

Natchez

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1. Introduction. Natchez was formerly spoken in Mississippi, east of the present city of Natchez, by the only Mississippian society to survive until the period of intensive European contact in the Southeast. This society was headed by the Great Sun (*?uwahši·L li·kip*) and the Sun Woman (*?uwahši·L tama·L*), and had an elaborately stratified social system. After an initial period of friendship with French settlers, hostilities arose, culminating in three French-Natchez wars, the last of which, ending in 1731, brought about the almost complete destruction of the Natchez as a people, with all of the Natchez captives sold as slaves in the Caribbean by the French. The few survivors retreated eastward and settled among the Creeks and the Cherokees. Among the Creeks, the Natchez settled in the town of Abihka. After the people of Abihka were forced to Oklahoma during the Removal in the 1830s, the Natchez left the town and settled near Braggs, Oklahoma. During the last years of the community, there was much intermarriage with Creeks and Cherokees, and the last speakers were multilingual in Natchez, Creek, and Cherokee. Among the Cherokees, the Natchez lived along the Hiwassee River in Eastern Tennessee, and the majority accompanied the Cherokees during the Removal. They established a town a few miles south of the Cherokee capital Tahlequah, but were quickly acculturated by the Cherokees; only a handful of speakers remained by the 1890s. John R. Swanton visited the Braggs community in 1907 and found five persons who could speak Natchez.¹ In 1909 he did linguistic work with Watt Sam (born ca. 1857); from this he prepared a grammatical sketch of the language, which has been edited by T. Dale Nicklas (1991). From 1934 to 1936 Mary R. Haas collected over two thousand pages of fieldnotes (close to four thousand lexical items and dozens of texts) on the language from Watt Sam and Nancy Raven (born ca. 1850), the other surviving speaker of the language, who was Watt's cousin, but a classificatory

aunt because she was descended from Watt's paternal aunt. Both speakers stated that the Natchez language had been preserved matrilineally; i.e., Natchez-speaking mothers taught the language to their children. Since according to custom none of Watt Sam's children learned Natchez, and Nancy Raven had no living children, on their deaths Natchez became extinct.

2. Text. The following text was recorded by Mary Haas in the fall of 1934. It is found on pages 5–11 of Book IX of her fieldnotes. Each numbered unit consists of a clause terminating in *-k* 'and', *-ne* 'when', or *-Y* 'phrase terminal marker'.

Turkey Fools Wildcat
Told by Watt Sam

Scene 1

- (1) *ʔohoti·nuhc cu·tahaw pološaL šupitine*
ʔohoti·nuh-c cu·tahaw-Ø polo-š-al-k šu-piti-ne
 wildcat-ERG rail-ABS split-QT-AUX-CONN QT-be.about-WHEN
 When Wildcat was around splitting rails, so it is said.
- (2) *šo·kolši·L kašišahkuk*
šo·kolši·L-Ø ka-ši-šahk^w-k
 turkey-ABS PVB-QT-arrive-CONN
 Turkey arrived;
- (3) *˘coppa·Nkuk*
cop-pa·n-k^w-k
 pluck-2OPT-1OBJ-AUX-CONN
 "If you pluck me,
- (4) *ʔe·taku·š ʔahtik*
ʔe·t-a-ku·š ʔa-hti-k
 house-ART-ALL 1SOPT-go-CONN
 I will go to the house,
- (5) *tama·Lpišiča ta·ʔa·niL*
tama·L-piš-ic-a ta·ʔa·ni-l-k
 wife-2POSS-ERG-ART kill-3OPT-1OBJ-AUX-CONN
- ʔuwahleʔa·niL*
ʔuwahle·ʔa·ni-l-k
 boil-3OPT-1OBJ-AUX-CONN
 and your wife will kill me, and boil me,

- (6) *ʔoyʔa·k* *ʔolocaleʔa·kine*
ʔoy-ʔa·-k *ʔolocale-ʔa·-ki-ne*
 be.cooked-1OPT-AUX-CONN be.noon-3OPT-AUX-WHEN
 and when I am cooked at noon,
- (7) *pa·šahkuk* *ma·pa·niškʷ*,
pa·-šahkʷ-k *ma·-pa-ni-škʷ-Ÿ*
 2OPT-arrive-CONN FUTURE-2OPT-1OBJ-eat-PHR.TERM

hišʷ·šik
hi-ši-w-Ø-ši-k
 say-QT-AUX-3DAT-DAT-CONN
 you will arrive and eat me”, he said to him, and
- (8) *cu·hanatayak* *tekʷešukik*
cu·hanata-ya-k *tekʷe-šu-ki-k*
 log-ART-ON sit-QT-AUX-CONN
 he sat on a log,
- (9) *copšuku·Nke·* *šʷ·kʷaL*
cop-šʷ-kʷ·-Nke· *šʷ·-kʷal-k*
 pluck-QT-AUX-MOD QT-finish-CONN
 and he kept on plucking him and finished up,
- (10) *ʔiMa·na·h* *ʔe·taku·š* *ka·šʷhti.*
ʔiM-a·na·h *ʔe·t-a-ku·š* *ka·-šʷ-hti-Ÿ*
 body-NOM.SUF. house-ART-ALL PAST-QT-go-PHR.TERM
 and naked he went to the house, so it is said.

Scene 2

- (11) *ʔoMpišica* *ʔcopapkuk*
ʔoM-piš-ic-a *cop-ʔa-p-kʷ-k*
 husband-2POSS-ERG-ART pluck-1OPT-2OBJ-AUX-CONN
 “Your husband [said] ‘I will pluck you,
- (12) *ʔe·taku·š* *pa·htik*
ʔe·t-a-ku·š *pa·-hti-k*
 house-ART-ALL 2OPT-go-CONN
 and if you go to the house,
- (13) *tama·Lnišica* *hikaL* *to·ʔa·wipšik*
tama·L-niš-ic-a *hikaL-Ø* *to·-ʔa·-wi-p-ši-k*
 wife-1POSS-ERG-ART corn.drink-ABS pound-3OPT-AUX-2DAT-DAT-CONN
 my wife will pound corn drink for you,’

- (14) *ce·pa·wik* *ma·pa·htj,ʷ* *hišū·k*
ce·pa·wi-k *ma·pa·hti-Y* *hi-ši-w-k*
 fuck-2OPT-AUX-CONN FUTURE-2OPT-go-PHR.TERM say-QT-AUX-CONN
 and you will fuck her, and goʷ, he said,
- (15) *kašišahkuk*
ka-ši-šahkʷ-k
 PVB-QT-arrive-CONN
 and he arrived there,
- (16) *hikaLə·* *to·šū·šik*
hikaL-e·n *to·ši-w-Ø-ši-k*
 corn.drink-ART-ABS pound-QT-AUX-3DAT-DAT-CONN
 and she pounded that corn drink for him,
- (17) *ce·šū·k*
ce·ši-w-k
 fuck-QT-AUX-CONN
 and he fucked her,
- (18) *hikaLə* *šinakaY* *ka·šūhtj.*
hikaL-a-n *ši-nakay-k* *ka·šū-hti-Y*
 corn.drink-ART-ABS QT-carry.on.back-CONN PAST-QT-go-PHR.TERM
 and carrying the corn drink on his back, he went, so it is said.

Scene 3

- (19) *ʔohoti·nuhan* *ʔolocalešukune*
ʔohoti·nuh-a-n *ʔolocale-šū-kʷ-ne*
 wildcat-ART-ABS be.noon-QT-AUX-WHEN
 Wildcat, when it was noon,
- (20) *šo·koLši·Lə* *nokoyʔi·ʔə,*
šo·koLši·L-a-n *nok-ʔoy-ʔi·-a-Y*
 turkey-ART-ABS PVB-be.cooked-3PT-AUX-MOD-PHR.TERM

ʔayšū·k,
ʔay-ši-w-k
 think-QT-AUX-CONN
 “The turkey ought to be cooked,” he thought,
- (21) *kašišahkuk,*
ka-ši-šahkʷ-k
 PVB-QT-arrive-CONN
 and he arrived there,

hišu'sik.

hi-ši-w-Ø-ši-k

say-QT-AUX-3DAT-DAT-CONN

and carrying that corn drink on his back, he went," she said to him.

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- 31) *kunahala kakatehšaL*
kunahal-a-Ø kaka-teh-š-al-k
 gun-ART-ABS PVB-take-QT-AUX-CONN
 He picked up his gun, and
- 32) *"ta'ho'ca· ?ihtî?" hišu·k*
ta'ho'ca· ?i-hti-Ÿ hi-ši-w-k
 which-way 3PT-go-Q say-QT-AUX-CONN
 "Which way did he go?" he said,
- 33) *"ya'ho'ca· ka'ihî?" hišu'sik,*
ya'ho'ca· ka'-?i-hti-Ÿ hi-ši-w-Ø-ši-k
 that-way PAST-3PT-go-PHR.TERM say-QT-AUX-3DAT-DAT-CONN
 "He went that way," she told him,
- 4) *šuhține*
šu-hti-ne
 QT-go-WHEN
 and when he went off,
- 5) *ta'ca·N šo'koLši·Lə talu·?i*
ta'ca·N šo'koLši·L-a-n talu·?i-n
 somewhere turkey-ART-ABS ones.who.are.many-ABS
- we šukuk*
we 'šu-k^w-k
 go.PL-QT-AUX-CONN
 somewhere there were many turkeys going about,
- 3) *hikaLa pakašankušine*
hikaL-a-Ø pak-ə-ša-n-k^w-Ø-ši-ne
 corn.drink-ART-ABS dip-PL/SG-QT-IMPf-AUX-3DAT-DAT-WHEN
 and while they were dipping up corn drink,
- 7) *lo'ya šampukušik*
lo'-ya-Ø ša-n-pu-ku-Ø-ši-k
 feather-ART-ABS QT-IMPf-PL-give-3DAT-DAT-CONN
 they were giving him feathers,

- (38) *ʔokšeneškuk*
ʔok-še-ne-šk^w-k
 stick.on-QT-IMPF-AUX-CONN
 and he was sticking them on,
- (39) *kine^wneš tu^wkune^wN ʔokokopiš šupitik*
kine^wneš tu^wkune^wN ʔokʔokop-ʔiš šu-piti-k
 already several stuck.on.PL-3POSS QT-go.about-CONN
 and he was going about with several already having been stuck on,
- (40) *ma^wna^wʔi halʔiš kiššenu^wk*
ma^wna^w-ʔi^w-n ha-al-ʔiš kiš-še-n-lu^w-k
 that.one-PRT-be-ABS INDF-shoot-INF sneak.up.on-QT-IMPF-AUX-CONN
 and he [Wildcat] was sneaking up on him to shoot him,
- (41) *ʔiyo^wpošenkuk*
ʔiyo^wp-a-se-n-k^w-k
 move-PL-QT-IMPF-AUX-CONN
 and they were moving about,
- (42) *hikaLə pakašankušik,*
hikaL-a-n pak-ə-ša-n-k^w-Ø-ši-k
 corn.drink-ART-ABS dip-PL/SG-QT-IMPF-AUX-3DAT-DAT
 they were dipping up corn drink
- (43) *lo^wya šampukušik*
lo^w-ya-Ø ša-n-pu-ku-Ø-ši-k
 feather-ART-ABS QT-IMPF-PL-give-3DAT-DAT-CONN
 and giving him feathers,
- (44) *ʔokšeneškuya*
ʔok-še-ne^w-šk^w-ya
 stick.on-QT-IMPF-EMP-AUX-ART
 and he was really sticking them on,
- (45) *ʔokšeneškuya*
ʔok-še-ne^w-šk^w-ya
 stick.on-QT-IMPF-EMP-AUX-ART
 and he was really sticking them on,
- (46) *ʔokšeneškuya*
ʔok-še-ne^w-šk^w-ya
 stick.on-QT-IMPF-EMP-AUX-ART
 and he was really sticking them on,

- (47) *hacoko·ša't* *hanšišu·k*
ha-cok^w·ʔiš-ha't *han-ši-ši-w-k*
 INDF-know-INF-NEG make-QT-RFLX-AUX-CONN
 and he became unrecognizable,
- (48) *ka·hekeLšukušj.*
ka·-hekeL-šu-k^w-Ø-ši-Y
 PAST-run.PL-QT-AUX-3DAT-DAT-PHR.TERM
 and they all ran away from him [Wildcat], so it is said.

3. Phonology. The consonantal phonemes of Natchez are listed in table 1; vowel phonemes in table 2.

TABLE 1. NATCHEZ CONSONANTS

STOPS	<i>p</i>	<i>t</i>	<i>c</i>		<i>k</i>	<i>k^w</i>	<i>ʔ</i>
FRICATIVE				<i>š</i>			<i>h</i>
RESONANTS							
VOICED	<i>m</i>	<i>n</i>	<i>l</i>	<i>y</i>		<i>w</i>	<i>·</i>
VOICELESS	<i>M</i>	<i>N</i>	<i>L</i>	<i>Y</i>		<i>W</i>	<i>h</i>

TABLE 2. NATCHEZ VOWELS

	<i>i</i>			<i>u</i>
		<i>e</i>	<i>ə</i>	<i>o</i>
			<i>a</i>	

3.1. Segmental phonemes. The stops /p/, /t/, /c/, /k/, and /k^w/ are voiceless, lenis, and unaspirated. The stop /c/ is phonetically [ts] (occasionally it is the result of the cluster *tš*); it has the allophone [č], especially in word-final position.

- (49) *ʔo·ko ʔaNk^wahiši·wic*
 [ʔo·ko ʔaNk^wahiši·wič]
 'eleven'

Labialized *k* can undergo a number of changes in word-final and syllable-final position, based on word class. In nouns, *k^w* can be delabialized as the initial member of a consonant cluster, as in *hokš* 'coals', a variant of *hok^wš*. In word-final position *k^w* is usually

unchanged, as in *kunahk^w* 'crock'; however, in a few nouns (which may be deverbal) *k^w* becomes the sequence *ku*, as in *peheku* 'cloud', from the root /pehek^w-. When the diminutive suffix *-i-nuh* is suffixed to a noun ending in *k^w*, the sequence *-k^wi-* becomes *ku* as in *kunahk^w-i-nuh* 'crock' + 'diminutive' > *kunahku-nuh*. On the other hand, in syllable- and word-final position in verbs, *k^w* always syllabifies as *ku*, as in *ma-pa-ni-šku* 'you will eat me' (7), from the root *-uš^wk^w*-. If there is an *o* in a preceding syllable, progressive vowel harmony operates and *k^w* surfaces as *ko*.

In initial position, the glottal stop is very weak. Haas usually did not write it in her fieldnotes; in this paper, when a weak glottal stop needs to be pointed out, it will be written /ʔ/. However, the glottal stop is quite distinct between vowels and after resonants, as in the following example.

- | | | |
|-----|----------------------------------|----------------------|
| (6) | ʔoyʔa·k | ʔolocaleʔa·kine |
| | ʔoy-ʔa-·-k | ʔolocale-ʔa·-ki-ne |
| | be.cooked-1OPT-AUX-CONN | be.noon-3OPT-AUX-MOD |
| | 'When I am cooked at noon . . .' | |

The glottal stop has several peculiarities. First, it occurs only in syllable-initial position. The occurrence of the glottal stop is unusual. Second, it has a tendency to disappear due to internal and external sandhi, as in the following example from the text line (39).

- | | |
|------|---------------------|
| (50) | ʔok-ʔok-kəp-ʔiš |
| | [okokkopiš] |
| | 'his stuck on ones' |

Third, the glottal stop, also restricted to consonants after which it occurs, is found only after resonants, including vowel length. Finally, when it does occur, the glottal stop strongly correlates with morpheme boundaries. Therefore, it is tempting to dismiss the glottal stop as merely a boundary phenomenon; however, the handful of apparently monomorphemic words such as *kamʔeh* 'huckleberry',² *koyʔak* 'onion', and *pamʔoh* 'hawkweed', and the replacement of *ʔa-* 'first person optative' with *ka-* in cannibal speech, suggest that the glottal stop was indeed at one time an independent phoneme that was in the process of attrition during the final years of the language.

There are two voiceless fricatives, /š/ and /h/; they occur in syllable-initial, medial-, and final- position. The phonetic value of *š*

is always [j]; *h* occasionally has the allophone [x], as in *ʔuwah* [ʔuwax] 'fire'. The consonant *h* appears again in table 1 as a voiceless resonant, as it also is the neutralization of the voiceless resonants *W*, *M*, and *Y*.

The voiced resonants consist of /m/, /n/, /l/, /w/, /y/, and /·/ (vowel length). Except for vowel length, to be discussed below, these consonants occur in all word positions. The phoneme *y* is restricted in occurrence. Although it occurs syllable-finally, it never occurs word-finally, all word-final *ys* apparently having fallen together with *Y*.

Natchez vowel length is classified here as a consonant and given an independent orthographic symbol, since vowel length can represent a morpheme (e.g., -·- 'to be' and -·- 'plural subject [for independent verbs beginning with the segment *p*-]'), or segment away from the vowel preceding it (e.g., *te-·kus-ə* 'I want it'; *te-teni-·kus-ə* 'we two want it'). However, not all long vowels are organic. Some vowel length is produced by rule; for example, a vowel preceding a cluster consisting of a voiceless resonant and a stop is automatically lengthened.

- (51) *hackan* *hacka·Nc*
 'who? (absolutive)' 'who? (ergative)'

In addition, if two vowels come together across a morpheme boundary and glottal insertion does not take place, the vowels fuse as a long vowel.

