

Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

UNIVERSITY OF CALIFORNIA PUBLICATIONS
IN
AMERICAN ARCHAEOLOGY AND ETHNOLOGY

Vol. 12, No. 3, pp. 71-138

June 28, 1916

ARAPAHO DIALECTS

BY

A. L. KROEBER

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY

UNIVERSITY OF CALIFORNIA PUBLICATIONS
DEPARTMENT OF ANTHROPOLOGY

The following publications dealing with archaeological and ethnological subjects issued under the direction of the Department of Anthropology are sent in exchange for the publications of anthropological departments and museums, and for journals devoted to general anthropology or to archaeology and ethnology. They are for sale at the prices stated. Exchanges should be directed to The Exchange Department, University Library, Berkeley, California, U. S. A. All orders and remittances should be addressed to the University of California Press.

European agent for the series in American Archaeology and Ethnology, Classical Philology, Education, Modern Philology, Philosophy, and Semitic Philology, Otto Harrassowitz, Leipzig. For the series in Botany, Geology, Pathology, Physiology, Zoology and also American Archaeology and Ethnology, R. Friedlaender & Sohn, Berlin.

AMERICAN ARCHAEOLOGY AND ETHNOLOGY.—A. L. Kroeber, Editor. Prices, Volume 1, \$4.25; Volumes 2 to 10, inclusive, \$3.50 each; Volume 11 and following, \$5.00 each.

Cited as Univ. Calif. Publ. Am. Arch. Ethn.		Price
Vol. 1.	1. Life and Culture of the Hupa, by Pliny Earle Goddard. Pp. 1-88; plates 1-30. September, 1903.....	\$1.25
	2. Hupa Texts, by Pliny Earle Goddard. Pp. 89-368. March, 1904 Index, pp. 369-378.	3.00
Vol. 2.	1. The Exploration of the Potter Creek Cave, by William J. Sinclair. Pp. 1-27; plates 1-14. April, 1904 .....	.40
	2. The Languages of the Coast of California South of San Francisco, by A. L. Kroeber. Pp. 29-80, with a map. June, 1904 .....	.60
	3. Types of Indian Culture in California, by A. L. Kroeber. Pp. 81-103. June, 1904 .....	.25
	4. Basket Designs of the Indians of Northwestern California, by A. L. Kroeber. Pp. 105-164; plates 15-21. January, 1905 .....	.75
	5. The Yokuts Language of South Central California, by A. L. Kroeber. Pp. 165-377. January, 1907	2.25
Index, pp. 379-392.		
Vol. 3.	The Morphology of the Hupa Language, by Pliny Earle Goddard. 344 pp. June, 1905	3.50
Vol. 4.	1. The Earliest Historical Relations between Mexico and Japan, from original documents preserved in Spain and Japan, by Zelia Nuttall. Pp. 1-47. April, 1906 .....	.50
	2. Contribution to the Physical Anthropology of California, based on collections in the Department of Anthropology of the University of California, and in the U. S. National Museum, by Ales Hrdlicka. Pp. 49-64, with 5 tables; plates 1-10, and map. June, 1906 .....	.75
	3. The Shoshonean Dialects of California, by A. L. Kroeber. Pp. 65-186. February, 1907	1.50
	4. Indian Myths from South Central California, by A. L. Kroeber. Pp. 167-250. May, 1907 .....	.75
	5. The Washo Language of East Central California and Nevada, by A. L. Kroeber. Pp. 251-318. September, 1907 .....	.75
	6. The Religion of the Indians of California, by A. L. Kroeber. Pp. 319-356. September, 1907 .....	.50
Index, pp. 357-374.		
Vol. 5.	1. The Phonology of the Hupa Language; Part I, The Individual Sounds, by Pliny Earle Goddard. Pp. 1-20, plates 1-8. March, 1907 .....	.35
	2. Navaho Myths, Prayers and Songs, with Texts and Translations, by Washington Matthews, edited by Pliny Earle Goddard. Pp. 21-63. September, 1907 .....	.75
	3. Kato Texts, by Pliny Earle Goddard. Pp. 65-238, plate 9. December, 1909	2.50
	4. The Material Culture of the Klamath Lake and Modoc Indians of Northeastern California and Southern Oregon, by S. A. Barrett. Pp. 239-292, plates 10-25. June, 1910 .....	.75
5. The Chimariko Indians and Language, by Roland B. Dixon. Pp. 293-380. August, 1910	1.00	
Index, pp. 381-384.		
Vol. 6.	1. The Ethno-Geography of the Pomo and Neighboring Indians, by Samuel Alfred Barrett. Pp. 1-332, maps 1-2. February, 1908	3.25
	2. The Geography and Dialects of the Miwok Indians, by Samuel Alfred Barrett. Pp. 333-368, map 3.	
	3. On the Evidence of the Occupation of Certain Regions by the Miwok Indians, by A. L. Kroeber. Pp. 369-380. Nos. 2 and 3 in one cover. February, 1908 .....	.50
Index, pp. 381-400.		

UNIVERSITY OF CALIFORNIA PUBLICATIONS
IN
AMERICAN ARCHAEOLOGY AND ETHNOLOGY

Vol. 12, No. 3, pp. 71-138

June 28, 1916

ARAPAHO DIALECTS

BY

A. L. KROEBER

CONTENTS

PART I—DIALECTS OF THE ARAPAHO GROUP

	PAGE
The Dialects	73
Comparative Vocabulary	75
Notes on Vocabulary	76
Additional Words—Arapaho Proper	76
External Phonetic Correspondences of the Group	77
Vowels	79
Internal Phonetic Correspondences of the Group	80
Bäsa ⁿ wüna ⁿ	80
Gros Ventre	81
Nä ⁿ wa ⁱ nähäna ⁿ	81

PART II—SKETCH OF ARAPAHO PROPER

Phonetic Elements	83
Composition	85
A. Nouns Compounded of Two Separate Words	85
B. Nouns and Verbs Formed with Prefixes	86
C. Nouns and Verbs Formed with Suffixes	87
Verbs	90
Word-forming Prefixes	90
A. Prefixes used also as independent verbs, etc.	97
B. Prefixes used also as independent adverbs, etc.	99
C. Prefixes not yet found as independent parts of speech	103
1. Apparently verbal	103
2. Apparently adverbial, referring to manner	103
3. Apparently adverbial, referring to space	104
Word-forming Suffixes	105
Grammatical Prefixes	109
Grammatical Suffixes	109
Pronominal Endings	110
Connective Suffixes	112
Classified List of Stems	113
Transitive	113
Intransitive	115

	PAGE
Nouns	117
Plural	117
Cases	118
Possession	119
Pronouns	120
Adverbs	121
Numerals	122
Texts	123
Text I—A Prayer	124
Notes	124
Text II—An Adventure	125
Notes	126
Text III—Tangled Hair	127
Notes	128

PART III—NOTES ON GROS VENTRE

Phonetics	131
Composition	131
Verbs	133
Affixes of Mode and Tense	133
Pronominal Endings and Connectives	133
Nouns	135
Pronouns	136
Numerals	137
Text IV—Tangled Hair	137

The investigations upon which this essay is based were carried on, in 1899, 1900, and 1901, through the generosity of Mrs. Morris K. Jesup, and under the direction of the Trustees and officers of the American Museum of Natural History, to whose courtesy the writer expresses his indebtedness.

PART I

DIALECTS OF THE ARAPAHO GROUP

THE DIALECTS

According to the latest authority, Dr. Truman Michelson,¹ 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 Nāⁿwāθi-nāhāⁿ'naⁿ or South-?-people, the Hāⁿanaxawūneⁿ'naⁿ or Rock-people, the Hinanaⁿ'e'inaⁿ or Arapaho proper, the Bāsaⁿwūneⁿ'naⁿ or Wood-

¹ Science, xxxv, 675, 1912, and Bureau of American Ethnology, Twenty-eighth Annual Report, Washington, 221-290, 1912.

house-people, and the Hitōune'naⁿ or Begging-people. The last are the tribe that calls itself Ha'ā'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 Bāsaⁿwūnena, whose dialect was very similar to that of the Hinana'ēinaⁿ, 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 Nāⁿwaθināhānaⁿ 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 Bāsaⁿwūnenaⁿ or Gros Ventre, and, at least superficially, shows some resemblance to Cheyenne. No one was found who remembered the speech of the Hāⁿanaxawūnenaⁿ, which is said by the Arapaho to have been the most different from their own. One of their submerged dialects, probably this Haⁿanaxawūnenaⁿ tongue, some Arapaho declare to have been intermediate between their own speech and Blackfoot. The statement 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 information, which may never be duplicated, and are therefore given with all their imperfections.

² Mr. James Mooney (Bur. Am. Ethn. Ann. Rep., xiv, 954, 1896, and Bur. Am. Ethn., Bull. 30, 73, 1907), gives the five Arapaho subdivisions differently, apparently through identifying the Nāⁿwaθināhānaⁿ with the Naⁿwuinaⁿ, 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. Politically this may be correct for recent centuries, but the existence of a markedly separate Nāⁿwaθināhānaⁿ dialect, as discussed below, necessitates the recognition of this people, instead of the southern Arapaho proper, as one of the five divisions, from the point of view of language and earlier history. The only alternative is to assume the specimens of speech obtained as Nāⁿwaθināhānaⁿ to be not Naⁿwaθināhānaⁿ, but Hāⁿanaxawūnenaⁿ, a proceeding which would reconcile all conflicting statements, but which would be arbitrary.

