by most Hausa speakers. In both cases the standard pronunciation is that of a glottal stop, marked with a *hamza* in standard Arabic spelling. Less educated and diaspora scribes even wrote ‘Allah’ with an ‘*ayn*’, as <‘*allā*>. Thus, the rendering of

18 See, e.g. ‘Ajami Boko’ 1961; Wali/Binji 1969.

/ʔy/ with an ‘*ayn* plus additional dots may be interpreted as the transcription of a glottal stop with /y/ as an extra feature.

Beside the transcription of glottalised consonants, the development of a Hausa Ajami standard included the transcription of the affricates. In most Hausa dialects, these are /dʒ/ and /tʃ/, corresponding respectively to the letters *j* and *c* in modern Hausa Boko spelling. The use of *c* has long been the norm, but before it was developed, and sometimes even nowadays, the digraph *ch* is also used to denote the same Hausa phoneme.

In Ajami, /dʒ/ has always been represented with the letter *jīm*. Only in one rare diaspora document of 1817 is this letter also used to denote the voiceless affricate /tʃ/, as in <luqaji> *lokaci*. In the same rare document from Trinidad, the phoneme /dʒ/ is also represented with the letter *ḍāl*. It is not clear to what extent this usage was influenced by the Western Sudanic tradition, where there was a more marked confusion in the rendering of affricates. In the great majority of Hausa manuscripts and glosses the letters *ḍāl* and *zāʾ* (also known in Hausa as *zayra*) are used indiscriminately even now.

As for /tʃ/, there were initially two major traditions of its transcription. In Sokoto-centered manuscript practice, the phoneme was written with the letter *šin*. This usage may have been influenced by the peculiarities of Hausa pronunciation in an environment dominated by Fula speakers. In Kano, as in the manuscripts of Borno, the same consonant was written with the letter *tāʾ*. This usage has been retained and has nowadays become the norm.

It is worth mentioning that, in Hausa Ajami, the letter *tāʾ* is also found with two more variants of reading. In borrowings from Arabic, and especially in personal names, *tāʾ* may be read as /s/, as in <ʾutmān> (to be read as Usman). In a few Hausa manuscripts and marginal glosses in the 19<sup>th</sup> century the same letter was also used to denote glottalised /sʔ/, as in <tōrō> (to be read as *tsoro* ‘fear’). This usage seems to be totally forgotten now.

A further pair of letters in Hausa Ajami are *rāʾ* and *ḍād*. The latter turned out to be convenient for representing both /l/ and the retroflex *r*-phoneme in Hausa manuscripts and marginal glosses. The use of *ḍād* for /l/ is common in Sudanic Africa and may be explained by the same reading in some parts of the Arab world. As for the retroflex *r*, there were a few Hausa manuscripts where this phoneme was consistently marked with *ḍād*, e.g. *saṛkī* ‘king, chief’. In modern Hausa Boko spelling there is no difference between the two *r*-s, and some Hausa dialects do not have the retroflex *r* at all. Thus, in modern Hausa Ajami, the letter *rāʾ* corresponds to both phonemes. As for the letter *ḍād*, it is only found in a few loanwords from Arabic, mainly in personal names.

The flexibility of Hausa Ajami standards is still visible in the treatment of labialised and palatalised consonants as well as for vowel-length and tone. As

mentioned above, in modern Hausa Boko, labialised and palatalised consonants, mainly /ḳ/, /k̠/, /g̣/, /g̠/, /k̠/ and /g̠/, are marked with the respective digraphs, kw, kw, gw, ky, ky and gy. Other cases of labialisation and palatalisation are much more rare. There were no ‘spare’ letters in the Arabic script to denote such consonants, and digraphs are not common in the Arabic written tradition. So it is understandable that there was little incentive to underline labialisation or palatalisation of consonants in pre-colonial Hausa writings. In fact, such consonants were marked through the use of ‘similar’ vowel-signs. In most manuscripts and marginal glosses, the corresponding signs were *rufu’a*, for the labialised consonants, as in <gubru> (to be read as *gwabro*), modern Hausa Boko *gwauro* ‘bachelor’, and *imāla* for the palatalised ones, as in *gēra* (to be read as *gyara*), modern Hausa Boko *gyara* ‘to fix’. In a single manuscript, already mentioned above (*Littafin tuba*, from Barne’s collection at SOAS), the scribe did try to mark the labialised consonants with an additional small *rufu’a* below the main letter. This attempt was, however, unsuccessful, and no other manuscripts in this style have been found. In modern Hausa Ajami, influenced by the Hausa Boko standards, both labialised and palatalised consonants have been marked. This was done either by adding three dots to the original letter (*kāf*, *qāf*, *ghayn*) or through a combination of symbols. In the latter case, the letter *wāw* is supplemented with a *madda* above it to denote labialisation, as in *kwadō* ‘frog’. To mark a palatal consonant, the letter *yā*’ with *madda* is added to it. This approach is now prevalent, but not yet uniform in publications printed in Nigeria.