- (52) *me-·hakiʔiš*
 me-ə-ha-ki-ʔiš
 be.extinguished-PL.SJ-INDF-AUX-INF
 'to be extinguished (plural subject)'

The voiceless resonants /M/, /N/, /L/, /W/, and /Y/ are pronounced phonetically [m̥], [n̥], [l̥], [w̥] and [y̥]. As a late, secondary development, /M/, /W/, and /Y/ may be found to have been replaced by *h*. Sometimes the original can be recovered, as in the examples in the following table.

TABLE 3. UNDERLYING VOICELESS RESONANTS

UNDERLYING FORM	SURFACE FORM	
<i>mi·M-halʔiš</i>	<i>mi·h-halʔiš</i>	'to throw (sg sj)'
<i>mi·M-ə-halʔiš</i>	<i>mi·mi-halʔiš</i>	'to throw (pl sj)'
<i>paW-heluʔiš</i>	<i>poh-heluʔiš</i>	'to sew (sg sj)'
<i>paW-ə-heluʔiš</i>	<i>powa-heluʔiš</i>	'to sew (pl sj)'

The voiceless resonants occur, as a whole, only in syllable-final position in a morpheme, but can occur intervocally in a word. In such a case, a voiceless resonant will resyllabify as the onset of a syllable. There are three examples in monomorphemic words: /L/ occurs syllable-initially in the word *Lepe·p-halʔiš* 'to flap', /W/ occurs syllable-initially in the word *ka·Wi·h* 'coffee', and /N/ occurs syllable-initially in the word *ʔeNel* 'branch'. The first two words are loans, the former from Creek or another Muskogean language (cf. Koasati *topopohli:cin* 'to make a flapping noise'), and the latter from French *café*.

Vowels do not occur in initial position, but are preceded by a weak glottal stop or any other single consonant. This weak glottal stop is strengthened if the word is preceded by prefix terminating in a vowel, e.g., *ʔaYa·t* ['aYa·t] 'not taking'; *kaʔaYa·t* [kaʔaYa·t] 'not bringing'. Words ending in short vowels are uncommon, and ones ending in final /e/, /o/, and /u/ are quite rare.³ Final *e* seems to have disappeared by aphaeresis, since a number of consonant-final roots restore a final *e* under certain conditions, e.g., *ʔek^wel* 'bones'; *ʔek^wele·ya* 'the bones'. A goodly number of words ending in short *o* and *u* consist of the sequence *ko* and *ku*; all of these may well be underlyingly syllabified *k^w* (see above). Short vowels occur freely except that in monomorphemic words *i* does not occur before *y* and *o* and *u* do not occur before or after *w*. Pronunciation of vowels is not remarkable except that *e* is pronounced [ɛ].

Schwa occurs only in underlying representations of Natchez morphemes. It is a harmonizing vowel that takes on the quality of the vowel in the preceding syllable, as in examples (39) and (50) above. Occasionally, if vowel harmonization does not take place, schwa surfaces as *u* and occasionally as *e*. Schwa occurs in the morphemes *-ə-* 'plural subject/singular object', *-ə·hə-* 'plural subject/plural object', *-kəp / -ʔəp* 'participle', and in the verb root *-pənəl-* 'to shoot at'.⁴

Although nasal vowels occur in Natchez, they are not phonemes. They have two origins. In nouns, nasal vowels arise from sequences of vowel-*n* in word-final position; the *n* nasalizes the preceding vowel and is then deleted. In verbs, nasal vowels occur when word-final vowels are followed by the suffix -*Ÿ*, which indicates that the sentence has come to an end. This suffix may originally have been *n* as well, with nasalization produced in the same way that it is produced in nouns.

3.2. Accent. Accent in Natchez is based on pitch, rather than loudness (stress). There are four pitch contours: high, mid, rising, and falling, as shown in examples (53)–(55).

- (53) *kúNà* (3-1) (high-mid)
kuN-a
 water-ART
 'the water'
- (54) *ʔi·MšàLsik* (3.4-1-1) (rising-mid-mid)
ʔi·M-ša-Lsi-k
 agree-QT-AUX-CONN
 'He agreed, so they say.'
- (55) *nécà·* *hû* (3-1 3.1) (high-mid falling)
ne-c-a· *hu-N*
 3PRS-sit-MOD indeed-PHR.TERM
 'He is indeed at home.'

Accent is entirely predictable, based on the shape of the word. In general, accent is on the penult in disyllabic words and in words where the vowel of the penult is long; otherwise it occurs on the antepenult. A short accented vowel carries a high pitch, while a long accented vowel usually carries a rising pitch. Unaccented vowels have mid pitch. Falling pitch is limited to certain morphemes. It occurs on the penultimate syllable of an imperative, whether or not the vowel is long, while a long vowel in a previous syllable in the same word takes rising pitch. Falling pitch occurs also on the interrogative affix -*yâ·*. Finally, falling pitch occurs on exclamations, as in example (59), and on the emphatic *hû*.

- (56) *tek^wepâ·kĭ*
tek^we-pa·-ki-Ÿ
 sit.SG-2OPT-AUX-PHR.TERM
 'Sit down!'
- (57) *tek^wepă·tânkĭ*
tek^we-pa·-tan-ki-Ÿ
 sit.SG-2OPT-DU-AUX-PHR.TERM
 'Sit down, you two!'
- (58) *tâ[?]ăcpăcê· néciyă[?]*
ta[?]ăcpăc-e·Ÿ ne-ci-ya·Ÿ
 man-ART-ABS 3PRS-sit-QT-PHR.TERM
 'Is that man at home?'
- (59) *mâ·h šúlûh*
ma·h šuluh
 look! spider
 'Look! A spider!'

Because of its predictability, Haas did not write accent in her publications, but did so consistently in her notes; in this sketch, only the falling accent will be written, since it is morphemic.

4. Morphophonology

4.1. Vowel cluster processes. When two vowels meet at a morpheme boundary, there are three possible outcomes. The first is glottal insertion, in which a glottal stop appears at the morpheme boundary. This occurs only when a vowel would cluster with vowel length. The second is vowel elision, where the second vowel elides the first vowel. The third is vowel fusion, where the two vowels fuse to form a long vowel. The following is an example of glottal insertion.

- (20) *šo·koLši·Lă nokoy[?]i·[?]ă*
šo·koLši·L-a-n nok·[?]oy·[?]i·-a-Ÿ
 turkey-ART-ABS PVB-be.cooked-3PT-AUX-MOD-PHR.TERM
 'The turkey ought to be cooked.'

Vowel elision occurs when a morpheme ending in a short vowel, almost always *i*, is followed by a morpheme beginning with a vowel; the second vowel elides the first, as in the following example.

- (60) *pamwetehteʔ*
pan-weti-eh-t-e-ʔ
 2PRS-die-FUT-FUT.CMPL-PHR.TERM
 'You will certainly die.'

When two vowels meet across a morpheme boundary, and the first vowel is not *i* (except for *iə* and *ii*), and glottal insertion does not take place, vowel fusion occurs, yielding a long vowel with the quality of the first vowel.

4.2. A-backing. In the speech of Watt Sam, the vowel *a* is backed to *o* before *w* in all cases (except in word-final position). This occurs much less frequently in the speech of Nancy Raven, as in the following example.

- (61) *kaʔhiyowaʔ* (WS)
kaʔhiyawəʔ (NR)
kaʔ-hi-ya-w-a-ʔ
 PAST-say-1PT-AUX-INC-PHR.TERM
 'I said it.'

The vowel *a* is also backed to *o* before *mp*, and in the speech of Watt Sam, *a* is backed to *o* in the sequence *aW*, after which the voiceless resonant becomes *h* and the sequence surfaces as *oh*.

4.3. Contraction of w. When the sequence *-iw-* occurs, it always collapses to *uʔ*, as in the following example.

- | | | |
|------|--|----------------------|
| (62) | <i>toʔšuʔsik</i> | <i>ceʔšuʔk...</i> |
| | <i>toʔ-š-i-w-Ø-ši-k</i> | <i>ceʔ-š-i-w-k</i> |
| | pound-QT-3PT-AUX-3DAT-DAT-CONN | fuck-QT-3PT-AUX-CONN |
| | 'She pounded it for him, and he fucked her, and . . .' | |

This phonological change occurs before the rules of vowel contraction and resonant devoicing, since those rules treat the sequence *uʔ* like any other root long vowel. The sequence *aw* becomes *oʔ* in syllable-final position in the speech of Watt Sam.

4.4. Glottal deletion. When a morpheme beginning with a glottal stop is suffixed to a morpheme terminating in a consonant other than a resonant, the glottal stop is not pronounced. This is shown in examples (20), (39), and the following.

- (11) *copapkuk*
cop-ʔa-p-k^w-k
 pluck-1OPT-2OBJ-AUX-CONN
 'I will pluck you.'

With certain glottal-initial suffixes, primarily the participial suffix *-ʔap*, and the infinitive suffix *-ʔiš*, glottal deletion takes place after a vowel. In this instance vowel fusion occurs, as in /kaha-ʔəp/ (white-PRT) *kahaʔp* 'white'.

4.5. Resonant devoicing. When a voiced resonant occurs in syllable-final position at a morpheme boundary followed by an affix beginning with a consonant, the voiced resonant is devoiced.

- (63) *ʔeLpaʔtanilə*
ʔeL-paʔ-tan-ni-l-aʔ-Y
 see-2OPT-DU-1OBJ-AUX-INC-PHR.TERM
 'May you two look at me!'

If the morpheme is the connective suffix *-k*, the connective suffix disappears after the devoicing of the resonant, as in examples (28) and (64).

- (28) *ʔinakaY*
ʔi-nakay-k
 3PT-carry.on.back-CONN
 'He carried it on his back, and . . .'
- (64) *takuN* *tecəʔ*
ta-kun-k *te-c-aʔ-Y*
 1PRS-swallow-CONN 1PRS-sit-INC-PHR.TERM
 'I am sitting and swallowing.'

If a voiced resonant in morpheme-final position is followed by *h*, the resonant is devoiced, and the *h* disappears.

- (65) *ʔaYaʔt*
ʔi-ay-haʔt
 PRT-take-NEG
 'not taking'

4.6. Voiceless resonant voicing. There are six morphemes that usually cause adjacent voiceless resonants to become voiced: *-nuh*

'diminutive', *-uh* 'diminutive', *-ə* 'plural subject', *-ʔəp* 'participle', *-ʔi-* 'participle', and *-ʔiʃ* 'his; her; its'.

- | | | | | | |
|------|---------------------------|---|--------------------------|---|---------------------------------|
| (66) | <i>toM</i>
'person' | + | <i>-nuh</i>
DIM | > | <i>tomɪnuh</i> 'child' |
| (67) | <i>wəLt</i>
'town' | + | <i>-uh</i>
DIM | > | <i>waltuh</i> 'small town' |
| (68) | <i>tuluM</i>
'roll' | + | <i>-ə</i>
PL.SUBJ | > | <i>tulumu-</i> 'roll over (pl)' |
| (69) | <i>wəY</i>
'salt' | + | <i>-ʔəp</i>
PRT | > | <i>wəyup</i> 'salty' |
| (70) | <i>kinʔeL-</i>
'watch' | + | <i>-ʔi-al</i>
PRT-AUX | > | <i>kinʔelal</i> 'watcher' |
| (71) | <i>ayaM</i>
'ax' | + | <i>-ʔiʃ</i>
3POSS | > | <i>ʔayamiʃ</i> 'his ax' |

Occasionally these affixes do not induce voicing, for unclear reasons.

4.7. Vowel harmony. There are two kinds of vowel harmony in Natchez, regressive and progressive, with different domains. Regressive vowel harmony is optional, and appears in idiolectal variation between the two speakers. Progressive vowel harmony is obligatory, and is found in both speakers. This form of vowel harmony is illustrated in examples (72) and (73).

- (72) *cuku·hu-*
cuk-ə·hə-
trot-PL
'trot (plural subject)'
- (73) *ʔacpopo·noh*
ʔacpopoh·nuh
Irishman-DIM
'little Irishman'

4.8. I-epenthesis. When an impermissible two- or three-member consonant cluster is formed by any morphological process, *i* is inserted after the first consonant as in (74), or occasionally the second. If the impermissible cluster in a monomorphemic item

commences with a consonant cluster (including vowel length), *-yi-* is inserted, as in (75).

- (74) *neca'l̥ine*
nec-ʔa-l-ne
 laugh-3OPT-AUX-MOD
 'When she laughs at him . . .'

- (75) *pe'yilcok̥*
pe-lcoko-Y
 2OPT-learn-PHR.TERM
 'May you learn.'

5. Overview of Natchez. The two primary categories of Natchez words are nouns and verbs. Nominal in form are modifiers (adjective and adverb equivalents) and postpositions. Minor categories are the deictics, post-verbal particles, and interjections. Nominalization is a fairly powerful process, while verbalization is weak and of limited productivity.

The most striking feature of Natchez is its system of verbal inflection. There are two kinds of verbs, INDEPENDENT and DEPENDENT (termed INDEPENDENT and ACTIVE by Haas). Independent verbs are themselves inflected with all verbal prefixes and suffixes and have an invariant root. Dependent verbs do not take prefixes or suffixes and must be inflected by means of auxiliary elements, and on the whole have four different root shapes based on the number of the subject, the object, and the number of times an action is repeated.⁵ The vast majority of auxiliary elements, although in structure identical with independent verbs, do not occur alone, and in fact contribute semantically to the roots to which they are attached, as illustrated in the following table.

TABLE 4. THE DEPENDENT VERB ROOT *TA'*- WITH AUXILIARIES

VERB	GLOSS
<i>ta'-hakiʔiš</i>	'to stumble'
<i>ta'-halʔiš</i>	'to hit'
<i>ta'-hawʔiš</i>	'to kill'
<i>ta'-helahciʔiš</i>	'to pay'
<i>ta'-helušiʔiš</i>	'to fire a gun'
<i>ta'-helu ʔiš</i>	'to play the ball game'
<i>ta'-hetahnu ʔiš</i>	'to gather together'

Typologically, the syntactic structure of Natchez is typical of southeastern languages. There are two broad categories of verbs, active verbs, in which the usual subject prefixes indicate the actors, and stative verbs, in which the actor is cross-referenced by the elements that usually indicate direct objects or indirect objects. The unmarked word order is SUBJECT-OBJECT-VERB, and there is a simple system of reference indexing. There is a topicalizing particle that can be added to verb phrases, noun phrases, or verbal modifiers. Nominal and verbal modifiers, including postpositions, follow the words that they govern. There is an ergative-absolutive case system for nouns with a number of locative cases.

Natchez is a language isolate, with no known closely related languages. At a great time depth, perhaps parallel to that of Indo-European, it is related to the Muskogean language family (Haas 1956). The following is an example:

TABLE 5. A NATCHEZ-MUSKOGEAN RECONSTRUCTION

CREEK	<i>fayhn-</i>	'to flow'
KOASATI	<i>ho-fahna</i>	'to flow'
PROTO-MUSKOGEAN	* <i>x^waxna</i>	
NATCHEZ	<i>wa·N-ha·ʔiš</i>	'to overflow'
PRE-NATCHEZ	* <i>wanxa</i>	
NATCHEZ-MUSKOGEAN	* <i>x^wanaxa</i>	'to flow'

Relationships to the other language isolates of the Gulf coast (Atakapa, Chitimacha, and Tunica) are problematic (Kimball 1994a).

6. Verbal morphology: Independent verbs and auxiliary elements.

6.1. Components of the verb complex. Although Natchez has two kinds of inflected verb roots, independent and auxiliary, their structures are identical, consisting of at least thirteen ordered slots on either side of the root, as illustrated by the diagram below:

preverbs-subject-diminutive.subject-aspect-dual.subject-patient-patient.type-plural.subject-ROOT-dative.object-dative-new.topic-modal.suffixes-postverbs

It is not possible for all of these slots to be filled on any one verb or auxiliary; for example DUAL and PLURAL, and DIMINUTIVE SUBJECT and DIMINUTIVE OBJECT (a subclass of patient type) do not cooccur.

6.1.1. Independent verbs. There are approximately fifty independent verbs, covering many basic concepts such as *haškuʔiš* 'to eat', *hahkušiʔiš* 'to drink', *hanolʔiš* 'to sleep', and so forth. Historically, the distinction between independent and dependent verbs (see section 7) appears to have been structurally based, with independent verbs having been vowel-initial and dependent verbs consonant-initial. In the attested stage of the language, these initial vowels have been almost wholly absorbed by the final vowels of the tense-mode prefixes; these vowels make sporadic appearance in participial or relict forms, as in *ʔucoko* (root *-ucokʷ*) 'knower', *hacokoʔiš* 'to know', and *ʔeNušku* 'otter' (*ʔeN* 'fish'; *ʔušku* 'eater'; root *-uškʷ*), *haškuʔiš* 'to eat'.

6.1.2. Auxiliary elements. These elements, which take the inflectional affixes for dependent verbs, are about forty in number. Although structurally identical to independent verbs, auxiliaries have been bleached of much of their meaning, so that when meanings can be assigned, they are more of the nature of 'transitive' (*-halʔiš*), 'intransitive' (*-hakiʔiš*), 'reciprocal' (*-hetahnuʔiš*), 'causative' (*-helahciʔiš*; *-hekahciʔiš*), 'involuntary action' (*-hektiʔiš*), or 'action in a stationary position' (*-haciʔiš*). Only two auxiliary elements occur as independent verbs: *haʔiš* 'to be' and *haciʔiš* 'to sit'.

It is possible for an auxiliary to have up to four forms; a basic, an applicative (dative-benefactive), reflexive, and diminutive form, although only the transitive auxiliary has all four forms. The majority have only two, a basic and an applicative, while a few have only a basic form. The forms of the auxiliaries are listed in table 6.