COMPARATIVE VOCABULARY

<i>English</i>	<i>Arapaho</i> <i>Hinana'einaⁿ</i>	<i>Southern People¹</i> <i>Nā'wabiñähānaⁿ</i>	<i>Wood-lodge People²</i> <i>Bāsa'wūnenaⁿ</i>	<i>Gros Ventre</i> <i>Ha'āninin</i>
1	teāseix	teā'eilaha ^{'s}	nānīsetei	teāθeity
2	nīsi	nīsāhā'	nānīsehi'	nīθā
3	nāsa ⁿ	nahaha'	nānāsei	nāθā'
4	yein ^t	niabaha'	yānānei	yāni
5	yāθan ^t	niotanāhā'	yanaθani'	yātani
6	nīta ⁿ tax ^u	neixθiōti	nītcātax	neityā ⁿ tos
7	nīsa ⁿ tax ^u	nīciota ⁿ	nīsa ⁿ tax	nīθā ⁿ tos
8	nāsa ⁿ tax ⁿ	nexiōtāhāhā ⁿ	nānāsa ⁿ tax ^w eit	nāθā ⁿ tos
9	θi ^{'a}	ciōxtāhāhā ⁿ	ciōtaxahei	ā ⁿ hābetā ⁿ tos
10	bātātāx ^u	maxtoxtahāhā ⁿ	bātcātoxe	betā ⁿ tos
man	hinen ^t	hīni	hīni	hineni
woman	hisei	hīhi ^{'i}	hīsūna ⁿ	hīθā
child	teia ⁿ	hakutsa ['] anāhā ^t	teia ⁿ 'nihi'	teia ⁿ nā
white man	nih ['] ā ⁿ θa ⁿ	matsōhuθa	ni ['] ā ⁿ s ^s	nix ['] ā ⁿ t
father	neisana ⁿ	hīθextīn	hīsānānin [*]	nīθina ⁿ
mother	neina ⁿ	hāietīn	neinah [*]	neina ⁿ
elder brother	nāsāhā'	nixtsia ⁿ	nih ['] sa [*]	nāθāhā'
son	neihā [']	neietā'	neihā ['] *	neihā'
daughter	natane	naxtānāhā	natānā [*]	natan
grandfather	nābāciabā	(h)amacīm	nābāciabāhā ['] *	nābeseip
grandmother	neibāhā ⁿ	(h)ihī ['] im	neibāhā ⁿ *	niip
grandchild	neici	ni ['] icitāhā ⁿ		nīsā
eye	bāciāsā	masixsan	hicīsā	besōθ
nose	beic	maie	hīθēā	beicā
mouth	bāti	matīn	hiteinā	betyi'
tooth	beiteiθ	meiteixta	hīniteic	bitsit'
tongue	beiθan		hīniθan	biitani
ear	wanatana [']		hinatana [']	wanotan
neck	bāsona ⁿ		hisa ⁿ	wāna
belly	wanot	moxta ⁿ , monoxta ⁿ	hīnot [*]	wanot ^e
hand	bātcet		hiteet	bātyetyi
foot	wa ['] ā ⁿ θ ^t	mo ['] oxts	hi ['] ā ⁿ c	wa ['] ats
house	nīna ⁿ	mī'in	nīna ⁿ , nī'in [*]	nīn, nīn ⁿ
house	hā ['] ā ⁿ wu	hā ['] axamunθ	hā ['] ā ⁿ wu [*]	
bow	bātā	mā ['] axta	bātā [*]	bāt
arrow	hoθ ^t	hot	hoei [*]	hotsi
sun, luminary	hīcis	hīcihiā ⁿ	hīcis [*]	hīsōs
star	haθa ['] a ⁿ		haθa ['] aha ['] a ⁿ	hatou
water	nete ^t	nete	netsi [*]	nets, nits
river	nīteiyē	tite	nīteiyē [*]	nītsā ⁿ
stone	haha ['] anā ⁿ kā ⁿ	haxta ⁿ	haha ['] anā ⁿ kā ⁿ	axa ['] ānā ⁿ tyā ⁿ
earth	bīta ['] ā ⁿ wu	mixta ['] amu	bīta ['] awu	bīta ['] awu
fire	icitā ⁿ	ih ['] citā ⁿ	hixt, ih ['] tā ⁿ *	isōtā ⁿ
wood	bāc ^t , bāx-	ma [']	bāci [*] , bāx	bis
metal	beiteiθei	māhi ['] itsitā	beiteiθei [*]	beitsit
road	ba ['] a ⁿ	mīhia ⁿ	ba ['] ah [*]	
tree, cottonwood	hahā ⁿ t ^t	hoxtotx	hahāteci [*]	hahā ⁿ tina ⁿ (pl.)
grass, medicine	waxu [']	maxsou	waxu ['] , [*] waxuina ⁿ (pl.)	wasiina ⁿ (pl.)
horse	hiwaxuhā ⁿ x-ābi (pl.)	masoutihem	hiwaxuhāθa [*] , hi- waxuha ⁿ xeb (pl.)	hiwas ['] hā ⁿ θ
dog	heθ-ābi (pl.)	hatam	hāθā [*] , hāθabiha ⁿ (pl.)	hote
buffalo bull	hanā ⁿ teā ⁿ	hitā ⁿ mō ⁿ	hānā ⁿ teā [*]	hānā ⁿ tyei
buffalo (herd)	hīθeina ⁿ		hīcinan	hītā ⁿ nan
deer	bīhi ['] i	mixtihi	bīhi ['] i [*]	bīhi ['] i
antelope	nīsītēā ⁿ , na ['] sītēā ⁿ	teasitca ⁿ	nīctēā [*]	na ['] sity
elk	hīwax ^u	himaxsout	hīwax ^u *	hiwasō ⁿ
mountain sheep	hotā [']	hoxtāhā ⁿ	hotā ['] *	hote

English	Arapaho <i>Hinana'einaⁿ</i>	Southern People ¹ <i>Nāⁿwāⁿināⁿhāⁿ</i>	Wood-lodge People ² <i>Bāsaⁿwūnenaⁿ</i>	Gros Ventre <i>Ha'āninin</i>
beaver	hābāe	hamaha'	hābāe*	hābes
rabbit	na ⁿ k ⁿ	mā ⁿ kut	na ⁿ k ⁿ *	na ⁿ tse
bear	wox ⁿ	mahom	wox ⁿ *, waxuina ⁿ (pl.)	was
wolf	hā ⁿ xēi		hā ⁿ xē*	hā ⁿ θēi
skunk	xouhu	saoθ	xouhu*	θouu
eagle, bird	ni'ihī	teāsei	ni'ix	ni'ihī
crow	hou	hahāha'	hou	ouu
magpie	wa'uei	mouxtiā ⁿ		wouxei
turtle	bā'āna ⁿ	ma'āna ⁿ hā ⁿ	bā'ān*	bā'ānou
supernatural	nānābā'āna ⁿ , bātāna ⁿ	nānamātit	tanānābā'āna ⁿ	bātā-
large	bānāsa ⁿ	mānacie	bānāsa ⁿ	bāsōu
white	na ⁿ k-	wanātsiā ⁿ	na ⁿ k-*	nanā ⁿ tsta
black	wa'otā ⁿ	moxtsiā ⁿ	wa'otā ⁿ *	wa'otā ⁿ ya ⁿ
red	bā-	maoxtaheini		baxa'a ⁿ
yellow	nīha ⁿ ya ⁿ	hītianie	nīha ⁿ ya ⁿ *	nīha ⁿ ya ⁿ

NOTES ON VOCABULARY

¹ From Tall Bear.

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

³ An l 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 hāⁿsivaxta and hāⁿsilaxta.

⁴ "Small." Evidently contains the diminutive suffix, as does the Bāsaⁿwūnenaⁿ form.

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

Additional Words—Arapaho Proper

young man	hanaxa'aha	mountain	hā ⁿ 'āni'
young woman	hiteiya ⁿ	night	bīka ⁿ
old woman	bātābi(ā)	moon	bikōsis
old	bāhā'ei, behi'i	sky, cloud	hana ⁿ '
human being	hinenitā ⁿ	thunder	baxa'a ⁿ
ghost	θik ⁿ	fog	bā'āna ⁿ
head	hakuhā ⁿ	creek	kaha'a ⁿ wu
hair	beiθe'ā	snow	hī
throat	beita ⁿ	tent pole	hakā ⁿ x
bone	hixu	robe	hou
heart	bātā ⁿ	awl	bei
arm	bānee	dress	bixūti
elbow	bātie	bed	hā ⁿ
sinew	haotā ⁿ	boat	θiwu
milk, breast-water	bāθenete ¹	meat	haseinou
penis	haθā ⁿ	pipe	= rib
testicle	bāθās	tobacco	cisā ⁿ wa ⁿ
vagina	hāhāte	corn	beekatāna ⁿ
tail	bātihi'i	fruits	bīna ⁿ
rib	hītea ⁿ	bush	bīc
liver	hie	coyote	ka ⁿ 'a ⁿ
kidney	hitīθiθ	buffalo cow	bii
blood	bā	fly	noubā ⁿ
excrement	bā, bi-hiθ	louse	bātei
shadow	bātāθa ⁿ	worm	bīsā ⁿ , hīsa ⁿ na ⁿ
shaman	bātāt	fish	nawat

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:

E-C	Eastern-Central Algonkin
Mi	Micmac
F	Fox
O	Ojibwa
Cr	Cree
Ch	Cheyenne
Bl	Blackfoot
A	Arapaho group of dialects
Ar	Arapaho proper
GV	Gros Ventre
B	Bäsa ⁿ wūnena ⁿ
N	Nā ⁿ waθināhāna ⁿ

Of the symbols used, c is š or sh as customary in American philology, θ is the same as English surd th, x is a surd fricative approximately in k position, ä is a as of "bad" in American English, äⁿ 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 Nāⁿwāθinähānaⁿ, but θ in Arapaho proper and Bāsaⁿwūnenaⁿ.

t>t: bow, heart, fire, night, daughter, buffalo bull, ten, reflexive suffix. Bl has some inclination toward ts or st, N toward xt.

t, d, n, l>θ: tongue, tooth, foot, star, metal, dog, five. Mi, t, d, l; O, d, n; Bl, t?, k?; Ch, Na, GV, t; Ar, Bā, θ.

t>te: pipe, mouth, six. E-C, t; Bl, —; Ch, θ; Bā, GV, te; Ar, t, te.

P

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.³

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

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 Nāⁿwāθinähānaⁿ dialect of Arapaho. In the three other Arapaho dialects it is entirely lacking, and replaced by b and w. As between these two

³ E. Sapir, *American Anthropologist*, n. s., xv, 538, 1913.

sounds, the rule is that *b* occurs before the front vowels *i*, *e*, *ä*, *äⁿ*, 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 *neibähäⁿ*, my grandmother, and *hiniwahaⁿ*, 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 *waθanou* instead of *baθanou*. All Arapaho labial sounds seem to be derived from original *m*.

m > *b* (*i*): eat, defecate, give, dog, deer, earth.

m > *b* (*e*): metal.

m > *b* (*ä*, *äⁿ*): blood, red, bow, wood, turtle, beaver, ten, drink.

m > *w* (*a*, *aⁿ*, *o*): bear, fish, grass, black.

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

m > *n*: eagle, house.

W

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

w > *n*: buffalo herd, antelope, rabbit, white; perhaps also ear. Ar, Bā, GV, regularly *n*; Na, sometimes *m*; Ch, Bl, E-C, *w*.

S

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

s > *s*: sun, fire, wind, rain, tobacco, two, three. Bl, Ch, and Na show —, *h*, or *x* frequently. GV alone has *θ* sometimes: tobacco, two, three.

s > *θ*: hair, nine, eat, defecate. E-C, *s*, *tc*, *dj*; Ch, Na, *s*; Ar (and Bā?), *θ*.

s > *h*: stone, yellow. A dialects have *h*, except Na *t*. Perhaps allied to the change *k* > *s*, *h*.

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 *ä* and *a*, is not clear to the writer. Counting *äⁿ* and *aⁿ* for the present with *ä* and *a*, four principal equivalences are noticeable.

⁴ *bä'aⁿ*, road, and *baha'aⁿ*, thunder, are exceptions noted in simple stem words.

	Mi	F	Cr, O	Bl	Ch	Na	Ar, Bā, GV
Type 1	i	i	i	i	i	i	i
Type 2	var.	ä, e	i	(i)	(i)	a	ä, e
Type 3	a, o, u	a	a	a, o	o	a	a
Type 4	var.	a	a	var.	o, u	o, u	u

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 Nāⁿwaθinähānaⁿ leans towards Cheyenne; that the latter favors a sound usually written o,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 ö, 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, ä>ä: heart, bow, wood, dog, beaver, turtle, red, drink, two, three, four, ten. Mi, ?; F, ä; Cr, O, i; Bl, Ch, i often, but not always; Na, ä, oftener a; Ar, Bā, GV, ä.

