



INYUVESI YAKWAZULU

UMIKHAKHA WEZOBUCIKO

UMNYANGO WESIZULU NAMASIKO

ISIFUNDO: SEMFUNDOMSINDO KANYE NENGCWENGAZINHLANVU

ZUL 241

IPHEPHA LOKU 1

AMANOTHI AHLELWENGU: K.E. KHUMALO

CHAPTER V

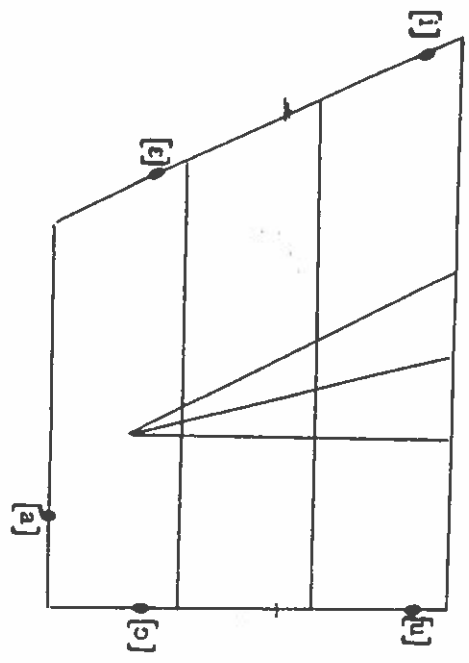
THE PHONETICS OF XHOSA, ZULU, SWAZI, TSONGA, VENDA, NORTHERN SOTHO, TSWANA AND SOUTHERN SOTHO

1. THE SPEECH SOUNDS OF XHOSA

Vowels

Basic vowels

Kh.5.1 The vowels of Xhosa all lie on the outline of the vowel chart (see par. 3.58). Their position are as follows:



a [a] : There is only one a vowel in Xhosa which lies between Cardinal Vowels Nos. 4 and 5, somewhat nearer to No. 5. The a of Xhosa is therefore an open or low middle vowel, e.g. -thanda [-thanda] (love);

i [i] : the i of Xhosa is a close or high front vowel, slightly lower than Cardinal Vowel No. 1, e.g. -vimba [-vimba] (stop).

e [ɛ] : the e of Xhosa is a semi-open middle front vowel, and lies about halfway between Cardinal Vowels Nos. 3 and 4, e.g. -senga [-sɛŋga] (milk)

o [ɔ] : the o of Xhosa is a semi-open middle back vowel which lies about halfway between Cardinal Vowels 5 and 6, e.g. -bola [-bɔla] (be bad).

u [u] : the u of Xhosa is a close or high back vowel which is slightly lower than Cardinal Vowel No. 8, e.g. -vula [-vula] (open).

Vowel variants

Xh. 5.2 The abovementioned five vowels are the five basic vowels or five vowel phonemes of Xhosa. Two additional vowel variants also occur. These originate as a consequence of vowel influence, a phenomenon which is fully dealt with in Chapter 6.

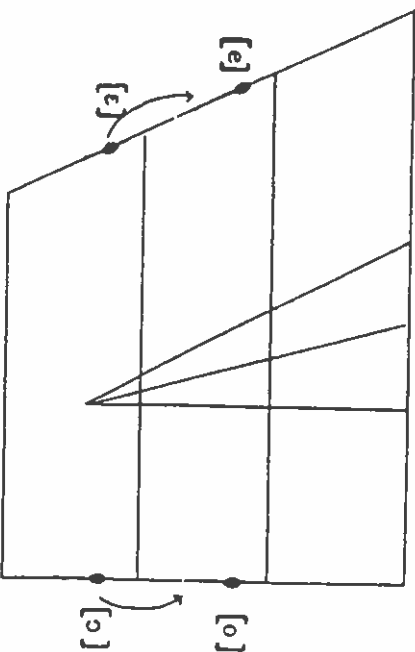
Xh. 5.3 The two vowel variants of Xhosa are variants of o and e and are also written o and e respectively in the practical orthography; phonetically they are written [o] and [e] respectively, and are described as follows:

e [e] is a semi-close or raised middle front vowel which is a variant of [ɛ] lying between Cardinal Vowels Nos. 2 and 3, slightly nearer to No. 2, e.g. asisengi [asisɛŋgi] (we do not milk).

o [o] is a semi-close or raised middle back vowel which is a variant of [ɔ], lying between Cardinal Vowels Nos. 6 and 7, slightly nearer to 7, e.g. akuboli [ak'u6oli] (it does not become bad).

Xh. 5.4
chart:

The vowel variants lie as follows on the vowel



Consonants

Ordinary consonants

Xh. 5.5. Note that some consonants in Xhosa can be used with vowels only, e.g. la, so and that others occur only in compounds of two or three consonants, usually the so-called nasal compounds, i.e. a nasal combined with one or more consonants, e.g. [mɔv] which is written mv. The sound [ɱ] occurs in this compound only.

Xh. 5.6. Labials

p [p'] is a voiceless ejective bilabial explosive as in -pasa [-p'asa] (be out of breath). It also occurs in the nasal compound mp [mp'], e.g. impi [imp'i] (army).

ph [ph] is a voiceless aspirated bilabial explosive, e.g. -pha [-pha] (give)

b [b] is a voiced bilabial implosive, e.g. -bona [-bɔna] (see)

bh [b̥] is a devoiced voiced bilabial explosive, e.g. -bhala [-b̥ala] (write)

- b [b] is a fully voiced bilabial explosive which occurs in the nasal compound mb [mb] only, e.g. imbuzi [imbuzi] (goat)
- m [m] is a voiced bilabial nasal, e.g. -mema [mema] (invite); it occurs also in the nasal compounds mp and mb
- mb [mβ] is an aspirated voiced bilabial nasal, e.g. -mhumba [-mhumba] (drink from a narrow-necked bottle)
- w [w] is a bilabial semi-vowel, e.g. -wa [-wa] (fall). Some regard it as a velar semi-vowel.
- Xh.5.7.
Denti-labials
- f [f] is a radical voiceless denti-labial fricative, e.g. -fa [-fa] (die)
- v [v] is a voiced denti-labial fricative, e.g. -vala [-vala] (close)
- m [m] is a voiced denti-labial which occurs only in nasal compounds before f, and before v, e.g. imfe [imf'e] (sweet-reed), imvubu [imvubu] (hippopotamus)
- [ɸf] is not indicated in the practical orthography; it is a voiceless ejective denti-labial affricate which occurs in the nasal compound mf [mɸf'] only, e.g. imfe [imɸf'e] (sweetreed)
- [ɸv] is not indicated in the practical orthography; it is a voiced denti-labial affricate which occurs in the nasal compound mv [mɸv'] only, e.g. imvubu [imvubu] (hippopotamus)
- Xh.5.8.
Alveolars
- t [t'] is a voiceless ejective alveolar explosive, e.g. itakane [it'ak'ane] (lamb) and occurs also in the nasal compound nt [nt'], e.g. into [int'o] (thing)
- th [th] is a voiceless aspirated alveolar explosive, e.g. -thetha [-thetha] (speak)

- d [d] is a devoocalized voiced alveolar explosive, e.g. amadoda [amad'oda] (men)
- d [d] is a fully voiced alveolar explosive which occurs in the nasal compound nd [nd] only, e.g. indoda [ind'oda] (man)
- s [s] is a voiceless radical alveolar fricative, e.g. -sala [-sala] (remain)
- z [z] is a voiced alveolar fricative, e.g. -zama [-zama] (move)
- hl [ʒ] is a voiceless radical alveolar lateral fricative, e.g. -hlala [-ʒala] (sit)
- dl [ɰ] is a voiced alveolar lateral fricative, e.g. -dlala [-ɰala] (play)
- n [n] is a voiced alveolar nasal, e.g. -nona [-nona] (be respected)
- nh [nβ] is an aspirated voiced alveolar nasal, e.g. isinhaha [isinh'aha] (a rich person)
- r [r] is a voiced alveolar rolled consonant which is a borrowed sound in Xhosa but which has already become adopted into the language. It is however not found in true Xhosa words, e.g. uMariya [umar'ija] (Maria)
- l [l] is a voiced alveolar lateral continuant, e.g. -lala [-lala] (lie down)
- ts [ts'] is a voiceless ejective alveolar affricate which begins with t and ends with s, e.g. -tsiba [-ts'iβa] (jump) and also occurs in the nasal compound nts [nts'] e.g. intsimi [ints'imi] (field)
- ts [tsh] is an aspirated alveolar affricate which begins with t and ends with s, e.g. -tsutsuza [-tshutshuza] (be busy)
- [dz] is not indicated in the practical orthography; it is a voiced alveolar affricate which begins with d [d] and ends with z [z], and occurs in the nasal compound nz [ndz] only, e.g. inzalo [indzal'o] (progeny)

l̥ [tʰ] is a voiceless ejective lateral affricate which begins with l̥ and ends with hl̥ [ʰ] and occurs in the nasal compound nli [ntʰi] only, e.g. intʰahla [intʰaʰa] (glossy appearance)

[dʰ] is not indicated in the practical orthography; it is a voiced lateral affricate which begins with d̥ [d] and ends with dl̥ [ʰ] and occurs in the nasal compound ndl̥ [ndʰ] only, e.g. indlovu [indʰovu] (elephant)

Xh.5.9.

Prepalatal

sh [ʃ] is a voiceless radical prepalatal fricative, e.g. -shushu [ʃuʃu] (hot)

ny [ɲ] is a voiced prepalatal nasal, e.g. inyama [ɪɲama] (meat)

nyh [ɲh] is a voiced aspirated prepalatal nasal, e.g. inyoloba [ɪɲhɔloba] (elbow)

ɲ [ɲ] is a voiced prepalatal nasal which occurs in nasal compounds nɲ [ɲdʒ], e.g. inja [ɪɲdʒa] (dog), and ntsh [ɲtʃ] e.g. intshumshu [ɪɲtʃʉmʃtʃɛ] (assegai)

tsh [tʃ] is a voiceless ejective prepalatal affricate which begins with t̥ [t] and ends with sh [ʃ], e.g. -tshixa [-tʃiʰ/a] (lock). It also occurs in the nasal compound ntsh, e.g. intsha [ɪɲtʃa] (it is new)

tsh [tʃh] is a voiceless aspirated prepalatal affricate which begins with [t] and ends with [ʃ], e.g. -tshisa [-tʃhisa] (burn).

l̥ [dʒ] is a devoiced prepalatal affricate which begins with devoiced d̥ [d̥] and ends with devoiced [ʒ] [ʒ̥] is the voiced equivalent of [ʃ], e.g. -juba [-d̥ʒuba] (spring back)

l̥ [dʒ] is a fully voiced affricate which begins with d̥ and ends with [ʒ] ([ʒ̥] is the voiced equivalent of [ʃ]), and occurs only in the nasal compound nɲ [ɲdʒ], e.g. inja [ɪɲdʒa] (dog)

ɣ [ɣ] is the prepalatal semi-vowel, e.g. ukuya [ukʰuɣa] (to go)

Xh.5.10. Palatals

ty [cʰ] is a voiceless ejective palatal explosive, e.g. uautya [ukʰucʰa] (to eat)

tyh [ch] is a voiceless aspirated palatal explosive, e.g. ityhefu [ichefu] (poison)

dy [ɟ] is a devoiced palatal explosive, e.g. isidyoli [isiɟoli] (spy)

dy [ɟ] is a fully voiced palatal explosive which occurs in the nasal compound ndy [ɲɟ] (only, e.g. indyebo [ɪɲɟɛbo] (much food))

ɲ [ɲ] is a voiceless palatal explosive which occurs in the nasal compound nɲ [ɲcʰ] only, e.g. intyelo [ɪɲcʰɛlɔ] (information)

Xh.5.11. Velars

k [kʰ] is a voiceless ejective explosive, e.g. kalubi [kakʰuɓi] (badly); it also occurs in the nasal compound nk [ɲkʰ], e.g. inkomo [ɪɲkʰɔmɔ] (cow)

kh [kh] is a voiced aspirated velar explosive, e.g. -khoka [-khɔkʰa] (take out)

g [g] is a devoiced voiced velar explosive, e.g. -gula [-gula] (be ill)

g [g] is a fully voiced velar explosive which occurs in the nasal compound ng [ɲg] only, e.g. -ngena [-ɲgɛna] (enter)

ɣ [x] is a radical voiceless velar fricative, e.g. irafu [ixafu] (tax)

gɣ [ɣ] is a voiced velar fricative, e.g. igronya [iyɔɲa] (sack cloth)

ɲ [ɲ] is a velar nasal which occurs before velars and

before clicks only, and is represented orthographically with n, e.g. inkomo [iŋk'omɔ] (cow), ingwe [iŋg'wɛ] (leopard), -nncinci [-ŋ/iŋ/i] (very small)

n' [ŋ] is a voiced velar nasal, e.g. in'an'ane [iŋaŋane] (hadida)

kr [kx'] is a voiceless ejective velar affricate which begins with [k] and ends with [x], e.g. ikrele [ikr'eɾɛ] (sword)

w [w] see under labials; it is sometimes regarded as a velar semi-vowel.