TABLE 6. NATCHEZ AUXILIARY ELEMENTS

AUXILIARY	APPLICATIVE	REFLEXIVE	DIMINUTIVE
-haciʔiš	-hacišiʔiš		
-hakiʔiš	-hakišiʔiš		-hektiʔiš
-hakuʔiš	-hakušiʔiš		
-halʔiš	-haLšiʔiš	-hahšalʔiš	-hatilʔiš ⁶
-hawʔiš	-haWšiʔiš	-hašur ʔiš	

-ha ^o ?iš	-ha ^o ši ^o ?iš		
-heci ^o ?iš			
-hekahci ^o ?iš			
-hekti ^o ?iš	-hektiši ^o ?iš		
-heku ^o ?iš	-hešku ^o ?iš		
-helahci ^o ?iš	-helahciši ^o ?iš		
-helku ^o ?iš	-helkušitiš		
-helu ^o ?iš	-helu ^o ši ^o ?iš	-helšu ^o ?iš	-helilu ^o ?iš
-heLti ^o ?iš	-heLtiši ^o ?iš		
-heNci ^o ?iš	-heNciši ^o ?iš		
-hešku ^o ?iš	-heškuši ^o ?iš		
-hetahnu ^o ?iš	-hetahnu ^o ši ^o ?iš		
-heti ^o ?iš	-heti ^o ši ^o ?iš		
-hew ^o ?iš	-heWši ^o ?iš		

It is notable that only three auxiliaries have reflexive forms, and only three have diminutive forms. A number of auxiliary elements are clearly related to each other; for example, from *-heti^o?iš* are derived *-hekti^o?iš* and *-heLti^o?iš* by means of the formatives *k* and *l*; from *-hew^o?iš* are derived *-heku^o?iš* (*-he<k>w^o?iš*), *-helu^o?iš* (*-hew^o?iš*), and *-hetahnu^o?iš* (*-he<tahni>w^o?iš*).

Reciprocal objects are indicated by the auxiliary *-hetahnu^o?iš*, which replaces the regular auxiliary of the verb. Causatives are produced by *-hekahci^o?iš* replacing *k*-based auxiliaries (e.g., *-haku^o?iš*, *-haki^o?iš*, and *-hekti^o?iš*) and *-helahci^o?iš* replacing all other auxiliaries.⁷

6.2. Preverbs. There are at least five classes of preverbs, which tend to maintain a relative order among themselves. However, since more than two preverbs rarely cooccur it is not possible to tell whether the ordering is rigid or fluid. The following is a list of the preverb classes, from outermost to innermost:

I. TEMPORAL

<i>ma^o</i>	'future'
<i>ka^o</i>	'past'
<i>ya^o</i>	'pluperfect'

II. ABILITATIVE

<i>nok</i>	'can'
<i>?iš</i>	'can't; won't'
<i>nuk</i>	'making a characteristic noise'
<i>miNt</i>	'in such a way'

III. DIRECTIONAL

<i>ca·k</i>	'go and do'
<i>cu·š</i>	'beyond'
<i>ma·št</i>	'after'

IV. LOCATIVE

<i>ka</i>	'locative'
<i>kaka</i>	'back again'
<i>hanah</i>	'around'
<i>ma·</i>	'there (far)'
<i>ya·</i>	'there (near)'
<i>ka·</i>	'here'

V. INCORPORATED NOUN⁸

<i>kin</i>	'something'
<i>?iškoš</i>	'nothing'
<i>tah</i>	'someone'

The temporal preverbs seem to be grammaticalizations of the deictics *ma·* 'that (far)', *ka·* 'this', and *ya·* 'that (nearby)'. Numerous examples of temporal preverbs occur elsewhere in this sketch.

The first three abilitative preverbs are freely added to verbs. The preverb *nuk* is semantically problematic. It is used to indicate not only sound, but also bright color and sudden movement; its purpose seems to be to stimulate the listener to imagine some striking perceptual feature about an action, and thus to enrich the meaning of a text.

(76) *nokkinhantawə·*

nok-kin-han-ta-w-a·-Y

PVB-STH-make-1PRS-AUX-INC-PHR.TERM

'I can work.'

(77) *?ištahtakušj*

?iš-tah-ta-ku-Ø-ši-Y

PVB-SO.-1PRS-give-3DAT-DAT-PHR.TERM

'I can't give it.'

(78) *nuktiti·tšanaL*

nuk-titi·t-ša-n-al-k

PVB-pitter-QT-IMP-AUX-CONN

'He [Skunk] made a pitter-pattering sound as he kept on crawling backward there.'

kaki·ššuku·Nkə·

ka-ki š-šu-ku·Nkə·

PVB-crawl.back-QT-AUX-MOD

-ha [?] iš	-ha [?] ši [?] iš		
-heci [?] iš			
-hekahci [?] iš			
-hekti [?] iš	-hektiši [?] iš		
-heku [?] iš	-hešku [?] iš		
-helahci [?] iš	-helahciši [?] iš		
-helku [?] iš	-helkušitiš		
-helu [?] iš	-helu [?] ši [?] iš	-helšu [?] iš	-helilu [?] iš
-heLti [?] iš	-heLtiši [?] iš		
-heNci [?] iš	-heNciši [?] iš		
-hešku [?] iš	-heškuši [?] iš		
-hetahnu [?] iš	-hetahnu [?] ši [?] iš		
-heti [?] iš	-heti [?] ši [?] iš		
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'I can't give it.'

(78) *nuktiti·tšanaL*

nuk-titi·t-ša-n-al-k

kaki·ššuku·Nkə·

ka-ki š-šu-ku·Nkə·

PVB-pitter-QT-IMP-AUX-CONN PVB-crawl.back-QT-AUX-MOD

'He [Skunk] made a pitter-pattering sound as he kept on crawling backward there.'

- 9) *ma'k toM* *ʔe'thanacine,*
ma'k toM *ʔe'tha-na-ci-ne*
 there person enter.SG-3PRS-AUX-MOD

miNtka'watnakj.

miNt-ka'-wat-na-ki-Ÿ

PVB-here-disappear-3PRS-AUX-PHR.TERM

'When a person enters there, he disappears in such a manner from here.'

Among the directional preverbs, note that there is a preverb only 'to go and do'; the corresponding concept 'to come and do' is handled by the general locative preverb *ka-*.

- 1) *ca'k kinki'si'ʔelu'*
ca'k-kin-ki's-a-ʔe-lu'
 PVB-STH-hunt-PL/SG-1OPT-AUX
 'Let us go and hunt something!'

- 2) *walakšehak* *holohšukuk* *cu'škcšuk*
walakšeh-a-k *holoh-šukuk* *cu'š-ko-ši-w-k*
 post-ART-LOC climb.SG-QT-AUX-CONN BEYOND-pass-QT-AUX-CONN
 'It climbed up on a post, and passed beyond.'

The locative preverbs are very frequent, especially *ka*, which has meanings 'in', 'at', 'on', 'out', 'on the ground', and 'coming'. The deictic preverbs in this slot, *ma'*, *ya'*, and *ka'*, are phonologically identical with the temporal preverbs, but appear in a different location, and unlike the temporal preverbs are not restricted to verbs of the proper tense/mode. The following examples will illustrate the use of *ka*, *kaka*, and *hanah*.

- 3) *ʔuktuLe'* *kašošu'k* *kašaŸ*
ʔuktuL-e'-Ø *ka-šo-ši-w-k* *ka-š-aŸ-k*
 eye-ART-ABS PVB-lock.for-QT-AUX-CONN PVB-QT-take-CONN

ka'kakašukušə

ka'-kaka-šukuk-Ø-ši-Ÿ

PAST-PVB-QT-give-3DAT-DAT-PHR.TERM

'He looked for those eyes there, brought them, and gave them back to her.'

- (83) *hanahelšaine, ya'ktišiš hoiššuk*
hanah-ʔeL-š-ai-ne ya'ktišiš hoiššuk
 PVB-see-QT-AUX-MOD here.and.there lie.PL-QT-AUX-CONN
 'When she looked around, they were lying here and there.'

The incorporated noun is primarily used to detransitivize a verb. This function is further reflected in the fact that a transitive verb, which normally requires its subject to be marked with the ergative case, when used with an incorporated noun requires its subject to be marked with the absolutive case. The preverb *kin* is used when the object is nonhuman, *tah* when the object is human or anthropomorphized, and *ʔiškoš* when the object is negated. Examples (76) and (80) illustrate the use of *kin*, while (84) and (85) illustrate *ʔiškoš* and *tah*.

- (84) *ʔiškoštehtešky*
ʔiškoš-teh-te-šku-ʔ
 NOTHING-do-1PRS-AUX-PHR.TERM
 'I can do nothing.'
- (85) *ʔaškahc tahkolo'nelkuk,*
ʔaškah-c tah-kolo-a-ne-iku-k
 fanner-ERG SO.-cover-PL.SJ-3PRS-AUX-CONN

tahuwahaneluših.
tah-ʔuwah-a-ne-lu-Ø-ši-k
 SO.-afire-PL.SUBJ-3PRS-AUX-3DAT-DAT-CONN
 'They cover one with a fanning basket, and they set fire to one.'

6.3. Subject.⁹ The subject pronominal tense/mode prefixes are shown in the following table:

TABLE 7. TENSE/MODE PREFIXES

	a-SET	e-SET
INDEFINITE		
Ø	ha-	he-
PRESENT		
1	ta-	te-
2	pa-	pe-
3	na-	ne-

A-SET

1	<i>ya-</i>	<i>ye-</i>
2	<i>pi-</i>	<i>pe-</i>
3	<i>?i-</i>	<i>?e-</i>

OPTATIVE

1	<i>?a-</i>	<i>?e-</i>
2	<i>pa'-</i>	<i>pe'-</i>
3	<i>?a'-</i>	<i>?e'-</i>

IMPERIAL

Ø	<i>?i-</i>	<i>?e-</i>
---	------------	------------

IMPERSAY

3	<i>ša-</i>	<i>še-</i>
---	------------	------------

The choice of the *a*-set or *e*-set is lexically determined; i.e., certain verbs always occur with *a-*, while others always occur with *e-*. Historically the vowel of the prefixes seems to have been part of the root; there are traces of *u*-initial roots, which are now inflected with the *a*-set, and *i*-initial roots, now inflected with the *e*-set.

The interaction of the tense/mode prefixes with verb roots is illustrated below, using the independent *a*-set verb root */-hkuši-/* 'nk' and independent *e*-set verb root */-lcok^w-/* 'learn'. Note that the parenthesized second person singular forms in both paradigms have undergone progressive vowel harmony. Note also that *i*-epenthesis does not take place in the optative of *hahkuši?iš*, but does in the optative of *helcoko?iš*.

TABLE 8. INFLECTION OF A- AND E-SET VERBS

INFINITIVE 'to drink'
ha-hkuši-?iš

SENTENCE 'I drink, etc.'

SINGULAR	DUAL	PLURAL
<i>ta-hkuš-ə</i>	<i>ta-tani-hkuš-ə</i>	<i>ta-pi-hkušə</i>
<i>pana-hkuš-ə</i>	<i>pan-tani-hkuš-ə</i>	<i>pam-pi-hkuš-ə</i>
<i>na-hkuš-ə</i>	<i>na-tani-hkuš-ə</i>	<i>na-pi-hkuš-ə</i>

PAST	'I drank, etc.'		
	SINGULAR	DUAL	PLURAL
1	<i>ya-hkuš-ǵ</i>	<i>ya-tani-hkuš-ǵ</i>	<i>ya-pi-hkuš-ǵ</i>
2	<i>pu-hkuš-ǵ</i>	<i>pa-tani-hkuš-ǵ</i>	<i>pu-pi-hkuš-ǵ</i>
3	<i>?i-hkuš-ǵ</i>	<i>?i-tani-hkuš-ǵ</i>	<i>?i-pi-hkuš-ǵ</i>
OPTATIVE	'May I drink; let me drink!; I will drink, etc.'		
	SINGULAR	DUAL	PLURAL
1	<i>?a-hkuši</i>	<i>?a-tani-hkuši</i>	<i>?a-pi-hkuši</i>
2	<i>pa[•]-hkušǵ</i>	<i>pa[•]-tani-hkuši</i>	<i>pa[•]-pi-hkuši</i>
3	<i>?a[•]-hkuši</i>	<i>?a[•]-tani-hkuši</i>	<i>?a[•]-pi-hkuši</i>
PARTICIPIAL	'drinking; drunk'		
∅	<i>?i-hkuši</i>		
INDEFINITE	'to learn'		
∅	<i>he-lcoko-?iš</i>		
PRESENT	'I learn, etc.'		
	SINGULAR	DUAL	PLURAL
1	<i>te-lcok^w-ǵ</i>	<i>te-teni-lcok^w-ǵ</i>	<i>te-pi-lcok^w-ǵ</i>
2	<i>pene-lcok^w-ǵ</i>	<i>pen-teni-lcok^w-ǵ</i>	<i>pen-pi-lcok^w-ǵ</i>
3	<i>ne-lcok^w-ǵ</i>	<i>ne-teni-lcok^w-ǵ</i>	<i>ne-pi-lcok^w-ǵ</i>
PAST	'I learned, etc.'		
	SINGULAR	DUAL	PLURAL
1	<i>ye-lcok^w-ǵ</i>	<i>ye-teni-lcok^w-ǵ</i>	<i>ye-pi-lcok^w-ǵ</i>
2	<i>pi-lcok^w-ǵ</i>	<i>pi-teni-lcok^w-ǵ</i>	<i>pi-pi-lcok^w-ǵ</i>
3	<i>?i-lcok^w-ǵ</i>	<i>?i-teni-lcok^w-ǵ</i>	<i>?i-pi-lcok^w-ǵ</i>
OPTATIVE	'May I learn, let me learn!; I will learn, etc.'		
	SINGULAR	DUAL	PLURAL
1	<i>?e-lcokǵ</i>	<i>?e-teni-lco kǵ</i>	<i>?e-pi-lcokǵ</i>
2	<i>pe[•]yi-lcokǵ</i>	<i>pe[•]-teni-lcokǵ</i>	<i>pe[•]-pi-lcokǵ</i>
3	<i>?e[•]yi-lcokǵ</i>	<i>?e[•]-teni-lcokǵ</i>	<i>?e[•]-pi-lcokǵ</i>
PARTICIPIAL	'learning; learned'		
∅	<i>?i-lcoko</i>		

Auxiliary elements are inflected in the same manner, with the exception of the plural, which is marked on the verb root to which the auxiliary is attached, and not on the auxiliary verb itself (see section 6.2 below).

The quotative prefix, which seems to be underlyingly *ši-*, cross references a third person subject in the past, and indicates that the action performed by the subject is reported by hearsay and not by the experience of the narrator. Furthermore, it is used on every past tense verb in a text unless such a verb is in quoted speech. The quotative prefix has a number of alternants: *ša-* and *še-* occur only before the imperfect aspectual affix *-n-*, *š-* occurs before vowels, *ši-* occurs before most consonants, and *šu-* occurs before labials. The following are examples of the quotative affix occurring on roots and auxiliary elements; although it frequently occurs in other examples in this sketch, only here is it fully translated.

- (15) *kašišahkuk* *hikaLə·*
 (18) *ka-ši-šahku-k* *hikaL-e·-n*
 PVB-QT-arrive.SG-CONN corn.drink-ART-ABS

to·šu šik *ce·šu·k*
to·ši-w-Ø-ši-k *ce·ši-w-k*
 pound.SG/SG-QT-AUX-3DAT-DAT-CONN fuck.SG/SG-QT-AUX-CONN

hikaLə šinakaY *ka·šuhti*
hikaL-a-n ši-nakay-k *ka·šu-hti-Y*
 corn.drink-ART-ABS QT-carry-CONN PAST-QT-go.SG-PHR.TERM

'It is said that he arrived and she pounded that corn drink for him, and he fucked her, and carrying the corn drink on his back, it is said that he went off.'

The diminutive subject prefix has the form *-it-* and the variant *-iti-* formed by *i*-epenthesis. It occurs rarely in the data; simple smallness does not regularly trigger its use, and the conditions of its use are unclear. It is phonologically unusual in that it has a strong initial *i-*; i.e., in natural texts as opposed to lexical elicitation, the *i* replaces the vowel of the preceding person prefix.

- (86) *ma·ka·wah kašitpitine,* *?ele·nah*
ma·ka·wah ka-š-it-piti-ne *?ele·nah*
 right.there PVB-QT-DIM.SJ-walk-MOD right.then

šo'koLkalapkupe' *kašišahkuk*
šo'koLkalapkup-e'-n *ka-ši-šahku-k*
 great.hawk-ART-ABS PVB-QT-arrive-CONN

kakošilahcj
ka-ko-ši-lahci-Y
 PVB-take.off-QT-AUX-PHR.TERM
 'At that place the little one was walking, and right then that Great Hawk arrived there and took him off.'

- (87) *necnitilg'*
nec-n-iti-l-a'-Y
 laugh-3PRS-DIM.SJ-AUX-INC-PHR.TERM
 'A little one is laughing at something.'

6.4. Aspect. Three affixes occupy the aspect slot, *-n-* 'imperfect', *-šā-* 'pluperfect', and *-šen-* 'ought'.

The imperfect affix *-n-* was recorded only in combination with the third person hearsay prefix *ši-*. The complex *ši-n-* is realized as *šan-* for *a*-root verbs and *šen-* for *e*-root verbs. These realizations have *i*-epenthesized forms in the proper environment, and these also undergo vowel harmony to produce *šana-* and *šene-*. The imperfect indicates that an action was in progress during the past, but does not indicate whether or not the action was completed. The following is an example.

