ARAPAHO DIALECTS

BY

A. L. KROEBER

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PART I

DIALECTS OF THE ARAPAHO GROUP

THE DIALECTS

According to the latest authority, Dr. Truman Michelson, the languages of the great Algonkin family fall into four primary, substantially co-ordinate, but very unequal groups. Three of these are Blackfoot, Cheyenne, and Arapaho. The fourth, or Eastern-Central, comprises all the other dialects of the family. The Blackfoot, Cheyenne, and Arapaho were buffalo hunters in the open plains. The other tribes with scarcely an exception were timber people. It is erroneous, however, to look for an exact repetition of this primary cultural cleavage in the linguistic organization of the family. The Blackfoot, Cheyenne, and Arapaho tongues are as distinct from one another as from the remaining languages. This fact had indeed been asserted, in so far as the imperfect evidence permitted opinion, before Dr. Michelson's exact comparative studies, and has long rendered very improbable, at least as regards the Blackfoot and the Arapaho, the prevailing assumption, which is still largely current, that all the Plains Algonkin tribes are recent offshoots from the main body of the stock in the wooded region. It cannot be emphasized too strongly that wherever these tribes may originally have lived, they were not, for a long time past, close relatives and perhaps not even neighbors of the Cree, Ojibwa, or any other known Algonkin division. The recent brilliant discovery of Dr. E. Sapir that the far-away Yurok and Wiyot languages on the Pacific Coast of California are Algonkin proves that the history of this great assembly of tongues cannot be deduced by any off-hand inference from recent habits of life or distribution of the Indian tribes involved. The writer believes that the Arapaho have been separated from the Central and Eastern Algonkins for more than a thousand years.

The Arapaho recognize five former divisions of their people. As placed by them in order from south to north, these were the Nāwaḥi-nahā'na or South-people, the Hānaxawūne'na or Rock-people, the Hinana'e'ina or Arapaho proper, the Bāsa'wūne'na or Wood-

house-people, and the Hitōune'na or Begging-people. The last are
the tribe that calls itself Ha'a'ninin and has long been known as
Atsina or Gros Ventre of the Prairie. The Arapaho proper have for
a considerable time been divided into a northern and a southern
branch. As the language of these two halves scarcely differs even
dialectically, the distinction, however important historically, may be
disregarded in the present connection.² The three other tribes have
long since coalesced with the Arapaho. The Bāsa'wūnena, whose
dialect was very similar to that of the Hinana'ēina, are still to be
found among them in some numbers, though without any identity as
a separate group. A very few people remembering something of the
Nā'waśināhāna dialect were living in 1899. From one of these was
obtained the brief vocabulary given below. This dialect is more
divergent from Arapaho proper than either Bāsa'wūnena or Gros
Ventre, and, at least superficially, shows some resemblance to Chey-
enne. No one was found who remembered the speech of the Hā'a-
na'axawūnena, which is said by the Arapaho to have been the most
different from their own. One of their submerged dialects, probably
this Ha'anaxawūnena tongue, some Arapaho declare to have been
intermediate between their own speech and Blackfoot. The state-
ment is here made only on Indian authority. It is not impossible
that some specimens of this speech may yet be recoverable by careful
search among the Arapaho.

A brief comparative vocabulary of the four dialects on which
material could be obtained is appended. This is unfortunately badly
selected, and the phonetic perception and rendering are no doubt
inadequate even for Arapaho and Gros Ventre, which the author had
ampler opportunity to hear. Further, the words in the two other
dialects were obtained from people who no longer habitually used
them, perhaps had never done so. Still, the lists contain new infor-
mation, which may never be duplicated, and are therefore given with
all their imperfections.

Am. Ethn., Bull. 30, 73, 1907), gives the five Arapaho subdivisions differently,
apparently through identifying the Nā'waśināhāna with the Na'wuinena, the
southern half of the Arapaho proper. He therefore virtually omits the former
and exalts the southern branch of the Arapaho into a distinct division. Politi-
cally this may be correct for recent centuries, but the existence of a markedly
separate Nā'waśināhāna dialect, as discussed below, necessitates the recognition
of this people, instead of the southern Arapaho proper, as one of the five divi-
sions, from the point of view of language and earlier history. The only alter-
native is to assume the specimens of speech obtained as Nā'waśināhāna to be
not Na'wuinena, but Hā'anaxawūnena, a proceeding which would reconcile
all conflicting statements, but which would be arbitrary.
## Comparative Vocabulary

<table>
<thead>
<tr>
<th></th>
<th>Arapaho</th>
<th>Southern People</th>
<th>Wood-lodge People</th>
<th>Gros Ventre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Hinana'cina</td>
<td>N’mawbinahna</td>
<td>Bosa’wunena</td>
</tr>
<tr>
<td>1</td>
<td>tō’saix</td>
<td>tcā*ciλaha’a</td>
<td>nānisetci</td>
<td>tečelity</td>
</tr>
<tr>
<td>2</td>
<td>nīs</td>
<td>nisäh’a</td>
<td>nāniseh’</td>
<td>nīfā</td>
</tr>
<tr>
<td>3</td>
<td>nāsā</td>
<td>nahaha’</td>
<td>nānāsei</td>
<td>nābā’</td>
</tr>
<tr>
<td>4</td>
<td>yēin’</td>
<td>niabaha’</td>
<td>yānānēi</td>
<td>yānī</td>
</tr>
<tr>
<td>5</td>
<td>yānan’</td>
<td>niotanah’a</td>
<td>yanañani</td>
<td>yätani</td>
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<tr>
<td>6</td>
<td>nītax’a</td>
<td>nēx*Iōti</td>
<td>nītētax</td>
<td>nētyättos</td>
</tr>
<tr>
<td>7</td>
<td>nītax’a</td>
<td>nīciota</td>
<td>nīsā*tax</td>
<td>nīfētos</td>
</tr>
<tr>
<td>8</td>
<td>nāsā*tax’a</td>
<td>nēxiyōhah’a</td>
<td>nānāsā*tax’eit</td>
<td>nābētos</td>
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<tr>
<td>9</td>
<td>sī’ta</td>
<td>ciōxtähah’a</td>
<td>ciōxtahah’</td>
<td>ah’hābēt’tos</td>
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<td>10</td>
<td>bā’tātax’a</td>
<td>maxtoxtahah’a</td>
<td>bā’tatōxe</td>
<td>bētā’tos</td>
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<tr>
<td>man</td>
<td>hinen’</td>
<td>hiten</td>
<td>hini</td>
<td>hineni</td>
</tr>
<tr>
<td>woman</td>
<td>hisei</td>
<td>hīhi’i</td>
<td>hisāna’</td>
<td>hīfā</td>
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<tr>
<td>child</td>
<td>teia</td>
<td>hakutsa’anah’a</td>
<td>teia*nīh’</td>
<td>teia*nā</td>
</tr>
<tr>
<td>white man</td>
<td>nih ’ah’o’na</td>
<td>matsōhu’o</td>
<td>ni’ā’ss</td>
<td>nix ’ā’t</td>
</tr>
<tr>
<td>father</td>
<td>neisana’</td>
<td>hīr’exti</td>
<td>hīsanānīn</td>
<td>nīfēna’</td>
</tr>
<tr>
<td>mother</td>
<td>neina’</td>
<td>hā’ieti</td>
<td>neinah’</td>
<td>nēma’</td>
</tr>
<tr>
<td>elder brother</td>
<td>nārih’</td>
<td>nixti’o</td>
<td>nīh ’a’n’</td>
<td>nāhah’</td>
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<tr>
<td>son</td>
<td>neih’</td>
<td>nēiēt’a</td>
<td>neiha’</td>
<td>neiha’</td>
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<tr>
<td>daughter</td>
<td>natan’</td>
<td>nax’tānah</td>
<td>natān’</td>
<td>natan</td>
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<tr>
<td>grandfather</td>
<td>nāhā’cibā</td>
<td>nāhācibā’</td>
<td>nēbāhā’s</td>
<td>nēbāsēb</td>
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<td>grandmother</td>
<td>neihab’</td>
<td>n‘i’cītah’</td>
<td>nēbāh’</td>
<td>nēbāh’</td>
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<tr>
<td>grandchild</td>
<td>neici</td>
<td>masixsan</td>
<td>hīsēi</td>
<td>bēsēθ</td>
</tr>
<tr>
<td>eye</td>
<td>bāci</td>
<td>maic</td>
<td>hīfē</td>
<td>bēic</td>
</tr>
<tr>
<td>nose</td>
<td>beic</td>
<td>matin</td>
<td>hitcinā</td>
<td>betyi</td>
</tr>
<tr>
<td>mouth</td>
<td>bāti</td>
<td>meitec’ta</td>
<td>hīnteic’</td>
<td>bitsit’</td>
</tr>
<tr>
<td>tooth</td>
<td>bēteci’o</td>
<td>meitec’ta</td>
<td>hīnteican</td>
<td>bītāni</td>
</tr>
<tr>
<td>tongue</td>
<td>bēień’</td>
<td>bało</td>
<td>hīnteican</td>
<td>bītān</td>
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<tr>
<td>ear</td>
<td>wanatana’</td>
<td>wanot</td>
<td>hisāna’</td>
<td>wanot’</td>
</tr>
<tr>
<td>neck</td>
<td>bōsana’</td>
<td>moxta’</td>
<td>monɔxta’</td>
<td>moxta’</td>
</tr>
<tr>
<td>belly</td>
<td>wanot</td>
<td>hitcet</td>
<td>bātyetyi</td>
<td></td>
</tr>
<tr>
<td>hand</td>
<td>bātec</td>
<td>hitcet</td>
<td>bātyeti</td>
<td></td>
</tr>
<tr>
<td>foot</td>
<td>wa’a’q’i</td>
<td>mo’oxts</td>
<td>hi ’ā’q’o</td>
<td>wa’a’tas</td>
</tr>
<tr>
<td>house</td>
<td>nina’a</td>
<td>mī’in</td>
<td>nina’, ni’in*</td>
<td>nīn, nin*</td>
</tr>
<tr>
<td>house</td>
<td>ha ’awu</td>
<td>hā’axamunθ</td>
<td>ha ’awu*</td>
<td></td>
</tr>
<tr>
<td>bow</td>
<td>bātā</td>
<td>ma ’axta</td>
<td>ba’tā</td>
<td></td>
</tr>
<tr>
<td>arrow</td>
<td>ho’θ</td>
<td>hot</td>
<td>hōci*</td>
<td>hōtsi</td>
</tr>
<tr>
<td>sun, luminary</td>
<td>hicis</td>
<td>hicihia*</td>
<td>hīcs*</td>
<td>hīsōs</td>
</tr>
<tr>
<td>star</td>
<td>hicis</td>
<td>hicihia*</td>
<td>hīcs*</td>
<td>hīsōs</td>
</tr>
<tr>
<td>water</td>
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<td>nete’, nets, nits</td>
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<tr>
<td>river</td>
<td>nitciye</td>
<td>tite</td>
<td>niteiye*</td>
<td>nitsi’ *</td>
</tr>
<tr>
<td>stone</td>
<td>hahah’anā’k’ā’</td>
<td>haxta</td>
<td>haha’ñā’k’ā*</td>
<td>axa’ñān’tryā’</td>
</tr>
<tr>
<td>earth</td>
<td>hahah’anah’a</td>
<td>mixta’amu</td>
<td>bita’awu</td>
<td>bita’awu</td>
</tr>
<tr>
<td>fire</td>
<td>iet’ā’</td>
<td>ih ’ōt’ā’</td>
<td>hixt, ih ’ā’t*</td>
<td>isotā’</td>
</tr>
<tr>
<td>wood</td>
<td>bā’c’, bāx’</td>
<td>ma’</td>
<td>bāc’, bāx’</td>
<td>bītś, bēis’</td>
</tr>
<tr>
<td>metal</td>
<td>beiteci’</td>
<td>māhi’i’tsǐt’a</td>
<td>beiteci’</td>
<td>bitś</td>
</tr>
<tr>
<td>road</td>
<td>ba’as</td>
<td>mihi’a</td>
<td>ba’ah’</td>
<td>hahātc’</td>
</tr>
<tr>
<td>tree, cottonwood</td>
<td>hahah’ti</td>
<td>hoxtotx</td>
<td>hahā’ti</td>
<td>hahā’tina’</td>
</tr>
<tr>
<td>grass, medicine</td>
<td>waxu’q’</td>
<td>maxsom</td>
<td>waxu’q’</td>
<td>wasiina’</td>
</tr>
<tr>
<td>horse</td>
<td>hiwaxuh’a-x-ābi</td>
<td>masoutihem</td>
<td>hiwaxuh’ah’a</td>
<td>hīwax ’āθ</td>
</tr>
<tr>
<td>dog</td>
<td>heθ-ābi</td>
<td>hatam</td>
<td>hahā, hīfēbiha’</td>
<td>hote</td>
</tr>
<tr>
<td>buffalo</td>
<td>hahā’tc’</td>
<td>hitā’mō’</td>
<td>hīnā’tyei</td>
<td></td>
</tr>
<tr>
<td>buffalo (herd)</td>
<td>hījina’</td>
<td>mixtih’</td>
<td>hīch’i’</td>
<td></td>
</tr>
<tr>
<td>deer</td>
<td>bī’i’</td>
<td>mixtih’</td>
<td>bī’i’</td>
<td></td>
</tr>
<tr>
<td>antelope</td>
<td>nisitec’, na*nitec’</td>
<td>tecitec’a</td>
<td>nictīe’</td>
<td>na’nity</td>
</tr>
<tr>
<td>elk</td>
<td>hiwax’</td>
<td>himaxsōut</td>
<td>hiwax’</td>
<td>himaxsōut</td>
</tr>
<tr>
<td>mountain sheep</td>
<td>hota’</td>
<td>hoxtōh’a</td>
<td>hotā’</td>
<td>hote</td>
</tr>
</tbody>
</table>

1916
### Notes on Vocabulary

1 From Tall Bear.

2 Unmarked words from the wife of Row-of-Lodges; starred words from Tall-Bear.

3 An I was recorded, but seems doubtful, as the Arapaho ordinarily are unable to pronounce this sound. The word for 'rain' in the same dialect was, however, recorded both as hiinsivaxta and hiinsilaxta.

4 "Small." Evidently contains the diminutive suffix, as does the Basa'wunena form.

5 The manuscript record may be read either with final s or ə.

### Additional Words—Arapaho Proper

<table>
<thead>
<tr>
<th>English</th>
<th>Arapaho</th>
<th>Southern People</th>
<th>Wood-lodge People</th>
<th>Gros Ventre</th>
</tr>
</thead>
<tbody>
<tr>
<td>beaver</td>
<td>հաբեկ</td>
<td>համահ'</td>
<td>հաբեկ*</td>
<td>հաբես</td>
</tr>
<tr>
<td>rabbit</td>
<td>նա'ք*</td>
<td>մա'ք*</td>
<td>նա'ք*</td>
<td>ռատِ</td>
</tr>
<tr>
<td>bear</td>
<td>ոք*</td>
<td>մահոմ</td>
<td>ոք* սավունա*</td>
<td>ա տա</td>
</tr>
<tr>
<td>wolf</td>
<td>հա'ք*</td>
<td>սաո*</td>
<td>հա'ք*</td>
<td>տուเย</td>
</tr>
<tr>
<td>skunk</td>
<td>ժուհ</td>
<td>տե'ա*</td>
<td>ժուհ*</td>
<td>նյու</td>
</tr>
<tr>
<td>eagle, bird</td>
<td>հահ'ա*</td>
<td>հու</td>
<td>հու</td>
<td>ա տա</td>
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<tr>
<td>crow</td>
<td>մուշտի*</td>
<td>մուշտի*</td>
<td>մուշտի*</td>
<td>ա տա</td>
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<td>magpie</td>
<td>բա'ա*</td>
<td>բա'ա*</td>
<td>բա'ա*</td>
<td>բա'ա</td>
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<tr>
<td>turtle</td>
<td>անա'ա*</td>
<td>անա'ա*</td>
<td>անա'ա*</td>
<td>ա տա</td>
</tr>
<tr>
<td>supernatural</td>
<td>բանա*</td>
<td>մանա*</td>
<td>բան*</td>
<td>բա</td>
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<tr>
<td>large</td>
<td>բանա*</td>
<td>բան*</td>
<td>բան*</td>
<td>բա</td>
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<td>white</td>
<td>նա'ք*</td>
<td>նա'ք*</td>
<td>նա'ք*</td>
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<tr>
<td>black</td>
<td>վո'թ*</td>
<td>վո'թ*</td>
<td>վո'թ*</td>
<td>վո'թ</td>
</tr>
<tr>
<td>red</td>
<td>բ*</td>
<td>բ*</td>
<td>բ*</td>
<td>բ</td>
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<tr>
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<td>նիհա'յ*</td>
<td>նիհա'յ*</td>
<td>նիհա'յ*</td>
<td>նիհա'յ</td>
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<td>beaver</td>
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<td>հաբեկ*</td>
<td>հաբեկ*</td>
<td>հաբեկ</td>
</tr>
<tr>
<td>rabbit</td>
<td>նա'ք*</td>
<td>նա'ք*</td>
<td>նա'ք*</td>
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<td>ոք* սավունա*</td>
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<tr>
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<td>ոք* սավունա*</td>
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<td>նիհա'յ*</td>
<td>նիհա'յ</td>
</tr>
</tbody>
</table>

1. From Tall Bear.
2. Unmarked words from the wife of Row-of-Lodges; starred words from Tall-Bear.
3. An I was recorded, but seems doubtful, as the Arapaho ordinarily are unable to pronounce this sound. The word for 'rain' in the same dialect was, however, recorded both as hai-sivaxta and hai-silaxta.
4. "Small." Evidently contains the diminutive suffix, as does the Basa'wunena form.
5. The manuscript record may be read either with final s or ə.
Some of the more readily noted correspondences in sound between Arapaho and the other Algonkin languages, and within the Arapaho dialects, will now be given. There is no pretense that these observations are complete. The material used in the comparisons is familiar to students of the subject in the works of Baraga, Jones, Lacombe, Hayden, Rand, Petter, besides many others whose efforts have not been drawn upon. For this reason the Indian forms of the words referred to in English have not been given. The few who may follow up the present suggestions can verify them with ease, and will be at least as familiar with the material as the writer. The following abbreviations have been used to designate groups, languages, and dialects:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>E-C</td>
<td>Eastern-Central Algonkin</td>
</tr>
<tr>
<td>Mi</td>
<td>Miemac</td>
</tr>
<tr>
<td>F</td>
<td>Fox</td>
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<tr>
<td>O</td>
<td>Ojibwa</td>
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<tr>
<td>Cr</td>
<td>Cree</td>
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<tr>
<td>Ch</td>
<td>Cheyenne</td>
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<tr>
<td>Bl</td>
<td>Blackfoot</td>
</tr>
<tr>
<td>A</td>
<td>Arapaho group of dialects</td>
</tr>
<tr>
<td>Ar</td>
<td>Arapaho proper</td>
</tr>
<tr>
<td>GV</td>
<td>Gros Ventre</td>
</tr>
<tr>
<td>B</td>
<td>Bása+wúñena</td>
</tr>
<tr>
<td>N</td>
<td>Náwašináhána</td>
</tr>
</tbody>
</table>

Of the symbols used, c is s or sh as customary in American philology, θ is the same as English surd th, x is a surd fricative approximately in k position, ā is a as of "bad" in American English, ān and aⁿ are nasalized vowels, ö is somewhat as in German, but probably unrounded, and ' is the glottal stop.

**EXTERNAL PHONETIC CORRESPONDENCES OF THE GROUP K**

Assuming the Eastern-Central group of dialects, in which are included the great majority of those belonging to the family, to be most representative of the original or former condition of Algonkin, it is clear that original k is but rarely retained in the Arapaho division. It appears most commonly as s or h, or is entirely lost or represented only by a glottal stop.

- **k>k:** wolf. Ch, Bl, A.
- **k>t:** black, E-C, k; Ch, xt; A, t.
- **k>te:** metal. Ch, k; Bl, ks; A, te.
- **k>s:** neck, nose, eye, woman, antelope, one. Ch shows k, x, ts. GV usually has θ for s.
- **k>h, x:** beaver, deer, bone, bear, sun, skunk. E-C has k or sk; Bl, usually
k; Ch is variable.

k > ,—: bow, turtle, red, star, eagle, foot, nine. E-C again shows sk as well as k, also kw. Ch usually agrees with Arapaho, while Bl oftener retains k, but is variable.

T

Algonkin dental stops seem to be of two kinds. One appears with but little variation as t in all dialects, including Arapaho. The other varies between t, d, n, and l in the Eastern-Central group, is t in Cheyenne as in Gros Ventre and Nāwašináhāna, but θ in Arapaho proper and Bāsašwūnena.