Xh.5.12. Glottals

h [h] is a voiceless radical glottal fricative, e.g. -huhuza [-huhuza] (blow)

ɦ [ɦ] is a voiced glottal fricative, e.g. ihasha [iɦaʃɛ] (horse)

Click consonants:

Xh.5.13. The click consonants have been dealt with fully in par. 3.74 et seq.. The three click consonants which are distinguished by the position in the mouth in their formation occur in Xhosa, viz.

c [ʈ] the dental

q [ʈʰ] the palatal

Ɂ [ʈʰʰ] the lateral

Each of these three click consonants has the following forms which are set forth in par. 3.74 et seq., viz.

<u>c</u> [ʈ]	<u>q</u> [ʈʰ]	<u>Ɂ</u> [ʈʰʰ]
<u>ch</u> [ʈh]	<u>qh</u> [ʈʰh]	<u>xh</u> [ʈʰʰh]
<u>nc</u> [ŋʈ]	<u>nq</u> [ŋʈʰ]	<u>nx</u> [ŋʈʰʰ]
<u>gc</u> [ʈg]	<u>gq</u> [ʈʰg]	<u>gx</u> [ʈʰʰg]

ngc [ŋʈg]

nkc [ŋʈkʰ]

nch [ŋʈʰʰ]

ngq [ŋʈʰg]

nkg [ŋʈkʰʰ]

nqh [ŋʈʰʰʰ]

ngx [ŋʈʰʰg]

nkc [ŋʈkʰʰ]

nxc [ŋʈʰʰʰ]

The latter type of click is no longer used in the written language and is superseded by the voiced nasalized variation ngc, ngq and ngx respectively.

XHROBA. TABLE OF COMMON CONSONANTS

REGULATION OF AIR CURRENT			PLACE OF ARTICULATION						Equivalent in the practical orthography	
			bilabial	alveolar	pre-palatal	palatal	velar	glottal		
STOP CONSONANTS	EXPLOSIVE	medial	voiced	p'						p, t, t', k
			voiced aspirated	ph						ph, th, tsh, kh
			devoiced	p						bb, d, dy, g
			voiced	b'						mb, nd, sdy, ng
			voiced	b						b
			voiced	β						f, o, oh, r, θ
		DUPLOSITIVE	medial	voiced	β					f, o, oh, r, θ
	FRICATIVE	medial	voiced	f						f, o, oh, r, θ
			voiced	v						v, z, dz, θ
		lateral	voiced	β						bl
			voiced	β						dl
			voiced	m						m, n, ŋ, ny, n'
		voiced aspirated	mβ						mb, mb, nyh	
NASAL		voiced	m						m, n, ŋ, ny, n'	
		voiced aspirated	mβ						mb, mb, nyh	
	VIBRANT	medial	voiced	r						r
			voiced	l						l
			voiced	l						l
	LIQUID	medial	voiced	l						l
		voiced aspirated	lβ						lβ, j, w	
		voiced	l						l, ts, tsh	
SEMI-VOVEL		medial	voiced	w						w, j, w
			voiced aspirated	wβ						ts, tsh
			voiced	w						ml, ts, tsh, kr
AFFRICATIVE	medial	voiced	q						j	
		voiced aspirated	qβ						mv, nt, nj	
		voiced	q						j	
		voiced aspirated	qβ						ml, ts, tsh, kr	
		voiced	q						j	
		voiced aspirated	qβ						mv, nt, nj	
HOMORGANIC		voiced	h						h	
		voiced aspirated	hβ						hβ	

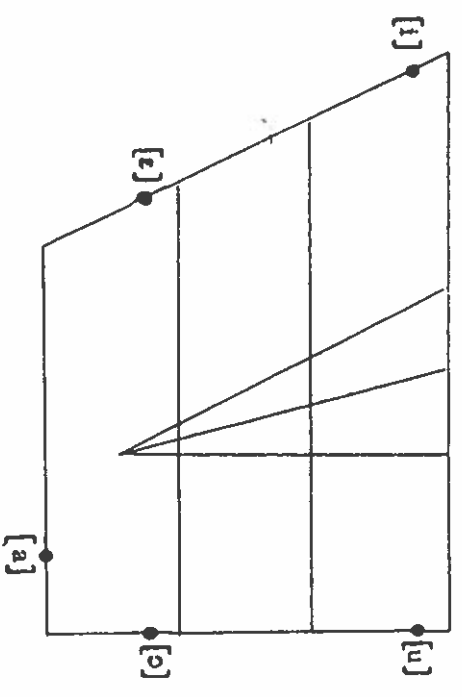
These sounds occur in nasal compounds only as indicated in the practical orthography here.

2. THE SPEECH SOUNDS OF ZULU

Vowels

Basic vowels

2.5.1. The vowels of Zulu all lie on the outlines of the vowel chart (see par. 3.58). Their positions are as follows:



a [a] : There is only one a vowel in Zulu which lies between Cardinal Vowels Nos. 4 and 5, somewhat nearer to No. 5. The a of Zulu is therefore an open or low middle vowel, e.g. -thanda [-thanda] (love).

i [i] : the i of Zulu is a close or high front vowel, slightly lower than Cardinal Vowel No. 1, e.g. -vimba [-vimba] (stop)

e [ɛ] : the e of Zulu is a semi-open middle front vowel, and lies about halfway between Cardinal Vowels Nos. 3 and 4, e.g. -senga [-seŋga] (milk)

o [ɔ] : the o of Zulu is a semi-open middle back vowel which lies about halfway between Cardinal Vowels 5 and 6, e.g. -bola [-bɔla] (be bad)

- u [u] : the u of Zulu is a close or high back vowel which is slightly lower than Cardinal Vowel No. 8, e.g. -vula [-vula] (open).

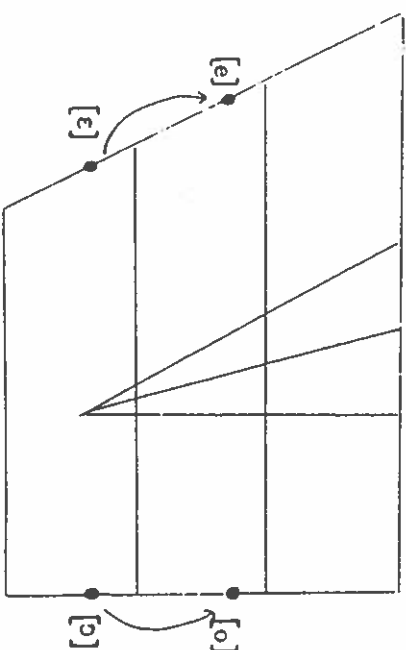
Vowel variants

25.2. The abovementioned five vowels are the five basic vowels or five vowel phonemes of Zulu. Two additional vowel variants also occur. These originate as a consequence of vowel influence, a phenomenon which is fully dealt with in Chapter 6.

25.3. The two vowel variants of Zulu are variants of o and e, and are also written o and e respectively in the practical orthography; phonetically they are written [o] and [e] respectively, and are described as follows:

- e [e] is a semi-close or raised middle front vowel which is a variant of [e] lying between Cardinal Vowels Nos. 2 and 3, slightly nearer to No. 2, e.g. asisengi [asisengi] (we do not milk);
- o [o] is a semi-close or raised middle back vowel which is a variant of [o], lying between Cardinal Vowels Nos. 6 and 7, slightly nearer to 7, e.g. akuboli [akuboli] (it does not become bad)

25.4. The vowel variants lie as follows on the vowel chart:



Consonants

Ordinary consonants

25.5. Note that some consonants in Zulu can be used with vowels only, e.g. la, so and that others occur only in compounds of two or three consonants, usually the so-called nasal compounds, i.e. a nasal combined with one or more consonants, e.g. [mθv] which is written mv. The sound [θ] occurs in this compound only.

25.6.

Labials

- p [p'] is a voiceless ejective bilabial explosive as in -p'asa [-p'asa] (pass). It also occurs in the nasal compound mp [mp'], e.g. impi [imp'i] (army)
- ph [ph] is a voiceless aspirated bilabial explosive, e.g. -pha [-pha] (give)
- b [b] is a voiced bilabial implosive, e.g. -bona [-bona] (see)
- bh [b'] is a devoiced voiced bilabial explosive, e.g. -bhala [-bhala] (write)
- b [b] is a fully voiced bilabial explosive which occurs in the nasal compound mb [mb] only, e.g. imbuzi [imbuzi] (goat)
- m [m] is a voiced bilabial nasal, e.g. -memza [-memza] (invite); it occurs also in the nasal compounds mp and mb
- m [mʰ] is an aspirated voiced bilabial nasal, e.g. mima [mʰima] (take!)
- w [w] is a bilabial semi-vowel, e.g. -wa [-wa] (fall). Some regard it as a velar semi-vowel.

25.7.

Denti-labials

- f [f] is a radical voiceless denti-labial fricative, e.g. -fa [-fa] (die)

- v [v] is a voiced denti-labial fricative, e.g. -vala [-vala] (close)
- m [m] is a voiced denti-labial nasal which occurs only in nasal compounds before l, and before v, e.g. imfe [imfɛ] (sweetreed), imvubu [imvubu] (hippopotamus)
- [ɸf] is not indicated in the practical orthography; it is a voiceless ejective denti-labial affricate which occurs in the nasal compound mf [ɸf] only, e.g. imfe [imfɛ] (sweetreed)
- [ɸv] is not indicated in the practical orthography; it is a voiced denti-labial affricate which occurs in the nasal compound mv [ɸv] only, e.g. imvubu [imvubu] (hippopotamus)

25.8.

Alveolars

- t [tʰ] is a voiceless ejective alveolar explosive, e.g. -taka [-tʰaka] (accumulate) and occurs also in the nasal compound nt [ntʰ], e.g. into [intʰɔ] (thing)
- th [th] is a voiceless aspirated alveolar explosive, e.g. -thatha [-thatha] (take)
- d [d] is a devocalized voiced alveolar explosive, e.g. amadoda [amadoda] (men)
- d [d] is a fully voiced alveolar explosive which occurs in the nasal compound nd [nd] only, e.g. indoda [indɔda] (man)
- s [s] is a voiceless radical alveolar fricative, e.g. -sala [-sala] (remain)
- z [z] is a voiced alveolar fricative, e.g. -zama [-zama] (try)
- hl [ɬ] is a voiceless radical alveolar lateral fricative, e.g. -hlala [-ɬala] (sit)
- dl [ɖ] is a voiced alveolar lateral fricative, e.g. -dlala [-ɖala] (play)
- n [n] is a voiced alveolar nasal, e.g. -nona [-nona] (be fat)

nh [nh] is an aspirated voiced alveolar nasal, e.g. -nhinhiza [-nhinhiza] (speak through the nose)

r [r] is a voiced alveolar rolled consonant which is a borrowed sound in Zulu but which has already become adopted into the language. It is however not found in true Zulu words, e.g. uMariya [umarija] (Maria)

l [l] is a voiced alveolar lateral continuant, e.g. -lala [-lala] (lie down)

ts [tsʰ] is a voiceless ejective alveolar affricate which begins with t and ends with s, e.g. -tsatsaza [-tsʰatsʰaza] (squirrel) and also occurs in the nasal compound nts [ntsʰ] where it not indicated in the practical orthography, e.g. insimu [intsʰimu] (field)

[dz] is not indicated in the practical orthography; it is a voiced alveolar affricate which begins with d [d] and ends with z [z], and occurs in the nasal compound ndz [ndz] only, e.g. inzalo [indzalo] (progeny)

[tɬʰ] is not indicated in the practical orthography; it is a voiceless ejective lateral affricate which begins with t and ends with hl [ɬ] and occurs in the nasal compound nhl [ntɬʰ] only, e.g. inhlanhla [intʰantʰla] (luck)

[dɖ] is not indicated in the practical orthography; it is a voiced lateral affricate which begins with d [d] and ends with dl [ɖ] and occurs in the nasal compound ndl [ndɖ] only, e.g. indlovu [indɖovu] (elephant)

25.9.

