

A SKETCH OF THE NOTTOWAY LANGUAGE FROM A HISTORICAL-COMPARATIVE PERSPECTIVE¹

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0. Introduction
1. Phonology
2. The development of the sound system
3. Morphology
4. Syntax
5. Vocabulary
6. Conclusions
7. The Wood and Hewitt vocabularies

0. The Nottoway language was, at earliest European contact, spoken by approximately 300 people living along the Fall Line in southeastern Virginia.² Their nearest neighbors to the north were the member nations of the Powhatan Confederacy; while, to the east, between the Nottoway and the Atlantic Ocean, were other Algonquian groups. To the west of the Nottoway were a number of Siouan-speaking peoples and to the south was another, probably closely related, Iroquoian-speaking nation, the Meherrin. Just south of the Meherrin were located the Tuscarora. According to J. N. B. Hewitt, the Nottoway name for themselves was *Cheroohoka* or *Tcherohaka?*, a name of

uncertain meaning.³

Probably the first people to recognize that the Nottoway language was genetically related to the Iroquoian languages were Peter DuPonceau and Thomas Jefferson.⁴ The first attempt at determining the position of Nottoway within the Iroquoian family of languages was made by Hewitt who tried to show, based on a comparison of twenty-two words of Nottoway with their Tuscarora equivalents, that Nottoway was more closely related to Tuscarora than to the other Iroquois languages (see table 1).⁵ A similar conclusion was reached later by Hoffman (1958) in his comparison of the Iroquois languages.

The data available today on the Nottoway language consist of two vocabularies. The primary source is a vocabulary of just over 250 words collected by John Wood in 1820. There are two versions of this vocabulary, basically identical in content: one in the handwriting of Thomas Jefferson and the other written by Peter DuPonceau.⁶ The second source of data on Nottoway is a manuscript in the Hewitt collection of the National Anthropological Archives which contains a few words of unknown provenience which are not present in the

¹ A preliminary version of this work appeared as chapter 3 of Rudes (1976). I would like to thank Paul L. Garvin, Joan B. Hooper, and Floyd G. Lounsbury for their most helpful comments and suggestions concerning that version. All errors in this version are, however, my responsibility. The following abbreviations are used in this article: H - Huron, M - Mohawk, N - Nottoway, Oi - Oneida, Oo - Onondaga, PNI - Proto-Northern-Iroquoian, PTN - Proto-Tuscarora-Nottoway, S - Seneca, T - Tuscarora, W - Wyandot.
² Binford (1967:116, 152).

³ Hewitt (1910:87).

⁴ Jefferson (1820). See especially the comments added to the letter, apparently by Peter DuPonceau.

⁵ Hewitt (1910:87). Hewitt's comparative word list of Nottoway and Tuscarora is given in table 1 as it appears in manuscript no. 3844 of the Hewitt collection in the National Anthropological Archives.

⁶ I have used principally the Jefferson version here, i.e., Wood (1820), manuscript no. 2478 in Freeman and Smith (1966), because of the superior legibility of the handwriting.

TABLE 1

Nottoway	Tuscarora	
<i>eʔ-ni-ha</i>	<i>äʔ-ni-ha</i>	'one is male'
<i>e-ken-ing</i>	<i>yä-kwäⁿ-ti</i>	'she makes food'
<i>se-taʔ-raʔ-ke</i>	<i>s-taʔ-raʔ-kä</i>	'on thy head'
<i>o-weʔ-räⁿʔ</i>	<i>a-wäʔ-räⁿʔ</i>	'hair'
<i>s-hüⁿ-iüⁿʔ-ke</i>	<i>s-häⁿʔ-näⁿʔ-kä</i>	'on thy ear'
<i>o-ka-ha-ra'</i>	<i>u-ka-ⁿrä</i>	'a eye'
<i>o-tuⁿ-sa</i>	<i>uʔ-icüⁿ-sä</i>	'a nose'
<i>e-'ska-ha-ränt</i>	<i>yä-'ska-ⁿränt</i>	'she has a mouth'
<i>a-da-säⁿ-ke</i>	<i>a-äⁿ-ta-'säʔ-kä</i>	'on a or its tongue'
<i>o-te-'sa</i>	<i>u-tuʔ-çä</i>	'a tooth'
<i>a'nüⁿʔ-ke</i>	<i>u-ä-'näⁿʔ-kä</i>	'on a or its hand'
<i>sa-'siʔ-ke</i>	<i>sa-'säⁿʔ-kä</i>	'on thy feet'
<i>a-'hi-'iäʔ</i>	<i>hi-'iäʔ</i>	'sun, the sun (orb)'
<i>tethrä-'kä</i>	<i>a-'çä-ʔnyä-haʔ</i>	'the thing of the night, moon'
<i>dee-s'huʔ</i>	<i>u-ʔni-'säⁿʔ-rä</i>	'star (navel)'
<i>äⁿ-tye-'ke</i>	<i>äⁿ-tyä-kä</i>	'noon or daytime'
<i>a-'sun-ta</i>	<i>u-'çuⁿʔ-nä</i>	'darkness, night'
<i>au-teur</i>	<i>u-tciʔ-rä</i>	'fire, a light'
<i>a-'wäⁿʔ</i>	<i>a-'wäⁿʔ</i>	'water'
<i>o-'hauⁿ-ta</i>	<i>u-'hräⁿʔ-nä</i>	'a stone'
<i>ge-'riʔ</i>	<i>kär-hiʔ</i>	'a standing tree'
<i>ka-in-tu'</i>	<i>käⁿ-täⁿ'</i>	'fish'

Wood vocabulary.⁷ All totaled, there are just over 275 words of this language. This may not seem like much until one realizes that as early as 1820, it was reported that there were only three elderly speakers of the language still alive, and that it is quite certain that the language did not survive into the twentieth century. Of the extinct Iroquoian languages of which we have any knowledge—Susquehannock (Andaste), Huron, Laurentian (Kwedech), Neutral, Nottoway, and Wyandot—only Huron and Wyandot are better documented than Nottoway. I might also note that some Iroquoian groups disappeared without leaving any trace whatsoever of the language they spoke, although there is reason

to believe that they may have spoken distinct varieties of Iroquoian (e.g., Erie, Tionontati, Wenro). Thus, in fact, we are very lucky indeed to have been left as much information about the Nottoway language as we have.

Since the manuscript data on the Nottoway language have, to my knowledge, never been systematically described, I outline here those assumptions which I have made in interpreting Nottoway forms. First, given the obvious Iroquoian nature of many of the forms in the Wood and Hewitt manuscripts, I assume that previous identifications of Nottoway as an Iroquoian language were correct. Second, I assume that Wood based his transcription system on English orthography, since some of the grapheme combinations appear to be influenced by English ortho-

⁷ Hewitt (n.d.). Words taken from this manuscript are signaled in the text by placing (H) after them.

graphic conventions, for example, *ch* initially alternates with *tch* medially and finally for [č], *ee* used for [i], and since Wood himself was an Englishman teaching in an English-speaking school, William and Mary College. Also, the assumption of an English-based transcription system allows for an interpretation of Nottoway forms which confirms the assumption that Nottoway is Iroquoian.

1. The inventory of phonological segments in Nottoway appears to have been that given in tables 2 and 3. The conventions used by Wood in his transcription of these segments in Nottoway are those shown in table 4.

2. In this section, I examine the major sound changes which created the Notto-

way sound system out of the Proto-Northern-Iroquoian system, and the relation which these changes have to ones that took place in Tuscarora. For details of the Proto-Northern-Iroquoian sound system and the development of Tuscarora therefrom, the reader is referred to Chafe (1974) and Rudes (1976).

One of the characteristic sound changes which took place in Tuscarora was a vowel shift whereby the vowels *i, *e, *a, *o became [i], [æ], [a], [u], and the two nasal vowels *ẽ and *õ merged into a single nasal vowel which I symbolize /ã/. According to the information which can be gotten from the manuscript evidence, it appears that this vowel shift also affected Nottoway, but to a much lesser extent. The merger of the two nasal vowels of Proto-Northern-Iroquoian to a single na-

TABLE 2

	Labial	Dental	Palatal	Velar	Laryngeal
Stops	(p) ¹	t		k	ʔ
Affricate			č		
Spirants	(f) ¹	s			h
Nasals	(m) ¹	n			
Liquid		r			
Glides			y	w	

¹The labial consonants /p f m/ occur in only five words in the Wood vocabulary, all of which are of clearly non-Iroquoian origin. The actual source of these words is, however, not presently known. The words are: *Fetchota* (in *OwanFetchota* 'ocean'), *Panunkee* 'the right hand', *Matapanunkee* 'the left hand', *Franseke* 'the leg', and *Basheke* 'autumn'. The letter *m* also occurs occasionally at the end of a word after a vowel, where it signals nasalization of the preceding vowel and not the consonant /m/. e.g., *gakum* 'blood', cf. T *káikãʔ*.

