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# THE ETHIOPIC SCRIPT: LINGUISTIC FEATURES AND SOCIO-CULTURAL CONNOTATIONS

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ABSTRACT

During the last two millennia, a large corpus of texts were produced in the Ethiopic script. This ancient African writing system is peculiar to the Ethio-Eritrean region at the Horn of Africa, particularly to the Ethiosemitic language Gəʿəz. The present paper is concerned with the origin, linguistic modification and spread of the Ethiopic script, as well as its socio-cultural connotation vis-à-vis other scripts in the region. For this purpose, previous studies related to these topics have been assessed and summarised in a comprehensive description.

## [1] INTRODUCTION

From 1991 onwards, a substantial number of Ethiopian and Eritrean languages have been reduced to writing in either a Roman-based orthography, or in the Ethiopic script, which was first used to write the Ethiosemitic language Gəʿəz. The Ethiopic script originates from the South Arabian abjad (or consonant script; cf. [3.1]). Probably inspired by Indic scripts, it was modified to an alphasyllabary (i.e. a script whose graphemes represent CV sequences or plain consonants; cf. [3.1] for details), while additional syllabographs, and graphemes for numerals were created as a result of the Greek influence. In subsequent modifications, particularly when the Ethiosemitic language Amharic was written in this script, diacritics for labialised, palatalised, and spirantised consonants were invented. When the Ethiopic script was adapted for writing languages other than Gəʿəz and Amharic in the 19th and 20th centuries, new syllabographs were created by modifying existing graphemes, and various conventions were developed to indicate vowel length and gemination.

Although Gəʿəz ceased to be spoken as a native language after the 8th century AD, it was retained in the Ethiopian Orthodox Church as the language of liturgy. Moreover, a diglossic situation prevailed at the Christian Ethiopian royal court for several centuries in which Gəʿəz functioned as the sole literary language, but with Amharic as the spoken lingua franca. Because of major politi-

cal, socio-cultural, and economic changes in the second half of the 19th century, Amharic became the dominant Ethiopian language in print media, resulting in the use of Gəʿəz being confined to the religious domain. Amharic, by contrast, was promoted as the official national language in Ethiopia to the disadvantage of all other Ethiopian languages. This situation only changed in 1991 when the current government granted all ethnolinguistic groups the constitutional right to use their native languages in official domains within their respective administrative units.

Due to its socio-historical evolution, the Ethiopic script is often associated with Ethiopian Orthodox Christianity and the ruling Amhara elite. Therefore, its use was not only disfavoured by Muslim Ethiopians, but also by formerly disadvantaged ethnolinguistic groups, who currently prefer to write their native languages in a Roman script to signal their linguistic and socio-cultural autonomy.

Beside comparative works, like Jensen (1925), Daniels (1997), Salomon (2000), Coulmas (2003), Comrie (2005), Rogers (2005), various detailed studies are concerned with the linguistic features of the Ethiopic script, in particular Ullendorff (1951a), Hammerschmidt (1994), Getatchew (1996), Ayele (1997), Hornus (2006), Meheretu (2006), Treis (2008), Azeb (2010) and Frantsouzoff (2010). Some of these studies also mention socio-cultural aspects associated with the script, like Azeb (2010), but most information on this topic is scattered in non-linguistic publications. The main conclusions drawn from the review of these studies will be presented as follows: following an outline of the origin of the Ethiopic script in [2], its basic linguistic features are presented in [3]. Major script modifications preceding the 19th century are described in [4], while [5] is concerned with more recent modifications, due to the adaption of the Ethiopic script for writing Ethiopian languages other than Gəʿəz and Amharic. Selective historical aspects regarding the spread of the Ethiopic script are discussed in [6], followed by an overview of other local scripts and comments on their socio-cultural connotations in [7]. Finally, [8] summarises the main phases in the development and spread of the Ethiopic script.

## [2] ORIGIN OF THE ETHIOPIC SCRIPT

The emergence of the Ethio-Eritrean cultural region is often seen as being related to Aksum – the capital of a powerful Christian kingdom on the Horn of Africa between the 1st and 8th centuries AD. Aksum was an important regional centre that was also part of an extensive international trade network between the Mediterranean area, Southern Arabia, and the Indian west coast (cf. Sernicola & Phillipson 2011:190–192; Phillips 2014).

The earliest written attestations in the Ethio-Eritrean region are Sabaic inscriptions from the 7th or 8th centuries BC in the South Arabian consonant script (cf. Avanzini 2007a:152; Müller 2007:156; Mcdonald 2010).[1] As most of them contain linguistic features not found in Arabian Sabaic, it is assumed that the Ethio-Eritrean inscriptions represent a form of Pseudo-Sabaic that was composed by speakers of early Ethiosemitic (or a predecessor of Gəʿəz) for whom Sabaic was a learnt – not a native – language (e.g. Drewes 1958:115; Müller 2007:156; Weninger 2011a:1115).[2] Weninger (2011a:1115), thus concludes that Ethiosemitic was already being spoken when South Arabian migrants arrived in the Ethio-Eritrean region, i.e. their language, Sabaic, is not the immediate predecessor of Ethiosemitic as purported by received opinion (cf., e.g. Hetzron 1972:122–125; Marrassini 2011).

The Ethiopic script, whose earliest remnants in Gəʿəz date back to a period between the 1st and 3rd centuries AD (Avanzini 2007a:153; 2007b:160), is clearly related to the South Arabian script (cf., e.g. Unseth 2008:358–359).[3] Ullendorff (1951a:207; 1951b) considers monumental inscriptions from the 3rd and 4th centuries AD to be the earliest attestations of Gəʿəz and consequently of the Ethiopic script, while Drewes & Schneider (1976) propose an earlier date based on Proto-Gəʿəz graffiti. Be that as it may, the Ethiopic script was substantially modified from an abjad to an alphasyllabary (for the terms, cf. Daniels 1997:16–17; Salomon 2000:88) during the reign of King ʿEzana (AD 330–365/70). In AD 340, ʿEzana converted to Christianity, which subsequently became the state religion in the Aksumite kingdom (Hahn 2005:479). The newly established Ethiopian Orthodox Church started to teach reading and writing in Gəʿəz (Haile 1976:339–343); religious texts were translated from Greek into Gəʿəz (cf. Weninger 2011b:1124). As Greek had been a lingua franca along the Red Sea coast for several centuries, it was also known in the Ethio-Eritrean region (cf. Voigt 2012:28–29). This is evidenced by several Greek inscriptions dating from 300 BC to AC 600 (Fiaccadori 2007:158; Avanzini 2007a:152–153), and Aksumite coins from the 4th century AD, which were minted in Greek (Phillipson 2004:81). Intense language contact with Greek yielded the incorporation of Greek letters as

[1] Beside Sabaic, the South Arabian script was used for writing Minaic, Qatabānic and Ḥaḍramitic – all four are Ancient South Semitic varieties natively spoken in southwest Arabia (Stein 2011:1042; Müller 1994).

[2] For a historical overview, cf. Phillipson (2009:265; 2011:260–262). Linguistic peculiarities of Pseudo-Sabaic are described in Müller (2007:157) and Drewes (1980).

[3] The origin of the Ethiopic script is still the subject of controversy (cf. Frantsouzoff 2010:580–581). Azeb (2010:179) mentions three main hypotheses: (i) an original Ethiopian invention, (ii) a gradual transformation of the South Arabian script, or (iii) an independent parallel development of South Arabian and Ethiopic scripts from a common South Semitic script. Only scholars following the Afrocentric dogma (e.g. Ayele 1997) argue for (i), while (ii) or (iii) are commonly found in the literature (e.g. Irvine 1978; Hammerschmidt 1994:317; Daniels 1997:19; Salomon 2000:94; Weninger 2011b:1125).

numeral graphemes into the Ethiopic script (cf. [3.2]), and probably triggered the change in the direction of writing and the invention of additional syllabographs (cf. [3.1]).[4]

In the typology of writing systems, the modified Ethiopic script and Indic scripts of the Brāhmī type belong to the same group, i.e. they are alphasyllabic (Daniels 1997:24; Salomon 2000:93–94; Coulmas 2003:152–155; Comrie 2005:1192; Rogers 2005:208; Avanzini 2007b:160; Frantsouzoff 2010:580–583; Voigt 2012:30). Although the similarity between the Ethiopic and Indic scripts has already been observed in the 19th century, direct Indic influence appeared unlikely. Consequently, it was assumed that the vowel diacritics in the Ethiopic alphasyllabary are an indigenous Ethio-Eritrean innovation (cf. especially Salomon 2000:94; but also Dillmann 1857:19, 20 fn. 1; Jensen 1925:140; Hammerschmidt 1994:317; Ullendorff 1951a:81–82). Other possible influence, such as e.g. Christian missionaries (from the Middle East) (Littmann 1953:352) or India (Daniels 1997:24), did not gain much acceptance.[5]

Historical and archaeological research shows that India and the Ethio-Eritrean region exchanged goods and had several cultural contacts during the times of the Aksumite kingdom and before it (Pankhurst 2007:142–143; but also Phillips 1997:448–451; 2014:254–255, 261). Nevertheless, Salomon (2000:93–94) argues that Indic alphasyllabaries differ to a certain extent from the two alphasyllabaries in Northeast Africa, being Ethiopic and the Meroitic (cf. Voogt 2010 for its features), such that these scripts should be considered independent parallel innovations – as long no proof is found of direct Indic influence on writing. However, inscriptions in an early Brāhmī script were found together with graffiti in the Ethiopic abjad in a cave at Soqotra dating back to a period between the 1st and 3rd centuries AD (Frantsouzoff 2010:583). Consequently, Frantsouzoff (2010:583) assumes that Indic scripts, particularly the Kharoṣṭhī script, influenced the Ethiopic alphasyllabary.[6]

[4] A once proposed Greek origin for the Ethiopic vowel diacritics is implausible (Dillmann 1857:20 fn. 1).