- (36)– *hikaLa* *pakašankušine,*
 (38) *hikaL-a-Ø* *paka-ša-n-ku-Ø-ši-ne*
 corn.drink-ART-ABS dip.PL/SG-QT-IMP-AUX-3DAT-DAT-MOD

lo'ya *šampukušik*
lo'-ya-Ø *ša-n-pu-ku-Ø-ši-k*
 feather-ART-ABS QT-IMP-PL-give-3DAT-DAT-CONN

?okšeneškuk
?ok-še-n-šku-k
 stick.on-QT-IMP-AUX-CONN
 'As they were dipping up the corn drink, they were giving him feathers, and he was sticking them on himself.'

If there is a rhetorical emphasis on the action taking place in the imperfect, the final vowel of the *i*-epenthesized form is lengthened, as in the following example.

- (44)– *ʔokšeneškuya*, *ʔokšeneškuya*,
 (47) *ʔokše-ne-sku-ya* *ʔokše-nešku-ya*
 stick.on-QT-IMP.EMP-AUX-ART stick.on-QT-IMP.EMP-AUX-ART
- ʔokšeneškuya*, *hacokoša't* *hansišu'k*
ʔokše-nešku-ya *hacok^w-ʔiš-ha't* *han-ši-šu'-k*
 stick.on-QT-IMP.EMP-AUX-ART know-INF-NEG become-QT-AUX-CONN
- 'He was sticking them *on*, and sticking them *on*, and sticking them *on*, and he became unrecognizable.'

The pluperfect affix *-šə-* requires the use of the preverb *ka-* and the past tense form of the verb. The form of the affix in the first person is *-še-* or *-ša-* depending on whether the verb is *e*-root or *a*-root; in the other persons *-šə-* surfaces as *ši-*, unless there is a *u* or a *p* in a following syllable, when it surfaces as *-šu-*. The following paradigm of *hakušiʔiš* 'to give' illustrates this affix.

TABLE 9. INFLECTION OF A VERB WITH THE PLUPERFECT

<i>kaʔyašakušə</i> 'I had given to him', etc.			
	SINGULAR	DUAL	PLURAL
1P	<i>kaʔyaša-kušij</i>	<i>kaʔyeša-tan-kušij</i>	<i>kaʔyeša-pu-kušij</i>
2P	<i>kaʔpa-šu-kušij</i>	<i>kaʔpa-ši-tan-kušij</i>	<i>kaʔpa-šu-pu-kušij</i>
3P	<i>kaʔšu-kušij</i>	<i>kaʔši-tan-kušij</i>	<i>kaʔšu-pu-kušij</i>

The affix *-šen-* 'ought' requires the use of the preverb *yaʔ* and the present tense stem of the verb. Paradigmatic examples of this affix are not consistent, with only the preverb occurring in some cases. This affix may be a compound of *-šə-* 'pluperfect' and *-n-* 'imperfect'.

6.5. Number and object. Dual subject is marked by the affix *-tən-*. It has two basic harmonizing forms: *-tan-* for *a*-root verbs and *-ten-* for *e*-root verbs. There are further alternants, consisting of a set with *i*-epenthesis, *-tani-* and *-teni-*, occurring before resonants and vowel length, an assimilated set, *-tom-* and *-tem-*, found before the labials *w* and *p*, a reduced set, *-taʔ-* and *-teʔ-*, used before consonant clusters, and a devoiced set, *-taN-/taM-* and *-teN-/teM-*, which occur before *c* and the patient affixes *-ni-* and *-pi-*. Examples of dual subject are illustrated in the paradigms in tables 8 and 9.

The object pronominal prefixes are marked only for person, not number. Plurality is marked on the verb in one of two ways, depending on the nature of the verb. In independent verbs plural objects are indicated by the affix *-pi-*, and in dependent verbs by root shape. The object affixes are shown in table 10 and example (5).

TABLE 10. THE DIRECT OBJECT AFFIXES

	NORMAL	I-EPENTHESIZED
1P	<i>-n-</i>	<i>-ni-</i>
2P	<i>-p-</i>	<i>-pi-</i>
3P	<i>∅-</i>	<i>l-</i>

- (5) *tama·Lpišica* *ta·[?]a·niL*
tama·L·piš-ic-a *ta·[?]a·-ni-l-k*
 woman-2POSS-ERG-ART kill-3OPT-2OBJ-AUX-CONN

ʔuwahle[?]a·niL

ʔuwahle-[?]a·-ni-l-k

cook-3OPT-2OBJ-AUX-CONN

'Let your wife kill me and cook me, and . . .'

Two affixes occupy the object type slot and indicate further information about the object. These are *-pi-* plural object/dative and *-li-* diminutive object.

The affix *-pi-* 'plural object/dative' is used only with independent verbs and indicates that the object of the action is plural; examples are in table 7. Note the following combinations of this affix and the object pronominal affixes: *-Npi-* (1pl obj), *-ppi-* (2pl obj), and *-pi-* (3pl obj).

The compound affix *-pi-pi-* 'plural object-plural subject' marks idiomatically a plural dative or benefactive object, as in (88).

- (88) *na·pipi·k^waLcik* *ka·na*
na·-pi-pi·-k^waL-t-š-i-k *ka·na*
 3PRS-PL.OBJ-PL.SJ-devour-1DAT-DAT-CONN emphatic
 'He devours them on us!'

In fact, there are no examples of independent verbs with plural subjects and plural objects, and on several occasions Watt Sam explicitly stated that there was no way to construct them.

The affix *-li-* 'diminutive object' is used with both independent verbs and the auxiliary elements of dependent verbs to indicate that the object of an action is small. Note that plurality and diminution are mutually exclusive for independent verbs; for dependent verbs, the reduplicated plural stem, which usually refers to a plural subject acting on a plural object, is used to mark the plural of a diminutive object. This is strikingly similar to the way that such verbs mark the plurality of dative-benefactive objects. The object combinations for the diminutive are *-Nli-* (first person), *-pli-* (second person), *-li-* (third person). Like the diminutive subject, the diminutive object affix is not regularly triggered by the small size of the verbal object, and the exact conditions for its use are not clear. The following is an example.

- (89) *pehe·heneNlik^wǵ*
peh·ə·hə·ne-n-li-k^w-a·Y
 blanket.cover-PL/PL-3PRS-1OBJ-DIM.OBJ-AUX-INC-PHR.TERM
 'She is covering us little ones with a blanket.'

The prefix *-pi-* 'plural subject' occupies the slot immediately before the root. At present, its use is limited to independent verbs, although the fact that it is found with auxiliaries used on the verbs *hi-haw[?]iš* 'to say' and *i·šciši-hešku[?]iš* 'to swear' indicates that it was once used by the auxiliary elements as well. This affix has several alternants: *-p-* before vowel-initial roots; *-pu-* before *w* and roots with the vowel *u*, and vowel length before *p*-initial roots. In addition, the alternant *-pi-* occurs with a number of verb roots without any clear conditioning factors.

- (90) *pampukunǵ*
pan-pu-kun-a·Y
 2PRS-PL.SJ-swallow-INC-PHR.TERM
 'You all are swallowing it.'
- (91) *pene·penelǵ*
pene·-·pənəl-a·Y
 2PRS-PL.SUBJ-shoot-INC-PHR.TERM
 'You all are shooting at it.'

6.6. Dative and new topic. The dative-benefactive object is indexed by a suffix that immediately follows the verb root and is always followed by the dative suffix *-ši*. The dative-benefactive affixes, like the object affixes, are marked only for person, not

number; plurality is marked on the verb. Any possible ambiguity is resolved by a hierarchy in which plural marking is considered to refer first to the dative, then to the subject, and last to the object, as in (92). The dative affixes are given in table 11; note that the sequence *-t-ši-* (1DAT.OBJ-DAT) is always realized as *-ci-*.

TABLE 11. INDIRECT OBJECT AFFIXES

		I-EPENTHESIZED	WITH DATIVE SUFFIX
1P	<i>-t-</i>	<i>-it-</i>	<i>-ci-</i> / <i>-ici-</i>
2P	<i>-p-</i>	<i>-pi-</i>	<i>-pši-</i> / <i>-piši-</i>
3P	<i>-Ø-</i>	<i>ī</i>	<i>-ši-</i>

- (92) *ma·le·he·pa·licu*
ma·le·he·pa·l-it-ši-u-Y
 FUTURE-leave.PL/PL-2OPT-AUX-1DAT-DAT-MODAL-PHR.TERM
 'You will leave it for us.'

The affix *-šu·-* 'new topic' is used to mark a sentence that introduces a new topic. It always cooccurs with the modal affix *-ne* 'when', as in example (93), and is frequently found at the beginning of a narrative.

- (93) *toM heMkup šeNcišu·ne,*
toM heMkup še-n-ci-šu·ne
 person widowed QT-IMP-dwell.SG-NEW.TOP-MOD
 'Now, it is said that there was once a widowed person dwelling there, and . . .'

6.7. Modal suffixes. There are a number of modal suffixes that follow the verb root. These occur in four slots; suffixes of the same slot do not cooccur with each other.

SLOT I SUFFIXES

<i>-k</i>	'and'
<i>-ʔiš</i>	'infinitive'
<i>-eht-</i>	'future'
<i>-(ya)miNt-</i>	'still'
<i>·Nke-</i>	'keep on'
<i>-hno·ka·-~-Nno·ka·</i>	'might'

SLOT II SUFFIXES

<i>-ha't</i>	'negative'
<i>-ʔi</i>	'completive'
<i>-a'</i>	'incompletive'
<i>-e'</i>	'future completive'
<i>-ke/-kke/-ʔike</i>	'habitual'

SLOT III SUFFIXES

<i>-uh-</i>	'just barely'
<i>-nuh</i>	'diminutive'

SLOT IV SUFFIXES

<i>-Y</i>	'phrase terminal marker'
<i>-Ȳ</i>	'interrogative'
<i>-kan</i>	'but'
<i>-ne</i>	'when'
<i>-yâ</i>	'interrogative'
<i>-(y)a'nah</i>	'certain to; nothing but'
<i>-yo'kon ma'na</i>	'perhaps'
<i>-o'k</i>	'focus'

6.7.1. Slot I modal suffixes. The suffix *-k* indicates that another action is about to follow that of the action of the verb to which it is suffixed. It does not indicate coreferentiality or lack thereof in the subjects of the two verbs. Examples of *-k* can be found in the text in (15)–(18) and in (40), as well as elsewhere.

The suffix *-ʔiš* derives the infinitive, basically a nominal form (see section 9.3). There are two types of infinitives, the impersonal and the personal. The impersonal infinitive is constructed with the indefinite subject prefix *ha-* for *a*-set verbs and *he-* for *e*-set verbs; the personal infinitive can be constructed from any verb inflected in the present tense. Both types can have overt direct object suffixes. As verbs, impersonal infinitives are used in constructions where the person of the subject of the infinitive is carried on another verb, such as in constructions with *he'kušiʔiš* 'to want to'. The personal infinitive is used in constructions where an impersonal verb (such as *mayke'h* 'to be able', *mayke'ha't* 'to be unable', and *nekeh* 'ought to') governs an infinitive.

- (40) *ma'na'ʔi* *halʔiš* *ki ššenlu'k.*
ma'na'-ʔi-n *ha-al-ʔiš* *ki š-še-n-lu'-k*
 that.one-PRT-be-ABS INDF-shoot-INF sneak.up.on-QT-IMPF-AUX-CONN
 'That very one was sneaking up on him in order to shoot him.'

- (99) *ʔuštnapilʔiš* *maykeʔiNnoʔkaʔ*
ʔušt-na-pi-l-ʔiš *maykeʔi-Nnoʔkaʔ-Y*
 sick-3PRS-2OBJ-AUX-INF can-CMPL-MOD-PHR.TERM
 'It might be able to make you sick.'

6.7.2. Slot II modal suffixes. The suffix *-haʔ* 'negative' is added to participles, infinitives, and occasionally nouns to form negative participles and negative infinitives. A full discussion of negation is found in section 12.7.

The suffix *-ʔi* 'completive' indicates that the action of the verb has been completed. Although usually found with the past tense, it is not necessarily limited to that tense.

- (100) *kaʔtaʔyašalʔi*
kaʔ-taʔ-ya-ša-l-ʔi
 PAST-hit-1PT-PLPF-AUX-CMPL
 'I have hit him.'

The suffix *-aʔ* 'incompletive' indicates that the action of the verb is (or was) still in progress. Note that the incompletive can be used with the past tense. In this example the action of bringing forth is located in the past, since the action was observed in the past; however, since the action is projected to continue to occur in the future, the incompletive modal suffix is used.

- (101) *cikiluʔk* *kaweteʔtaləʔ*
cik-ʔi-luʔ-k *ka-weteʔ-t-ʔi-al-aʔ-Y*
 defecate-3PT-AUX-CONN PVB-take.out-3PT-AUX-INC-PHR.TERM
 'She brought it (corn) forth by defecating it.'

Other examples of the suffix can be found elsewhere in this sketch.

The suffix *-eʔ* 'future completive' is used to indicate that the action of the verb to which it is attached will be completed in the future. It, like the modal *-eht-*, is used only with present tense verbs, never with optative verbs. When used alone, *-eʔ* indicates a bald statement of future completion of an action, as opposed to *-eht-*, which always has a more emphatic sense.

- (102) *kʷenaya* *kʷaLneluʔeʔ*
kʷenaʔya *kʷaL-ne-luʔ-eʔ*
 tomorrow rise-3PRS-AUX-FUT.CMPL
 'The sun will rise tomorrow.'

- (107) *ʔuwahlešalne, ʔinahan lokšuku nuh*
ʔuwahle-š-al-ne ʔinahan lok-šu-ku-ʔnuh
 stew-QT-AUX-MOD and.then boil-QT-AUX-DIM
 'When she stewed it, then it was just boiling.'

6.7.4. Slot IV modal suffixes. The suffix *-Ÿ* indicates that a sentence has been completed. While this suffix is not required at the end of every sentence, this is the only place it can occur. Examples of this suffix can be found in the text at (7), (10), (14), and elsewhere.

The interrogative suffix *-Ÿ* seems to be a combination of the phrase terminal marker and the falling intonation that marks the interrogative suffix *-yâ*. This suffix seems to mark unemphatic questions.

- (32) *“ta·ho·ca· ʔihtîʔ” hišu·k*
ta·ho·ca· ʔi·hti-Ÿ hi·ši-w-k
 which-way 3PT-go-Q say-QT-AUX-CONN
 “Which way did he go?” he said.’

The suffix *-kan* ‘but’ indicates that despite the action of the verb that it modifies, another action is taking place, or will take place.

- (108) *ma·k ʔino· šeNci·kan kaci·ʔika·t*
ma·k ʔino· še-n-ci-kan ka-ci-ʔi-k-a·t
 there under QT-IMP-sit-MOD PVB-fall-PRT-AUX-NEG
 ‘He was sitting under there, but they (the fruits) did not fall down.’

The suffix *-ne* ‘when’ is used to indicate that the action of the verb that it modifies occurs immediately before another action, sometimes with a causal relation between the two actions, and sometimes without.

- (6)– *olocaleʔa·kine, pa·šahkuk*
 (7) *ʔolocale-ʔa·ki-ne pa·šahku-k*
 be.noon-3OPT-AUX-MOD 2OPT-arrive-CONN

ma·pa·niškü
ma·pa·ni-šk^w-V
 FUTURE-2OPT-1OBJ-eat-PHR.TERM
 ‘When it is noon, you will arrive and you will eat me.’

The suffix *-yâ* is used to indicate that a question is being asked. As with the suffix *-Ÿ*, falling intonation is associated with this kind of interrogative.

- (109) *paca'hanaLpišiyâ*
pac-a'hə-na-l-pi-ši-yâ
 hang.up-PL/PL-3PRS-AUX-2DAT-DAT-Q
 'Is he hanging it up for you all?'

The suffix *-(y)a'nah* 'certain to; all the time', underlyingly /-a'naN/, is the same as the nominal suffix of the same form, *-a'nah* 'nothing but' (see section 9.2). Suffixed to nominalized verbs, such as the infinitive in example (110), it always means 'certain to'; with inflected verbs it can sometimes mean 'all the time', as in example (111).

- (110) "*kakahaci'iša'nah* *g;*"
ka-ka-ha-ci-iš-a'nah *a'-Y*
 PVB-go.in-INDF-AUX-INF-MOD be.AOR-PHR.TERM

hišanoh
hi-ša-n-a-w-k
 say-QT-IMP-3PT-AUX-CONN
 "One is certain to fall in," he was saying.'

- (111) *nukšeknaWšiya'nah*
nuk-šek-na-w-Ø-ši-ya'nah
 PVB-trick-3PRS-AUX-3DAT-DAT-MOD
 'He plays tricks on him all the time.'

The combination of *-a nah* with the diminutive suffix and an indefinite subject prefix, *-nuh-a nah*, means 'almost' or 'about to'.

- (112) *kono'hešku nuha'nah* *ta'g'*
kono'-he-šku-'nuh-a'nah *ta'-a'-Y*
 return-INDF-AUX-DIM-MOD 1PRS-be-INC-PHR.TERM
 'I am about to return.'

The combination of the suffix *-yo'kon* and the postverb *ma'na* idiomatically indicates that an action is of dubious occurrence.

- (113) *to'telahciyo'kon* *ma'na*
to'-te-lahci-yo'kon *ma'na*
 grind-1PRS-AUX-MOD postverb
 'I may grind corn.'

6.8 Postverbs. There are a number of words that modify the verbal complex, yet maintain a degree of independence. These are here termed *postverbs*; they form a class of words parallel in their loose

attachment after the verb to the preverbs, which are loosely attached to the beginning. The major postverbs are *a*yi-* 'if', *-na*ya* 'emphatic', *ya*na* 'exclamatory', *ka*na* 'exclamatory', *ma*na* 'exclamatory', *hû / hô* 'indeed', and *no*ka** 'certainly'.