Subtype 2a—i, e>e: hand, man, water, metal. Mi, ?; F, e; Cr, O, i; Bl, i; Ch, a back vowel; Na, e, ä; Ar, Bā, 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, aⁿ. 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

BASAⁿWUNENAⁿ

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

All the Bāsaⁿwūnenaⁿ body-part terms obtained from both informants begin with the possessive prefix of the third person hi-, instead of the indefinite wa-, bā-, of Arapaho, which elsewhere in the family is represented by ma-, mi.

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 $x > GV$ θ : 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.⁶ Comparison shows Gros Ventre to be the more conservative, as the Ar sound stands for original t.

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

Ar $t > GV$ te, ty: mouth, hand, six. Bā 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, e $> GV$ θ : eye, neck, woman, tobacco, two, three, seven, eight, father, older brother, "niece" (when not called "daughter"), daughter-in-law, wife.⁶ 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 te was usually heard as either ts, or ty, nearly ky, in Gros Ventre.

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

Ar $i > GV$ ö: eye, sun, fire.

NAⁿWU θ INAHANAⁿ

Nāⁿwu θ ināhānaⁿ 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.

Nāⁿwu θ ināhānaⁿ agrees with Cheyenne in retaining m which Arapaho has converted to b and w; in fact the dialectic pronunciation of "Washington" was given as moⁿeten. 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 Nāⁿwu θ ināhānaⁿ. Arapaho x is probably an h with partial stricture rather than a true palatal fricative. In place of it Nāⁿwu θ ināhānaⁿ sometimes has s, sometimes a sound written xs. In "bear" h equals x.

Arapaho θ was usually rendered by t, once or twice by s and ts, in the Nāⁿwu θ ināhānaⁿ words obtained. Three words in this dialect

⁶ Bull. Am. Mus. Nat. Hist., xviii, 9, 1902.

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

Arapaho \ddot{a} was sometimes rendered by \ddot{a} in $N\ddot{a}^n wu\theta in\ddot{a}h\ddot{a}n\ddot{a}^n$, sometimes by a . Ei becomes e .

The x or h so frequently written before t , ts , and s in $N\ddot{a}^n wu\theta in\ddot{a}h\ddot{a}n\ddot{a}^n$ 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, ū, open.

o, very open, often confused with aⁿ; long, ou.

aⁿ, āⁿ, nasalized, possibly spoken with the tongue slightly more raised than in the following.

a, ā.

A, less clear than a, was often written, but not regularly, and has been omitted from the present orthography.

ä, ā, as in American English "bad."

äⁿ, āⁿ, nasalized.

e, very open, sometimes resembling ä; long, ei.

i, ī, 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'*, perhaps more exactly *nähä'^ä*. The orthography *nähä'* should be sufficient.

Arapaho consonants:

k, *t*, and *tc* (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, *tc* is replaced by two sounds: *ts*, the general equivalent of Arapaho *tc*, 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 ' *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.⁷ 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.

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:

- hāⁿ-n-isei, "Bed-Woman"
 heθa-bic, dog bush
 heθa-w-a^{wu}, dog lodge
 hi-tee 'äox-a^{wu}, club lodge, club dance
 bīsāⁿ-n-oxⁿ-inaⁿ, worm weeds
 waxn-sei-naⁿ, bear, women
 nitei^{he}-hinen, Kiowa (niteiye, river)
 nih 'āⁿθ-ousei, white-man woman, American woman
 cīciyē-n-axu, snake weed, snake medicine

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

- wan-isei-nā-hiθi, they go after women, burrs
 notī-sei-n-äⁿt¹, looks for a wife
 hi-netei-bī-niθ¹, 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 'āti-n-ahaⁿkāⁿ, "Lime Crazy"
 wax-teiyei, "Bear Creeping" (cīci, creep)
 wax-kukatāni, "Bear Spotted (Is)"
 hāⁿxā-ba 'āni, "Wolf Red (Is)"
 hisei-waotāⁿni, "Woman Black (Is)"
 icitāⁿ-kūθaⁿ, fire drill

Verb, adjective, or adverb preceding and determining a noun:

- h-axā^θ-ineninaⁿ, funny men, name of a band (axāⁿt-ēhi, laughable)
 naⁿwu-nenitānaⁿ, south people
 hawah-aⁿwū, many houses, town
 haⁿwāⁿ-ū-n-anaxa'ahā, praying young man
 häbät-ä^θ, large dog (he^θ)
 häbät-āⁿxe, large knife (wāⁿxe)
 häbä^θ-inen¹, large man
 häbä^θ-ī-waxū, large bear (woxⁿ)
 hätcax-āⁿxe, small knife
 hätcäc-inen¹, small man
 kaha'ū-cī-nin, half a day
 haseihi-n-axucītanaⁿ, sacrifice (sun dance) paintings
 nihaⁿ-n-ouhaⁿ, yellow buffalo calves (wou)
 waotāⁿ-n-ou, black crow (hou)
 kāⁿku-naⁿtinei, "One-eyed Sioux" (kaⁿkou-iyāⁿ, patch on)
 kaⁿkuiy-ä^θäbi, scabby dogs
 häⁿt-etc¹, large water, ocean (nete¹, water)
 cītei-nä-waxu, lasting weed (cīcītei, stretch)
 teäyatawⁿ-inenitāⁿ, untrue person, spirit
 θawa^θ-inenitāⁿ, real person, human being

B. NOUNS AND VERBS FORMED WITH PREFIXES

wot-i-, in fire, into fire.

- woti-tan-ēhi, fire-starter
 wot¹-tanā-tanā-naⁿ, they burn it
 häⁿix-woti-θ-aⁿ, they put him in the fire
 woti-kaⁿhu-naⁿ, they ran into the fire
 woti-tanāⁿ, added wood to the blaze

sä'ä-, sä'i-, flat.

- sä'ä-bäxaⁿ, flat wood, boards
 sä'ei-tea'aⁿ, "flat" (straight tubular) pipe
 sä'ä-hi^θi, flat ones, bedbugs
 tah^a-sä'i-ci, after she lay
 sä'ä-beitei^θä, flat metal, spade
 sä'i-ce-θānaⁿ, roof
 sä'ä-sanaⁿ, sliced meat
 häⁿix-sä'ä-se'esī, then cut them into slices
 sä'i-θi-xa-h-u^θen¹, I peg you out flat
 sä'i-θi-xa-h-un, the crucified one, Christ
 sä'i-ci-w-anaxa'ä, "Lie-abed-long Young-man"

nā-, relating to clothing.

- nā-tāⁿnei, take off moccasins
 nā-tatahäⁿ, take off leggings
 nā-θibi, take off clothes
 nā-yaⁿ-un, dress!

kaka-, relating to mental action.

kaka'-uθetcaⁿ-naⁿ, thoughts
 kako-xa'ānātaⁿ, think about it

C. NOUNS AND VERBS FORMED WITH SUFFIXES

-ī-nⁱ, on measures of time. Compare the suffix -inⁱ on the numerals 11 to 19, which is no doubt the same.

kahaū-eī-ni-n, half a day
 tihi'-sī-ni, yesterday
 tayu-nī-nⁱ, tatayou-nī-nⁱ, autumn (tai, cold)
 teāteī-nⁱ, winter, year
 īsibi-ta-nī-ni, bedtime, time for lying down
 xā'tāei-nī-nⁱ, shortly after, sometime later
 tahⁿ-teāni-bihiyaⁿ-ni, when it was late in the night

-ātītⁱ, on names of ceremonial acts. The last part of this suffix is almost certainly an ending denoting the third person.

teā'-ātītⁱ, welcoming
 teeitaⁿ-h-ātītⁱ, ear piercing
 tiaxaⁿ-n-ātītⁱ, foot touching, an invitation
 teāteecī-n-ātītⁱ, untying, a redeeming
 teaoux-teābi-h-ātītⁱ, foe-shooting, the settling of a dispute by a game or test

-ah^awāⁿtⁱ, dance. Also seems to contain the ending of the third person.

hou-n-ah^awāⁿtⁱ, crow dance
 hasaⁿ-n-ah^awāⁿtⁱ, rain dance
 nou-t-ah^awāⁿtⁱ, dancing out of sun dance
 ka'ei-n-ah^awāⁿtⁱ, round dance, ghost dance
 tawa-n-ah^awāⁿtⁱ, cutting dance
 naⁿā-n-ah^awāⁿtⁱ-anibā, all of you dance around me!

-tanā, burn, do to or with fire.

woti-tanā-tⁱ, he makes a fire
 hā-tanā-hei, put the fire out!
 hā-tanā-θ-āⁿt, he extinguishes it
 hā-tanā-kana-θei, drench the fire
 wotⁱ-tanā-hokani, they burn it

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

hi-teāna-ātⁱ, gridiron
 teābitāna-teāna, fried bread
 nī-te-teānā-θāyei-naⁿ, I maintain the fire constantly

-i-θetcaⁿ, think.

kaka'-uθetcaⁿ-naⁿ, thoughts
 waxⁿ-θetcaⁿ, feel sad (waⁿsaⁿ, waⁿxeit^t, bad, ugly)
 häⁿ-s-iθetcaⁿ-hoku, she thought
 bi'aⁿh-ouθetcaⁿ, I truly thought
 häⁿnäⁿ-kaxtaw-ūθetcaⁿ-t^t, then she thought something was wrong

-θibi, 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-θibi, undress
 tcī-θibi-t^t, he dressed

-aⁿwu, water.

haxeci-n-aⁿwunete^t, muddy water
 tcänätäⁿ-n-aⁿwunete^t, blue or deep water
 θäⁿθi-aⁿwu, high or rough waves
 kaha'-aⁿwu, creek
 kakuiy-aⁿwu, sticky liquid, molasses

-(i)yei, tent: nīnaⁿ, nīnan, tent.

nāyei, häyei, hiyei, my, your, her tent
 yeiyi, set up a tent
 sis-äyei, take down a tent
 n-eihaⁿwū-uyei, I have no tent

-akac, -akay, tent, house.

hābät-akay^t, large tent
 häteax-akay^t, small tent
 waⁿθei-n-akay, waⁿθei-n-akac, an old brown tent
 waotäⁿna-h-akay-eit^t, "Black Lodge," his tent is black
 bätäbi-h-akac, old woman's tent
 hī-beiteiθei-n-akay-anit^t, who has the metal tent
 hina-n-akay-aⁿ, "main" pole, by which tent is raised
 tcit-akahay-inäⁿt^t, enter-tent-song, sung when water is brought into the peyote tent
 heθaw-akay-a-ni, in the dog tent

-äθä', fire.

bänäs-äθä', a large fire
 hī-bāxuteän-äθä', when the fire became low
 kox-k-aθä-yaⁿ-naⁿ, kindlings