[5] Cf. Weninger (2011b:1126) for various hypotheses on the origin of the vowel diacritics.

[6] Regarding the relationship between the Kharoṣṭhī and Brāhmī scripts, cf. Rogers (2005:chap. 11). For the direction of influence from Brāhmī (or Kharoṣṭhī) to Ethiopic, cf. Rogers (2005:208); Daniels (1997:24).

## [3] BASIC FEATURES OF THE ETHIOPIC SCRIPT

### [3.1] *From abjad to alphasyllabary*

The Ethiopic script is closely related to the South Arabian script, which was in use from the early 1st millennium BC until the 6th century AD (Stein 2011:1042; Müller 1994). The South Arabian script is an abjad consisting of 29 consonant graphemes (Stein 2011:1047–1049) which were written from right to left or in boustrophedon (i.e. with alternating directions for each line) – the latter dominating in early Sabaic (Nebes 2007:153). The graphemes ⟨w⟩, ⟨j⟩, and rarely ⟨h⟩ also function as *matres lectionis* marking word-final long vowels (Stein 2011:1049). Words are separated by a vertical bar (|).

TABLE 1 shows the graphemes of the Ethiopic abjad with their South Arabian equivalents (cf. Daniels 1997:34; Naveh 2005:49–50; Stein 2011:1045; Weninger 2011b:1126). Most Ethiopic graphemes are transliterated into IPA symbols (cf. Weninger 2010 for the reconstruction of their phonemic value), except *ś* and *ḍ* which probably represent IPA *ɬ* or *ɬ'*, respectively.

The twenty-four graphemes in the Ethiopic abjad are adapted from the South Arabian script (cf. Ullendorff 1951a:208 for details). In the Ethiopic script, ⟨w⟩ and ⟨j⟩ only rarely function as matres lectionis (Frantsouzoff 2010:583; Hammerschmidt 1994:317; Ullendorff 1951a:209). Except for a few early Pseudo-Sabaic inscriptions (Frantsouzoff 2010:582), the writing direction in Gəʿəz is consistently left-to-right (cf. Avanzini 2007b:160; Weninger 2011b:1125), probably due to Greek influence (Voigt 2012:33; Hammerschmidt 1994:317; Littmann 1953:352).

The subscript numbers attached to E (for Ethiopic) and SA (for South Arabian) in TABLE 1 indicate the order of the graphemes in the respective scripts. Although the South Arabian sequence was known in the Ethio-Eritrean region, the Ethiopic graphemes occur in a different order, even if consonant sequences in shorter clusters (e.g. the initial four graphemes *h–l–ḥ–m* in TABLE 1) are identical to the South Arabian script (Frantsouzoff 2010:582).[7] Ullendorff (1951a:210–211) discusses various reasons for this variation, but concludes that the order of graphemes in the Ethiopic script is "predominantly accidental" (cf. also Getatchew 1996:570).[8]

[7] The grapheme order in Northwest Semitic scripts is completely different from the South Arabian and Ethiopic scripts (Daniels 1997:33).

[8] The assumption that graphemes with a similar shape are clustered in the Ethiopic script (e.g. Frantsouzoff 2010:582) only accounts for some instances of variation. Honeyman (1952:137–140) and Naveh (2005:51), by contrast, assume that the grapheme order in the Ethiopic script may follow an ancient South Arabian tradition.

| Ethiopic Graphemes | | South Arabian Equivalents | |
|---|---|---|---|
| $E_1$ | ሀ ⟨h⟩ | 𐩱 ⟨h⟩ | $SA_1$ |
| $E_2$ | ለ ⟨l⟩ | 𐩲 ⟨l⟩ | $SA_2$ |
| $E_3$ | ሐ ⟨ḥ⟩ | 𐩧 ⟨ḥ⟩ | $SA_3$ |
| $E_4$ | መ ⟨m⟩ | 𐩣 ⟨m⟩ | $SA_4$ |
| $E_5$ | ሠ ⟨ś⟩ | 𐩦 ⟨ʃ⟩ | $SA_7$ |
| $E_6$ | ረ ⟨r⟩ | 𐩵 ⟨r⟩ | $SA_8$ |
| $E_7$ | ሰ ⟨s⟩ | 𐩮 ⟨s⟩ | $SA_{11}$ |
| $E_8$ | ቀ ⟨k’⟩ | 𐩫 ⟨k’⟩ | $SA_5$ |
| $E_9$ | በ ⟨b⟩ | 𐩨 ⟨b⟩ | $SA_9$ |
| $E_{10}$ | ተ ⟨t⟩ | 𐩺 ⟨t⟩ | $SA_{10}$ |
| $E_{11}$ | ኀ ⟨x⟩ | 𐩬 ⟨x⟩ | $SA_{14}$ |
| $E_{12}$ | ነ ⟨n⟩ | 𐩯 ⟨n⟩ | $SA_{13}$ |
| $E_{13}$ | አ ⟨ʔ⟩ | 𐩡 ⟨ʔ⟩ | $SA_{18}$ |
| $E_{14}$ | ከ ⟨k⟩ | 𐩫 ⟨k⟩ | $SA_{12}$ |
| $E_{15}$ | ወ ⟨w⟩ | 𐩥 ⟨w⟩ | $SA_6$ |
| $E_{16}$ | ዐ ⟨ʕ⟩ | 𐩠 ⟨ʕ⟩ | $SA_{19}$ |
| $E_{17}$ | ዘ ⟨z⟩ | 𐩸 ⟨ð⟩ | $SA_{26}$ |
| $E_{18}$ | የ ⟨j⟩ | 𐩹 ⟨j⟩ | $SA_{27}$ |
| $E_{19}$ | ደ ⟨d⟩ | 𐩤 ⟨d⟩ | $SA_{22}$ |
| $E_{20}$ | ገ ⟨g⟩ | 𐩪 ⟨g⟩ | $SA_{21}$ |
| $E_{21}$ | ጠ ⟨t’⟩ | 𐩻 ⟨t’⟩ | $SA_{24}$ |
| $E_{22}$ | ጸ ⟨s’⟩ | 𐩰 ⟨s’⟩ | $SA_{15}$ |
| $E_{23}$ | ፀ ⟨ḍ⟩ | 𐩴 ⟨ḍ⟩ | $SA_{20}$ |
| $E_{24}$ | ፈ ⟨f⟩ | 𐩭 ⟨f⟩ | $SA_{17}$ |
| | – | 𐩢 ⟨ś⟩ | $SA_{16}$ |
| | – | 𐩼 ⟨ġ⟩ | $SA_{23}$ |
| | – | 𐩷 ⟨z⟩ | $SA_{25}$ |
| | – | 𐩳 ⟨θ⟩ | $SA_{28}$ |
| | – | 𐩶 ⟨ẓ⟩ | $SA_{29}$ |

TABLE 1: Ethiopic and South Arabian abjad scripts.

Soon after its first attestations as abjad, the Ethiopic script was modified to an alphasyllabary in the 4th century AD (Weninger 2011b:1126; Frantsouzoff 2010:583; Avanzini 2007a:153). The consonant graphemes in TABLE 1 became basic syllabographs (i.e. fixed consonant–vowel sequences) with the inherent

vowel *ä*, which seems to be the most frequent vowel in Gəʿəz.[9] In addition to *ä*, the vowels *u*, *i*, *a*, *e*, *ə*, *o* are phonemic in Gəʿəz (and Amharic). The mid-central vowel *ə* also functions as epenthetic vowel to dissolve consonant clusters (Gragg 1997:177). According to Weninger (2011b:1128–1129) and Gragg (1997:178), the preferred syllable structure in Gəʿəz is CV(C). Words usually begin with a consonant, but almost never end in the vowel *ə*. Except C+*r* sequences, as in *krəstos* 'Christ', word-initial consonant clusters are dissolved by the epenthetic vowel. Word-medial and -final consonant sequences only involve either two distinct consonants, or else a geminated one.

The new Ethiopic graphemes in TABLE 2 represent CV sequences or vowelless C. Gemination is not marked. Graphemes for vowels, i.e. syllables of the type V, are lacking because the vowel diacritics do not function as independent graphemes (Salomon 2000:93).[10] According to Salomon (2000:93), the merger of C+*ə* sequences and vowelless consonants into a single grapheme avoids the complications of indicating consonant clusters and vowel deletion found in Indic scripts, as native speakers intuitively know when *ə* is pronounced or suppressed. This principle seems also to apply for gemination.