The use of final *hā*’ (in some manuscripts both with or without *sukūn*) may be influenced by the practices of writing the word final /-a/ in Arabic. This usage is also found in modern Ajami publications where the same words occur with or without final *hā*’, like <ṣallā> and <ṣallāh> for *salla* ‘prayer’.

The general tendency in the development of Hausa Ajami may be described as a slow growth of a set of rules.<sup>19</sup> The trend toward the standardisation of Hausa in Arabic script went through significant outside influences in the last century. The British in colonial West Africa introduced an additional letter, *fā*’ with three dots below to denote /p/ in ‘penny’. This symbol was only used on coins and has never been adopted as a part of Hausa literacy standards. A much more sig-

<sup>19</sup> The topic outside the scope of this chapter is word breaks. In the early stage of Hausa writing in Arabic script, it was common to see the hyphenation (breaking the word) and disjointed writing of single words. The most consistent feature of this style was the disjointed writing of the words with a medial long /ē/. In such words, the supporting *yā*’ was left unconnected with the next letter of the word, as in <barē wā> (*barewa*), ‘gazelle’. In modern Hausa Ajami such incongruences are very rare.

nificant outside initiative took place in the 1980s, when the ISESCO created an all-embracing system of Arabic-script transcriptions. The ISESCO model completely ignored the traditions of Hausa Ajami, e.g. in the use of *kāf* with additional dots for /g/ instead of the common *ghayn*. As a result, the new transcription was practically ignored by the users of Ajami in Nigeria. Elsewhere in West Africa, the story was slightly, but not significantly, different. A few Islamic and Christian publications appeared in the ISESCO orthography, mostly in Fula in (or for) Guinea, Mali and Cameroon. The current position of the Unicode consortium allows for the further use of Hausa Ajami both offline and on the Internet.

## 5 Conclusions

In this comparative overview of orthographic tendencies in the Kanuri and Hausa manuscript cultures we have tried to document ranges of orthographic variation and uniformity, identify some of their underlying factors and outline the graphemic sets particularly prone to standardisation.

Both cultures had a standard model of the Arabic writing system whose uniformity is grounded in Arabic literacy in its Qur'anic and Classical forms. Therefore, the concept of regulated uniform orthography was not alien to the scribes who added annotations in the vernacular to the standardised Arabic texts, often written by the same scribe. Nonetheless, the scribes of both cultures (and the claim can easily be extended to most of the Arabic-based writings discussed in this book) did not show any particular adherence to the principle of total orthographic uniformity. The only noticeable restriction on variation is manifested in a conservative use of the Arabic letters, rather than in particular choices of letters and their combinations for representing Kanuri and Hausa sounds. The shared disfavour of invented graphemic designs is particularly observable at the earliest point in time when both cultures can be synchronically compared, that is, in the first part of the 19<sup>th</sup> century – the period for which we have the earliest extant Hausa manuscripts.

This conservatism is even more striking for Hausa because, unlike Kanuri which has fewer consonantal sounds than the number of consonantal letters in Arabic, the consonantal inventory in Hausa is larger than the graphemic inventory in Arabic (28 Arabic characters vs 23–26 consonants in Kanuri vs 32 consonants in Hausa (Newman 2000, 392)).

We cannot ascertain whether it was only pressure from the phonological system or some other (extra)linguistic factors which shaped later orthographic conventions in Hausa. What is clear in the history of Hausa Ajami writing is that

it developed more consonants to better suit its phonological system, and sets of standard rules gradually increased with time.

The economical approach to the use of Arabic letters in the history of Kanuri writing is comparable to that of Hausa with the only difference being that, throughout the whole history of Kanuri Ajami writing, no new letters were invented. The main reason for that seems to be the smaller number of Kanuri consonantal phonemes. The veneration of the Arabic script – an attitude which cannot be ruled out but which is difficult to prove due to a lack of written evidence – may only partially explain the uninventiveness of the Kanuri scribes. The same respectful attitude to the letters of the Scripture did not inhibit the invention of new characters in Hausa in later manuscripts, or in many other written traditions of Islamic sub-Saharan Africa.