-anihi', pet, domestic animal; perhaps contains the diminutive suffix quoted below.

tcīy-anēhi, furry, shaggy dog
 ta'-anähi-hi', short-legged dog
 n-eihaⁿwū-t-anihi', I have no horses

-h-āⁿx^u, plural -h-āⁿxäbi, horse, domestic animal.

n-äbīt-āⁿxabei-t¹, steals horses or cattle
 noti-n-āⁿxäbi, looks for horses
 hiwaxu-hāⁿxäbi, horses (hiwaxⁿ, elk)

-ä'ei, head, hair, neck. The independent word for "hair" is beiθe'ä, for "his head" hakuhäⁿ.

ot-ä'ei-hi, comb hair
 häⁿtit-ä'ei-niθi, beheaded ones
 teä'ä'ei-n-axa'anaⁿx^u, round-head-ax
 teäste-ä'ei-niθi, scratched head
 bäbä'a'ei-n¹, you are curly haired
 naⁿ-taⁿ-h-icib-ä'ei-nei-t¹, and when he laid his head down
 kaⁿk-ä'ei-θi, Blackfeet (with erect hair)
 kaⁿ-xu-häⁿix-täb-ä'ei-kū-θ-änaⁿ, then again they cut off his head
 behic¹-täb-ä'ei-θēhi, all cut off heads
 täb-ä'ei-bäs-i, cut-head-wood, stumps
 täb-ä'ei-naⁿ, cut-head, hornless saddle
 teih-täs-ä'ei-ci, lay your head on!
 naⁿk-a'ei-n, white-neck, starched collar
 tahⁿ-teih¹-bä-teit-ä'ei-xaⁿ-θi, when they all put their heads in

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

täb-iθä-bic, cut-nose-bush, whose fruit appears noseless like a skull

-ēhi, face.

kou-ēhi, swell-face, mosquito
 kahan-ehi, hair burnt off
 hä'ni-täbi-eihī-t¹, struck him in the face

-θäⁿθ-i, fingers, hand. Independent word, bāteet.

hähis-θäⁿθ-ōhu, wash hands

-aⁿt, leg. Independent word, wa'aⁿθi.

hawah-āⁿt-ät¹, many legs, centipede

-ixtaⁿ, nail, claw, foot.

was-ixtaⁿ, bear claws, bear foot (woxⁿ, bear)
 häs-ixtäⁿ-eisaⁿ, "Sore-foot-child"

-ineihi, tail. Independent word, bātihi'i.

täⁿtaⁿka-n-ineihi, raccoon (twisted, ringed tail?)
 taxaⁿ-n-ineihi, opossum (smooth tail?)
 waⁿθeiniθ-ineihi, bat, also Satan (brown, or old, ugly tail?)

-hi'i, -hä', -hähi, diminutive.

hanaxa'aha, young man, hanaxa'ä-hi'i, boy
 bätäbi(ä), old woman, batäbi-hähi
 teiaⁿ, child, teiaⁿ-n-ähä'
 ciciⁿtei, duck, ciciⁿtee-häⁿ'
 ta'anähi-hi', short-legged dog

VERBS

WORD-FORMING PREFIXES

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, *täs-i-* and *teän-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 *teäsis*, "to begin," and *θaⁿku-h*, "to follow," are used as prefixes to other verbs.

Apparently related to this last group are such elements as *tä'*, *tou-*, "to stop," and *ta, tou*, "to strike, tie, or be or come in contact with"; *kax-*, "through," and *kax*, "to impact violently"; *teäθ-i-*, "away, outdoors," and *teäθ-i*, "to depart or elope"; *teäb-i-*, "past, alongside," and *teäb-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-ayaⁿ*,

“a post”; θ ei-ka-h and θ ei-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 \ddot{a} bita-ku, “to steal,” of which the stem appears without the -ku, but with the same denotation, in \ddot{a} bitä, “to steal,” n- \ddot{a} bit- \ddot{i} hi, “thief,” h- \ddot{a} bit- \ddot{a} n-xabei-ti, “he steals horses.” When, however, the prepositional “prefix” θ ei- and the vague “suffix” -ku are put together they form θ ei-ku, “to put in.” In the same manner the combination of the variant θ i- with the suffix -ok^u, apparently an intransitive equivalent of transitive -ku, results in θ i-ok^u, “to sit.” Which part of θ ei-ku and θ i-ok^u is what in other languages would be called the stem? If the first element is a verb stem, then θ ei-wa-n, and such parallel forms as t \ddot{e} i θ i-n-aⁿha-b, “to enter in order to see,” are clearly compound or double verbs. If the second element is a verb stem, then \ddot{a} bitä-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 θ ei- 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 θ ei- 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 dispute 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" languages 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-incorporating 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 departure 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 conspicuously 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. Jones⁸ 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. Jones⁹ are most simply rendered as follows: egä, dance; teim (Arapaho teawou), swim; isä, fly; isähö, jump; ötä, crawl; usä (Arapaho is-ä, us-ä), walk; gäpä (Arapaho öi-ä"ku), stand; pahö (Arapaho i-ka"-hu), run; ö, carry on back; hogö, swim, convey by water; pugö, float. *Initial stems* cited¹⁰ are: kī, about; pem(i), past, alongside, incipiently; pyä, hither; pī(t), into; eösk, straightly, smoothly; säg(i), projecting, holding; mīk, assiduously; kög, wetly, with water; kās(i), by wiping; pas(i), suddenly, hotly; wī, with; tä(wi), painfully; nag(i), stop; pön(i), cease;

⁸ Some Principles of Algonquian Word-formation, American Anthropologist, n. s., vi, 401, 1904.

⁹ *Op. cit.*, 394.

¹⁰ P. 388.

wäp(i), begin; kask(i), can, be able; kīc(i), completely; nōtä (pp. 394, 404), be unable; pag (pp. 393, 403, Arapaho kax-), by striking, with impact. *Secondary stems of the first order*¹¹ are ā'kw, wood, resisting; nag, hole; tag, color; nāgu, appearance; itā, feel; āne, think; kam, expanse; 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 wäp-usä-w^a, "he begins to walk" (p. 386) = "incipiently he walks" (or "he begins in his walk"?); wäpi-pyā-tei-tetep-usä-w^a, he begins to walk approaching in a circle = "incipiently hither circularly he walks" (or "he begins his hither circular walk"?); pägi-kumä-ein-w^a, "he bumped his nose" (p. 393) = "with impact his nose he struck" (or "he struck his nose against it"?); täwi-ein-w^a, "he fell and hurt himself" (p. 386) = "painfully he struck" (or "he hurt himself against it, he hurt himself by impact"?); täwe-'kwä-hō-w^a, "he has a headache" (p. 394) = "painfully as to his head he is" (or "he hurts as to his head"?); pag-ā'kwi-tunä-ein-w^a, "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 Languages*¹² 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.

¹² Bureau of American Ethnology, Bull. 40, 735-873, 1911.

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. Anthropol.*, 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

teäsis-, begin.

teäsis-ina^{ei}, go off to hunt
teäsis-ta-ka^{hu}, begin to flee
teeθiθ-ouhu, begin to climb

näye-, try.

tah^a-bä-näyei-θ^l, when all tried
näyi-kaxk-atī-wa^{ou}, tried to roll through
näye-tawa-h-un^l, try to chop it down!

θaⁿk^u-, following, behind.

θaⁿku-h, θanaⁿku-h, follow
θaⁿku-naⁿ-usä, come back
θaⁿ(k)-kaⁿoutaⁿ, 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'-usä, come and stop
 tanā'-usä, stop when going
 kou-tā'-ā-bä-, lie abed long (āⁿ, bed)
 haⁿtni-taux-teä-i-niθi, stopping place
 hä-tou-n-aⁿwū-n-eθi, I hold it for you
 tanou-ku-huθi, three first poles erected to hold up the remainder of the tent
 nī-tou-naⁿ, I strike
 tou-ninātⁱ, coup, counting strokes
 tou-ku-hu-ta-ni-naⁿ, they are tied up for
 tou-ku-hu-i-n-āⁿwū, tying-up house, jail
 tou-tei-hītⁱ, belt
 ta'a-xa-n-eθenⁱ, I kick you
 taⁿ-yaⁿ-b-eθenⁱ, I bite you
 taa-w-aⁿti, taa-b-äⁿ, struck him
 ta-wa-hei-naⁿ, I chop wood
 haⁿt-ta-wa-h-ätⁱ, he will cut down the tree
 nītawū-tou, "Striking First," a name

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

kax-ka'ānaⁿ, it went through
 kax-k-oti-wāⁿ, rolled through
 kah-ä'ei-si-bä-tⁱ, fractured his skull
 kax-aei-tⁱ, striking
 kaxa'-axuxaⁿ, wedge
 kaxa'-ātⁱ, there was a fissure
 kax-ouhu, chipped off, shot off
 kaxa'-äⁿ-hükⁿ, shoots him
 kox-kⁿθahäⁿ-naⁿ, "breastpins" of tent
 kox-kⁿθä-yaⁿ-naⁿ, kindlings ("through flame starts"?)
 kox-ta-wu-h, touch, do to, copulate

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

teäb-i-hi-tⁱ, travels
 teäb-i-sä, pass on, pass by, be on way, walk, go continually
 teäb-i-kaⁿhu, pass, come by
 teäb-i-xaⁿtⁱ, walks
 teäb-i-xa-h-eθenⁱ, I carry you

teit-, teiθ-i-, in, into, entering.

teit-ei, enter, go indoors
 teiθi-n-aⁿha-b, go in to see
 teiθi-x-teä-hi, run inside, go into
 teit-ä-n-aⁿ, takes him in
 teit-awātⁱ, dancing in
 teit-aⁿ-bixütⁱ, undershirt, inner garment
 teit-aⁿwū, indoors

B. PREFIXES USED ALSO AS INDEPENDENT, SEPARATE ADVERBS, OR SIMILAR PARTS
OF SPEECH

h-ixte-i-, up.

- hixte-äbä, up, above
he-tei'ixtei-ku-s-i-bä, throw me up
h-ixte-is, go up

häⁿθäb-i-, to, reaching to, before, ahead.

- häⁿθäb¹, toward
häⁿθäb-i-nou-isä, go there
häⁿθäb-i-nä-sä, arrive
t-äⁿθäb-i-nä-usä, when arrives
häⁿθä¹'ei-säⁿ-t¹, before him
häⁿθä¹'ei-täⁿ, in front
häⁿθaw-unenaⁿ, head men
häⁿθab-äsei, chief woman
häⁿθawä-n-axu, "chief-medicine," a root

tcän-i-, far, down, headlong.

- tcän-ih¹', under
tcän-isei, give birth to, "drop"
tcän-isi-b-eit¹, threw him off
tcän-isä, fall off, go down, go far
tcän-i-xoukaⁿ, flew down
teen-i-ta-kaⁿhu, flee far
tahⁿ-tcäni-bih¹'iyäⁿ-ni, when it was far into the night
teen-a-näbä¹'ä-t¹, plunged headlong

täs-, täx-, on, at the top.