[9] Gragg (1997:177) describes *ä* as "low central front [vowel], higher and more forward than /a/ ...; approximates IPA [æ]" (cf. also Ullendorff 1955:161–165 for a similar view). In Amharic, the vowel *ä* is more centralised, i.e. [ɐ] (Devens 1983), or [ɜ] (Derib 2011). Except *χ* (i.e. spirantised k, cf. [4.3]), the vowel *ä* is pronounced as [a] in the environment of the so-called gutturals *h, ḥ, x, ʔ, ʕ* (cf. Podolsky 1991:16).

[10] In a few cases, word-initial consonant clusters in Gəʿəz are dissolved by the prothetic vowel *ə*, which is represented in writing by ኀ⟨ʔ(ə)⟩, as in ኦግዚኀ⟨ʔ(ə) g(ə) zi ʔ(ə)⟩ pronounced as [əg.ziʔ] 'lord' for underlying /gziʔ/ (cf. Gragg 1997:178). The grapheme series based on the syllabograph ኀ⟨ʔä⟩~[ʔa] is also used to represent word-initial vowels in loanwords from Greek or Latin (cf. Weninger 2005:469–471, 481).

| | Vowel Order | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1st *gəʃəz* | 2nd *kaʃəb* | 3rd *śaləs* | 4th *rabəʃ* | 5th *xaməs* | 6th *sadəs* | 7th *sabəʃ* |
| C_ | C*ä* | C+*u* | C+*i* | C+*a* | C+*e* | C(+*ə*) | C+*o* |
| *h* | ሀ [ha] | ሁ | ሂ | ሃ | ሄ | ህ | ሆ |
| *l* | ለ | ሉ | ሊ | ላ | ሌ | ል | ሎ |
| *ḥ* | ሐ [ḥa] | ሑ | ሒ | ሓ | ሔ | ሕ | ሖ |
| *m* | መ | ሙ | ሚ | ማ | ሜ | ም | ሞ |
| *ś* | ሠ | ሡ | ሢ | ሣ | ሤ | ሥ | ሦ |
| *r* | ረ | ሩ | ሪ | ራ | ሬ | ር | ሮ |
| *s* | ሰ | ሱ | ሲ | ሳ | ሴ | ስ | ሶ |
| *k'* | ቀ | ቁ | ቂ | ቃ | ቄ | ቅ | ቆ |
| *b* | በ | ቡ | ቢ | ባ | ቤ | ብ | ቦ |
| *t* | ተ | ቱ | ቲ | ታ | ቴ | ት | ቶ |
| *x* | ኀ [xa] | ኁ | ኂ | ኃ | ኄ | ኅ | ኆ |
| *n* | ነ | ኑ | ኒ | ና | ኔ | ን | ኖ |
| *ʔ* | አ [ʔa] | ኡ | ኢ | ኣ | ኤ | እ | ኦ |
| *k* | ከ | ኩ | ኪ | ካ | ኬ | ክ | ኮ |
| *w* | ወ | ዉ | ዊ | ዋ | ዌ | ው | ዎ |
| *ʕ* | ዐ [ʕa] | ዑ | ዒ | ዓ | ዔ | ዕ | ዖ |
| *z* | ዘ | ዙ | ዚ | ዛ | ዜ | ዝ | ዞ |
| *j* | የ | ዩ | ዪ | ያ | ዬ | ይ | ዮ |
| *d* | ደ | ዱ | ዲ | ዳ | ዴ | ድ | ዶ |
| *g* | ገ | ጉ | ጊ | ጋ | ጌ | ግ | ጎ |
| *t'* | ጠ | ጡ | ጢ | ጣ | ጤ | ጥ | ጦ |
| *p'* | ጰ | ጱ | ጲ | ጳ | ጴ | ጵ | ጶ |
| *s'* | ጸ | ጹ | ጺ | ጻ | ጼ | ጽ | ጾ |
| *ḍ* | ፀ | ፁ | ፂ | ፃ | ፄ | ፅ | ፆ |
| *f* | ፈ | ፉ | ፊ | ፋ | ፌ | ፍ | ፎ |
| *p* | ፐ | ፑ | ፒ | ፓ | ፔ | ፕ | ፖ |

TABLE 2: Ethiopic alphasyllabary.

In the Ethiopic alphasyllabary, for instance, the grapheme በ⟨b⟩ – representing [b] in the Ethiopic abjad – was reinterpreted as basic syllabograph ⟨bä⟩. Sequences of *b* followed by other vowels are indicated by diacritic circles, or horizontal and vertical strokes attached to the basic syllabograph (cf. Hammerschmidt 1994:318–319; Getatchew 1996:571–572). Thus, *bu* is written by adding a horizontal stroke to the mid-right side ቡ⟨bu⟩, *bi* by a horizontal stroke at the bottom-right side ቢ⟨bi⟩, *ba* by a vertical stroke at the right side ባ⟨ba⟩, *be* by

a circle at the right bottom ቤ⟨be⟩, and *bo* by a vertical stroke at the left side ቦ⟨bo⟩. Sequences with the vowel *ə* or lacking a vowel are marked by the same diacritic modification, e.g. for *b(ə)* a horizontal stroke is added at the mid-left side ብ⟨b(ə)⟩. As shown in TABLE 2, the vowel diacritics are consistent in certain blocks of graphemes, but there is no uniform diacritic-vowel relationship fitting all graphemes (cf. Hornus 2006:13–15).

The sequence of vowels in the Ethiopic script is fixed. It starts with the basic syllabograph Cä, which is called *gəʃəz* – like the name of the language. This is followed by the graphemes marked for the vowels *u, i, a, e, ə, o* – which are called by the respective Gəʿəz ordinal numbers, i.e. C+*u* is *kaʃəb* 'second', C+*i śaləs* 'third', etc. (Frantsouzoff 2010:583; Hammerschmidt 1994:318–319).[11] The reason for this specific vowel sequence remains unclear (Ullendorff 1951a:210; 1955:159 fn. 9).

The Ethiopic alphasyllabary in TABLE 2 contains two additional syllabographs, ፐ⟨pä⟩ and ጰ⟨p'ä⟩, which are lacking in the abjad script in TABLE 1 (Ullendorff 1951a:208; Frantsouzoff 2010:582). Littmann (1953:354), among others, argues that the two syllabographs originated from the Greek letter *phi*, i.e. Π/π, as they almost exclusively occur in Greek loanwords. This is commonly accepted for ፐ⟨pä⟩, but ጰ⟨p'ä⟩ is also found in a few other Gəʿəz words (Ullendorff 1951a:208–209). Getatchew (1996:570), therefore, considers ጰ⟨p'ä⟩ a modification of the syllabograph ጸ⟨s'ä⟩.

The graphemes of the Ethiopic abjad and alphasyllabary have no special names, but are called according to the syllable they represent, i.e. *ha* for ሀ⟨hä⟩, *lä* for ለ⟨lä⟩, *mä* for መ⟨mä⟩, etc. (Hammerschmidt 1994:319; see also Frantsouzoff 2010:582; Ullendorff 1951a:213). Only the names of a few homophonous syllabographs in which the consonants lost their original phonemic contrast (cf. [4.4]) may contain additional modifiers, e.g. *halleta ha* for ሀ⟨hä⟩ vs. *ħamäro ha* for ሐ⟨ħä⟩ – both pronounced *ha* (cf. Hammerschmidt 1994:319). Frantsouzoff (2010:582) and Littmann (1953:351), by contrast, state that the syllabographs are called by the Hebrew or Greek letter names in Psalm 119 of the Bible, i.e. *hoj* for ሀ⟨hä⟩, *law* for ለ⟨lä⟩, *maj* for መ⟨mä⟩, etc. Ullendorff (1951a:211–214), Hammerschmidt (1994:319), Daniels (1997:33–34), and others, convincingly argue however that these names are later inventions, probably under the influence of Europeans.

The fixed sequence of the graphemes into an abecedary is called *fidälä (gäbäta) ħawarəja* 'the Apostolic alphabet' in Gəʿəz (Chernetsov 2003:55), or *fidäl gäbäta* in Amharic (Azeb 2010:186). The syllabographs in TABLE 2 and the consonants in TABLE 1 are arranged in the same sequence, which is called *hahu* in

[11] Cf. also Täklä Marjam (1930) for a description of the Ethiopic script in Gəʿəz.

Ethiosemitic – reflecting the names of the first two syllabographs, i.e. ሀ⟨hä⟩ ሁ⟨hu⟩. There is another sequence (cf. Azeb 2010:187), in which the syllabographs are ordered according to Northwest Semitic scripts. It starts with the string አ⟨ʔä⟩ ቡ⟨bu⟩ ጊ⟨gi⟩ ዳ⟨da⟩, from which its name *abugida* is derived (Frantsouzoff 2010:582; Getatchew 1996:570).

