6 Writing for Speaking: The Nluu Orthography

Sheena Shah and Matthias Brenzinger

1 Introduction

With only three known remaining fluent speakers, all in their eighties, Nluu features prominently as the most endangered, still-spoken language of Southern Africa (Moseley 2010). Among linguists, Nluu (ISO 639 code: ngh) was thought to be extinct for several decades (cf. Traill 1999:27). In the late 1990s, through an initiative of Nigel Crawhall, Nluu speaker Elsie Vaalbooi made a radio announcement in which she asked other speakers to make themselves known. Some twenty elderly speakers, scattered throughout the Northern Cape province of South Africa, revealed their competence in the language (Chamberlin and Namaseb 2001). Since then, most of these speakers have passed away. Today, Nluu is spoken by three sisters only, all residing in the vicinity of Upington. Hanna Koper is the oldest, followed by Griet Seekoei; Katrina Esau (also known as Ouma Geelmeid), aged 84, is the youngest. Their younger brother, Simon Sauls, only remembers some Nluu words and phrases and therefore could be referred to as a semi-speaker at best. The sisters are not in regular contact with one another, mainly due to restrictions in mobility as a result of old age and poor infrastructure. Nluu, for that reason, is no longer used in natural conversations on a daily basis. This chapter describes the ‘Writing for Speaking’ project,¹ which aims to establish a shallow orthography that allows students who are non-native speakers of Nluu to read and pronounce new Nluu words, even those that they have never heard before.

Nluu is one of the ‘non-Bantu click languages’, a term suggested by Westphal (1971). Together with other languages spoken by former hunter-gatherers and pastoralists in Southern and Eastern Africa, Nluu was grouped as a member of the ‘Khoisan’ language family. This language family, however, proved not to exist as more language data became available and as the methods for analysing them advanced (Güldemann 2014a; Güldemann and Vossen 2000). While some scholars continue to use this rather problematic term, we adopt Westphal’s label in order to also avoid confusion with the various kinds of discourse in Southern Africa in which ‘Khoisan’ is employed with different meanings (Brenzinger 2013, 2014).
While more than one hundred non-Bantu click languages might still have been spoken a century ago, only about a dozen of them are currently in use as community languages (Brenzinger 2013). !Xam, !Ungkue, !Xegwi, and Nuu – all languages belonging to the !Ui language family – were once spoken by former hunter-gatherer communities in most parts of present-day South Africa. !Xam, documented by Wilhelm Bleek and Lucy Lloyd in the 1870s, became extinct in the 1920s (Bleek 1929a). In post-apartheid South Africa, this language features prominently in the South African coat of arms and appears on all notes and coins of the South African currency. Although !Xam is the most visible !Ui language, Nuu is the only language of this family which is still spoken.

The rapid physical and cultural decline of hunter-gatherers who spoke non-Bantu click languages began with the arrival of the European settlers more than two centuries ago (Penn 2005). The colonizers, together with their Nama- or Afrikaans-speaking clients, murdered them in large numbers (De Prada-Samper 2012). Surviving members of the hunter-gatherer communities were marginalized and linguistically assimilated (Traill 1996). !Ui languages were abandoned by their speakers in favour of South East Bantu languages, such as siSwati and isiZulu (cf. Ziervogel 1955:36), as well as isiXhosa. In Lesotho, speakers of !Ui languages shifted to siPhuthi (Orpen 1874:3), while in the Northern Cape of South Africa, former hunter-gatherers predominantly speak Afrikaans as their mother tongue and Nama in some cases. ‘Bushman’ languages have left an impact on the languages they shifted to; for example, some of the Karretjie Mense (‘donkey-cart people’) of the Upper Karoo ‘perceive their spoken version of Afrikaans to be a Bushman language’ (Prins 1999:48). However, as far as we know, the three elderly women in Upington are the last remaining speakers of a !Ui language, namely Nuu.

2 The Nuu Speakers of the #Khomani Community and Their Language

The three Nuu-speaking sisters identify themselves as belonging to the #Khomani community. Members of this community, which may comprise up to four hundred people, all claim to be descendants of Nuu speakers. #Khomani, a xenonym, gained considerable currency during the San land claim and became more widely used only in the late 1990s (Crawhall 1999). #Khomani San, ‘rather than meaning an ethnic unit, refers to a specific collective that was formed during the land claim process’ (Ellis 2012:21). Nevertheless, #Khomani has been adopted by the Nuu speakers and their relatives as their ethnonym (Brenzinger forthcoming), and they emphatically sing their ‘#Khomani San anthem’ (Shah and Brenzinger 2016). Nuu has not been regularly used in everyday communication for several decades.
The remaining speakers, for that reason, underwent a process of rediscovering the language they were exposed to as children, and in discussions among themselves, meanings and structural aspects of the language returned to their memories.

By far, most ǃKhomani speak Afrikaans, the prevailing language in the Northern Cape province of South Africa, as their mother tongue. Fewer than thirty ǃKhomani in Witdraai and Welkom use Nama as their first language, but even among these few Nama-speaking families, the younger generation has shifted to Afrikaans. Members of the ǃKhomani community continue to be among the most marginalized and disadvantaged people of South Africa, both economically and socially.