Prepalatal

sh [ʃ] is a voiceless radical prepalatal fricative, e.g. -sha [-ʃa] (burn)

ny [ɲ] is a voiced prepalatal nasal, e.g. inyama [inyama] (meat)

n [ɲ] is a voiced prepalatal nasal which occurs in nasal compounds nj [ɲdʒ], e.g. inja [injɔza] (dog), and nsh [ɲtʃʰ], e.g. intsha [intʃʰa] (it is new)

tsh [tʃʰ]

is a voiceless ejective prepalatal affricate which begins with t [t] and ends with sh [ʃ]. e.g. itsh [itʃe] (stone). It also occurs in the nasal compound ntsh, e.g. intsha [ɪntʃʰa] (it is new)

ɫ [dʒ]

is a devoiced prepalatal affricate which begins with devoiced d [d̥] and ends with devoiced [ʒ] ([ʒ] is the voiced equivalent of [ʃ]), e.g. ɫuba [d̥ʒuba] (cut off)

ɭ [dʒ]

is a fully voiced affricate which begins with d and ends with [ʒ] ([ʒ] is the voiced equivalent of [ʃ]), and occurs only in the nasal compound ɭ [ɫdʒ], ɭnja [ɪpdʒa] (dog)

ɮ [j]

is the prepalatal semi-vowel, e.g. ukuya [ukujə] (to go)

Z5.10.

Velar

k [kʰ]

is a voiceless ejective explosive, e.g. ikati [ikʰatʰi] (cat); it also occurs in the nasal compound nk [ŋk], e.g. inkomo [ɪŋkʰomɔ] (cow)

k̄ [k]

or [k̄] is a radical velar explosive which is often made partly voiced between vowels, i.e. it is vocalized to [k] e.g. kuyahamba [kuyahamba] (it walks) but ukuhamba [ukuhamba] (to walk) or ngakhoke kuyahamba [ŋgakhoke kuyahamba] (therefore it walks)

kh [kh]

is a voiced aspirated velar explosive, e.g. -khookha [-khɔkha] (take out)

g [gʰ]

is a devoiced voiced velar explosive, e.g. -gula [-gula] (be ill)

ḡ [g]

is a fully voiced velar explosive which occurs in the nasal compound ng [ŋg] only, e.g. -ngena [-ŋgena] (enter)

h [x]

is a voiceless radical velar fricative which is used as an alternative for the glottal fricative ɬ [h] (see Z5.11), e.g. -hola [-xɔla] (pay)

ŋ [ŋ]

is a velar nasal which occurs before velars and before clicks only, and is represented orthographically with ŋ, e.g. inkomo [ɪŋkʰomɔ] (cow), ingwe [ɪŋgwe] (leopard), -ncane [-ŋ/anɛ] (small)

ng [ŋ]

is a voiced velar nasal, which in certain areas is used as an alternative for the nasal compound ng [ŋg] where it does not belong to the first root syllable, e.g. ngakho [ŋakhɔ], instead of the standard [ŋgakɔ] (with it)

kl [kʰɫ]

or [kʰɫ] is a voiceless ejective lateral velar affricate, e.g. -kleza [kʰɫɛza] (milk into the mouth). The alternative pronunciation is an ejective velar affricate which begins with [k] and ends with [x] followed by a glottal stop, e.g. -kleza [-kʰɫɛza] (milk into the mouth)

w [w]

see under labials; it is sometimes regarded as a velar semi-vowel.

Z5.11.

Glottals

h [h]

is a voiceless radical glottal fricative which is used as an alternative for the velar fricative [x], e.g. -hamba [-hamba] (walk)

ɦ [ɦ]

is a voiced glottal fricative, e.g. thashi [ɦaʃi] (horse)

Click consonants

Z5.12.

The click consonants have been dealt with fully in par. 3.74 et seq.. The three click consonants which are distinguished by the position in the mouth in their formation occur in Zulu, viz.

c	[//]	the dental
q	[!]	the palatal
x	[//]	the lateral

Each of these three click consonants has the following forms which are set forth in par. 3.74 et seq., viz.

c	[//]	q	[!]	x	[//]
ch	[/h]	qh	[!h]	xh	[//h]
nc	[ŋ/]	nq	[ŋ!]	nx	[ŋ//]
gc	[/g]	gq	[!g]	gx	[//g]
ngc	[ŋ/g]	ngq	[ŋ!g]	ngx	[ŋ//g]
nk	[ŋk/]	nkq	[ŋk!]	nkx	[ŋk//]

ZULU: TABLE OF COMMON CONSONANTS

REGULATION OF AIR CURRENT		PLACE OF ARTICULATION					Equivalents in the practical orthography			
		bil. labial	denti. labial	alveolar	pre. palatal	velar		glottal		
STOP CONSONANTS	EXPLOSIVE	medial	radical					k		
			ejective	p'		t'		k'		p, t, k
			aspirated	ph		th		kh		ph, th, kh
		voiced	b°		d°		g°		mb, nd, ng	
		devoiced	ɸ		ɸ		ɸ		bh, d, g	
		voiced	ɸ						b	
	IMPLOSIVE	medial	voiced							ɓ
			radical		ɗ					ɗ, ɗ, ab, h, ɓ
			voiced		ɗ					ɗ, ɗ, ɗ, ɓ
			radical							ɗ
			voiced							ɗ
			radical							ɗ
CONTINUANTS	FRICATIVE	lateral	voiced							dl
			radical							dl
			voiced							dl
		medial	voiced							dl
			radical							dl
			voiced							dl
	NASAL	aspirated	nasal							ɲ
			voiced	m	n	ɲ				m, n, ɲ, ny, ng
			nasal	ɲ						m, n
		voiced	medial							ɲ
			lateral							ɲ
			medial							ɲ
VIBRANT	medial	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
	lateral	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
LIQUID	medial	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
	lateral	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
SEMI-VOWEL	medial	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
	lateral	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
AFFRICATIVE	medial	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	
	lateral	voiced							ɲ	
		voiced							ɲ	
		voiced							ɲ	

*These sounds occur in nasal compounds only as indicated in the practical orthography here.

CHAPTER VI

THE PHONOLOGY OF XHOSA, ZULU, SWAZI, TSONGA,
VENDA, NORTHERN SOTHO, TSWANA AND SOUTHERN
SOTHO

1. THE PHONOLOGY OF XHOSAAFFRICATIZATION →

Xh. 6.1.1. Affricatization in Xhosa occurs with palatalization,
e.g.

p > tsh [tʃh]

Cf. PALATALIZATIONALVEOLARIZATIONCauses

Xh. 6.2.1. Alveolarization in Xhosa is caused by the
causative morph -y-.

Conditions under which alveolarization occurs

Xh. 6.2.2. Alveolarization has a limited occurrence in Xhosa,
i. e. only with causative verb stems, e.g.

-limala (get hurt) > -limaza (hurt)
-sula (go away) > -susa (take away)

Cf. FRICATIVIZATIONSound changes caused

Xh. 6.2.3. l > z: -limala > -limaza < *-limalya

$\bar{k} > \bar{s}$: -suka > -susa < *-sulya

Sounds changed

Xh. 6.2.4. Only one lateral and one velar sound is made alveolar.

ANALOGOUS NASALIZATION

Xh. 6.3. Analogous nasalization does not occur in Xhosa.

ANALOGY

Causes

Xh. 6.4.1. The causes of analogy are probably psychological. A phenomenon is similar to another well known one, and is formed after its example.

Where analogy occurs

Xh. 6.4.2. (i) Palatalization often occurs where the circumstances do not justify it, in other words where no semi-vowel is present (see PALATALIZATION), e.g.

intlaba (mountain) > diminutive intatyana
imvana (small sheep) > diminutive imvanyana

Also with verb stems where the semi-vowel -w- does not follow immediately on sounds that normally palatalize, palatalization occurs on the analogy of the original stem, cf.

-hlupha (worry) > -hlutshwa [-ʔutʃhwa] < *-hluphwa (be worried) but also

-hluphela (worry for) > pass. -hlutshelwa [-ʔutʃhelwa] < *-hluphelwa

(ii) Forms of the relative and adjective concords of the first and second persons are formed on the analogy of the third person, e.g.

endi- (I who), plural esi- where ndi- and si- follow the same pattern as, for instance, eli-, esi-, the concords of classes II- and isi-; o- or om- (you who) follows the pattern of classes like um- and the plural eni- follows endi- and esi-.

ASPIRATION WITH CLASS II-

Xh. 6.5. Aspiration with class II- does not occur with Xhosa.

ASSIMILATION

Xh. 6.6. (a) Assimilation occurs mainly with class prefix in-, plural izin-, ih-, where the n becomes assimilated to the following consonant, e.g.

n + k > nk [ɲkʰ]: inkabi [ɲkʰa6i] (ox), cf. -khaba (kick)
n + p > mp [mpʰ]: impendulo (an answer), cf. -phendula (answer)
n + b [6] > mb [mbʰ]: imbilo [imbilo] (scruff), cf. singular ubilo [u6ilo]
n + ʃ > [dʒ] > ɲ [ɲdʒ]: injili [ɲndʒidʒi] (maker of string), cf. -ijja (make string)

Cf. also NASALIZATION

(b) Vowels may also assimilate, e.g. ukubona [ukʰu6ona] (to see) but umboni [um6oni] (someone who sees).

Cf. also VOWEL RAISING

(c) Assimilation of kh: kh occurs normally only in the first syllable of a stem; if a kh occurs in another syllable,

it is the result of assimilation to the kh of the stem syllable, e.g.

-khakhalala (lie in heaps)
-khakhamela (be concealed)

ukhakayi or ukakayi (skull) where in the second example the kh is assimilated to the k of the second syllable.

(d) Complete vowel assimilation occurs, inter alia,

(i) with the negative of -tsho [-tʃɔ] (say), e.g.

(andi)tshongo [-tʃɔŋɔ] < *-tʃɔŋga [(ɔ) did not say]; the perfect of -tsho, viz. -tshilo (have said) instead of *-tshile, and the passive -tshiw instead of *-tshiva.

(ii) with copulative forms in which the copulative prefix assimilates to the class prefix, e.g.

with nouns: sitya (it is a dish) < isitya (dish)
with absolute pronouns: lilo (it is he), cf. lona absolute pronoun of the li- class; lulo for the lu- class, etc.

Cf. Xhosa Handbook.

(iii) with derivations of the verb stem -thi (say), e.g. -thanga instead of *-thinga.

(iv) with perfect verb stems on -ana where the l of perfect suffix -ile is assimilated to n, e.g.

-bonana (see each other) > -bonane (have seen each other),
i.e. -na+ile > *-nile > *-nine > *-nne > -ne

(v) with the future tense: andizi kubamba andizukubamba
(I shall not go)

ASSONANCE

Xh. 6.7. Assonance in Xhosa occurs mainly with ideophones in which the same vowel is for the most part used within the same word, e.g.

bhububudu (get tripped)

bhalakaxa (fall into a hole)

golokonggo (collapse)

N. B. Not all ideophones are subject to assonance.

CONSONANTALIZATION

Xh. 6.8.1. Consonantalization is caused when one vowel appears before another, c.f.

ukuyakha (to build it) < *kuiakha

Where consonantalization occurs

Xh. 6.8.2.