The Ethiopic script is the only alphasyllabary among the various scripts for Semitic languages (Daniels 1997:24; Coulmas 2003:154; Voigt 2012:30; Frantsouzoff 2010:580). Other Semitic languages most commonly have abjad scripts, in which vowels are optionally marked by diacritics on the consonant grapheme, or by matres lectionis (Daniels 1997:27–30).[12] The historic dispute about whether the modified Ethiopic script is a syllabary or an abjad (cf. Azeb 2010:183) is resolved by classifying it as a separate type, i.e. an alphasyllabary (Coulmas 2003:154–155) or an abugida (Daniels 1997:17, 23–24).[13] According to Swank (2008), abugida is a writing system in which basic (i.e. unmarked) graphemes represent a consonant with an inherent vowel (usually a short *a*), while other vowels (or the lack of a vowel) are marked through diacritics attached to the basic grapheme. In an alphasyllabary, by contrast, the basic grapheme is a consonant to which diacritics for every vowel are attached (Swank 2008:75). As the distinction between them is not always straightforward or relevant, she groups them together under the label alphasyllabary (Swank 2008:86), which is followed here.

### [3.2] *Graphemes for numbers*

According to Chrisomalis (2012:239), the Greeks were the first to invent an alphabetic numerical system under which each letter of the alphabet is assigned a numerical value. These Greek alphabetic numerical letters were incorporated as number graphemes into the Ethiopic script (Hammerschmidt 1994:319; Daniels 1997:40; Weninger 2011b:1126) – probably already in the 4th century when it still was an abjad (Ullendorff 1951a:217). Only in the 7th century, however, the Ethiopic numerals acquired their current shape in which the Greek letters are enclosed by an upper and lower stroke – apparently to avoid confusion with other graphemes (cf. Hornus 2006:11). TABLE 3, which is adapted from Daniels (1997:40), shows the Ethiopic numerals and their Greek letter equivalents.

Chrisomalis (2012:232) classifies the Ethiopic numerals as basically ciphered-additive and also partly multiplicative. Higher numbers are encoded through a

[12] Other script types also occur but are less common, e.g. Akkadian and Eblaite are written in a logosyllabic cuneiform or Maltese in a Roman script.

[13] According to Daniels (1996:4), previous names for this script type include neosyllabary, pseudo-alphabet, or semisyllabary.

linear combination of the numerals for digits, decimals and one hundred (from the highest numeral to the lowest) whose individual number values are added up, hence ciphered-additive. For instance, the number '123' is represented by ፻፳፫⟨100 20 3⟩, i.e. the sum of 100 plus 20 plus 3. With numbers between 200 and 999, the actual value of 'hundred' is marked by a digit preceding ፻⟨100⟩. Accordingly, the number '523' is encoded by ፭፻፳፫⟨5 100 20 3⟩, in which 5 is multiplied with 100, and then 20 plus 3 is added. This mixed pattern is also found with numbers above 1,999, by using decimals or a combination of digits and decimals as multipliers for 'hundred'. The year '2006', for instance, can be written ፳፻፮⟨20 100 6⟩, i.e. 20 multiplied by 100 to which 6 is added.

| Ethiopic numeral | Greek letter | Value | Ethiopic numeral | Greek letter | Value |
|---|---|---|---|---|---|
| **Digits** | | | **Decimals** | | |
| ፩ | A | '1' | ፲ | I | '10' |
| ፪ | B | '2' | ፳ | K | '20' |
| ፫ | Γ | '3' | ፴ | Λ | '30' |
| ፬ | Δ | '4' | ፵ | M | '40' |
| ፭ | E | '5' | ፶ | N | '50' |
| ፮ | Ϛ | '6' | ፷ | Ξ | '60' |
| ፯ | Z | '7' | ፸ | O | '70' |
| ፰ | H | '8' | ፹ | Π | '80' |
| ፱ | Θ | '9' | ፺ | Ϙ | '90' |
| **Other Numerals** | | | | | |
| ፻ | P | '100' | ፼ | PP | '10,000' |

TABLE 3: Numerals in the Ethiopic script.

The Ethiopic numerals only encode integers; there are no symbols for fractions or zero. Today these numerals are rarely used, e.g. in printed calendars and agendas. Elsewhere, they are commonly replaced by the European numeric notation based on Hindu-Arabic numerals (cf. Getatchew 1996:574; Daniels 1997:40).

[3.3] *Punctuation marks*

The South Arabian vertical bar (|) as a word divider is found in early Ethiopic inscriptions. Later, it was replaced by the colon (:). The lack of these symbols at the end of a line indicates that the word continues at the next line. By contrast to the South Arabian abjad, the Ethiopic script has various additional punctuation marks (Weninger 2011b:1126). These include the full stop (።) to

mark the end of sentences, a paragraph separator ( ፨ ), and several signs for enumerations, such as a comma ( ፣ ), a colon ( ፡ ), a semi-colon ( ፤ ) and a preface colon ( ፥ ) (Hornus 2006:10, Figure 7).[14] Except for the word divider ( ፡ ), the punctuation marks are not consistently applied (Hammerschmidt 1994:319; Ullendorff 1951a:216).

Nowadays, the word divider is often replaced by an empty space (Getatchew 1996:575; Hornus 2006:11). Other punctuation marks common in European writing systems have been incorporated, in particular the question mark ( ? ), the exclamation mark ( ! ), and the quotation marks ( « » ) or ( “ ” ) (Hornus 2006:11; see also Asteraye et al. 1999:9).

Signs for gemination, which conveys lexical and grammatical meaning in Ethiosemitic, are not native features of the Ethiopic script, but inventions of European scholars (Frantsouzoff 2010:584; Ullendorff 1951a:215). Gragg (1997:171), for instance, observes that two dots on top of a geminated consonant, e.g. ፩⟨bbä⟩, has been occurring since the 17th century in grammars and dictionaries of Gəʿəz written by European scholars. Hammerschmidt (1994:321) found a superscript version of the grapheme ᵀ⟨tʼ(ə)⟩ on top of a geminated consonant in a few manuscripts, but considers it a temporary help for pupils learning Gəʿəz (cf. also Ullendorff 1951a:215).[15]

## [4] MODIFICATIONS BEFORE THE 19TH CENTURY

The change of the Ethiopic abjad into an alphasyllabary in the 4th century was followed by the invention of syllabographs for labialised velars (which were later extended to non-velar consonants), for alveopalatal consonants and for spirantised consonants (Frantsouzoff 2010:583). These modifications cannot be exactly dated, but could be caused by applying the Ethiopic script to writing Amharic (cf. Weninger 2011b:1126).

### [4.1] *Labialised consonants*

The labialised velars *kʷ, gʷ, kʼʷ, xʷ* are peculiar to Ethiosemitic. They are not found in other Semitic languages (Ullendorff 1951c:71), nor is their origin in Ethiosemitic known (cf. Podolsky 1991:14). The graphemes for labialised velars are derived from the syllabographs of the corresponding plain velars, i.e. *k, g, kʼ, x* in TABLE 2, but systematically lack the graphemes for back vowels, i.e. Cʷ+*u* and Cʷ+*o* (Hammerschmidt 1994:319):

[14] Hornus (2006:10–11) mentions three vertical dots ( ፧ ) as another enumeration mark in Gəʿəz. According to Ullendorff (1951a:216), this sign was introduced as question mark in the modified Tigrinya orthography from 1944, but was probably never used.

[15] Similar superscripts also occur in an indigenous musical annotation system which was developed by the monk Yared in the 6th century (for further details, cf. Daniel 2006:14–15).

| | Vowel Order | | | | | | |
|---|---|---|---|---|---|---|---|
| C_ | 1st Cä | 2nd C+*u* | 3rd C+*i* | 4th C+*a* | 5th C+*e* | 6th C(+*ə*) | 7th C+*o* |
| *k'ʷ* | ቈ | | ቍ | ቋ | ቌ | ቊ | |
| *xʷ* | ኈ | | ኍ | ኋ | ኌ | ኊ | |
| *kʷ* | ኰ | | ኵ | ኳ | ኴ | ኲ | |
| *gʷ* | ጐ | | ጕ | ጓ | ጔ | ጒ | |

TABLE 4: Labialised velars.

Labialisation is not marked uniformly. For the basic syllabographs, it is indicated by a circle attached to the mid-right side, e.g. plain ቀ⟨k'ä⟩ becomes labialised ቈ⟨k'ʷä⟩, but by an extension of the diacritics for the syllabographs with the vowels *a* and *e*, thus ቃ⟨k'a⟩ changes to ቋ⟨k'ʷa⟩ and ቄ⟨k'e⟩ to ቌ⟨k'ʷe⟩. The syllabographs for the labialised velars with the vowels *i* and *ə* are both derived from the basic syllabograph of the plain velars by adding two different types of curved strokes at their upper-right side, e.g. plain ቀ⟨k'ä⟩ is the base for labialised ቍ⟨k'ʷi⟩ and ቊ⟨k'ʷ(ə)⟩.

The syllabographs for the labialised velars (as well as for *p* and *p'*, cf. [3.1]) are lacking in the Ethiopic abjad, but occur in vocalised inscriptions from the 4th century AD (Ullendorff 1951c:74; Weninger 2011b:1126). Frantsouzoff (2010:583) therefore concludes that the vowel diacritics and the syllabographs for labialised velars were invented at the same time, whereas Ullendorff (1951a:209) assumes that "insufficient epigraphic evidence" is responsible for the lack of intermediary stages.

At a much later but still unspecified time, syllabographs for labialised non-velar consonants (except *h, ḥ, ś, ʔ, ʕ, w, j, p', ḍ, p*) were introduced (Hammerschmidt 1994:319; Frantsouzoff 2010:583). They only appear in a single syllabograph, being Cʷ+*a*, which is derived from its respective plain counterpart with the 5th order vowel, as shown in TABLE 5:[16]

[16] The labialised velars marked by [a] in TABLE 5 have four additional syllabographs for the vowels *ä, i, e, ə* (cf. TABLE 4).

| | Basic Alphasyllabary | | | | | Extended Alphasyllabary | | |
|---|---|---|---|---|---|---|---|---|
| | Plain | | Labialised | | | Plain | | Labialised |
| C_ | 1st Cä | 4th C+*a* | C$^{w}$+*a* | | C_ | 1st Cä | 4th C+*a* | C$^{w}$+*a* |
| *h* | ሀ | ሃ | | | | | | |
| *l* | ለ | ላ | ሏ | | | | | |
| *ḥ* | ሐ | ሓ | (ሗ) | | | | | |
| *m* | መ | ማ | ሟ | | | | | |
| *ś* | ሠ | ሣ | (ሧ) | | | | | |
| *r* | ረ | ራ | ሯ | | | | | |
| *s* | ሰ | ሳ | ሷ | Palatalised | *ʃ* | ሸ | ሻ | ሿ |
| *k'* | ቀ | ቃ | ቋ$^{a}$ | Spirantised | *χ'* | ቐ | ቓ | ቖ$^{a}$ |
| *b* | በ | ባ | ቧ | Spirantised | *v* | ቨ | ቫ | ቯ |
| *t* | ተ | ታ | ቷ | Palatalised | *ʧ* | ቸ | ቻ | ቿ |
| *x* | ኀ | ኃ | ኋ$^{a}$ | | | | | |
| *n* | ነ | ና | ኗ | Palatalised | *ɲ* | ኘ | ኛ | ኟ |
| *ʔ* | አ | ኣ | | | | | | |
| *k* | ከ | ካ | ኳ$^{a}$ | Spirantised | *χ* | ኸ | ኻ | ኼ$^{a}$ |
| *w* | ወ | ዋ | | | | | | |
| *ʕ* | ዐ | ዓ | | | | | | |
| *z* | ዘ | ዛ | ዟ | Palatalised | *ʒ* | ዠ | ዣ | ዧ |
| *j* | የ | ያ | | | | | | |
| *d* | ደ | ዳ | ዷ | Palatalised | *ʤ* | ጀ | ጃ | ጇ |
| *g* | ገ | ጋ | ጓ$^{a}$ | | | | | |
| *t'* | ጠ | ጣ | ጧ | Palatalised | *ʧ'* | ጨ | ጫ | ጯ |
| *p'* | ጰ | ጳ | (ጿ) | | | | | |
| *s'* | ጸ | ጻ | ፏ | | | | | |
| *ḍ* | ፀ | ፃ | | | | | | |
| *f* | ፈ | ፋ | ፏ | | | | | |
| *p* | ፐ | ፓ | | | | | | |

TABLE 5: Summary of labialised consonants.

More recently, even *ḥ, ś, p'*, and secondarily palatalised and spirantised consonants acquired syllabographs representing C$^{w}$+*a*, which are included in the official abecedary of the Ethiopic script (cf. Azeb 2010:187).

[4.2] *Alveopalatal consonants*

The Ethiopic alphasyllabary was used exclusively for writing Gəʿəz for several centuries. When it was adapted for the first time for another Ethiosemitic lan-

guage, specifically Amharic, in the 14th century, six additional syllabograph series for the alveopalatal consonants *ʃ, ʒ, ʧ, ʤ, ʧ', ɲ* were created by modifying their alveolar counterparts (Frantsouzoff 2010:583; Hornus 2006:15).

| | Vowel Order | | | | | | |
|---|---|---|---|---|---|---|---|
| C_ | 1st Cä | 2nd C+*u* | 3rd C+*i* | 4th C+*a* | 5th C+*e* | 6th C(+*ə*) | 7th C+*o* |
| *ʃ* | ሸ | ሹ | ሺ | ሻ | ሼ | ሽ | ሾ |
| *ʧ* | ቸ | ቹ | ቺ | ቻ | ቼ | ች | ቾ |
| *ɲ* | ኘ | ኙ | ኚ | ኛ | ኜ | ኝ | ኞ |
| *ʒ* | ዠ | ዡ | ዢ | ዣ | ዤ | ዥ | ዦ |
| *ʤ* | ጀ | ጁ | ጂ | ጃ | ጄ | ጅ | ጆ |
| *ʧ'* | ጨ | ጩ | ጪ | ጫ | ጬ | ጭ | ጮ |

TABLE 6: Palatalised alveolars.

Ullendorff (1951a:214) remarks that Amharic may not necessarily have caused the invention of these syllabographs, as alveopalatal consonants are also found in Tigrinya and Tigre. However, as these languages only began to be written down relatively recently (cf. [6]), it is reasonable to consider Amharic as the trigger for this invention.

In contrast to labialisation, palatalisation is almost regularly marked by a horizontal stroke on top of the syllabograph for the corresponding alveolar consonant, e.g. the palatalised ሸ⟨ʃä⟩ is derived from ሰ⟨sä⟩, ሹ⟨ʃu⟩ from ሱ⟨su⟩, etc. The syllabograph starting with the consonant *ʒ* is characterised by two separate horizontal strokes attached to the two upper ends of its alveolar counterpart, i.e. plain ዘ⟨zä⟩ becomes palatalised ዠ⟨ʒä⟩. Only the syllabographs based on *ʧ'* attach circles to the three lower extensions of the plain counterparts, thus palatalised ጨ⟨ʧ'ä⟩ derives from plain ጠ⟨t'ä⟩. Regarding this irregularity, Hornus (2006:15, 37) and Ullendorff (1951a:214) are of the opinion that the syllabographs for *ʧ'* were initially derived by attaching small strokes to the upper corners of their plain counterparts, i.e. a grapheme ⟨ʧ'ä⟩ similar to ጡ instead of ጨ, as found in Ludolf's *Historia Aethiopica* from 1681 (cf. Ludolphus 1982:6r). However, Praetorius (1879:17) noticed that ጡ is restricted to Ludolf's publications, so it could also result from the hypercorrect use of the horizontal strokes found with ዠ⟨ʒä⟩.

### [4.3] *Additional syllabographs*

Writing in Amharic probably triggered further innovations in the Ethiopic alphasyllabary. In Gəʿəz, the basic syllabographs starting with the gutturals *h, ḥ, x, ʕ, ʔ* are irregularly pronounced with the vowel *a* instead of regular *ä* (cf. Foot-

note 9). Consequently, there was no written representation for the syllables *hä* and *ʔä* in Amharic. Therefore, the syllable *hä* (or related *χä~xä*), which is fairly frequent in Amharic, began to be represented by the syllabograph ኀ⟨χä⟩ – which is derived by adding a horizontal stroke on top of ሀ⟨kä⟩. The spirantisation of **k* to *h* (via *χ* and *x*) through a diachronic sound change is reflected in a number of cognates from Gəʿəz and Amharic (cf. Podolsky 1991:29–32). Since early Amharic writers were certainly aware of this sound change, they could have indicated it by modifying the syllabograph for Gəʿəz ሀ⟨kä⟩. This might explain the occurrence of ኀ⟨χä⟩ as a basic syllabograph, which can be modified for all other vowels and for labialisation.

The creation of the marginal syllabograph ኧ⟨ʔä⟩ by attaching a horizontal stroke to ኣ⟨ʔä⟩ (which is irregularly pronounced *ʔa*) is probably related to this. By contrast to ኀ⟨χä⟩, the syllabograph ኧ⟨ʔä⟩ is never modified by vowel diacritics. Moreover, the syllable *ʔä* is exceptional in Amharic because it only occurs in the interjection ኧረ ⟨ʔä rä⟩ 'gosh' (expressing surprise). This syllable seems to be completely absent in Tigre and Tigrinya. Probably due to its rarity, ኧ⟨ʔä⟩ is not included in the official abecedary (cf. Azeb 2010:187).

In Tigrinya, the velar plosive *k* and ejective *k'* have the spirantised uvular consonants *χ* and *χ'* as phonologically conditioned allophones (Kogan 1997:425). Similarly to Amharic, the spirantised allophones are marked by a horizontal stroke on the syllabographs of the plain consonants, i.e. ኀ⟨χä⟩ from ሀ⟨kä⟩, and ቐ⟨χ'ä⟩ from ቀ⟨k'ä⟩. These modified syllabographs can be combined with vowel diacritics and mark labialisation.

The horizontal stroke on the syllabograph ቨ⟨vä⟩ connects it to በ⟨bä⟩, but *v* (i.e. spirantised *b*) is not a native phoneme in Ethiosemitic, as it exclusively occurs in loanwords. Asteraye et al. (1999:8) ascribe both the invention of ቨ⟨vä⟩, as well as the syllabograph series for the palatal approximant *ʎ*, i.e. ሏ ⟨ʎä⟩ derived from ለ⟨lä⟩ and the palatal co-articulated nasal *mʲ*, i.e. ፚ ⟨mʲä⟩ derived from መ⟨mä⟩, to Catholic missionaries from the 17th century who created them for transcribing Portuguese. The syllabograph series for ሏ ⟨ʎä⟩ and ፚ ⟨mʲä⟩ are unknown today. Only ፚኁ ⟨mʲa⟩ or its variant ፚኂ⟨mʲi⟩, which both represent *mʲa*, continued to occur in texts until the 19th century (cf. Praetorius 1879:19).

### [4.4] *Alternating graphemes*

The corpus of literary works in Gəʿəz is divided into two periods. In the Aksumite period from the 4th to the 7th centuries, Gəʿəz was spoken as a native language, but it only functioned as a learnt language used for literary purposes in the post-Aksumite period from the 13th to 19th centuries (cf. Kropp 1986:315–

316; Weninger 2005:465). According to Avanzini (2007b:161), all of the syllabographs in TABLE 2 represent distinct Gəʿəz phonemes in use until the 6th century AD.[17] Since then, some of them continue to be used interchangeably, namely ኧ⟨ʔä⟩ and ዐ⟨ʕä⟩ for the glottal stop *ʔ*, ሀ⟨hä⟩, ሐ⟨ħä⟩ and ኀ⟨xä⟩ for the fricative *h*, ሠ⟨śä⟩ and ሰ⟨sä⟩ for the sibilant *s*, and ፀ⟨ṣä⟩ and ጸ⟨s'ä⟩ for the ejective fricative *s'*. Thus, after Gəʿəz ceased being spoken, these alternations represent etymologising writing (cf. Hammerschmidt 1994:320; Hornus 2006:15), since the writers of later Gəʿəz texts spoke another mother tongue in which some of these consonants are not distinguished (Weninger 2011b:1128; Gragg 1997:170–173). All attempts to eliminate these spelling variants in the modern Ethiosemitic languages written in the Ethiopic alphasyllabary have so far failed (cf., e.g. Cowley 1967; Amsalu 2006:21–24 for Amharic; Voigt 2011:1176 for Tigrinya; Wagner 2004:356–357 for Harari; Hussein 2010:85–87 for Silt'e).

Furthermore, Praetorius (1879:18) observes that the syllabograph ሟ ⟨mʲa⟩, became a spelling variant of the syllabograph ሟ⟨mʷa⟩ for labialised *mʷa*. The rare use of the syllabographs for *mʲ* certainly facilitated the new interpretation of ሟ ⟨mʲa⟩ as ⟨mʷa⟩. Similarly, the syllabograph ፏ⟨fʷa⟩ has an optional variant ፚ⟨fʷa⟩ with a horizontal stroke on its top – beside a third variant ፙ⟨fʷa⟩ derived from the syllabograph of the 6th order vowel (cf. also Cowley 1967).

## [5] OVERVIEW OF MODIFICATIONS AFTER THE 19TH CENTURY

Protestant and Catholic missionary activity in Ethiopia and Eritrea intensified in the 19th century, accompanied by the linguistic description of various vernacular languages, including the development of orthographies (cf., e.g. Voogt 2014:135–136). The new orthographies were often an adapted Ethiopic alphasyllabary, in which new graphemes were frequently created by modifying existing syllabographs.[18] For writing Oromo (Cushitic), for instance, the basic syllabograph for the implosive *ɗ* was derived from ዶ⟨dä⟩, either by striking out its upper part, i.e. ዶ⟨ɗä⟩, or by a short vertical stroke on top of it, i.e. ዷ⟨ɗä⟩ (Gragg 1976:168). Another example is the velar nasal *ŋ* in Bilin whose basic syllabograph ኘ⟨ŋä⟩ is a modification of ገ⟨gä⟩ (Smidt 2003:586; Asteraye et al. 1999:5).

In the 1980s, four new syllabograph series were invented for the preglottalised consonants *ʔl, ʔm, ʔr* and *ʔn* in Sidaama by striking out the corresponding plain syllabographs, i.e. ለ⟨lä⟩ changed to ቚ⟨ʔlä⟩, ነ⟨nä⟩ to ኍ⟨ʔnä⟩, etc. (Asteraye et al. 1999:8). For writing Sebat Bet Gurage, additional syllabograph

[17] According to other scholars, certain syllabographs had already merged in late Aksumite inscriptions (cf., e.g. Bulakh 2014:178).

[18] This principle was also applied for adapting the Ethiopic script to write various Ethiopian languages after 1991 (cf. especially Meheretu 2006:Chap. 4).

series were introduced for the palatalised velars *kʲ, gʲ, kʼʲ, χʲ* and the rounded labials *mʷ, bʷ, fʷ, pʷ*.

| | Vowel Order | | | | | | |
|---|---|---|---|---|---|---|---|
| C_ | 1st Cä | 2nd C+*u* | 3rd C+*i* | 4th C+*a* | 5th C+*e* | 6th C(+*ə*) | 7th C+*o* |
| *kʲ* | ሿ | ሿ፡ | ሿ፤ | ሿ | ሿ፣ | ሿ | ሿ |
| *gʲ* | ጎ | ጎ፡ | ጎ፤ | ጋ | ጎ፣ | ጎ | ጎ |
| *kʼʲ* | ቆ | ቈ | ቊ | ቃ | ቈ | ቆ | ቈ |
| *χʲ* | ኾ | ኾ፡ | ኾ፤ | ኻ | ኾ፣ | ኾ | ኾ |

TABLE 7: Additional syllabographs for palatalised velars in Gurage.

The palatalised velars are uniformly marked by a diacritic hook ˅ on top of the syllabograph for the corresponding plain velar.[19]

Rounded labials are indicated by the labialisation diacritics of velars (cf. Asteraye et al. 1999:4–5). Note that the labialised grapheme for the 5th order already existed in the extended Ethiopic alphasyllabary for Amharic (cf. TABLE 5).

| | Vowel Order | | | | | | |
|---|---|---|---|---|---|---|---|
| C_ | 1st Cä | 2nd C+*u* | 3rd C+*i* | 4th C+*a* | 5th C+*e* | 6th C(+*ə*) | 7th C+*o* |
| *mʷ* | ሙ | | ሟ | ሟ | ሟ | ሟ | |
| *bʷ* | ቡ | | ቡ፡ | ቧ | ቧ፣ | ቧ | |
| *fʷ* | ፉ | | ፉ፡ | ፋ | ፋ | ፏ | |
| *pʷ* | ፐ | | ፑ | ፓ | ፓ | ፐ | |

TABLE 8: Additional syllabographs for rounded labials in Gurage.

Additional modifications occur for writing new consonants in languages like Benchnon (Omotic) or Me'en (Nilo-Saharan) (cf. Asteraye et al. 1999:5).

Vowel length and gemination are less frequently indicated in the Ethiopic alphasyllabary, even if they are phonemic. The first convention for indicating vowel length is found in Oromo, in which the five short vowels /a, e, i, u, o/ contrast with their long counterparts. The original qualitative contrast between the 1st and 4th order vowels *ä* vs. *a*, and the 3rd and 6th order vowels *i* vs. *ə* in the Ethiopic alphasyllabary was given a length interpretation to distinguish between short *a* vs. long *aa*, and long *ii* vs. short *i* in writing Oromo (Gragg 1997:168), as, e.g. in short ቨ⟨ba⟩ vs. long ባ⟨baa⟩. Length distinctions for the re-

[19] In Sahle Selassie (1964), the hook was replaced by a horizontal stroke.

maining vowels /u, e, o/ are not indicated. This convention was later also applied for writing Silt'e (Hussein 2010:49).

One version of the Harari script invented another way to distinguish between the five short and long vowels /a, e, i, u, o/ (Wagner 2004:357–359). The distinction between short *a* versus long *aa* is represented by the graphemes for the 1st and the 4th order, as in Oromo. For the remaining vowels, the regular syllabograph indicates a short duration, while long vowels are marked by the additional glides ⷠ⟨w⟩ and ⷯ⟨j⟩ as matres lectionis. Syllabographs with front vowels, i.e. C+*i* and C+*e*, indicate length by ⷯ⟨j⟩, but the syllabographs with back vowels, i.e. C+*u* and C+*o*, use ⷠ⟨w⟩, e.g. short ቢ⟨bi⟩ vs. long ቢⷯ⟨bi j⟩~[bii] or short ቦ⟨bo⟩ vs. long ቦⷠ⟨bo w⟩~[boo]. Furthermore, the syllabograph for the 6th order represents a vowelless consonant. If it immediately precedes another syllabograph, gemination is indicated, e.g. ⷢበ⟨b ba⟩ represents [bba].

In the Ethiopic script adapted for the Cushitic language K'abeena (cf. Moges 2005), the original syllabograph series based on ⷀ⟨ʔä⟩ following another syllabograph was reemployed as marker for long vowels, while gemination is marked as in Harari. In Bilin (Cushitic), the basic syllabograph ⷐ⟨hä⟩, originally pronounced as *ha* (cf. Footnote 9), became the conventionalised representation of the syllable *hä* (Fallon 2006:93). Furthermore, the syllabograph ⷘ – given as ⟨xʷ⟩ in Fallon (2006:95) – encodes a labialised velar in Bilin, but spirantised *χ* in other languages.

## [6] SPREAD OF THE ETHIOPIC SCRIPT

Languages other than Gəʿəz were rarely written in the Ethiopic script before the 19th century (Hornus 2006:15). A remarkable exception is Amharic, in which several literary specimens are extant – the oldest are probably panegyrics praising Ethiopian kings from the 14th century (cf. Meyer 2011a:1179 for an overview). Between the 16th and 17th centuries, Catholic missionaries proselytised in Amharic for which they prepared catechisms (Meyer 2011b:1214). Moreover, they taught children reading and writing in Amharic and Tigrinya, as well as in Portuguese (cf. Cohen & Martínez 2007:280; Pankhurst 1976a:310). When the missionaries were expelled in the first half of the 17th century, Gəʿəz again became the main literary language for almost another two hundred years, during which time the Ethiopian Orthodox Church transmitted the skills to read and write in the Ethiopic script (Hornus 2006:19).

The Ethio-Eritrean region was already known in Europe in the Middle Ages due to the presence of Ethiopian Orthodox priests in Jerusalem and Rome. At that time, European scholars referred to Ethiopia by the term *India* and used *Chaldaic* as the name for the Ethiopic script (Hornus 2006:27; Kelly 2015). At the

beginning of the 16th century, the German Johannes Potken created the first Ethiopic letters for printing, in which the Psalters in Gəʿəz were published in 1513 (cf. Fiaccadori & Juel-Jensen 2007:136; Hornus 2006). In the second half of the 17th century, another German, Hiob Ludolf, established a lasting scientific cooperation with the Ethiopian monk Abba Gregorius (i.e. Giyorgis), whom he met in Rome. Subsequently, Ludolf published grammars and dictionaries for Gəʿəz and Amharic, and a historical cultural treatise on Ethiopia (Ludolphus 1982; cf. also Hammerschmidt 1965:258–259; Beltz 1985). These works, however, remained unrecognised in the Ethio-Eritrean region.[20]

European interest in Ethiopia and Eritrea increased at the beginning of the 19th century, when Protestant and Catholic missionaries started proselytising by using local vernacular languages. Among the first languages to be reduced to writing in the Ethiopic script were Tigre and Tigrinya (both Semitic), but also Bilin and Oromo (both Cushitic) (cf. Hammerschmidt 1994:320).

The first linguistic description of Tigre dates back to 1868 (Morin 2011:1150–1151; Voigt 2009:155). In 1871, Swedish missionaries adapted the Ethiopic script for writing Tigre, in which the Gospel according to Mark was published in 1889, and the New Testament in 1902 (Frantsouzoff 2010:584). The first novel in Tigre appeared in 2007. Muslim Tigre refused to use the Ethiopic script; instead, they use an adapted Arabic script (Morin 2011:1150). According to Cohen & Martínez (2007:280), Tigrinya was first written at the beginning of the 17th century. Ghirmai (1999:68), in contrast, only considers the Gospels published in 1866 as the beginning of Tigrinya literacy, even though linguistic and missionary work in Tigrinya started earlier (cf. Praetorius 1879:9–14).

In 1857, the Catholic missionary Giuseppe Sapeto published a multilingual vocabulary in which Bilin is written in the Ethiopic script. The publication of the Gospel of Mark followed in 1882 (Fallon 2006:93). In 1996, however, the Ethiopic script was replaced by a Roman script for writing Bilin (Fallon 2006:97).

Printing in Oromo started in 1839, when the French geographer Edmé-Francois Jomard published a collection of prayers, love songs and war chants, which he obtained from a freed slave in Paris (Pankhurst 1976b:172–174). At almost the same time, Karl Tutschek took care for the education of another freed Oromo slave in Germany, with whom he published the first Oromo dictionary in 1844 followed by a grammar in 1845 (cf. Gragg 1976:167). In Eritrea and Ethiopia, missionaries were working on Oromo from the 1830s, resulting in the publication of grammatical sketches, vocabularies, and text collections from 1840 onwards (Gragg 1976:167–168). The early Oromo publications were

[20] For an overview of early research on Ethiosemitic in Europe, cf. Meyer (2011a:1179).

written in a modified Roman script, which, however, was replaced in the 1870s by the Ethiopic script through Onesimus Nesib – a freed Oromo slave educated in the Swedish missionary school at Munkullo (cf. Gragg 1976:168; Frantsouzoff 2010:584; Smidt 2010:70).

The 19th century also brought about major changes in language matters at the Ethiopian royal court, by promoting Amharic as the only official language. Emperor Tewodros II (r. 1855–1868) ordered his royal chronicle to be written in Amharic, disregarding the old tradition of Gəʿəz being the exclusive literary language. His successor, Yohannis IV (r. 1872–1889), reinstated Gəʿəz as the written language, but under Menelik II (r. 1889–1913) Amharic eventually replaced Gəʿəz and became the main literary language. Menelik II appointed Amharic-speaking officials as administrators in newly annexed areas in the south, in which it subsequently became the de facto lingua franca (cf. Meyer 2011b:1214). In addition, Amharic was spread and promoted through schools since the introduction of modern education at the beginning of the 20th century (Pankhurst 1976a:315). In early missionary schools and during the Italian occupation, various Ethiopian and foreign languages were used in modern schools. In 1944, however, Haile Sellassie I (r. 1930–1974) ordered by decree that Amharic be the only means of instruction in primary education and that English be the principal foreign language in secondary education (cf. Meyer 2011b:1214–1215). Subsequently, Amharic was declared the sole national language of Ethiopia in 1955. Although the DERG, i.e. the socialist government of Ethiopia from 1974–1991, also provided other Ethiopian languages with a de jure official status, de facto Amharic retained its dominant position. As less than 10% of the population was literate at the beginning of the 1970s, the DERG gave priority to the eradication of illiteracy (McNab 1990:70). Literacy campaigns were organised between 1979 and the mid-1980s, in which several Ethiopian vernacular languages were used for adult literacy education (McNab 1990:74). Initially, only the major languages Amharic, Oromo, Tigrinya, Wolaitta and Somali were utilised, but later languages with fewer speakers were added, namely Gedeo, Kambaata, Hadiyyisa, Kunama, Tigre, Afar, Saho, Kafa, Sidaama and Silt'e. New orthographies based on the Ethiopic script were prepared for Afar, Saho, Kafa, Sidaama and Silt'e (McNab 1990:73; Wedekind 1994:822–823). The DERG deliberately decided to use only the Ethiopic script for writing Ethiopian languages, which was institutionally organised and supervised through the National Language Academy. Previously, the Ethiopic script had been spread by native speakers or missionaries who individually adapted it for writing Ethiopian languages (Asteraye et al. 1999:3).

The Ethiopic script spread further after 1991, when the current Ethiopian

government granted all ethnolinguistic groups the right to utilise their native languages in their own administrative regions. Initially, languages belonging to different language families – for instance the Cushitic K'abeena, Awngi and Xhamtanga, the Omotic Bench and Koorete, and the Nilo-Saharan Anywa and Me'en – were written in a modified version of the Ethiopic script (cf. Asteraye et al. 1999:2; Azeb 2010:193).

A side effect of the missionary activities in the 19th century was the introduction of printed materials in the Ethiopic script to Ethiopia and Eritrea; the first printed book in the Ethiopian script probably arrived there in 1810 (Hornus 2006:39).[21] This is remarkable, as missionaries generally preferred Roman-based orthographies for the codification of African languages (cf. Bendor-Samuel 1996).

In the second half of the 19th century, printing presses were already established in various Ethiopian and Eritrean towns (cf. Pankhurst 2010). However, the production of literacy materials in languages with new or modified syllabographs in the Ethiopic script was not without its challenges. As specific characters were often not available on typing or printing machines, they had to be marked by hand (McNab 1990:78). The increasing availability of electronic communication technology in public and private spheres from the late 1990s onwards helped to solve this problem by establishing Ethiocode (ES 781:2002) in 2002 as a standardised Unicode format for the Ethiopic script, with further extensions under Unicode 3.0 (Daniel 2006; Asteraye et al. 1999). Thus, the Ethiopic script and its modifications were eventually institutionalised on an international level.

## [7] SCRIPTS IN ETHIOPIA AND THEIR SOCIAL CONNOTATIONS

Writing in the Ethio-Eritrean region began in the foreign languages of Sabaic or its local variety Pseudo-Sabaic, and Greek. When Aksum evolved as a powerful empire in the Horn of Africa at the beginning of the 1st millennium AD, inscriptions in the vernacular language Gəʿəz, probably the dominating native language at the royal court, began to appear in the Ethiopic abjad script (cf. [2]). The invention of a writing system for Gəʿəz and its subsequent use in inscriptions was certainly intended to demonstrate the sovereignty of the Aksumite emperors.

The transformation of the Ethiopic abjad to an alphasyllabary in the 4th century coincided with the promotion of Christianity as state religion and the foundation of the Ethiopian Orthodox Church, which was followed by the translation of the scriptures and religious treatises into Gəʿəz (cf. [2]). From the 4th to

[21] Cf. Hornus (2006:27–64) and Gupta (1994:174–179) for the history of printing in the Ethiopic script.

the 19th centuries, the Ethiopian Orthodox Church was the sole institution for teaching reading and writing Gəʿəz in the Ethiopic script (cf. Pankhurst 1976a). Although Gəʿəz ceased being spoken as a native language between the 8th and 10th centuries, it was maintained as a liturgical language in the Ethiopian Orthodox Church (Richter 1997:543). Moreover, a diglossic situation prevailed in the Christian Ethiopian kingdom in which Gəʿəz functioned as the written language, while Amharic was the spoken lingua franca at the court, in regional administration, and in the military (cf. Cooper 1976:289; but also Meyer 2011b:1213–1214). Consequently, Gəʿəz and the Ethiopic script, in which it was written, became closely associated with Ethiopian Orthodox Christianity and the Ethiopian royal court.

Beside Gəʿəz, Arabic has been in use for a long time in Muslim states and communities in the Ethio-Eritrean region, in which it functions as a religious language and as a medium for writing. Continuing to the present, Arabic is taught in Quran schools all over Ethiopia and Eritrea (Wetter 2006:51). Although as early as 615 followers of the Prophet Mohammed found refuge in Aksum, the spread of Islam in the Ethio-Eritrean region is ascribed to Arabian merchants and travellers (Wetter 2006:52; Abbink 1998:111, 113). The foundation of the Sultanate of Shewa as the first Muslim state in 896 was soon followed by others, including the city state of Harar, which developed into an important centre of medieval Muslim scholarship (Wetter 2006:52). In the 18th century, centres of Islamic learning were established in eastern Wello, which attracted Muslims from other areas (Wetter 2006:53). Islamic teaching was often conducted in vernacular languages, since many Muslims had only a limited command of Arabic. According to Drewes (1976:186), Sheikh Ṭalḥa from Wello was the first to utilise Amharic for his religious teachings in the 18th century. Modified Arabic scripts, known as *Ajäm*, were created for writing Harari, Amharic, Argobba, Oromo, Silt'e and probably other languages (cf. Wetter 2006:53–54; Mumin 2009:33–40). Except Harari (cf. Banti 2005:74–79; Wagner 1983:9–16), the Ajäm literature in these languages is still not fully studied (cf. Pankhurst 1994:257–259).

Apart from a few attempts by Catholic missionaries to teach Portuguese in the 17th century (Cohen & Martínez 2007:280), the Roman script was only introduced into the Ethio-Eritrean region at the end of the 19th century, when it was used for the codification of vernacular languages, as well as in foreign education. Thus, Italian first served as the medium of instruction in a missionary school in Asmara in 1897, but then became the dominant foreign language during the Italian occupation (Pankhurst 1976a:313–314). When Menelik II opened the first government school in Addis Ababa in 1908, French became the medi-

um of instruction, while Italian, English, and Amharic were only subjects (Pankhurst 1976a:315). Since the 1950s, English has been the dominant foreign language, being taught as a subject in primary education, but then functioning as the medium of instruction in secondary and tertiary education. It is only since 1991 that the Roman script has been widely used for writing vernacular languages.[22]

Most autochthonous scripts in Africa came into existence after the 1950s, a development which is probably related to the strengthening of independence movements (Voogt 2014:137–138). Ahmed (2005) mentions that Harari was written in an "ornamental secret" script until the 1970s. In addition, Sheikh Bakri Saḍalō invented an alphasyllabary for Oromo during the 1950s, which differs from the Ethiopic script in the form of the syllabographs and contains diacritics for vowel length and gemination (cf. Hayward & Mohammed 1981). Sheikh Bakri Saḍalō was probably influenced by indigenous scripts for Somali from the 1920s and 1930s, like the Osmania or Gadabuursi scripts (cf. Tosco 2010; 2015). As Harari and Oromo were already written languages at that time, the invention of the autochthonous scripts could well be personally motivated.[23]

The use of several scripts for writing a single language is not infrequent. Since 1991, Oromo has been officially written in *Qubee*, a modified Roman script that replaced the previous writing system based on the Ethiopic script. Moreover, some Muslims still write Oromo in an Ajäm script. A similar case is Harari (cf. Wagner 2004). It was written in Ajäm until the 1980s, which was replaced by a modified Ethiopic script in 1986. In addition, Harari was written in the above-mentioned secret script, and also in a modified Roman script for a short period after 1991. In the 1990s, K'abeena was was reduced to writing in a modified Ethiopic script (cf. §[4.4]), which was then replaced by a Roman script in 2014. There are plenty of other similar examples.

The use of a particular script for writing a language often has social implications (cf. Coulmas 2000; Moges 2010:120). Thus, Muslims strongly preferred to write in Arabic or in Ajäm scripts, as they connected the Ethiopic script straightforwardly with Christianity (Wetter 2006:53). Furthermore, the Ethiopic script is commonly associated with Amhara's domination (cf., e.g. Tilahun 2000). Consequently, some ethnolinguistic groups abandoned the Ethiopic script in favour of a Roman script after the fall of the DERG in 1991 (cf. Azeb 2010:192). This process started with the replacement of the Ethiopic script for

[22] Cf., e.g. Moges & Turton's (2005) suggestion for a Mursi script.

[23] With regard to Sheikh Bakri, for instance, Mohammed (2003:157) states, "his ultimate objective was to glorify Afaan Oromo with its own writing system ..."

Oromo by Qubee in 1991 (Mekuria 1997:349). Subsequently, the Ethiopic script of other Cushitic and Omotic languages was replaced by a Roman-based orthography, including Sidaama (cf. Yri 2004), Afar, Gedeo, Hadiyyisa, Kambaata (cf. Treis 2008:54–56) and Wolaitta (cf. Hirut 2005; 2014).

It is generally argued that the Roman-based orthography provides a better representation of the phonology, as it can easily mark vowel length and gemination.[24] This is certainly true to some extent, but is not the only reason. Replacing the Ethiopic script with a Roman-based orthography seems to be a symbol of linguistic independence and cultural emancipation vis-à-vis the suppression of ethnolinguistic differences under the umbrella of national unity during the reign of Haile Sellassie I and the DERG. More recent script changes, however, are rather a sign of loyalty or disloyalty to the immediate neighbours with whom a group wants to be formally associated - or not. For instance, the official announcement of a modified Ethiopic script for writing Gurage in 2014 was followed by the decision of the K'abeena to replace their former Ethiopic script with a Roman-based orthography. As the K'abeena are a minority group within the Gurage Zone, this decision clearly emphasises their linguistic and cultural differences to the surrounding Gurage, but connects it to other speakers of Cushitic languages in the region.

## [8] SUMMARY

The Ethiopic script has a long history, in the course of which it was modified in several ways. The Ethiopic abjad script was adapted from the South Arabian script, but soon changed into an alphasyllabary – probably inspired by Indic scripts – which also included additional graphemes and numerals due to Greek influence. When the Ethiopic script was utilised to write languages other than Gəʿəz, its syllabographs were modified to represent new sounds.

Initially, Gəʿəz – the language of the royal court and later of the Ethiopian Orthodox Church – was the only language written in the Ethiopic script. Even after Gəʿəz ceased being spoken, it was retained as the language of the liturgy in the Ethiopian Orthodox Church and as main literary language at the royal court until the 19th century. At that time, the political interests of Ethiopian emperors favoured Amharic as the written language at the court. This was soon followed by the introduction of modern education, mass media, and printing presses in which Amharic was the dominant language. Although a number of vernacular languages were reduced to writing in the Ethiopic script in the 19th

[24] Cf., for instance, the arguments for using Qubee in Tilahun (1993). Voogt (2014) – in his survey of African scripts developed in the 19th century and later – observes that alphasyllabic scripts are most frequently utilised before World War II, whereas since the 1950s the alphabetic writing has dominated.

century and later, serious attempts to use them for mother tongue education have only occurred since 1991.

This development evidences that the Ethiopic script can easily be adapted to the needs of specific languages. However, in addition to writing, the script also has a social implication. As the Ethiopic script was mainly used for writing Gəʿəz, the liturgical language in the Ethiopian Orthodox Church, both of them were tightly connected with Christianity. Therefore, the Ethiopic script was disliked by Muslims who preferred Arabic or Ajäm scripts. Catholic missionaries in the 17th century, by contrast, avoided Gəʿəz, but used the Ethiopic script for writing Amharic, the spoken lingua franca at the royal court. Only after the 19th century did Ethiopian rulers actively promote Amharic and the Ethiopic script as a unifying bond for the Ethiopian nation, by suppressing the use of other vernacular languages in official domains and by prohibiting the use of other scripts for writing vernacular languages. As a result, many ethnolinguistic groups in Ethiopia prefer to write their language in a socio-cultural neutral Roman-based orthography in order to signal their linguistic and cultural autonomy within the current Ethiopian state.

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