An unreal or as-yet-unrealized condition is expressed by the suffix *-yi-*. It is always joined to the aorist form of *ha*ʔiś* 'to be', *a**, in the complex *a*yi-*. If the complex governs a noun or a participle, there is no additional morphology; if the word governed is a verb, the verb must have the connective suffix *-k*. If the complex *a*yi-* is followed by *-k*, the condition is unemphatic; if followed by *-ne*, the condition is emphatic. Note that although *a*yi-* is a separate postverb, there is no initial glottal stop heard before it.

- (114) *pa*yi*wicik* *a*yine,* *pamwetehtę.*
pa-'wici-k* *a*yi-ne* *pan-weti-eh-t-e-Ÿ*
 2OPT-tell.story-CONN be.aor-IF-MOD 2PRS-die-FUT-EMPH.FUT-PHR.TERM
 'If you tell the story, you will die.'

The postverb *-na*ya* is the base for a number of postverbs of broadly emphatic meanings. The element *-na** appears to be the third person singular present of *ha*ʔiś* 'to be'; it can be replaced by *-šu** in the quotative, to form the complex *-šu*ya**.

- (115) *ʔipiśniša* *toMtoMa*tih yana*ya*
ʔipiś-niś-a-Ø *toMtoMa*t-ih ya-na*ya-Ÿ*
 father-1POSS-ART-ABS cruel-VERY that-EMP-PHR.TERM
 'My father is really very cruel.'

- (116) *ʔocinic* *he'loʔop ya*šu*ya.*
ʔocin-ic *he'loʔop ya*šu*ya-Ÿ*
 hunger-ERG weak that-EMP.QT-PHR.TERM
 'It is said that he was really weak from hunger.'

There are three exclamatory postverbs, *ya*na*, *ka*na*, and *ma*na*, based on the deictics *ya** 'that', *ka** 'this', and *ma** 'that there'. The meaning of *ya*na* seems to be one of vague emphasis.

- (117) *kapa*ht ʔuwahlekup* *te*kuša,* *ca*wiNciya*
*kapa*ht ʔuwahlekup-Ø* *te*kuš-a-Ÿ* *ca*-wiNci-ya-Ø*
 chicken stewed-ABS 3PRS-want-INC-PHR.TERM deer-meat-ART-ABS

<i>ʔi·Minu·k</i>	<i>ya·na</i>
<i>ʔi·M-ʔi-ni-w-k</i>	<i>ya·na</i>
be.tired.of-3PT-1STAT-AUX-CONN EMP	
'I want stewed chicken. I am tired of deer meat!'	

The postverb *ka·na* denotes strong emphasis.

(118) <i>mâ·h. tama·Lho·Lq</i>	<i>toMa</i>
<i>mâ·h tama·L-ho·L-a-n</i>	<i>toM-a-Ø</i>
lo!	woman-virgin-ART-ABS man-ART-ABS

<i>katitani·ša·t</i>	<i>ka·na</i>
<i>kat-ʔi-tani·-Ø-ša·t</i>	<i>ka·na</i>
lack-PRT-DU-AUX-3DAT-DAT-NEG exclamatory	
'Lo! The two girls never lack a man!'	

The postverb *ma·na* seems to be the least emphatic of the three deictic-derived postverbs. It is quite rare in the data, and is often restricted to occurrence after the suffix *-yo·kon* in the combination *-yo·kon ma·na* 'perhaps; may'. The following example illustrates its independent use.

(119) <i>pološalne,</i>	<i>ʔeLhalawi·ta·N tama·L ʔawiti·</i>
<i>polo-š-al-ne</i>	<i>ʔeLhalawi·ta·N tama·L ʔawiti·Ø</i>
split-QT-AUX-MOD	identical woman two-ABS

<i>kacaššitankj</i>	<i>ma·na</i>
<i>ka-caš-ši-tan-ki-Y</i>	<i>ma·na</i>
PVB-stand-QT-DU-AUX-PHR.TERM exclamatory	
'When he split her, two identical woman stood there!'	

Two postverbs are found only in quoted speech. The particle *hû/hô* 'indeed' seems to have been a feature of conversation. The variation in the vowel is apparently nondistinctive, since the variant forms are often used very near to one another in a text. Example (94) shows the use of this postverb.

The other particle used only in quoted speech is *no·ka* 'certainly'; the verb that it follows must always have the connective suffix *-k*.

(120) <i>“ya·mištakiya</i>	<i>yawetik</i>	<i>no·ka;”</i>
<i>ya·-miš-ta-ki-ya-n</i>	<i>ya-weti-k</i>	<i>no·ka·</i>
PVB-stink-1PRS-AUX-ART-ABS 1PT-die-CONN certainly		

ʔayšū·k

ʔay-šī-w-k

think-QT-AUX-CONN

"I who stink here have certainly died," he thought.'

7. Morphology of dependent verbs. The only morphological process that applies to dependent verb roots is verb pluralization. The plurals of dependent verb stems are formed by reduplication and vowel harmony. The exact formulation of the rules depends on the phonological makeup of the stem. The following morphemes derive verb plurals: *-REDUP-* 'singular subject/plural object' or 'repeated action by singular subject'; *-ə-* 'plural subject/singular object' or 'action by plural subject'; *-ə·hə-* 'plural subject/plural object' or 'repeated action by plural subject'. The following table shows each type of plural for several stems:

TABLE 12. DEPENDENT VERB STEM PLURALIZATION

SIMPLE STEM (sg/sg)	REDUP (sg/pl)	-ə- (pl/sg)	-ə·hə- (pl/pl)	GLOSS
<i>ta·halʔiš</i>	<i>ta·ta·</i>	<i>taha-</i>	<i>ta·ha-</i>	'to beat'
<i>pok·helu-ʔiš</i>	<i>pokpok-</i>	<i>poko-</i>	<i>poko·ho-</i>	'to overcome'
<i>ti·M·hakiʔiš</i>	<i>ti·Mti·M-</i>	<i>ti·mi-</i>	<i>ti·mihi-</i>	'to get drunk'
<i>tem·hawʔiš</i>	<i>temtem-</i>	<i>temi-</i>	<i>temi·hi-</i>	'to gather'
<i>lakaW·hektišʔiš</i>	<i>lakaWlakaW-</i>	<i>lakawa-</i>	<i>lakawa·ha-</i>	'to slip'
<i>lakaw·hawʔiš</i>	<i>lakawlakaw-</i>	<i>lakawi-</i>	<i>lakawi·hi-</i>	'to talk about'

Several variations from the usual morphophonemic rules are to be noted: *-ə-* appears as *-i-* after a voiced resonant, and *-ə·hə-* surfaces as *-əhə-* when the verb root has a long vowel, apparently due to rhythmic shortening to avoid three successive long vowels in a verb root. The reduplicated verb root always implies that the action is one that is repeated; thus, certain verbs, such as *ʔeL·halʔiš* 'to see', do not form their singular subject/plural object roots by reduplication, but rather by suppletion. A few verbs of unusual root shape do not fully reduplicate the root; most notable are *ʔe·tka·haciʔiš*, 'to enter' (*ʔe·te·tka·haciʔiš* 'to enter repeatedly') and *ʔe·ple·halʔiš* 'to hear (sg/sg)' (*ʔe·ple·le·halʔiš* 'to hear (sg/pl)').

8. Verbalization. Verbs are infrequently derived from nouns. Both simple and compound nouns do occur in verbalizations, however, as

illustrated below. Note that such verbalized nouns appear only as dependent verbs.

SIMPLE NOUN	GLOSS	VERB	GLOSS
<i>lo·</i>	'body hair'	<i>lo·lo·-hakiʔiš</i>	'to be hairy'
COMPOUND NOUN	GLOSS	VERB	GLOSS
<i>toM·ši·L</i>	'old man'	<i>toMši·L·ha·ʔiš</i>	'to grow up'

These derived verbs participate in the morphological formations that other dependent verbs do.

DERIVED VERB	GLOSS	PLURAL
<i>lo·lo·-hakiʔiš</i>	'to be hairy'	<i>lo·ho·-hakiʔiš</i>
<i>toMši·L·ha·ʔiš</i>	'to grow up'	<i>toMši·li·ha·ʔiš</i>

9. Nominal morphology.

9.1. Components of the noun complex. Nominal morphology is entirely suffixing. There are eight ordered slots that follow the root, as illustrated by the following diagram.

ROOT–diminutive–augmentive–possessive–verbal diminutive–modifier–ergative–article–case

The diminutive is primarily nominal in use (although it has occasional verbal use [see examples (107) and (112)]). It consists of a suffix having the form *-nuh* after short vowels (121) and the *i*-epenthesized forms *-i·nuh* after consonants (122–123) and *-yi·nuh* after long vowels (124).

(121) <i>ʔaha</i>	'lake'	<i>ʔaha·nuh</i>	'little lake'
(122) <i>ʔo·ʔoš</i>	'owl'	<i>ʔo·ʔoš·i·nuh</i>	'little owl'
(123) <i>moM</i>	'bee'	<i>mo·mi·nuh</i>	'little bee'
(124) <i>ku·</i>	'mortar'	<i>ku·yi·nuh</i>	'little mortar'

This suffix deletes word-final *-h* (if the *h* is not a reflex of a voiceless resonant) (125), and if the root to which it is attached ends in *o*, progressive vowel harmony takes place and results in *-noh*. This suffix usually voices a root-final voiceless resonant. A small number

of nouns that end in *-uh* drop this segment before adding the diminutive suffix (126).

- (125) *na'šceh* 'Natchez' *na'šce'nuh* 'Natchez child'
 (126) *?ak^wenuh* 'opossum' *?ak^weni'nuh* 'little opossum'

The augmentive is formed by the addition of the suffix *-ši·L*, which is freely attached to any noun. It is not always a simple descriptive meaning 'big' but often makes derivatives of specialized meaning, as in examples (128) and (129).

- (127) *co·kop* 'bear' *co·kopši·L* 'large bear'
 (128) *?api·šoL* 'persimmon' *?api·šoLši·L* 'apple'
 (129) *šo·koL* 'bird' *šo·koLši·L* 'turkey'

9.2. Noun possession and other derivational processes. Unlike all neighboring American Indian languages, which show nominal possession with prefixes or preposed elements, possession of nouns in Natchez is shown by suffixes in the singular and impersonal participles in the dual and plural. Other differences include a lack of distinction between alienable and inalienable nouns, and the free use of nouns without possessive suffixes. However, the suffixes in the singular bear a marked resemblance to the object pronominal affixes of the verb, like neighboring languages.

The suffixes in the singular are *-niš* 'my', *-piš* 'your', and *-?iš* 'his, her, its'. Note that the suffix *-?iš* voices voiceless resonants to which it is attached, and that the glottal stop surfaces only in the proper environment.

TABLE 13. POSSESSION WITH SINGULAR POSSESSORS

<i>?ahal</i>	'arm'	<i>?ipiš</i>	'father'	<i>kitah</i>	'friend'
<i>?ahalniš</i>	'my arm'	<i>?ipišniš</i>	'my father'	<i>kitahniš</i>	'my friend'
<i>?ahalpiš</i>	'your arm'	<i>?ipišpiš</i>	'your father'	<i>kitahpiš</i>	'your friend'
<i>?ahal?iš</i>	'his arm'	<i>?ipišiš</i>	'his father'	<i>kitahiš</i>	'his friend'

Possession with the possessor being dual or plural in number is expressed by using dual and plural present restrictive clauses based

on the independent impersonal verb *ha·si'ʔiš* 'to have; lit., to exist for one', as shown in table 14.

TABLE 14. POSSESSION WITH DUAL AND PLURAL POSSESSORS

<i>kitah natani·ciya</i> ¹⁰	'our (du) friend'
<i>kitah napi·ciya</i>	'our (pl) friend'
<i>kitah natani·pšiya</i>	'your (du) friend'
<i>kitah napi·pšiya</i>	'your (pl) friend'
<i>kitah natani·šiya</i>	'their (du) friend'
<i>kitah napi·šiya</i>	'their (pl) friend'

Like other restrictive clauses, these always require the presence of the article *-ya*.

The verbal diminutive suffix, primarily used with nouns of verbal origin, has the form *-uh* and the variant *-iyuh*, and is no longer productive. The diminutive suffix *-uh* has the variant *-huh* after long vowels (131), and a relict form *-uW* in one word (132).

(130) <i>ca·puLc</i>	'spotted deer'	<i>ca·pulcuh</i>	'spotted fawn'
(131) <i>pupu·</i>	'fog'	<i>pupu·huh</i>	'a little foggy'
(132) <i>yešteh</i>	'grandmother'	<i>yeštuW</i>	'little grandmother'
(133) <i>witipkatupiš</i>	'nine'	<i>witipkatupišuh</i>	'just nine'

In addition to these nouns, *-uh* is used with certain kin terms, but only in the possessed form, after the possessive suffixes.

(134) <i>ʔipiš-niš</i>	'my father'	<i>ʔipiš-niš-uh</i>	'my paternal uncle'
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Finally, there is an archaic diminutive suffix *-iyuh*.

(135) <i>ʔokkinaW</i>	'forty'	<i>ʔokkinawiyuh</i>	'just forty'
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There are three suffixes that fall into the modifier slot, *-i·* 'decessive', *-a·nah* 'exclusive', and *-neke* 'comparative'. They all indicate a modification in the nature of the noun to which they are suffixed.

The decessive suffix *-i·* usually indicates that the person to

whose name the suffix is attached is dead, as in example (136). Note that it precedes the article, but follows possessive prefixes.

- (136) *ʔiNk^walnišⁱ·ya* *watihə*
ʔiNk^wal-niš-i^{}·ya-Ø* *watih-a-n*
 mother-1POSS-DECS-ART-ABS Watt-ART-ABS
- ʔiNk^walʔišⁱ·ya* *maško·kihakuš*
ʔiNk^wal-iš-i^{}·ya-Ø* *maško·kih-akuš*
 mother-3POSS-DECS-ART-ABS Muskogee-ALL

ka·piʔiky

ka^{}·pi-i-k^w-V*

PAST-go.PL-3PT-AUX-PHR.TERM

'My late mother, Watt, and his late mother, all went to Muskogee.'

Note, however, that the decessive does not always mean that the referent to which it is attached is dead, but at times that the referent is fundamentally changed from its previous state, as in example (137).

- (137) *ma·tama·Li·yə* *kinka·Wšihšal*
ma·tama·L-i^{}·ya-n* *kin-ka·W-šⁱ-hš-al-k*
 that woman-DECS-ART-ABS STH-strip-QT-RFL-AUX-CONN

wa·nupak

hupakšenektik

wa·N·ʔəp-a-k

hupak-še-n-ekti-k

deep-PRT-ART-LOC jump-QT-IMPF-AUX-CONN

'That former woman undressed, it is said, and was jumping into the depths.'

In this example, the 'former woman' was a woman changed into a man by Mud Dauber in order to save her from the Rolling Head.

The suffix *-(y)a·nah*, whose underlying form *-(y)a·naN* surfaces before the ergative-instrumental case suffix *-c*, usually indicates that there is nothing but the noun that it modifies, as, for example, *ʔek^weleya·nah* 'nothing but bones'. However, with two classes of nouns, its meaning is strikingly different. With body parts, *-(y)a·nah* means 'with N bare or uncovered'; with plant names it means 'grove or thicket of N'. The form and semantics are closely parallel to the nominal suffix *-nanna-n* in the Muskogean language Koasati, which behaves in an identical fashion, as is illustrated in the following examples.

NATCHEZ	KOASATI	
<i>hoko-ya'nah</i>	<i>sanco-nâanna-n</i>	'nothing but sand'
<i>wiNci-ya'nah</i>	<i>nipo-nâanna-n</i>	'lean meat (nothing but meat)'
<i>?a't-a'nah</i>	<i>iyyi-nâanna-n</i>	'barefoot'
<i>?iM-a'nah</i>	<i>a:pihci-nâanna-n</i>	'naked'
<i>col-a'nah</i>	<i>coyyi-nâanna-n</i>	'pine grove'
<i>mo'ka't-a'nah</i>	<i>cowahla-nâanna-n</i>	'cedar grove'

This similarity may be due to the fact that these two languages are distantly related.

The comparative is formed with the suffix *-nekeh*, and indicates that something is like the noun modified, as in (138).

- (138) *?impoka k" ašnekeh šamaca kunahk" nekeh*
?impok-a k" aš-nekeh šamac-a kunahk" nekeh
 ear-ART mussel-CMPR nose-ART pot-CMPR

pitaNca

pi-tan-ci-Y

2PT-DU-sit-PHR.TERM

'You two sit there with ears like mussels and noses like pots!'

The ergative/instrumental case is marked with the suffix *-c*. It has allomorphs based on *i*-epenthesis, *-ic* and *-yic*; the former occurs after consonants that disallow clusters with *c*, the latter occurs after short vowels. It marks the subjects of transitive verbs, as in example (139), instruments, as in (140), and inessive locatives (i.e., locations within an object), as in (141).

- (139) *?ak"enuhca hokšaL cohšaL*
?ak"enuh-c-a hok-ša-l-k coh-š-al-k
 opossum-ERG-ART skin-QT-AUX-CONN roast-QT-AUX-CONN

hešelak

kašukuk

hešel-a-k

ka-šu-ku-k

basket-ART-LOC put.in-QT-AUX-CONN

'Opossum skinned him, roasted him and put him in the pack basket.'

- (140) *tolohošenlu-šine, weykoLic*
tolo'-a-še-n-lu'-Ø-ši-ne weykoL-ic
 jab.PL/SG-QT-IMPF-AUX-3DAT-DAT-MOD web-ERG

kakipšanaLsik

ka-kip-ša-n-aL-Ø-ši-k

PVB-twist.SG/SG-QT-IMPF-AUX-3DAT-DAT-CONN

'When they were jabbing for him, he twisted it [the spear] up on them with a spiderweb.'