T

Original labial stops begin to be lost or altered as soon as the Eastern-Central division is left behind, and seem to have disappeared entirely from the Arapaho group.

p, b > k: rabbit, white, sit, sleep. E-C, p, b; Bl, p, k; Ch, k, x; Ar, Na, Bā, k; GV, ts. These are the principal occurrences of k in Arapaho that the author can account for by any phonetic rule.

p, b > tc: tooth, water, night. E-C, p, b; Bl, Ch, p w; A, tc.

N

N usually recurs unchanged in all Algonkin groups, though in some stems the sound varies between n and y. There may be two distinct original sounds involved.

n > n: bone, man, daughter, turtle, one, two, three, six, sing, water, fish, drink. In the last three stems m sporadically supplants n.

n, y > n, y: tongue, mouth, neck, wolf, four, five, sleep. All dialects except Mi and O have y in some of these stems. F and Na show ny.

M

M of original Algonkin seems to be retained quite regularly in Eastern-Central, in Blackfoot, in Cheyenne, and in the Nāwašináhāna dialect of Arapaho. In the three other Arapaho dialects it is entirely lacking, and replaced by b and w. As between these two dialects,

3 E. Sapir, American Anthropologist, n. s., xv, 538, 1913.
sounds, the rule is that b occurs before the front vowels i, e, ā, āⁿ, and w before the back vowels u, o, a, aⁿ.⁴ This is a consistent phonetic law of Arapaho; even within the dialect the same stem changes from b to w if the vowel becomes a back one. Compare Ar neibähāⁿ, my grandmother, and hiniiwahan, his grandmother. It is also illustrative that in trying to say the English word "buffalo," the Gros Ventre, whose idiom follows the same law, speak waänou instead of baänou.

All Arapaho labial sounds seem to be derived from original m.

\[
\begin{align*}
\text{m} & \rightarrow \text{b} (i): \text{eat, defecate, give, dog, deer, earth.} \\
\text{m} & \rightarrow \text{b} (e): \text{metal.} \\
\text{m} & \rightarrow \text{b} (ā, āⁿ): \text{blood, red, bow, wood, turtle, beaver, ten, drink.} \\
\text{m} & \rightarrow \text{w} (a, aⁿ, o): \text{bear, fish, grass, black.}
\end{align*}
\]

In a few words m changes to n in Arapaho. In these Cheyenne has n also.

\[
\text{m} \rightarrow \text{n}: \text{eagle, house.}
\]

W

A more remarkable change is that of original w to Arapaho n. This probably represents the transition w>m>n.

\[
\begin{align*}
\text{w} & \rightarrow \text{n}: \text{buffalo herd, antelope, rabbit, white; perhaps also ear.} \\
& \text{Ar, Bii, GV, regularly n; Na, sometimes m; Ch, Bl, E-C, w.}
\end{align*}
\]

S

Eastern-Central s, like t, sometimes recurs in Arapaho, sometimes becomes θ. There is thus the possibility that eastern s, with which c (sh) has been included, represents two sounds originally distinct.

\[
\begin{align*}
\text{s} & \rightarrow \text{s}: \text{sun, fire, wind, rain, tobacco, two, three.} \\
& \text{Bl, Ch, and Na show —, h, or x frequently.} \\
& \text{GV alone has θ sometimes: tobacco, two, three.} \\
\text{s} & \rightarrow \theta: \text{hair, nine, eat, defecate.} \\
& \text{E-C, s, te, dj; Ch, Na, s; Ar (and Bāt), θ.} \\
\text{s} & \rightarrow \text{h}: \text{stone, yellow.} \\
& \text{A dialects have h, except Na t.} \\
& \text{Perhaps allied to the change k>s, h.}
\end{align*}
\]

VOWELS

The vowels of Arapaho also evince fairly regular correspondences with those of other dialects, though the cause of their most marked peculiarity, the frequent nasalization of ā and a, is not clear to the writer. Counting āⁿ and aⁿ for the present with ā and a, four principal equivalences are noticeable.

⁴ baän, road, and bahaän, thunder, are exceptions noted in simple stem words.
It is evident that there is a special similarity between Fox and the Arapaho group, at least under the orthographies that have been employed; that Na\textsuperscript{a}wa\textsuperscript{9}inin\=an\=an\=a leans towards Cheyenne; that the latter favors a sound usually written o,\textsuperscript{5} and Blackfoot the vowel i.

*Type 1*—i>i: nose, eye, tooth, sun, fire, water, eat, defecate, give, two, reflexive suffix. GV alone several times has o, which in most its occurrences in that dialect seems to replace Ar i.

*Subtype 1a*—i, e>i: woman, pipe, six. F, e; Cr, O, Bl, Ch, i, e, a; A i, sometimes ei.

*Type 2*—i, a>a: heart, bow, wood, dog, beaver, turtle, red, drink, two, three, four, ten. Mi, t; F, ä; Cr, O, i; Bl, Ch, i often, but not always; Na, ä, oftener a; Ar, Bä, GV, ä.

*Subtype 2a*—i, e>e: hand, man, water, metal. Mi, f; F, e; Cr, O, i; Bl, i; Ch, a back vowel; Na, e, ä; Ar, Bä, GV, e.

*Type 3*—a>a: daughter, wolf, buffalo, rabbit, turtle, fish, star, stone, pipe, yellow, jump, sleep. Mi, back vowels, possibly only variant orthographies for a; F, Cr, O, a; Bl, a or o; Ch, o; A, a, a\textsuperscript{e}. GV occasionally shows ou.

*Subtype 3a*—Same, except Bl i, A sometimes ä: tongue, neck, beaver, dog, five, ten.

*Subtype 3b*—Same, except Ar, and sometimes other A dialects, open o for a: neck, bear, black, sit.

*Type 4*—a>u: bone, bear, skunk, rabbit, grass.

### INTERNAL PHONETIC CORRESPONDENCES OF THE GROUP

**BASA\textsuperscript{a}w\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a}**

Within the Arapaho group, BASA\textsuperscript{a}w\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} differs little from the principal dialect. S or c sometimes appears for \( \theta \), as in tooth, foot, white man. This is not a reversion to original s which Arapaho \( \theta \) at times represents, but a further specialization, since Arapaho \( \theta \) in these words stands for original t. On the other hand, Arapaho s, or c, becomes \( \theta \) in BASA\textsuperscript{a}w\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} in the word for nose, and x in fire and wood. In other stems Arapaho \( \theta \), s, and c recur unchanged in BASA\textsuperscript{a}w\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a}. \( T \) occasionally appears as te: tree, mouth, six, ten.

All the BASA\textsuperscript{a}w\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} body-part terms obtained from both informants begin with the possessive prefix of the third person hi-, instead of the indefinite wa-, bä-, of Arapaho, which elsewhere in the family is represented by ma-, mi.

---

\textsuperscript{5} Petter, Mem. Am. Anthr. Ass., i, 448, 1907, denies that Cheyenne properly possesses the vowels i and u.
GROS VENTRE

Gros Ventre presents greater changes.

Ar $x>GV$ s: grass, elk, bear, eight, ten. GV evidently clings to the older sound which Ar has altered.

Ar $x>GV$ $\theta$: wolf, skunk. GV apparently has specialized.

Ar $\theta>GV$ t: tongue, white man, dog, buffalo, buffalo herd, star, metal, five, "nephew" (when not called "son"), father-in-law, son-in-law, brother or sister-in-law of opposite sex. Comparison shows Gros Ventre to be the more conservative, as the Ar sound stands for original t.

Ar $\theta>GV$ ts, tc: foot.

Ar $t>GV$ tc, $ty$: mouth, hand, six. Ba shows a similar tendency. In many other words, on the other hand, such as ear, belly, fire, mountain sheep, black, eight, ten, both Ar and GV have t.

Ar $s, c>GV$ $\theta$: eye, neck, woman, tobacco, two, three, seven, eight, father, older brother, "niece" (when not called "daughter"), daughter-in-law, wife. In some of these words Ar s represents original s or h, in others original k. In other instances Ar s of both origins remains s in GV.

Ar $tc$ was usually heard as either ts, or ty, nearly ky, in Gros Ventre.

Ar $k>GV$ ts: rabbit, white.

Ar $i>GV$ ő: eye, sun, fire.

NA$^a$WU$^a$NIAHANA$^a$

Nä$^a$wu$^a$ninähána$^a$ not only departs farthest from Arapaho proper but stands nearest of the known Arapaho dialects to Cheyenne and Eastern-Central. It presents enough peculiarities, however, to be more than a mere transition.

Nä$^a$wu$^a$ninähána$^a$ agrees with Cheyenne in retaining m which Arapaho has converted to b and w; in fact the dialectic pronunciation of "Washington" was given as mo$^a$cten. It agrees with Cheyenne and Ojibwa in having w, or b, in certain words which possess n in Arapaho. Like these two dialects, it shows n as the initial of the words for four and five, where Arapaho has y. In all these points it departs from the Arapaho group of dialects in the direction of the Central and Cheyenne groups.

As regards s and h sounds, correspondences of all three types, s$>h$, $x>s, s>s$, are found between Arapaho and Nä$^a$wu$^a$ninähána$^a$. Arapaho x is probably an h with partial stricture rather than a true palatal fricative. In place of it Nä$^a$wu$^a$ninähána$^a$ sometimes has s, sometimes a sound written xs. In "bear" h equals x.

Arapaho $\theta$ was usually rendered by t, once or twice by s and ts, in the Nä$^a$wu$^a$ninähána$^a$ words obtained. Three words in this dialect

---

were recorded with θ, but the sound does not agree regularly with any Arapaho sound in these cases, and must be considered doubtful.

Arapaho å was sometimes rendered by á in Nā"wuñāhāna", sometimes by a. Ei becomes e.

The x or h so frequently written before t, ts, and s in Nā"wuñāhāna" causes the suspicion that the informant was exaggerating a real or imaginary greater degree of aspiration, either of vowels or of consonants, than he believed Arapaho to possess. It seems somewhat doubtful whether full xt, xts, and xs were really spoken. Cheyenne, however, shows a similar parasitic x or h before t, as well as before k. Yurok also has xk, and Fox 'k.
PART II

SKETCH OF ARAPAHO PROPER

Phonetic Elements

It is fourteen years since the writer has heard Arapaho or Gros Ventre. At that time his understanding of the nature and formation of spoken sounds was vague. Some experience with and much interest in the two languages have, however, left many distinct motor impressions of words; and a comparison of variant orthographies makes other points clear which inability of interpretation rendered baffling at the time. The following notes may therefore still have some value.

Arapaho vowels are:

- u, ù, open.
- o, very open, often confused with aⁿ; long, ou.
- aⁿ, âⁿ, nasalized, possibly spoken with the tongue slightly more raised than in the following.
- a, ä.
- å, less clear than a, was often written, but not regularly, and has been omitted from the present orthography.
- ä, å, as in American English "bad."
- äⁿ, âⁿ, nasalized.
- e, very open, sometimes resembling ä; long, ei.
- i, ì, open.

Gros Ventre adds to these a mixed vowel ö, sometimes heard as almost o, sometimes as ü. This is a derivative from i. Arapaho ei was sometimes heard with an approach to the quality of öi.

The extreme openness of most of these vowels, as well as the presence of ä, are conspicuous resemblances to the phonetics of Yurok, now that Dr. Sapir has shown the connection.

Long vowels are more or less doubled. See text iii, note 1.

Final vowels, unless long or accented, are surd or whispered. The nature of surd vowels was not understood by the author at the time his notes were recorded; they were therefore sometimes omitted, sometimes written as sonant, sometimes indicated by small superior characters. So far as it could be restored with what seemed reasonable safety, the latter orthography has been employed in this paper. The writer is strongly of the impression that no word in Arapaho really ends in a consonant, a final surd or sonant vowel being always present;
but proof or disproof of this belief must be left to future investigators. Gros Ventre may furnish an exception in the case of final surd n; but this sound seems to owe its quality to the surdness of the preceding vowel. In Gros Ventre, also, the surdness of final vowels seems more complete than in Arapaho.

Vowels followed by a glottal stop (') show usually, perhaps always in distinct speech, an echo. Nähä and nähää, this, were written indiscriminately for nähä'ä, perhaps more exactly nähä"ä. The orthography nähä'ä should be sufficient.

Arapaho consonants:

k, t, and te (English ch) are probably sonant during part of the explosion, as in so many Indian languages. The g mentioned by Dr. Michelson was not observed. When final, these stops seem to be entirely surd, and their explosion takes on a vowel color.

In Gros Ventre, te is replaced by two sounds: ts, the general equivalent of Arapaho te, and ty, which often stands for Arapaho t. The two are however not as different in articulation and sound as the orthographies might indicate. Ty seems to be a very posterior t; it is sometimes heard as ky, and the Arapaho so render it in trying to reproduce Gros Ventre.

b is a full sonant, as would be indicated by its origin from m, and by its alternation, both in Arapaho and Gros Ventre, with w.

w, y, and n need no discussion. Gros Ventre surd n has been mentioned in connection with the surd vowels.

s and c (sh) are difficult to distinguish. They were very much confounded by the writer, though he is inclined to consider them two sounds.

x and h were also much confused. It seems that x is really an h with considerable stricture, and that h is fainter than in English, so that h and t might have been better orthographies. If this is the case, the nature of the two sounds is the same as in Yana, Mohave, and other Californian languages. In Gros Ventre initial h is particularly faint, and was often not heard. Final h or x, that is, h followed by a surd vowel, is strong in both languages.

θ is a surd dental fricative like English th in thin.

Vocalic changes are illustrated throughout the grammatical and textual material presented below, but are very complex. Changes proceed from stem to suffix, from suffix to stem, and from stem to prefix; they are sometimes in the direction of assimilation, at other times of contrast. Consonant alterations, especially between b and w, follow the vowel changes. Here again the similarity of process to Yurok is marked.

Consonantal changes are also somewhat obscure, but it is of note that in part at least they follow the interdialectic equivalences between Arapaho and Gros Ventre.

7 Present series of publications, x, 62, 1911.
Kroeber: Arapaho Dialects

COMPOSITION

The intricate subject of word composition is too little plain in Arapaho to allow of more than a listing of some of the principal forms which word compounding has been observed to take. These comprise nouns containing two or more elements used also as independent words, a few words containing elements occurring only as "prefixes," and a larger number ending in elements which are always "suffixes." Verbs consisting of two verb stems, or of a verbal and an adverbial stem, are more conveniently considered in connection with the subsequent section treating of the structure of the verb.

A. NOUNS COMPOUNDED OF TWO SEPARATE WORDS

Noun and noun, the first determining the second:

hâ^n-sei, "Bed-Woman"
heθ-a-bic, dog bush
heθ-a-w-a^wu, dog lodge
hi-tceąox-a^wu, club lodge, club dance
bišų-n-o=x-inan, worm weeds
waxu-sei-na, bear, women
nitcihe-hinen, Kiowa (nitciye, river)
nih'ā^nousei, white-man woman, American woman
ciclye-n-axu, snake weed, snake medicine

Verb with a noun as its object, which can also be used as a separate, independent substantive:

wan-sei-nā-hiθi, they go after women, burrs
noti-sei-n-ānt', looks for a wife
hi-netci-bi-niθi', the giver of water, he who owns the waters

It will be seen that the noun comes before as well as after the verbal element. It is not certain how far these examples are to be interpreted as being verbs or as being nouns. Hence the term "incorporation" is avoided for them.

Noun with following verb or adjective stem, the former determining the latter, but the entire word being nominal. It will be seen that the majority of the forms are proper names. Compare the verbal suffix -ni.

ha'ti-n-ahae=kā, "Lime Crazy"
wax-teiyei, "Bear Creeping" (ciel, creep)
wax-kukatāni, "Bear Spotted (Is)"
hâxā-ba'ānī, "Wolf Red (Is)"
hiși-e-waotānī, "Woman Black (Is)"
icītā-kūθa, fire drill
Verb, adjective, or adverb preceding and determining a noun:

- h-axâ$^\theta$-inenina$^\theta$, funny men, name of a band (axâ$^\theta$-ëhi, laughable)
- na$^\theta$wu-nenitâna$^\theta$, south people
- hawah-a$^\theta$wû, many houses, town
- ha$^\theta$wâ$^\theta$-û-n-anaxa$^\theta$ëhi, praying young man
- hâbât-ë$, large dog (he$^\theta$)
- hâbêt-ë$^\theta$xe, large knife (wâ$^\theta$xe)
- hâbâ$^\theta$-innen$, small man
- hâbêt-i-waxû, large bear (wox$^\theta$)
- hâtceax-ë$^\theta$xe, small knife
- hâtecîc-innen$, small man
- kaha$^\theta$-û-ci-nin, half a day
- hasehi-n-axucitana$^\theta$, sacrifice (sun dance) paintings
- niha$^\theta$-n-ouha$^\theta$, yellow buffalo calves (wou)
- woaatâ$^\theta$-n-ou, black crow (hou)
- kâ$^\theta$ku-na$^\theta$'ninei, "One-eyed Sioux" (ka$^\theta$kou-iya$^\theta$, patch on)
- ka$^\theta$ku-yi-â$^\theta$âbi, scabby dogs
- hâ$t$-etc$^\theta$, large water, ocean (netc$^\theta$, water)
- citci-nâ-waxu, lasting weed (cletci, stretch)
- tce'yatawa$^\theta$-innenï$^\theta$, untrue person, spirit
- ûawa$^\theta$-innenï$^\theta$, real person, human being

B. NOUNS AND VERBS FORMED WITH PREFIXES

wot-i-, in fire, into fire.

- woti-tan-ëhi, fire-starter
- wotî-tanâ-tanâ-na$^\theta$, they burn it
- häix-woti-ô$^\theta$, they put him in the fire
- woti-ka$^\theta$hu-na$^\theta$, they ran into the fire
- woti-tanâ$^\theta$, added wood to the blaze

sü$^\theta$-'äi, sü$^\theta$-î, flat.

- sü$^\theta$-'û-bâx$$^\theta$, flat wood, boards
- sü$^\theta$-'êi-tek-â$^\theta$, "flat" (straight tubular) pipe
- sü$^\theta$-'ä-hë$^\theta$, flat ones, bedbugs
- tah$^\theta$-'ê-i-ci, after she lay
- sü$^\theta$-'ä-beiteci$^\theta$, flat metal, spade
- sü$^\theta$-'i-ce-ê$^\theta$âna$^\theta$, roof
- sü$^\theta$-'ä-sana$$^\theta$, sliced meat
- häix-sü$^\theta$-sâ-še$^\theta$si, then cut them into slices
- sü$^\theta$-'î-xa-h-û$^\theta$ê$^\theta$ni, I peg you out flat
- sü$^\theta$-'î-xa-h-un, the crucified one, Christ
- sü$^\theta$-'i-ci-w-anaxa$^\theta$ä, "Lie-abed-long Young-man"

nâ-, relating to clothing.

- nâ-tâ-nei, take off moccasins
- nâ-tatahâ$^\theta$, take off leggings
- nâ-ë$^\theta$bi, take off clothes
- nâ-ya$^\theta$-un, dress!
kaka-, relating to mental action.

kaka'-uøetcaʷ-na', thoughts
kako-xa'änátaʷ, think about it.

C. NOUNS AND VERBS FORMED WITH SUFFIXES

-i-n¹, on measures of time. Compare the suffix -in¹ on the numerals 11 to 19, which is no doubt the same.

kaha⁻ci-ni-n, half a day
tihi¹-si-ni, yesterday
tayu-ni-n¹, tatayou-ni-n¹, autumn (tai, cold)
tcaitéi-n¹, winter, year
isibi-ta-ni-ni, bedtime, time for lying down
xấtâei-ni-n¹, shortly after, sometime later
tah*-teání-bihiya*-ni, when it was late in the night

-āttí¹, on names of ceremonial acts. The last part of this suffix is almost certainly an ending denoting the third person.
tca⁻āttí¹, welcoming
tceitaⁿ-h-āttí¹, ear piercing
tiaxan⁻n-āttí¹, foot touching, an invitation
tcâitécî-n-āttí¹, untying, a redeeming
tcaoxu-teábi-h-āttí¹, foe-shooting, the settling of a dispute by a game or test

-ahʷwā̃t¹, dance. Also seems to contain the ending of the third person.
hou⁻n-ahʷwā̃t¹, crow dance
hasaⁿ-n-ahʷwā̃t¹, rain dance
nou⁻t-ahʷwā̃t¹, dancing out of sun dance
ka'ei⁻n-ahʷwā̃t¹, round dance, ghost dance
tawa⁻n-ahʷwā̃t¹, cutting dance
na'āⁿ-ahʷwā̃t⁻anibũ, all of you dance around me!

-tanã, burn, do to or with fire.

woti⁻tanã⁻t¹, he makes a fire
hâ⁻tanã⁻hei, put the fire out!
hâ⁻tanã⁻ð-ẫt¹, he extinguishes it
hâ⁻tanã⁻kana⁻fei, drench the fire
wot¹⁻tanã⁻hokani, they burn it

-teá-na, cook; probably from the same radical as the last.

hi-teána-ät¹, gridiron
tcâitiána-teána, fried bread
ni-te-teánã⁻ðáyei-naʷ, I maintain the fire constantly
-i-∅etca\textsuperscript{n}, think.

kaka-'∅etca\textsuperscript{n}-na\textsuperscript{n}, thoughts
wa\textsuperscript{e}∅etca\textsuperscript{n}, feel sad (wa\textsuperscript{e}sa\textsuperscript{n}, wa\textsuperscript{e}xei\textsuperscript{t}, bad, ugly)
hi-∅etca\textsuperscript{n}-hoku, she thought
bi'α∅ou∅etca\textsuperscript{n}, I truly thought
hā∅∅-kaxtaw-∅etca\textsuperscript{n}-t\textsuperscript{t}, then she thought something was wrong

-∅ibi, relating to clothing. This and the preceding three elements seem verbal and could with equal propriety be listed among the suffixes or stems of the next section.

nā-∅ibi, undress
tei-∅ibi-t\textsuperscript{t}, he dressed

-a\textsuperscript{n}wu, water.

haxeci-n-a\textsuperscript{n}wunetc\textsuperscript{t}, muddy water
tcānāt\textsuperscript{n}-n-a\textsuperscript{n}wunetc\textsuperscript{t}, blue or deep water
θū∅∅t\textsuperscript{n}-a\textsuperscript{n}wu, high or rough waves
kaha'-a\textsuperscript{n}wu, creek
kakuiy-a\textsuperscript{n}wu, sticky liquid, molasses

-(i)yei, tent: nīna\textsuperscript{n}, nīnan, tent.
nāyei, ḥāyei, hiyei, my, your, her tent
yei\textsuperscript{y}, set up a tent
sis-∅aye, take down a tent
n-eiha-wu-uye, I have no tent

-akac, -akay, tent, house.

hāhāt-akay\textsuperscript{t}, large tent
hātcax-akay\textsuperscript{t}, small tent
wa\textsuperscript{e}∅ei-n-akay, wa\textsuperscript{e}∅ei-n-akac, an old brown tent
waotī∅n-a-h-akay-eit\textsuperscript{t}, "Black Lodge," his tent is black
bātāb-akac, old woman's tent
hi-beitci∅∅ei-n-akay-ani\textsuperscript{t}, who has the metal tent
hīna-n-akay-∅∅, "main" pole, by which tent is raised
felt-akahay-ināt\textsuperscript{t}, enter-tent-song, sung when water is brought into the peyote tent
he∅aw-akay-∅∅-ni, in the dog tent

-∅ū∅', fire.

bānā∅-∅ū∅', a large fire
hi-bāxute∩-∅ū∅, when the fire became low
kox-k-∅∅∅ya-∅∅-na\textsuperscript{n}, kindlings

-anihi\textsuperscript{t}, pet, domestic animal; perhaps contains the diminutive suffix quoted below.

tei\textsuperscript{y}-anēhī, furry, shaggy dog
ta'-'anāhī-hi\textsuperscript{t}, short-legged dog
n-eiha-wu-t-anihi\textsuperscript{t}, I have no horses
-h-āⁿxⁿ, plural -h-āⁿxābi, horse, domestic animal.

n-ābıt-āⁿxabei-t⁴, steals horses or cattle
noti-n-āⁿxābi, looks for horses
hiwaxu-hāⁿxābi, horses (hiwaxⁿ, elk)

-āei, head, hair, neck. The independent word for "hair" is beīðe ‘ā, for "his head" hakuhāⁿ.

ot-ā-ei-hi, comb hair
hāⁿtit-ā-ei-niθi, beheaded ones
tcā-ā-ei-n-axa’anaⁿxⁿ, round-head-ax
tcāstc-ā-ei-niθi, scratched head
bābāⁿ-’a-ei-n¹, you are curly haired
naⁿ-taⁿ-h-icib-ā-ei-nei-t¹, and when he laid his head down
kaⁿk-ā-ei-θi, Blackfeet (with erect hair)
kax-ā-ei-sibāt¹, fractured his skull
kaⁿ-xu-hāⁿix-tāb-ā-ei-kū-θ-ānaⁿ, then again they cut off his head
bethc-āb-ā-ei-θhi, all cut off heads
tāb-ā-ei-būs-i, cut-head-wood, stumps
tāb-ā-ei-naⁿ, cut-head, hornless saddle
tēh-ā-p-ā-ei-ci, lay your head on!
naⁿk-ā-ei-n, white-neck, starched collar
tahⁿ-tei’hⁿ-bū-teit-ā-’eix-axⁿ-θi, when they all put their heads in

-i-thā, nose. The independent word is beic.

tāb-īθ-ābic, cut-nose-bush, whose fruit appears noseless like a skull

-ehī, face.

kō-ehī, swell-face, mosquito
kahān-ehī, hair burnt off
hāⁿ-’ni-tābi-eihi-t¹, struck him in the face

-thāⁿθ-i, fingers, hand. Independent word, bātcēt.

hāhān-θⁿθⁿ-θⁿhu, wash hands

-aⁿt, leg. Independent word, wa’aⁿθⁿ.

hawah-āⁿt-āt¹, many legs, centipede

-ixtaⁿ, nail, claw, foot.

was-ixtaⁿ, bear claws, bear foot (woxⁿ, bear)
hāⁿ-ixtaⁿ-cisäⁿ, "Sore-foot-child"

-ineihi, tail. Independent word, bātihiⁿ.

tāⁿt-kaⁿ-ineihi, raccoon (twisted, ringed tail?)
taxaⁿ-ineihi, opossum (smooth tail?)
waⁿθⁿ-einθⁿ-ineihi, bat, also Satan (brown, or old, ugly tail?)
Among the elements prefixed to verbs, it is clear that those which are essentially word-forming come nearest the stem, while those whose purpose is more strictly relational or grammatical on the whole precede them. As might be expected, no hard and fast line can, however, be drawn between the two classes.

Word-forming prefixes, in turn, are often difficult to separate from independent words. Thus, tās-i- and teān-i- mean ‘‘on’’ and ‘‘under’’ in verbs; but provided with the locative suffix -i-hi’ they are adverbs which stand alone. Just so xou-wu-hu’, ‘‘straight,’’ and xanou, ‘‘immediately,’’ are employed, in the forms xou- and xanou-, as prefixes to verbs. Verbs themselves, like teāsis, ‘‘to begin,’’ and θaⁿku-h, ‘‘to follow,’’ are used as prefixes to other verbs.

Apparently related to this last group are such elements as tā’, tou-, ‘‘to stop,’’ and ta, tou, ‘‘to strike, tie, or be or come in contact with’’; kax-, ‘‘through,’’ and kax, ‘‘to impact violently’’; teāβ-i-, ‘‘away, outdoors,’’ and teāβ-i, ‘‘to depart or elope’’; teāβ-i-, ‘‘past, alongside,’’ and teāβ-i, ‘‘to travel.’’

It is true that even when these elements are themselves verbs they are not used merely with the personal suffixes, but that second elements such as -hi, -ni, -ku, -xa, -h are added to them. Now these added elements, which are frequent on indubitable verb stems, have all been listed as suffixes. But the possibility is by no means precluded that these ‘‘suffixes,’’ whose significance usually is of the vaguest and most general, are themselves the real stem of the verb; in which case the preceding element, which is so much more specific in meaning as usually to carry the principal idea conveyed by the complete word, would after all be a prefix of the adverbial or prepositional type familiar from so many other languages.

For instance, θi- or θei- occurs as the first etymological element of a considerable number of verbs or nouns in all of which the idea of ‘‘in’’ or ‘‘on’’ or ‘‘projecting upward’’ is contained. Thus, θi-aya

- hi’i, -hā’, -hāhi, diminutive.
- hanaxa’aha, young man, hanaxa’ā-hi’i, boy
- bātābī(ā), old woman, batābī-hāhi
- teān, child, teān-n-āhā’
- cilctce-hin’, short-legged dog
"a post"; Oei-ka-h and Oei-wa-n, "to carry on the back." On the other hand, the frequent element -ku is always at the end of words, and often adds little if anything to the meaning of the stem to which it is attached, as in äbita-ku, "to steal," of which the stem appears without the -ku, but with the same denotation, in äbitä, "to steal," n-äbit-ihi, "thief," h-äbit-äxabei-ti, "he steals horses." When, however, the prepositional "prefix" Oei- and the vague "suffix" -ku are put together they form Oei-ku, "to put in." In the same manner the combination of the variant Oi- with the suffix -oku, apparently an intransitive equivalent of transitive -ku, results in Oi-oku, "to sit." Which part of Oei-ku and Oi-oku is what in other languages would be called the stem? If the first element is a verb stem, then Oei-wa-n, and such parallel forms as tei-i-n-a²ha-b, "to enter in order to see," are clearly compound or double verbs. If the second element is a verb stem, then äbitä-ku must be a compound of two verbs.

That Arapaho, like Shoshonean and some other American languages, possesses true compound verbs—verbs functioning as such and composed of two verbs—is thus probable. But either Oei- or -ku, or both, and with them a large number of other elements, are lost as affixes. And yet the process involved in these cases is not one of mere simple word-compounding, for apparently Oei- never occurs without a following element and -ku never without a preceding one. In short, it would seem that the Arapaho verb is frequently, perhaps normally, compounded of elements which themselves either are, or can become, verbal in force.

It is therefore possible that the old terms "polysynthesis" and "holophrasis," which in recent years have been in justifiable disrepute on account of their vagueness and their implication of processes totally foreign to other languages, may, when the Algonkin, and for that matter the Iroquoian and Caddoan languages, are more precisely understood, be rehabilitated with a new and exact meaning. And still extreme caution seems called for in drawing any such inference. "Incorporation" is another linguistic concept which has been re-established of late years; and yet the justification was brought about only by an abandonment of the very traits which "incorporation" was originally and long believed to denote. Bandied about without standing for anything definite, the term "incorporation" was abused until the very existence of the process was challenged and denied. And when the reality of the process was finally demonstrated the proof resolved itself into the recognition of pronominal incorporation.
as a familiar and purely grammatical method represented in some
degree in most languages, and of nominal incorporation as a form
of the equally familiar process of etymological word-compounding,
with only the one distinctive feature that in "incorporating" lan-
guages noun and verb can be combined to form verbs, whereas in
other idioms they combine only into nouns. In short, the concept
of incorporation involves only a new application of a widespread
and well known linguistic process, not a new and unique process itself.
Or it might be said that incorporating idioms differ from non-incor-
porating ones in degree, not in kind.

In an analogous manner it seems possible that we may ultimately
be justified in speaking of Algonkin as truly "holophrastic" or
"polysynthetic." But if so, these terms will essentially be only a
convenient designation for the linguistic process which allows two
verbs to consolidate into a single one.

In fine, the Algonkin verb, so far as Arapaho is representative of
it, cannot in any off-hand manner be broken up into the usual elements
of "prefix," "stem," and "suffix"; and any attempt to apply such a
procedure leads quickly to contradictions and inconsistencies that
reveal the arbitrariness of the method.

The late Dr. William Jones reached exactly the same conclusion
as regards the Fox dialect. He does not separate "prefixes" and
"suffixes" from "stems" in the verb, but distinguishes "initial
stems," "secondary stems of the first order," and "secondary stems
of the second order," making these elements differ from each other
not so much in their kind of meaning or in their ability or inability
to appear as separate words, as in their mere order or position in the
word-compound. This classification is a valuable and important de-
parture from the all too frequent method of forcing new languages
to fit old schemes or the categories established in other tongues. That
the principles of Algonkin verb formation are in some respects con-
spicuously different from those of Indo-European Dr. Jones has made
very clear; and a realization of this fact is the first requisite to a true
understanding of Algonkin structure.

At the same time, while Dr. Jones has cleared away the brush and
brought us face to face with the trees, he has not led us out of the
forest. This task he would no doubt have achieved, save for his
untimely death; but it remains undone. The realization that the
Algonkin foot does not fit into the grammatical shoe built around
the Indo-European last is, however important, only a first step. The
next and necessary one must be the construction of a new type of shoe which upon suitable modification for individual cases will fit both feet. Or, to drop the metaphor, while an application to Algonkin of linguistic categories derived from Indo-European leads to misunderstanding, the construction and use of an entirely novel set of categories for Algonkin is meaningless. The types of structure represented by the two groups of languages obviously have something in common, however different these common principles may in reality be from what superficial acquaintance or a one-sided approach would lead one to suppose. In fact, the determination of what they have in common, involving as it does the recognition of that in which they are different, is an essential purpose of the study of both; for whether our interest lies in the problem of the nature or that of the origin of human speech, a classification is involved. In its widest ultimate aspect philology is concerned not with Algonkin as such nor with Indo-European as such but with all languages. Only when speech in general, its scope and its methods, are better understood will both Algonkin and Indo-European, or for that matter any particular group of languages, be more truly understandable. The real aim of the study of any American tongue, as well as the aim of any deeper research in Indo-European philology, must therefore be the more precise and fundamental determination of their relations to all other languages; and this necessitates concepts and terms which are applicable in common. It is impossible to characterize the wolf in terms of his skeleton, the elephant of his embryology, the whale of his habits, and then to construct a classification which will help to reveal the inherent nature, the development, or the origin of the animal kingdom. True tribute to the memory of Dr. Jones’s work will be paid, not by a standing still where his labors were unfortunately broken off when chiefly their negative or destructive side had been completed, but by carrying his efforts and formulations on through a constructive phase to a point, denied to him by time, at which Algonkin will once more appear in a definite relation to human speech as a whole.

What this relation will be the writer does not have knowledge or understanding enough of any Algonkin language to say. But until the science of language is revolutionized by entirely new methods of thinking about it there seem to be only three possible descriptions of the Algonkin verb that have a usable meaning.

The first interpretation is that of the verb as the result of a process of composition similar to that of noun composition, but extended in
Algonkin also to verbs. This essentially is the conclusion of Dr. Jones; and it is also the inference of the present writer. But it cannot be too clearly recognized that even if this explanation is in substance the correct one we do not yet really know anything as to the rules and conditions and limitations of this verb-compounding.

The second interpretation of the Algonkin verb is that of a stem followed by a greater or less number of suffixes. In this case the "initial stem" of Dr. Jones would be the only true stem, his "secondary stems" the suffixes. In support of this explanation is the fact that the initial elements of verbs come nearest to having the power of forming words by themselves, in both Arapaho and Fox; and the statement of Dr. Jones that on the whole initial stems more definitely perform the function of verbs. If this view is correct, the type of Arapaho verb-building would be somewhat analogous to that of Eskimo.

The third possible interpretation is also that of a verb stem with affixes, the word-forming ones, however, being chiefly or wholly prefixes, the stem coming last, except for grammatical endings.

In favor of this last view is the fact that practically all the "secondary stems of the second order" given by Dr. Jones are naturally translated by words which in most other languages are verbs, whereas substantially all his cited "initial stems" and "secondary stems of the first order" can actually be rendered, without much distortion, as adverbs, nouns, auxiliary verbs, or modal particles. It is not certain how far Dr. Jones's examples of each class are fully representative of that class, his lists obviously aiming at well translated instances rather than at fullness; but it is clear that his own presentation of evidence leaves the interpretation of the "secondary stems of the second order" as being true verb stems defined by prefixes, in a position where it cannot be summarily dismissed.

Thus the "secondary stems of the second order" listed by Dr. Jones are most simply rendered as follows: egā, dance; teim (Arapaho teawou), swim; isā, fly; isāhō, jump; ọtā, crawl; usā (Arapaho is-ā, us-ā), walk; gāpā (Arapaho ọ-ā-ku), stand; pahō (Arapaho i-ka-hu), run; ọ, carry on back; hōgō, swim, convey by water; pugō, float. Initial stems cited are: ki, about; pem(i), past, alongside, incipiently; pyā, hither; pō(t), into; cōsk, straightly, smoothly; sāg(i), projecting, holding; mik, assiduously; kōg, wetly, with water; kās(i), by wiping; pas(i), suddenly, hotly; wi, with; tā(wi), painfully; nag(i), stop; pōn(i), cease;

8 Some Principles of Algonquian Word-formation, American Anthropologist, n. s., vi, 401, 1904.
10 P. 388.
wāp(i), begin; kask(i), can, be able; kic(i), completely; nōtā (pp. 394, 404), be unable; pag (pp. 393, 403, Arapaho kax-), by striking, with impact. Secondary stems of the first order11 are ā'kw, wood, resisting; nag, hole, tag, color; nāgu, appearance; āñe, feel; āñe, think; kam, expand; and the following body part stems, used objectively or adverbially (in translation) to the verbal element in the verb complex: cā, ear; kum, nose; tun, mouth; winā, horn; 'kwā, head, hair, nape; teā, belly.

Compare also wāp-usā-w*, "he begins to walk" (p. 386) = "incipiently he walks" (or "he begins in his walk"?); wāpi-pyā-tei-tetep-usā-w*, he begins to walk approaching in a circle = "incipiently hither circularly he walks" (or "he begins his hither circular walk"?); pāgi-kumā-cin-w*, "he bumped his nose" (p. 393) = "with impact his nose he struck" (or "he struck his nose against it"?); tāwi-cin-w*, "he fell and hurt himself" (p. 386) = "painfully he struck" (or "he hurt himself against it, he hurt himself by impact"?); tāwe-'kwā-hō-w*, "he has a headache" (p. 394) = "painfully as to his head he is" (or "he hurts as to his head"?); pag-ā'kw-tuāi-cin-w*, "he bumps his mouth" (p. 403) = "with impact against something resisting his mouth he struck" (or "he struck against something resisting with his mouth so as to be stopped"?). Translating these Algonkin words as compound verbs gives a third set of renditions, which are perhaps the truest, but, owing to Indo-European idiom, almost unintelligible in English: "he begin-walks," "he begin-hither-around-walks," "he hit-nose-strikes," "he hurt-strikes," "he hurts-head," "he hit-hard-mouth-strikes."

The posthumous and fuller grammatical sketch of Fox by Dr. Jones in the Handbook of American Indian Languages12 gives some other forms, to which the reviser, Dr. Michelson, has added a hundred odd further initial stems taken from the Fox Texts of Dr. Jones. But this increased material does not alter the conclusion which can be drawn from Dr. Jones's earlier work as here summarized. The secondary stems of the first order are clearly not the principal stems of the verb-complexes. The "initial stems" may be verbs. If they are, the "secondary stems of the second order" are either suffixes or other verbs compounded with the "initial stems." That they are suffixes does not seem likely from the character of the examples given. If their number is substantially limited to those quoted, their suffix nature might be conceived of; but if their number is indefinitely large they cannot well be anything but true verb stems. The evidence of quantity, then, becomes as decisive on this point as that of quality; and this evidence must be awaited with interest from Dr. Michelson or some other authority competent to carry on Dr. Jones's analysis. Meanwhile the strong probability is that if the "initial stems" are truly verbal in nature the normal Fox verb is a compound binary

11 P. 391.
verb. If, on the other hand, the "initial stems" are essentially adverbial, prepositional, or modal in quality, they deserve only to be ranked as prefixes, even if some of them may have reached this condition by the way of once having been subsidiary verbs; and in that case Fox, and with it no doubt Algonkin in general, possesses verbs that are built up around a kernel of a normal verbal stem or root, as in most languages, and these stems or roots are the "secondary stems of the second order."

The problem has a somewhat different aspect in Fox and Arapaho because Dr. Jones and Dr. Michelson have started their analysis of the verb from the concept of three kinds of stems, while the present treatment proceeds, though with full realization of the difficulties involved, from the more conservative premises of prefix, stem, and suffix. But Arapaho is so obviously Algonkin in its whole plan of expression and word-building that the fundamental problem is undoubtedly identical in the two languages.13

One suggestion to future laborers in this field may not be amiss. It is the dropping of the term "secondary stems," at least as applied to those "of the second order." If these "secondary stems" are suffixes, nothing will be gained by denominating them stems. If they are stems, that is, true verbal elements, they are either the real stem of the entire verb or at least one of a pair of stems, and in the latter case probably the ruling and "determined" one of the pair. In that event the designation "secondary" will be misleading. Tentatively the name "final stems," which parallels that of "initial stems" without any implication of primacy or dominance, is proposed.

In short, the undetermined and, in the writer's mind, fundamental problem of Arapaho, Fox, and Algonkin in general is whether these languages say "he enter-looks," "he enters lookingly," or "enteringly he looks." The first solution seems indicated; if it proves fallacious, the third appears more likely to be correct than the second. In either the probable first or third event, however, it can be said that the last element comes nearest to being the principal verb stem of the complex word.

The thorough difficulty of judging this case in the present state of knowledge may be illustrated by the English words "contend."

13 It is a matter of great satisfaction to the author that since the preceding passages were written, two statements from the pen of Dr. Michelson (Am. Anthrop., n. s., xv, 475, 693, 1913) have been published which evince a very similar realization of the more important aspects of this intricate problem. Dr. Michelson's knowledge of Algonkin is much the greater; that he should have come to nearly the same conclusions is therefore gratifyingly corroborative.
"contest," "conflict," "combat," "compete." If English were as little understood in its basic structure and history as Algonkin, it would be a fair inference that "con-" in these words denoted the verbal idea of "struggle, oppose, fight," and that the second syllables were adverbially modifying suffixes of this stem. That "-flict" and "-pete" do not occur independently, and "tend" and "test" when separate words have an entirely different meaning from their compound forms, would only incline to confirm the conjecture. Obviously it would require a wealth of accurately understood and exactly analyzable lexical material before the true nature of the elements of these words and their strict parallelism to the constituents of "offset," "forbid," or "withdraw" became clear. This understanding of Algonkin we do not yet possess; and therefore, tempting though it may seem to explain its verb as compounded of two verbal elements, or of a nominal or adverbial with a verbal element, it is wiser to proceed with caution. Accordingly, for purposes of presentation, the old concepts of stem, prefix, and suffix have been retained, subject to the qualifications discussed, as the categories underlying the following classification of Arapaho verb elements.

A. PREFIXES USED ALSO AS INDEPENDENT, SEPARATE WORDS, OR MADE INTO VERBS BY THE ADDITION OF AN UNSPECIFIC, MERELY VERBIFYING SUFFIX

tčësis-, begin.
    tčësis-inaei, go off to hunt
    tčesis-ta-ka'hu, begin to flee
    tceθiθ-ouhu, begin to climb

näye-, try.
    tah*-bä-näyei-θ₁, when all tried
    näyi-kaxk-atì-wa'ou, tried to roll through
    näye-tawa-h-un', try to chop it down!

θa"ku-, following, behind.
    θa"ku-h, θana"ku-h, follow
    θa"ku-na"usä, come back
    θa"(k)-ka"outa", follow making dust

tā'-, tanā'-, tou-, tanou-, stop, cease. The element occurs also as an independent verb or characteristic first part of the verb in a
number of words which denote contact, impact, or the meeting of an obstacle by a motion.

- tā'-usā, come and stop
- tanā'-usā, stop when going
- kou-tā'-ān-bā, lie abed long (ān, bed)
- ha*tni-taux-teā-i-nilē, stopping place
- hā-tou-n-a*wū-n-eūl, I hold it for you
- tanou-ku-huē, three first poles erected to hold up the remainder of the tent
- ni-tou-na, I strike
- tou-nināl, coup, counting strokes
- tou-ku-hu-ta-ni-na, they are tied up for
- tou-ku-hu-i-n-āwū, tying-up house, jail
- tou-tei-hit, belt
- ta'xa-n-eēn, I kick you
- ta*-ya-b-eēn, I bite you
- taa-w-a*ti, taa-b-ān, struck him
- ta-va-hei-na, I chop wood
- ha*t-ta-va-h-āt, he will cut down the tree
- nītawū-tou, "Striking First," a name

kax- seems to imply violent impact or penetration. Compare Fox

kax-ka'āna, it went through
kax-k-oti-wā, rolled through
kah-ā'ei-si-hāt, fractured his skull
kax-aei-t, striking
kaxa'-axuxa, wedge
kaxa'-āt, there was a fissure
kax-ouhu, chopped off, shot off
kaxa'-ān-hāk, shoots him
kox-k*ēhāt-na, "breastpins" of tent
kox-k*ēy-a-na, kindlings ("through flame starts")
kox-ta-wu-h, touch, do to, copulate

tcāb-i, passing, past, on, continuing.

tcāb-i-hi-t, travels
tcāb-i-sā, pass on, pass by, be on way, walk, go continually
tcāb-i-ka'hu, pass, come by
tcāb-i-xa*tt, walks
tcāb-i-xa-h-eēn, I carry you

tcēt-, tcēθ-i, in, into, entering.

tcēt-ei, enter, go indoors
tcēθi-n-a*ha-b, go in to see
tcēθi-x-teē-hi, run inside, go into
tcēt-ā-n-a, takes him in
tcēt-awā*tt, dancing in
tcēt-ā*bixût, undershirt, inner garment
tcēt-ā*wū, indoors
B. PREFIXES USED ALSO AS INDEPENDENT, SEPARATE ADVERBS, OR SIMILAR PARTS OF SPEECH

h-ixtc-i', up.
  hixtc-ābā, up, above
  he-tei'-ixtei-ku-s-i-bā, throw me up
  h-ixte-is, go up

hānθāb-i', to, reaching to, before, ahead.
  hānθāb!, toward
  hānθāb-i-nou-isā, go there
  hānθāb-i-nā-sā, arrive
  t-ānθāb-i-nā-usā, when arrives
  hānθāb'-ei-sā-t', before him
  hānθāb'-ei-tā, in front
  hānθaw-unena', head men
  hānθab-āsei, chief woman
  hānθawā-n-axu, "chief-medicine," a root

tcān-i', far, down, headlong.
  tcān-īhi', under
  tcān-īsei, give birth to, "drop"
  tcān-isī-b-eit', threw him off
  tcān-isā, fall off, go down, go far
  tcān-i-xouka', flew down
  tcēn-i-ta-ku-hu, flee far
  taθ-tcān-bihi'iyā'-ni, when it was far into the night
  tcēn-a-nābā'-ā-t', plunged headlong

tās-, tāx-, on, at the top.
  tās-īhi', on top of, on, at the top
  hān-tās-ā-n-ā', then he put it on
  tās-isā-thi, mounted (horse)
  tāx-chāθi, put hands on
  hīh'-tāx-oku-ta-ni, which he rode
  tāsi nīnanā, top of a tent
  tāsihā' tca'otā'-ya', on top of the hill
  tāsihī' ā-bā', on the bed

ānθu-, across.
  h-ānθ-anā', across the stream
  ānθu-n-oti-wa', rolled across
  h-ānθu-x-āt', the crossing
  h-ānθu-iy-ei-n, sew
  tei-h-ānθu-s, come across!
Oi-, Oei-, on, upon. Perhaps more properly Oi’-, Oei’-.

Oi-ok’, sit, live
Oi-a’k’, stand
Oi-äänä, put, place
Oi-a-yaa, post, monument
Oei-ku-ä, put in
Oei-ka-h-äa, carries on the back
Oei-wa-n-öhu, carrying on the back

häa-ö, häa-s-i-, hard, very, fast, violently.

hänäa, hänou, hard
hä ‘nä ‘ei, hä ‘nä ‘ou, fast, very fast
häsei-yei-hiše-t’, very good
häesi-i-ka’hü, run hard, swiftly
häa ‘a-i-t’, änesa ‘äa, swift
häa ‘a-n-oti’, ‘‘fast-wheel,’’ train
häeisen’, wind
hasa-ö-nete-t’, rain
häa-öha-b-et-t’, looking at oneself
häa-öha-öana, sights
(h)äsi-bäa, a sore
häa-ixta-sïa, ‘‘Sore-foot-child,’’ a name
äsi-na-ta, hungers for it
äsi-na-n-äti’, anger
äsi-ni-h, to make angry
lä-ö-wa-bi-x-t’, when he became sick

nou-, naaæ-, naha-, out, around, down.

naa’u-hü’, down
naa’ä-hü, go out, come out
naa’ä-säi, walk about
naa’ä-ka’hü, run around
nou-ä-n-in, bring her out!
nou-sä-a, drive out
nou-t-ahawäh-t’, dancing out, a ceremony
nou-ötaä’, went out in file
nouhu-ku-ä, lift up, carry
naa’ä-n-ahawäh-t-ani-bä, dance around me!

aawu-, inaawu-, hani-, down, falling.

haawü’, hanääwü’, down
naaawu-hü’, south
naaawu-bää’ei, southern berries
teh-öawu-inäa, let it come down!
tah-öaa’sou-n-aaawu-nihi-sä-t’, while he traveled down-stream
h-aaawu-nihihi, down-stream
taaawu-n-lo-öa, floating down-stream
inaawü-sä-häk”, dived, went under water
hinaawö-öa, it sank
hani-näa, fall
hani-ku-ääa, throw down
kou-, kanou-, long, far.
- kana\(^a\)-ya\(^a\), "oblong," extended
- ka\(^a\)-n-ihi\(^a\), slowly
- kanou-ci-bi-\(\theta\)-hi-na\(^a\), I eat a long time
- kou-\(\theta\)-in\-\(\theta\)-it\(^1\), long life
- kou-ta'-\(\alpha\)-b\(\alpha\), lie abed long
- kanou-\(\theta\)-hi\(^a\), some time later
- kanou-ta^\(\alpha\)^\(\alpha\), long

xou-, xanou-, straight.
- xanou, xaxanou, straightway, immediately
- xouwu, xouw-\(\varphi\)-u\(^a\), straight, straight in
- xoub-\(\alpha\), straight
- xanoub-i-x-t\(^1\), straight
- tani-xoub-ei, a very straight one
- xouwu-xati, take this straight
- xana^\(\alpha\)_ku-b\(\alpha\), "straight (across) red," name of a design
- xouw-us\(\alpha\), go straight

tceib-i, aside, crookedly.
- tceib\(^1\), crooked
- tceib-\(\alpha\), crooked (cf. xoub\(\alpha\), straight)
- tceib-i-s, step aside!
- tceib-i-s\(\alpha\)-na\(^a\), I get out of the way
- tceib-i-te\(\alpha\)-na\(^a\), jumped aside

tc\(\alpha\)\(\theta\)-i, away, off.
- tc\(\alpha\)\(\theta\)-i\(^\prime\), outdoors
- tc\(\alpha\)\(\theta\)-i-\(\alpha\)-t\(^1\), he elopes
- tce\(\alpha\)\(\theta\)-i-ka\(\alpha\)-hu, escape, start off, leave
- tce\(\alpha\)\(\theta\)-eia\(\alpha\)-t\(^1\), goes, departs
- tce\(\alpha\)\(\theta\)-akouuhu, go farther up
- tce\(\alpha\)\(\theta\)-i-\(\alpha\)-e-i\(\alpha\)-e-i\(\alpha\)-t\(^1\), blew him away

wat\(\alpha\)-n-, into the camp circle.
- wat\(\alpha\)-ni\(^a\), into a camp
- wat\(\alpha\)-a\(^\alpha\), go into the camp circle
- wat\(\alpha\)-ka\(\alpha\)-hu, go (run\?) to camp

ci-, cix-, seci\(\theta\)-, senix-, into water, in the water.
- sec\(\alpha\)-\(\alpha\)-wu, at the bank, near the river
- hit\(^1\) tc\(\alpha\)h-cih-k\(\alpha\)-\(\theta\)-i, throw me into the water here!
- h\(\alpha\)n\(\alpha\)-eih-k\(\alpha\)-\(\alpha\)-\(\alpha\)-t\(^1\), then he threw him into the water
- senix-tc\(\alpha\)h-it\(^1\), jumps in the water
- n\(\alpha\)-tci-ci-eis\(\alpha\)-a\(^\alpha\), come right into the water!
- h\(\alpha\)n\(\alpha\)-\(\alpha\)-n\(\alpha\)-ci-eis\(\alpha\)-\(\theta\)-i, then both entered the water
- wa\(^\alpha\)-ci-e-b, take into the water
nänäb-, north.
  nänäbä', nänäbi', north
  nänäbisä-t', goes north

nís-bis-, east; nís-nä-, west.
  nís-bis-isä, go east
  nís-nä-isä, go west

naxku-n-, with, also.
  naxku-hu', with, together, including, also
  hän-bänaxku-hän, you might be included
  nanaxku-ni-hi-tawa, I include it
  naxku-n-isä, travel with
  ha't-naxk-a-tce'ei-ät', he will go away with him

näs-, hänäs-, thus; compare the demonstratives nä-hän', hi-nä.
  näs-inät-it', thus lived again
  näs-it-ät', did accordingly
  hänäs-isetaש-tana-bok', thought of him thus

tābā-, just then, begin to.
  tābā, then! lo! just then! being about to, when
  tābā-bānā, begin to drink
  tābā-tawa-hät', begins to chop down

kaśxu', kaśxü', again, once more.
  kaśxu', kaśxü, kaśxayi', again, another time, then at last
  kaśxayi-kaše-nä', again lost him
  kaśxayi-naxaw', again was near
  kaśxayi-anešei-a-nä', once more he struck one down by kicking

hana'uti', hana'a-', all, completely, enough, sufficiently, until.
  hanaut', bitciaš-teinan-isei, all leaves are falling
  hänix-hana'uta-yaš', now was complete
  hana'uti-hänix-yāšani-sibihei, until he had killed (all) five
  hana'uti-ha't-icite-n-aš', indeed I will catch it
  hana'uti-hän-’nahs'-ou, until I killed them all

bā-, behi-, behic-, bābānë-, all.
  bāhiš', all, everyone, anybody, completely
  bā-hipahin-x-t', the owner of all
  bā-tani-ci-nilhi, all have a hole cut
  bā-hi-nilha'-you, all are yellow
  bā-hi-yelYa-unār-ši, all have four arrows
  bā-hșaxa'-ät', shot all

hänšei-, all, all who.
  hänšei, all. See Text I, note 5
  hänšei-hišeti-ni, all that were good
  hänšei-wana-űneiti-nilhi, all who still lived
C. Prefixes Not Yet Found as Independent Parts of Speech

1. Apparently Verbal—

wan-, go to, go for, go after.
  hänä-wan-bi-n-ā't', then he went to give it to him
  wan-i-bi, go to eat
  ni-wa'-ka'nhuwa, I went and cut
  wan-ote-n, go and gather
  wan-i-teen'as, go in order to jump
  wan-isei-nä-hiöö, burrs, "they who go after women"

näbi-, nawu-, make a motion to, move forward.
  näbi-x-teä-hiöö, made a motion forward
  teena-näbä'-āt', plunged headlong

nis-, to, tied to.
  nis-axiäya', wire fence
  nis-i-üeiyu, trousers, "tied leggings"
  nü-nis-a'ku-hu-niöö, the tied ones

na', to, arriving.
  na'-usä, na'-us, arrive, come to

cit-, continue.
  cit-isä, journey, go on, keep going

haa'a-n', truly, surely, indeed, necessarily.
  haa'a-n-biti, indeed I shall be revenged
  haa'a-n-hä'-nt-icite-n-aa, surely I shall catch him
  haa'a-n-hä'-ni'i'tcei, it must be eatable

2. Apparently Adverbial, Referring to Manner—

hinix-, hanux-, very.
  hinix-öeti, very good
  hanux-öeti-n, very good
  hin-teä-b-it', water-monster ("very-shooter")
  hinix-hänixt', very tall

ni', good, well.
  ni'-bi-ni, good to eat
  ni'-ina'sei, good hunting
  ni'-bäña'a, smell good
  ni'-tcei, eatable
  ni'-teä'-t', is sweet
  ni'-owa-be-hi-na'a, I feel well
  ni-eh-t', is fine-looking
tani-, indeed, very, skillfully.
   tani-xoub-ei, very straight one
   nih'tani-tei-inati-hok', skillfully he lived again

inâ-, fast, more swiftly.
   nih'inâ-sä-t', quickened his pace
   h-inâ-nawa, without delay

nani-, nâni-, constantly.
   nani-bâni, drink frequently
   nen-i-nâku-t', blind
   ni-neni-s-ei-ka'hu-t', mole (''who constantly runs'')

in-i-, aimlessly, randomly, about.
   in-i-sä, wander, go aimlessly, 'bum around'
   in-i-kuhi, was chased about
   in-i-thi-ka'hu, went around
   in-i-tâ-thi-ka'hu-h-eti', dragged him along

3. Apparently Adverbial, Referring to Space—

   tei'i-, tei-, back, again, returning.
      tei'i-isä, tei'-isä, tei-sä, go back
      tei-yi-ka'hu, run back
      tei'-w-oti-wa', rolled back
      tei-näh-â-t', ''again killing,' a place

   iyi-', near.
      hiyi-i-sä, come near, approach
      i-ha-n, iyi-ha-n, go after, pursue

   any-', in front.
      any'-ei-ka'hu, go ahead

   tei-bixa', out of the woods, into the open.
      tei-bixa'-u-ka', came running out of the timber

   bixa', up, out.
      hâ'ix-bixa'-teena'â', sprang up
WORD-FORMING SUFFIXES

The etymological “suffixes” of Arapaho verbs are not only less numerous than the “prefixes” but far less concrete and specific, to the degree of being almost grammatical. They comprise transitives, intransitives, causatives and similar derivatives of wide applicability but general meaning.

-\text{ni}, to be, to have; verb-forming.
  \begin{itemize}
  \item hiha\textsuperscript{a}w-aha'anâkâ'-ni-n, there are no stones
  \item hit-akâ'xu-i-ni-t', he who has tentpoles
  \item n-eiha\textsuperscript{a}w-uita-ni-hi, I have no horses
  \item n-iê-ti-ni-n, that which is good
  \item hinana'ei-ni-na\textsuperscript{a}, I am an Arapaho
  \item inenitâ-nil'i, you would be well, living
  \item bâhâe-ihe-ni-t', becomes an old man
  \item ni'-bl-ni, good to eat
  \item nâtei-ni, wet (nete', water)
  \item hi-nete-ihinö-t', the water-giver, owner of waters
  \item niha\textsuperscript{a}-ni-x-t', is yellow (niha\textsuperscript{a}-ya\textsuperscript{a})
  \item tea'otaya-nil'i-na\textsuperscript{a}, I am hump backed
  \item nâné-nil'i-na\textsuperscript{a}, I, it is I
  \end{itemize}

-\textit{öi}, intransitive.
  \begin{itemize}
  \item nâ'â-öi-x-t, resembled (nâ'â-si, thus)
  \item bi-öi, eat (bi-n, eat something, bi-öi, food)
  \item anâ-öi, be different in appearance
  \end{itemize}

-\textit{hi}, intransitive.
  \begin{itemize}
  \item h-iê-ihinö-xk\textsuperscript{a}, if you are good
  \item bihi'i-hinö-n, be a deer
  \item bâni-öi-hinö-na\textsuperscript{a}, I eat
  \item kanâne-hinö-na\textsuperscript{a}, I am a coward
  \item nânébâ-hinö-t', what is sacred
  \item hiêa'wu-tai-hinö-na\textsuperscript{a}, truly I am cold
  \end{itemize}

-\textit{hu}, intransitive.
  \begin{itemize}
  \item i-ka\textsuperscript{a}-hu, run
  \item ta-ka\textsuperscript{a}-hu, flee
  \item na-ka\textsuperscript{a}-hu, come, bring
  \item ni-sâ'ku-hu-öi, were tied
  \item nitou-hu-t', shouts
  \item teâbixa\textsuperscript{a}-hu-t', flies
  \item yana-hu-t', pledger, he who vows
  \item tea'otaya-hu-t', hump backed
  \end{itemize}
-awui-ni, become, begin, be.

-owa, feel; bodily condition.

-bä-n, -wa-n, cause, make, bring about.

-h, causative. See the starred forms under the "connective" suffix -h.

-xa-h, cause to be in condition of.

What at first appears to be the stem preceding this suffix is in most cases an element which itself is normally a prefix. Whether the "prefix" tcäbi- or the "suffix" -xa is the true verbal "stem" remains to be determined, as in so many other cases.
-ku-θ, to make a motion leading to the condition or position described in the "stem." This "stem" in turn is often a "prefix" in other words.

θei-ku-θ, put in (teθi-, θei-, in, on)
noθu-ku-θ, lift, carry (now, out)
teei-ku-θ, release, let go (teθa-, tee-, back; teθaθi-, away)
häix-ixtei-ku-θ-ä*, threw him up (hixtca-, hixtcäbä, up)
tou-ku-θ, bind
kα'ka*n-θe-ä*, he uncovered him
θθi-ku-θ, seize
äbita-ku-θ, steal
bä-kü-ta", "red stand," a head-dress

Probably the same in origin as -ku-θ is an intransitive ending -ok".

θi-a*k", stand (θi-, on, projecting)
θi-OK", sit, be sitting
tei'n-ok", sit down, seat oneself (tcän-i-, down)
tä"x-ok", ride (täx-, täs-, on)

-ä, to make, bring, cause to be.
bäs-ä-, carry, bring wood (bäs')
tcit-ü-n-ä*, takes him in

-ta-n, -ta-na, for, to, of, about.
ci-ta-n, capture for
ie-ta-n, ici-ta-n, make
kousa'än-ta-n, attack
θa*wa-ta-n, believe
ciyi-ta-θ, make disappear for
äänθi-ta-n-ä'ti', tells it to him
axa*n-tana-w-ä'ti', makes fun of him
ähei-si-ta-ni, gave to be washed (ähei-sou, wash one's self)
hän-is-θeta*n-tana-hok", thought of him thus
h-θi-ku-ta-n-ä*θi, when they seized them
isi-bi-ta-ni, bedtime, time for lying
θääh'i-ta-n, be agreeable (to f)
kaθa'on-θa*ta-b-ä", took half of her
tou-ku-ta-n-ä", tied to him
tou-ku-hu-ta-ni-na", they are tied up for
nä-nä(h)a-ta-n-eina", he killed them for us

-wu-n, to, for, with.
waθanaha-wu-n, write to
ata-wu-n, eat up for
neiäna*wu-n-ä*, holds it tight for him
ni-tana-wu-hei-na", I dig a hole
kox-ta-wu-h, do to, meddle with
-t' (-i-t', -a-n-t'), forms abstract nouns. This ending seems to be that of the third person subjective.

bixaⁿ-θ-et-it', love
bi-θi-h-it', food, eating
bäsä-ihäⁿ-t-it' (ceremonial) touching (by old men)
hinaⁿ-t-it', life
hinen-tän-it', tribe
teeitaⁿ-h-ät-it', 'ear-piercing' ceremony
tee'-ät-it', 'welcoming' ceremony
häs-owa-be-h-it', sickness
änet-it', speech, voice
waxu-c-it', paint, the painting
ka'-ue-h-it', a bleeding
tou-tei-h-it', belt
bät-äⁿ-it', a dance
äsina-n-äⁿ-it', anger
h-äⁿxū-äⁿ-it', a crossing

-čhi, ōhu, agent, action, instrument, thing for.

h-äbît-čhi, thief
äneti-b-čhi, speaker
hâbîb-čhi, a large one
kata-ōhu, beadwork (kata-, cover, hide)
tewouw-ōhu, swimmer

-än, -y-än, that which.

či'-a-yäⁿ, post, monument, goal
hasei-yäⁿ, an offering
bü-θaćo-aⁿ, hemorrhage
bâbi-yäⁿ, property, clothing
bâni-yäⁿ, night, darkness
bihi'-i-yäⁿ, at night
kanaⁿ'-aⁿ-yäⁿ, long, oblong
nihaⁿ-yäⁿ, yellow (nihaⁿ-ni-x-t', is yellow)
nihaⁿ-yäⁿ, self (nihaⁿ-ni-, to own)
GRAMMATICAL PREFIXES

Grammatical prefixes of verbs are prevalingly prefixes, except for most of the pronominal and a few other elements.

- **k-**
  - k-ih'
  - k-a
  - k-a'hei
  - k-a'hā
  - k-a'hū
- **i-ha**
- **tei**
- **tei-hā**
- **tei**
- **ni**
- **nih**
- **isi**
- **niisi**
- **hi**
- **nih1**
- **nih-isi**
- **nih-isi**
- **hant**
- **hant-l**
- **hant-ann-i**
- **t-**
  - tī, tih'
  - ta'a, tah'a
  - tisi
  - tisi
  - ta'hūsi
  - ta'hūsi
- **hā-ti**
- **hā-tih'**
- **hih**
- **θi**
- **iθi**
- **hā-ih**, hū-ix
- **hā-nā**
- **ni**
- **nih**
- **nih1**
- **hini**
- **hā-ta'a**
- **hā-a**
- **hā-teis**
- **na'sou**
- **ti-na'sou**
- **hawa-tih'**

**interrogative**
- negative
- negative
- negative imperative
- sometimes positive imperative
- incompletely action
- completed action

**future, probably of purpose or intent**
- when, after, because
- action incomplete
- action complete
- optative, “let me”
- “would that!”
- optative, “let me,” “let us”
- “then!”
- “then!”
- meaning not determined
- relatively subordinating or noun-making: “he who, which, where”
- where
- while; continuing; “—ing”
- the same meaning as the last
- although

**GRAMMATICAL SUFFIXES**

- **-eti**
  - reflexive
- **-hōk**
  - “it is said,” quotative
- **-äxk**
  - conditional, subordinating
- **-hāxk**
- **-nāxk**

14 These two frequent prefixes, whose exact force is not clear, are evidently introductory and appear to contrast with each other. See text III, notes 4, 29.
PRONOMINAL ENDINGS

The pronominal endings of intransitive verbs, including numerals, adjectives, and independent pronouns, are:

- **I** -nan
- **you** -ni'
- **he** -t', or a vowel
- **we** -na'
- **you** -nä'
- **they** -ëi, or a vowel

These endings are usually added directly to intransitive stems.

- bänä-na' I drink
- n-äneti-na' I speak
- ši′oku-t' he sits
- ši′kekū-t' he stands

The intransitive imperative is the stem.

The intransitive negative with the prefix īha'wu- is formed with prefixed pronominal elements.

- **I** n-eiha'wu—
- **you** h-eiha'wu—
- **he** h-īha'wu—
- **we** n-eiha'wu—bä (or -hi-bä)
- **you** h-īha'wu—bä (or -hi-bä)
- **they** h-īha'wu—nä' (or -hi-na')

In these forms -na' recalls the commonest plural suffix of nouns, -bä is probably the stem for "all," and the vowel change in the third person, as well as the initial prefixes, are suggestive of the possessive prefixes. Perhaps the division should be nei-ha'wu instead of n-eiha'wu.

The transitive conjugation is formed by suffixes. These are:

<table>
<thead>
<tr>
<th></th>
<th>Me</th>
<th>You</th>
<th>Him</th>
<th>Us</th>
<th>You</th>
<th>Them</th>
<th>It</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>—</td>
<td>éth1</td>
<td>-a'1</td>
<td>—</td>
<td>-éth1</td>
<td>-ou</td>
<td>-aw1</td>
</tr>
<tr>
<td>You</td>
<td>un1</td>
<td>—</td>
<td>-a'1</td>
<td>—</td>
<td>-a'115</td>
<td>-a'1</td>
<td>-a'</td>
</tr>
<tr>
<td>He</td>
<td>-eïn1</td>
<td>-eïn1</td>
<td>-a'15</td>
<td>-eïn1</td>
<td>-a'1</td>
<td>-a'1</td>
<td>-a'</td>
</tr>
<tr>
<td>We</td>
<td>—</td>
<td>-ën1</td>
<td>-ët1</td>
<td>—</td>
<td>-ën1</td>
<td>-ët1</td>
<td>-ën1</td>
</tr>
<tr>
<td>You</td>
<td>-ënin1</td>
<td>—</td>
<td>-ënin1</td>
<td>—</td>
<td>-ënin1</td>
<td>—</td>
<td>-ënin1</td>
</tr>
<tr>
<td>They</td>
<td>-ë1</td>
<td>-ënin1</td>
<td>-ë3116</td>
<td>-ënin1</td>
<td>-ënin1</td>
<td>-ë31</td>
<td>-ou</td>
</tr>
</tbody>
</table>

The above forms have been found on most stems. Some verbs, including teũ-b- and kä-u-s, replace the first vowel of the suffix, be it e, ei, ă, or u, by i, except for the inanimate object, the "I-them" form -ou, and perhaps certain other forms of the third person object. Thus, teũ-b-i-na', kä-u-s-i'shen1. Some other verbs, including bäxa-h- and sâ'išixa-h-, substitute u for e, ei, ă as the first vowel of the suffix.

---

15 Second form: he (B) to him (A): -ëit1.
16 Second form: they (B) to him (A): -ëi1.
in the first and second persons object, but contrariwise in the third person object change a to å, and ou to ei. On the other hand, the stem vowels change according to the suffix in some verbs: nā-nāhā', kill, occurs before all persons of the object, animate and inanimate, except the ‘‘A’’ form of the third person: nānāhā'-eina, nānāhā-einî, nānāhā'-eitî, but nanaha'-aîti.

The endings themselves cannot be analyzed in all cases into regularly recurring subjective and objective constituents, although -ni for the second person singular object, -nâ second plural subject and object, -ei first plural object, are clear. The impression given by the endings is that the two elements of each occur in a fixed order not so much according as they represent the subject and the object as according to the person denoted. The second person comes last, whether subject or object; between the first and third persons precedence is not so clear.

This is confirmed by the transitive negative conjugation with the prefix -i-haæwu-. In this the second person is always prefixed; the first is suffixed as against the second, but prefixed as against the third, while the third is prefixed only when there are two elements of this person. Such a form as hei-haæwu-bixaæ-â-ehô also corroborates the inference that -ehô in bixaæ-â-ehô-enî is the part that means ‘‘I’’.

<table>
<thead>
<tr>
<th>Me</th>
<th>You</th>
<th>Him</th>
<th>Us</th>
<th>You</th>
<th>Them</th>
</tr>
</thead>
<tbody>
<tr>
<td>hei</td>
<td>hei-a</td>
<td>hei-ei</td>
<td>hei</td>
<td>nei-ei</td>
<td>nei-ei</td>
</tr>
<tr>
<td>You</td>
<td>hei-a</td>
<td>hei-ei</td>
<td>hei</td>
<td>hei-ei</td>
<td>hei-ei</td>
</tr>
<tr>
<td>He</td>
<td>hei-å</td>
<td>hei-ei</td>
<td>hei</td>
<td>hei-å</td>
<td>hei-å</td>
</tr>
<tr>
<td>We</td>
<td>nei-åbå</td>
<td>nei-åbå</td>
<td>nei-åbå</td>
<td>nei-åbå</td>
<td>nei-åbå</td>
</tr>
<tr>
<td>You</td>
<td>nei-ubå</td>
<td>hei-åbå</td>
<td>hei-åbå</td>
<td>nei-åbå</td>
<td>nei-awu</td>
</tr>
<tr>
<td>They</td>
<td>nei-ei</td>
<td>nei-åbå</td>
<td>nei-åbå</td>
<td>nei-åbå</td>
<td>nei-awu</td>
</tr>
</tbody>
</table>

The transitive imperative forms differ somewhat from the indicative: -un, -in, implies the object of the third instead of the first person. Probably it expresses only the subject of the second person.

| bixaæ-x-u | like me! |
| bixaæ-x-unî | like him! like them! |
| hi-as-inî | fear him! |
| hâseinâ-b-inî | hate him! |
| bixaæ-t-aæ | like it! |
| bixaæ-â-ieîä | like us! |
| bixaæ-â-å | do you (pl.) like him! |

The negative imperative, with prefixed tei-bå-, has the same suffixes. The forms referring to an animate object of the third person are preceded by connective consonants which in the indicative of the same verbs occur before the first and second persons objective.

17 Possibly a final surd * has escaped notice in these forms.
CONNECTIVE SUFFIXES

The transitive pronominal endings are not added directly to the stem, but are invariably preceded by one of five consonants: b, n, s, θ, h. At first regarded as part of the pronominal suffix, later as a connective characteristic of each verb, these consonants were later seen to correspond to the "instrumentals" of Dr. Jones. Before this, in fact, -h had been recognized as a causative. The four other consonants, on the other hand, do not appear to be significantly instrumental in Arapaho, except in so far as they all occur only on transitive verbs. They certainly do not in most cases refer, except by the remotest implication, to a part of the body or a type or shape of instrument. There are also scarcely any observed instances of one stem appearing, under the same or an altered meaning, with any other than its characteristic consonant. The designation "instrumentals" therefore seems of dubious applicability in Arapaho.

It may be added that a search for a possible phonetic relation between stem and connective consonant gave no results.

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Verb</th>
<th>Me</th>
<th>You</th>
<th>Him</th>
<th>Us</th>
<th>You</th>
<th>Them</th>
<th>It</th>
</tr>
</thead>
<tbody>
<tr>
<td>see</td>
<td>a'ha</td>
<td>b</td>
<td>w</td>
<td>b</td>
<td>b</td>
<td>w</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>strike</td>
<td>ta&quot;</td>
<td>b</td>
<td>w</td>
<td>b</td>
<td>b</td>
<td>w</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>hate</td>
<td>ãeinã</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>w</td>
<td>[t]</td>
<td></td>
</tr>
<tr>
<td>shoot</td>
<td>tcã</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>tell</td>
<td>itawũ</td>
<td>n</td>
<td>n</td>
<td>[n]</td>
<td>[n]</td>
<td>n</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>eat</td>
<td>bí</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>w</td>
<td></td>
</tr>
<tr>
<td>reach</td>
<td>ouxã-ta</td>
<td>n</td>
<td>n</td>
<td>[n]</td>
<td>[n]</td>
<td>n</td>
<td>w</td>
<td></td>
</tr>
<tr>
<td>fear</td>
<td>í</td>
<td>s</td>
<td>s</td>
<td>x</td>
<td>s</td>
<td>s</td>
<td>[x]</td>
<td>t</td>
</tr>
<tr>
<td>cut</td>
<td>kã&quot;u</td>
<td>s</td>
<td>s</td>
<td>s</td>
<td>s</td>
<td>s</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>like</td>
<td>bixa&quot;</td>
<td>θ</td>
<td>θ</td>
<td>θ</td>
<td>θ</td>
<td>θ</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>peg flat</td>
<td>sâ'ĩθ-ixa</td>
<td>h</td>
<td>h</td>
<td>h</td>
<td>[h]</td>
<td>h</td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>strike</td>
<td>bã-ixa</td>
<td>h</td>
<td>h</td>
<td>h</td>
<td>h</td>
<td>h</td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>kill</td>
<td>nū-nāhā</td>
<td>'</td>
<td>'</td>
<td>'</td>
<td>'</td>
<td>'</td>
<td>t</td>
<td></td>
</tr>
</tbody>
</table>

These connectives or instrumentals change somewhat according to the person of the animate object expressed in the pronominal endings which follow them, and in part according to the stem. Such variations, which are illustrated in the following table, are clearly of a phonetic origin. But a radical change undergone by the consonant

---

19 Except bíi, find, which occurs both as bii-n and bii-h; ānã"ka-b, ānã"ka-n, loosen; and ci-n, ci-h, capture.
20 Compare Michelson, Am. Anthrop., n. s., xv, 476, 693, where substantially the same contention is advanced as regards Fox.
21 w with subject of second person singular and third plural.
22 x with subject of second person singular and third plural.
23 This is the only stem found with the glottal stop.
when the object denoted by the pronominal suffix is inanimate, especially from -w to -t, can scarcely be due to any merely phonetic laws. The author sees in this thorough difference of form when the object is inanimate a further argument against the instrumental nature of these connectives.

**CLASSIFIED LIST OF STEMS**

A number of transitive verb "stems" follow, arranged according to their "connective" suffixes. This list is followed by one giving the principal ascertained intransitive verbs, which lack connectives.

### Transitive

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>-b, -w</td>
<td>see, loosen, buy, steal, hate, pursue closely, think of highly, bite, marry, strike, bite, help, cut, break off, shoot, take into water</td>
</tr>
</tbody>
</table>

### N

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>-n</td>
<td>hang up to dry, pity, know, go to, go after, pursue, alarm, scare up, take, catch, seize, bring out, take in, bring, touch, eat, give, find, chase, drive off, cut open belly, lose grip on, envy, open (ka=nu-s, cut), pull out, pull off, meet, drive out, ask, question (noti-h, seek), go with, come with, breathe in, suck in</td>
</tr>
</tbody>
</table>
ci-n, ci-h  take, capture
cinouhu-n  resemble
tou-n, tanou-n  hold
ta-n  pour
ta'xa-n  kick
wa'awa'a-n  go in, draw in, suck in

With suffix -ta:
ooxa'-ta-n  reach
ici-ta-n, ie-ta-n  make (n-ici-h, make)
'oxa'wa-ta-n  believe
kousa'a'-ta-n  attack
na-nah-a-ta-n  kill for
ci-ta-n  capture for
touku-ta-n  tie to
ten'a'-ta-n  perceive, notice
tecii-ta-n  visit

With suffixes -wu, -bii:
atu-wu-n  eat up for
isi-bii-n  lay down, go to bed with
'oei-wu-n, 'oei-ka-h  carry on back
tawaha-wou-n  cut tree down for
wa'tahana-wu-n  write to
waxu-bii-n  imitate a bear

(n-)i-s  fear
it-i-s, ita-s  meet, reach, arrive at, come to
bii-s  touch
kau-s  cut (et. ka'ne-n, open)
nou-ta-s  carry out
tanii-s  pierce, make hole in
tecii-s  give here
wahani-s  unite
waxu-s  paint

-θ
änia-θ  rub
änii-θ  narrate
äniak-θ  take home
äneti-θ  speak to
bixaa-θ  like, love
ka'koutci-θ  scratch
sixaha-θ  do thus, show
teci-θ  make disappear for

With suffix -ku:
(n:)tou-ku-θ  bind, tie to
'oei-ku-θ  put in
ka'ka'ni-ku-θ  uncover
noh-a-ku-θ  lift up, carry
nisaa-ku-θ  bind
teci-ku-θ  release

-h²⁴
atā-h  give
-axa-h, -iixa-h  bring, take, carry (in, back, etc.)
*āsini-h  anger, be angry at (āsina-nā-t), anger
-i-θetcia-h  think

²⁴ Starred forms show this suffix with an indisputable causative force.
Kroeber: Arapaho Dialects

*h-itca-h  give pipe to, cause to smoke
iya-h       ignore, not know
há-xó-h, bá-xa-h  strike
*báta-h  give medicine to, doctor
bii-h, bii-n  find
á-udu-h, á-á-h  crush, grind, chew (áxan, forcibly)
á-áku-h  follow
á-á-ká-h, á-á-wa-n  carry on back
*bá-áku-h  make stand
koxtawu-h  do to, meddle with, copulate with
á-ká-xa-h  stab, pierce, sting
ká-týa-h  cover up
té-á-h  search for, seek (ná-á-n, ask)
n-ici-h, ici-ta-n  deceive, trick
n-á-ici-h  make
nicka-h  whip
sá-á-á-xá-h  peg out flat
ci-h, ci-n  capture, take
té-bá-xá-h  carry, transport, cause to travel
té-tei-h  cause to enter, let in
wawa-h  throw over, scatter

INTRANSITIVE

onhu  climb
ouy  hang
ot  comb
á-áku-á  thaw, be warm
á-t-á  stand
á-wúna  be closed
á-á-xtée-hi  shove
án-á-ti  be different
á-tei-ni  make camp, stay over night
á-tei-yaka-ni  come to a camp
hí-á-ti  be true, right, so
ixáne-hi  provide for, favor
ina-á-ti  hunt
inenítí-ni  be well, live
ninikati  play
isi-bi  lie down, go to bed
isi-sí  be lying
há-tou, á-tou, á-tei-a  shout, make noise, roar (cf. n-itou-hu)
h-itou  beg
á-ti  take arms
bál-ni  be bloody, bleed
bei-teixu  be red hot
bá-bá-á-ti  be curly haired
bá-ná-á-ti  drink
bá-ná-á-ti  smell
bá-sáyëi  touch
bí-xóu  emerge, rise to surface of water
bí-wa-á-hu  weep, cry
há-hléi  wash
síi-há  snore
síi  have to do with clothing
síya-hu  cut hair
koxumá  hide, enter a hole
koxahéi  dig
ka-á  drop, fall
ka-úye  pick fruit
ka-á-out  make dust
há-héi, kohayeí  get up, rise, ride
ka-á-kou  patch on
katéi-ni, catéi-ni  give medicine to, doctor
katéi-ni  find
ká-á-á-á-ní  take arms
<table>
<thead>
<tr>
<th>Transitive</th>
<th>Intransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>a'ku-, thaw, be warm</td>
<td>a'ku-4, bind</td>
</tr>
<tr>
<td>anin-, know</td>
<td>ña'nu-, be a coward</td>
</tr>
<tr>
<td>hānitā- (t), inhabit</td>
<td>hāni-, live, stay</td>
</tr>
<tr>
<td>isi-bi-, lay down</td>
<td>isi-bi-, live; isi-si, be lying</td>
</tr>
<tr>
<td>ēci-ta-, n-ēci-h, do, make</td>
<td>ēci-hi, n-ēci-ti, ēci-ta-, do, make</td>
</tr>
<tr>
<td>bāsā-, touch</td>
<td>bāsā-yei, touch</td>
</tr>
<tr>
<td>bī-n, bī-h, find</td>
<td>bī-ti, bī-hā, find</td>
</tr>
<tr>
<td>bī-n, eat</td>
<td>bi-īi, eat</td>
</tr>
<tr>
<td>noti-h, seek, nota-n, ask</td>
<td>noti-hi, look, search</td>
</tr>
<tr>
<td>naha', nāhā', kill</td>
<td>nālihei, nāhi-, kill</td>
</tr>
<tr>
<td>ni-b, marry</td>
<td>ni-bi, marry</td>
</tr>
<tr>
<td>tēi-b, shoot</td>
<td>tēi-b, shoot</td>
</tr>
<tr>
<td>sā'ku-4, bind</td>
<td>sā'ku-hu, be tied</td>
</tr>
</tbody>
</table>

In general, transitive stems are used intransitively, or vice versa, so far as their meanings permit, without further change than that produced by the loss or insertion of an "instrumental" connective. The following are the principal observed cases of a more extensive modification.
Kroeber: Arapaho Dialects  
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Nouns

PLURAL

Arapaho nouns take a plural suffix whether animate or inanimate, this distinction of gender being expressed by the verbs, adjectives, or numerals referring to them and not in the nouns themselves.

The most common plural suffix is -na^a. This has been observed on hic(i), liver; bäsei', urine; hā^nxe'í, wolf; hou, raven; biete'i', dove; hahā'ti', cottonwood, tree; kakā'x(i), tent pole; haha'uktā'n, hair braid; haxa'anā'kā'n, stone; ha'da'n, penis; hānkuhā'n, head; nā'tcā'n, chief; hānā'tcā'n, buffalo bull; hìnēi', man; hisci, woman; wa'a, wa'aha, moccasin; kakuiy, tube, gun, whistle; cīsawa'n, tobacco; tcēbā'ti, sweat-house; wana', wrist; hi'ēina'n, buffalo; bīsā'n, worm.

With some slight or apparent change of final vowel, this ending occurs also in the following words:

- a^n, -ha^n (probably really -a^n', -ha'n') is also common. Before it -ā, -e, change to a; and -x becomes -θ, -c becomes -θ or -x, θ becomes -t.

bättā'n, heart, bättā'ha^n
nicetcā'n, antelope, nicetcāha^n
ni'īhi, eagle, bird, ni'āhiha^n
nīctey, river, nīctēhaha^n
hō'u, robe, houwā'n (et. hou, raven, above)
ha'kūhu', mouse, ha'kūhuha^n
hāni'i', ant, hāni'iha^n
hanaxa'āhi'ī'i, boy, hanaxa'āhiha^n
hättā'n, sinew, hātāha^n
waxu', medicine, waxūwā'n (et. wax', above)
wou, buffalo calf, wouha^n
tcē'einox, bag, tcē'einaθa^n
ha'uwanax, parfleche case, ha'uwanaθa^n
beic(i), nose, beicθa^n
bene, arm, bānōxa^n
bū'si', wood, būxa^n
wa'a^nθ', leg, wa'a'nta^n
beitcθ, tooth, beitcita^n
tcαx', foe, Comanche, tecōθa^n
Lengthening or vocalization of the final vowel is fairly frequent:

\[ i > i; u > ū; ā > ei; a, aⁿ > ou, au. \]

\[ hoθi', arrow, hoθi \]

\[ bihi'í, deer, bihi'í \]

\[ teaⁿani'í, prairie dog, teaⁿani'í \]

\[ worx, bear, worxū \]

\[ wa'ax, nail, wa'axū \]

\[ nete¹, water, netē \]

\[ ni'ete¹, lake, ni'etei \]

\[ hāᵗete¹, ocean, hāᵗetei \]

\[ wāsāⁿθi(¹), arrowpoint, wāsāⁿθi \]

\[ hābās(¹), beaver, hābāsī \]

\[ hiθaxu, guts, hiθaxū \]

\[ kaha'awwu, creek, kaha'awwū \]

\[ hoseina, meat, hoseinou \]

\[ wa'kete(¹), cattle, wa'ketei \]

\[ hotā', mountain sheep, hotei \]

\[ bā'celsi', eye, bā'celsi \]

\[ hāw, house, hā'wū \]

\[ haθa', star, haθa'ū (et. haθa, penis, above) \]

\[ wannana', ear, wannana'ū \]

Apparently formed by a special suffix:

\[ heθ, dog, heθābī \]

\[ ka'a', coyote, kāxawū \]

\[ hiwaxuhāx, horse, hiwaxuhāxābī \]

**CASES**

An oblique case, usually an objective, was observed on a few nouns. It seems to be formed by -ni¹.

\[ hisei, woman, objective hisei-n(¹), compare text III, note 28. \]

\[ wot nāhā' niteche-hinen¹ ni'bābānāhāxk, this Kiowa was handsome; hā'xounxouxe niteche-hineni-n¹, he met a Kiowa. \]

\[ tuxkanā' bāninā²nt¹ nitea-ou-n¹ bitecineni-n¹, Tuxkanā' gives a blanket to Bitecinen¹. \]

\[ nāhā' hinen¹ tawā³t¹ hi'ihi' haxa'anākāh ēnā' hineni-n¹, this man struck with a stone that man. \]
A general locative, also serving as an instrumental, is more frequent. It takes the forms -hii', -nä', -bä'; also -i', n'i, -i, -u, recalling both one type of plural and the objective.

näyei, my tent, näyeihä'
hí'äñ', his leg, hi'äñtä', hi'äññi' (plural)
bei, awl, beihä'
nitcīye, river, nitcīhä'
haxa'anä-x, ax, haxa'anäñä'
nina', tent, nīna'nä'
hāñxebi', spring, hāñxebinä'
bä'a', road, bä'a'nä'
haśñkūhä', head, haśñkūhā'nä'
hakā'x, tent pole, hakā'xinä'
kakuic, kakuiy, gun, kakuiyanä'
teteena', door, teteneanä'
tcā'sex, one, tcā'seiyänä', in one spot
waxä', grass, waxu'unä'
h-a', bed, h-a'bä'
hōri', wheel, hōrihā'
neti', water, netci
tcā'otā'ya', hill, tcā'otā'ni'
hahā'ti', cottonwood tree, hahā'ti', hahā'ti-ni'
bita'a'wii, earth, bita'a'wū
wāwii, ice, wa'awū
heš-aw-akay-a-ni, in the doghouse

POSSESSION

The personal possessive affixes of nouns are illustrated by the following examples:

<table>
<thead>
<tr>
<th>Word</th>
<th>Father</th>
<th>Mother</th>
<th>Older brother</th>
<th>Daughter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocative</td>
<td>neixa'</td>
<td>na'a'</td>
<td></td>
<td>natä</td>
</tr>
<tr>
<td>My</td>
<td>neisana'</td>
<td>neina'</td>
<td>nāsäiihä 'ä</td>
<td>natäne</td>
</tr>
<tr>
<td>Your (s.)</td>
<td>heisana'</td>
<td>heina'</td>
<td>hássähä 'ä</td>
<td>hatäne</td>
</tr>
<tr>
<td>His</td>
<td>heisanānin'1</td>
<td>hinän'1</td>
<td>hisähä 'äni1</td>
<td>hatanihn1</td>
</tr>
<tr>
<td>Our (incl.)</td>
<td>heisanānin'</td>
<td>hinänina'</td>
<td>nāsäihä 'ähina'</td>
<td></td>
</tr>
<tr>
<td>Our (excl.)</td>
<td>heisandnin'</td>
<td>heinanin'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your (pl.)</td>
<td>heisandnin'</td>
<td>heinanin'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Their</td>
<td>hinisänänina'</td>
<td>hininanin'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somebody's</td>
<td>beisana'</td>
<td>beina'</td>
<td>bāsäiihä 'ä</td>
<td>hitanehina'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word</th>
<th>Grandfather</th>
<th>Son</th>
<th>Sons</th>
<th>Robe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocative</td>
<td>näbaćiwaa'</td>
<td>ne'i'</td>
<td>neih 'a'ha'</td>
<td>(hou)</td>
</tr>
<tr>
<td>My</td>
<td>näbaćibāhā</td>
<td>neih 'ä'</td>
<td>neih 'a'ha'</td>
<td>natou</td>
</tr>
<tr>
<td>Your (s.)</td>
<td>häbācibāhā</td>
<td>heih 'ä'</td>
<td>heih 'a'ha'</td>
<td>hatou</td>
</tr>
<tr>
<td>His</td>
<td>häbācivaha'</td>
<td>hi'ä'</td>
<td>hi'ä'ha'</td>
<td>hitouwu</td>
</tr>
<tr>
<td>Our (incl.)</td>
<td>häbācibei-hin'</td>
<td>heih 'ehin'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our (excl.)</td>
<td>häbācibei-hin'</td>
<td>heih 'ehin'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Their</td>
<td>häbācibāhāina'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somebody's</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Word  | Robes  | Penis  | Dog  | Tent  \\
--- | --- | --- | --- | ---
Vocative  | (houwa*)  | (haθa*)  | (heθ)  | (niθa*)  \\
My  | natouwa*  | neθa*  | netėθibibi  | nayeθ  \\
Your (s.)  | hatouka*  | heθa*  | hetėθibibi  | hayeθ  \\
His  | hatouwa*  | hinθa*  | hetoθibiwa  | hiyeθ  \\
Our (incl.)  | hitouwun*  | |  |  \\
Our (excl.)  | |  | |  \\
Your (pl.)  | hitouwuna  | |  |  \\
Their  | |  | |  \\
Somebody’s  | |  |  | baθa*

Some of the above forms under “our,” “your,” and “their” may really denote plural instead of singular nouns. The “vocative” in the terms of relationship is the term of direct address: “father!” In the other words given, the corresponding form in parentheses is the nominative.

Several nouns show a suffix with labial consonant in all three persons. This perhaps denotes acquirement of possession.

nat-ahâ-ti-bi, my tree
bit-ahâ-ti-wu, his tree
net-æñibi-bi, my dog
na-nouhahâ-bi, my kit-fox
nii-nâ-teã-wa*, my chiefs
nâ-teia*ni-wa*, my children

PRONOUNS

The demonstratives, which are alike for singular and plural, animate and inanimate, are:

nâhâ', muhú'  this
hinâ'  that, visible, or near the person spoken to
hi  that, invisible, or of reference only

Compare: nâ'âsi, thus, nâ'ëisi, nâ'âsa*, it is thus, resembles, nâنhisou, alike, nâ'aëxtâ, he resembles.

Interrogatives:

hâ'nâ'  who
hâyou  what
hâ*ta*, tâ*ti, tâ*teiha*  where
hâ*tax*  whenever
tou  when
toua*  why, what kind
tahou, tahoutax*  how many
tou Ôouhu'  for how much, at what price

A real personal pronoun does not exist. Independent words translatable by English pronouns occur only in answer to questions, or
occasionally for tautological emphasis. They are verbs formed from a demonstrative stem.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nänä-ni-na</td>
<td>it is I, ‘‘I’’</td>
</tr>
<tr>
<td>nänä-ni-t'</td>
<td>it is he, ‘he’</td>
</tr>
<tr>
<td>nänä-häxk</td>
<td>it must be he, ‘‘he’’</td>
</tr>
</tbody>
</table>

Compare:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>hineni-ni-na</td>
<td>it is a man that I am, ‘‘I am a man’’</td>
</tr>
<tr>
<td>hisei-ni-na</td>
<td>I am a woman</td>
</tr>
<tr>
<td>hähä-käh-ni-na</td>
<td>I am a fool, I am crazy</td>
</tr>
</tbody>
</table>

The ‘‘independent possessive pronouns’’ are also verbal sentences, with a possessive prefix and a subjective suffix of the third person.

<table>
<thead>
<tr>
<th>Pronoun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>mine</td>
<td>neinis'tāti (‘‘he is mine’’)</td>
</tr>
<tr>
<td>yours</td>
<td>neinis'tātī</td>
</tr>
<tr>
<td>his</td>
<td>hinis'tātī</td>
</tr>
<tr>
<td>ours</td>
<td>neinis'tātītinā</td>
</tr>
<tr>
<td>yours</td>
<td>neinis'tātītinā</td>
</tr>
<tr>
<td>theirs</td>
<td>hinis'tātītinā</td>
</tr>
</tbody>
</table>

**Adverbs**

-ihī’, -uhu’, is the commonest ending of independent words of adverbial or prepositional force. Without the suffix, several of the stems occur as prefixes of verbs.

<table>
<thead>
<tr>
<th>Adverb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>teūn-ihī</td>
<td>under (teūn-i-)</td>
</tr>
<tr>
<td>tās-ihī</td>
<td>on (tās-i-, tāx-)</td>
</tr>
<tr>
<td>ka'ai-n-ihī</td>
<td>slowly (kou-)</td>
</tr>
<tr>
<td>xou-w-uhu</td>
<td>straight (xou-)</td>
</tr>
<tr>
<td>bā-h-ihī</td>
<td>all (bā-)</td>
</tr>
<tr>
<td>nā-ūhu</td>
<td>out from the river or valley (nou-)</td>
</tr>
<tr>
<td>hanawu-n-ihī</td>
<td>down-stream</td>
</tr>
<tr>
<td>n-āwū-hu</td>
<td>south</td>
</tr>
<tr>
<td>hawahō-uhu</td>
<td>many times</td>
</tr>
<tr>
<td>hi’-ihī</td>
<td>hu’-uhu’, with, on account of</td>
</tr>
<tr>
<td>hiśa-w-ōhu</td>
<td>really, truly (hiśa-bei, to be so)</td>
</tr>
<tr>
<td>θei-n-ihī</td>
<td>, inside</td>
</tr>
<tr>
<td>kouū-ihī</td>
<td>some time later</td>
</tr>
<tr>
<td>kox-θ-ihī</td>
<td>over, beyond (kax-, violently, through)</td>
</tr>
<tr>
<td>kaκ-kaxuθ-ihī</td>
<td>over a hill</td>
</tr>
<tr>
<td>kanaw-ūhu</td>
<td>meanwhile, at the same time</td>
</tr>
<tr>
<td>kanax-uhu</td>
<td>obstinately, unduly</td>
</tr>
<tr>
<td>nih-ihī</td>
<td>along, during</td>
</tr>
<tr>
<td>tou-θo-uhu</td>
<td>at what price (tou, what)</td>
</tr>
<tr>
<td>kū'kiθ-θ-ihī</td>
<td>homeward</td>
</tr>
</tbody>
</table>

-bā, -bi, -wu, is another ending of adverbs, whose stems in some cases also serve as prefixes of verbs.

<table>
<thead>
<tr>
<th>Adverb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>hinxič-ā-bā</td>
<td>up, above (hinxc-ī-)</td>
</tr>
<tr>
<td>hāh-ā-bī</td>
<td>toward (hāh-ā, hāh-ā-βi-)</td>
</tr>
<tr>
<td>nānā-bā, nānā-bi</td>
<td>north</td>
</tr>
<tr>
<td>nātā-bā</td>
<td>at the rear of the tent, opposite the door</td>
</tr>
</tbody>
</table>
-änwu refers to the ground:
- bita 'änwu, earth
  hiësäwu, on the prairie
  hiëšawänwu, under ground
  naxutänwu, above ground

-ou:
  hän-ä, hard, hän-ou, very hard
  hän-ä 'ei, fast, hän-ä 'ou, very fast
  nän-äsi, thus, nänäshis-ou, alike
  hän-ä, who, hän-ä 'ou, what

**Numerals**

The Arapaho numerals given in the vocabulary are those used in counting, and mean “— times.” The cardinals used in sentences are formed like verbs with the pronominal endings -i-θ, animate, and -ei, inanimate. They occur either with a prefix hii- or with prefixed reduplication. In this reduplication initial y of the stem turns to n. The relationship of these two sounds has been mentioned before. The stem of the cardinal numeral “one” is the same as that of “two,” nis, but has the corresponding singular suffixes -ix-ti and -e-ti. In the ordinal and the forms for “six,” the stem for “one” appears in what may be its original form, nii. The stems for “nine” and “ten” are used without reduplication or the prefix hii-. The ordinals are formed, with reduplication, by the suffix -awa. This is sometimes further enlarged by the ending -na’ when inanimate, and when animate has the ending -t’. Numeral classifiers have not yet been observed, except -än-nä, which is employed when camps, towns, herds, or portions are referred to, and which may be a locative or collective: yäneyi-än-nä-än, four bands.

<table>
<thead>
<tr>
<th>Counting</th>
<th>Cardinal</th>
<th>Ordinal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 tešseix</td>
<td>hän-nisi-xt (an.)</td>
<td>nän-nisi-xt</td>
</tr>
<tr>
<td>2 nis'1</td>
<td>hän-nisi-eθ (inan.)</td>
<td>nän-nisi-θ</td>
</tr>
<tr>
<td>3 näsä, näsax</td>
<td>hän-näi-θ</td>
<td>nän-näi-θ</td>
</tr>
<tr>
<td>4 yein'1</td>
<td>hän-yeini-θ</td>
<td>nän-yeini-θ</td>
</tr>
<tr>
<td>5 yëñän'1</td>
<td>hän-yëñeni-θ</td>
<td>nän-yëñeni-θ</td>
</tr>
<tr>
<td>6 nës-a' tax'</td>
<td>hän-nës-a' taxu-θ</td>
<td>nän-nës-a' taxu-θ</td>
</tr>
<tr>
<td>7 nës-a' tax'</td>
<td>hän-nës-a' taxu-θ</td>
<td>nän-nës-a' taxu-θ</td>
</tr>
<tr>
<td>8 nës-a' tax'</td>
<td>hän-nës-a' taxu-θ</td>
<td>nän-nës-a' taxu-θ</td>
</tr>
<tr>
<td>9 òi'1</td>
<td>òi'1 taxu-θ</td>
<td>òi'1 taxu-awå-t</td>
</tr>
<tr>
<td>10 bätä-tax'</td>
<td>bätä-taxu-θ</td>
<td>bätä-taxu-awå-t</td>
</tr>
</tbody>
</table>
The numerals from 11 to 19 are formed from those for 1 to 9 by the suffix -ini, which occurs also on words denoting measures of time; the tens by the ending -aⁿ’, -a’, or u’, with change of preceding consonant.

<table>
<thead>
<tr>
<th>1</th>
<th>teáseix</th>
<th>11</th>
<th>teáseini</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>yein¹</td>
<td>14</td>
<td>yeinini</td>
</tr>
<tr>
<td>5</td>
<td>yâalan¹</td>
<td>15</td>
<td>yâlanini</td>
</tr>
<tr>
<td>7</td>
<td>niswaⁿtaxa</td>
<td>17</td>
<td>niswaⁿtaxaⁿini</td>
</tr>
<tr>
<td>8</td>
<td>násaⁿtaxa</td>
<td>18</td>
<td>násaⁿtaxaⁿini</td>
</tr>
</tbody>
</table>

Other forms: nitaⁿ, first, before; nisaⁿouhu’, nisaha’a, both; teá”xaⁿ, another one; teáseix, one, inanimate; teásá’, one, animate.

The suffix -taxaⁿ in 6 to 10, appears to be found also in tahoutaxaⁿ, how many, and háⁿtaxaⁿ, whenever.

TEXTS

Only enough textual material is presented here to illustrate some of the leading structural and phonetic features that have been outlined. Several hundred pages of Arapaho texts were secured by the writer. But the foregoing description is, after all, not more than a sketch of part of the salient traits of the language; and any analysis making a pretense at even approximate completeness was impossible, without a study so thorough-going that it would have crowded into the background indefinitely other work which was a nearer duty. With the possible exception of Eskimo, Algonkin, as represented by Arapaho and Yurok, is far the most difficult form of speech encountered by the writer at first hand. How much remains to be done in Arapaho before the language is really understood is revealed by the notes that have been added to the appended texts. The purpose of these notes is elucidation; but whoever consults them will not need the advice that for nearly every point explained there is a problem raised, and several that are not even touched on. For these reasons the entire body of texts recorded has been put in the possession of the Bureau of American Ethnology, in the hope that under the hand of Dr. Michelson or some other investigator better fitted by capacity or long occupation with Algonkin than the writer, their publication will ultimately result in greater usefulness than could be attained now.
TEXT I—A PRAYER

hä'n-heisanā' nin¹² nānitāne'ina¹³ na-h'bacib-eh'hi¹⁴ hä'te'i²
Ha! our father, hear us, and grandfather. All

naha 'a-š'hi't nanaxkunih'i'wa²⁶ hie'³ ni'ha'nyan³
the shining ones I also mention, day yellow.

häse'isen¹⁸ hi' y'eti nā'yeitei i' y'etin⁹ bita'a'n'wu û'etin³
wind good, timber good, earth good.

tēsā'hi hä'te'sō'tin¹⁰ hie'a'n'wā'n'wu¹¹ naxutā'n'wu¹¹
Animal listen under the ground! above the ground

tēsā'hi nāte¹² teessē'eh'ihā¹³ te'bah' te'hā'ōti¹⁴
animal, in water animals, all listen!

hā'e'yawam'ni'na¹⁵ hā'twān'bini¹⁶ hä'n'tihi' te'h'hi¹⁷
Your food-remnants we will go to eat.

hūn'tihi'tchikā'n' tai¹⁸ hā'wā'wā²⁶ hā'nā'ti't¹⁸ hä'thiawam'ho'una²⁶
May there be breath life! May they be good!

hīn'n'ti'ni'²⁴ teia'n'zi'²⁰ hānā'teha'ye'it²¹ hīs'ehihi²²
the people, children of all ages, girl

naha-hana'xa'ahixi²² nax' hine'n hānā'teixay'e'it hī'sei²³
and boy and man of all ages, woman.

bāh'ē'i'hāhin²³ hānā'teixay'e'in bātābi² ha'tninoxanē'i'ā'n'nu²⁴
old man, of all ages, old woman. It shall give us strength

bi'cīwa²⁵ ha'neika'n'huhi²⁶ hie'c hā'n'ēn²⁷ nēixā²⁷
the food while runs the sun. Oh that! my father!

teixči'ni'ōti²⁸ nābā'cīwa²⁷ nā'niihi'i'ēa'² a²⁹ kaku'ōteča²²
listen, my grandfather! for what I ask, thoughts.

bātā'n³¹ bixā'ōte't³² hanaw'umātī't ha'tnino'xanā'beθen³³
heart, love, happiness! We will eat you.