TABLE 3

	Front	Central	Back
High	i		
Mid	e	ẽ	o
Low		a	

TABLE 4

<hr/> <hr/>			
/t/			
<i>t</i> (word-internal)	<i>aheeta</i>	'sun'	cf. T <i>hihtæ?</i>
	<i>otikum</i>	'devil'	cf. T <i>úkãh</i>
	<i>oter</i>	'sand'	cf. T <i>u?tæhæh</i>
	<i>oteusag</i>	'nose'	cf. T <i>u?tyãhsæh</i>
<i>d</i> (word-initial)	<i>dekra</i>	'eight'	cf. S <i>tekyõ?</i>
	<i>deeshũ</i>	'stars'	cf. W <i>tĩõh</i>
	<i>dekaneë</i>	'two'	cf. M <i>tékeni</i>
/k/			
<i>k</i> (word-initial, -medial)	<i>keenu</i>	'swamp'	cf. T <i>ki:nõ?</i>
	<i>kaintu</i>	'fish'	cf. T <i>kã:õh</i>
	<i>ekunsquare</i>	'cheeks'	cf. T <i>ukãskwaræh</i>
	<i>unkoharæe</i>	'eyes'	cf. T <i>ukáhræh</i>
<i>q</i> (before <i>u</i>)	<i>waquast</i>	'good'	cf. T <i>wákwhst</i>
	<i>aquia</i>	'deer'	cf. T <i>á:kwæh</i>
	<i>kosquenna</i>	'mouse'	cf. T <i>ruskwæ:nõh</i>
	<i>querũ</i>	'rabbit'	cf. T <i>kwæ:ruh</i>
<i>g</i> (varies word-initially with <i>k</i>) . . .	<i>gatkum</i>	'blood'	cf. T <i>kákã?</i>
	<i>gotyakum</i>	'husband'	cf. T <i>katyá:kõh</i>
	<i>gahuntee</i>	'black'	cf. M <i>kahũ:cih</i>
	<i>ganunquare</i>	'red'	cf. T <i>tikatkwará:yã?</i>
<i>g</i> (word-final)	<i>oyag</i>	'six'	cf. T <i>úhya?k</i>
	<i>tawrettig</i>	'hen'	cf. T <i>tahuræ:tik</i>
	<i>chatag</i>	'seven'	cf. T <i>čá:?nak</i>
/?/			
<i>g</i> (word-final)	<i>oteusag</i>	'nose'	cf. S <i>o?nyõhsa?</i>
	<i>onushag</i>	'house'	cf. M <i>kanũhsa?</i>
/č/			
<i>ch</i> (word-initial)	<i>cheer</i>	'dog'	cf. T <i>číhr</i>
	<i>cheeta</i>	'bird'	cf. T <i>čfnõ?</i>
<i>g</i> (word-initial, one instance)	<i>geekquam</i>	'gold'	cf. T <i>učitkwáhnæh</i>
<i>tch</i> (word-medial, -final)	<i>untchore</i>	'to eat'	cf. T <i>ččú:ri?</i> 'it ate'
	<i>yautatch</i>	'air'	cf. T <i>ú?na:č</i> 'wind'
<i>t</i> (before <i>e</i> and <i>u</i>)	<i>unte</i>	'one'	cf. T <i>č:či</i>
	<i>gahuntee</i>	'black'	cf. M <i>kahũ:cih</i>
	<i>kaintu</i>	'fish'	cf. T <i>kã:õh</i>
/s/			
<i>s</i>	<i>whisk</i>	'five'	cf. T <i>wisk</i>
	<i>oteusag</i>	'nose'	cf. T <i>u?tyãhsæh</i>
	<i>onushag</i>	'house'	cf. T <i>unãhsæh</i>
	<i>ekunsquare</i>	'cheeks'	cf. T <i>ukãskwaræh</i>
/h/			
<i>h</i>	<i>hahenũ</i>	'thunder'	cf. T <i>ha? hí?nõ?</i>
	<i>hentag</i>	'four'	cf. T <i>hã?tahk</i>
	<i>gahuntee</i>	'black'	cf. M <i>kahũ:cih</i>
	<i>ohonag</i>	'skin'	cf. M <i>óhna?</i>
/n/			
<i>n</i>	<i>hahenũ</i>	'thunder'	cf. T <i>ha? hí?nõ?</i>
	<i>owena</i>	'iron'	cf. T <i>uwæ:nõh</i>
	<i>kunum</i>	'turkey'	cf. T <i>kã:nõh</i>
	<i>onushag</i>	'house'	cf. T <i>unãhsæh</i>

/r/			
r	<i>cheer</i>	'dog'	cf. T <i>číhr</i>
	<i>querū</i>	'rabbit'	cf. T <i>kwæ:ruh</i>
	<i>orwisag</i>	'tail'	cf. T <i>u?rhwǎ:θæh</i>
	<i>dekra</i>	'eight'	cf. T <i>næ:krǎ?</i>
rr (intervocalic, infrequent)	<i>quaharrag</i>	'apple'	cf. T <i>kwáhrak</i>
	<i>waskarrow</i>	'hog'	cf. T <i>waθkwá:ræh</i>
/w/			
w	<i>owees</i>	'ice'	cf. T <i>uwi:sæh</i>
	<i>auwa</i>	'water'	cf. T <i>á:wǎ?</i>
	<i>owena</i>	'iron'	cf. T <i>uwæ:nǎh</i>
	<i>orwisag</i>	'tail'	cf. T <i>u?rhwǎ:θæh</i>
u (after q)	<i>waquast</i>	'good'	cf. T <i>wákwahst</i>
	<i>aquia</i>	'deer'	cf. T <i>á:kwæh</i>
	<i>kosquenna</i>	'mouse'	cf. T <i>ruskwæ:nǎh</i>
	<i>querū</i>	'rabbit'	cf. T <i>kwæ:ruh</i>
/y/			
y	<i>oyentu</i>	'rat'	cf. T <i>ruyǎ?tuh</i>
	<i>gotyakum</i>	'husband'	cf. T <i>katyá:kǎh</i>
e (one example)	<i>oteusag</i>	'nose'	cf. T <i>u?tyǎhsæh</i>
/i/			
ee	<i>aheeta</i>	'sun'	cf. T <i>híhtæ?</i>
	<i>keenu</i>	'swamp'	cf. T <i>kí:nǎ?</i>
i	<i>tariha</i>	'hot'	cf. T <i>yu?narihǎ:</i>
	<i>whisk</i>	'five'	cf. T <i>wisk</i>
/e/			
e	<i>owena</i>	'iron'	cf. T <i>uwæ:nǎh</i>
	<i>querū</i>	'rabbit'	cf. T <i>kwæ:ruh</i>
	<i>oter</i>	'sand'	cf. T <i>u?tǎhæh</i>
	<i>dekanee</i>	'two'	cf. T <i>næ:kti:</i>
/a/			
a	<i>oyag</i>	'six'	cf. T <i>úhya?k</i>
	<i>gatkum</i>	'blood'	cf. T <i>kátkǎ?</i>
au (one example)	<i>auwa</i>	'water'	cf. T <i>á:wǎ?</i>
o (one example)	<i>owan</i>	'water'	cf. T <i>á:wǎ?</i>
/o/			
o	<i>owena</i>	'iron'	cf. T <i>uwæ:nǎh</i>
	<i>owees</i>	'ice'	cf. T <i>uwi:sæh</i>
u	<i>queru</i>	'rabbit'	cf. T <i>kwæ:ruh</i>
	<i>akuhor</i>	'old man'	cf. T <i>úhuhr</i>
ou	<i>yountoutch</i>	'rain'	cf. T <i>wǎ:tu:č</i>
	<i>yourhǎ</i>	'dry'	cf. Oo <i>óhǎh</i>
/ǎ/			
u	<i>hahenū</i>	'thunder'	cf. T <i>ha? hí?nǎ?</i>
	<i>deeshū</i>	'stars'	cf. W <i>íššh</i>
	<i>keenu</i>	'swamp'	cf. T <i>kí:nǎ?</i>
a	<i>owena</i>	'iron'	cf. T <i>uwæ:nǎh</i>
	<i>dekra</i>	'eight'	cf. T <i>næ:krǎ?</i>
	<i>auwa</i>	'water'	cf. T <i>á:wǎ?</i>
un	<i>ekunsquare</i>	'cheeks'	cf. T <i>ukǎskaræh</i>
	<i>unte</i>	'one'	cf. T <i>ǎ:č</i>
um (one example)	<i>otkum</i>	'devil'	cf. T <i>útkǎh</i>
en (one example)	<i>hentag</i>	'four'	cf. T <i>hǎ?tahk</i>
ain (one example)	<i>kaintu</i>	'fish'	cf. T <i>kǎ:čǎh</i>

sal vowel occurred everywhere in Nottoway, so far as one can tell, since there is evidence for only a single nasal vowel of a neutral quality like Tuscarora / \tilde{s} /. For the oral vowels, one finds evidence for only a partial shift in quality. The vowels /i/ and /a/ appear to have shifted to [ɪ] and [a] only in historically stressed syllables (i.e., syllables which are stressed in the related Iroquoian languages), and only in some of these. For the shift of *a to [a] one finds only one example, although it occurs in two different transcriptions, both of which attest the shift: Nottoway *auwa*, *owan* 'water' < Proto-Northern-Iroquoian **áwē?* (cf. Tuscarora *á:wǎ?*, Mohawk *awâ:ke*). In the case of the shift of PNI *i to [ɪ], one finds numerous examples of the change. The evidence is based on the assumption that Wood used the grapheme *i* to represent a lower, laxer high, front vowel (as it does in English), and the grapheme sequence *ee* to represent a higher, tenser high, front vowel (as it does in English). That is, *i* is assumed to repre-

sent [ɪ], while *ee* is assumed to represent [i]. Examples of the shift of *i to [ɪ] are given in table 5. However, with the possible exception of the item *tawrettig* 'hen' (Tuscarora *tahurǎ:tik*), where *i may have become [ɪ] in an unstressed final syllable, the change of *i to [ɪ] does not occur in historically unstressed syllables, nor does it occur in many syllables which one may presume to have been stressed, as shown in table 6.

Of the oral vowels, Proto-Northern-Iroquoian *o seems to have undergone the most change in Nottoway, where it appears as [u] not only in historically stressed syllables (about half of the stressed syllables where one would expect [o] show [u]), but also in some unstressed final syllables. The evidence for this change is based on the assumption that the grapheme *o* in Wood's vocabulary represents [o], while the grapheme *u* represents [u] (as it would in English *tune*). In addition to these two graphemes, Wood also uses the grapheme sequence *ou* in places where, based on

TABLE 5

PNI *i > [ɪ] / $\left[\begin{array}{c} \text{---} \\ +\text{stress} \end{array} \right]$		
N <i>whisk</i>	'five'	cf. T <i>wisk</i>
N <i>tariha</i>	'hot'	T <i>yu?narhǎ:</i>
N <i>enihā</i>	'man'	T <i>ra?nihǎh</i> 'he's male'
N <i>ohuwistāg</i>	'a wing'	T <i>uyǎhwí:θnǎh</i>

TABLE 6

N <i>keenu</i>	'a swamp'	cf. T <i>kí:nǎ?</i>
N <i>cheeta</i>	'a bird'	T <i>čí?nǎ?</i>
N <i>weesrunt</i>	'strawberries'	T <i>wí:sǎ:t</i>
N <i>gahuntee</i>	'black'	T <i>kahǎsčí:</i>
N <i>dekanee</i>	'two'	T <i>nǎ:kí:</i>
N <i>geekquan</i>	'gold'	T <i>učítkwǎhnǎh</i>

TABLE 7

PNI *o > [u] / $\left\{ \begin{array}{l} \left[\begin{array}{c} \text{---} \\ \text{+stress} \end{array} \right] \\ \text{---C}_o\# \end{array} \right\}$			
N	<i>akuhor</i>	'old man'	cf. T <i>akúhuhr</i> 'one's . . .'
N	<i>gakuhar</i>	'to wash'	T <i>ktú:har</i> 'I wash'
N	<i>oyentu</i>	'rat'	T <i>ruyǎ?tu?</i>
N	<i>kertus</i>	'to sleep'	T <i>kǎ:tuhs</i> 'it . . .'
N	<i>untatenherrug</i>	'to strike'	T <i>ǎ?naikǎhruk</i> 'it . . .'
Uncertain cases			
N	<i>yountouch</i>	'rain'	T <i>wǎ:tu:č</i>
N	<i>yourhā</i>	'dry'	Oo <i>óhēh</i>
N	<i>untatreeyou</i>	'to kill'	T <i>ǎ?na?ri:yu?</i>
PNI *o > [o]			
N	<i>otosag</i>	'tooth'	T <i>utú:θæh</i>
N	<i>untchore</i>	'to eat'	T <i>ǎčú:ri?</i> 'it ate'
N	<i>thatcharore</i>	'angry'	T <i>θača?rú:rih</i> 'you're . . .'
N	<i>akuhor</i>	'old man'	T <i>akúhuhr</i> 'one's . . .'
N	<i>wakoste</i>	'strong'	T <i>wakáθnæh</i> 'I'm . . .'
N	<i>oyag</i>	'six'	T <i>úhya?k</i>

forms in related languages, one would expect [o]. This grapheme sequence is ambiguous as it could either represent [o] (as in English *dough*) or [u] (as in *through*). Examples illustrating the distribution of these three ways of transcribing /o/ are given in table 7. There are no examples of a change of Proto-Northern-Iroquoian *e to [æ] in Nottoway, as in Tuscarora. Instead one finds [e] written *e* everywhere.

Nottoway underwent three important changes in its consonant system. The first two it shares only with Tuscarora. The third change is only poorly represented in Tuscarora, but is found in Mohawk, Oneida, Onondaga, and Susquehannock.

The first change which Nottoway shares with Tuscarora alone is the change of Proto-Northern-Iroquoian *c and *ts (from an earlier *tʰs, see Rudes 1976:chap. 2 for details) to the palatal affricate /č/, as for example in *cheer* 'dog', *chewak* 'bottle', *chatag* 'seven', *yountouch* 'rain' (cf.

T *čihr*, *učhæ?wæh*, *čá:ʔnak*, *wǎ:tu:č*) from Proto-Northern-Iroquoian *cihraʔ, *+cheʔ+, *cyátahk, *+inot+ʰs (cf. S *ci:yæh*, M *kácheʔ*, S *ca:tak*, H *ɔndot*, and W *uⁿdúhskaʔ*).

The second sound change affecting the consonant system of Nottoway concerns the change of Proto-Northern-Iroquoian *n to /t/. This change also occurs in Tuscarora; however, in the latter language it is paired with a complementary change which turns Proto-Northern-Iroquoian *t into /ʔn/, a change which is absent in Nottoway. As both of these changes, that of PNI *n to /t/ and PNI *t to /ʔn/, are rather complicated, and the results in Tuscarora are somewhat surprising, I digress for a moment here to discuss in a more or less detailed fashion the probable course which these changes took.

The first step in the change was that Proto-Northern-Iroquoian *t became pre-glottalized, regardless of its position in a

TABLE 8

PTN	<i>*híhne?</i> 'sun'	>	PTN	<i>*híhte?</i>	>	T	<i>híhtæ?</i>	N	<i>aheeta</i>
	<i>*hě́?nahk</i> 'four'	>		<i>*hě́?tahk</i>	>		<i>hě́?tahk</i>		<i>hentag</i>
	<i>*o?nyǎhsa?</i> 'nose'	>		<i>*o?tyǎhsa?</i>	>		<i>u?tyǎhsæh</i>		<i>oteusag</i>
	<i>*ó?neh</i> 'sand'	>		<i>*ó?teh</i>	>		<i>u?tæhæh</i>		<i>oter</i>
But:									
	<i>*onǎhsa?</i> 'house'	>		<i>*onǎhsa?</i>			<i>unǎhsæh</i>		<i>onushag</i>
	<i>*owénǎ?</i> 'iron'	>		<i>*owénǎ?</i>			<i>uwæ.nǎ?</i>		<i>owena</i>
	<i>*oně́cha?</i> 'arm'	>		<i>*oně́cha?</i>			<i>uně́chæh</i>		<i>ohnechahk</i> (H)

word (e.g., PNI **cyátahk* 'seven' > Proto-Tuscarora-Nottoway **čá'tak*, PNI **téknih* 'two' > PTN **'téknih*, PNI **ǎtatíríyo?* 'it killed itself' > PTN **ǎ'ta'ríyo?*, etc.). The evidence for this change comes from modern Tuscarora, where all instances of /t/ deriving from PNI **t* are preglottalized; whereas those instances of /t/ deriving from PNI **n* are not preglottalized for most speakers (see Williams 1974:287 and Rudes 1976:chap. 4, sec. 2 for further details). Next, Proto-Tuscarora-Nottoway developed a process of phonetic voicing of obstruents whereby an obstruent stop became voiced if followed by a vowel, liquid, or glide and was otherwise voiceless (e.g., PTN **ča'tak* > **čá'dak*, **'téknih* > **'dék-nih*, **ǎ'ta'ríyo?* > **ǎ'da'dríyo?*; but PTN **ó'íkǎh* 'bad spirit, devil' > **ó'igǎh*, **osás't* 'squirrel' > **osás'í*).⁸

The next step in the change affected Proto-Northern-Iroquoian **n* which, in Proto-Tuscarora-Nottoway, denasalized everywhere except where followed by a nasal vowel or the vowel /o/. Examples of this change are given in table 8.

There is one example where PNI **n* became /t/ before **o* in both Tuscarora

and Nottoway, PNI **ono?ca?* 'tooth' > T *utú:ʔθæh*, N *otosag*. However, in Tuscarora one finds evidence that the change of PNI **n* to /t/ did not generally occur before /o/. For example, PNI **kínorǎh-kʷha?* 'it appeals to me' becomes T *knurǎhkhwa?*, PNI **tecnórĕh* 'you two split it' becomes T *næθnú:rǎh*, PNI **wac-nóri?* 'you two mixed it' becomes T *wæθnú:ri?*, PNI **yohwĕno?* 'island' becomes T *yuhwǎ:nu?*. Unfortunately, there are no cognate forms for these items in Nottoway, and thus one cannot say whether **n* also often failed to change to /t/ before /o/ in this language. One further constraint on the change of PNI **n* to /t/ was that it did not occur when **n* was followed by an /h/. Again, there is evidence for this constraint only from Tuscarora, where PNI **onhǎhsa?* 'egg' became T *u?nhǎhsæh*, PNI **kǎnhe?* 'I'm alive' became T *kǎnhæ?*.

In addition to the regular failure of PNI **n* to become /t/ before an /h/, a nasal vowel, and an /o/, both Tuscarora and Nottoway contain some isolated examples where no reason for the failure of PNI **n* to become /t/ can be found. All such examples in the Wood manuscript, as well as a partial list of examples from Tuscarora, are given in table 9.

The final step in the changes under discussion here involves the shift of **t* to /ʔn/. This is perhaps the most

⁸ Although all of the living Northern Iroquoian languages show this process of voicing obstruents in prenasal position, one cannot ascribe it to the protolanguage because the extinct, but extremely well documented, languages Huron and Wyandot show no traces of this kind of voicing.

TABLE 9

PNI * <i>ohnéka?</i> 'liquid'	>	N <i>anuqua</i> 'spirits'	
PNI * <i>ni+</i> 'partitive'	>	N <i>newisha</i> 'little'	T <i>tiwa?θ?áh</i>
		N <i>newisha</i> 'short'	T <i>tiwæ:θ?áh</i>
PNI * <i>téknih</i> 'two'	>	N <i>dekaneé</i>	T <i>næ:k̄ti:</i>
PNI * <i>ohnéka?</i> 'liquid'	>	T <i>uhnæ:k̄yæh</i> 'liquor'	
PNI * <i>ohsēná?</i> 'name'		T <i>uhsō:næh</i>	
PNI * <i>ohnáwakōh</i> 'swamp'		T <i>uhná:wakōw</i>	

interesting of the changes which led to the sound system of modern Tuscarora. Although this change occurred only in Tuscarora and not in Nottoway, it is all the more interesting since it is one of the few developments which serves to distinguish these two languages. As mentioned previously, Proto-Northern-Iroquoian **t* became preglottalized and then became voiced in prenasal positions. What happened next was that these voiced, preglottalized dental stops "spontaneously" nasalized, that is, **čá:dak* 'seven' > T *čá:ʔnak*, **déknih* 'two' (> **dékdih* by the change of **n* to /t/) > T *næ:k̄ti:*, **ǎ'da'dri:yo?* 'it killed itself' > **ǎ?na?ri:yu?* through the regular simplification of **?nr* to /ʔr/). Note that only the preglottalized, voiced dental stops nasalized, and not the plain voiced dental stops which resulted from the change of **n* to /t/, [d] in prenasal position (see 'two', **déknih*, above). This fact gives an important clue to the probable phonetic cause of the change. Matisoff (1975) discusses a type of change which he calls rhinoglottophilia, that is, the "spontaneous" nasalization of vowels and consonants in the environment of laryngeals. Briefly stated, Matisoff presents a number of examples from different languages showing segments contiguous to laryngeals becoming nasalized. In the case of Tuscarora, it appears that it was the preglottalization which induced "spontaneous" nasalization in the following

dental stop. This explains why the non-preglottalized stops resulting from the change of **n* to /t/ did not nasalize. Further, one may note that it was apparently only the voiced preglottalized stops (i.e., those in prenasal position) which were responsive to nasalization, since their voiceless counterparts did not nasalize. Examples which illustrate the positions in which nasalization did and did not occur are given in table 10. Nottoway forms are also given to show that this change did not occur in that language. The importance of the data from Nottoway in understanding the sequence of events which led to the appearance of /t/ for PNI **n* and /ʔn/ for PNI **t* in Tuscarora is that they clearly establish the fact that the **n* to /t/ change preceded the change of **t* to /ʔn/ since Nottoway shares the former change with Tuscarora, but not the latter.

The third change affecting the Nottoway consonant system consists of the development of an epenthetic vowel in clusters of /h/ plus one of the resonants /n r w/. Examples of this change are given in table 11. This change is only poorly attested in Tuscarora where, for some speakers, clusters of /hr/ in intervocalic position may, in very slow or careful speech, become /hǎr/; that is, the first tap of the trilled /r/ may vocalize leaving a schwalike vowel followed by a single tap. In Tuscarora, this change never affects /hn/ or /hw/. A somewhat similar change

TABLE 10

PNI	* <i>rékrǝ?</i>	'eight'	T <i>næ:krǝ?</i>	N <i>dekra</i>
	* <i>tíhrǝ?</i>	'nine'	<i>níhrǝ?</i>	<i>deheerunk</i>
	* <i>onǝ?ta?</i>	'mountain'	<i>unǝ?næh</i>	(<i>ye)nunt(enuntè)</i>
	* <i>ahcǝta?</i>	'darkness'	<i>uhθǝ:næh</i>	<i>asuntā</i>
	* <i>cfítǝ?</i>	'bird'	<i>čǝ?nǝ?</i>	<i>cheeta</i>
	* <i>oná?tǝra?</i>	'bread'	<i>utá?naræh</i>	<i>gotatera</i>
	* <i>ahták"ha?</i>	'shoes'	<i>uhnáhkhwá?</i>	<i>otagwag</i>
	* <i>cyátahk</i>	'seven'	<i>čá:ʔnak</i>	<i>chatag</i>
	* <i>ǝtatírǝyo?</i>	'it killed itself'	<i>ǝ?na?ri:yu?</i>	<i>untatreeyou</i>
	But:			
	* <i>átho(re)?</i>	'cold'	<i>á'thu?</i>	<i>watorae</i>
	* <i>ótkǝh</i>	'bad spirit, devil'	<i>ú'íkǝh</i>	<i>otikum</i>
	* <i>wák"ast</i>	'it's good'	<i>wákwahst</i>	<i>waquast</i>

TABLE 11

PNI	* <i>okáhra?</i>	'eyes'	N <i>unkoharae</i>	cf. T <i>ukáhræh</i>
	* <i>tíhrǝ?</i>	'nine'	<i>deheerunk</i>	<i>níhrǝ?</i>
	* <i>ohskahrǝ+</i>	'mouth'	<i>eskaharant</i>	<i>uhskahrǝ:wæh</i>
	* <i>kwáhrak</i>	'peaches'	<i>quaharrag</i>	<i>kwáhrak</i>
			'apples'	
	* <i>ǝtatíkǝhrok</i>	'it struck itself'	<i>untatenheerug</i>	<i>ǝ?natkǝhruk</i>
	* <i>óhna?</i>	'skin'	<i>ohonag</i>	M <i>óhna?</i>
	* <i>ohwícta?</i>	'wing'	<i>ohuwistǝg</i>	<i>uyǝhwí:θnæh</i>

is attested for Susquehannock (Campanius 1696), Old Onondaga (Shea 1860), and Mohawk (Chafe 1974) and may also be assumed for an earlier stage of Oneida. In these languages, however, epenthesis affected not clusters of /h/ plus /r n w/, but clusters of /t k s/ followed by /r n w/. (For examples see the cited references.)

3. Due to the polysynthetic nature of all of the Northern Iroquoian languages, including Nottoway, most words consist of a number of morphemes. It is infrequent that one finds a noun consisting of but a single morpheme, and one never finds such a verb form. Thus, even in a vocabulary as short as the one available for

Nottoway, one can find much information about the language's morphology. Further, many Northern Iroquoian nouns normally occur with possessive pronominal prefixes attached, a phenomenon encouraged by the fact that untrained fieldworkers, like John Wood, often are given possessed forms of nouns. Another aspect of the Northern Iroquoian languages which makes the data in Wood's vocabulary more valuable for the study of the language's morphology is the fact that these languages lack an infinitive. Thus, where the English glosses in Wood's vocabulary give an infinitive, the Nottoway form consists of a verb fully inflected for person, number, tense, mood, etc. Usually,

these verb forms are in the neuter singular aorist, but not always. Given these facts about the structure of Iroquoian languages, it is not surprising that much can be learned about the morphology of Nottoway from Wood's vocabulary.

The nonroot morphemes of Nottoway are presented in the following order: (1) prepronominal morphemes, (2) pronominal morphemes, (3) postroot morphemes. Cognates for the morphemes discussed, other than those from Tuscarora, as well as a detailed discussion of Northern Iroquoian morphology in general and definitions for the terms used here can be found in Chafe (1974).

There is evidence for the following prepronominal morphemes in Nottoway: the partitive, the dualic, the cislocative, the aorist (also called the factual), and the optative (also called the indefinite). The partitive has the form *ne(e)* in Nottoway

(< PNI **ni+*) and occurs with numbers above twenty and with the adjectives 'short' and 'little' (note that the Tuscarora form of the partitive is /*ti/*). Examples of this morpheme are given in table 12.

The dualic morpheme occurs in a number of verb forms as well as in the words for 'twenty' and 'lightning'. It is transcribed in the vocabulary as *de*, *to*, *te* (<PNI **t(e)+*). Examples are given in table 13.

The cislocative morpheme occurs in only one word, the verb 'to hear', *thrahunta* which corresponds to Tuscarora *thrah^hnæh* 'his ears there'. The optative morpheme can also be found with certainty in only one word in the vocabulary, *ararher* 'to drink' corresponding to Tuscarora *áhr^hãhr* 'that he drink'. The aorist morpheme, on the other hand, can be isolated in a number of verb forms given by Wood. It has two forms: *wa* (< PNI **wa?*+) and

TABLE 12
THE PARTITIVE

Nottoway		Tuscarora
<i>newisha</i>	'short'	<i>tiwæ:θ?áh</i>
<i>newisha</i>	'little'	<i>tiwa?θ?áh</i>
<i>arsaneewarsa</i>	'thirty'	<i>áhs^hã tiwáhθh^hã</i>
<i>hentagneewarsa</i>	'forty'	<i>h^h?takh tiwáhθh^hã</i>
<i>wiskaneewarsa</i>	'fifty'	<i>wísk tiwáhθh^hã</i>

TABLE 13
THE DUALIC

Nottoway		Tuscarora
<i>towatgeheterise</i>	'lightning'	<i>næwatkaræ?nari:ks</i>
<i>dewartha</i>	'twenty'	<i>næwáhθh^hã</i>
<i>tehesuhard</i>	'to cry'	<i>næká:θn^hãhr</i> 'I cry'

un, the latter form being the fused version of the aorist morpheme plus the neuter singular agent prefix on a verb root begin-

ning with /a/ (i.e., PNI **wa?*+*w+a*. . .). Examples of the aorist morpheme are given in table 14.

TABLE 14
THE AORIST

Nottoway		Tuscarora
<i>waharee</i>	'to hang'	<i>wa?ká:rǝ?</i> 'I hung it up'
<i>waskehee</i>	'to see'	<i>wáhskǝ?</i> 'you saw it'
<i>wasweke</i>	'to speak'	<i>wáhswǝ?</i> 'you spoke'
<i>untchore</i>	'to eat'	<i>ǝǝú:ri?</i> 'it ate'
<i>untatren</i>	'to cut'	<i>ǝ?náíhrǝ?n</i> 'it cut itself'
<i>untatreeyou</i>	'to kill'	<i>ǝ?na?rí:yu?</i> 'it killed itself'

TABLE 15
THE PRONOMINAL PREFIXES

PNI * <i>k(e)</i> + 'first singular agent (I)'		
Nottoway <i>ge-</i>	<i>gesnunke</i> <i>getunke</i> <i>genuheha</i>	'your (i.e., my) hand' 'your (i.e., my) belly' 'weak (lit. I'm old)'
Tuscarora <i>kyǝ-</i>	<i>kyǝ?yhiú:ǝh</i> <i>kyǝtkwǝ?kyǝ</i>	'my chin' 'my stomach'
PNI * <i>hs(e)</i> + 'second singular agent (you)'		
Nottoway <i>se-/s-</i>	<i>setunke</i> <i>setarakē</i> <i>suntunke</i>	'my (i.e., your) belly' 'the head (your head)' 'the ears (your ears)'
Tuscarora <i>sǝ-/s-</i>	<i>sǝtkwǝ?kyǝ</i> <i>shǝhnǝ?kyǝ</i>	'your stomach' 'your ears'
PNI * <i>hra-</i> 'third singular masculine agent (he)'		
Nottoway <i>hra-/ra-</i> ¹	<i>thrahunte</i> <i>ararher</i> <i>rasso</i>	'to hear (lit. his ears)' 'to drink (that he drink)' 'cypress'
Tuscarora <i>hra-/ra-</i>	<i>thratá:krǝ?</i> <i>ahrayǝ:thu?</i> <i>rá:ru?</i> <i>rá?kwihš</i>	'there he resides' 'that he plant' 'black oak' 'turtle'
PNI * <i>ka-/kǝ-/w-</i> 'neuter singular agent (it)'		
Nottoway <i>ga-/kun-/w-</i>	<i>gatkum</i> <i>gahuntee</i> <i>kunte</i> <i>weesrunt</i> <i>waquast</i>	'the blood' '(it's) black' 'eel' 'strawberries' '(it's) good'

Tuscarora	<i>ka-/kǎ-/w-</i>	<i>kátkǎ?</i> <i>kahǎsǎi:</i> <i>kǎ?nǎh</i> <i>wí:sǎ:t</i> <i>wákwahst</i>	'blood' 'it's black' 'eel' 'strawberries' 'it's good'
PNI * <i>ye-</i> 'feminine/zoic agent (she/it/one)'			
Nottoway	<i>ye-/e-</i>	<i>yetunke</i> <i>eskaharant</i> <i>ekunsquare</i>	'(one's) nails' '(one's) mouth' '(one's) cheeks'
Tuscarora	<i>yǎ-/ǎ-</i>	<i>yǎhskarahkwarátǎ?</i> <i>yǎká:θ?ah</i> <i>ǎ?ǎhnǎh</i> <i>ǎtkwarǎh</i>	'flax' 'girl' 'her hands' 'her blood'
PNI * <i>wakw(e)</i> 'first-person singular patient (I/me)'			
Nottoway	<i>ak-/aqu-</i>	<i>akuhor</i> <i>aqueianha</i> <i>aquatio</i>	'(my) old man' '(my) boy' '(my) young man'
Tuscarora	<i>ak-/akw-</i>	<i>akrǎhsǎh</i> <i>akwáhyawǎh</i> <i>akwǎhwá?nǎ?</i>	'my leg' 'my fruit' 'my niece/nephew'
PNI * <i>ca-</i> 'second-person singular patient (you)'			
Nottoway	<i>sa-</i>	<i>sattaak</i> <i>satuntatag</i> <i>sakarantoo</i>	'(your) bed' '(you) listen' '(you) smell (it)'
Tuscarora	<i>θǎ-</i>	<i>θatáknǎh</i> <i>θathǎhnǎh</i> <i>θakǎhruk</i>	'your bed' 'your own ears' 'you smell it'
PNI * <i>hro-</i> 'third singular masculine patient (him)'			
Nottoway	<i>ro-</i>	<i>ronunquam</i> <i>rosquenna</i>	'bee' 'mouse'
Tuscarora	<i>ru-</i>	<i>rutǎkrahr</i> <i>ru?tǎ:yu?</i>	'frog' 'mosquito'
PNI * <i>yo-/yaw-</i> 'third singular neuter patient (it)'			
Nottoway	<i>you-/o-/aw-</i> ²	<i>youhanhū</i> <i>otkum</i> <i>onushag</i> <i>oteusag</i> <i>awenkrāg</i>	'light' 'devil' 'house' 'nose' 'feather'
Tuscarora	<i>yu-/u-/aw-</i>	<i>yú:huks</i> <i>útkǎh</i> <i>unǎhsǎh</i> <i>u?tyǎhsǎh</i> <i>awǎirǎ?nǎh</i>	'light' 'bad spirit' 'house' 'nose' 'horns'
PNI *(<i>ya</i>) <i>ko-</i> 'feminine/zoic patient (her/it/one)'			
Nottoway	<i>go-</i>	<i>gotyāg</i> <i>gotyakum</i>	'(one's) marriage' '(her) husband'
Tuscarora	<i>ku-</i>	<i>kuyá:kǎh</i> <i>kuráhkukh</i>	'her spouse' 'one's ruler'

¹Gender prefixes are often used on plant and animal names with no discernible basis for the choice of gender.

²The neuter prefix *o-* occurs on well over half of the nouns in their elicitation form (unpossessed), just as its cognate *u-* does in Tuscarora. The neuter prefix appears to add no meaning to the noun in these forms.

Pronominal prefixes in the Northern Iroquoian languages may be divided into three classes: the agent prefixes, used to mark the agent of verbs and to mark inalienable possession on nouns; the patient prefixes, used to mark the patient of a verb and to mark alienable possession on nouns; and the transitive prefixes, used to mark the agent and the patient of a transitive verb and to mark possession on certain words denoting kinship relations. In addition to the agent-patient distinction, Northern Iroquoian pronominals mark the gender (masculine, neuter, feminine/zoic), the person (first, second, third), and the number (singular, dual, plural) of the referent, as well as marking the distinction between inclusive and exclusive first persons in the dual and plural (i.e., 'you and I' vs. 'he/she/it and I', 'you, them, and I' vs. 'them and I'). In the Wood vocabulary, only the singular agent and patient pronouns are attested. Fortunately, these are attested for all genders and persons in each of the two sets. For the most part, the first- and second-person singular prefixes are attested only as possessive markers on nouns. Here I might note that Wood made a classic error in collecting his data. When he asked for second-person singular pos-

sessive forms of nouns (your), he perhaps did it by pointing either at a part of the native speaker's body or apparel or at one of the native speaker's possessions. The result was that he got first-person singular possessive forms (my) from the speaker. Fortunately, Wood committed the same mistake when collecting first-person singular possessive forms; that is, he pointed at something of his own, in which case the speaker gave him the second-person singular possessive prefix. For example: Nottoway *sesnunke* 'my hand', Mohawk *sesnúhsa?ke* 'your hand', Nottoway *gesnunke* 'your hand', Mohawk *kesnúhsa?ke* 'my hand'.

The total range of pronominal prefixes present in Wood's manuscript is given in table 15, with examples from the manuscript and Tuscarora forms presented for comparison.

Although not properly pronominal prefixes, the semireflexive morpheme (denoting a sort of 'middle voice') and the reflexive morpheme often interact closely with the pronominal morphemes, and are therefore frequently discussed at the same time. Both the semireflexive morpheme, deriving from PNI **at(e)*, and the reflexive morpheme, from PNI **atat(e)*, are attested

TABLE 16

PNI <i>*at(e)</i> 'semireflexive'		
Nottoway <i>at-/t-/ate-</i>	<i>satuntatag</i>	'(you) listen'
	<i>untoreesweg</i>	'(it) drown(ed)'
	<i>untequara</i>	'(it) stab(bed)'
Tuscarora <i>at-/ʔn-/aʔnæ-</i>	<i>θathǎhnæh</i>	'your own ears'
	<i>ǎʔnurirwǎʔ</i>	'it choked'
PNI <i>*atat(e)</i> 'reflexive'		
Nottoway <i>tat-</i>	<i>untatren</i>	'(it) cut'
	<i>untatreeyou</i>	'(it) kill(ed)'
	<i>untatenheerung</i>	'strike (it struck)'
Tuscarora <i>ʔnaʔ-/ʔnat-</i>	<i>ǎʔnáthraʔn</i>	'it cut itself'
	<i>ǎʔnaʔri:yuʔ</i>	'it killed itself'
	<i>ǎʔnaikǎhruk</i>	'it struck itself'

for Nottoway. Examples of these two morphemes are given in table 16.

The remaining nonroot morphemes of Nottoway are suffixes on root morphemes. There are five of these: the simple noun suffix, the internal locative, the external locative, the characterizer, and the serial aspect marker. The simple noun suffix, from PNI *-a?, is transcribed -ag in Nottoway and occurs on numerous nouns (e.g., *onushag* 'house', *ototorag* 'door', *oharag* 'lean meat', *orirag* 'paper', *orwisag* 'tail', *oherag* 'grass', etc.). The internal locative (meaning 'in' or 'under') has the form -coon in Nottoway and is from PNI *-kōh. It occurs in only one item, *oraracoon* 'the woods' (cf. Tuscarora *urhá:ʔnakō*: 'in the woods'). The external locative, derived from PNI *keh, is quite frequent in the Nottoway material. Its frequency is due

principally to the fact that, in addition to its principal use where it is attached to the end of a noun to give the meaning 'on', 'at', etc., it also has a secondary use in that it quite regularly occurs at the end of nouns denoting body parts which are inalienably possessed. In this latter use, it loses its locative force. Examples of the suffix are given in table 17.

The characterizer suffix, meaning 'one or people who is/are characterized in a certain way', is often used, particularly in Tuscarora, to form the name of groups of people, nations, tribes, countries, etc. The suffix is descended from Proto-Northern-Iroquoian *(a)ka? and appears in Nottoway as -hoka and -haka? in the two versions of the Nottoway name for themselves, *cheroohoka* (H) and *tcherohaka?* (H) (the meaning of the first element, i.e.,

TABLE 17

THE EXTERNAL LOCATIVE

PNI *keh		
Nottoway -ke	<i>setarakē</i> 'the (your) head'
		<i>setunke</i> 'my (your) belly'
		<i>getunke</i> 'your (my) belly'
		<i>sesnunke</i> 'my (your) hand'
		<i>gesnunke</i> 'your (my) hand'
		<i>sunsheke</i> 'the (your) knee'
		<i>saseeke</i> 'the (your) foot'
		<i>suntunke</i> 'the (your) ears'
		<i>steereke</i> 'the (your) neck'
		<i>seeke</i> 'the (your) toes'
		<i>skeshunke</i> 'the (your) flesh'
		<i>yetunke</i> '(her) nails'
		<i>eskarunke</i> '(her) eyebrows'
Tuscarora -kyæ	<i>staʔrōʔkyæ</i> 'your head'
		<i>sætkwōʔkyæ</i> 'your stomach'
		<i>sæhsuʔkwāʔkyæ</i> 'your hand/finger/toe'
		<i>sætkwæθōʔkyæ</i> 'your knee'
		<i>sahsōʔkyæ</i> 'your foot'
		<i>shōhnōʔkyæ</i> 'your ears'
		<i>shaʔθāʔkyæ</i> 'your neck'
		<i>syærōʔkyæ</i> 'your flesh'
		<i>æčiskōhkarāʔkyæ</i> 'her nails'
		<i>ækahræʔnōʔkyæ</i> 'her eyebrows'

cheroo-/tchero-, in this word is uncertain, although it may be related to Tuscarora *čárhus* 'tobacco'), as well as in the form *-ka* in the word *quakeruntika* 'heaven' (cf. *quakerhuniè* 'God'). The serial aspect suffix occurs in only one item in the Wood vocabulary where it has the form *-s*, N *kentus* 'to sleep' (cf. T *kǎ:ʔuhs* 'it is asleep', where *-hs* marks the serial aspect).

4. Very little information of a syntactic nature is available from the Nottoway manuscripts. This is to be expected since the material on this language consists of vocabularies and not texts. However, there is evidence for the following syntactic characteristics: (1) the definite article precedes a noun, for example, *hahenū* 'thunder' (cf. T *ha? híʔnǎ?* 'the thunder', where *ha?* is, among other things, the definite article); (2) the first of two juxtaposed nouns modifies the second, for example, *aquia ohonag* 'a deer skin' (*aquia* 'deer', *ohonag* 'skin'); (3) adjectives may either precede or follow the noun they modify, for example, *onoschioke* 'a great river' (*joke* 'river'), *unksawa wokenhu* 'the new year' (*wokenhu* 'a year'), *owan fetchota* 'the ocean' (*auwa* (= *owan*) 'water'); (4) the word for 'teen' comes last in forming

numbers between 'ten' and 'twenty', for example, *unteskahr* 'eleven' (*unte* 'one'), *dekaneskahr* 'twelve' (*dekanee* 'two'), *arsaskahr* 'thirteen' (*arsa* 'three') (cf. T *ǎ:či ʔkáhahr* 'eleven', *nǎ:kti: ʔkáhahr* 'twelve', *ǎhsǎ ʔkáhahr* 'thirteen'); (5) decades are formed by placing the number of decades first, followed by the partitive prefix affixed to the word for 'ten', for example, *arseneewarsa* 'thirty' (T *ǎhsǎ tiwáhʔhǎh*), *hentagneewarsa* 'forty' (T *hǎʔtahk tiwáhʔhǎh*), etc. There is also evidence in the manuscript data which shows that Nottoway, like the other Northern Iroquoian languages, had the morphosyntactic process of noun incorporation (for a detailed discussion of this process in the Northern Iroquoian languages, see Woodbury 1975). The examples in table 18 illustrate noun incorporation of the patient of a transitive verb in Nottoway.

5. A complete listing of the words found in the Wood and Hewitt vocabularies is given in 7. Here, I focus on certain specific aspects of Nottoway vocabulary, namely, the conservative aspects of Nottoway, that is, words inherited from Proto-Northern-Iroquoian which have been lost in many of the other languages, and words

TABLE 18
NOUN INCORPORATION¹

Nottoway <i>yuhtaquaahkum</i> 'shoemaker' (lit. 'one makes shoes')	
<i>yu-</i>	'neuter patient prefix'
<i>-htaqua-</i>	'shoe' (cf. T <i>uhnǎhkwa?</i> , S <i>ahtǎhkwa?</i>)
<i>-ahkum</i>	'to assemble' (cf. T <i>-ahk</i> 'to pick up')
Nottoway <i>satuntatag</i> 'to listen' (lit. 'you stand up your ears')	
<i>s-</i>	'second singular agent prefix'
<i>-at-</i>	'reciprocal'
<i>-unta-</i>	'ear' (cf. T <i>uhǎhnǎh</i> , Oo <i>ohǎhta?</i>)
<i>-tag</i>	'to stand + (?) descriptive aspect' (cf. Oo <i>ikta?</i> 'I'm standing', S <i>i:ke:t</i>)

¹There is also one possible case of "dummy noun incorporation," i.e., the occurrence of a semantically empty unit in the position normally occupied by an incorporated noun: Nottoway *gakuhar* 'to wash' (lit. 'it washes'): *ga-* 'neuter singular agent', *-k-* '(?) dummy noun', *-uhar* 'to wash', cf. T *katuhǎ:rǎ:* 'it washes', where *-r-* is a dummy noun.

which show the peripheral character of Nottoway with respect to the other Northern Iroquoian languages, that is, loan-words shared only by Nottoway and the other peripheral languages, Tuscarora, Cherokee, Huron, and Laurentian, and finally words which are found only in Nottoway and Tuscarora.

The peripheral, or outer, languages of the Iroquoian family are separated by a series of isoglosses from the inner, or eastern, languages. Lounsbury (1961:17) established the outer languages as Cherokee, Laurentian, Huron-Wyandot, and Tuscarora, while the inner languages are Mohawk, Oneida, Onondaga, Cayuga, and Seneca. As will become clear in a moment, Nottoway as well as, probably, Susquehannock (languages which Lounsbury did not use in his comparisons) should be added to the peripheral group. Evidence for the fact that Nottoway (and perhaps Susquehannock) belongs in the peripheral group comes from its words for 'four', 'water', 'rain', 'deer', and 'sun'. The forms for these words are given in table 19.

As Lounsbury noted, the Iroquois words for 'four' go back to two protoforms,

**hē?nahk* and **kayéri*. The Cherokee, Tuscarora, Nottoway, Laurentian, Huron, and Wyandot forms go back to the former, while the Mohawk, Oneida, Onondaga, Seneca, Cayuga, and Susquehannock forms go back to the latter. Susquehannock *rajéne* is here considered a copyist's error for the form *cajére*.

The Iroquois words for 'water' go back to two separate words in the protolanguage. The actual word for 'water' appears to have been **áwē?*, as reflected not only in the Cherokee, Tuscarora, Nottoway, Laurentian, Huron, and Wyandot words for 'water' in general, but also in the Mohawk word for 'in a body of water' *awλ:ke*. The other words for 'water' come from the Proto-Iroquoian word for 'drink', as reflected also in the Tuscarora, Nottoway, and Huron words for 'liquor, spirits', T *uhnæ:kyaħ*, N *anuqua*, H *onekδa*. Proto-Iroquoian *(*o*)*hnek(a?)* 'liquid' appears alone as the word for 'water' in Mohawk; whereas, in the other languages, it appears in combination with the root *-nos-* 'be cold'.

The Iroquois words for 'rain', more specifically 'it's raining', come from three sources. The Tuscarora, Nottoway, Laur-

TABLE 19

	'four'	'water'	'rain'	'deer'	'sun'
Cherokee	<i>nvhki</i>	<i>amayi</i>	<i>akaska</i>	<i>awi</i>	<i>hatoekahthu</i>
Tuscarora	<i>hš?ahk</i>	<i>á:wš?</i>	<i>wš:tu:č</i>	<i>á:kwæħ</i>	<i>hihtæ?</i>
Nottoway	<i>hentag</i>	<i>auwa</i>	<i>yountoutch</i>	<i>aquia</i>	<i>aheeta</i>
Laurentian	<i>honnoscon</i>	<i>ame</i>	<i>onnoscon</i>	<i>asquenondo</i>	<i>isnez (ysney)</i>
Huron	<i>nda'k</i>	<i>aħen</i>	<i>qndot</i>	<i>scotons</i>	<i>qrakδa</i>
Wyandot	<i>ě:ʔdahk</i>	<i>amič?</i>	<i>uⁿdúhska?</i>	<i>uhskčnš:řš?</i>	<i>yà.ⁿdihera:</i>
Susquehannock	<i>rajéne</i>	?	?	<i>haagw</i>	?
Mohawk	<i>kayéri</i>	<i>ohné:ka?</i>	<i>yok λnó:rúħ</i>	<i>osk λnū:tū?</i>	<i>karáħkwa?</i>
Oneida	<i>kayé(li-)</i>	<i>ohne:kános</i>	<i>yok λ.nóle?</i>	<i>osk λnū:tū:</i>	<i>kaláħkwa?</i>
Onondaga	<i>kayéi</i>	<i>ohné:kanos</i>	<i>ostačtyšħ</i>	<i>skčnčřš?</i>	<i>káčħkwa?</i>
Cayuga	<i>kei</i>	<i>ohnékanos</i>	<i>ohstaókyšħ</i>	<i>tewáhšħtes</i>	<i>káħkwa?</i>
Seneca	<i>ke:i</i>	<i>o:nekanos</i>	<i>ostčřtyš:</i>	<i>neokč?</i>	<i>káč:ħkwa?</i>

entian, Huron, and Wyandot words reflect the root *-($\tilde{\epsilon}$)*not*-, while the Onondaga, Cayuga, and Seneca forms reflect a compound *-*star- $\tilde{\epsilon}$ ti*- 'rain-throw'. The Mohawk and Oneida words come from the root *-*k $\tilde{\epsilon}$ nor*-. Given the distribution of these roots in the Iroquois languages, only the root *-($\tilde{\epsilon}$)*not*- can be ascribed to Proto-Iroquoian as the verb 'to rain' with any degree of certainty.

The protolanguage appears to have had two words for 'deer', a generic term **ak*^w appearing in Cherokee, Tuscarora, Nottoway, and Susquehannock, and a more specialized term, probably meaning 'buck, male deer', as it does in Laurentian, **osk $\tilde{\epsilon}$ n $\acute{\epsilon}$ t $\acute{\epsilon}$* . This word became the generic word for 'deer' in Huron, Wyandot, Mohawk, Oneida, and Onondaga, but in Laurentian it occurs glossed as 'des daims (buck, deer)' alongside *a $\acute{\epsilon}$ onnesta* 'un cerf (a stag, deer)'. The Cayuga word is a compound meaning 'two long ears', and the Seneca form is unanalyzable. Neither the Cayuga nor the Seneca words are related to words in any of the other Iroquoian languages signifying 'deer'.

Two words for 'sun' are reflected in the Iroquois languages. The Tuscarora, Nottoway, and Laurentian words lead me to reconstruct a form **h $\acute{\epsilon}$ hne*?. The Wyandot word may also derive from this word. The Huron, Mohawk, Oneida, Onondaga, Cayuga, and Seneca words suggest **ka-r $\acute{\epsilon}$ hkwa(ra)*? as a protoform. However, I might note here that it is quite possible that the words in these languages do not reflect a word directly inherited from Proto-Iroquoian. Instead, it seems probable that their word for 'sun' is a borrowing from an Algonquian language of a word containing the root seen in Shawnee *halaakwa* 'star'. The Cherokee word appears to be unrelated to those in the other languages.

Nottoway contains a considerable

amount of vocabulary which it shares with Tuscarora and no other documented Iroquoian language. Table 20 is a partial list which gives only the Nottoway and the Tuscarora forms.

6. The three most important conclusions that can be drawn from the preceding discussion are: (1) Nottoway is an Iroquoian language; (2) Nottoway is most closely related to Tuscarora of the other Iroquoian languages; and (3) Nottoway is a separate Iroquoian language. The first conclusion is based on the fact that the phonology, morphology, syntax, and vocabulary of Nottoway all show typically Iroquoian features, for example, a distinctive nasal vowel, the absence of a high back vowel, and the absence of labial consonants except in a few questionable items (see table 2); distinct sets of agent and patient pronominal prefixes which are used to distinguish alienable and inalienable possession as well as agents and patients on verbs; the absence of infinitives; the presence of noun incorporation; cognates with the other Iroquoian languages, especially in the basic vocabulary such as numbers, body parts, colors, common plants, animals, etc.

The second conclusion is based on the fact that Nottoway shares more cognates with Tuscarora than with any other Iroquoian language, and on common phonological innovations. A statistical analysis of Nottoway vocabulary with words having the same meaning in Tuscarora, Seneca, Mohawk, and Huron (Rudes 1976: 46-57) showed that, out of a total of 145 words, Nottoway and Tuscarora shared cognates for 104 words, out of which there were 42 words which Nottoway shared only with Tuscarora. Only in 41 words were the Nottoway and Tuscarora forms not cognate. My conclusion thus agrees with that of Hewitt (1910) and Hoffman

TABLE 20

'lightning'	N <i>towatgeheterise</i>	T <i>næwatkaræ?nari:ks</i>
'air'	N <i>yautatch</i>	T <i>ú?na:é</i> 'wind'
'swamp'	N <i>keenu</i>	T <i>ki:nã?</i>
'iron'	N <i>owena</i>	T <i>uwæ:nã?</i>
'cow'	N <i>tosherung</i>	T <i>ushæ:rã:t</i>
'hog'	N <i>waskarrow</i>	T <i>wáθk waræh</i>
'mouse'	N <i>kosquenna</i>	T <i>ruskwæ:nã?</i>
'rat'	N <i>oyentu</i>	T <i>ruyã?tu?</i>
'hen'	N <i>tawrettig</i>	T <i>tahuræ:tik</i>
'squirrel'	N <i>osarst</i>	T <i>θá:st</i>
'rabbit'	N <i>querū</i>	T <i>kwæ:ruh</i>
'wing'	N <i>ohuwistāg</i>	T <i>uy?hwi:θnæh</i>
'tail'	N <i>orwisag</i>	T <i>u?rhwã:θæh</i>
'tree'	N <i>geree</i>	T <i>kyærhi?</i>
'grass'	N <i>oherag</i>	T <i>uhæ:ræh</i>
'peaches'	N <i>quaharrag</i> 'apple'	T <i>kwáhrak</i>
'strawberries'	N <i>weesrunt</i>	T <i>wi:sã:t</i>
'knife'	N <i>osakenta</i>	T <i>uhsakã:ʔnæh</i>
'white'	N <i>owheryakun</i>	T <i>uhwaryá:kã?</i>
'one'	N <i>unte</i>	T <i>á:éi</i>
'hundred'	N <i>kahorstthree</i>	T <i>kayáhstih</i>
'thousand'	N <i>yoastthree</i>	T <i>uyáhstæh</i>
'to sleep'	N <i>kentus</i>	T <i>kã:t?uhs</i> 'it is asleep'
'father'	N <i>akroh</i> (H)	T <i>akhrí?ã:</i> 'my father'
'mother'	N <i>ena</i> (H)	T <i>ã:nã?</i> 'my mother'

(1959), who grouped Tuscarora and Nottoway together.

The third conclusion is more along the lines of an inference than a provable fact. It is clear that if Nottoway shared mutual intelligibility with any of the other Northern Iroquoian languages, it would have been with Tuscarora. However, there is good reason to believe that these two languages were not mutually intelligible. The absence of the change of **t* to /ʔn/, the merger of the fricatives /s/ and /θ/ to /s/ in Nottoway, but not for the most part in Tuscarora, and the only partial shift of vowels in Nottoway made the sound systems of the two languages quite different. Further, there was at least one morphological difference in the use of *-ag* (<PNI *-(a)?) as the simple noun suffix in Nottoway, but *-æh* (<PNI *-eh) in

Tuscarora. The above, plus the fact that Tuscarora and Nottoway were not in complete agreement in the area of vocabulary, make the probability of mutual intelligibility rather low. Of course, one cannot be certain of this, since there are no longer any speakers of Nottoway. However, based on the available evidence, it seems best to consider Nottoway a Northern Iroquoian language separate from, but closely related to, Tuscarora.

7. Occasionally, what look like copyist errors have been encountered. This is particularly common in the case of *n* and *r*. The forms given here are given exactly as found in the manuscripts; however, for words suspected of containing a copyist error, the word is repeated, in parentheses, after the entry, and the error is corrected.

The Wood vocabulary is given first and is published with the permission of the American Philosophical Society.

Nouns of the Universe

The Sun . . . Aheeta
 The Moon . . . Tethrāke
 The Stars . . . Deeshū
 The Clouds . . . Uraseque
 Thunder . . . Hahenū
 Lightning . . . Towatgeheterise
 Air . . . Yautatch
 God . . . Quakerhunte
 Devil . . . Otkum
 Rain . . . Yountoutch
 Snow . . . Kankaus
 Ice . . . Owees
 Fire . . . Auteur
 Water . . . Auwa
 a river . . . Joke
 a great river . . . Onoschioke
 The Ocean . . . OwanFetchota
 a mountain . . . Yenuntenunte
 The Woods . . . Oraracoon
 Rocks . . . Oruntag
 Light . . . Youhanhū
 Darkness . . . Asuntā
 a Swamp . . . Keenu
 Sand . . . Oter
 Gold or Copper . . . Geekquan
 Silver . . . Wanece
 Iron . . . Owena
 Heaven . . . Quakeruntika

Of the Human Species

Man . . . Enihā
 An old man . . . Akuhor
 A young man . . . Aquatio
 A boy . . . Aqueianha
 A woman . . . Ekening
 An old woman . . . Aquasuari
 A young woman . . . Chewasrisha
 Death . . . Anseehe
 A dead body . . . Wahehun
 The head . . . Setarakē
 Marriage . . . Gotyāg
 A husband . . . Gotyakum
 A wife . . . Dekes
 A son . . . Wakatonta
 A daughter . . . Eruhā
 A King . . . Tirer
 The belly . . . Unkē
 My belly . . . Setunke
 Your belly . . . Getunke

The hand or fingers . . . Nunke
 My hand . . . Sesnunke
 Your hand . . . Gesnunke
 The right hand . . . Panunkee
 The left hand . . . Matapanunkee
 The thigh . . . Otitchag
 The knee . . . Sunsheke
 The leg . . . Franseke
 The foot . . . Saseeke
 The hair . . . Howerac
 The eyes . . . Unkoharac
 The mouth . . . Eskaharant
 The ears . . . Suntunke
 The tongue . . . Darsunke
 The teeth . . . Otosag
 The neck . . . Steereke
 The nose . . . Oteusag
 The lips . . . Oarāg
 The chin . . . Ochag
 The toes . . . Seeke
 Blood . . . Gatcum
 Skin . . . Ohonag
 Flesh . . . Skeshunke
 Nails . . . Yetunke
 Heart . . . Sunke
 The cheeks . . . Ekunsquare
 The breath . . . Untures
 The Eye brows . . . Eskarunke
 A shoemaker . . . Yuntaquaankum
 (Yuhtaquaahkum)

Of Animals

A Cow . . . Toshering
 A dog . . . Cheer
 A cat . . . Tose
 A hog . . . Waskarrow
 A boar . . . Garhusung
 A deer . . . Aquia
 A mouse . . . Kosquenna
 A rat . . . Oyentu
 A bull frog . . . Drakon
 Fish . . . Kaintu
 A Shad or Herring . . . Kohan
 An Eel . . . Kunte
 A crab . . . Sosune
 A snake . . . Antatum
 A bird . . . Cheeta
 A turkey . . . Kunum
 A Hen . . . Tawrettig
 A Fox . . . Skeyu
 A Wolf . . . Huse
 A Squirrel . . . Osarst
 A Rabbit . . . Querū
 A house fly . . . Deēsrere
 A Bee . . . Ronuquam

A Shell . . . Odersag
 A Deer Skin . . . Aquia ohonag
 A Wing . . . Ohuwistāg
 A Feather . . . Awenkrāg
 Wool . . . Ostoharag
 The tail . . . Orwisag
 Horns . . . Osherag

The Vegetable Kingdom

A Tree . . . Geree
 A Pine . . . Ohotee
 A red oak . . . Coree
 A Cypress . . . Rasso
 Grass . . . Oherag
 Firewood . . . Geka
 Ashes . . . Oquag
 Bread . . . Gotatera
 Potatoes . . . Anten
 Peaches . . . Rasheē
 Cherries . . . Ratung
 Apples . . . Quaharrag
 Strawberries . . . Weesrunt
 Briars . . . Oster
 A leaf . . . Oharrak

Division of Time

A year . . . Wokenhu
 The new year . . . Unksawa-Wokenhu
 The new moon . . . Dotratung
 Spring . . . Shantaroswache
 Summer . . . Genheke
 Autumn . . . Basheke
 Winter . . . Goshera
 Morning . . . Suntetung
 Day-time . . . Antyeke
 Mid-day . . . Anteneekal
 Evening . . . Gensake
 Night-time . . . Asunta

Domestic Articles

A House . . . Onushag
 The house of some individual . . . Weynushag
 A door . . . Ototorag
 A chimney . . . Odeshag
 A Knife . . . Osakenta
 A Stick . . . Ocherura
 A Gun . . . Ata
 A Bed . . . Sattaak
 Milk . . . Canu
 Spirits . . . Anuqua
 Clothes . . . Aquast
 Smoke . . . Okyer
 Shoes . . . Otagwāg
 Stockings . . . Orisrāg
 Leather . . . Totierhiā

Linen . . . Nikanrārā
 Fat meat . . . Oskaharag
 Lean meat . . . Oharag
 A Fiddle . . . Eruskarintita
 A Bottle . . . Chewak
 Paper . . . Orirag

Adjectives

White . . . Owheryakum
 Black . . . Gehuntee
 Red . . . Ganuntquare
 Green . . . Sekatequantin
 Weak . . . Genuheha
 Dry . . . Yourha
 Wet . . . Yaorā
 Ugly . . . Yesaxa
 Beautiful . . . Yesquast
 Good . . . Waquast
 Bad . . . Wassa
 Hot . . . Tariha
 Cold . . . Watorae
 Angry . . . Thatcharore
 Happy . . . Thatchanunte
 Unhappy . . . Dodoitchewakeraksa
 Old . . . Onahahe
 Young . . . Osae
 Long . . . Ewis
 Short . . . Newisha
 Great . . . Tatchanawihīē
 Little . . . Newisha
 Deep . . . Tatchanuwiras
 Sharp . . . Watchoka
 Round . . . Tatowerente
 Smooth . . . Chuwatee
 Rough . . . Genuaquast
 Hard . . . Wokoste
 Strong . . . Wakoste

Numerals

One . . . Unte
 Two . . . Dekanee
 Three . . . Arsa
 Four . . . Hentag
 Five . . . Whisk
 Six . . . Oyag
 Seven . . . Ohatag (Chatag)
 Eight . . . Dekra
 Nine . . . Deheerunk
 Ten . . . Washa
 Eleven . . . Urteskahr (Unteskahr)
 Twelve . . . Dekaneskahr
 Thirteen . . . Arsaskahr
 Fourteen . . . Hentagskahr
 Fifteen . . . Whiskahr
 Sixteen . . . Oyagskahr

Seventeen . . . Ohatagskahr (Chatagskahr)
 Eighteen . . . Dekraskahr
 Nineteen . . . Deheerunkskahr
 Twenty . . . Dewarthaunkskahr (Dewartha)
 Thirty . . . Arseneewarsa
 Forty . . . Hentagneewarsa
 Fifty . . . Wiskaneewarsa
 Sixty . . . Oyagneewarsa
 Seventy . . . Getaganeewarsa
 Eighty . . . Dekraneewarsa
 Ninety . . . Deheerunknee warsa
 A hundred . . . Kahorsthree
 A thousand . . . Unteyoasthree (yoasthree)

Verbs

To walk . . . Jā
 To ride . . . Unksatā
 To fly . . . Getya
 To swim . . . Orerunte
 To drink . . . Ararher
 To eat . . . Untchore
 To throw . . . Esungwisatooe
 To cry . . . Tehesuhard
 To sleep . . . Kertus (Kentus)
 To fight . . . Wauntrehu
 To wound . . . Yahterund
 To kill . . . Urtatreeyou (Untatreeyou)
 To hear . . . Thrahurta (Thrahunta)
 To see . . . Waskehee
 To smell . . . Saharantoo
 To touch . . . Swarore
 To speak . . . Wasweke
 To hunt . . . Kunun
 To fish . . . Watchunund
 To love . . . Tatchadanuste
 To hate . . . Dotautche
 To pray . . . Durtanhara
 To stab . . . Untequara
 To cut . . . Untatren
 To break . . . Wayetcherorag
 To drown . . . Untoreesweg
 To hang . . . Waharee
 To strike . . . Untateheerug (Untatenheerug)
 To shoot . . . Untatchag
 To listen . . . Satuntatag
 To wash . . . Gakuhar
 To run . . . Sarioka
 To leap . . . Deuntirasrag

The following items are from the manuscript edited by Hewitt in the National Anthropological Archives of the Smithsonian Institution. I have omitted all words

which occur in both the Wood and the Hewitt manuscripts, since those in the latter appear to have been copied from the former, albeit with some distortions. These forms from the Hewitt manuscript are followed by (H).

No . . . roh (H)
 Yes . . . hokeh (H)
 Bark . . . ohseroch (H)
 Corn, maize . . . ohnehahk (H)
 Infant, child . . . nahkasehkeh (H)
 Father . . . akroh (H)
 Mother . . . ena (H)
 Sow . . . wakatouta (H)
 Brother . . . kahtaatekeh (H)
 Sister . . . ahkahchee (H)
 Arm . . . ohnunchahk (H)
 Belly . . . ohtequahk (H)
 Chief . . . etesheh (H)
 Arrow . . . aruntquaserauk (H)
 Earth, land . . . ahonroch (H)
 Lake . . . kahahtahia (H)
 Mountain . . . newntehs (H)
 I . . . ee (H)
 Nottoways . . . Cherohakah (H)

REFERENCES

- BINFORD, LEWIS R. 1967. An ethnohistory of the Nottoway, Meherrin, and Weanock Indians of southeastern Virginia. *Ethnohistory* 14, nos. 3-4:106-218.
- CAMPANIUS, JOHAN. 1696. *Lutheri catechismus ofwersatt på american-virginske språket*. Stockholm. Reprint ed., Stockholm: I. Haeggstrom, 1937.
- CHAFE, WALLACE L. 1974. The Northern Iroquoian languages. To appear in *The Handbook of North American Indians*. Washington, D.C.: Smithsonian Institution.
- FREEMAN, JOHN F., AND MURPHY D. SMITH. 1966. *A Guide to Manuscripts relating to the American Indian in the Library of the American Philosophical Society*. Philadelphia: American Philosophical Society.
- HEWITT, J. N. B. 1910. Hewitt. *Handbook of American Indians North of Mexico*, ed. F. W. Hodge, p. 87. BAE-B 30, pt. 2.
- . n.d. Comparative vocabulary of Nottoway and Tuscarora. BAE ms., National Anthropological Archives catalog no. 3844. Washington, D.C.
- , ed. n.d. Nottoway-Anonymous. BAE ms., National Anthropological Archives catalog no. 3603. Washington, D.C.

- HODGE, FREDERICK WEBB. 1910. Handbook of American Indians North of Mexico. BAE-B 30, pt. 2.
- HOFFMAN, BERNARD G. 1959. Iroquois linguistic classification from historical materials. *Ethnohistory* 6:160-85.
- JEFFERSON, THOMAS. 1820. Letter to Peter DuPonceau. American Philosophical Society ms. no. 2471. Philadelphia.
- LOUNSBURY, FLOYD G. Iroquois-Cherokee linguistic relations. Symposium on Cherokee-Iroquois Culture, pp. 1-20. BAE-B 180.
- MATISOFF, JAMES A. Rhinoglottophilia: the mysterious connection between nasality and glottality. *Nasálfest*, ed. C. A. Ferguson, L. M. Hyman, and J. J. Ohala. Stanford, Calif.: Language Universals Project.
- RUDES, BLAIR A. 1976. Historical phonology and the development of the Tuscarora sound system. Ph.D. dissertation, State University of New York, Buffalo.
- SHEA, JOHN GILMARY. 1860. A French-Onondaga Dictionary from a Manuscript of the Seventeenth Century. New York: Cramoisy Press. Reprint ed., New York: AMS Press, 1970.
- WILLIAMS, MARIANNE MITHUN. 1974. A grammar of Tuscarora. Ph.D. dissertation, Yale University.
- WOOD, JOHN. 1820. Vocabulary of the language of the Nottoway tribe of Indians. American Philosophical Society ms. no. 2478. Philadelphia.
- WOODBURY, HANNI J. 1975. Noun incorporation in Onondaga. Ph.D. dissertation, Yale University.