- (141) *cola·naNc* *šišahkuk*
col-a·naN-c *ši-šahku-k*
 pine-NOTHING.BUT-ERG QT-arrive-CONN
 'He arrived in the midst of a pine grove.'

There are two optional article suffixes, *-a / -ya* 'the' and *-e' / -ye'* 'that'. The first member of each pair is the post-consonantal form, and the second is the post-vocalic form. The article is added to a noun after its first mention in the text. The article *-e' / -ye'* 'that' is not used in a deictic sense, but rather to indicate that which was just mentioned or thought of; it could possibly be translated by English 'the aforesaid'. Note that *-e' / -ye'* cannot occur with case markers other than the ergative and the absolutive. The following is an example of articles used in the text.

- (19)– *ʔohoti·nuhan* *ʔolocenešukune,* *“šo·koLsi·Lə*
 (22) *ʔohoti·nuh-a-n* *ʔolocene-šu·ku-ne* *šo·koLši·L-a-n*
 wildcat-ART-ABS be.noon-QT-AUX-MOD turkey-ART-ABS

nokʔoyʔi·ʔə, *ʔayšu·k*
nok-ʔoy-ʔi·-ʔə-Y *ʔay-ši-w-k*
 PVB-cook-3PAST-AUX-MOD-PHR.TERM think-QT-AUX-CONN

kašišahkuk, *“šo·koLši·Lə· oyʔi yaʔ”*
ka-ši-šahku-k *šo·koLši·L-e·Ø ʔoy-ʔi·-yaʔ*
 PVB-QT-arrive-CONN turkey-ART-ABS cook-3PT-AUX-Q

hišu·ne

hi-ši-w-ne

say-QT-AUX-MOD

'At noon, the wildcat thought, "The turkey ought to be cooked," and he came arriving and said, "Is that turkey cooked?"'

There are six suffixes that have case functions. These are absolutive *-n*, locative *-k*, allative *-kuš*, directional *-štek*, comitative *-ʔa*, and vocative *-Ũ*. The discourse function case is *-o·k*, 'focus'.

The absolutive case has two realizations. The most common is *-Ø*, which is found with nouns that may or may not have the article.

Rarer is *-n*, which is found only with nouns with the article. The absolutive marker *-n* with the article *-a / -ya* is realized as either *-an / -yan* or *-ǵ / -yǵ*; after the article *-e' / -ye'*, *-n* is always realized as nasalization (i.e., *-ǣ / -yǣ*). The absolutive is used to mark the subject of an intransitive verb, as in example (142), and the nominal direct object of a transitive verb, as in (143).

- (142) *šo'ʔu·yan* *kapatašikuk*
šo'ʔi-w-a-n *ka-pat-a-ši-ku-k*
 search-PRT-AUX-ART-ABS PVB-arrive-PL-QT-AUX-CONN
 'The searchers arrived.'

- (143) *ʔahala* *to·kto·kšaL*
ʔahal-a-Ø *to·kto·k-ša-l-k*
 wing-ART-ABS chop.sg/pl-QT-AUX-CONN

toptopšukušik
toptop-šu-ku-Ø-ši-k
 cut.sg/pl-QT-AUX-3DAT-DAT-CONN
 'He chopped the wings and cut them off of him.'

The locative case is marked by the suffix *-k*, which must be preceded by the article suffix *-a/-ya*, even if the noun to which it is attached is not previously mentioned.

- (8)– *cu·hanatayak* *tek^wešukik* *copšuku·Nke'*
 (9) *cu·hanata-ya-k* *tek^we-šu-ki-k* *cop-šu-ku-·Nke'*
 hollow.log-ART-LOC sit.SG-QT-AUX-CONN pluck-QT-AUX-MOD
 'He sat on a hollow log, and the other kept on plucking him.'

- (144) *ma· ci·cihan* *ci·šiyak* *kahalašukuk*
ma· ci·ci'h-a-n *ci·ši-ya-k* *ka-hala-šu-ku-k*
 that baby-ART-ABS shade-ART-LOC PVB-lay.SG/SG-QT-AUX-CONN
 'He laid that baby on the ground in the shade.'

The allative case is marked by the suffix *-kuš*, and indicates that an action is taking place in the direction of the noun to which it is suffixed. Historically, this suffix may be a compound of *-k* 'locative' and an element *-uš*. This suffix also must be preceded by the article suffix *-a/-ya*.

- (10) *ʔiMa·nah* *ʔe·takuš* *ka·šuhti*
ʔiM-a·nah *ʔe·t-a-kuš* *ka·šu-hti-Ÿ*
 body-NOM.SUF house-ART-ALL PAST-QT-go.SG-PHR.TERM
 'He went naked to the house.'

The directional case *-štek*, like the other locative cases, must be preceded by the article. It means 'in a direction towards or away from the speaker'; (145) is an example.

- (145) *kin[?]eLšal* *wata[?]u[?]yaštek* *kašuci[?]Nke[?]*
kin[?]eL-š-al-k *wata[?]u[?]-ya-štek* *ka-šu-ci[?]-Nke[?]-Ÿ*
 STH-see-QT-AUX-CONN far-ART-DIR PVB-QT-lie.SG-MOD-PHR.TERM
 'He kept on lying on the ground and watching from far away.'

The comitative case is formed by the suffix *-[?]a* following the article. It expresses the idea of accompaniment, as opposed to the idea of instrument, which is expressed by the ergative case.

- (146) *k^weNa[?]huhak* *toMši[?]Lhohon[?]opa*
k^weN-a[?]huh-a-k *toMši[?]Lhohon[?]op-a-Ø*
 dawn-DIM-ART-LOC old.male.cannibal-ART-ABS

[?]aštipwa[?]puha[?]a *we[?]šukuk*
[?]aštipwa[?]puh-a-[?]a *we[?]-šu[?]-ku[?]-k*
 old.female.cannibal-ART-COM go.PL-QT-AUX-CONN
 'Just at dawn, it is said that old male cannibals were going about with old female cannibals.'

The locative cases are widely used to form adverbs of direction, such as *ka[?]k* 'here', locative of *ka[?]* 'this'; and *ma[?]ku[?]š* 'thither', allative of *ma[?]* 'that'.

A vocative case is formed by lengthening the vowel of the article suffix, and putting falling pitch on that vowel. Note that vocatives of kin terms are formed only with possessive prefixes. The length in the final syllable may be extended for rhetorical effect.

- (147) *“[?]o[?]oš we[?]lu[?]yâ[?]!* *ko š tušnowâ[?]?”*
[?]o[?]oš we[?]lu[?]-yâ[?] *ko š tr š-na-w-a[?]-Ÿ*
 owl talker-ART(VOC) what mean.SG-3PRS-AUX-INC-Q

hišampu[?]šik
hi-š-a-m-pi-w-Ø-ši-k
 say-QT-IMPV-PL.SJ-AUX-3DAT-DAT-CONN
 “O Speaker-to-Owls! What does it mean?,” they were saying to him.’

- (148) *ma[?] tamunuḡa* *“[?]ihk^walnišâ[?]!”*
ma[?] tamunuh-a-n *[?]ihk^wal-niš-â[?]*
 that boy-ART-ABS mother-1POSS-ART.VOC

*ka·kahišy·**ka·ka-hi-ši-w-Y*

PAST-PVB-say-QT-AUX-PHR.TERM

‘That boy called out, “O my mother!”’

Personal names that end in *-h* form their vocatives by lengthening the vowel that precedes the *-h* and putting falling pitch on it: *ce·kih* ‘Jack’, *ce·kî·h* ‘Oh, Jack!’; *mišuh* ‘Mishuh’, *mišû·h* ‘Oh, Mishuh!’. This is the only condition in which the vocative occurs without the article.

9.3. Noun derivation. There are two principal kinds of noun derivation in Natchez, nominalization and compounding.

Nominalization is an extremely productive process in Natchez, very much more so than verbalization. Nominal forms include infinitives and participles (including agentives), which can be formed on verbs inflected for first and second person, not just third or indefinite. These derived nouns can also act as modifiers of other nouns, both root and derived, and thus fill the function of English adjectives.

The verb or auxiliary root with the indefinite prefix *ha-/he-* can be used as a noun, either with no suffix, or more commonly with the infinitive suffix *-ʔiš*.

TABLE 15. ROOT NOMINALIZATIONS

BARE ROOT NOMINALIZATIONS			
ROOT		NOUN	
<i>-Nk^wal-</i>	‘give birth’	<i>hahk^wal</i>	‘child’
<i>ama--al-</i>	‘carry in the arms’	<i>ʔamahal</i>	‘grandchild’
<i>koyo--aki</i>	‘dance’	<i>koyohak</i>	‘dance’
<i>kolo--ešk^w-</i>	‘cover oneself’	<i>kolohešk^w</i>	‘hat’
NOMINALIZATIONS WITH INFINITIVE SUFFIX			
<i>-eli·pi-</i>	‘to wear’	<i>heli·piʔiš</i>	‘clothing’
<i>pe·L--al-</i>	‘to sweep (sg/sg)’	<i>pe·Lhalʔiš</i>	‘broom’

Nominalized verbs with the infinitive suffix can also have overt objects, such as *kin-* ‘indefinite nonhuman’, *tah-* ‘indefinite human’, or any other noun, as in examples (149)–(152).

(149) *-ušk^w-* ‘eat’ > *kinhaškuʔiš* ‘food’

- (150) *le'le--al-* 'burn repeatedly' > *tahle'le'nal'is̄* 'buckmoth caterpillar'
- (151) *-epənəl-* 'shoot' > *ʔohhepenel'is̄* 'marble (for the game)'
- (152) *kaw--elk^w-* 'dip (sg/sg)' > *kuNkawhelku'is̄* 'water dipper'

Participles are formed in two ways, by suffixation and by prefixation. It is possible for more than one kind of participle to be formed from a verb root, e.g., from *citak-haki'is̄* 'to cool' are derived *citakup* 'cold' and *citakal* 'cold'. Participles primarily function as modifiers (adjectives), which in Natchez are nominals; however, a few function simply as nouns.

The suffix *-kəp* is added to dependent verb stems to form participles that are mostly translatable by English adjectives. Variant forms are determined by vowel harmony. The most common form, *-kup*, is used with dependent verb stems whose last vowel is *e*, *a*, or *u*. After *i* the harmonic form *-kip* is used and after *o* the harmonic form *-kop* is used. This suffix is illustrated in examples (153)–(157).

- | | | | | |
|-------|-----------------------|---------------|------------------|-------------|
| (153) | <i>lemec-haki'is̄</i> | 'to be angry' | <i>lemec-kup</i> | 'angry' |
| (154) | <i>wa'p-haki'is̄</i> | 'to whoop' | <i>wa'p-kup</i> | 'whooping' |
| (155) | <i>lutuM-haki'is̄</i> | 'to be round' | <i>lutuM-kup</i> | 'coiled up' |
| (156) | <i>miš-haki'is̄</i> | 'to stink' | <i>miš-kip</i> | 'stinking' |
| (157) | <i>col-haki'is̄</i> | 'to drip' | <i>col-kop</i> | 'leaky' |

A number of nouns in the *-kəp* series seem to be derived from verbs. Among these derived nouns are *kaWkup* 'fox', *waškup* 'dog', *cimitkip* 'pack', *cokkop* 'blackbird' (cf. *coko-kop* 'black'), and *co'kop* 'bear'.

Another set of participles is formed by using *-ʔəp*, which surfaces as *-ʔup*, *-ʔap*, *-ʔip*, or *-ʔop*, depending on the nature of the vowel in the preceding syllable. This set appears to be more archaic because it is rarer than the *-kəp* series and because it has one additional harmonizing form, *-ʔəp*, which is used with stems whose last vowel is *-a*. However, *-ʔup* is also used after *a* as well as after *e* and *u* (comparable to the use of *-kup*). The form *-ʔip* is used after roots in *i*, and the form *-ʔop* is used after roots in *o*. Note that the glottal stop of the participial suffix appears when the verb root to which it is

attached ends in a vowel or a sonorant.

(158)	<i>ʔušt-hakiʔiš</i>	'to be sick'	<i>ʔušt-up</i>	'sick'
(159)	<i>wa·N-halʔiš</i>	'to deepen water'	<i>wa·n-up</i>	'deep (of water)'
(160)	<i>kaha-halʔiš</i>	'to clean sth.'	<i>kaha-ʔap/kaha·p/</i>	'white'
(161)	<i>k^weNc-hahšalʔiš</i>	'to be heavy'	<i>k^weNc-ip</i>	'heavy'
(162)	<i>molok-hakiʔiš</i>	'to rot'	<i>molok-op</i>	'rotten'

A common type of participle is formed through the used of the participial affix *ʔi-* attached to either an auxiliary root or independent verb. Note that for a few verb roots beginning in *a*, the sequence /ʔi-a/ becomes /ʔa/, with the glottal stop surfacing only in permitted environments. The following examples are participial forms for some independent verbs and auxiliary verbs.

TABLE 16. PARTICIPLES FORMED WITH *ʔi-*

INDEPENDENT VERBS				
INFINITIVE	ROOT		PARTICIPIAL FORM	
<i>hacokoʔiš</i>	/-cok ^w -/	'to know'	<i>ʔicoku</i>	'knowing'
<i>hahkušiʔiš</i>	/-hkuši-/	'to drink'	<i>ʔihkuši</i>	'drinking'
<i>hašahkuʔiš</i>	/-šahk ^w -/	'to arrive'	<i>ʔišahku</i>	'arriving'
<i>haNk^walʔiš</i>	/-Nk ^w al-/	'to give birth'	<i>ʔihk^wal</i>	'mother'
AUXILIARY VERBS				
<i>-ha·ʔiš</i>	/-·-/	-ʔi·		
<i>-hakiʔiš</i>	/-ki-/	-ʔiki		
<i>-halʔiš</i>	/-al-/	-ʔal		
<i>-hawʔiš</i>	/-w-/	-ʔu·		
<i>-helu·ʔiš</i>	/-lu·-/	-ʔilu·		
<i>-hetahnu·ʔiš</i>	/-tahnu·-/	-ʔitahnu·		
<i>-hewʔiš</i>	/-w-/	-ʔu·		

The following are examples of participles formed on auxiliary elements. Note that these words, like participles in *-kəp* and *-ʔəp*, can be translated with English adjectives or nouns.

(163) *lewe-ha·ʔiš* /lewe-·-/ 'stop' > *leweʔi·* 'stopping'

- (164) *keckec-haLšiʔiš* /*keckec--aLši-/* 'break on' > *keckecaLši* 'broken on'
- (165) *han-hawʔiš* /*han--w-/* 'do' > *hanʔu* 'doer; maker'
- (166) *han-hašuʔiš* /*han--šu-/* 'become' > *hanišu* 'made'
- (167) *kʷaL-heškuʔiš* /*kʷaL--škʷ-/* 'run' > *kʷališku* 'running; race'
- (168) *ʔuwah-hetiʔiš* /*ʔuwah--ti-/* 'get hot' > *ʔuwahiti* 'hot'

Nouns can also be derived by compounding noun + noun or noun + modifier. The following table lists examples of noun-noun, noun-modifier, and complex compounds.

TABLE 17. NOMINAL COMPOUNDS

NOUN-NOUN COMPOUNDS

COMPOUND

<i>puhšcu</i>	'ball stick'
<i>ʔihilo</i>	'beard; mustache'
<i>ʔuʔihi</i>	'interpreter'
<i>hakutamaL</i>	'Corn Woman'

ELEMENTS

<i>puhš</i>	'ball'	<i>cu</i>	'tree; stick; wood'
<i>ʔihi</i>	'mouth'	<i>lo</i>	'body hair'
<i>ʔu</i>	'road'	<i>ʔihi</i>	'mouth'
<i>haku</i>	'corn'	<i>tamaL</i>	'woman'

NOUN-MODIFIER COMPOUNDS

<i>šoʔkoLweLkup</i>	'mockingbird'	<	<i>šoʔkoL</i>	'bird'	<i>weLkup</i>	'talking'
<i>ʔompaʔkup</i>	'willow tree'	<	<i>ʔom</i>	'medicine'	<i>paʔkup</i>	'red'
<i>ʔeNcokokop</i>	'buffalo fish'	<	<i>ʔeN</i>	'fish'	<i>cokokop</i>	'black'
<i>cuʔcaltilu</i>	'plank'	<	<i>cu</i>	'wood'	<i>caltilu</i>	'sawn'

COMPLEX COMPOUNDS

waškupʔimpokʷata 'hound dog' < *waškup* 'dog' *ʔimpok* 'ear' *wata* 'long'¹¹
waškupšiLkʷališku 'race horse' < *waškup* 'dog' *-šiL* 'AUGMENTATIVE'
kʷališku 'running'

Natchez seems to have been extraordinarily resistant to borrowing from European languages and from other American Indian languages. Most of the borrowings are personal and tribal names. Table 18 gives a few identifiable loan words.