(i) with a subject concord u or l before a vowel, e.g.

walhile (he has built) < *uakhile

yallile (it has refused) < *iallile;

(ii) with class prefixes uku- and ulu- before vowel stems, e.g.

ukwakha (to build) < *ukuakha

ulwazi (knowledge) < *uluazi;

(iii) with the concords of classes uku- and ulu- before vowels, e.g.

uyakwazi (he knows it) < *uyakuazi

uyalwenza (he does it) < *uyaluenza;

(iv) with locative suffix -ini, e.g.

esangweni (at the gate) < *esangoini

(v) with diminutive -ana, e.g.

umntwana (child) < *umntwana

(vi) in a number of cases where e penetrates into the stem, e.g.

udongwe (clay), cf. udongo

ubulongwe (dung), cf. ubulongo

Sound changes caused

Xh. 6.8.3.

(i) u > w : ukwakha (to build) < *uknakha

(ii) o > w : isilwana (a small wild beast) < *isilwana

(iii) i > y : yakhile (it has built) < *lakhile

Sounds which change

Xh. 6.8.4. Only the back vowels u and o and the front vowel i change.

DE-ASPIRATION

Xh. 6.9. This phenomenon does not occur in Xhosa.

DEVOCALIZATION

Causes

Xh. 6.12.1. Devocalization has a limited occurrence in Xhosa and is the result of the elision of the nasal of class in-.

Circumstances under which devocalization occurs

Xh. 6.12. Devocalization occurs mainly with nouns which originally belonged to class in- but which changed their class without reverting to the original sound, e.g.

amadoda plural of indoda (man)

igwebu (foam), cf. ingwebu (milk foam)

It is possible that all stems which begin with bh, g, d, including verbs, may have originated in this way, i.e. that an original nasal compound lost its nasal, cf. imbuga (destruction) but the verb -bhuga (trample) and ubhugo (destruction).

Sound changes caused

Xh. 6.12.3. b [b] > bh [ɸ]

d [d] > d̥ [d̥]

g [g] > g̥ [g̥]

For examples see above.

Sounds which change

Xh. 6.12.4. Only the fully voiced g, d, and b (which of course occur in the compounds ng [ɲg], nd [nd̥] and mb [mb̥] only, cf. par. Xh. 5.6, Xh. 5.8., Xh. 5.11) are subject to devocalization.

DISSIMILATION

Xh. 6.13. (a) Dissimilation is mainly found with palatalization, i.e. where a labial sound changes into a palatal sound, e.g.

b [b] > ty [c]: -hiaba (stab) passive -hiatywa

See also under PALATALIZATION.

(b) Dissimilation of l occurs in the perfect when a verb stem of more than two syllables end in -ela, e.g.

-bambela (catch for) > -bambele (have caught for) i.e.
-ela + ie > *-elile > *-elle > -ele

ELISION

Xh. 6. 14. 1. There are three kinds of elision in Xhosa

- (a) morphological elision
- (b) optional syntactical elision
- (c) compulsory syntactical elision

(a) Morphological elision

Xh. 6. 14. 2. In morphological elision (or grammatical elision) certain formatives are derived by means of elision, e.g.

(i) the possessive concord in which the pronominal element loses its vowel before the formative -a, e.g.

la- < *lia-, class lli-
sa- < *sia-, class isi-

(ii) the elision of the final -na of the absolute pronoun or of the possessive pronominal stem, e.g.

nazo (with them) < nazona
zabo (of them) < zabona

Here we have at the same time elision of a syllable.

(iii) the elision of the vowel of the quantitative concord before the quantitative stem -onke, e.g.

zonke (all) < *zionke
bonke (all) < *baonke

(iv) the elision of the vowel of a variety of formatives which occur before a vowel verb stem, e.g.

subject concord: sakha (we build) < *siakha
 object concord : uyalakha (he builds it) < *uyaliakha
 present tense -ya-uyenza (he is doing) < *uyaenza
 negative -nga- : ungenzi (don't do) < *ungaenzi;
 potential -nga- : ungenza (you can do) < *ungenzenza etc.

(v) the second and third position of the demonstrative have alternatives in which the semi-vowel is dropped, and a long vowel develops, e.g.

loo instead of lowo (that one), class um-
aba instead of abaya (yonder ones) class aba-

(vi) elision also occurs with possessives in the spoken language, e.g.

umntwanomfazi < umntwana womfazi (the woman's child)
inkomendoda < inkomo yendoda (the cow of the man)
inkomamadoda < inkomo yamadoda (the cow of the men)

Note that the possessive must begin with a semi-vowel in order to bring about this kind of elision.

(vii) with diminutives where palatalization is avoided, e.g.

impana < *impiana diminutive < impi (army)
imvana < *imvana < imvu (sheep)

(viii) with connective na- before demonstratives which begin with a vowel, e.g.

nelo < *naelo (with this one)

(ix) with instrumental nga- before demonstratives which begin with a vowel, e.g.

ngeso < *ngaeseso (with that one)

(x) with connective na- before relative and adjective concords, e.g.

nenkulu < *naenkulu (also a big one)

(xi) with instrumental nga- before relative and adjective concords, e.g.

ngelomvu < *ngaelomvu (with a red one)

Note that elision never occurs when a and l or a and u follow each other. See VOWEL COALESCENCE.

(b) Optional syntactical elision

Xh. 6.14.3. By optional syntactical elision of vowels is understood the elision of vowels which occur in rapid speech, but which are not necessary in the slow and clear enunciation of a word, in other words the elision of vowels here is optional and has no influence on the meaning of the sentence or the word. In this kind of elision it is always the final vowel of a word which is dropped.

(i) when nouns are followed by an adjective or a relative, e.g.

inkom'enkulu (a big cow)

umnt'ontswudu (an brown person)

(ii) when qualificatives occur before nouns, e.g.

abakhul'abantu (big people)

obomv'umntu (a red man)

ezam'inkomo (my cattle)

(iii) when absolute pronouns of the third person occur before nouns, e.g.

bon'abantu (they, the people)

lon'ihasha (it, the horse)

(iv) when quantitatIVES occur before nouns, e.g.

bonk'abafazi (all the women)

bodw'abantu (only the people)

(v) when a verb is immediately followed by a word which begins with a vowel, e.g.

ngitheng'ingubo (I buy a blanket)

utband'ukubon'umntu (I wants to see a person)

In the spoken language the demonstrative before a noun is often subject to elision, e.g. a'abantu instead of aba bantu (these people).

(c) Compulsory syntactical elision

Xh. 6.14.4. This type of elision occurs in certain types of syntactical forms, and cause a change of meaning compared to those forms without elision.

(i) the vocative: e.g.

nkosi! (chief!) but inkosi (the chief)

(ii) after the absolute pronoun of the first and second persons, e.g.

wena nkosi! (you, sir) but

wena inkosi (you, the chief)

(iii) after demonstratives before nouns:

lo mntu (this person) but

lo umntu (this one, the person or this person)

(iv) with absolute negation:

andifuni ngubo (I don't want any blanket) as against

andifuni ingubo (I don't want a blanket)

In the locative form of the noun the initial e- is also elided in absolute negatives, e.g.

andingeni ndlwini (I enter no house) instead of

endlwini

(v) with enumeratives:

ufuna zinja zini (what kind of dogs do you want?)

(vi) with na- in the negative, cf.

akanankomo (he has no cow), e.g.

unenkomo (he has a cow)

Note that elision occurs with the initial vowel of the class prefix of the noun.

FRICATIVIZATION

Kh. 6.14.1. Fricativization in Xhosa occurs only in one instance, viz.

l > dl [ʒ] as in -khulu (big) > -khudlwana (biggish)

It is caused by labial w which changes the liquid l into a lateral fricative.

INTERCHANGE OF VOICILESS AND VOICED CONSONANTS

Causes

Kh. 6.16.1. The cause for this phenomenon seems to lie in the

need of another shade of meaning, and in the voiced form which suggests a more powerful and fiercer action.

Where interchange occurs

Kh. 6.16.2. There are no fixed rules which can be determined. It can be seen as a trend. Note that this phenomenon has not been thoroughly investigated in Xhosa yet, but only in Zulu, see J.A.

Louw: The Consonant Phenomenon of the Lexical Root in Zulu, Afrika und Übersee, Band XLIII, 1964.

Interchanges that occur

Kh. 6.16.3. g and kh: -ganda (stamp) and -khanda (stamp in a stamping block)

Sounds which interchange

Kh. 6.16.4. Voiced and voiceless sounds interchange.

INTERNAL VOWEL CHANGE

Causes

Kh. 6.17.1. This phenomenon is caused by the i of the perfect suffix which is transposed to a preceding syllable in which a is present.

Where vowel changes occur

Kh. 6.17.2. It is found with the stative form of verbs with the suffixes -ala, -ana and -atha.

Sound changes caused

Kh. 6.17.3.

(1) -ala > -ele : -kathala (be interested in) > -kathele
 < *-kathalle < *-kathalle;

(ii) -ana > -ene : -bonana (see each other) > -bonene < *-bonaine < *-bonaile;

(iii) -alpha > -ethe : -phatha (touch) > -petha < *-phaithe < -phathle

Sounds that change

Xh. 6.17.4. Only an a is changed through vowel coalescence.

N.B. The explanation given here is of course a diachronic one. The explanation can also be seen synchronically, i.e. a assimilates partly to following i (of -ile) after which i drops out.

JUXTAPOSITION OF VOWELS

Xh. 6.18. When two vowels are juxtaposed, the following happen:

(i) the two vowels coalesce — see VOWEL COALESCENCE

(ii) one vowel becomes a semi-vowel — see CONSONANTALIZATION

(iii) a glide, viz. w before u and a, and y before i is inserted between two vowels, e.g.

uyayibona (he sees it) < *uyabona

uyawubona (he sees it) < *uyabona

uyawabona (he sees them) < *uyabona

ayiboni (he does not see) < *aiboni, cf. iyabona (he sees);

(iv) in certain cases vowels may be juxtaposed but in such cases a glottal stop is inserted which in writing is indicated with a hyphen, e.g.

kwa-amahashe (even the horses)

i-apile (apples) pl. ama-apile

N.B. The term juncture is also used to indicate glides as in (iii) and (iv) above.

LABIALIZATION

Xh. 6.19. Labialization does not occur in Xhosa.

METATHESIS

Xh. 6.20. Metathesis does not occur in Xhosa.

NASAL STRENGTHENING

Xh. 6.21. Vide STRENGTHENING, NASALIZATION, PLOSIVATING.

NASALIZATION

Causes

Xh. 6.22.1. Nasalization is caused by the nasal of class in- and class izin- (classes 9 and 10) with deverbatives and adjectives.

Where nasalization occurs

Xh. 6.22.2.