Some similarities between Kanuri and Hausa Ajami in their graphemic choices for writing certain sounds visibly identify both cultures as belonging to the same larger literacy area. Thus, both use <gh> for /g/, unlike the manuscript cultures to the west (for example Soninke) where the most common choice for /g/ is <k>. We call the former the ‘g-ghayn’ type of orthography as opposed to the ‘g-kaf’ type. Another feature setting Kanuri and Hausa apart from the western cultures is the absence of *tanwīn* signs used to indicate a word-final sequence of a vowel and a nasal consonant, such as *-an*, which, in Kanuri and Hausa writing, would be spelled with the diacritic sign *fathā* for [a] and the letter *nūn* for [n]. Since we do not have manuscript evidence of Hausa writing before the early 19<sup>th</sup> century, it is impossible to say whether Hausa had a different ‘western’ selection of orthographic choices before having closer contact with Kanuri.

Apart from the similarities, our comparative analysis reveals some contrasting features summarised as follows. One of the most striking differences between Kanuri and Hausa orthographies is the encoding of /o/. For Kanuri, a special spelling of the final /o/ is already attested in the early Old Kanembu manuscripts which is a combination of the *ḍamma* + *wāw* + *alif* surmounted by a *sukūn* sign. Contrastively, the earliest known Hausa Ajami writing belonged to the ‘non-o’ type of orthography and specific spelling solutions for /o/ were only sporadically tried by the scribes. In view of the fact that Hausa manuscript culture was significantly influenced by that of the Kanuri (the similar script style being the most salient feature), the reason why it was not until the 20<sup>th</sup> century that Hausa scribes introduced a graphemic combination for /o/ similar to that used in the Kanuri manuscripts still needs to be explained.

Both cultures have identifiable specific sets of grapheme-phoneme correspondences, which changed over time. From the diachronic perspective, such sets can be considered stable since it was only the mapping of a limited number of graphemes on a limited number of phonemes that changed.

In Old Kanembu writing, the phoneme /s/ was written as *sīn*, then as *sīn* and *tā'* and then as *sīn*, *tā'* and *šin*, and later only as *sīn*. The additional letters were also used for homorganically similar phonemes. Thus, the letter *tā'* was also used for /ts/ and in the later manuscripts for /tʃ/, while the letter *šin* was also used for /š/. What is important here is that this graphemic-phonemic subset was quite stable over time within a given number of available choices, with only the mapping changing. Another such stable set with a restricted range of graphemic choices is observable for the phoneme /z/ which was written with the letters *zā'*, *dāl* and *zāl*, or for the phoneme /k/ written as *qāf* ~ *kāf*.

In Hausa Ajami, the salient stable sets can be identified as follows. At different times and in different areas, the phoneme /tʃ/ was written with the letters *šin* (in earlier manuscripts in the area of Sokoto) and *tā'* (in Kano manuscripts and later everywhere). The letter *tā'* was also used for homorganically similar /s/ in Arabic loanwords which originally have /t/ (and are written in Arabic with *tā'*) and for the glottalised /sʔ/. Another set consists of the letters *rā'* and *ḍād* and the phonemes /l/ and retroflex /ɭ/. In earlier times, *ḍād* was used for /l/ and occasionally for /ɭ/. In modern Hausa Ajami, both rhotics are written with the letter *rā'*, whereas *ḍād* is only used in the etymological spelling of Arabic loanwords.

Thus, we can identify sets of grapheme-phoneme combinations which were stable within a restricted range of the phonemic and graphemic inventories. The choices within such sets were conditioned by phonological, morphological, and mimetic factors, the latter being the etymological spelling of Arabic loan words and shared scribal practices manifested on the pages of the same manuscript.

In more general historical terms, Hausa writing shows a tendency towards a closer match between the number of phonemes and graphemes, especially in more recent manuscripts. In the history of Kanuri writing, there is also a noticeable change in the choice of Arabic letters but there are two parallel tendencies. One is the diachronic rearrangement of grapheme-phoneme correspondences within specific grapheme-phoneme sets, while the other is the retention of the spelling of some high-frequency lexical and grammatical items.

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