TABLE 18. LOAN WORDS

SOURCE	WORD		NATCHEZ	
Chitimacha	<i>kaŋʔ</i>	'hackberry'	<i>kaŋʔeh</i>	'huckleberry'
Chitimacha	<i>ʔoʃi</i>	'vulture'	<i>ʔoʃ</i>	'vulture'
Tunica	<i>hāhka</i>	'corn'	<i>haku</i>	'corn'
Tunica	<i>lālahki</i>	'wild goose'	<i>laʔlak</i>	'wild goose'
Creek	<i>maskoʔki</i>	'Creek Indian'	<i>maʃkoʔkeh</i>	'Creek Indian'
Creek	<i>alipaʔma</i>	'Alabama Indian'	<i>ʔalipaʔmah</i>	'Alabama Indian'
French	<i>café</i>	'coffee'	<i>kaʔWih</i>	'coffee'
English	<i>nænsiʔ</i>	'Nancy'	<i>naʔNcih</i>	'Nancy'
English	<i>ʔemə</i>	'Emma'	<i>iʔNmih</i>	'Emma'

10. Modifiers. Most modifiers are derived from participles (see section 9.3). There is one group of modifiers, the deictics (*kaʔ* 'this', *yaʔ* 'that (near)' and *maʔ* 'that (far)'), that is not derived. These act like nouns in that they precede the words which they modify, as opposed to adjectival modifiers, which follow. Compare the following noun-modifying-noun construction (169) with a deictic construction (170).

(169) *cuʔ ʔeʔ*
cuʔ ʔeʔ
 wood house
 'log house'

(170) *kaʔ watawataʔkupa*
kaʔ watawataʔ-kup-a
 this long.PL-PRT-ART
 'these long ones'

As most modifiers are clearly derived from verbs, their order parallels that of sentence syntax, in that the order noun + modifier is the same as subject + verb. This helps to explain the fact that Natchez (like the neighboring Muskogean languages) violates the proposed universal that modifiers precede the nouns which they modify in languages with verb-final word order. Examples (171) and (172) illustrate the use of modifiers; note that any case marking occurs only on the final element of the noun phrase, which is the modifier.

- (171) *kapa'ht ?uwalehkup te'kušə*
kapa'ht ?uwahlekup-Ø te'-kuš-a-Ÿ
 chicken stewed-ABS 1PRS-want-INC-PHR.TERM
 'I want stewed chicken.'
- (172) *ya potkop ka?ašup ka?epe'nakiyakuš*
ya potkop ka?ašup-Ø ka-?epe-na-ki-ya-kuš
 that mountain blue-ABS PVB-lie.flat-3PRS-AUX-ART-ALL
- ə ?ipita't ma'pa'-yɨ.*
a-Ÿ ?i-pit-a't ma'-pa'-a-Ÿ
 be.aor-PHR.TERM PRT-go.about-NEG FUT-2OPT-be-PHR.TERM
 'Do not go about there where that blue mountain is lying!'

Adverbial modifiers are much less common and precede the modified verb, as in (173).

- (173) *ka?a'sahkune, waLte?i'hat*
ka-?a-šahku-ne waLte?i'-ha't
 PVB-3OPT-arrive-MOD long.time-NEG

nanolehtə
na-nol-eh-t-e-Ÿ
 3prs-sleep-FUT-FUT.PRF-PHR.TERM
 'When he arrives, soon afterward he will fall asleep.'

Comparison of modifiers seems not to have existed in Natchez. To intensify a modifier, the suffix *-ih* 'very' is added (*citakup* 'cold'; *citakupih* 'very cold').¹² A form similar to a comparative is made with the preverb *cuš*, which usually means 'after' (*lalkup* 'strong'; *cuš lalkup* 'stronger').

Postpositions are modifiers that indicate the location of a noun, such as *?aha* 'on top of', *?ino* 'under', *hoštek* 'inside', *la'wal* 'near', and so forth. Syntactically they behave exactly like adjectives, except that being locatives, they are not inflected for case.

- (174) *cu'ya ?ino petšaLšik*
cu'-ya ?ino pet-š-aLši-k
 tree-ART under make.bed-QT-AUX-CONN
 'He made a bed for himself under the tree.'
- (175) *ta'cen ?u'ya la'wal po'cehet lešukuk*
ta'cen ?u'-ya la'wal po'cehet-Ø le-šu-ku-k
 somewhere road-ART near store-ABS sit-QT-AUX-CONN
 'Somewhere near the road stood a store.'

11. Interjections. Interjections form a separate class of words, that of particles. There are two classes of interjections, the ones that represent sounds, and the ones that represent phrases. Note the frequent appearance of falling pitch.

INTERJECTION

<i>haʔî</i>	'all right!'
<i>hi'hâ</i>	'damn' ¹³
<i>ho'h</i>	'okay!'
<i>mâ'h</i>	'look!' ¹⁴
<i>ma'nanê'ta</i>	'I declare!'
<i>mina'a</i>	'let's see!'
<i>miyak</i>	'ouch!'
<i>ta'Y</i>	'huh?'
<i>ʔintah</i>	'let's go!'

12. Syntax. The major features of Natchez syntax can be covered in a discussion of stative verbs, the use of the ergative and absolutive cases, the formation of restrictive clauses, and the system of reference indexing, and topicalization. An unusual system of negation helps complete the picture.

12.1. Stative verbs. Stative verbs all refer to actions that are not controlled by their translation subjects. These verbs are uncommon, in contrast to stative verbs in the adjacent Muskogean languages. There are two kinds of stative verbs, which Haas called direct impersonal verbs and indirect impersonal verbs. Direct impersonal verbs index the translation subject with the affixes that usually indicate direct objects; indirect impersonal verbs index the translation subjects with the affixes that usually indicate datives and benefactives. In both cases the verb is inflected for a third person subject.

12.1.1. Direct impersonal verbs. All direct impersonal verbs require the auxiliary *-hewʔiš*. Direct impersonal verbs are divided into two categories of inherent aspect, completive and incompletive. Completive indirect impersonal verbs use a third person past prefix to indicate a present tense, while incompletive direct impersonal verbs use a third person present tense prefix for the same usage. Table 19 gives comparative paradigms of both types of direct

impersonal verb; the completive is illustrated by *?uNcnus-hew?iš* 'to forget'; the incomplete is illustrated by *laW-hew?iš* 'to shiver'.

TABLE 19. INFLECTION OF DIRECT IMPERSONAL VERBS

PERSON	COMPLETIVE DIRECT IMPERSONAL	INCOMPLETE DIRECT IMPERSONAL
1	<i>?uNcnuš-inu?a'</i>	<i>laW-nenu?a'</i>
2	<i>?uNcnuš-ipu?a'</i>	<i>laW-nepu?a'</i>
3	<i>?uNcnuš-u?a'</i>	<i>laW-newa'</i>
ldu	<i>?uNcnuš-iteNnu?a'</i>	<i>laW-neteNnu?a'</i>
2du	<i>?uNcnuš-iteNpu?a'</i>	<i>laW-neteMpu?a'</i>
3du	<i>?uNcnuš-itenu?a'</i>	<i>laW-netenu?a'</i>
lpl	<i>?uNcnušu-?inu?a'</i>	<i>lawa-nenu?a'</i>
2pl	<i>?uNcnušu-?ipu?a'</i>	<i>lawa-nepu?a'</i>
3pl	<i>?uNcnušu-?u?a'</i>	<i>lawa-newa'</i>

While the incomplete direct impersonal verbs use distinct tense-aspect prefixes for present, past, and optative (177), completive impersonal verbs use only past and optative prefixes (176).

(176)	<i>šihinu?a'</i>	<i>/ših-?i-ni-w-a'/</i>	'I am full of food'
	<i>kašihinu'</i>	<i>/ka-ših-?i-ni-w'/</i>	'I was full of food'
	<i>mašihe'nu'</i>	<i>/ma-ših-e'-ni-w'/</i>	'I will be full of food'
(177)	<i>laW-nenu?a'</i>	<i>/laW-ne-ni-w-a'/</i>	'I shiver'
	<i>ka'laWinu'</i>	<i>/ka'-laW-?i-ni-w'/</i>	'I shivered'
	<i>ma'laWe'nu'</i>	<i>/ma'-laW-e'-ni-w'/</i>	'I will shiver'

This split is semantically driven by the inherent aspect of the verb; for example, one has to have gotten full (completive) to say 'I am full', while one can still be in the process of shivering (incomplete) while saying 'I shiver'.

12.1.2. Indirect impersonal verbs. In contrast to direct impersonal verbs, these verbs are formed with a number of auxiliary elements, all of which contain the dative/benefactive affix *-ši-*. Also in contrast to direct impersonals, only two indirect impersonal verbs have completive inflection. The following are the paradigms of completive indirect impersonal *kat-ha'šiši?iš* 'to fail' and the incomplete indirect impersonal *neš-ha'si?iš* 'to be unable'.

TABLE 20. INFLECTION OF INDIRECT IMPERSONAL VERBS

PERSON	COMPLETIVE INDIRECT IMPERSONAL	INCOMPLETIVE INDIRECT IMPERSONAL
1	<i>kat-i'cə'</i>	<i>neš-na'cə'</i>
2	<i>kat-i'pšə'</i>	<i>neš-na'pišə'</i>
3	<i>kat-i'šə'</i>	<i>neš-na'šə'</i>
ldu	<i>kat-itani'cə'</i>	<i>neš-natani'cə'</i>
2du	<i>kat-itani'pšə'</i>	<i>neš-natani'pišə'</i>
3du	<i>kat-itani'šə'</i>	<i>neš-natani'šə'</i>
lpl	<i>kata-ʔi'cə'</i>	<i>neše-na'cə'</i>
2pl	<i>kata-ʔi'pšə'</i>	<i>neše-na'pišə'</i>
3pl	<i>kata-ʔi'šə'</i>	<i>neše-na'šə'</i>

Like incomplete direct impersonal verbs, the incomplete indirect impersonal verbs use separate tense-aspect prefixes for present, past, and optative. Completive indirect impersonal verbs, like completive direct impersonal verbs, have only past and optative.

- (178) *kati'ca'* /*kat-ʔi- -t-š-a'*/ 'I fail'
ka'kati'ci /*ka'-kat-ʔi- -t-ši'*/ 'I failed'
ma'kata'yi'ci /*ma'-kat-a - -t-ši'*/ 'I will fail'
- (179) *lakaWnektica'* /*lakaW-ne-kti-t-š-a'*/ 'I slip'
ka'lakaWiktica' /*ka'-lakaW-ʔi-kti-t-š-a'*/ 'I slipped'
ma'lakaWe'ktici /*ma'-lakaW-e-kti-t-ši'*/ 'I will slip'

12.1.3. Transitive stative verbs. There are very few examples of transitive stative verbs, but two in the corpus use the absolutive on the nominal adjunct, even though in both cases the verb structure implies that the nominal adjunct is the subject. Example (180) is the direct impersonal *ʔi'M-hewʔiš* 'to be tired of'.

- (180) *ca'ya* *ʔi'Minu'ʔa.*
ca'-ya-Ø *ʔi'M-ʔi-ni-w-a.*
 deer-ART-ABS be.tired.of-3PAST-1OBJ-AUX-MOD
 'I am tired of deer meat.'

One would expect, since the translation subject, 'I', is indexed on the verb with the object affix *-ni-*, that the translation object, indexed with the agent affix *ʔi-* would require a noun adjunct in the ergative case, and thus be equivalent to the English 'deer meat tires me'. This

does not occur, which implies that semantics takes precedence over morphological structure, since deer meat under no natural circumstances can be an actor.

In example (181), the transitive stative verb is the indirect impersonal *kat-ha'š'i'is̃* 'to lack something'.

- (181) *mā'h. tama'Lho'Lq* *toMa*
mā'h tama'L-ho'L-a-n *toM-a-Ø*
 lo! woman-virgin-ART-ABS man-ART-ABS
- katitani'š'a't* *ka'na*
kat-ʔi-tani'-Ø-š-a't *ka'na*
 lack-PRT-DU-AUX-3DAT-DAT-NEG exclamatory
 'Lo! The two girls never lack a man!'

In this example, both nominal phrases are marked with the absolutive case. The literal meaning of the verb is 'he is lacking to the two of them', and although 'man' is an argument that could be an actor, in this case he has no control over the action of the verb, and thus the noun cannot be marked with the ergative case.

12.2. Ergative/absolutive case. The absolutive case is used to mark the nominal subjects of intransitive verbs, as in example (142) above; it is also used for the patients of transitive verbs, as in example (143). The ergative is used to mark the nominal agent of a transitive verb, as in example (139) above. The ergative and absolutive occur together when agent and patient nominals cooccur in a sentence, as (182).

- (182) *ʔacpopoh ʔawiti'yic waškupši'L* *ci'pšitankik*
ʔacpopoh ʔawiti'-yic waškupši'L-Ø *ci'p-ši-tan-ki-k*
 Irishman two-ERG horse-ABS buy-QT-DU-AUX-CONN
 'Two Irishmen bought a horse, and . . .'

There are a number of semantic conditions on the occurrence of the ergative and absolutive. The ergative is used with agents of transitive verbs that are derived from intransitives with the dative-benefactive affix *-š'i-*, as in (183).

- (183) *ša'šiyica* *ʔinokološukušik*
ša'š'i-yic-a *ʔinokolo-šu-ku-š'i-k*
 perch-ERG-ART sing-QT-AUX-DAT-CONN
 'Perch sang for him, and . . .'

The ergative is used when the first of a series of verbs is transitive, even if the following verbs are intransitive.

- (184) *wi'ta'Nc* *ʔamašaL* *ka'šukšj*
wi'ta'N-c *ʔama-ša-l-k* *ka'-šu-kši-Y*
 one-ERG carry-QT-AUX-CONN PAST-QT-go.du-PHR.TERM
 'One of them carried it and the two of them went off.'¹⁵

On the other hand, the absolutive is used if the first of a series of verbs is intransitive, even if followed by a transitive.

- (185) *ek^weleya* *katek^we'šukuk*
ʔek^wele-ya-Ø *ka-tek^we-ə-šu-ku-k*
 bones-ART-ABS PVB-get.up-PL-QT-AUX-CONN

ʔinokolo'ho'šukušik

ʔinokolo-ə'hə-šu-ku-Ø-ši-k

sing-PL-QT-AUX-3DAT-DAT-CONN

'The bones got up and they sang for them' [cf. 183 above]

The absolutive is used for the agent of a transitive verb if there is an incorporated object, either one of the indefinite object prefixes or a full noun.

- (186) *toM wi'ta'* *kinki-ššilu'k* *šuh tik*
toM wi'ta'-Ø *kin-ki-š-ši-lu-k* *šu-hti-k*
 man one-ABS STH-stalk-QT-AUX-CONN QT-go-CONN
 'One man was going and he was stalking things, and . . .'

- (187) *ʔo'ʔo-š* *ʔeNšo'šu'k*
ʔo'ʔo-š-Ø *ʔeN-šo'-ši-w-k*
 owl-ABS fish-hunt-QT-AUX-CONN
 'An owl was fish-hunting, and . . .'

12.3. Constituent orders. Using the work of Dixon (1979) as a theoretical basis, the most common constituent orders are SV (intransitive subject-verb), AV (transitive subject-verb), OV (direct object-verb), and AOV (transitive subject-direct object-verb). However, OAV (direct object-transitive subject-verb) occurs occasionally; this is a marked construction with focus on the object, and is illustrated in the following example.

- (188) *ʔawitiʔ atawahc kaʔuʔwatašalgʔ*
ʔawitiʔ-Ø ʔatawah-c kaʔ-ʔuʔwat-ə-ša-l-aʔ-Y
 two-ABS wolf-ERG PAST-kill-PL/SG-QT-AUX-MOD-PHR.TERM
 'It is said that wolves killed the two of them.'

An even rarer constituent order is AVO (transitive subject-verb-direct object), which again is a marked construction, with focus now on the verb.

- (189) *ceʔkihca kaʔtoyšyʔ tamaʔLə*
ceʔkih-c-a ka-toy-ši-w-Y tamaʔL-a-n
 Jack-ERG-ART PAST-win-QT-AUX-PHR.TERM woman-ART-ABS
 'Jack won the girl.'

12.4. Restrictive clauses. Restrictive clauses, which can be translated by English relative clauses, are formed by nominalizing a verb phrase with the article *-a/-ya*. Note that relative clauses as such do not exist in Natchez, which lacks a relative pronoun or any other relativizing morphology. A restrictive clause is formed only if the clause is descriptive, not resultative, as illustrated in example (190), a resultative clause, versus example (191), which is descriptive.

- (190) *waškup taʔyaL kʷaLiškʷy.*
waškup-Ø taʔya-l-k kʷaL-ʔi-škʷ-aʔ-Y
 dog-ABS hit-1PT-AUX-CONN run.SG-3PT-AUX-INC-PHR.TERM
 'The dog I hit ran away, lit. I hit a dog and it ran.'

- (191) *waškup taʔyalʔiʔya*
waškup-Ø taʔya-l-ʔiʔya
 dog-ABS hit-1PT-AUX-CMPL-ART

nokmaʔkʷaLiškʷy
nok-maʔ-kʷaL-ʔi-škʷ-Y
 PVB-ARTRE-run.SG-3PT-AUX-PHR.TERM
 'The dog that I hit ran away.'

- (192) *tamaʔL ʔicokoL paʔLhal, ʔoloyic paʔhawʔiš*
tamaʔL ʔicokoL paʔL-hal ʔolo-yic paʔhawʔiš
 woman head.back break.off-PRT turtle-ERG necklace

hanʔuʔiʔya, šoʔkoLšičL colʔiš ə.
hanʔi-w-ʔiʔya šoʔkoLšičL col-ʔiš aʔ-Y
 make-3PT-AUX-CMPL-ART turkey wattle-3POSS be.aor-PHR.TERM
 'The broken off back of a woman's head, which Turtle had made into a necklace, is Turkey's wattle.'

Note that plurality of object is not marked in a restrictive clause.

- (193) *waškup ta·yalʔi·ya*
waškup-Ø ta·ya-l·ʔi·ya
 dog-ABS hit-1PT-AUX-CMPL-ART
- nokma·hekeLikā*
nok-ma·hekeL·ʔi·ki·Y
 PVB-ARTRE-run.PL-3PT-AUX-PHR.TERM
 'The dogs that I hit ran away.'¹⁶

Restrictive clauses with locative function are produced by nominalizing a verb phrase with one of the locative case suffixes.