(i) with noun stems of classes in- and izin-, e.g.

impilo (life) cf. -phila (live)

izinti (sticks) singular uluthi

(ii) with adjective stems, e.g.

enkulu (a big one) < -khulu (big)

Xh. 6. 21. 3. Sound changes brought about

	sound	verb or ulu- class	class in-	plural of classes in- and ulu-: class izin-	adjective
<u>n + b</u>	[b] > <u>mb</u> [mb]	<u>-balisa</u> [-Galisa] (tell)	<u>imbali</u> [imbali] (story)	<u>imbali</u> [imbali]	<u>-bi</u> [-bi] (bad)
<u>n + rh</u>	> <u>mp</u> [mpʰ]	<u>ubende</u> [ubɛnde] (spleen)	<u>impilo</u> [impʰilo] (life)	<u>imbende</u> [imbɛnde]	> <u>embi</u> [embɪ]
<u>n + th</u>	> <u>nt</u> [ntʰ]	<u>uphondo</u> (horn)	<u>intando</u> [intʰandɔ] (love)	<u>impondo</u> [impʰɔndɔ]	<u>-thathu</u> (three)
<u>n + kh</u>	> <u>nk</u> [nkʰ]	<u>uluthi</u> (stick)	<u>inkohliso</u> [inkʰɔʔiso] (cheating)	<u>izinti</u> [izintʰi]	> <u>ezintathu</u>
<u>n + g</u>	[g] > <u>ng</u> [ŋg]	<u>ukhezo</u> (wooden spoon)	<u>inganga</u> [ingʰaŋga] (important man)	<u>imkezo</u> [inkʰɛzɔ]	<u>-khulu</u> (big)
<u>n + d</u>	[d] > <u>nd</u> [nd]	<u>-ganga</u> [-gaŋga] (-be bold)	<u>indalo</u> [indalɔ] (creation)	<u>ingango</u> [ingʰɔŋgɔ]	> <u>enkulu</u>
<u>n + bh</u>	[b] > <u>mb</u> [mb]	<u>ugogo</u> [ugɔgɔ] (something dried up)	<u>imbali</u> [imbali] (good writer)	<u>ingango</u> [ingʰɔŋgɔ]	<u>-dala</u> [-dala] (old)
<u>n + f</u>	> <u>mf</u> [mfʰ]	<u>-dala</u> [-dala] (create)	<u>imfihlo</u> [imfʰiɬɔ] (something hidden)	<u>indidi</u> [indidi]	> <u>endala</u> [ɛndala]
<u>n + v</u>	> <u>mv</u> [mvʰ]	<u>udidi</u> [udidi] (row)	<u>imvelo</u> [imvɛlo] (origin)	<u>imbali</u> [imbali]	<u>-fuphi</u> (short) >
<u>n + s</u>	> <u>nts</u> [ntsʰ]	<u>ubhalo</u> [ubhalɔ] (writing)	<u>intsabo</u> [intsʰaɔɔ] (fligh)	<u>imbalo</u> [imbalo]	<u>emfuphi</u> [ɛmfʰuphi]
<u>n + z</u>	> <u>nz</u> [nz]	<u>-fihla</u> (hide)	<u>inzalo</u> [inzalɔ] (yield)	<u>imfihlo</u> [imfʰiɬɔ]	
<u>n + sh</u>	> <u>ntsh</u> [ntʰʰ]	<u>ufutha</u> (bad smell)	<u>intshwabulu</u> [intʰʰwabulu] (one who swears at)	<u>imfutha</u> [imfʰutha]	
		<u>-vela</u> (appear)		<u>imvelo</u> [imvɛlo]	
		<u>uluvo</u> (opinion)		<u>izimvo</u> [izimvɔ]	
		<u>-saba</u> (flee)		<u>intsabo</u> [intsʰaɔɔ]	
		<u>uswazi</u> (switch)		<u>intswazi</u> [intʰswazi]	
		<u>-zala</u> (full)		<u>inzalo</u> [inzalɔ]	
		<u>uzungu</u> (something long)		<u>inzungu</u> [inzungu]	
		<u>-shwabula</u> (curse)		<u>intshwabulu</u> [intʰʰwabulu]	
		<u>ulushwa</u> (marguerite)		<u>izintshwa</u> [izintʰʰwa]	

Xh.6.21.3. (Continued)

sound	verb or ulu-class	class in-	plural of classes in- and ulu-: class izim-	adjective
<u>n + r</u> [x] > <u>kr</u> [kx']	<u>-rweba</u> [-xw'e6 a] (barter)	<u>inkrwebo</u> [iŋkx'w'e6o] (trade)	<u>inkrwebo</u> [iŋkx'w'e6o]	
<u>n + hl</u> [ɬ] > <u>nli</u> [ntɬ'i]	<u>urano</u> [uxano] (suspicion)	<u>intlalo</u> [intɬ'alo] (way of living)	<u>inkrano</u> [iŋkx'ano]	<u>-hle</u> [-ɬ'e] > (beautiful) > <u>entle</u> [entɬ'e]
<u>n + dl</u> [ɔ] > <u>ndl</u> [ndɔ]	<u>uhlolo</u> (string of beads)	<u>indlelo</u> [indɥ'elo] (crop of bird)	<u>indlelo</u> [indɥ'elo]	
<u>n + c</u> [ʃ] > <u>nc</u> [ɲ/ɛ]	<u>-dla</u> (eat)	<u>ingcengeleza</u> (long story)	<u>indadla</u> [indɬ'adɬa]	
<u>n + g</u> [i] > <u>ng</u> [ŋ'iɛ]	<u>udladla</u> (grain store)	<u>ingqwenga</u> (council)	<u>ingcengelezo</u>	
<u>n + x</u> [ʃ] > <u>ngx</u> [ɲ//ɛ]	<u>-cengceleza</u> (recite)	<u>ingxali</u> (obstacle)	<u>ingcango</u>	
<u>n + ch</u> [h] > <u>nk</u> [ɲk']	<u>ucango</u> (door)	<u>inkwela</u> (shaving)	<u>ingwenga</u>	
<u>n + qh</u> [h] > <u>nkq</u> [ɲk'i]	<u>-qwenga</u> (tear)	<u>inkqubo</u> (progress)	<u>ingqaga</u>	
<u>n + xh</u> [h] > <u>nx</u> [ɲk//]	<u>ugaga</u> (back)	<u>inkxentsi</u> (good dancer)	<u>ingxande</u>	
	<u>-xaka</u> (Flabbergast)		<u>inkcuku</u>	
	<u>uxande</u> (rectangular house)		<u>inkqubo</u>	
	<u>-chwela</u> (peel)		<u>inkqolo</u>	
	<u>uchuku</u> (trifle)			
	<u>-qhuba</u> (go forward)			
	<u>uqolo</u> (tribute)			
	<u>-xhentsa</u> (dance)			
	<u>uxhaxhazo</u> (leg-ring)			

Sounds which are influenced

Xh.6.21.4. The sound which are being influenced are the aspirates kh, th, and ph; the radical and aspirated clicks: fricatives f, v, s, z, sh, dl and hl; also devoiced sounds become vocalized.

NASALIZING OF VOWELS

Xh. 6. 23. Nasalizing of vowels does not occur in Xhosa.

PALATALIZATION

Causes

Xh. 6. 24. 1.

- (i) the vowel i with its equivalent semi-vowel ɹ, e.g.
inkabi (ox) > diminutive *inkabiana > *inkabyana
 > inkatyana (small ox)
- (ii) the vowel e with its equivalent semi-vowel ɹ, e.g.
ihlombe (pleasure) > diminutive *ihlombeana >
 *ihlombyana > ihlonjana
- (iii) the vowel u and its equivalent semi-vowel w, e.g.
iphaphu (heart) > diminutive *iphaphuana >
 *iphaphwana > *iphatswana (small heart)
- (iv) the vowel o with its equivalent semi-vowel w, e.g.
inkomo (cow) > diminutive *inkomoana > *inkomwana
 > inkonyana (calf)

Where palatalization occurs

Xh. 6. 24. 2.

- (i) with diminutive of nouns, e.g.
inkabi (ox) > inkatyana
- (ii) with passives of verb stems, e.g.
-hlupha (worry) > -hlutshwa (be worried)
- (iii) with locatives of nouns, e.g.
umlomo (mouth) > emlonjeni (in the mouth)

(iv) with a number of class prefixes before a vowel stem, e.g.

utywala (beer) < *ubwala

Sound changes caused

Xh. 6. 24. 3.

- | | | | |
|------------------|----------------------------|---|------------------------------------|
| b [β] > ɿ [cʰ]: | <u>inkabi</u> (ox) | > | <u>inkatyana</u> (small ox) |
| | <u>-goba</u> (bend) | > | <u>-gotywa</u> (be bent) |
| | <u>ihlobo</u> (summer) | > | <u>ehlotyeni</u> (in summer) |
| | <u>utywala</u> (beer) | < | * <u>ubwala</u> |
| bh [β] > ɿ [dʒ]: | <u>isigubu</u> (calabash) | > | <u>isigujana</u> (small calabash) |
| | <u>-bhumba</u> (perish) | > | <u>-bhujwa</u> (be perished) |
| | <u>isigubhu</u> (calabash) | > | <u>esigujini</u> (in the calabash) |
| ph > tsh [tʃ]: | <u>iphaphu</u> (heart) | > | <u>iphatswana</u> (small heart) |
| | <u>-phupha</u> (dream) | > | <u>-phutshwa</u> (be dreamt) |
| | <u>iphaphu</u> (heart) | > | <u>ephatswini</u> (in the heart) |
| m > ny [ɲ]: | <u>umlomo</u> (mouth) | > | <u>umlonjana</u> (little mouth) |
| | <u>-luma</u> (bite) | > | <u>-lumywa</u> (be bitten) |
| | <u>intamo</u> (neck) | > | <u>entanyeni</u> (in the neck) |
| | <u>umyana</u> (son) | < | * <u>umwana</u> |
| mp > ntsh [ntʃ]: | <u>isitampu</u> (stamp) | > | <u>isitantshana</u> (small stamp) |
| | <u>-mpompa</u> (pump) | > | <u>-mpoutshwa</u> (be pumped) |

ihlwempu (pauper) > ehlwentshini (to a pauper)

mb > uj [ɲdʒ] : intambo (line) > intanjana (little string)
-bamba (catch) > -banjwa (be caught)
intambo (string) > entanjeni (to a string)
u > uy [ɲ] : imfene (baboon) > imfenyana (small baboon)

Note that with passives the semi-vowel w is retained.

Sounds that change

Xh. 6.24.4. It is mainly labial sounds which change. A number of alveolar sounds change although unchanged alternatives occur with them.

With passives and locatives only labials change.

PLOSIVATING

Xh. 6.25. This term is not used for Xhosa. Vide NASALIZATION.

STRENGTHENING

Xh. 6.26. This term is not used for Xhosa. Vide NASALIZATION.

VELARIZATION

Xh. 6.27. Velarization does not occur in Xhosa.

VOCALIZATION

Xh. 6.28. Vocalization does not occur in Xhosa.

VOWEL COALESCENCE

Xh. 6.29.1. Vowel coalescence is caused by

- (i) a which appears before i;
- (ii) a which appears before u;
- (iii) a which appears before a.

Circumstances under which vowel coalescence occurs

Xh. 6.29.2.

- (i) after connective na-, e.g.
nenja (with a dog) < *nainja
- (ii) after instrumental nga-, e.g.
ngento (with a thing) < *ngainlo
- (iii) after a possessive concord, e.g.
womntu (of a person) < *wamuntu
- (iv) where locative -ini follows on a, e.g.
entabeni (on the mountain) < *entabaini
- (v) in the formation of a demonstrative from la- plus demonstrative root, e.g.
le (this one) < *lal (class in-, imi-)
lo (this one) < *lau (class um-)
- (vi) where an a occurs before a verb stem with a latent initial vowel, e.g.
uyeva (he hears) < *uyaiwa

VOWEL RAISING

Causes

Xh. 6.30.1. Vowel raising is caused by the high vowels i and u.

They have an influence on and e [ɛ] or o [ɔ] of a syllable immediately preceded by one with i or u, e.g. inkosi [iŋkosi] (chief), but inkosana [iŋkɔsana] (petty chief). Note that [ɛ] and [ɔ] are raised to [e] and [o] respectively but that it is not shown in the practical orthography.

Where vowel raising occurs

Xh. 6.30.2.