- täs-ih¹', on top of, on, at the top
häⁿi-täs-ä-n-äⁿ, then he put it on
täⁿs-isäⁿ-θi, mounted (horse)
täx-ohäⁿθi, put hands on
h¹ih¹-täⁿx-oku-ta-n¹, which he rode
täsi nīnanä, top of a tent
täsihän tea'otäⁿyaⁿ, on top of the hill
täsih¹' äⁿbä, on the bed

äⁿxu-, across.

- h-äⁿx-anäⁿ, across the stream
äⁿxu-n-oti-waⁿ, rolled across
h-äⁿxu-x-äⁿt¹, the crossing
h-äⁿxu-iy-ei-n, sew
teih¹-aⁿxu-s, come across!

θi-, *θei-*, on, upon. Perhaps more properly *θi'*-, *θei'*-.

θi-ok^u, sit, live
θi-a^uk^u, stand
θi-änä, put, place
θi-a-yaⁿ, post, monument
θei-ku-θ, put in
θei-ka-h-äⁿ, carries on the back
θei-wa-n-ōhu, carrying on the back

hä-, *hä^{ns}-i-*, hard, very, fast, violently.

hänäⁿ, hänou, hard
hä'nä'ei, *hä'nä'ou*, fast, very fast
häsei-yei-hiθe-t¹, very good
hä^{ns}i-i-ka^uhu, run hard, swiftly
häsa'äⁿ-t¹, *änesa'äⁿ*, swift
häsa'aⁿ-n-oti', "fast-wheel," train
häseisen¹, wind
hasaⁿ-nete¹, rain
hä-s'a^ha-b-eti-t¹, looking at oneself
hä-s'a^ha-θanaⁿ, sights
(h)äsi-bäⁿ, a sore
hä^{ns}-ixtäⁿ-cīsaⁿ, "Sore-foot-child," a name
äsi-na-ta, hungers for it
äsi-na-n-ät¹, anger
äsi-ni-h, to make angry
t-äs-owa-bi-x-t¹, when he became sick

nou-, *naⁿä-*, *naha-*, out, around, down.

naⁿu-hu', down
naⁿä-hi, go out, come out
naⁿä-sä, walk about
naⁿä-ka^uhu, run around
nou-tä-n-in, bring her out!
nou-sa-n, drive out
nou-t-ahawäⁿt¹, dancing out, a ceremony
nou-θitaⁿäⁿ, went out in file
nōhu-ku-θ, lift up, carry
naⁿä-n-ahawäⁿt-ani-bä, dance around me!

aⁿwu-, *inaⁿwu-*, *hani-*, down, falling.

haⁿwu', *hanäwu'*, down
n-aⁿwu-hu', south
n-aⁿwu-bä'ei, southern berries
teih¹-aⁿwu-inäⁿ, let it come down!
tahⁿ-na^{sou}-n-aⁿwu¹-nihi-sä-t¹, while he traveled down-stream
h-aⁿwui-nihīhi, down-stream
t-aⁿwu-n-īho-aⁿ, floating down-stream
inaⁿwū-säⁿ-häkⁿ, dived, went under water
h-inaⁿwū-aⁿ, it sank
hani-nāaⁿ, fall
hani-ku-θaⁿ, throw down

kou-, kanou-, long, far.

kanaⁿ-aⁿyaⁿ, "oblong," extended
 kaⁿäⁿ-ihi', slowly
 kanou-ci-bī-θi-hi-naⁿ, I eat a long time
 kou-θ-inät-it', long life
 kou-ta'-aⁿ-bä-, lie abed long
 kou-θihi', some time later
 kanou-taⁿtäⁿ, long

xou-, xanou-, straight.

xanou, xaxanou, straightway, immediately
 xouwu, xouw-uhu', straight, straight in
 xoub-äⁿ, straight
 xanoub-i-x-t', straight
 tani-xoub-ei, a very straight one
 xouwu-xati, take this straight
 xanaⁿ-ku-bä, "straight (across) red," name of a design
 xouw-usä, go straight

tceib-i, aside, crookedly.

tceib', crooked
 tceib-äⁿ, crooked (cf. xoubäⁿ, straight)
 tceib-i-s, step aside!
 tceib-i-sä-naⁿ, I get out of the way
 tceib-i-teena'ⁿ, jumped aside

tcäθ-i-, away, off.

tcäθi', outdoors
 tcäθ-i-äⁿt', he elopes
 tceθ-i-kaⁿhu, escape, start off, leave
 tceθ-eiaⁿt', goes, departs
 tceθ-akouuhu, go farther up
 tcäθ-i-θäⁿci-b-eit', blew him away

watäⁿ-, into the camp circle.

watäⁿ-ni', into a camp
 watäⁿ-sⁿ, go into the camp circle
 watäⁿ-kaⁿhu, go (run?) to camp

ci-, cix-, seciθ-, senix-, into water, in the water.

sec^lθ-aⁿwu, at the bank, near the river
 hit' teih-cih-kū-θ-i, throw me into the water here!
 hänäⁿ-cīh-kū-θ-aⁿt', then he threw him into the water
 seniex-tcähit', jumps in the water
 näⁿ-tcē-cī-eisäⁿ, come right into the water!
 hänäⁿ-nīsaⁿ-cī-eisäⁿ-θi, then both entered the water
 waⁿ-cī-e-b, take into the water

nänäb-, north.

nänäbä', nänäbi', north
nänäb-isä-t', goes north

nīs-bis-, east; nīs-nä-, west.

nīs-bis-isä, go east
nīs-nä-isä, go west

naxkⁿ-n-, with, also.

naxkū-hu', with, together, including, also
häⁿ-bä-naxku-häⁿ, you might be included
nanaxku-ni-hi-tawa, I include it
naxkū-n-isä, travel with
haⁿ-t-naxk-a-tee^θ-ei-aⁿt', he will go away with him

nās-, hänās-, thus; compare the demonstratives nä-hä', hi-nä.

nās-inät-it', thus lived again
nās-it-äⁿt', did accordingly
hänās-i^θetcaⁿ-tana-hokⁿ, thought of him thus

tābä-, just then, begin to.

tābä, then! lo! just then! being about to, when
tābä-bänä, begin to drink
tābä-tawa-h-ät', begins to chop down

kaⁿx^u-, kaⁿxäⁿ-, again, once more.

kaⁿxⁿ, kaⁿxū, kaⁿxäⁿi, again, another time, then at last
kaⁿxäⁿi-ka^θe-n-ä, again lost him
kaⁿxäⁿi-naxawⁿ, again was near
kaⁿ-xäⁿi-ane^θeia-n-ä, once more he struck one down by kicking

hana'ut^l-, hana'a-, all, completely, enough, sufficiently, until.

hanaut^l bīteixaⁿ teän-isei, all leaves are falling
häⁿix-hana'uta-yaⁿ, now was complete
hana'ut^l-häⁿix-yā^θani-sibihei, until he had killed (all) five
hana'ut^l-haⁿt-īcīte-n-aⁿ, indeed I will catch it
hana'ut^l-häh'-naha-'ou, until I killed them all

bā-, behi-, behīc-, bābānei-, all.

bāhihi', all, everyone, anybody, completely
bā-hi-nihāni-x-t', the owner of all
bā-tani-ci-ni^θi, all have a hole cut
bā-hi-nihaⁿ-you, all are yellow
bā-hi-yeiyaⁿ-unāⁿ-^θi, all have four arrows
ba-h-āxaⁿ-ät', shot all

häⁿθei-, all, all who.

häⁿθei, all. See Text I, note 5
häⁿθei-hi^θeti-ni, all that were good
häⁿθei-wana-ūneitī-ni^θi, all who still lived

C. PREFIXES NOT YET FOUND AS INDEPENDENT PARTS OF SPEECH

1. *Apparently Verbal*—

wan-, go to, go for, go after.

hänäⁿ-wan-bī-n-äⁿt^l, then he went to give it to him
 wan-i-bī, go to eat
 ni-waⁿ-kaⁿhuwa, I went and cut
 wan-ote-n, go and gather
 wan-i-teenaⁿ'aⁿ, go in order to jump
 wan-isei-nä-hī^θi, burrs, "they who go after women"

näbi-, nawu-, make a motion to, move forward.

näbi-x-teä-hi^θi, made a motion forward
 teena-näbäⁿ'-ä-t^l, plunged headlong

nīs-, to, tied to.

nīs-axäyaⁿ, wire fence
 nīs-i-ä^θeiyo, trousers, "tied leggings"
 nä-nīs-aⁿku-hu-ni^θi, the tied ones

na'-, to, arriving.

naⁿ'-usä, naⁿ-us, arrive, come to

cīt-, continue.

cīt-isä, journey, go on, keep going

ha^θa'aⁿ-, truly, surely, indeed, necessarily.

ha^θa'aⁿ-biti, indeed I shall be revenged
 ha^θa'aⁿ-häⁿ-t-icite-n-aⁿ, surely I shall catch him
 ha^θa'aⁿ-häⁿni'itei, it must be eatable

2. *Apparently Adverbial, Referring to Manner*—

hinix-, hanux-, very.

hinix-i^θeti, very good
 hanux-n^θeti-n, very good
 hīn-teä-b-it^l, water-monster ("very-shooter"?)
 hinix-hänixt^l, very tall

ni'-, good, well.

niⁿ'-bī-ni, good to eat
 niⁿ'-īnaⁿei, good hunting
 niⁿ'-bāhaⁿ, smell good
 niⁿ'-teei, eatable
 niⁿ'-teäⁿ-t^l, is sweet
 niⁿ'-owa-be-hi-naⁿ, I feel well
 ni-eh-t^l, is fine-looking

tani-, indeed, very, skillfully.

tani-xoub-ei, very straight one

nih¹-tani-teä-inäti-hok^a, skillfully he lived again

inä-, fast, more swiftly.

nih¹-inä-sä-t¹, quickened his pace

h-inä-nawa, without delay

nani-, näni-, constantly.

nani-bäni, drink frequently

neni-nä^aku-t¹, blind

nī-neni-s-ei-ka^ahu-t¹, mole ("who constantly runs"?)

in-i-, aimlessly, randomly, about.

in-i-sä, wander, go aimlessly, "bum around"

in-i-kuhi, was chased about

in-iθ-i-ka^ahu, went around

in-i-tāθ-ka^ahu-h-eit¹, dragged him along

3. Apparently Adverbial, Referring to Space—

teä-, tei-, back, again, returning.

teä'-isä, tei'-isä, tei-sä, go back

teä-yi-ka^ahu, run back

tea^a-w-otī-wa^a, rolled back

teä-näih-ā^a-t¹, "again killing," a place

iy-i-, near.

h-iy-i-sä, come near, approach

ī-ha^a-n, īyi-ha^a-n, go after, pursue

a^{ny}-, in front.

a^{ny}-ei-ka^ahu, go ahead

tei-bixāⁿ-, out of the woods, into the open.

tei-bixāⁿ-u-ka^a, came running out of the timber

bis¹-, up, out.

hä^aix-bis¹-teena'āⁿ, 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.