- (194) *hamaN ʔišiwata·ya netukši·yakuš ka·šuhtā*
hamaN ʔišiwata·ya ne-tukši·-ya-kuš ka·šu-hti·Y
 again panther-ART 3PRS-dwell.du-ART-ALL PAST-QT-go.SG-PHR.TERM
 'Again he went towards where the two panthers dwelt.'

A restrictive clause with agentive function is formed by the nominalization of a verb phrase with the ergative case.

- (195) *ʔa·Nš yapitiʔi·yic ya· pa·towā.*
ʔa·Nš ya-piti·ʔi·yic ya·Ø pa·ta-w-a·Y
 war 1PT-go.about-CMPL-ERG that-ABS wear.on.neck-AUX-PHR.TERM
 'I who have gone to war wear that around my neck.'

12.5. Reference tracking. Natchez employs two suffixes in a simple system of reference tracking. The first, *-k*, indicates that one phrase has ended and another is to follow. The second, *-Y*, indicates that a sentence, which can be made up of many phrases, has come to an end, that there may or may not be a further sentence, and that if there is, there will be a shift in tone or focus from the previous sentence. The following is an example of a complex sentence, embedded in a further complex sentence as quoted speech.

- (23)– *“ma·na toMpišica, ʔcopapkuk*
 (26) *ma·na toM-piš-ic-a cop-a-p-ku-k*
 that.one man-2POSS-ERG-ART pluck-1OPT-2OBJ-AUX-CONN
- ʔe·takuš pa·htik, tama·Lnišica hikaL*
ʔe·t-a-kuš pa·hti-k tama·L-niš-ic-a hikaL-Ø
 house-ART-ALL 2OPT-go-CONN woman-1POSS-ERG-ART corn.drink-ABS

- (198) *nuhka'wah* *ʔiyo'* *ka'suhti'* *makte*
nuhka'wah *ʔiyo'* *ka'-šu-hti-Ÿ* *ma'kte*
 silently elsewhere PAST-QT-GO.SG-PHR.TERM then.after

ce'kihan *ka'kinšušky*
ce'kih-a-n *ka'-kin-šu-šk^w-Ÿ*
 Jack-ART-ABS PAST-STH-QT-EAT-PHR.TERM

'He silently went elsewhere. Then after that, Jack ate.'

- (199) *ma'kup a'*, *ka' hiku'p a'*, *toM na'sceh*
ma'kup a' *ka' hiku'p a'* *toM na'sceh*
 well.then be.AOR here now be.AOR person Natchez

ta'ha, *takcu'nuhneke* *yukutakik.* *ma'kup*
ta'-ʔa *takcu'nuh-neke-n* *yuku-ta-ki-k* *ma'kup*
 1PRS-be-PROG I.alone-CMPR-ABS stand-1PRS-AUX-CONN well.then

ə', *wenaki* *ka' na'*
a'-Ÿ *we-na-ki-Ø* *ka' na'*
 be.AOR-PHR.TERM go.about.PL-3PRS-AUX-ABS here 3PRS-be

we'Lhaki'sə *ʔipicok^wa't.* *ma'kup ə'*
we'Lhaki'ʔiš-a-n *ʔi-pi-cok^w-a't* *ma'kup a'-Ÿ*
 language-ART-ABS PRT-PL.SJ-know-NEG well.then be.AOR-PHR.TERM

ʔico'k *kuNlata'ʔu'k* *ʔitokq.*
ʔic-o'k *kuNlata'-ʔi-w-k* *ʔi-toko-Ÿ*
 blood-FOC fade-3PT-AUX-CONN 3PT-finish-PHR.TERM

'Well then, here now it is, I who am a Natchez person, it is as if I stand alone. Well then, there are others around here who do not know the language. Well then, as for the blood, it has faded and finished.'

12.6. Topicalization. Topicalization of a sentential element is realized by means of the suffix *-o'k*, which is suffixed at the end of the word to be topicalized. This suffix is used to highlight any particular argument in focus at the time. Example (200) illustrates the use of *-o'k* with a verbal argument, examples (201) and (202) with a nominal argument in agentive and patient function.

- (200) *šene'penelo'k,* *hal'ʔiš* *mayke'ha't šu'k*
še-ne'-pənəl-o'k *ha-al-ʔiš* *mayke'ha't šu'-k*
 QT-IMPF-PL.SUBJ-shoot-FOC INDF-hit-INF be.unable QT-be-CONN
 'Even though they were shooting at it, they were unable to hit it.'

- (201) *kunahalo•k* *ʔawiti•yic hapšitanu•k*
kunahal-Ø-o•k *ʔawiti•-yic hap-ši-tani-w-k*
 gun-ABS-FOC two-ERG bite-QT-DU-AUX-CONN

kawete•tšitanilə•

ka-wete•t-ši-tani-l-a•Y

PVB-take.out-QT-DU-AUX-INC-PHR.TERM

'As for the gun, two of them bit it and took it out there.'

- (202) *toMico•k* *ʔele•he•-ʔi-lu-ha•t*
toM-ic-o•k *ʔel-ə•hə•-ʔi-lu-ha•t*
 person-ERG-FOC see.PL/PL-PRT-AUX-NEG
 'As for the people, they did not see them.'

The suffix *-o•k* can also be used on modifiers; for example, the verbal modifier *witta•wit* 'always' usually occurs with this suffix in the complex *witta•wito•k*.

12.7. Negation. The most common verbal negatives are those formed with negative participles inflected with forms of the verb *ha•ʔiš* 'to be'. Negative participles are formed by suffixing *-ha•t* to the participle. The negative suffix has several allomorphs that depend on the phonological shape of the participle to which they are attached. The form *-ha•t* occurs after long vowels and resonants. The *h* fuses with a resonant to produce a devoiced resonant. After consonants the form *-a•t* occurs. Example (203) contains negative forms of participles based on the *-kəp* and *-ʔəp* series.

- (203) *weLkup* 'talking' > *weLkupa•t* 'not talking'
hayaʔap 'yellow-green' > *hayaʔapa•t* 'not yellow-green'

Example (204) includes negative forms of independent verb participles and example (205) negative forms of auxiliary verb participles.

- (204) *ʔihkuši* 'drinking' > *ʔihkuša•t* 'not drinking'
ʔišahku /*ʔišahkʷ*/ 'arriving' > *ʔišahkʷa•t* 'not arriving'
ʔi•wici 'telling a story' > *ʔi•wica•t* 'not telling a story'

- (205) *leweʔi•* 'stopping' > *leweʔi•ha•t* 'not stopping'
ʔayu• 'thinking' > *ʔayu•ha•t* 'not thinking'
ʔeLal 'seeing' > *ʔeLaLa•t* 'not seeing'
ʔoyʔi• 'cooked' > *ʔoyʔi•ha•t* 'not cooked'

The form *-ya't* will be found very rarely after a long vowel, as in (206).

- (206) *lata'si'* 'all' > *lata'si'ya't* 'not all'
ho'ca' 'honest' > *ho'ca'ya't* 'dishonest'

The negative participles so far discussed have been impersonal participles, i.e., they are not directly inflected for subject or object. However, personal negative participles, those inflected for subject and object, though uncommon, occur with some regularity, and seem to be obligatory with direct impersonal verbs.

PERSONAL

NEGATIVE PARTICIPLE

MORPHEMIC ANALYSIS

<i>?itankuca't</i>	<i>?i-tan-ku-t-š-a't</i>	'two not giving to me'
<i>?ipukuca't</i>	<i>?i-pu-ku-t-š-a't</i>	'many not giving to me'
<i>ta'ipiLa't</i>	<i>ta'-?i-pi-l-ha't</i>	'not hitting you'
<i>ta'itaNniLa't</i>	<i>ta'-?i-tan-ni-l-ha't</i>	'two not hitting me'
<i>laWinu'ha't</i>	<i>laW-?i-ni-w-ha't</i>	'me not shivering'
<i>šihiteNnu-ha't</i>	<i>sih-?i-ten-ni-w-ha't</i>	'for us two not to be full'

The following are examples of negative constructions in context.

- (207) *?oy?i'ha't* *na'*
?oy-?i'-ha't *na'*
 cooked-PRT-AUX-NEG 3PRS-be
 'It is not cooked.'
- (208) *?i'wica't* *pana'ehtę'*
?i'-wic-a't *pana'-eht-e'-Y*
 PRT-tell.story-NEG 2PRS-be-FUT.COMP-PHR.TERM
 'You must not tell the story.'
- (209) *kakišk^wa't* *pa'ya*
kak-?i-š-k^w-a't *pa'- -Y*
 stick.out-PRT-RFL-AUX-NEG 2OPT-be-PHR.TERM
 'Do not stick yourself out!'
- (210) *maLaLpiša't* *ma'apa*
maL-?i-al-pi-š-a't *ma'-?a-pi--Y*
 bother-PRT-AUX-2DAT-DAT-NEG FUT-1OPT-PL.SUBJ-be-PHR.TERM
 'We will not bother you.'

- (211) *ma·ku·ha·t* *ʔa*
ma·k·ʔi-w·ha·t *ʔi·-·Y*
 say.so-PRT-AUX-NEG 3PT-be-PHR.TERM
 'He did not say so.'

The negative suffix *-a·t/-ha·t* may also be attached to a root noun, in which case the complex means 'it is not a N', as in the following example.

- (212) *ma· waškupica*, "*tama·La·t kaWkupa*,"
ma· waškup-ic-a tama·L-a·t kaWkup-a
 that dog-ERG-ART woman-NEG fox-ART

ka·hišū·ši *taʔacpaca*
ka·hi·ši-w-Ø-š-i taʔacpac-a-Ø
 PAST-say-QT-AUX-3DAT-DAT-INC man-ART-ABS

'That dog said to the man, "She is not a woman, she is a fox."'

13. Historical note. Although speakers of Natchez underwent tremendous social disruption, from the complete destruction of their traditional society in the early eighteenth century to the removal of their various communities to Oklahoma in the nineteenth century, the language appears essentially unchanged from what was recorded by the French in the eighteenth century. The following table of Natchez words and phrases has been assembled from Dumont de Montigny (1753) and Le Page du Pratz (1758).

TABLE 21. EIGHTEENTH-CENTURY NATCHEZ

FRENCH ORTHOGRAPHY		PRESENT ORTHOGRAPHY	
Oüa	'fire'	<i>ʔuwah</i>	'fire'
Oüa-Chill	'sun'	<i>ʔuwahši·L</i>	'sun'
Oüachill-Tamaill	'female Sun'	<i>ʔuwahši·L tama·L</i>	'sun woman'
Oüachill-Liquip	'great Sun'	<i>ʔuwahši·L li·kip</i>	'great sun'
Miche-Miche-Quipy	'Stinkards'	<i>mišmiš-kip-ih</i>	'really stinky (pl)'
coyocop	'spirit'	<i>taN-koyokop</i>	'powerful supernatural'
coyocopchill	'God'	<i>koyokopši·L</i>	(not used) ¹⁷
ellpail	'see!'	<i>e·L-pa·-L</i>	'see thou, and . . . !'
pachcou	'eat!'	<i>pa·-šku</i>	'eat thou!'
cabanacte	'it is you'	<i>ka-pana-hṭa</i>	'you have come'
petchi	'sit down!'	<i>pe·-ca</i>	'sit thou!'
tallabe	'so many'	<i>talū·ʔi·</i>	'many'
oudla	'serpent'	<i>ʔu·lah</i>	'snake'

Note in particular the presence of voiceless resonants, the distinction between independent and dependent verbs, the distinction between present tense and optative mode, the devoicing of a final lateral when followed by the connective suffix *-k*, which then disappears, the use of preverbs, the augmentive suffix *-ši·L*, and the participial suffix *-kəp*. All of these indicate that the language changed very little between the early eighteenth and the early twentieth centuries. However, Le Page du Pratz reports that there was a special register of speech for use with the higher social classes and provides only three examples that are difficult to interpret. Relics may still remain in verbal synonyms in which one is a dependent verb (such as *ci·š·helu·ʔiš* 'to urinate') and the other an independent verb (*hešpu·kulʔiš* 'to urinate').

14. Further reading. Natchez has been little studied. Aside from the works already mentioned in this chapter, three other nineteenth-century works pertain to the language: Daniel Garrison Brinton's (1873) article "On the Language of Natchez"; Albert Gallatin's (1848) monograph "Hale's Indians of North-West America, and Vocabularies of North America, with an Introduction"; and Albert Pike's (1861) "Vocabularies of the Creek or Muscogee, Uchee, Hitchita, Natchez, Co-os-au-da or Co-as-sat-te, Alabama, and Shawnee," which I have not seen. Two other twentieth-century works that discuss the Natchez language are Floyd G. Lounsbury's (1946) article "Stray Number Systems among Certain Indian Tribes" and John R. Swanton's (1924) article "The Muskogean Connection of the Natchez Language."

Notes

Acknowledgements. The late Dr. Haas gave me copies of her fieldnotes and other manuscript material on the language as well as the grammatical information that she compiled for her field methods classes at the University of California, Berkeley in the 1970s and 1980s. Without her support and her years of labor, this sketch would have been impossible.

Unique Abbreviations. The following abbreviations are used: CMPR = comparative nominal suffix; CONN = connective suffix *-k*; DU = dual; NEW.TOP = new topic; NOTHING = negative incorporated noun; PHR.TERM = phrase-terminal marker; SO. = human or anthropomorphized incorporated noun; STH = nonhuman incorporated noun.

1. From information gathered by Haas, there were actually more speakers at that time. Swanton did not count Nancy Raven's then thirteen-year-old son, Adam Levi, even though he spoke the language. Adam Levi died of tuberculosis in 1913. In addition, Haas found a semispeaker in 1936 among the Cherokee, so there may have been elderly speakers there in Swanton's time.
2. Note that this word is a loan from Chitimacha *kam?* 'hackberry' with the suffix *-eh* that occurs on borrowings from other Indian languages.
3. Final /u/ is rare only in underived words. It is common in the two nominalizations of the auxiliary *-haku?iš* *-haku* and *-iku*, which are underlyingly /-hak^w/ and /-ik^w/.
4. Note that when /ə/ is added to a long vowel, length is converted to *h*: *ta·* 'hit (sg)' *taha·* 'hit (pl) /ta·-ə-/.
5. It seems that independent verbs historically were vowel-initial roots, but in most cases the original vowel of the root has been absorbed by the tense-aspect prefixes, and appears only in participles and rare nominalizations.
6. This form is an extrapolation from a few inflected examples in the corpus.
7. There was formerly a causative affix *-ahci-*; outside of the causative auxiliaries, it is found in the causative of the independent verb *helekšən?iš* 'to breathe'; *helekšən-ahci-?iš* 'to save someone; lit., to cause to breathe'.
8. In addition to the indefinite incorporated nouns listed here, a number of independent nouns can be incorporated in this position. See Haas (1982) for a complete discussion.
9. Haas (1979a) has treated subject/tense mode marking as a combination of pronominal prefixes and root ablaut; thus *hahku?iš* 'to drink' has the full form *-ahku-*, the reduced form *-ihku-*, and the lengthened form *-a·hku-*. The analysis of an independent verb paradigm in this system would be as follows, with V representing *a* or *e* depending on the verb root:

PERSON	PRESENT	PAST	OPTATIVE
1s	t- + full form	y- + full form	?- + full form
2s	pVn- + full form	p- + reduced form	p- + lengthened form
3s	n- + full form	?- + reduced form	?- + lengthened form
1d	tV-tVn- + reduced	yV-tVn- + reduced	?V-tVn- + reduced
2d	pVn-tVn- + reduced	pV-tVn- + reduced	pV-tVn- + reduced
3d	nV-tVn- + reduced	?-i<tVn- + reduced	?V-tVn- + reduced
1p	tV-p- + reduced	yV-p- + reduced	?V-p- + reduced

2p	pVn-p- + reduced	pV-p- + reduced	pV -p- + reduced
3p	nV-p- + reduced	?-i,-p- + reduced	?V -p- + reduced

While this treatment adequately explains morphologically simple forms, it is forced to treat all pre-root affixes as infixes, and does not explain why the lengthened grade of a verb such as *helcokoʔiš* is *-eʔyilcok^w*- and not the expected **-eʔlcok^w*-. I decided to treat subject/tense-mode marking as entirely prefixal in nature, with an invariant root, and postulate various phonological rules to explain apparent irregularities. However, this treatment has been chosen for clarity's sake, and may not reflect the true nature of verbal affixation.

10. The element *natani ʔiya* is analyzed /na-təni-·-t-ši-ya/ [3prs-du-BE-1dat-dat-art].

11. The independent form for 'long' is *wataʔkup*. In nominal compounds the participial suffix *-kəp* frequently is dropped, as in *hiʔpa* 'red squirrel;' *hiʔ* 'squirrel' *paʔkup* 'red'.

12. This suffix has the variants *-j* and (very rarely) *-iN*. The latter is probably the historically correct form.

13. It is notable that in Koasati the interjection for 'damn!' is *hi:hà* and in Chitimacha it is *ʔi:hà*.

14. Note again that Koasati has an almost identical form *máh* 'listen!'.

15. The pragmatics of the text from which this example is taken require that the 'one' of the first clause be a subject of the verb of the second clause, since there are only two actors in this section of the text.

16. In this example, the verb root *taʔ-halʔiš* 'to hit (singular subject/singular object)' is used, and not *taʔtaʔ-halʔiš* 'to hit (singular subject/plural object)'. This seems to be a manifestation of a language-wide tendency to eliminate the morphological expression of plural objects.

17. The Natchez used a loan translation from Creek *heleksenitahc* 'Owner of Breath,' when Haas worked with them.