- (a) An i follows in the following cases after an [ɔ] or [ɛ]:
- (i) locative -ini, e.g. [iŋkɔmɔ] (cow) > [eŋkɔmeni] (to a cow)
 - (ii) causative -isa, e.g. [-bɔna] (see) > [-bɔnisa] (cause to see)
 - (iii) perfect -ile, e.g. [-ilɛ], e.g. [-bɔna] (see) > [-bɔnilɛ] (have seen)
 - (iv) the personal ending -i, e.g. [-bɔna] (see) > [uɪbɔni] (person who sees)
 - (v) negative terminative -i, e.g. [-sɛŋga] (milk) > [-sɛŋgi] (not milk)
 - (vi) i in the class prefixes imi-, ili-, isi-, izi- and izin-, e.g. [nesilɔ] (also a beast)
 - (vii) the final -i of demonstratives of classes imi-, ili-, isi-, izi- and izin-, e.g. [eli] (this one) class ili-
 - (viii) i- which occurs in a root, e.g. [entsimini] (in the field), [ŋgozipho] (with a claw)
- (b) A u follows in the following cases on [ɛ] and [ɔ] :
- (i) u- of all class prefixes in which it occurs, e.g. [ŋgoluthi] (also a stick) including [uɪn-] (< uɪnu-), e.g. [noɪntu] (also a person)
 - (ii) u- as final vowel of demonstratives which belong to classes in which u occurs, e.g. [obu] (this), class ubu-
 - (iii) -u as a terminative of nouns, e.g. [isilevu] (chin)

- (iv) -u as a vowel of a root, e.g. [ŋgokhuk'ɔ] (with a mat)
- (v) -u as final vowel of ideophones, e.g. [kɪ'ɛbu] (red as blood)

(c) Note also that the influence of i and u on a preceding vowel may also be applied retrogressively on vowels further forward in Xhosa. In all syllables with an o [ɔ] or e [ɛ] immediately before the close vowels i and u the o or e will be raised to [o] and [e] respectively until a break occurs in the o and e, e.g.

enkomeni [enk'ɔmeni] < inkomo [iŋk'ɔmɔ] (head of cattle)

ishologu [iʃologu] (misfortune designed by evil spirits)

VOWEL REPLACEMENT

Causes

Xh. 6.31.1. The causes of this phenomenon are unknown.

Where vowel replacement occurs

Xh. 6.31.2. Vowel replacement is found as follows:

- (a) the negative formative -nga- changes to -nge- in the following circumstances:
- (i) before -ka- (not yet), e.g. ubengekabhambi (he had not yet gone)
 - (ii) before na-, e.g. bengenalutho (while they have nothing)
 - (iii) before adjectives, e.g. engemkhulu (he not being big)
 - (iv) before relatives, e.g. engebomvu (he not being red)

(v) before copulatives, e.g.

engenguye (he not being him)

(b) the progressive formative -sa- (still) changes to -se- in the following circumstances:

(i) before na-, e.g.

abasenalutho (they no longer have something)

(ii) before adjectives, e.g.

usemkhulu (he is still big)

(iii) before relatives, e.g.

usebomvu (he is still red)

(iv) before copulatives, e.g.

usengumfana (he is still a boy)

Sounds that change

Xh. 6.31.3. Only the low vowel a of negative -nga- and of progressive -sa- changes to high vowel e.

2. SOUND CHANGES OF ZULU

AFFRICATIZATION

Z6.1.1. Affricatization in Zulu occurs with palatalization, e.g.

b > tsh [tʃ]

Cf. PALATALIZATION.

ALVEOLARIZATION

Causes

Z6.2.1. Alveolarization in Zulu is caused by the causative morph -y-.

Conditions under which alveolarization occurs

Z6.2.2. Alveolarization has a limited occurrence in Zulu, i.e. only with causative verb stems, e.g.

-limala (get hurt) > -limaza (hurt)

-sulka (go away) > -susa (take away)

Sound changes caused

Z6.2.3. l > z: -limala > -limaza < *-limalya

k > s: -sulka > -susa < *-sulkya

Sounds changed

Z6.2.4. Only one lateral and one velar sound is made alveolar.

ANALOGOUS NASALIZATION

26.3. Analogous nasalization does not occur in Zulu.

ANALOGY

Causes

26.4.1. The causes of analogy are probably psychological.

A phenomenon is similar to another well known one, and is formed after its example.

Where analogy occurs

26.4.2. (i) Palatalization often occurs where the circum-

stances do not justify it, in other words where no semi-vowel is present (see PALATALIZATION), e.g.

intaba (mountain) > diminutive intatshana
induna (chief) > diminutive indunyana

Also with verb stems where the semi-vowel -w- does not follow immediately on sounds that normally palatalize, palatalization occurs on the analogy of the original stem, cf.

-hlupha (worry) > -hlushwa < *-hluphwa (be worried) but now
-hluphela (worry for) > -hlushelwa instead of *-hluphelwa (be worried for)

(ii) The adjective concords of class izi- are similar to those of class izin-, in other words nasalization is applied where no nasal occurs, e.g.

izilwane ezintathu instead of *ezithathu (three beasts)

(iii) The copulative prefix for absolute pronouns is always yi- in Zulu. Compared to Swazi and Xhosa (see ASSIMILATION in these languages) it seems as if this yi- is applied on the analogy of those classes where the root vowel is i- to all

classes, hence

yiibo (it is they) instead of *yabo absolute pronoun class aba-
yiwo (it is it) instead of *yowo absolute pronoun class unu-

(iv) The adjective concords and the relative concords of the first and second persons are formed on the analogy of those of the third person, e.g.

engi- (I who) with plural esi- (we who) and eni- (you who) follow the pattern of classes like isi- (> esi-); o and om- (you who) follow classes like unu- (> o-, om-).

ASPIRATION WITH CLASS II-

26.5. Aspiration with class ii- does not occur in Zulu.

ASSIMILATION

26.6. (a) Assimilation occurs mainly with class prefix in-, plural izin-, where the n becomes assimilated to the following consonant, e.g.

n + k > nk [ŋkʰ] : inkabi [ɪŋkʰa6i] (ox), cf. -khaba
 (kɪk)

n + p > mp [mpʰ] : impendulo (an answer), cf. -phendula
 (answer)

n + b [β] > mb [mb] : izimbambo (ribs), cf. singular ubambo
 [uβambo]

n + l [dʒ] > nl [ndʒ] : injabulo [ɪndʒaβulo] (happiness),
 cf. -jabula (be glad)

Cf. also NASALIZATION.

(b) Vowels may also assimilate, e.g. ukubona
 [uɠaβona] (to see) but umboni [uɪmβoni] (someone who sees).
 Cf. also VOWEL RAISING.

(c) Assimilation of kh: kh occurs normally only in the first syllable of a stem; if a kh occurs in another syllable, it is the result of assimilation to the kh of the stem syllable, e.g.

-khokha (take out) instead of *-khoka
ukhakhayi (top of skull) instead of *ukhakhayi (Cf. Xhosa)

(d) Complete vowel assimilation occurs, inter alia

- (i) with locative ku-: kimi instead of kumi (to me), kithi instead of kathi (to us)
- (ii) with derivations of the verb stem -sho (say), e.g. imperative shonoi (say) < *shoni; negative -shongo instead of *-shonga, e.g. angisbongo (I did not say); applied -sholo, etc.
- (iii) with perfect verb stems on -ana where the l of perfect suffix -ile is assimilated to n, e.g. -bonana (see each other) > -bonane (have seen each other), i.e. *-na+ile > *-nile > *-nine > -ne
- (iv) with the imperative of -thi (say), viz. thana! < *thani
- (v) with the future tense: angizi kuhamba > angizukuhamba (I shall not walk)

ASSONANCE

Z6.7. In Zulu assonance occurs mainly with ideophones in which a great variety of assonance forms occur, e.g.

- (i) shishlizi (slip) with identical vowels
- (ii) gunguluzi (deflect) with high vowels
- (iii) fafalazi (do superficially) in which assonance covers the whole word except the final vowel; the final vowel is in fact the opposite (high) of the other vowels (low).

It should be remembered that not all ideophones are subject to assonance in Zulu.

CONSONANTALIZATION

Causes

Z6.8.1. Consonantalization is caused when one vowel appears before another, e.g.

ukuyakha (to build it) < *ukuiakha

Where consonantalization occurs

Z6.8.2.

- (i) with a subject concord u or i before a vowel, e.g.
wakhile (he has built) < *wakhile
yalile (it has refused) < *ialile
- (ii) with class prefixes uku and ulu- before vowel stems, e.g.
ukwakha (to build) < *ukuakha
ulwazi (knowledge) < *uluwazi
- (iii) with the concords of classes uku- and ulu- before vowels, e.g.
uyakwazi (he knows it) < *uyakuwazi
uyalwenzu (he does it) < *uyalwenzu
- (iv) with locative suffix -ini, e.g.
esangweni (at the gate) < *esangoini
- (v) with diminutive -ana, e.g.
umntwana (child) < *umuntuwana
- (vi) in a number of cases where e penetrates into the root, e.g.
-khwehlela (cough) and -kholelela
umunwe and umuno (finger)

Sound changes caused

Z6.8.3.

- (i) u > w : ukwakha (to build)
 (ii) o > w : isilwane (beast)
 (iii) i > y : yakhile (it has built)

Sounds which change

Z6.8.4. Only the back vowels u and o and the front vowel i change.

DE-ASPIRATION

Z6.9. De-aspiration does not occur in Zulu.

DENASALIZATION

Z6.10. This phenomenon does not occur in Zulu.

DENTI-LABIALIZATION

Z6.11. This phenomenon does not occur in Zulu.

DEVOCALIZATIONCauses

Z6.12.1. Devocalization has a limited occurrence in Zulu and is the result of the elision of the nasal of class in-.

Circumstances under which devocalization occurs

Z6.12.2. Devocalization occurs mainly with nouns which originally belonged to class in- but which changed from class

without reverting to the original sound, e.g.

- isibhuzikazi (she-goat) cf. imbuzi (goat)
isibhuzazana (female kid) cf. imbuzi (goat)
amadoda plural of indoda (man)
igazi (blood) and ingazi

It is possible that all stems which begin with bh, g, d, including verbs, may have originated in this way, i.e. that an original nasal compound lost its nasal.

Sound changes caused

- Z6.12.3. b [b] > bh [bʰ]
d [d] > d [d̥]
g [g] > g [g̊]

For examples see above.

Sounds which change

Z6.12.4. Only the fully voiced g, d, and b (which of course occur in the compounds ng [ŋg], nd [nd̥] and mb [mb̥] only, cf. par. Z5.6., Z5.8., Z5.10 etc.) are subject to devocalization.

DISSIMILATION

Z6.13. (a) Dissimilation is mainly found with palatalization, i.e. where a labial sound changes into a palatal sound, e.g.

- b [b] > tsh [tʃ]: -loba (write) > -lotshwa (written)

See also under PALATIALIZATION.

(b) Dissimilation of l occurs in the perfect when a verb stem of more than two syllables end in -ela, e.g.

-bambela (catch for) > -bambele (have caught for) i. e.

*-ela + lie > *-elile > *-elle > -ele

ELISION

26.14.1. There are three kinds of elision in Zulu

- (a) morphological elision
- (b) optional syntactical elision
- (c) compulsory syntactical elision

(a) Morphological elision

26.14.2. In morphological elision (or grammatical elision) certain formatives are derived by means of elision, e.g.

- (i) the possessive concord in which the pronominal element loses its vowel before the formative -a, e.g.

la- < *lia-, class ili-

sa- < *sia-, class isi-

- (ii) the elision of the final -na of the absolute pronoun or of the possessive pronominal stem, e.g.

nazo (with them) < nazona

zabo (of them) < zabona

Here we have at the same time elision of a syllable.

- (iii) the elision of the vowel of the quantitative concord before the quantitative stem -onke, e.g.

zonke (all) < *zionke

bonke (all) < *baonke

- (iv) the elision of the vowel of a variety of formatives which occur before a vowel verb stem, e.g.

subject concord : sakha (we build) < *siakha

object concord : uyalakha (he builds it) < *uyaliakha

present tense -ya- : uyenza (he is doing) < *uyaenza

negative -nga- : ungenzi (don't do) < *ungenzenzi

potential -nga- : ungenza (you can do) < *ungenzenza, etc.

- (v) with diminutives in which palatalization is avoided, e.g.

impama < *impiana diminutive < impi (war)

- (vi) with connective na- before relative and adjective concords, e.g.

nenkulu < *nenkulu (also a big one)

- (vii) with instrumental nga- before relative and adjective concords, e.g.

ngobomvu < *ngzebomvu (with a red one)

- (viii) with the various forms of the future tense, e.g.

ngiza kubona (I shall see) > ngizaubona > ngizobona
> ngobona

Note that elision never occurs when a and i or a and u follow each another. See VOWEL COALESCENCE.