Various names exist for the language, which the speakers themselves call N’uu. Nlusa/Nlusaal (Krönlein 1861), Nlusa (Pabst 1895), ǃNu (Pöch 1910), ǂl̂uuki/Nlkuki (Westphal 1971), and ǂǂu⁄:ci/ǂǂu⁄:ci (Traill 1974) appear in publications, but they do not all refer to the language known as N’uu today. For example, Güldemann (2006; 2014b) identifies Krönlein’s Nlusa/ Nlusaal as a ‘misclassified Xam variety’. The only grammar of the language which has so far been published uses Nluuki, a nominalized form of N’uu, the latter meaning literally ‘to speak N’uu’ (Collins and Namaseb 2011:7).

Between 1910 and 1920, Dorothea Bleek introduced the term by to refer to a dialect or language cluster to which N’uu belongs (Bleek 2000:7). Güldemann adopts this name in the spelling of Ning for a language which comprises several dialects, with N’uu being one of them. Güldemann (2014b) suggested Ning as a cover term to include an eastern variety, l’Au, and a western variety, Nhu. His name ǃAu for the eastern speech variety was never accepted by the community. Doke (1936) and Maingard (1937) refer to the N’uu language as ǃKhomani. While the community adopted ǃKhomani as the name of their community, the language is referred to by most scholars and all present speakers as N’uu or Nluuki only.

N’uu is characterized by one of the largest phoneme inventories in the world. In the N’uu practical orthography, 114 speech sounds are represented: 45 click phonemes, 30 non-click consonants, and 39 vowels. The most striking phonemic feature of N’uu is its set of bilabial clicks. N’uu is one of the three still-spoken languages in the world which employ this click type as phonemes. The other two languages are Taa and ǂHoan-Sasi (or ‘Amkoe). Taa is spoken in Botswana and Namibia and is claimed to be genetically related to N’uu (Güldemann 2014a). ǂHoan-Sasi is spoken in Botswana, and Heine and Honken (2010) convincingly established a genealogical ǂHoan-ǂXun unit that they named Kx’a.

The documentation of N’uu started in the late 1920s. The early researchers include Dorothea Bleek (1929b, 1956), Clement Martyn Doke (1936), Louis
Fernand Maingard (1937), and Ernst Westphal (1953–1971). Since the ‘rediscovery’ of Nluu in the late 1990s, three major documentation projects produced modern descriptions of the language with the assistance of the last speakers: 

(i) A research project funded by the National Science Foundation (USA; hereafter, NSF), referred to here as the ‘American group’\(^2\)
(ii) A research project funded by the Endangered Languages Documentation Programme (UK; hereafter, ELDP), referred to here as the ‘German group’\(^3\)
(iii) A PhD project funded by the University of Cologne and the German Academic Exchange Service (DAAD)

While scholars of the first group conducted research mainly on the phonetic and syntactic structures (see Exter 2008:5 for a detailed list of publications), those of the second group worked on a discourse-based description and analysis of the language. In collaboration with members of the first group, Mats Exter wrote a PhD dissertation on the phonetics and phonology of Nluu. The two groups, as well as Exter, compiled extensive wordlists (Sands et al. 2006; Güldemann et al. 2007–2014; Exter 2013), and Collins and Namaseb (2011) published a modern grammar of the language.

An Andrew W. Mellon–funded project led by the authors of this chapter, Matthias Brenzinger and Sheena Shah, started in 2012. This project hosted at the Centre for African Language Diversity (CALDi) at the University of Cape Town lays the main emphasis on bridging the gap between scholars and speakers. In close collaboration with community members, a practical community orthography was established and language teaching materials produced (Shah et al. 2014a, 2014b; Shah and Brenzinger 2016).

3 Regionally Dominant Orthographies: IPA versus Roman Letters

In establishing a Nluu community orthography, some widely accepted principles were reviewed. It is generally accepted that an orthography should be linguistically sound (i.e., adequately represent the phoneme inventory) and should be acceptable to the community (i.e., embedded in the political and social environment). (See, for example, Cahill and Rice 2014; Grenoble and Whaley 2006; Hinton 2001; Seifert 2006; Casquite and Young, Schreyer, and Lai, this volume.) Furthermore, the applicability of the orthography in community teaching efforts as well as technical considerations with regard to the reproduction of reading, teaching and learning materials are factors that need to be taken into consideration.

In developing an orthography, it was assumed that it should not diverge from dominant national standards. Orthographies for African languages in the southern part of the continent were, not surprisingly, first developed for the major languages – namely isiZulu, isiXhosa, Sesotho, and other Bantu languages.
Orthographies for isiZulu and isiXhosa, two of the Nguni languages, were already in place in the 1820s (Bleek 1858).4

One of the questions to be addressed in orthography development for non-Bantu click languages is how click phonemes should be represented. Not only these languages, but also eleven of the Southern Bantu languages have clicks in their phoneme inventories. In all Bantu languages, clicks are written with Roman letters. The relatively small number of distinctive clicks in these Bantu languages allows for this choice. The advantages of employing Roman letters for clicks are that they are well established and widely used in the orthographies in the region (cf. Moseley, and Sackett, this volume). This led the government of Botswana to enforce the use of Roman letters for clicks in all languages spoken in the country. The orthography of Naro, a non-Bantu click language of Botswana, was developed according to this directive. However, it continues to be the only non-Bantu click language in Southern Africa which uses Roman letters to represent clicks.5

The visual familiarity with Roman letters is, however, misleading when such letters are used for representing click sounds. Knowing the letters <c>, <q>, and <x> does not help those who are not literate in Nguni languages and who do not know how to produce the dental, alveolar, and lateral clicks, respectively. The dominant Bantu languages spoken in Botswana do not have clicks, and for that reason, click-containing place names in this country are often spelt incorrectly, as are personal names on IDs. For example, Xade is the official spelling of a former settlement in the Central Kalahari Game Reserve, and the Roman letter <x>, following the Nguni writing convention, should represent the lateral click – i.e., [lade]. The name of this settlement, however, is pronounced as [lade], with a dental click. The correct spelling using Roman letters for clicks should therefore be Cade.

While clicks stand out when using IPA symbols, they are less visible when Roman letters are used. The IPA click symbols are prominent and easy to read even in trigraphs, whereas Roman letters for clicks, together with their accompaniments, may appear as cumbersome consonant clusters. For example, in Naro, [x:] is written as <tq>, and t’q’ari ‘careless, clumsy’ is therefore pronounced as [t’k’ari] (Visser 2001).

In addition to the use of Roman letters for clicks, further complications arise in the Naro orthography, which adopts writing conventions from different languages. The use of <g> – following the Setswana orthography – for the voiceless velar fricative [x] sets off a domino effect in which the phonetic value of [g] can no longer be represented by <g>. Naro opted for the Setswana spelling of [g], namely <gh>. Furthermore, the voicing of clicks, indicated by <g> in other orthographies, required an additional modification in Naro. The letter <d> represents the voicing of clicks in this orthography. Thus, <g> is equivalent to [x], for example in gām [xām] ‘lion’; <gh> is equivalent to [g],
for example in ghāa [gā:] ‘duck’; and <dc> is equivalent to [gl], for example in
dcāa [gła:] ‘shelter’ (Visser 2001).

While the first choice for representing clicks, based on extra-linguistic factors,
would be the conventions of the Nguni languages, all community orthographies
for non-Bantu click languages, with the exception of Naro and Sandawe, use the
IPA click symbols. Clicks are complex sounds that occur in large numbers and
high frequencies in non-Bantu click languages. The number of distinct click
phonemes in the eleven Southern Bantu languages that borrowed clicks from non-
Bantu click languages is relatively low and ranges from 2 clicks in Mbukushu to
29 in Yeyi. The non-Bantu click languages, by contrast, use large numbers of click
phonemes – i.e., 83 in Taa (1X06), 55 in Hoan (t’Amkoe), 47 in Ju’hoan, 45 in
Nhu, and 32 in Khwe (Miller 2011:424). For the reasons outlined in this section,
the Nhu community orthography follows the practice of most orthographies for
non-Bantu click languages – such as Khwe, Ts’ixa, and Khoekhoegowab – in
using the IPA click symbols.

4 Nhu Orthographies and Materials Developed
Levi Namaseb began supporting community language teaching efforts in the
late 1990s and wrote Nhu by consulting existing orthographies for non-Bantu
click languages. From mid-May 2000 onwards, he ran Nhu language work-
shops for the Khomani youth which took place in Upington, Andriesvale,
Rietfontein, Welkom, and Olifantshoek (Levi Namaseb, personal communica-
tion 2015). By directly involving the Nhu speakers in these places, Namaseb
taught Nhu to interested community members in the form of ‘very informal
classes’ (Namaseb n.d.:1). He focused in particular on ‘sounds and example
words with those sounds, speech acts and useful phrases in everyday occasions,
songs, prayers, stories told or dramatized’ (Namaseb n.d.:1). Many of his
songs, stories, and prayers are still used today.

Namaseb’s initial attempts to write the language were based on the spelling
system of Khoekhoegowab, his mother tongue. This meant that, for example,
voicing was not distinguished, as is the case in Khoekhoegowab, and therefore
the Nhu terms for ‘springbok’ and ‘gemsbok’ were spelt the same – i.e., ˈlæ
(Namaseb 2003). The present Nhu orthography accounts for this distinction:
‘springbok’ is spelt as ˈlæ, and ‘gemsbok’ as ˈlæ.

Other linguists then began working on the language and supported commu-
nity teaching efforts. Based on his analysis of the Nhu sound inventory, Exter
provided orthographic and phonemic recommendations in 2003 (Crawhall
2004:272). The ‘American group’ began their work on Nhu in 2004 and
studied in particular its sound system and morphosyntax. In 2005, a Nhu
primer was produced for teaching purposes (Namaseb et al. 2005).
The primer lists 94 orthographic conventions for 41 click consonants, 19 non-
Writing for Speaking: The N\textsubscript{\textae}u Orthography

click consonants, and 34 vowels, and provides example words accompanied by drawings from community members for about half of them. In addition to the primer, Collins and Namaseb’s (2011) grammar contains stories which employ this orthography.

From 2007 onwards, the ‘German group’ conducted linguistic fieldwork on N\textsubscript{\textae}u and proposed a revised orthography. This new orthography was used in a collection of various types of N\textsubscript{\textae}u texts, including traditional tales, personal stories, recipes, prayers, and phrases (Siegmund et al. 2008). The hitherto only printed and illustrated storybook written in N\textsubscript{\textae}u involved Ouma Geelmuid and Claudia du Plessis, and its development and production were supported by Martina Ernszt and Alena Witzlack-Makarevich (SASI 2012). The orthography used in this storybook is a blend of the orthographies developed by both groups. In addition, posters illustrating basic body part terms and animal names were produced by the German group but used the orthography conventions of the American group.

Based on the previous spelling conventions of their group, Collins and Namaseb further elaborated on the N\textsubscript{\textae}u orthography (Collins and Namaseb 2011:109). The basic orthographic principles listed by them were followed as much as possible in the N\textsubscript{\textae}u orthography established for the teaching efforts of Ouma Geelmuid. However, this was not possible in all respects, as outlined in the following discussion.

4.1 The Present N\textsubscript{\textae}u Community Orthography

In January 2012, the only written materials used in the N\textsubscript{\textae}u classes were the three posters designed by the German group. CALDi members were asked for support in the production of further teaching materials. Based on the previous attempts to develop a N\textsubscript{\textae}u orthography, one of the main activities of the CALDi project was the production of N\textsubscript{\textae}u alphabet charts (cf. Casquite and Young, and Valdovinos, this volume). N\textsubscript{\textae}u orthography conventions, such as the representation of the N\textsubscript{\textae}u sound inventory and the spelling of Afrikaans and Nama loanwords, were thoroughly discussed with the community members. While the scholars tried to divert as little as possible in these writing conventions from the previous attempts mentioned in the introduction to this section, this was not always possible, since conflicting conventions had been in place. In consultation with Claudia du Plessis and one of the former N\textsubscript{\textae}u students, Mary-Ann Prins, adjustments in the N\textsubscript{\textae}u orthography were suggested. With Ouma Geelmuid being the only speaker actively teaching the language, her pronunciation and knowledge of the language were the sole base in the development of the alphabet charts and teaching materials. For the N\textsubscript{\textae}u alphabet charts, all symbols and letters used by Claudia in writing N\textsubscript{\textae}u in the classes were included, thus also letters which only occur in loanwords.
The alphabet charts were officially launched at a community workshop on 24 March 2014 and have been in use at Ouma Geelmeid’s school since then.

4.2 Materials Produced in the Nlũu Orthography

Along with the three alphabet charts, an illustrated quadrilingual animal poster was designed by the CALDi group members. Each Nlũu animal name is accompanied by a photo and by translations in English, Afrikaans, and the local variety of Nama, spoken by a few members of the Khomani community. An illustrated trilingual (Nlũu, Afrikaans, English) reader using the Nlũu community orthography has also been produced (Shah and Brenzinger 2016). The contents of the reader and also the format are tailored towards the community needs in their Nlũu teaching and learning efforts. The reader comprises twelve semantic fields, and all words, phrases, and sentences included derive from natural conversational contexts. In addition to the semantically ordered sections, games, prayers, and songs are supplementary teaching tools. The Nlũu terms used by Ouma Geelmeid in her language classes have been compiled in Nlũu-Afrikaans-English and Afrikaans-Nlũu-English glossaries.

4.3 Practical Considerations

As mentioned in Section 2, an eastern and a western variety of the language are distinguished by scholars and speakers. The eastern variety ceased to be spoken when Hannie Koerant passed away in Olifantshoek on 8 March 2015. The present community orthography is based on the western variety – more specifically on the idiolect spoken and taught by Ouma Geelmeid. The Nlũu orthography was designed to be used by the literate co-teacher and students who acquire Nlũu from the non-literate speaker. As the orthography and teaching materials serve as primary language learning devices for students, it is intended that they represent as much as possible the actual spoken language and pronunciation. For pedagogical reasons, we decided to adopt a shallow orthography with a close sound–symbol representation. Even though an over-representation of the sound inventory results in a larger number of graphemes, the community members found it easier to read and write Nlũu by representing the actual sounds of the spoken terms. At present, only two community members – namely Claudia du Plessis and Mary-Ann Prins – are able to confidently read and write the language.

4.4 Technical Considerations

In discussions on technical aspects of the Nlũu orthography, the involved community members wished to avoid diacritics altogether (cf. Esteban, and Leggio
and Matras, this volume). This proved not to be feasible. The use of the circumflex to represent the nasalization of vowels was introduced by Namaseb in the earliest attempts to write Njuu. Thus, [ã] is written as <â> etc., as in most other community orthographies of non-Bantu click languages. The German group decided to use <n> instead of the circumflex. Since <n> also occurs as a consonant, <nn> was chosen by them to represent [n]. In their orthography, [a] is written as <an>, and [an] is spelt as <ann>. For example, the Njuu term for ‘to work’ is sìisen [si:sen] in the community orthography, but it is spelt by the German group as sìnsim or sìnsen. The use of <nn> for [n] was considered cumbersome by the community members, who preferred to maintain the circumflex.

In the Njuu orthography, apostrophes are employed to represent glottalization (i.e., glottal stops and glottalized clicks) as well as ejectives (i.e., ejective consonants). Apostrophes, and not IPA [ʔ] and [ʔ], are used to represent glottal stops and glottalized clicks in orthographies of most non-Bantu click languages. Glottalized clicks [ð], [f], [ʕ], and [f] are therefore represented as <O>, <l>, <Ʉ>, <Ʉ>, and <l>. The Njuu word for ‘to be sick, in pain’, for example, is spelt O’ui’i, where the first apostrophe represents a glottalized bilabial click [ð] and the second apostrophe a glottal stop [ʔ]. Delayed aspiration is spelled as <l> – for example, as <T’h> in the word ‘hoba’ ‘grave’. Following the practices of scholars working on non-Bantu click languages, apostrophes in Njuu, in addition, indicate ejective affricates – namely <ts> [tʃ], as in ts’uxam ‘eye’, and <kx> [k’ʃ], as in k’x’a ‘to drink’ – and fricative ejectives such as <k> [k’], as in k’x’a ‘hand’. This double assignment for apostrophes is a common practice in orthographies of African languages and does not pose any problems in the actual reading of Njuu texts.

First suggested by Patrick Dickens (1991:101) for Jul’hoan and also adopted by both the American and German groups, the use of the Roman letter <q> to mark vowels as pharyngealized (or ‘pressed’, see Dickens 1991:101) has also been employed in the Njuu orthography. This writing convention leads to a double representation in which the letter <q> is realized either as [x] or as the voiceless uvular stop [q], as seen in the Njuu term quaqi [qua sı] ‘to be very hungry’.

Vowel length is a distinctive feature and is represented in the Njuu orthography by a doubling of vowels. Minimal pairs are, for example, le [le:] ‘heart’ versus lee [le:] ‘blue wildebeest’; ūghi [iŋi] ‘fast’ versus khii [iŋiː] ‘hat’; k’a [k’ʌ] ‘to drink’ versus k’x’aa [k’ʃ’a] ‘to cry’; kyu [k’uː] ‘mouth’ versus kyu [k’uː] ‘to hear, understand’; and nla [ŋa] ‘and, with’ versus nlu [ŋa] ‘head’. The doubling of vowels to indicate a long vowel rather than the IPA [ː] is common practice in community orthographies.

Tone is not marked in the Njuu orthography, even though there is evidence that lexical tone is in fact a distinctive feature in Njuu (Exter 2008). Exter (2015) provides minimal pairs for this – for example, /ŋỳŋ/ ‘blanket’
versus /ˈŋʊŋj/ ‘house’. Since Ouma Geelmuid does not consistently produce such tonal differences, tone is not marked in the Nkho orthography.

4.5 The Treatment of Afrikaans Loanwords

Even though the |Khomani speak a regional variety of Afrikaans, also referred to as Oranjrivier-Afrikaans (Roberge 2002), the spelling of Afrikaans loanwords in Nkho follows the orthography of Standard Afrikaans. The reason for choosing this convention is that children learn to read and write in Standard Afrikaans at school (cf. Casquite and Young, this volume).

As observed by Sands et al. (2007:59), Afrikaans loans do not usually replace existing Nkho terms but are limited to borrowed cultural concepts and new objects. These loans are often incorporated into Nkho – for example, by adding Nkho suffixes. Thus, the term for ‘ring’ (Afr. ring) is spelt ringsi (-si is the singular suffix in Nkho), and the term for ‘tea’ (Afr. tee) is spelt teesi.

The terms for ‘donkey’ (Afr. donkie), by applying the Standard Afrikaans spelling, are written as donkiesi (singular) and donkieke (plural) (-ke is the plural suffix in Nkho). Since they are pronounced as [doŋkisi] and [doŋkike], respectively, they would otherwise have been spelt as dongkisi and dongkike.

In Afrikaans, <t> in word-initial position is pronounced as [f]; for example, tiap ‘stamp’ is pronounced as [ʃap]. The pronunciation of <t> differs with the diminutive suffix -jie (-jie). In this case, it is no longer pronounced as [ʃ] but as [k]. For example, the term for ‘small leg’ in Afrikaans, beentjie, is pronounced as [beŋkɪ] or [biŋkɪ]. In words that end in <d>, the diminutive is -die (suffix -die), but it is still pronounced as [ki]. For example, ‘little bed’ in Afrikaans is spelt bedjie and pronounced [br:kɪ]. One such Afrikaans word which has been borrowed into Nkho is baadjiesi [baikisi] ‘jacket’ (Afr. baadjie [baikɪ]).


5 The Nkho Alphabet Charts

As requested by the community members, alphabet charts for teaching purposes were developed in the CALDi project. The decision on the actual choice of sounds which are represented in the Nkho alphabet was based on research conducted by linguists in the past few decades. The different phoneme inventories established by scholars for Nkho and their wordlists made it possible to
discuss minimal pairs in great detail with community members. Speech sounds which only occur in loanwords were also included in the alphabet.

The Nulu alphabet charts are not intended to challenge the phoneme inventories proposed by other scholars. In order to accommodate the non-Nulu-speaking users, allophones are represented in the charts. Differences might also be caused by the fact that Ouma Geelmeid’s pronunciation of the Nulu terms has been the sole reference for the charts, which aim to capture her idiolect as much as possible. In the charts, all speech sounds are assigned graphemes, which are accompanied by Nulu terms and photos. Three alphabet charts were developed featuring click consonants, non-click consonants, and vowels.

5.1 The Click Chart

Both the German group and the American group agreed on the same 45 distinct clicks. Additional clicks postulated by Exer (2008:28) could not be verified with Ouma Geelmeid, and for that reason, the Nulu click chart also features 45 clicks (see Table 6.1). The basic click types are represented with the current IPA symbols for clicks – i.e., < المهني> for the bilabial clicks, < المهني> for the dental clicks, < المهني> for the alveolar clicks, < المهني> for the palatal clicks, and < المهني> for the lateral clicks.

The order of clicks in the chart follows that found in the IPA chart. This canonical order of clicks is in accordance with the places of their articulation and has also been suggested for practical use by Fehn et al. (2014). With the exception of the uvular fricated ejected clicks,¹⁰ scholars generally use the same conventions for representing click accompaniments. The community orthography follows them in this respect. It places <g> (voicing) and <m> (nasalization) before the respective click and thus adopts the most common practice among the writing conventions.

While Ouma Geelmeid was consistent in the pronunciation of words with regard to the basic click types, there was variation with regard to click accompaniments in some respects. She was not always consistent in the nasalization and voicing of clicks. The uvular aspirated stop series of clicks were at times realized simply as aspirated clicks.

5.2 The Consonant Chart

The Nulu consonant chart displays 30 non-click consonants alphabetically (see Table 6.2). Most consonants are written according to IPA conventions. Several consonants occur exclusively in Afrikaans loanwords. These are (1) the alveolar stops < المهني> and <d> – for example, teesi (Afr. tee) ‘tea’ and dromsi (Afr. drom) ‘drum’; and (2) the labiodental fricatives <战士职业> and
Table 6.1  *Nluu* click graphemes.

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>O</th>
<th>O'</th>
<th>mO</th>
<th>Ox</th>
<th>Oq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental</td>
<td>t</td>
<td>gl</td>
<td>l'</td>
<td>lh</td>
<td>l'x</td>
</tr>
<tr>
<td>Alveolar</td>
<td>t</td>
<td>g!</td>
<td>l'</td>
<td>nl</td>
<td>l'h</td>
</tr>
<tr>
<td>Palatal</td>
<td>t</td>
<td>g!</td>
<td>l'</td>
<td>ni</td>
<td>l'h</td>
</tr>
<tr>
<td>Lateral</td>
<td>t</td>
<td>g!</td>
<td>l'</td>
<td>nl</td>
<td>l'h</td>
</tr>
<tr>
<td></td>
<td>Voiceless</td>
<td>Voiced</td>
<td>Glottal</td>
<td>Nasalized</td>
<td>Aspirated nasal</td>
</tr>
</tbody>
</table>
Table 6.2 Nhu consonant graphemes.

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>d</th>
<th>dy</th>
<th>f</th>
<th>g</th>
<th>h</th>
</tr>
</thead>
<tbody>
<tr>
<td>j</td>
<td>jh</td>
<td>k</td>
<td>kh</td>
<td>kx</td>
<td>ky</td>
<td>l</td>
</tr>
<tr>
<td>[dʒ]</td>
<td>[dʒʰ]</td>
<td>[kʰ]</td>
<td>[kʰ]</td>
<td>[kʰ]</td>
<td>[kʰ]</td>
<td>[kʰ]</td>
</tr>
<tr>
<td>n</td>
<td>ng</td>
<td>ny</td>
<td>p</td>
<td>q</td>
<td>r</td>
<td>s</td>
</tr>
<tr>
<td>[ŋ]</td>
<td>[ŋ]</td>
<td>[ŋ]</td>
<td>[ŋ]</td>
<td>[ŋ]</td>
<td>[ŋ]</td>
<td>[ŋ]</td>
</tr>
<tr>
<td>ty</td>
<td>tyh</td>
<td>tx</td>
<td>ts</td>
<td>ts’</td>
<td>v</td>
<td>x</td>
</tr>
<tr>
<td>[c]</td>
<td>[cʰ]</td>
<td>[cʰ]</td>
<td>[cʰ]</td>
<td>[cʰ]</td>
<td>[cʰ]</td>
<td>[cʰ]</td>
</tr>
</tbody>
</table>

Table 6.3 The orthographical representation of [j], [kʰ], and [c].

<table>
<thead>
<tr>
<th>IPA</th>
<th>Nhu community orthography</th>
<th>German group</th>
<th>American group</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[j]</td>
<td>dy</td>
<td>dy</td>
<td>j</td>
<td>‘to walk’</td>
</tr>
<tr>
<td>[ŋ]</td>
<td>dyaqn</td>
<td>dyaqn</td>
<td>jaqn</td>
<td></td>
</tr>
<tr>
<td>[kʰ]</td>
<td>ky</td>
<td>ty</td>
<td>c</td>
<td>‘navel’</td>
</tr>
<tr>
<td>[ŋʰ]</td>
<td>nũqeyku</td>
<td>nũqentuuyu</td>
<td>nũqecu</td>
<td></td>
</tr>
<tr>
<td>[c]</td>
<td>ty</td>
<td>ty</td>
<td>e</td>
<td>‘to be naked’</td>
</tr>
<tr>
<td>[cʰ]</td>
<td>tyhoe</td>
<td>tyhoe</td>
<td>choe</td>
<td></td>
</tr>
</tbody>
</table>


The Nhu orthography differs from the IPA conventions with respect to the palatal nasal [ŋ] and velar nasal [ŋ], which are represented by <ny> and <ng>, respectively, in the community orthography.

The chart represents [j], [kʰ], and [c] as <dy>, <ky>, and <ty>. In Ouma Geelmeid’s pronunciation, these sounds occur, for example, in dyaqn [ŋa’n] ‘to walk’, nũqekyũ [ŋũo’ek’u] ‘navel’, and tyhoe [cũo’e] ‘to be naked’. The previous attempts to spell these terms differ, and the American group and German group apply different graphemes for the respective sounds (see Table 6.3). The community orthography aligns more closely to the graphemes proposed by the German group. The orthography differs with that of both groups in that it represents the actual pronunciations of the sounds – for example, <ky> and <ty>. While Ouma Geelmeid was consistent in the pronunciation of the three aforementioned words, this was not always the case with other terms containing these sounds. For example, tyuuke ‘men’ was mostly pronounced as [cu:ke], but sometimes also as [kʰu:ke]. This latter pronunciation would be spelt as kyuuke.
Table 6.4 *Njuu* vowel graphemes.

<table>
<thead>
<tr>
<th>a</th>
<th>â</th>
<th>aa</th>
<th>åa</th>
<th>ae</th>
<th>ai</th>
<th>ao</th>
<th>au</th>
<th>ãe</th>
<th>ãi</th>
<th>ãu</th>
<th>aq</th>
<th>ãq</th>
</tr>
</thead>
<tbody>
<tr>
<td>e</td>
<td>ee</td>
<td>ea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>eq</td>
</tr>
<tr>
<td>i</td>
<td>î</td>
<td>ii</td>
<td>ìi</td>
<td>ia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>oo</td>
<td>Ïo</td>
<td>oo</td>
<td>oe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>oq</td>
</tr>
<tr>
<td>u</td>
<td>uu</td>
<td>Ûu</td>
<td>uu</td>
<td>ue</td>
<td>Ûi</td>
<td>u</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3 *The Vowel Chart*

Thirty-nine vowels are orthographically represented in the *Njuu* vowel chart (see Table 6.4). These include 16 plain vowels and 23 (21)\(^\text{13}\) diphthongs. There are 5 short and 5 long vowels, as well as 6 nasalized vowels (2 short and 4 long).\(^\text{14}\) In addition, there are 11 (9) plain and 6 nasalized diphthongs. While 4 plain pressed (pharyngealized) vowel diphthongs exist, only 2 also occur as nasalized pressed vowel diphthongs. Their orthographic representation has been discussed previously, in Section 4.4.

Pharyngealized vowels and vowel length were consistently produced by Ouma Geelmuid. There was, however, some variation in the nasalization of vowels. One example which looks especially suspicious is the *Njuu* terms *בלהי* ‘milk’ and *בלהי* ‘breasts’. ‘Breasts’ and ‘milk’ in *Njuu* might be polysemous, as in other languages, such as *piu* in Khwe (Kilian-Hatz 2003:104). However, nasalization and the -*ke* plural suffix distinguish the terms ‘milk’ and ‘breasts’ in *Njuu*. Even more surprising may be that *בלהי* in *Njuu* means ‘breasts’ as well as ‘teeth’; *Njuu* homophones may be the result of the recent collapse of the tonal categories in the language (Bonny Sands, personal communication 2015).

6 Writing Conventions in the *Njuu* Reader

Several writing conventions were already in place and contribute to the current writing practice. As is common in other orthographies of non-Bantu click languages, such as for Khoekhoe-gowab and Khwe, clicks at the beginning of a sentence, as well as in personal and place names, are capitalized. Depending on the position of the click accompaniment, the capital letter may precede or follow the click:

*Mööa ke leqhiia.* ‘The cat is fat.’

//Höba ke harua. ‘The grave is far away.’

Other writing conventions include the following:
Writing for Speaking: The N\u00e9uu Orthography

(i) Lexemes are written as one word, and morpheme boundaries are not marked.
(ii) The linker ke, the preceding plural marker ka, the negative markers \textit{\textsc{llu}} and \textit{\textsc{llam}}, and the irrealis marker \textit{\textsc{si}} are written as separate words.
(iii) Subject and object pronouns are written separately: for example, \textit{\textsc{Na si}} '\textit{l\textsc{ui a}.' \textit{I will call you}.'
(iv) Nominal compounds are written separately: for example, \textit{\textsc{lurisi lquinsi}} 'aeroplane' (lit. ‘iron bird’).
(v) Serial verbs are written separately: for example, \textit{\textsc{lAu ke \textsc{thnu kyii}}}, ‘The springhare \textit{hops around}.’
(vi) Re-duplications are written as two words: for example, \textit{\textsc{G\textsc{lae ke \textsc{thnu \textsc{thnu}}}}}, ‘The springbok \textit{runs away}.’
(vii) Nominal stems and suffixes, such as the singular and plural suffixes, -\textit{si} and -\textit{ke}, are written as one word.
(viii) \textit{Wh} words and the obligatory \textit{xe} are written conjunctively: for example, 
\textit{\textsc{Kyuu k\textsc{nu xe na karkisi}}? ‘Who is driving the car?’
\textit{This does not work, however, for \textsc{Kyuu gao xe}? ‘What is this?’ where gao ‘thing’ is inserted between \textsc{kyui ‘what’ and xe.}
\textit{Kan\textsc{kaa ‘to stay}’ consists of the prefix \textit{ka-}, indicating a repetitive action, and the verb \textit{n\textsc{laa ‘to be} (Collins and Namaseb 2011:20). As with other verbs with this prefix, \textit{kan\textsc{kaa is written as one word. In this case, an unavoidable ambiguity in the pronunciation of this word arises, as it could be pronounced as either [\textsc{kan la:}] or [\textsc{ka na:]. In some other words, where clicks appear in word-medial positions, the disjunctive spelling was frequently used by the community members, such as with \textit{sil\textsc{uxu ‘zebra}, which was often written as \textit{si \textsc{l\textsc{uxu in order ‘to make it easier to read} (Claudia du Plessis, personal communication 2014).