-ni, to be, to have; verb-forming.

hiha^w-aha'anākāⁿ-ni-n, there are no stones
 hīt-akā^{xu}-i-ni-t', he who has tentpoles
 n-eiha^{wū}-uta-ni-hi, I have no horses
 n-īθe-ti-ni-n, that which is good
 hinana'ei-ni-naⁿ, I am an Arapaho
 inenitāⁿ-ni-n', you would be well, living
 bähāei-āhe-ni-t', becomes an old man
 ni'-bī-ni, good to eat
 nāteī-ni, wet (nete', water)
 hi-netei-bī-ni-θ', the water-giver, owner of waters
 nihaⁿ-ni-x-t', is yellow (nihaⁿ-yaⁿ)
 tea'otaya-ni-naⁿ, I am hump backed
 nānā-ni-naⁿ, I, it is I

-θi, intransitive.

nā'ā-θi-x-t, resembled (nā'ā-si, thus)
 bī-θi-, eat (bī-n, eat something, bī-θ', food)
 anāⁿ-θi-, be different in appearance

-hi, intransitive.

h-iθei-hi-nāxkⁿ, if you are good
 bihi'i-hi-n, be a deer
 bānī-θi-hi-naⁿ, I eat
 kanāne-hi-naⁿ, I am a coward
 nānābā-hi-t', what is sacred
 hīθa^{wu}-tai-hi-naⁿ, truly I am cold

-hu, intransitive.

i-kaⁿ-hu, run
 ta-kaⁿ-hu, flee
 na-kaⁿ-hu, come, bring
 ni-sāⁿku-hu-θi, were tied
 nītou-hu-t', shouts
 teābixaⁿ-hu-t', flies
 yana-hu-t', pledger, he who vows
 tea'otaya-hu-t', hump backed

-awui-ni, become, begin, be.

t-întcäbit-awui-ni-t¹, he became a water-monster

kaⁿnäⁿ-n-awui-ni-θi, they opened it

bäni-awui-n¹, spring (bäni-tce, summer)

-owa, feel; bodily condition.

ni¹-owa-be-hi-naⁿ, I feel sick

hä-s-owa-, sick

-si, be in the condition of.

isi-si, be lying

bä-tani-si-ni-θi, all have a hole cut

nä¹'ä-si, nä¹'ei-si, thus, thus it is

kah-ä¹'ei-si-bä-t¹, fractured his head

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

t-aseinou-bä-naⁿ, I get meat

axaⁿ-bä, made laugh

axa-bäⁿ, axa-wu, fed them, give me food!

waxu-bä-, to have medicine

oti-waⁿ, roll (hoti¹, wheel)

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

-ei, causative.

hakāⁿx-ei, make tentpoles

h-āⁿxu-iy-ei-n, sew (āⁿxū-, across)

tcä-teäb-ei-θi, making pemmican (teeb¹)

tic-teibät-ei-t¹, after he made a sweat-house

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

tcäbi-xa-h, make travel; transport (tcäb-i, passing)

nāⁿa-xa-h, bring in (nou-, naⁿä-, out)

tcä'e-xa-h, take back (tcä-, back)

sä¹'iθi-xa-h, peg out flat (sä¹'ä-, flat)

xouwu-xa-ti, takes it straight (xou-, straight)

tcä-bi-xaⁿ-hu-t¹, fies (tcä-b, shoot)

ni-tanā-xa-hei-naⁿ, I dig a hole (tana-t¹, hole)

bä-xa-h, strike

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.

θ ei-ku- θ , put in (tcī θ i-, θ ei-, in, on)
 nohū-ku- θ , lift, carry (nou-, out)
 tcei-ku- θ , release, let go (tcä-, tci-, back; tcä θ -i-, away)
 hänix-ixtei-ku- θ -äⁿ, threw him up (hixte-, hixtcäbä, up)
 tou-ku- θ , bind
 kaⁿkaⁿi-ku- θ -äⁿ, he uncovered him
 i θ i-ku- θ , seize
 äbita-ku- θ , steal
 bä-kū-taⁿ, "red stand," a head-dress

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

θ i-aⁿk^u, stand (θ i-, on, projecting)
 θ i-ok^u, sit, be sitting
 tcän-ok^u, sit down, seat oneself (tcän-i-, down)
 täⁿx-ok^u, ride (täx-, täs-, on)

-ä, to make, bring, cause to be.

bäs-ä-, carry, bring wood (bäs¹)
 tcit-ä-n-aⁿ, takes him in

-ta-n, -ta-na, for, to, of, about.

cī-ta-n, capture for
 ic-ta-n, ici-ta-n, make
 kousa 'äⁿ-ta-n, attack
 θ aⁿwa-ta-n, believe
 cīyi-ta- θ , make disappear for
 äⁿ θ i-ta-n-aⁿt¹, tells it to him
 axäⁿ-tana-w-aⁿt¹, makes fun of him
 äheisi-ta-ni, gave to be washed (äheisi-ou, wash one's self)
 hänäs-i θ etcaⁿ-tana-hok^u, thought of him thus
 h-i θ i-ku-ta-n-aⁿ θ i, when they seized them
 isi-bi-ta-ni-ni, bedtime, time for lying
 θ ähä 'i-ta-n, be agreeable (to?)
 kaha 'ū-saⁿ-ta-b-äⁿ, took half of her
 tou-ku-ta-n-äⁿ, tied to him
 tou-ku-hu-ta-ni-naⁿ, they are tied up for
 nä-nä(h)ä-ta-n-einaⁿ, he killed them for us

-wu-n, to, for, with.

wa θ anaha-wu-n, write to
 ata-wu-n, eat up for
 neiänaⁿ-wu-n-äⁿ, holds it tight for him
 ni-tana-wu-hei-naⁿ, I dig a hole
 kox-ta-wu-h, do to, meddle with

-tⁱ (-ī-tⁱ, -āⁿ-tⁱ), forms abstract nouns. This ending seems to be that of the third person subjective.

bixaⁿ-θ-et-ītⁱ, love
 bī-θi-h-ītⁱ, food, eating
 bāsā-ihāt-ītⁱ (ceremonial) touching (by old men)
 hinā-t-ītⁱ, life
 hinen-tān-ītⁱ, tribe
 teciⁿ-h-āt-ītⁱ, "ear-piercing" ceremony
 tee'-āt-ītⁱ, "welcoming" ceremony
 hās-owa-be-h-ītⁱ, sickness
 ānet-ītⁱ, speech, voice
 waxu-c-ītⁱ, paint, the painting
 ka 'ue-h-ītⁱ, a bleeding
 tou-tei-h-ītⁱ, belt
 bāt-āⁿtⁱ, a dance
 āsina-n-āⁿtⁱ, anger
 h-āⁿxū-āⁿtⁱ, a crossing

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

h-ābīt-īhi, thief
 āneti-b-ēhi, speaker
 hābāθ-ēhi, a large one
 kata-ōhu, beadwork (kata-, cover, hide)
 tcawouw-ūhu, swimmer

-āⁿ, -y-āⁿ, that which.

θi 'a-yāⁿ, post, monument, goal
 hasei-yāⁿ, an offering
 bā-θaⁿto-āⁿ, hemorrhage
 bāθi-yāⁿ, property, clothing
 bānī-yāⁿ, night, darkness
 bihi 'i-yāⁿ, at night
 kanaⁿ'aⁿ-yāⁿ, long, oblong
 nihaⁿ-yāⁿ, yellow (nihaⁿ-ni-x-tⁱ, is yellow)
 nihā-yāⁿ, self (nihā-ni-, to own)

GRAMMATICAL PREFIXES

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

k-	interrogative
k-ih ¹ -	
k-a ⁿ -	
k-a ⁿ hei-	
k-a ⁿ hä-	
k-a ⁿ hu-	
ī-ha ⁿ wu-	negative
teī-, teih-	negative
teī-bā ¹ ?, teī-bäh-	negative imperative
teī-	sometimes positive imperative
nī-, nih ¹ -	incompleted action
-īsi-	completed action
nih-īsi-	
hä-n-īsi-	
ha ⁿ t-	future, probably of purpose or intent
ha ⁿ t-ī-	
ha ⁿ t-a ⁿ -ī-	
t-	when, after, because
tī-, tih ¹ -	action incomplete
ta ⁿ -, tah ^a -	
tisi-	action complete
tisini-	
ta ⁿ hisi-, ta ⁿ hūsi-	
ta ⁿ hūsini-	
hä ⁿ -tī-	optative, "let me"
hä ⁿ -tih ¹ -	
hih ¹ -	"would that!"
θi-	optative, "let me," "let us"
iθi-	
hä ⁿ -	meaning not determined
hä-ih-, hä ⁿ -ix-	"then" ¹⁴
hä ⁿ -nä ⁿ -	"then" ¹⁴
nī-	relatively subordinating or noun-making: "he who, which, where"
nih-	
hī-	
nihī-	
hini-	
hä ⁿ -ta ⁿ -	where
hä ⁿ -	while; continuing; "—ing"
hä ⁿ -tcis-	
na ⁿ sou-	the same meaning as the last
ti-na ⁿ sou-	
hawa-tih ¹ -	although

GRAMMATICAL SUFFIXES

-eti	reflexive
-uti	
-hok ^u	"it is said," quotative
-äxk ^u	conditional, subordinating
-häxk ^u	
-näxk ^u	

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	-na ⁿ
you	-n ⁱ
he	-t ⁱ , or a vowel
we	-na ⁿ
you	-nä ⁿ
they	-θi, or a vowel

These endings are usually added directly to intransitive stems.

bänä-na ⁿ	I drink
n-äneti-na ⁿ	I speak
θioku-t ⁱ	he sits
θia ⁿ kū-t ⁱ	he stands

The intransitive imperative is the stem.

The intransitive negative with the prefix *ihaⁿwu-* is formed with prefixed pronominal elements.

I	n-eiha ⁿ wu—
you	h-eiha ⁿ wu—
he	h- <i>i</i> ha ⁿ wu—
we	n-eiha ⁿ wu—bä (or -hi-bä)
you	h-eiha ⁿ wu—bä (or -hi-bä)
they	h- <i>i</i> ha ⁿ -wu—na ⁿ (or -hi-na ⁿ)

In these forms -naⁿ 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-haⁿwu* instead of *n-eihaⁿwu*.

The transitive conjugation is formed by suffixes. These are:

	<i>Me</i>	<i>You</i>	<i>Him</i>	<i>Us</i>	<i>You</i>	<i>Them</i>	<i>It</i>
<i>I</i>	—	eθen ⁱ	-a ⁿ ’	—	-eθenä ⁿ	-ou	-awa ⁿ
<i>You</i>	un ⁱ	—	-a ⁿ t ⁱ	-eiä ⁿ	—	-a ⁿ tei	-aw ⁿ
<i>He</i>	-eina ⁿ	-ein ⁱ	-a ⁿ t ⁱ ¹⁵	-ina ⁿ	-einä ⁿ	-a ⁿ t ⁱ	-a’
<i>We</i>	—	-än ⁱ	-ät ⁱ	—	-änä ⁿ	-ät ⁱ	-awina ⁿ
<i>You</i>	-eiänä ⁿ	—	-anä ⁿ	-eiänä ⁿ	—	-änä ⁿ	-awinä ⁿ
<i>They</i>	-iθi	-einanī	-a ⁿ θi ¹⁶	-eina ⁿ	-einä ⁿ	-a ⁿ θi	-ou

The above forms have been found on most stems. Some verbs, including *teä-b-* and *kāⁿu-s*, replace the first vowel of the suffix, be it e, ei, ä, 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, *teä-b-i-naⁿ*, *kāⁿu-s-i-θenⁱ*. Some other verbs, including *bäxa-h* and *sä’iθixa-h*, substitute u for e, ei, ä as the first vowel of the suffix

¹⁵ Second form: he (B) to him (A): -eitⁱ.