(b) Optional syntactical elision

26.14.3. By optional syntactical elision of vowels is understood the elision of vowels which occur in rapid speech, but which

are not necessary in the slow and clear enunciation of a word, in other words the elision of vowels here is optional and has no influence on the meaning of the sentence or the word. In this kind of elision it is always the final vowel of a word which is dropped:

- (i) when nouns are followed by an adjective or a relative, e.g.
inkom'enkulu (a large cow)
umunt'ogotho (an honest person)
- (ii) when qualificatives occur before nouns, e.g.
abakhul'abantu (big people)
obomv'umuntu (a red person)
ezam'izinkomo (my cattle)
- (iii) when absolute pronouns of the third person occur before nouns, e.g.
bon'abantu (they the people)
lon'ihashi (the horse, it)
- (iv) when quantificatives occur before nouns, e.g.
bonk'abafazi (all the women)
bodw'abantu (only the people)
- (v) when a verb is immediately followed by a word which begins with a vowel, e.g.
ngitheng'ingubo (I buy a blanket)
uthand'ukubon'umuntu (he wants to see a person)
- (vi) with contracted forms of the auxiliary verbs -be and -se, e.g.
ube ubona > ububona (you were seeing)
use ubona > usubona (you see already)
- (vii) with auxiliary verbs which lose their subject concord, although it is retained with the main verb, e.g.
suke wathi instead of usuke wathi (he immediately said)

(c) Compulsory syntactical elision

Z6.14.4. This type of elision occurs in certain types of

syntactical forms, and cause a change of meaning compared to those forms without elision.

- (i) the vocative:
nkosi! (chief!), but
inkosi (the chief)
- (ii) after the absolute pronoun of the first and second persons, e.g.
wena nkosi! (you, sir), but
wena inkosi (you, the chief)
- (iii) after demonstratives before nouns:
lo-muntu (this person), but
lo umuntu (this one the person or this person)
- (iv) with absolute negation:
angifuni ngubo (I don't want any blanket)
angifuni ingubo (I don't want a blanket)
- (v) with enumeratives:
ufuma zinja zini (what kind of dog are you looking for?)
- (vi) with na- in the negative, cf.
akanankomo (he has no cow), cf.
umenkomo (he has a cow)

Note that elision occurs with the initial vowel of the class prefix of the noun.

FRICATIVIZATION

Causes

Z6.15.1.

Fricativization in Zulu overlaps with palatalization,

i. e. a labial w causes a fricative sound.

Where fricativization occurs

Z6.15.2. As already indicated fricativization occurs where palatalization is found, i. e. with diminutives, passives and locatives, e.g.

ph > sh, e.g. -bopha (tie) > -boshwa (be tied)

Sound changes caused

Z6.15.3. ph > sh

th > sh

These are dealt with under PALATALIZATION.

l > dl [ɖ] as in -khulu (big) > -khu^llwana (biggish)

Cf. also k > s under ALVEOLARIZATION.

Sounds which change

Z6.15.4. A labial, an alveolar, a liquid and a velar sound change.

INTERCHANGE OF VOICELESS AND VOICED CONSONANTS

Causes

Z6.16.1. The cause for this phenomenon seems to lie in the need of another shade of meaning, and in the voiced form which suggests a powerful and fiercer action.

Where interchange occurs

Z6.16.2. There are no fixed rule which can be determined. It can be seen as a trend.

Interchanges that occur

Z6.16.3.

(i) kh and g interchange, and sometimes also with k, e.g.

kele (chatter), khethe (babble) and gede (chatter loudly)

(ii) th and d interchange, and sometimes also with t, e.g.

tapu (touch something soft), thapu (take something),
daphu (grab)

(iii) ph and bh [ɸ] interchange, and sometimes also with p, e.g.

paku (slap lightly), phaku (flutter), bhaku (be excited)

(iv) ph and bh [ɸ] and p [p] interchange, e.g.

phhli (break into pieces), bhhli (demolish), bhli
(fall down, as plaster)

(v) f and v interchange, e.g.

fece (dent) and vece (dent much)

(vi) hl and dl interchange, e.g.

hlatu (tear), dlatu (tear off)

This phenomenon is fully discussed by dr. Louw in an article titled The Consonant Phonemes of the Lexical Root in Zulu, Afrika und Übersee, Band XLIII, 1964.

INTERNAL VOWEL CHANGE

Causes

Z6.17.1. This phenomenon is caused by the i of the perfect suffix which is transposed to a preceding syllable in which a is present.

Where vowel changes occur

Z6.17.2. It is found with the stative form of verbs with the suffixes -ala, -ama, -ana, -asa and -atha.

Sound changes caused

Z6.17.3.

- (i) -ala > -ele : -khatbala (worry) > -khatbele <
*-khatballe < *-khatballe
- (ii) -ama > -eme : -phakama (lift) > -phakeme <
*-phakame < -phakamile
- (iii) -ana > -ene : -bonana (see each other) > -bonene
< *-bonaine < *-bonanile
- (iv) -asa > -ese : -ethwasa (change) > -ethwese
< *-ethwaise < -ethwasile
- (v) -atha > -ethe : -phatha (touch) > -phethe
< *-phaithe < -phathile

Sounds that change

Z6.17.4. Only an a is changed through vowel coalescence.

N. B. The explanation given here is of course a diachronic one. The explanation can also be seen synchronically by which a assimilates partly to following i (of -ile) after which i drops out.

JUXTAPOSITION OF VOWELS

Z6.18. - When two vowels are juxtaposed, the following happen:

- (i) the two vowels coalesce — see VOWEL COALESCENCE
- (ii) one vowel becomes a semi-vowel — see CONSONANTALIZATION
- (iii) a glide, viz. w before u and a, and y before i is inserted between two vowels, e.g.

uyayibona (he sees it) < *uyabona
uyawubona (he sees it) < *uyaubona
uyawabona (he sees them) < *uyabona
ayiboni (he does not see) < *aiboni, cf. iyabona (he is seeing)

N. B. The term juncture is also used to indicate glides as in (iii) above.

LABIALIZATION

Z6.19.1. Labialization does not occur in Zulu.

METATHESIS

Z6.20. This is a psychological phenomenon. The speaker already has the following sound in mind and actually pronounces it before the sound which should come first, e.g.

-yala for -laya (advise)

-phekeleza for -phelekeza (accompany)

Metathesis does not occur very frequently in Zulu.

NASAL STRENGTHENING

Z6.21. Vide STRENGTHENING, NASALIZATION, PLOSIVATING.

NASALIZATIONCauses

Z6.22.1. Nasalization is caused by the nasal of class in- and class izin- (classes 9 and 10) with deverbatives and adjectives, and plurals with izin- for class ulu-.

Where nasalization occurs

Z6.22.2.

- (i) with nouns stems of classes in- and izin-, e.g.
impilo (live) cf. -phila (live)
izimbambo (ribs) plural of ubambo [u6ambo] (rib)
- (ii) with adjective stems, e.g.
enkulu (a big one) < -khulu (big)
- (iii) with class izi- (class 8) where no nasal occurs, but which behaves in its concords like class izin-, undoubtedly on the analogy of class 10, e.g.
izilwane ezintathu (three beasts) < -thathu (three)

Z6.22.3. Sound changes brought about

	sound	verb and lu-class
<u>n + b</u> [b]	> <u>mb</u> [mb]	<u>-bonga</u> [-bɔŋga] (praise) <u>ubambo</u> [uɓambo] (rib)
<u>n + ph</u>	> <u>mp</u> [mpʰ]	<u>-phila</u> (live) <u>uphondo</u> (horn)
<u>n + th</u>	> <u>nt</u> [ntʰ]	<u>-thanda</u> (love) <u>utshi</u> (stick)
<u>n + kh</u>	> <u>nk</u> [ŋkʰ]	<u>-khuluma</u> (speak) <u>ukhezo</u> (spoon)
<u>n + g</u> [g]	> <u>ng</u> [ŋg]	<u>-gijima</u> [-giɔʒimɔ] (run)
<u>n + d</u> [d]	> <u>nd</u> [nd]	<u>-delela</u> [-dɛlɛla] (despise) <u>udaka</u> [udaka] (mud) <u>-bhuda</u> [-bɔda] (speak nonsense) <u>ubhece</u> [ubɛ/ɛ] (kaffir water-melon)
<u>n + f</u>	> <u>mf</u> [mɔfʰ]	<u>-funda</u> (learn)
<u>n + v</u>	> <u>mv</u> [mɔv]	<u>-vusa</u> (awaken) <u>uvu</u> (grey hair)
<u>n + s</u>	> <u>ns</u> [ntsʰ]	<u>-sola</u> (find fault) <u>usuku</u> (day)
<u>n + z</u>	> <u>nz</u> [ndz]	<u>-zika</u> (sink) <u>uzipho</u> (nail)
<u>n + sh</u>	> <u>ntsh</u> [ntʃʰ]	<u>-sheleza</u> (cause to slip) <u>ushikishi</u> (bad tempered person)

	class in-	plurals of classes in- and ulu- viz. class izin-	adjective
<u>imbongi</u> [imbɔŋgi]	(poet)	<u>izimbongi</u> [izimbɔŋgi]	<u>-bi</u> [-bi] [embi]
<u>impilo</u> [impʰilo]	(life)	<u>izimpilo</u> [izimpʰilo]	> <u>embi</u> (bad)
<u>ntando</u> [intʰandɔ]	(will)	<u>izintando</u> [izintʰandɔ]	<u>-thatnu</u> > <u>ezinta-</u>
<u>nkulumo</u> [ŋkʰulumɔ]	(speech)	<u>izinkulumo</u> [izinkʰulumɔ]	<u>-thu</u> (three)
<u>ngijimi</u> [ŋgiɔʒimi]	(runner)	<u>izingijimi</u> [izingɔʒimi]	<u>-khulu</u> > <u>enkulu</u>
<u>ndebele</u> [ndɛlɛlɔ]	(contempt)	<u>izindebele</u> [izindɛlɛlɔ]	(big)
<u>nbude</u> [nɔbude]	(madman)	<u>izimbude</u> [izimbude]	<u>-dala</u> [dala] > <u>endala</u> [ɛndala] (old)
<u>nfundo</u> [nɔŋfʰundɔ]	(education)	<u>izinfundo</u> [izinɔŋfʰundɔ]	<u>-fushane</u> > <u>emfushane</u>
<u>nvusi</u> [nɔvusi]	(one bo awakens)	<u>izinvusi</u> [izinvusi]	[ɛmɔfʰuʃanɛ] (short)
<u>solo</u> [intsɔlɔ]	(criticism)	<u>izinsolo</u> [izintsɔlɔ]	
<u>zika</u> [indzika]	(ediment)	<u>izinsuku</u> [izintsʰuku]	
<u>zika</u> [indzika]	(ediment)	<u>izinzika</u> [izindzika]	
<u>zika</u> [indzika]	(ediment)	<u>izinzipho</u> [izindziphɔ]	
<u>tshelezi</u> [intʃʰelezi]	(lippy place)	<u>izintshelezi</u> [izintʃʰelezi]	<u>-sha</u> (new) > <u>entsha</u>
<u>tshelezi</u> [intʃʰelezi]	(lippy place)	<u>izintshikishi</u> [izintʃʰishi]	[ɛntʃʰa]

Z6.22.3. (Continued)

	<u>sound</u>	<u>verb and In- class</u>
<u>n + hl</u>	> <u>nhl</u> [ntɬ'i]	<u>-hlupha</u> (worry) <u>uhlolo</u> (hand)
<u>n + dl</u>	> <u>ndl</u> [ndɔ]	<u>-dla</u> [-ɔa] (eat) <u>udlubu</u> [udɔu6 u] (jugo bean)
<u>n + h</u> [h]	> <u>nh</u> [ɔk'i]	<u>uhazane</u> (person who walks fast) <u>uhobo</u> [uɔɔɔɔɔ] (big hut)
<u>n + w</u>	> <u>ng</u> [ɔg]	<u>uwalakahla</u> (long person)
<u>n + l</u>	> <u>nd</u> [nd]	<u>ulimi</u> (tongue)

Note that in the last four examples quoted alternatives without nasalization occur.

<u>n + c</u> [/]	> <u>ngc</u> [ɔ/ɛ]	<u>-caya</u> (hide) <u>ucezu</u> (a little piece)
<u>n + g</u> [i]	> <u>ngg</u> [ɔ'ɛ]	<u>-quba</u> (make dust) <u>ugweqwe</u> (scab)
<u>n + x</u> [//]	> <u>ngx</u> [ɔ//ɛ]	<u>-xoxa</u> (tell) <u>uxushela</u> (sharp instrument)
<u>n + ch</u> [/h]	> <u>nc</u> [ɔ/]	<u>-chwaya</u> (dance) <u>ushilo</u> (hill)
or	> <u>ngc</u> [ɔ/ɛ]	<u>-qhuba</u> (progress)
<u>n + qh</u> [!h]	> <u>nq</u> [ɔ'i]	<u>qhathu</u> (whipping) and cf. <u>ngg</u> [ɔ'iɛ]
<u>n + xh</u> [//h]	> <u>nx</u> [ɔ//]	<u>-xhoza</u> (pull down) <u>uxhushela</u> (sharp instrument)

	<u>class in-</u>	<u>plurals of classes in- and ulu- viz. class izin-</u>	<u>adjective</u>
<u>indhupho</u> [intɬupɔ] (difficulty)	<u>izindhupho</u> [izintɬ'upɔ]	<u>izindhlobo</u> [izintɬ'i ɔbɔ]	<u>-hle</u> (beautiful) > <u>enhle</u> [entɬ'iɛ]
<u>indlakudla</u> [indɔaku ɔa] (goat)	<u>izindlakudla</u> [izindɔaku ɔa]	<u>izindlubu</u> [izindɔu6 u]	
		<u>izinkazane</u> or <u>izihazane</u>	
		<u>izingoho</u> [iziqɔɔɔ] or <u>izihobo</u> [izidɔɔɔ]	
		<u>izingwalakahla</u> or <u>iziwalakahla</u>	
		<u>izindimi</u> or <u>izilimi</u>	
<u>ingcayi</u> (apron)	<u>izingcayi</u>	<u>izingcezu</u>	
<u>ingquba</u> (dust particles)	<u>izingquba</u>	<u>izingqweqwe</u>	
<u>ingxoxo</u> (narrative)	<u>izingxoxo</u>	<u>izingxushela</u>	
<u>incwayi</u> (dancer)	<u>izingcilo</u>	<u>izingqubo</u>	
<u>ingubo</u> (progress)	<u>izingqubo</u>	<u>izingqathu</u>	
<u>ingqathu</u> (skipping rope)	<u>izingqathu</u>	<u>izincushela</u>	
<u>inxoza</u> (fibre)	<u>izingxoxo</u>		

Sounds which are influenced

Z6.22.4. The sounds which are influenced are the aspirates kh, th and ph: radical and aspirated clicks: fricatives f, v, g, z, sh, dl and hl: also devoiced sounds become vocalized. A number of sounds have alternatives with and without nasalization.

NASALIZING OF VOWELS

Z6.23. Nasalizing of vowels does not occur in Zulu.

PALATALIZATIONCauses

Z6.24.1.

(i) the vowel i with its equivalent semi-vowel y, e.g.

inkabi (ox) > diminutive *inkabiya > *inkabyana > inkatshana (small ox)

(ii) the vowel e with its equivalent semi-vowel y, e.g.

uphapha (feather) > diminutive *uphaphana > *uphaphyana > uphashana (little feather)

(iii) the vowel u and its equivalent semi-vowel w, e.g.

isigubhu (calabash) > diminutive *isigubhuana > *isigubhwana > isigujana (small calabash)

(iv) the vowel o with its equivalent semi-vowel w, e.g.

inkomo (cow) > diminutive *inkomona > *inkomwana > inkonyana (calf)

Where palatalization occurs

Z6.24.2.

(i) with diminutive of nouns, e.g.

inkabi (ox) > inkatshana (small ox)

(ii) with passives of verb stems, e.g.

-hlupha (worry) > -hlushwa (be worried)

(iii) with locatives of nouns, e.g.

isigubhu (calabash) > esigujini (in a calabash)

(iv) with a number of class prefixes before a vowel stem, e.g.

umyaka (year) < *umwaka

Sound changes caused

Z6.24.3.

b [b] > tsh [tʃ] : inkabi (ox) > inkatshana (small ox)

-loba (write) > -lotshwa (be written)

ingubo (blanket) > engutsheni (in the blanket)

utshwala (beer) < *ubwala class bu-

bh [b] > l [dʒ] : isigubhu (calabash) > isigujana (small calabash)

-gubha (hollow out) > -gujwa (be hollowed out)

isigubhu (calabash) > esigujini (in a calabash)

ph > sh [ʃ] : impuphu (meal) > impushana (a little meal)

-khipha (take out) > -khiswa (be taken out)

impuphu (meal) > empushini (in the meal)

<u>m</u> > <u>ny</u> [ɲ] :	<u>umlomo</u> (mouth)	>	<u>umlongyana</u> (small mouth)
	-luma (bite)	>	-luywa (be bitten)
	<u>umlomo</u> (mouth)	>	<u>emlonyeni</u> (in the mouth)
<u>mg</u> > <u>ntsh</u> [ntʃ]:	<u>mswempe</u> (partridge)	>	<u>inswentshana</u> (small partridge)
	-mpampa	>	-mpantswa (be fluttered)
	<u>ubuyhampo</u> (shamelessness)	>	<u>ebuyhontsheni</u> (in shame)
<u>mb</u> > <u>nj</u> [ndʒ]:	<u>intambo</u> (thong)	>	<u>intanjana</u> (a small thong)
	-banba (catch)	>	-banjwa (be caught)
	<u>umthombo</u> (fountain)	>	<u>emthonjeni</u> (in the fountain)

lh remains or becomes sh [ʃ], e.g.

isikhathi (time) > isikhathana or isikhashana (a little time)

d remains or becomes l [dʒ] ~ e.g.

incwazi (book) > incwazana or incwazana (a little book)

nd remains nd or becomes nj, e.g.

iganda (egg) > igandana or iganjana (a small egg)

t > tsh [tʃ] : ikati (cat) > ikatshana (a small cat)

n > ny [ɲ] : imfene (baboon) > imfenyana (small baboon)

Note that with passives the semi-vowel w is retained.

Sounds that change

Z6.24.4. It is mainly labial sounds which change. A number of alveolar sounds change although unchanged alternatives occur with them.

With passives and locatives only labials change.

PLOSIVATING

Z6.25. This term is not used for Zulu. Vide NASALIZATION.

STRENGTHENING

Z6.26. This term is not used for Zulu. Vide NASALIZATION.

VELARIZATION

Z6.27. Velarization does not occur in Zulu.

VOCALIZATION

Z6.28. Vocalization does not occur in Zulu.

VOWEL COALESCENCE

Causes

Z6.29.1. Vowel coalescence is caused by

- (i) a which occurs before i;
- (ii) a which occurs before u;
- (iii) a which occurs before a.

Circumstances under which vowel coalescence occurs

Z6.29.2.

- (i) after connective na-, e.g.

nenja (with a dog) < *nanja

(ii) after instrumental nga-, e.g.

ngento (with a thing) < *nganto

(iii) after a possessive concord, e.g.

womfazi (of a woman) < *waumfa^zi

(iv) where locative -ini follows on a, e.g.

entabeni (at the mountain) < *entabeni

(v) in the formation of a demonstrative from la- plus demonstrative root, e.g.

le (this one) < *lai, class in-, imi-

lo (this one) < *lau, class unu-

laba (these) < *laaba, class aba-

(vi) where an a occurs before a verb stem with a latent initial vowel, e.g.

uyezwa (he hears) < *uyalzwa

(vii) in the various forms of the future tense vowel coalescence plays an important part, e.g.

ngiza kubona (I shall see) > ngizokubona, coalescence,

> ngizabona, elision,

> ngizobona, elision and coalescence,

> ngobona, elision and coalescence

VOWEL RAISING

Causes

26.30.1. Vowel raising is caused by the high vowels i and u. They have an influence on and e [ɛ] or o [ɔ] of a syllable immediately preceded by one with i or u, e.g. inkosi [ɪŋkosi] (chief) but inkosana [ɪŋkɔsana] (petty chief). Note that [ɛ] and [ɔ] are raised to [e] and [o] respectively but that it is not shown in the practical orthography.

Where vowel raising occurs

26.30.2.

(a) An i follows in the following cases after an [ɛ] or [ɔ]:

(i) locative -ini, e.g. [ɪŋkɔmɔ] (cow) > [ɛŋkɔmɛni] (to the cow)

(ii) causative -isa, e.g. [-ɔna] (see) > [-ɔnisa] (cause to see)

(iii) perfect -ile, e.g. [-ɔna] (see) > [-ɔnile] (have seen)

(iv) the personal ending -i, e.g. [-ɔna] (see) > [uŋɔni] (person who sees)

(v) negative terminative -i, e.g. [ukuseŋga] (milk) but [kuŋgaseŋgi] (not to milk)

(vi) i in the class prefixes imi-, ili-, isi-, izi- and izini-, e.g. [nesilwane] (also a beast)

(vii) the final -i of demonstratives of classes imi-, ili-, isi-, izi- and izini-, e.g. [leli] (this one), class ili-

(viii) i which occurs in a root, e.g. [enisi'minj] (in the field), [ŋgoziɪɔ] (with a claw)

(b) As u follows in the following cases on [ɛ] or [ɔ]:

(i) u- of all class prefixes in which it occurs, e.g. ngomuthi (with a tree) including the short form [uŋm-] of the unu- class, e.g. [ŋgomfana] (concerning a boy)

(ii) u- as final vowel of demonstratives which belong to classes in which u occurs, e.g. [ɪɔbu] (this), class ubu-

(iii) -u as a terminative of nouns, e.g. [ɪsilevu] (beard)

(iv) -u as a vowel of a root, e.g. [oquŋgeni] (at the tambookie grass)

(v) -u as final vowel of ideophones, e.g. [kɛɛbu] (as red as blood)

VOWEL REPLACEMENTCauses

Z6.31.1. The causes of this phenomenon are unknown.

Where vowel replacement occurs

Z6.31.2. Vowel replacement is found as follows:

(a) the negative morph -nga- changes to -nge- in the following circumstances:

- (i) before -ka- (not yet), e.g. ubengekakhambi (he has not yet gone)
 - (ii) before na-, e.g. bengenalutho (while they have nothing)
 - (iii) before adjectives, e.g. engemkhulu (he not being big)
 - (iv) before relatives, e.g. engebomvu (he not being red)
 - (v) before copulatives, e.g. engenguye (he not being him)
- (b) the progressive morph -sa- (still) changes to -se- in the following circumstances:

- (i) before na-, e.g. abasenalutho (they no longer have something)
- (ii) - before adjectives, e.g. usemkhulu (he is still big)
- (iii) before relatives, e.g. usebomvu (he is still red)
- (iv) before copulatives, e.g. usengumfana (he is still a boy)

Sounds that change

Z6.31.3. Only a of negative -nga- and of progressive -sa- changes to e.

3. SOUND CHANGES IN SWAZIAFFRICATIZATION

Sw.6.1. Affricatization in Swazi occurs with palatalization, e.g.

b > tsh [tʃ]

Cf. PALATALIZATION.

ALVEOLARIZATIONCauses

Sw.6.2.1. Alveolarization in Swazi is caused by the causative morph -y-.

Conditions under which alveolarization occurs

Sw.6.2.2. Alveolarization has a limited occurrence in Swazi, i.e. only with causative verb stems, e.g.

-limala (get hurt) > -limata (hurt)
-suka (go away) > -susa (take away)

Sound changes caused

Sw.6.2.3. l > t : -limala > -limata < *-limalya
k > s : -suka > -susa < *-sulya

Sounds changed

Sw.6.2.4. Only one lateral and one velar sound is made alveolar.