7 Conclusions

The establishment of a N\u00e9uu orthography, as well as the development of teaching and learning materials, was a joint effort between community members and linguists (cf. Sackett, and Valdovinos, this volume). Both groups contributed to the decision-making processes, and in order to enable informed choices, previous orthography development efforts were consulted and discussed in great detail.

The fact that Afrikaans is the dominant language among the Khomani community and is also the mother tongue of the last N\u00e9uu speakers was the baseline for the development of N\u00e9uu teaching materials (cf. Lai, this volume). Compromises made on technical aspects seemed unavoidable, such as the problematic double assignment of sounds to one symbol or letter (cf. Sackett, this volume). A more serious weakness of the orthography might, however, be
the ambiguity in the pronunciation of certain graphemes caused by accepting
the use of another orthography, namely Standard Afrikaans, for the spelling of
Afrikaans loanwords.

The community orthography was officially established through the launch of
the printed alphabet charts on 24 March 2014. One month later, Ouma
Geelmeid received the Order of the Baobab in silver from Jacob Zuma, the
president of South Africa: ‘For her excellent contribution in the preservation of
a language that is facing a threat of extinction. Her determination to make the
project successful has inspired young generations to learn.’

There is a strong desire among ÌKhomaní members to reclaim documents
about their past – such as those on Nluyu archived at the University of Cape
Town and other institutions – in order to be able to reconstruct and understand
their history. The symbolic use of Nluyu is increasing among them without
necessarily equating to increased competence in the language. Nluyu audio
recordings and written documents which enshrine important aspects of their
cultural heritage can, however, only be accessed by ÌKhomaní community
members who are literate and at least proficient to some extent in Nluyu.

In order to produce teaching and learning materials which can efficiently be
employed in a situation in which the speakers are non-literate and the literate
are non-speakers, a shallow orthography as close as possible to the actual
speech is of eminent importance. We therefore accepted an over-
representation of the sound inventory for pedagogical reasons. Since only
one Nluyu speaker is involved in these community language teaching efforts,
the orthography and the materials were tailored to her specific teaching envi-
ronment. It is hoped that Nluyu students will not only be able to read Nluyu texts
from the archives, but also continue to learn to speak the language even when
they will no longer be taught by Nluyu speakers. For these reasons, the Nluyu
orthography was established with the aim of developing materials which allow
‘writing for speaking’.

Notes

1. This chapter is based on fieldwork conducted by the authors in the Northern Cape
  between 2012 and 2014. We wish to express our gratitude to the Andrew W. Mellon
  Foundation, the University of Cape Town, the Endangered Language Fund, and the
  University of Kiel for funding our fieldtrips. We also wish to thank Bonny Sands and
  Alena Witzlack-Makarevich for valuable and highly constructive comments and
  corrections on an earlier version of this chapter. Spelling conventions proposed
  here are based on Ouma Geelmeid’s pronunciation and have been agreed upon by
  the community in consultation with the authors. The community orthography project
  was driven by the enthusiasm, dedication, and expertise of Ouma Geelmeid, Claudia
  du Plessis, and Mary-Ann Prins, and we thank them for their support of this project
  and their friendship.
2. Members of this research group include Bonny Sands, Chris Collins, Amanda Miller, Johanna Brugman, and Levi Namaseb. Except for Levi Namaseb, who is Namibian, all are American.

3. Members of this research group include Tom Gültemann, Alena Witzlack-Makarevich, Martina Ermszt, and Sven Siegmund.

4. Other major Nguni languages are siSwati and isiNdebele.

5. The only other non-Bantu click language which uses Roman letters to represent clicks is Sandawe, spoken in Tanzania (East Africa).

6. The development of the reader was supported by the Endangered Language Fund.

7. For a thorough discussion on the advantages and disadvantages of deep versus shallow orthographies, see Cahill and Karan (2008).

8. Nasalization of long vowels is marked with a circumflex on the first vowel only.

9. Khoekhoegowab is a prominent exception, as a simple click symbol does not represent a plain click, but instead a click followed by a glottal stop – e.g., <i> represents [?] (Brenzinger 2003).

10. For [j'v'], the German group writes <ljx> and the American group writes <lx>.

The latter spelling was chosen in the community orthography.

11. Following common practice, nasalization of bilabial clicks is written with <m>.

12. The IPA transcriptions do not always follow those of the German and American groups, but instead reflect the idiolect of Ouma Geelmeid.

13. <Ea> and <ia> might not, as pointed out by Bonny Sands, represent actual diphthongs but occur as a root-final vowel (either <e> or <i>) followed by an -a morpheme.

14. The community spelling convention represents four of the five nasalized vowels postulated by Exter (2008:51). In Ouma Geelmeid’s pronunciation, we were not able to auditorily differentiate between the nasalized <i> and <e>. In consultation with the community, we decided to use the nasalized <i> as a default. The American group treats [o] as a predictable variant of [g], since nasalization has the effect of perceptually lowering vowel height, so a lowered variant is phonetically explainable but a raised variant would not be (Bonny Sands, personal communication 2015). Together with the community, we decided to distinguish [u] and [ũ] in the spelling, as we established a rather shallow orthography which represents allophonic variation. We also spell, for example, ‘leg’ as jihũ, while all others transcribe this term as [kũ]. They treat this consonant as a predictable allophone of [kũ]. Before front vowels, the pitch is rising and gives the perception of the consonant being voiced, while it is phonetically not voiced. We, however, accept an overrepresentation in the practical orthography to accommodate a spelling which captures the words as they actually sound.