Notes


¹ La pers. pl. inclusive: neisana², my father.

² -n', connective; -eina², he—me or they—us: thou—us is -eia².

³ na-n' or nah-n' is 'and'; the -h- may be part of this or part of the possessive
elements hā—h-in¹, our; nābācibā, my grandfather.

⁴ Also a prefix of verbs.

⁵ na-, for na-n' or nah-n', and -naxku-n', with, a prefix of verbs; nih¹, in-
complete action; itsa, stem; -w-, connective; -a², I—him.

⁶ Cf. hieic, sun, below.

⁷ Cf. hās'a'n't¹, swift, and the prefix of verbs hās, swiftly, violently, very, hard.

⁸ These two words were heard as parts of the preceding ones, to the final
vowels of which their initial vowels are assimilated.

⁹ hā'te'n', apparently equals hā'tti', optative; -n¹, transitive imperative.

¹⁰ A'w-wu, an ending of adverbs referring to the ground.

¹¹ Locative of nete¹, water.

¹² -ha², plural; -ehi, -ehei, may be -ehi, denoting the agent, -ehi, face, or -hi'², -hāhi, diminutive.
TEXT II—AN ADVENTURE

bihi‘i hēiix̂inae’i2 hitaxaⁿhok3 wotix touciniehin
'Vee’ now went hunting. He came to accidentally one who was pretty

hisin4 behie’nictcān5 hinaninouuyaxkan xanou6
woman. All antelope was her clothing. Straightway

hē̃iix̂etcečōłān4 tahⁿahawān7 hisin4 hēiix̂ähōxaxawūniān8
then he wanted to court her when he saw the woman. Then she motioned for him to approach.

wa’hei ha’tibinajθeën hēiix̂aⁿhok3 bihi’i nah’nihāyān
"Well, let me love you,“ said to her "Deer. “And yourself

hācitap’nani hēiixhaik3 hānāiyihań10 tāⁿbū11
please,” she said to him. Then he went to her. Just

ha’ntitenap’hok12 hina’nanax hāixwosatouhin13 tcestāteena’ā
he will be about to touch her, to his surprise then she cried (like a deer), suddenly jumped,
tcāntečćii’eix̂a14 hāi’i’binahabā16 bihi’i bihi’i hāiixtáyē
ran off looking back. Then he saw she was a deer. ‘Deer’ then was ashamed

ha’wo-nih’ot-biā ā’i17 hāiixnātečćii’hut18 taxtáyēhī19
at being deceived in loving. Then he returned ashamed.
hänixäntä 'einin

then

his eyes

hainixa 'einin

At last then

niñetouhäk

he cried.

hänixinikuhinän

then was chased

nibi'i

at 'i-ku, 'i

went, for

bii-hänixtniin

At last then he ceased

being a deer.

For this he is named "Deer."

Notes

2 For hänix-, see note 29 to following text; ina-, hunt; -ei, causative, here: go to.
4 An apparent instance of the objective or oblique case: hisei, woman.
5 bii-, behi- 'i, behi, bábâni-, all, completely; na'sitâ, nitsitâ, antelope.
6 Also a 'prefix' of verbs.
7 tah-, when; n-a'dha-w, see; -åt', he—him.
8 Cf. h-itaxan in the third word of this text; with this 'stem' compare itâ-s, itâ-s, reach, meet. For hänix-, see note 2: -wünä-, from -wu-n, to, for, with, or more probably from -awui-ni, become, begin, and -n, connective, -ä', -a', he—his him (a form different from those given above in the table of transitive pronominal endings, and no less common; but their relation is not yet clear).
9 For hañt-i-bixa-h-eden', I will love you.
10 hänix- = hänix-, which see in note 29 to next text; iyihä 't suggests the analysis iyî-h-ânti', but the form otherwise found is stem iyîha- with connective -n.
11 Also a prefix, but here heard as a separate word.
12 hañt-ni; ite-n, take; -hok, see note 2.
13 hänix-, wo', f'; átnu, itou, cry, make a noise, shout; -hi, intransitive; -n,f
14 Cf. teesis, begin; teç-, again, back, or perhaps reduplication here, 'jumped about'; 'teena'-å', jump.
15 Cf. teç-, backward, again; tceib-i-, aside, crooked; the stem seems to be the same verb of motion as in the word referred to in note 8.
16 hänix-, as ante; bini-ñ, possibly from bli-n, bli-ñ, find; a'ha-b-åo, he sees him.
17 Perhaps from bixa-h-äo, to love.
18 hänix-, as above; teç-, back, again; -tei-f; i-kâ-hu, run, travel; -t', he.
19 tah-, when, because; täye, be ashamed, as in the preceding sentence; -hi, intransitive; -åt', he.
20 Ta- 'i-, for tab- (?); nibi'i, deer; -hín-äti-ni, compare ni-waxë-nät'i, she who turned into a bear, and the independent word wänti in the next sentence.
21 hänix-; in-i- about, aimlessly, at random; -ku-hinä, possibly from -ku- -ä, make a motion to, transitive, and -hi, intransitive.
22 ni-t', f; etou, for itou or átnu, shout; -häk, for -haxk-, conditional, subordinating.
23 hänix-; bii-, all, as in note 5; iyihä-h-, for iyihä-h-, pursue; -tâk,- uncertain, but evidently contains the 'conditional,' as the word in note 22.
24 tcei-; when; ite-n, catch; -ät, for -ânti, equals -ånti, he—him.
25 Again the prefix 'all,' as in notes 5 and 23.
26 Perhaps the intransitive verbifying suffix -hi.
A man lived alone. He went to hunt. He told her:

"Mind! Do not look at him when he comes to you. He will make a noise when he will come and do not look there."

He said to her: "I am hungry. Give me to eat."
hänθañ'oku 12 nuhu' híséini'8 hänäa'titačeltiheit 29 hänẽinän 30
he said to her that woman. Then she gave him for a plate a clay one.
hiha'wñanisou'um 31 na'titačteta'nan 32 hänäa'titačeltiheit 29
"It is not the kind I use for plates." Then she gave him for a plate
bäcëina 30 hïha'wñanisou'um na'titačteta'na hähä'ku
a wooden one. "It is not the kind I use for plates," he said.
hänäa'titačeltiheit ka'kâ'hâ'wanzti kâ'xu hänĩ-material
Then she gave him for a plate a war-bonnet. Again he said the same.
hänäa'titačeltiheit hïbïxûta'ño nînî 33 ta'na'na'n 7 hänθañ'oku
Then she gave him for a plate her dress. "Very nearly!" he said to her.
na'ñanäa'ntitačeltiheit hiwâ'ñina' 33 ta'na'na'n 7 hänθañ'oku
And then she gave him for a plate her mocassins. "Very nearly!" he said to her.
ka'xu hänñâ'icíbinînî 34 hänõ'éiineîi 15 nû'nän 7 hänθañ'oku
Again then she lay down flat on her back. "That is it!" he said to her.
natã'ha'ta'wan'ânînî 37 hänñâ'kiká'ñeiineî 38 wa'hän'ñieseî 39
And when he had eaten then he slit her open. She was pregnant with twins,
nîsa'u 39 hänna'ñhia 40 nîsa'na'na 39 hänñâ'ñtênâ'na'tî 41
both were boys, the twins. Then he took them;
teći'na 42 nuu hänna'ñhia 40 hänñâ'ñwacíewa'ntî 43
one that boy then he put in the water
hänñâ'këbeinä 711 nan teći'an hänñâ'ñeleikûm 44 ñâ'ya'ka'zu'
in the spring, and one he threw under the right side of the door
nînâ'ññi 11 hänñâ'ññeleicà'tîâ 45 tîeikûnti 46 ñlîyanâ
at the tent. Then he went away after he had placed the children.
hiwa'ñineî hänñâ'ñineî 48 hänñî'ñi 49 hinini
He returned, this man, he called his wife,
hänñ'ñicå'tiśni nan teći'ânti 49 hinini nañ xa'na'ñou
she did not answer, when he called her, her husband. And
hänñ'ñini 51 ta'ññi'ñeiî 52 ta'ñteći'ântiśni'
hä he knew that she was dead when she did not answer.
hänñ'ñâteici'ñna hänñ'ñwan' ti 53 hänñâ'ñeikûñ'ñi 54 neiciniñhä'na'ñou 55
Then he went in to see. "I told you,"
hänθañ'oku hänñâ'ñbipa'ñhûti 56 hänñâ'ñwic'ëna'ñihî
ehe said to her. Then he cried. Then he went off.

Notes
1 Field Columbian Museum Publications, Anthrop. Series, v, 378, 1903. The
informant spoke with elaborate slowness and distinct syllabification. To this
are due the numerous nasalized vowels, which, as Dr. Michelson says, tend to
disappear in rapid speech. The slow utterance of the present informant may
have caused nasalization to be heard where it was not organic. Dr. Michelson
nasalizes o and perhaps other vowels; the author noted only a and ã, though
a was sometimes confused with o. Arapaho long vowels were usually heard
and written as gminated or doubled, particularly from this informant. As the writer in studying other languages has, however, found this apperception to be largely an individual peculiarity, such double vowels have in this paper been represented by single letters with the macron, except long e and o, which are represented, as heard, by ei and ou. The tendency to double crest long vowels seems nevertheless actually to be fairly marked in Arapaho, although the slight importance of the trait at best, and the cumbersomeness of its appearance make its orthographical neglect preferable.

2 The ending -hoku, given by Dr. Michelson as a stem meaning "say," is common as a quotative. Text ii, note 3.

3 nāa-,ι-; ina-ει, hunt, go to hunt, probably containing -ει, causative; -hoku, 'quotative'; ha'ta-ni-, ha'ti-, ha't-, purposive future, as in the preceding text; -ti, for -t, he, intransitive.

4 tei-, negative, tei-bā-, negative imperative; ta'k-, nei, not determined; ta'n-, when; na'n-, nā-. (also independent, perhaps regularly loosely proclitic rather than prefixed), and; hān-, probably related to hāni-, hānān-, see note 29; a'ha-w, stem, to see; -hoku, 'quotative'; ti, -a'ti, ei-ti, 3rd pers.; nā-, not clear, but evidently pronominral, -nā occurring quite regularly as the subjective and objective element of the 2nd pers. plural.

5 ha'tani, future; na'n-, and; hānā-, 'then'; tābāi, just, only, first begin to; hāni-yaw-, if the translation obtained is literal, would mean 'whenever' (independent, hāni-taxa, whenever, hāni-you, what); itā-s, to come to; -nī, -nīt, -nth, modal-pronominal; -ti, see note 6.

6 These two words contain the 3rd pers. ending -(ει)-t', and are to all appearances verbs.

7 iha'wutu- with pronounal prefix, a frequent form of the negative in verbs.

8 Cf. note 5.

9 hota'ni- for ha'ta'ni-, cf. note 1; itou, stem.

10 teitei, enter; cf. tcit-, tcit-t, in, entering.

11 These words all contain a locative suffix.

12 hā'-0a'-hok-, he (A) said to him (B); hā'-tcit-hok-, he (B) said to him (A).

13 Cf. Michelson, Bur. Am. Ethn., Ann. Rep., xxviii, 237, 1912. It appears that a similar distinction is made in other verbs in the transitive pronominal endings. The two contrasting forms are probably related to the two forms of the third person in Central Algonkin; but the writer is under the impression that, in Arapaho at least, the 'suum-ejus' distinction has been far transcended, the two forms serving rather as a convenient and valuable means of expressing over considerable passages the ideas which in our legal documents are rendered by "the party of the first part' and "the party of the second part.' If this view proves correct, the force of the paired Arapaho forms would be somewhat similar to the contrasting Yuki particles sa' and si', of which one intransitive expresses the continuance and the other a change of grammatical subject or agent in the sentences which they open.

14 Without the final -n in other occurrences in this text, as ante.

15 ta', when; tečn-ει-, tečn-λ-, off, away.

16 na', and; tečn-ει-, away; ina'-ει, go to hunt; -hoku, quotative.

17 ite-, tcit-, when, after, with implication of completed action; hi-, τ-, -θα-, cf. hā'-θα'-hoku, note 12; -ti, he.

18 Compare the corresponding form in note 6.

19 na', and; tcit-, back; ι-σα', go, come.

20 hāt-, hāt-θα', where; ι-σα', go, come.

21 hāhāt-, crazy.

22 yā-neini-awā-t', the fourth, animate, yā-neini-awā-na', inanimate. The ending -ni is evidently as is found on the cardinal numbers from 11 to 19, and on words denoting measures of time.

23 tanā-, pierce, make hole in. Cf. tā', tanā', tou-, tanou-, to stop, or by stopping; also the fourteenth word below in the text.

24 ta', when, as; a'ha-w, a'ha-b, see; hōhi-,w- is evidently a form of the independent word hōhi'-i or hōhi'-i (as below), probably for hōhi'-jih-

25 oj, oj-, let me.

26 asini, to anger; āsina-nā-t', anger; the same stem seems to be used to express the meanings of anger and hunger, which both imply stirring emotion; or has the similar sound of the English words led to confusion in translation? The ending -na' is the regular intransitive of the 1st pers.
nominal suffix. Compound verbs, binary in distinguishing dealing of the 16 and entering saw, sonant. Compare the and elsewhere in "stem, off); cut he, it must knew pottery. For the ending -i-nan compare below, from or the final -aninaii-hixku, least knew pottery. For the ending -i-nan, better ha'aninin, the Gros Ventre name for themselves, translated, perhaps in false etymology, as "lime-men." The myth refers to a time when the Arapaho at least knew pottery. For the ending -i-na compare ñbicina, a wooden one, just below, from bâc', wood.

1. Ha'w-wu, negative of verbs.
2. ñtiteli, plates, as in note 29; -ta-n, -ta-na, to, for, of; either the initial n- or the final -na denotes the first person.
3. ñi, her; bixut', dress; wa'a, wa'aha, moccasin, plural -naa.
4. ñei-bi, isi-bi, lie down.
5. -hi'i, -hi', the commonest suffix of adverbs.
6. Compare nähä', nahu', this; hinä', that, visible; nänä-ni-naa, I, it is I; nänä-häxk', he, it must be he.
7. na', and; ta', when; ha'ta', future intent, and a'waa, eat; or ha'ataa', eat (cf. ata-wu, eat up for), and -wa, -bä, cause.
8. i-kä'ñei-n, cf. ka'ññei-n, cut open belly (ka'añ-b, bite, ka'ñne-n, open, ka'ñu-s, cut off); -eit', he (B)—him (A).
9. ñaä', two (counting), hä-nis-çi, two, inanimate: -naa, plural.
10. hanaxa'aha, young man; -hi'i, -hä', -hähi, diminutive; -a', for -a', -haa, plural. For: hanaxa'ñhåhâa'.
41. ñte-n, take, catch.
42. Compare teçáseix, one, in counting.
43. ñwaçei-w for waçei-w, waçei-b, take into water.
44. i-ñei-kü-d for ñei-kü-d, put in; ña', he—him.
45. a'ññi'-ñi, teçáñi, for teçáñ-i, away, usually a "prefix," here obviously the "stem," since it is followed directly by the pronominal ending.
46. ñiç, or ñisi- when, after, completed action.
47. ñeinz, child; -naa, plural.
48. For: nähä', hineni.
49. This transitive stem seemingly is used without the usual connective consonant. Compare the endings of the two occurrences of the stem: -ant' and eit', the A and B forms according to the table of pronominal endings, occur, here and elsewhere in the text, in subordinate verbs; -ä', as in note 44, and notes 8 and 16 of Text II, is found on independent verbs.
50. Or xanou; also a prefix.
51. Transitive ñinaa-n. This form seems to be intransitive and without pronominal suffix.
52. Ta-a once means that, once when.
53. tciñ-i, in, entering, to enter; a'ña-b, a'ña-w, to see. Perhaps best: he entering saw, he enter-saw. This word illustrates excellently the difficulty in distinguishing in Arapaho between verb stems with adverbial prefixes and binary compound verbs, as discussed above in the first part of the section dealing with verbs.
54. See note 38.
55. The expected ending -eëen', I—you, is lacking; n-ei- seems to be the part of the word meaning I.
56. Bïwaan-hu, to cry.
PART III
NOTES ON GROS VENTRE

PHONETICS

The sounds of Gros Ventre have been discussed in connection with those of Arapaho proper. Certain sound correspondences between the two languages have been pointed out in Part I.

Vocalic changes, consonantal substitutions, increments, and reductions or similar expansions, are frequent, but the laws by which they are governed are not often clear.

wos, bear; waotāⁿ-n-os, black bear.

hitā naï(n)-i-bi, buffalo cow.
nixat-ou-iθā, white-man woman.
nat-ś, rabbit; našk-ā-ts, 'white rabbit,' jackrabbit; nawat-ś, 'left-hand rabbit,' cottontail rabbit.
nat-ś-ou-hitā nä, white buffalo.
nat-ś-θ-ō-tei, 'white belly,' donkey; wanot*, some one's belly; na-nat-ś-ix-ś-ṭy, he is white.

ha'at-ś-ṭy, white clay, lime; ha'atn-inin, Gros Ventre; ha'atn-iθā, Gros Ventre woman.

bš-teibyi, louse, 'some one's louse'; bei-teibyi, 'red louse,' flea; eši-teibyi, 'flat louse,' bedbug; baxa-ān-teibyi, 'thunder louse,' butterfly.
aśu, down; aśu-nihi i, down along a stream; n-asw-š-nat-ś-yinei, 'lower-Assiniboines,' Sioux.

kāk-ya*, flat, it is flat; kāk-tyi, he is flat; kāk-ou-īθ, 'flat wood,' cut lumber, planks.

bs-ani i, 'large gopher,' prairie-dog; bš-š-ṭsu, 'large mouse,' rat; bšs-ou, bš-eš-š-(y)a, bān-eš-š-(y)-a, large (inanimate), it is large, a large thing; bān-eš-š-ty, he is large, a large one; bās-initā, 'large person,' a giant; hūbā-ś-initā (hūbā-ś-ty-initā*), a large person.

baxa-ś, red, inanimate; bei-ś-ṭy, he is red, red (animate); bān-ś-ty, he is red; bāš-ś, red wood; bax-ou, 'red porcupine(?),' badger; nix-bš-š-š-na, I was red headed; bān-bā-ś-tā-š-na, I have red ears; bān-š-šb(ś)-a-ṭś-š-na, I have red eyes.

COMPOSITION

Some body part stems when in composition are dissimilar to the independent stems of the same meaning; others are the same.

Distinct:

-ibā-, nose; be-icā, nose. Arapaho: -iθā-, b-eic.

bā-n-ibā-ś-ṭy, 'flat nose he is,' pig
tha-n-ibā-śts, 'pierced nose they are,' Nez Perce Indians
bāš-š-bš-ś-na, 'large nose I am,' I have a large nose
-ä'â-, head; bi-taan (or bit-an?), head. Arapaho: ä'ei--; ha-kuhä, head; bei-ðe'ä, hair.

-bänâð-ä'â-naa, I am large headed
-kâka-ä'â-nin, "flat head men(?)", Flat-head Indians

-täxâ-, belly; wa-n-ot, belly. Arapaho: wa-not.

-hâ'tyis-täxâ-naa, I am small-bellied

-a"tsö-, eye; be-sôθ, eye. Arapaho: bâ-cîsä.

-wanâwaθ-a"tsö-naa, I have ugly eyes

Identical:

-ityi-, mouth; be-tyi', mouth. Arapaho: bâ-ti.

-wanâθ-ityi-naa, I am ugly mouthed

-ï-tän-, ear; wa-n-otan, ear. Arapaho: wa-natana'.

-bänâbäθ-tän-(n)aa, I have large ears

-a"tsötä-, tooth; bi-tsit, tooth. Arapaho: bei-teθ.

-ninâθ-a"tsötä-naa, I have pretty teeth

-ötheta-, neck; wa-thana, neck. Arapaho: bâ-sona.

-bänâs-ötheta-naa, I have a large neck

-tinä, mammae; be-ten, breast. Arapaho: bâ-ðen-etc', breast-water, milk.

-bänâbäst-inä-naa, I have large breasts

Several other nouns occur in two forms:

-okay-, house, in composition only; -yei, house, independent word with possessive pronoun; ninan, house, independent word without possessive. Arapaho: -akac or -akay, -i-yei, ninan.

-wux-n-okay-iin, "(?) -houses," the Minitari wasin-hiyei-ti, "grass their houses," "they have grass houses," a Shoshonean tribe

-ânwa-, water, in composition only; netsi, water. Arapaho: -anwa, nete.

-bâs-ânwaθ-naθa-netsi, red rain
-nanaθ-ânwa netsi, white water
-tsök-ânwa, clear water
-hou-n-ânwa, muddy water
-waotäθ-ânwa, black water
-waotä-tems, "black water," coffee
-nixaθ-ou-tems, "white man's water," whisky
-bete(n)-nts, "breast water," milk
-beθ-nts, "wood-water," sap
Kroeber: Arapaho Dialects

VERBS
AFFIXES OF MODE AND TENSE

The tense and mode affixes observed are substantially the same as in Arapaho.

Prefixes
n-, ni-, naŋ-, incomplete action, present; Arapaho: ni-
nih', nih', incomplete action, past; Arapaho: nih'.
nih-ise-n-, completed action, past; perhaps: once continued action now completed; Arapaho: nih-isi-
ha'ata', ha'tani', future, probably of intent; Arapaho: ha'at-, ha'ti', ha'tani'
nih'-a'ta', 'was about to'; nih' and ha'ta-
ha'e, interrogative, present; Arapaho: kih', kaŋ-, ka'hei-, ka'hu-, ha'’ex-, interrogative, past
ha'ata', interrogative, future
tsɔ', teu, tsɔ', tse, negative; Arapaho: tei, tei-
ha'-(n), optative, 'let me'; Arapaho: hä-ti, hā-ti'
hax, that, when, subordinating; Arapaho: taŋ-, tah-
ihi, if, past unreal supposition
nā'wë, perhaps; Arapaho: nāxe-

A few etymological affixes have also been distinguished:

niye-x-tsɔ-, niyi-x-tsɔ-, try to; Arapaho: näye-
tei-sɔ, begin to; Arapaho: teis-
na'wa, nā'bi, make a motion to; Arapaho: nawu, nābi-

Suffixes
-etyi, reflexive; Arapaho: -eti, -uti
-ëhi, -ëhu, agent; Arapaho: -ëhi, -ëhu
-n-ëku, added to personal ending, conditional; Arapaho: hë-xk, n-ëk-
-ya, ending of many adjectives in the absolute or inanimate form; Arapaho: aŋ, yaŋ

PRONOMINAL ENDINGS AND CONNECTIVES

The intransitive endings are:

<table>
<thead>
<tr>
<th>Gros Ventre</th>
<th>Arapaho</th>
</tr>
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<tbody>
<tr>
<td>I</td>
<td>-naŋ</td>
</tr>
<tr>
<td>You</td>
<td>-n'ʁ</td>
</tr>
<tr>
<td>He</td>
<td>-t'ʁ</td>
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<tr>
<td>We</td>
<td>-nin</td>
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<tr>
<td>You</td>
<td>-nã</td>
</tr>
<tr>
<td>They</td>
<td>-ts(')</td>
</tr>
</tbody>
</table>

The intransitive imperative is expressed by -ts; änit'i-ts, talk!
This ending has not been observed in Arapaho.
The transitive conjugation is substantially the same as in Arapaho.

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Verb</th>
<th>Me</th>
<th>You</th>
<th>Him</th>
<th>You</th>
<th>Them</th>
<th>It</th>
</tr>
</thead>
<tbody>
<tr>
<td>see</td>
<td>a'ha</td>
<td>b</td>
<td>kw</td>
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<td>kick</td>
<td>t'xa</td>
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<td>tell</td>
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<td>t27</td>
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<tr>
<td>kill</td>
<td>na</td>
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</tr>
</tbody>
</table>

The transitive imperative is -in; Arapaho, -ini, un1.

tei-by-in shoot him!
nihi'-in kill him!

The preceding consonant or connective also undergoes change much as in Arapaho.

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Verb</th>
<th>Me</th>
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<th>Him</th>
<th>You</th>
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<td>tci</td>
<td>by</td>
<td>by</td>
<td>bit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kick</td>
<td>t'xa</td>
<td>n</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tell</td>
<td>n-i</td>
<td>t27</td>
<td>t27</td>
<td>t27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kill</td>
<td>na</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The transitive imperative is -in; Arapaho, -ini, un1.

tei-by-in shoot him!
nihi'-in kill him!

The transitive endings occurring with the interrogative prefix ha"ex are evidently the same as the Arapaho personal suffixes used in the negative formed by -i-ha"wu-.

One of the two personal elements seems to be expressed, the other understood.

The negative conjugation appears to be based on the use of the prefix tsö- (and its phonetic modifications), corresponding to Arapaho tei-. The equivalent of the Arapaho negative in i-ha"wu- has not been observed.

ne-tsä-ána, I am not swift
nä-tsä-átesou-hi, I am not small
he-tsu-na'ha-b-et', I do not see you

25 Unparalleled in Arapaho.
26 As in Arapaho.
27 Corresponds to Arapaho s.
Nouns

The plural of nouns shows the same types as in Arapaho. 

-n, -in, -an, corresponding to Arapaho -naⁿ, -i-naⁿ.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Arapaho</th>
<th>Arapaho</th>
</tr>
</thead>
<tbody>
<tr>
<td>bear</td>
<td>wos(ʰ)</td>
<td>wos⁽ʰ⁾n</td>
</tr>
<tr>
<td>elk</td>
<td>(ʰ)iwasōⁿ</td>
<td>(ʰ)iwasōhin</td>
</tr>
<tr>
<td>wildcat</td>
<td>bëšaⁿtyₐ</td>
<td>bëšaⁿtyän</td>
</tr>
<tr>
<td>crow</td>
<td>(ʰ)ouu</td>
<td>(ʰ)ou</td>
</tr>
<tr>
<td>fly</td>
<td>nōubāⁿ</td>
<td>nōubān</td>
</tr>
<tr>
<td>feather</td>
<td>bīʼ</td>
<td>bīʼ</td>
</tr>
<tr>
<td>bone</td>
<td>hi⁹ⁿa</td>
<td>hi⁹n</td>
</tr>
<tr>
<td>tent</td>
<td>nin⁹ⁿa</td>
<td>ninan</td>
</tr>
<tr>
<td>stone</td>
<td>(ʰ)axaⁿāⁿtyōⁿa</td>
<td>(ʰ)axaⁿāⁿtyän</td>
</tr>
</tbody>
</table>

-aⁿ, -haⁿ, as in Arapaho.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Arapaho</th>
<th>Arapaho</th>
</tr>
</thead>
<tbody>
<tr>
<td>mouse</td>
<td>ʰatsu</td>
<td>ʰatsuhihⁿ</td>
</tr>
<tr>
<td>antelope</td>
<td>naⁿsity</td>
<td>naⁿsityan</td>
</tr>
<tr>
<td>rabbit</td>
<td>naⁿtsⁿ</td>
<td>naⁿtsⁿhaⁿ</td>
</tr>
<tr>
<td>gopher</td>
<td>(ʰ)ani’i</td>
<td>(ʰ)ani’ihæna</td>
</tr>
<tr>
<td>muskrat</td>
<td>ʰidosæ</td>
<td>ʰidosæn</td>
</tr>
<tr>
<td>otter</td>
<td>nēi</td>
<td>nēi⁻n</td>
</tr>
<tr>
<td>squirrel</td>
<td>ʰdaysy’næi</td>
<td>ʰdaysy’næihæna</td>
</tr>
<tr>
<td>cat, wash</td>
<td>wus</td>
<td>wush⁻n</td>
</tr>
<tr>
<td>donkey</td>
<td>naⁿkʰṭotei</td>
<td>naⁿkʰṭoteihihæna</td>
</tr>
<tr>
<td>bald eagle</td>
<td>naⁿkʰtiyëhi</td>
<td>naⁿkʰtiyëhi⁻n</td>
</tr>
<tr>
<td>turtle</td>
<td>bā’noun</td>
<td>bā’noun⁻n</td>
</tr>
<tr>
<td>fish</td>
<td>naⁿwⁿ</td>
<td>naⁿwuh⁻n</td>
</tr>
<tr>
<td>butterfly</td>
<td>baxaⁿ⁻ᵗei biyô</td>
<td>baxaⁿ⁻ᵗei biyô⁻n</td>
</tr>
<tr>
<td>river</td>
<td>nitsⁿa</td>
<td>nitsahn</td>
</tr>
</tbody>
</table>

Lengthening of the final, often surd or inaudible, vowel to -i, -u, or a phonetic equivalent, as in Arapaho.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Arapaho</th>
<th>Arapaho</th>
</tr>
</thead>
<tbody>
<tr>
<td>deer</td>
<td>bihi’i</td>
<td>bihi’ihi</td>
</tr>
<tr>
<td>beaver</td>
<td>(ʰ)âbes</td>
<td>(ʰ)âbesöi</td>
</tr>
<tr>
<td>skunk</td>
<td>ʰou</td>
<td>ʰou</td>
</tr>
<tr>
<td>cattle</td>
<td>wâ’kety’</td>
<td>wâ’ketyi</td>
</tr>
<tr>
<td>mountain sheep</td>
<td>(ʰ)ot⁽ʰ⁾</td>
<td>(ʰ)otëi</td>
</tr>
<tr>
<td>wooden house</td>
<td>bâtyïœu</td>
<td>bâtyïœu⁻u</td>
</tr>
<tr>
<td>ear</td>
<td>wanatan</td>
<td>wanatanou</td>
</tr>
<tr>
<td>water</td>
<td>netsⁿ, nōtsⁿ</td>
<td>nōtsⁿ⁻n</td>
</tr>
<tr>
<td>house</td>
<td>b’tei biyô</td>
<td>b’teiwuh⁻n</td>
</tr>
</tbody>
</table>

Words for "domestic animal," or compounded with it, take -ibi, Arapaho -äbi.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Arapaho</th>
<th>Arapaho</th>
</tr>
</thead>
<tbody>
<tr>
<td>dog</td>
<td>(ʰ)otⁿ</td>
<td>(ʰ)otibî</td>
</tr>
<tr>
<td>horse, &quot;elk-dog&quot;</td>
<td>hiwas’hāⁿθ</td>
<td>hiwas’hāⁿθeibî</td>
</tr>
<tr>
<td>dragon-fly, &quot;insect dog&quot;</td>
<td>bīθaⁿ’hāⁿθ</td>
<td>bīθaⁿ’hāⁿθeibî</td>
</tr>
</tbody>
</table>

A few words change final -s or -ts to -t.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Arapaho</th>
<th>Arapaho</th>
</tr>
</thead>
<tbody>
<tr>
<td>tooth</td>
<td>bitsǐts’</td>
<td>bitsît</td>
</tr>
<tr>
<td>horn</td>
<td>ninnis</td>
<td>ninit</td>
</tr>
<tr>
<td>parfleche bag</td>
<td>houwanos</td>
<td>houwanot</td>
</tr>
</tbody>
</table>

²⁸Apparently different plurals on the same stem.
Animateness or inanimateness of nouns is indicated in the conjoined verb, adjective, or numeral; or, as they should collectively be called, the verb. The "animate" gender, however, includes many names of lifeless things. Such are: sun, moon, stars, thunder, wagon, mowing-machine, which travel; and snow, stone, tree, log, cedar, pine, pipe, and money, which do not move. Inanimate are the nouns for sky or clouds, lightning, rainbow, rain, water, river, spring, earth, iron, willow, sage, grass, mountain, gun, bow, arrow, and wind, several of which denote moving objects.

A locative is formed by a vocalic suffix, as at times in Arapaho.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Father</th>
<th>Mother</th>
<th>Son</th>
<th>Grandmother</th>
</tr>
</thead>
<tbody>
<tr>
<td>earth</td>
<td>bitawä</td>
<td>bitawä</td>
<td>bitawä</td>
<td></td>
</tr>
<tr>
<td>stone</td>
<td>(h)axa'änä<em>tyä</em></td>
<td>(h)axa'änä*tyëi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>parfleche bags</td>
<td>houwanot</td>
<td>houwanote</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bed</td>
<td>(h)äänwa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h)äänba</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The types of possessive pronominal prefixes are those occurring in Arapaho. The third person frequently shows a vocalic suffix increment.

<table>
<thead>
<tr>
<th>Word</th>
<th>Father</th>
<th>Mother</th>
<th>Son</th>
<th>Grandmother</th>
</tr>
</thead>
<tbody>
<tr>
<td>vocative</td>
<td>niëä</td>
<td>na'ä</td>
<td>neihe'</td>
<td>nip</td>
</tr>
<tr>
<td>my</td>
<td>ni'ëina</td>
<td>neina'</td>
<td>eihë'</td>
<td>eip</td>
</tr>
<tr>
<td>your</td>
<td>iëina</td>
<td>einan'</td>
<td>i'ha'aha'n</td>
<td>iniwaha</td>
</tr>
<tr>
<td>his</td>
<td>inisëna</td>
<td>inan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>our (incl.)</td>
<td>ië'isëna'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>our (excl.)</td>
<td>ië'isënan'a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>your</td>
<td>ië'isënanina</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word</th>
<th>Grandchild</th>
<th>Mother's brother</th>
<th>Hair</th>
<th>Mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>vocative</td>
<td>nisô</td>
<td>nis'hä'</td>
<td>nänit*</td>
<td>netyi'</td>
</tr>
<tr>
<td>my</td>
<td>nisë</td>
<td>nis'</td>
<td>nënît*</td>
<td>etyi'</td>
</tr>
<tr>
<td>your</td>
<td>isë</td>
<td>äs'</td>
<td>änit*</td>
<td>ityi'</td>
</tr>
<tr>
<td>his</td>
<td>inisaha'</td>
<td>isa'</td>
<td>init*</td>
<td>bety'</td>
</tr>
<tr>
<td>somebody's</td>
<td></td>
<td>isa'</td>
<td>bit*</td>
<td></td>
</tr>
</tbody>
</table>

It is probable that an h-, which is fainter in Gros Ventre than in Arapaho, occurs before all the above words written as commencing with a vowel.

**Pronouns**

As in Arapaho, the so-called "pronoun" is a verbal sentence.

<table>
<thead>
<tr>
<th>Word</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ni-nä</td>
<td>it is it, that is it</td>
</tr>
<tr>
<td>ni-nä-ni-na</td>
<td>&quot;I,&quot; literally, it is I</td>
</tr>
<tr>
<td>nih-nä-ni-na</td>
<td>it was I</td>
</tr>
<tr>
<td>ha'ta-nä-ni-na</td>
<td>it will be I</td>
</tr>
<tr>
<td>ni-nä-ni-ts</td>
<td>&quot;they,&quot; it is they</td>
</tr>
</tbody>
</table>

**Notes**

- **Animateness** and **inanimateness** of nouns are indicated by conjoined **verbs**, **adjectives**, or **numerals**.
- The **"animate" gender** includes names of lifeless things.
- **Locatives** are formed by vocalic suffixes in Arapaho.
- **Possessive prefixes** show vocalic suffixes in the third person.
- An **h-** occurs before certain words written as commencing with a vowel in Arapaho.
Kroeber: Arapaho Dialects

**NUMERALS**

<table>
<thead>
<tr>
<th>Counting</th>
<th>Cardinal</th>
<th>Ordinal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ty'ádei</td>
<td>ni-ní-t-awá-ty'</td>
</tr>
<tr>
<td>2</td>
<td>níöä</td>
<td>ni-nís-t-awá-ty'</td>
</tr>
<tr>
<td>3</td>
<td>níöö</td>
<td>ni-ní-x-awá-ty'</td>
</tr>
<tr>
<td>4</td>
<td>yán'1</td>
<td>ye-nána-awá-ty'</td>
</tr>
<tr>
<td>5</td>
<td>yátañ'1</td>
<td>ye-nátañ-awá-ty'</td>
</tr>
<tr>
<td>6</td>
<td>neityà-ñtos</td>
<td>ni-neityà-ñtos-awá-ty'</td>
</tr>
<tr>
<td>7</td>
<td>níñö-ñtos</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>níñö-ñtos</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>ánñäbétà-ñtos</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>bétà-ñtos</td>
<td>bátà-ñtos-awá-ty'</td>
</tr>
</tbody>
</table>

The above ordinals are animate. The inanimate forms lack the animate intransitive ending -ty'. The form for “second” was obtained without the prefixed reduplication. “First” is nítaw. The difference of consonant in the animate cardinals for “one” and “two” follows that in Arapaho.

Eleven to 19 are formed from 1 to 9 by -in, -öin, Arapaho -ini: tyáööin, níööin, náööin, yánin, yátañin, neityà-ñososin, niñañ-ñososin, náññ-ñososin, ánñäbétà-ñososin or ánñäbétà-ños. Here the θ of “two” and “three” reverts to its Arapaho form, s. Twenty to 100 are made by -öu; Arapaho, -a', -a', -u': níööu, náööu, yánöu, yátañöu, neityà-ñatööu, níññ-ñatööu, náññ-ñatööu, ánñäbétà-ñatööu, bétà-ñatööu. Here s becomes θ. Twenty-two is níööu níñö-ñatos 200 níñö-ñatööu, 1000 bás betà-ñatööu, “great hundred.”

The only appearance of a “classifier” noted is -an-, corresponding to Arapaho -änöö, a collective.

tyä-öö-ñatei biö yátañ-an-öö, “heaps wood five,” five piles of sticks

**TEXT IV—TANGLED HAIR**

<table>
<thead>
<tr>
<th>iní'n</th>
<th>hóuxniöö-ña-ñicb'ä'ñ</th>
<th>hóu'xa'atsö'u</th>
</tr>
</thead>
<tbody>
<tr>
<td>A man</td>
<td>was living alone</td>
<td>he was hunting,</td>
</tr>
<tr>
<td>híto'üani</td>
<td>wa'ntyínänü'níia'tyé'ity'</td>
<td>nohuútché'antinän</td>
</tr>
<tr>
<td>in the morning</td>
<td>he returned.</td>
<td>when comes</td>
</tr>
<tr>
<td>ini'tañ</td>
<td>tsäb'he'i</td>
<td>wàntyi'tántyi</td>
</tr>
<tr>
<td>a person,</td>
<td>do not</td>
<td>he told her</td>
</tr>
<tr>
<td>invite him!</td>
<td>his wife.</td>
<td>“Even</td>
</tr>
<tr>
<td>hánöyeisöö</td>
<td>tsó'tyä'nts tsó'tyä'nts</td>
<td>a'hítañwu'</td>
</tr>
<tr>
<td>if he is about to enter</td>
<td>enter</td>
<td>do not let him.”</td>
</tr>
<tr>
<td>And indeed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ä'nt'asööj'hä-ñ'tö'í</td>
<td>i'ñ-ini'n</td>
<td>hóu'ntañwu</td>
</tr>
</tbody>
</table>
| when he was away this man, | surely | some one came.

29 Or: hän-ñatani-ts, animate; hän-ñatöö-an-öö, inanimate.
His wife just would not say anything. And that person just walked about. His wife would not say anything.

He made as if to enter, but he did not enter. Returned this man, asked her: "Has some one come?" he said to her his wife. "Indeed he did!" she said to him. "Is that so?" he said to her. "Now even if he is about to enter, enter do not let him!" He was about to enter, that person who came. Then he flapped the door. 

She began to restrain herself no longer. "Enter!" she said to him. And a man cooked for him. When she had

"That is not the kind I use as plates," he said to her. She went to change his plates and the same he said. Then she began to think what to use as a plate. Then she began to use her plates, every kind. 

Then she began to think what to use as a plate. Then she began to use her plates, every kind. 

And she said: "It was he who entered. She began to cook for him. When she had

"Ha, that is very near," he said to her.

"That is not the kind I use as plates," he said to her. She went to change his plate. And again, "That is not the kind I use as plates," they said to her. Constantly she changed his plates and the same

And she said: "It was he who entered. She began to cook for him. When she had
Index, pp. 427-443.

Index, pp. 359-369.

3. The Languages of the Coast of California North of San Francisco, by A. L. Kroeber. Pp. 279-345, and map. April, 1911 .......................... 1.50
Index, pp. 437-439.

Index, pp. 381-385.

Index in preparation.

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