¹⁶ Second form: they (B) to him (A): eiθⁱ.

in the first and second persons object, but contrariwise in the third person object change a to ä, and ou to ei. On the other hand, the stem vowels change according to the suffix in some verbs: nä-nähä', kill, occurs before all persons of the object, animate and inanimate, except the "A" form of the third person: nänähä'-einaⁿ, nänähä'-einⁱ, nänähä'-eitⁱ, but nanaha'-aⁿtⁱ.

The endings themselves cannot be analyzed in all cases into regularly recurring subjective and objective constituents, although -nⁱ for the second person singular object, -näⁿ 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-haⁿwu-. 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-haⁿwu-bixaⁿ-θ-eθ also corroborates the inference that -eθ in bixaⁿ-θ-eθ-enⁱ is the part that means "I".

	<i>Me</i>	<i>You</i>	<i>Him</i>	<i>Us</i>	<i>You</i>	<i>Them</i>	<i>It</i>
<i>I</i>		hei—eθ	nei—a ⁿ		hei—eθebä	nei—a ⁿ na'	nei—17
<i>You</i>	hei—u		hei—a ⁿ	hei—eiä ⁿ		hei—a ⁿ na'	hei—17
<i>He</i>	nei—e	hei—e	hī—ä	hei—ein	hei—eibä	hī—ä	hii—17
<i>We</i>		hei—ä	nei—äbä		hei—äbä	nei—äbä	nei—awubä
<i>You</i>	hei—ubä		hei—ä ⁿ bä	hei—eiä ⁿ bä		hei—ä ⁿ bä	hei—awubä
<i>They</i>	nei—ei	hei—ei	hī—äna ⁿ	hei—ein	hei—eibä	hī—äna ⁿ	hī—awü

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.

bixa ⁿ -x-u	like me!
bixa ⁿ -x-un ⁱ	like him! like them!
hī-s-in ⁱ	fear him!
häseinä-b-in ⁱ	hate him!
bixa ⁿ -t-a ⁿ	like it!
bixa ⁿ -θ-eiä ⁿ	like us!
bixa ⁿ -θ-ä	do you (pl.) like him!

The negative imperative, with prefixed tei-bä-, 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 ^a 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.¹⁸ 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.¹⁹ The designation "instrumentals" therefore seems of dubious applicability in Arapaho.²⁰

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

Meaning	Verb	Me	You	Him	Us	You	Them	It
see	a ⁿ ha	b ²¹	b	w	b	b	w	t
strike	ta ⁿ	b ²¹	b	w	b	b	w	t
hate	äseinä	b ²¹	b	w	b	b	w	[t]
shoot	teä	b	b	b	b	b	b	t
tell	itawū	n	n	n	[n]	[n]	n	t
eat	bī	n	n	n	n	n	n	w
reach	ouxā ⁿ -ta	n	n	n	[n]	[n]	n	w
fear	ī	s	s	x	s	s	[x]	t
cut	kā ⁿ u	s	s	s	s	s	s	x
like	bixa ⁿ	θ ²²	θ	θ	θ	θ	θ	t
peg flat	sä'ioi-xa	h	h	h	h	[h]	h	h
strike	bä-xa	h ²³	h	h	h	h	h	h
kill	nä-nähä	'	'	'	'	'	'	t

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

¹⁸ Am. Anthropol., n. s., vi, 403, 1904; Bur. Am. Ethn., Bull. 40, 807, 1911.

¹⁹ Except bī, find, which occurs both as bī-n and bī-h; ānāⁿka-b, ānāⁿka-n, loosen; and cī-n, cī-h, capture.

²⁰ Compare Michelson, Am. Anthropol., 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

-b, -w

a ⁿ ha-b	see
ānā ⁿ ka-b	loosen (also with -n)
a ⁿ tana ⁿ ta-b	buy
ābitā-b	steal
āseinā-b	hate
āyiätā-b	pursue closely
hās-ānā-b	think of highly
ka ⁿ 'a ⁿ -b	bite
ni-b	marry
tousā-b	bathe
ta-b	strike
ta ⁿ ya-b	bite
tāhi-b	help
tā-b	cut, break off
teā-b	shoot
wa ⁿ -ci-e-b	take into water

-n

outāyā ⁿ -n	hang up to dry
awūna-n	pity
ā ⁿ ina-n	know
īyihā ⁿ -n, yihā ⁿ -n	go to, go after, pursue
isa-n	alarm, scare up
icitā-n, ite-n, ätä-n, tä-n	take, catch, seize
nou-tā-n	bring out
teī-tā-n	take in, bring
bāsā-n	touch
bī-n	eat
bi-n	give
bīi-n, bīi-h	find
koutesa'a-n	chase, drive off
ka ⁿ ā ⁿ θei-n	cut open belly
ka ⁿ θe-n	lose grip on
ka ⁿ koua-n	envy
ka ⁿ ne-n	open (ka ⁿ u-s, cut)
kayeī-n	pull out, pull off
nouxā-n	meet
nou-sa-n	drive out
nota-n	ask, question (notī-h, seek)
n-ī ⁿ ā-n	go with, come with
nītou-n	breathe in, suck in

cī-n, cī-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:

ouxā ⁿ -ta-n	reach
ici-ta-n, ic-ta-n	make (n-ici-h, make)
θa ⁿ wa-ta-n	believe
kousa'ā ⁿ -ta-n	attack
nā-nāhā-ta-n	kill for
cī-ta-n	capture for
touku-ta-n	tie to
tca'ā-ta-n	perceive, notice
tcei-ta-n	visit

With suffixes -wu, -bū:

ata-wu-n	eat up for
isi-bū-n	lay down, go to bed with
θei-wa-n, θei-ka-h	carry on back
tawaha-wou-n	cut tree down for
wathanaha-wu-n	write to
waxu-bū-n	imitate a bear

-S, -X

(n-)ī-s	fear
itā-s, itā-s	meet, reach, arrive at, come to
bā-s	touch
ka ⁿ u-s	cut (et. ka ⁿ ne-n, open)
nou-ta ⁿ -s	carry out
tanā-s	pierce, make hole in
tcei-s	give here
wahani-s	unite
waxu-s	paint

-θ

ā ⁿ θā ⁿ -θ	rub
ā ⁿ θi-θ	narrate
a ⁿ kā ⁿ -θ	take home
āneti-θ	speak to
bixa ⁿ -θ	like, love
ka ⁿ koutei-θ	scratch
sixahā ⁿ -θ	do thus, show
ciyi-ta-θ	make disappear for

With suffix -ku:

(i-)tou-ku-θ	bind, tie to
θei-ku-θ	put in
ka ⁿ ka ⁿ i-ku-θ	uncover
nohū-ku-θ	lift up, carry
nīsā ⁿ -ku-θ	bind
tcei-ku-θ	release

-h²⁴

atā-h	give
-axa-h, -äxā-h	bring, take, carry (in, back, etc.)
*äsini-h	anger, be angry at (äsina-nā-t', anger)
-i-θetca ⁿ -h	think

²⁴ Starred forms show this suffix with an indisputable causative force.

*h-itea ⁿ -h	give pipe to, cause to smoke
iya-h	ignore, not know
bä-xo-h, bä-xa-h	strike
*bäta-h	give medicine to, doctor
bii-h, bii-n	find
θouu-h, θä ⁿ a-h	crush, grind, chew (θaxan, forcibly)
θa ⁿ ku-h	follow
θei-ka-h, θei-wa-n	carry on back
*θia ⁿ ku-h	make stand
koxtawu-h	do to, meddle with, copulate with
ka ⁿ kax ⁿ ka-h	stab, pierce, sting
kataya-h	cover up
*noti-h	search for, seek (nota-n, ask)
nätäni-h	deceive, trick
n-ici-h, ici-ta-n	make
nieka-h	whip
sä 'iθi-xa-h	peg out flat
cī-h, ci-n	capture, take
*teäbi-xa-h	carry, transport, cause to travel
*teitei-h	cause to enter, let in
wawa-h	throw over, scatter

INTRANSITIVE

ouhu	climb
ouθ	hang
ot	comb
a ⁿ ku-ä ⁿ	thaw, be warm
a ⁿ t-ä ⁿ	stand
awüna ⁿ	be closed
äθixtee-hi	shove
anä ⁿ θi	be different
ätei-ni	make camp, stay over night
ätei-yaka-ni	come to a camp
hiθa ⁿ bei	be true, right, so
ixane-hi	provide for, favor
ina ⁿ -ei	hunt
inenitä-ni	be well, live
inikati	play
isi-bi	lie down, go to bed
isi-si	be lying
itou, ätou, ätei-a ⁿ	shout, make noise, roar (cf. n-itou-hu)
h-itou	beg
itä ⁿ -ei	take arms
bäi-ni	be bloody, bleed
bei-teixu	be red hot
bäbä-ä 'ei	be curly haired
bänä, ben ¹	drink
bäna ⁿ θei	smell
bäsäyei	touch
bixou	emerge, rise to surface of water
bīwa ⁿ -hu	weep, cry
hähisi	wash
θiä ⁿ bä	snore
θibi	have to do with clothing
θiya-hu	cut hair
koxunä	hide, enter a hole
koxahei	dig
ka 'us	drop, fall
ka 'uye-	pick fruit
ka ⁿ out-	make dust
ha ⁿ hei, kohayei	get up, rise, ride
ka ⁿ kou	patch on
kaxou-hu	chip off

kaxa 'a	crack, fissure, dent
kanāne-hi	be a coward
ka ^a ni, kana ^a ni	be slow
kou, kanou, kana ⁿ	swell (kou-, kanou-, long, far)
kaya 'a-hu	fly away
nā-, nāya ⁿ	take off (clothing), dress
nā ⁿ θā ⁿ	stay
nā ⁿ kuθei	push
nā ⁿ nou	get ready
nāniθe	menstruate
nāteā, netee	die, be dead
neninā ⁿ k ^u	be blind
nihā-ni	own
nih 'ā ⁿ , nih 'āā	sting, hurt, irritate
nibou-hā	use perfume
n-itou-hu	shout, whistle, breathe (cf. itou)
sāse-hi	play, trouble, make noise
sāya	chew
cīcītei	stretch
cīyihā ⁿ ti	disappear
tou	strike (tou-ku, bind)
tai	be cold
tāye-hi	be ashamed
teena 'ā ⁿ	jump
teāni	skin, flay
teāste	scratch
teātecti	cut, hurt
tein	plant, bury
wūa ⁿ	rest in water
wā ⁿ θā ⁿ , wanā ⁿ θā ⁿ	abound
waxusī	paint
yana-hu	pledge, vow

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.

<i>Transitive</i>	<i>Intransitive</i>
akū-hu, cook	a ⁿ ku-, thaw, be warm
ā ⁿ ina-n, know	ā ⁿ in-, know
hīnitā-(t), inhabit	hānitā-, live, stay
isi-bā-n, lay down	isi-bi-, lie down; isi-si, be lying
ici-ta-n, n-ici-h, do, make	ici-hi-, n-ici-ti-, āci-ta-, do, make
bāsā-n, touch	bāsā-yei-, touch
bīi-n, bīi-h, find	bīi-ti-, bīi-hā-, find
bī-n, eat	bī-θi-, eat
notī-h, seek, nota-n, ask	notī-hi-, look, search
naha', nāhā', kill	nā 'ihei-, nāiha ⁿ -, kill
ni-b, marry	nī-ni-, marry
teā-b-, shoot	tea-ba ⁿ -, shoot
sā ⁿ ku-θ, bind	sa ⁿ ku-hu-, be tied

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 *-naⁿ*. This has been observed on *hic⁽ⁱ⁾*, liver; *bāseitⁱ*, urine; *hāⁿxēi*, wolf; *hou*, raven; *bīteiⁱ*, dove; *hahāⁿtⁱ*, cottonwood, tree; *kakāⁿx⁽ⁱ⁾*, tent pole; *haha^uuktāⁿ*, hair braid; *haxa^uanāⁿkāⁿ*, stone; *haθaⁿ*, penis; *hāⁿkuhāⁿ*, head; *nāⁿtcāⁿ*, chief; *hānāⁿtcāⁿ*, buffalo bull; *hinenⁱ*, man; *hisei*, woman; *wa^ua*, *wa^uaha*, moccasin; *kakuiy*, tube, gun, whistle; *cīsaⁿwaⁿ*, tobacco; *teibātⁱ*, sweat-house; *wana^u*, wrist; *hīθeinaⁿ*, buffalo; *bīsāⁿ*, worm.

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

waxⁿ, grass, herbage, *waxuinaⁿ*. (contrast *waxu^u*, medicine, below)
waxueitⁱ, painting, *waxueitanaⁿ*
hāⁿkāⁿxⁿ, saddle, *hāⁿkāⁿxuinaⁿ*
nie^uteeinanⁱ, buckskin (probably antelope skin), *nie^uteeinanaⁿ* (for *nie^uteeinanⁱnaⁿ?*)
bāteeot⁽ⁱ⁾, *wateeot⁽ⁱ⁾*, stomach, *bāteeotanaⁿ*
θikⁿ, ghost, *θeikanaⁿ*
θiwⁿ, bridge, boat, *θiwanaⁿ*

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

bātāⁿ, heart, *bātāⁿhaⁿ*
nieiteāⁿ, antelope, *nieiteahaⁿ*
ni^u'ihi, eagle, bird, *ni^u'āhihaⁿ*
nīteīye, river, *nīteīhahaⁿ*
hōu, robe, *houwaⁿ* (ct. *hou*, raven, above)
haⁿkūhu^u, mouse, *haⁿkūhuhaⁿ*
hāni^u'i, ant, *hāni^u'ihaⁿ*
hanaxa^u'āhi^u'i, boy, *hanaxa^u'āhihaⁿ*
hātāⁿ, sinew, *hātahaⁿ*
waxu^u, medicine, *waxūwaⁿ* (ct. *waxⁿ*, above)
wou, buffalo calf, *wouhaⁿ*
tcā^u'einox, bag, *tcā^u'einaθaⁿ*
ha^u'uwanux, parfleche case, *ha^u'uwanathāⁿ*
beic⁽ⁱ⁾, nose, *beiθaⁿ*
benee, arm, *bānoxaⁿ*
bāsⁱ, wood, *bāxaⁿ*
wa^u'aⁿθⁱ, leg, *wa^u'aⁿtaⁿ*
beitciθ, tooth, *beitcitaⁿ*
teaoxⁿ, foe, Comanche, *teaθaⁿ*

tee'ãⁿoxⁿ, club, tomahawk, tee'ãⁿoθaⁿ
 bīteie, leaf, bīteixaⁿ
 teieihī, night hawk, teieihaⁿ (*sic*)
 hitiθiθ, kidney, hitiθiθaⁿ (*sic*)

Lengthening or vocalization of the final vowel is fairly frequent:
 i > ī; u > ū; ä > ei; a, aⁿ > ou, au.

hoθ^l, arrow, hoθī
 bihiⁱ, deer, bihiⁱ
 teaⁿθaniⁱ, prairie dog, teaⁿθaniⁱ
 woxⁿ, bear, woxū
 wa'axⁿ, nail, wa'axū
 nete^l, water, neteī
 ni'ete^l, lake, ni'eteī
 häⁿtete^l, ocean, häⁿteteī
 wāsāⁿθ^(l), arrowpoint, wāsāⁿθī
 häbäs^(l), beaver, häbäsī
 hiθaⁿxu, guts, hiθaⁿxū
 kaha'aⁿwu, creek, kaha'aⁿwū
 hoseinaⁿ, meat, hoseinou
 waⁿkete^(l), cattle, waⁿketeī
 hotä', mountain sheep, hotei
 bāⁿcisä', eye, bāⁿcisei
 häⁿwⁿ, house, häⁿwū
 haθaⁿ', star, haθa'ū (et. haθaⁿ, penis, above)
 wanatana', ear, wanatana'ū

Apparently formed by a special suffix:

heθ, dog, heθäbī
 ka'aⁿ, coyote, kāxawū
 hiwaxuhāⁿx, horse, hiwaxuhāⁿxäbī

CASES

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

hisei, woman, objective hisei-n^(l), compare text III, note 28.

wot nähä' nīteie-hinenⁱ ni'bäbänähäxⁿ, this Kiowa was handsome; häⁿixnouxanē nīteie-hineni-nⁱ, he met a Kiowa.

tuxkanä' bänināⁿtⁱ nītea-ou-nⁱ bīteineni-nⁱ, Tuxkanä' gives a blanket to Bīteinenⁱ.

nähä' hinenⁱ tawāⁿtⁱ hi'ihī' haxa'anāⁿkäⁿ hinä' hineni-nⁱ, this man struck with a stone that man.

A general locative, also serving as an instrumental, is more frequent. It takes the forms -hā', -nā', -bā'; also -i', nⁱ, -ī, -ū, recalling both one type of plural and the objective.

nāyei, my tent, nāyeihā'
 hi'āⁿθⁱ, his leg, hi'āⁿtä', hi'āⁿθinⁱ (plural)
 bei, awl, beihā'
 nīteīye, river, nīteihā'
 haxa'anāⁿx, ax, haxa'anāⁿθä'
 nīnaⁿ, tent, nīnaⁿnä'
 hāⁿxebⁱ, spring, hāⁿxebinä'
 bā'aⁿ, road, bā'aⁿnä'
 haⁿkühäⁿ, head, haⁿkühäⁿnä'
 hakāⁿx, tent pole, hakāⁿx'inä'
 kakuic, kakuiy, gun, kakuiyanä'
 teteenaⁿ, door, teteenaⁿnä'
 tcāseix, one, tcāseiyaⁿnä', in one spot
 waxⁿ, grass, waxu'unä'
 h-āⁿ, bed, h-āⁿbä'
 hoti', wheel, hotibä'
 neteⁱ, water, netei
 tea'otāⁿyaⁿ, hill, tea'otāⁿnī
 hahāⁿtⁱ, cottonwood tree, hahāⁿti', hahāⁿti-nⁱ
 bīta'āⁿwu, earth, bīta'aⁿwū
 wāwⁿ, ice, wa'awū
 heθ-aw-akay-a-ni, in the doghouse

POSSESSION

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

<i>Word</i>	<i>Father</i>	<i>Mother</i>	<i>Older brother</i>	<i>Daughter</i>
Vocative	neixa ⁿ	na'a ⁿ		natā
My	neisana ⁿ	neina ⁿ	nāsāhā'ä	natāne
Your (s.)	heisana ⁿ	heiha ⁿ	hāsahā'ä	hatāne
His	hinīsanā ⁿ (n ⁱ)	hīnan ⁱ	hīsaha'a ⁿ	hitāna ⁿ
Our (incl.)	heisanānin ⁱ	heinānin ⁱ	hāsāhā'ehin ⁱ	hatanihin ⁱ
Our (excl.)		neinānina ⁿ	nāsāhā'ähina ⁿ	
Your (pl.)		heinānina ⁿ		
Their	hinīsanānina ⁿ	hinaninina ⁿ		hitanehina ⁿ
Somebody's	beisana ⁿ	beina ⁿ	bāsāhā'ä	

<i>Word</i>	<i>Grandfather</i>	<i>Son</i>	<i>Sons</i>	<i>Robe</i>
Vocative	nābācīwa ⁿ	ne'i		(hou)
My	nābācībāhā	neih'ā ⁿ	neih'a ⁿ ha ⁿ	natou
Your (s.)	hābācībāhā	heih'ā ⁿ	heih'a ⁿ ha ⁿ	hatou
His	hibācīwaha ⁿ	hī'a ⁿ	hī'a ⁿ ha ⁿ	hitouwu
Our (incl.)	hābācībei-hin ⁱ	heih'ehin ⁱ		
Our (excl.)				
Your (pl.)				
Their	hibācībāhāina ⁿ			
Somebody's				

Word	Robes	Penis	Dog	Tent
Vocative	(houwa ⁿ)	(haθa ⁿ)	(heθ)	(nīna ⁿ)
My	natouwa ⁿ	neiθa ⁿ	netäθäbibi	näyei
Your (s.)	hatouwa ⁿ	heiθa ⁿ	hetäθäbibi	häyei
His		hinīθa ⁿ	hitäθäbīwu	hiyei
Our (incl.)	hatouwun ^{an}		hetäθäbībin ¹	häyeihin ¹
Our (excl.)				näyeihina ⁿ
Your (pl.)				häyeihina ⁿ
Their	hitouwuna ⁿ		hitäθäbībina ⁿ	hiyeihina ⁿ
Somebody's		bäθa ⁿ		

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-ahäⁿtī-bi, my tree
 hit-ahäⁿtī-wu, his tree
 net-äθäbī-bi, my dog
 na-nouhuhä-bi, my kit-fox
 nä-näⁿteäⁿ-waⁿ, my chiefs
 nä-teiaⁿni-waⁿ, my children

PRONOUNS

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

nähä', nuhu'	this
hinä'	that, visible, or near the person spoken to
hinī	that, invisible, or of reference only

Compare: nä'äsi, thus, nä'eisi, nä'äsaⁿ, it is thus, resembles, nänähisou, alike, nä'aθixtⁱ, he resembles.

Interrogatives:

hä ