



1967

Shoshone phonemes

Wesley L. Kosin
SIL-UND

Follow this and additional works at: <https://commons.und.edu/sil-work-papers>



Part of the [Linguistics Commons](#)

Recommended Citation

Kosin, Wesley L. (1967) "Shoshone phonemes," *Work Papers of the Summer Institute of Linguistics, University of North Dakota Session*: Vol. 11 , Article 4.

DOI: 10.31356/silwp.vol11.04

Available at: <https://commons.und.edu/sil-work-papers/vol11/iss1/4>

This Article is brought to you for free and open access by UND Scholarly Commons. It has been accepted for inclusion in Work Papers of the Summer Institute of Linguistics, University of North Dakota Session by an authorized editor of UND Scholarly Commons. For more information, please contact und.common@library.und.edu.

Rough draft. For private
circulation only.

Shoshone Phonemes

Wesley L. Kosin

Summer Institute of Linguistics
University of North Dakota

1. PHONETIC CHARTS	Page 2
2. INTERPRETATION	3
2.1. INTERPRETATION OF SEMI-VOWELS	3
2.2. SEGMENTATION	4
2.3. RESULTANT PHONEME CHART	4
3. CONSONANT PHONEMES	5
4. VOWEL PHONEMES	9
5. DISTRIBUTION OF PHONEMES	10
6. PREDICTABLE PHONEME VARIATIONS	11
7. SUGGESTED ORTHOGRAPHY	12

Shoshone is a language of the Numic Group of the Shoshonean Family. It is spoken by approximately 5,000 speakers in the Idaho-Nevada-Wyoming area. This description is based on the language as spoken on the Wind River Reservation in Wyoming. The investigation on which this is based was carried out during the years of 1959 to 1967 except for the summers which were spent at the Summer Institute of Linguistics in Grand Forks, North Dakota. The principal informants were: Mr. and Mrs. George Wesaw, Sr.; Mr. and Mrs. Jack Guina; Mrs. Addie Wesaw; Mr. Rupert Weeks.

1. PHONETIC CHART (INCLUDING PHONETICALLY COMPLEX UNITS)

CONSONANTS

p	t̚	t		k	k ^w	h	ʔ
b	ɓ	d		g	g ^w		
ɸ				x	x ^w		
ɓ				ɛ			
		s	š				
		z	ž				
		t̚s	t̚š				
		d̚z	d̚ž				
m		n	ṇ	ɲ		h ⁿ	
<u>m</u>		<u>n</u>		ɳ			
m ^ʔ		n ^ʔ					
m ^p		n ^t		ɲ ^k	ɲ ^{kw}		
m ^b		n ^d		ɲ ^g	ɲ ^{gw}		
		n ^{ts}	n ^{tš}				
		n ^{dz}	n ^{dž}				
		ɣ				h ^ɣ	
		<u>ɣ</u>					
		ɣ ^ʔ					
w	w̚	y				h ^w	
<u>w</u>		<u>y</u>					
w ^ʔ		y ^ʔ					

VOWELS

i	i:	<u>i</u>				u	u:	<u>u</u>
ɪ		<u>ɪ</u>	ɛ	ɛ:	<u>ɛ</u>	ʊ	ʊ	<u>ʊ</u>
e	e:	<u>e</u>	ʌ		<u>ʌ</u>	o	o:	<u>o</u>
ɛ			a	a:	<u>a</u>			

STRESS: primary and secondary

TONE: ' - ' - -

2. INTERPRETATION

2.1. Interpretation of semi-vowels

te'nap <i>ʔ</i> ' <u>i</u>	man	CVCVCVCV
ha'ga <i>ʃ</i> ' <u>i</u>	who	_VCVCV
po'gom <u>p</u> i	berries	CVCVCC_
to'goa' <u>a</u>	snake	CVCVVCV
na <i>ŋ</i> 'ga <i>ʃ</i> oi' <u>i</u>	will hear	CVCCVCV_C_
'a'ʃaa' <u>a</u>	uncle	CVCVVCV
ma'toko <u>o</u>	thumb	CVCVCV
kwa'ba <i>ʃ</i> oi' <u>i</u>	will carry	CCVCVCV_C_
kwaanat <u>i</u>	smelly	CCVVCVCV
po'hagant <u>i</u>	spiritual power	CV_VCVCCV
pam'bonai' <u>i</u>	mouse	CVCCVCV_C_

Non-suspect word-initial vowels do not occur. Therefore (i), (u), and (h) pattern as consonants when they occur word-initial and syllable-initial.

ha'ganiku <u>u</u>	how	'wapi <u>i</u>	cedar
ha'nipi <u>i</u>	corn	wa'tsui <u>ʃ</u> ' <u>i</u>	four
tu'hubi <u>ʃ</u> ' <u>i</u>	black	'yiki <u>i</u>	evening
ku'hapi' <u>i</u> ' <u>i</u>	husband	'yits <u>ʃ</u> ' <u>i</u>	get up!

The semi-vowels, (i) and (u), and voiceless vocoids pattern as vowels when they occur as syllabics.

'i'ʃap' <u>i</u> ' <u>i</u>	coyote	'mu <u>p</u> ' <u>i</u>	nose
ti'bi <i>ʃ</i> ' <u>i</u> ' <u>i</u>	really	'ti <u>m</u> ' <u>p</u> ' <u>e</u>	mouth
ni <u>ʃ</u> 'hu <u>i</u> ' <u>u</u>	scolded	'ti <u>m</u> ' <u>p</u> ' <u>i</u>	rock
mopo'ho' <u>o</u> ' <u>o</u>	mosquito	'm' <u>i</u> 'a' <u>a</u> ' <u>a</u>	moon

2.2. Segmentation

tɨ'ʁepʲi	children	CVCVCV
na'supeʔe	ball	CVCVCVCV
tu'hubiʲi	black	CVCVCVCV
ku'biʃi	brains	CVCVCV
ni'napi	breast	CVCVCV
ku'tupi	coal	CVCVCV
tɨ'etitsiʔi	small	CVVCV__VCV
nugiaʁiaʔa	maybe	CV__VVCVVCV

The only non-suspect consonant cluster (st) occurs in (tostik^hapi) 'bread' which is a variant form of (tohotik^hapi).

Therefore, I interpret all consonant clusters as phonetically-complex phonemes.

Non-suspect vowel clusters occur in the words for 'small' and 'maybe'. Consequently, vowel length and vowel glides may be written as vowel clusters.

2.3. RESULTANT PHONEME CHART

CONSONANTS

	Labials	Alveolars	Velars	Glottals	Labialized	Pre-aspirated
Stops	p	t d c	k	ʔ	k ^w	h ^d
Fricatives						
voiceless	f		x	h	x ^w	
voiced	v		ʒ		g ^w	
Nasals	m	n			n ^w	h ⁿ
Prenasalized stops	m ^b	ṇ	n ^d n ^z	n ^g	n ^{gw}	
Spirants						
voiceless			s			
voiced			z			
Liquids	w	y				h ^w h ^y

VOWELS

	<u>Front</u>		<u>Back</u>
		unrounded	rounded
High	i	ɨ	u
Mid	e		o
Low	a		

3. CONSONANT PHONEMES

/p/ voiceless bilabial stop

('pihi) /pihi/ heart

('pa:ʔa) /paaʔa/ water

('pi:pi) /piipi/ blood

('ʔipiʔi) /ipiʔi/ sleep!

/t/

(t̥) voiceless fronted alveolar stop occurs after front vowels

(pihi̥t̥) /pivit̥/ horsefly

('ti̥t̥i̥) /ti̥ti̥/ baby

('ʔu'hi̥t̥anku) /uvitangu/ slowly

(t) voiceless alveolar stop occurs elsewhere

(ma'toko) /matoko/ thumb

('taʔu) /tafu/ rabbit

('ʔi:ʔat̥i) /i̥nwat̥i/ raining

/k/ voiceless velar stop

('ko:pe) /koope/ face

(pa'kipi) /pakipi/ rawhide

('tuku) /tuku/ flesh

/ʔ/ glottal stop

regularly precedes vowels in initial syllables and need not be written in this position.

('ʔik̥i) /ik̥i/ here

('ʔo'gweʔe) /ogweʔe/ creek

Seems to be phonemic in other positions

(pa'ʔaiki) /paʔaiki/ high

/m^b/

(mp) prenasalized voiceless bilabial stop occurs before final vowels and before the sequence, vowel plus (h)

('t̥m̥pi) /t̥m̥bi/ stone

('t̥m̥pe) /t̥m̥be/ mouth

('n̥m̥p̥ha-) /n̥m̥p̥aha-/ shoe:object

(mb) prenasalized voiced bilabial stop occurs elsewhere

(to'mbonit̥i) /tombonit̥i/ round

(su'mbaruxa) /sumbaduxa/ know

/nd/

(nt̥) prenasalized voiceless fronted alveolar stop occurs after front vowels

(nu'kigint̥i) /nukigind̥i/ running

(hi'wagint̥i) /hiwagind̥i/ carrying in arms

(nt) prenasalized voiceless alveolar stop occurs before final vowels

('tsa:nt̥i) /caand̥i/ good

(wi'ziwikant̥i) /wi̥ziwikand̥i/ full

(nd) prenasalized voiced alveolar stop occurs elsewhere

('pi:ndu'aʔa) /pi̥nduaʔa/ his son

(pa'hu:ndoiʔi) /pahuundoiʔi/ will smoke

/ng/

(ŋk) prenasalized voiceless velar stop occurs before final vowels

('puŋk) /pungu/ horse ('neŋki) /nengi/ ear

(ŋg) prenasalized voiced velar stop occurs elsewhere

(ʔo'ŋguha) /onguha/ male (nʌ'ŋgaki) /nangaiku/ listen!

/f/

(p) voiceless bilabial fricative

('tap) /tafu) rabbit ('tape) /tafe/ sun

(ha'nipi) /hanifi/ corn (ha'nipaintɕ) /hanifuinti/ doing

/c/

(tʃ) voiceless alveopalatal affricate occurs after front vowels

(ʔ'i'gɕitʃi) /igivici/ new (te'tʃiɕoi'ɕi) /teciboi'ɕi/ path

(ts) voiceless alveolar affricate occurs elsewhere

('tsa:ntɕ) /caandü/ good (ko'tsapɕ) /kocapü/ saunce

/x/

(x) voiceless velar fricative

(nʌ'ŋgaikx) /nangaikuxu/ listen! plural

(ʔ'i'puixʌntɕ) /ipuxantü/ sleeping

/h/

(h) voiceless vocoid with the timbre of the following vowel

('hik) /hiku/ clothes ('hu:pi) /huupi/ wood

('pihi) /pihi/ heart (ku'hapɕ'ɕi) /kuhapü'ɕi/ husband

/v/

(b) voiced bilabial lenis fricative

(ku'biɕi) /kuvisi/ brains (ta'be'ɕe) /tave'e/ today

(tiɕopü) /tövopü/ paper (ti'bitʃi) /tivici/ truly

/g/

(g) voiced velar lenis fricative

(togoa'a) /togo'a/ snake (ha'gank) /haganiku/ how?

(tu'ganpü) /tuganipü/ night (ʔ'igɕitʃi) /igivici/ new

/s/

(š) voiceless alveopalatal grooved fricative occurs after front vowels

(ku'biši) /kuvisi/ brains (peša-) /pesa-/ already

(ʔe'šiwihi) /esiwih/ silver (ke'šuantɕ) /kesuantü/ sin

- (s) voiceless alveolar grooved fricative occurs elsewhere
 (s) voiceless alveolar grooved fricative occurs elsewhere
 (sa'ʃi'ʔi) /sadi'ʔi/ dog ('pasʌpü) /pasapü/ dry
 (ni'sungantɿ) /ni'sungantü/ feeling

/z/

- (ž) voiced alveopalatal grooved fricative occurs after front vowels
 (ʔi'žapü'ʔü) /izapü'ʔü/ coyote (pi'ži'ʔi) /pizi'ʔi/ milk
 (ke'žantɿ) /kezantü/ no good
 (dz) voiced alveopalatal grooved affricate alternates freely with (ž)
 (pi'dži'ʔi) /pizi'ʔi/ milk (ke'džantɿ) /kezantü/ no good
 (pi'ži'ʔi) /pizi'ʔi/ milk (ke'žantɿ) /kezantü/ no good
 (dz) voiced alveolar grooved affricate alternates freely with (z)
 (ta'dziumpi) /taziumbi/ star (ta'ziumpi) /taziumbi/ star
 (z) voiced alveolar grooved fricative occurs elsewhere
 (yɿ'zɿniɿɿ) /yüzüniɿi/ flying (mu'zipü) /muzipü/ point

/gw/

- (gw) voiced labialized velar stop
 (ʔo'gweʔe) /ogweʔe/ creek

/kw/, /ngw/, /xw/, and /hw/ have the same distribution as their non-labialized counterparts.

/d/

- (ɸ) voiceless alveolar flap occurs only before final vowels
 (te'pɸɿɿ) /tepüdü/ child (hagaɸɿ) /hagadü/ who
 (d) voiced alveolar stop occurs only after front vowels
 (ha'bidoi'ʔi) /havidoi'ʔi/ will lie down
 (ti'edoi'ʔi) /tiedoi'ʔi/ will die
 (ɸ) voiced alveolar flap occurs elsewhere
 (ʔuɸɿ-) /udü-/ that (ʔa'ɸa'ʔa) /adaʔa/ uncle
 (to'ɸampi) /todambi/ choke cherries

/m/

- (m) voiceless bilabial nasal occurs only before final vowels
 ('tosa'kamm) /tosakamu/ jack rabbit
 (m) voiced bilabial nasal occurs elsewhere
 (mü'aʔm) /mü'aʔa/ moon (ta'mi'ʔü) /tamü'ʔü/ 1st pers.
 pl. Incl.

- /n/ Voiced alveolar retroflexed nasal in some idiolects
(ŋ) voiced velar nasal occurs only before velar stops
('neŋki) /nengi/ ear ('puŋku) /pungu/ horse
(ʔoŋguha) /onguha/ male
(n) voiceless alveolar nasal occurs only before final vowels
(to:'řanu) /toodanu/ found
(n) voiced alveolar nasal occurs elsewhere
(na'nihə) /naniha/ name (ha'niɸi) /hanifi/ corn
- /nz/
(ndž) prenasalized voiced alveopalatal grooved affricate
occurs only after front vowels
('haindži-) /hainzi-/ friend
(ntš) prenasalized voiceless alveopalatal grooved affricate
occurs after front vowels and before final vowels.
('haintši) /hainzi) friend
(nz) prenasalized voiced alveolar grooved fricative occurs
elsewhere
(tɨ'nzaiyʔu) /tünzaiyu/ prairie dog
- /w/
(w) voiceless bilabial semi-vowel occurs before final vowels
('tawə) /tawa/ 2nd person plural inclusive
(w) voiced bilabial semi-vowel occurs elsewhere
('wihi) /wihi/ knife (ʔe'šiwih) /esiwih/ silver
- /nw/
(ŋw) prenasalized voiced bilabial semi-vowel actualized as (w)
with nasalization on the preceding vowel
('taŋwə) /tanwa/ tooth (ʔe'ŋgwəp) /enwəp/ crazy
- /hw/
(hw) pre-aspirated voiced bilabial semi-vowel
(tsa'təhw) /catahwinu/ opened
- /y/
(y) voiceless palatal semi-vowel occurs before final vowels
('puy) /puyu/ duck
(y) voiced palatal semi-vowel occurs elsewhere
('yuh) /yuhu/ grease (tɨ'hüyaʔə) /tühüyaʔə/ horse

/hy/

(hy) pre-aspirated voiceless semi-vowel occurs before final vowels

(ki'maihyu) /kimaihyu/ come here!

(te'gwaihyu) /tegwaihyu/ say!

/hn/

(hn) pre-aspirated voiced alveolar nasal

(ʔa'hnaʔa) /ahnaʔa/ armpit (ʔo'hnaʔa) /ohnaʔa/ baby

(tsu'hnipi) /cuhnipi/ bone

/hd/

(hř) pre-aspirated voiced alveolar flap

(ʔa'hřapü) /ahdafü/ jaw

Liquids /m/, /n/, /d/, /w/, /y/ tend to be glottalized before a final vowel and after a stressed syllable.

('suřʔü) /sudü/ he ('taŋwʔa) /tanwa/ tooth

('toiŋʔu) /toiyu/ neck ('hinʔü) /hini/ what?

('kimʔa) /kima/ come!

4. VOWEL PHONEMES

/i/

(ɪ) high open front unrounded vocoid occurs in rapid speech

('ʔɛbɪtʃü) /eviti/ outside

(i) high close front unrounded vocoid

(sa'řiʔi) /sadiʔi/ dog ('pihi) /pihi/ heart

(i) cf. section 6

/e/

(ɛ) mid open front unrounded vocoid alternates freely with (e)

('nekɪ) (neki) /neki/ belt

(e) mid close front unrounded vocoid

('pehe) /pehe/ seed ('ʔeku) /eku/ tongue

(e) cf. section 6

/a/

(ʌ) mid open central unrounded vocoid alternates freely with (a)

('nampʌ) /nampa/ shoe ('wʌtsü) /waci/ rib

('sapɪ) /sapɪ/ stomach

(a) low open central unrounded vocoid

(ʔa'řaʔa) /adaʔa/ uncle ('paʔa) /paʔa/ on

(sa'napi_i) /sanapi/ rubber

(a) cf. section 6

/i/

(i) high close central unrounded vocoid occurs only after alveolars

('tɪmp_i) /tɪmpi/ stone (tɪ'ʂop_ɪ) /tɪvopɪ/ paper

(i) high open back unrounded vocoid occurs elsewhere

('ʔim_i-) /im_i-/ your (wai'pɪʔ_ɪ) /waipɪʔɪ/ woman

('wɪn_ɪʔ_ɪ) /wɪnɪ/ stand!

(ɪ) cf. section 6

/u/

(u) high close back rounded vocoid

(ku'tup_u) /kutufi/ coal ('hu:k_u) /huuku/ collar bone

(u) cf. section 6

/o/

(o) mid close back rounded vocoid

(ʔo'gweʔ_o) /ogweʔe/ creek (so'hoʔ_o) /sohoʔo/ cottonwood

(o) cf. section 6

5. DISTRIBUTION OF PHONEMES

5.1. The final-syllable consonant position may be filled by any voiceless consonant or voiceless allophone of a voiced consonant.

The medial-syllable consonant position may be filled by any consonant except /xw/ and /hy/.

The initial-syllable consonant position may be filled by /p/, /t/, /k/, /ʔ/, /kw/, /c/, /h/, /m/, /n/, and /s/.

5.2. All syllable vowel positions may be filled by any single vowel.

The medial and initial vowel positions may be filled by /ii/, /ee/, /aa/, /üü/, /uu/, /oo/, /ia/, /au/, /iɪ/, /ɛe/, /ui/, /ua/, /oa/, /oi/, /ie/, /ai/

/iu/ occurs only in medial syllables

/iü/ and /io/ occur only in initial syllables

5.3. Consonant-vowel patterns

All syllables in Shoshone are open syllables.

Final syllables are all CV

Medial and initial syllables are all CV or CVV

6. Predictable PHONEME VARIATIONS

Vowels are always voiceless when they occur in utterance final position or before hesitation-pause in the middle of an utterance.

Such final vowels are always preceded by voiceless consonants.

Voiceless vowels also occur in unstressed medial syllables in the sequence: consonant, vowel, /h/.

('kwak_h'hupi) /kwak_hhupi/ won (mop_o'ho_o) /mopoho_o/ mosquito
(nit_h'huinu) /nit_hhuinu/ scolded

In general a final voiceless vowel after /_h/ has the same quality as the vowel before the /_h/. A couple of exceptions to this rule appear to be older forms which have not yet fully shifted to conform to the rule, but are probably beginning to shift in that direction.

(-do_h'i) ~ (-doi_h'i) /-doi_h'i/ future tense marker

(ti_h'biši 'moto'hna_h'i) /t_hvisi motohna_h'i/ humming bird

Stress seems to be predictable, and normally occurs on the first syllable; but in words of three or more syllables in which the second syllable begins with a voiced consonant, stress occurs on both the first and second syllables, but the second syllable receives the greater stress. The exceptions seem to be due to prefixation.

Tone seems to be predictable and usually high tone occurs on the first syllable and low tone usually occurs on the last syllable with intermediate tones in between on words of more than two syllables, in downward steps from High to Low. The exceptions seem to be due to prefixation.

Vowels tend to be nasalized when contiguous to nasal phonemes.

7. SUGGESTED ORTHOGRAPHY

<u>Phonemes</u>	<u>Orthography</u>	<u>Phonemes</u>	<u>Orthography</u>
p	p	i	ee
t	t	ii	ee:
k	k	e	ay
ʔ	'	ee	ay:
kw	kw	a	a
f	f	aa	a:
c	ts	ï	u
x	kh	ïï	u:
h	h	u	oo
xw	khw	uu	oo:
hw	hw	o	o
v	v	w	w
g	g	y	y
gw	gw	nw	nw
m	m	hy	hy
n	n	oi	oi
ṇ	ṇ	ai	ai
hn	hn		
mb	mb	<u>English symbols needed</u>	
nd	nd	a	n
ng	ng	b	o
ngw	ngw	d	p
s	s	e	s
z	z	f	t
nz	nz	g	u
d	d	h	v
hd	hd	i	w
		k	x
		'	y
		m	z and /:/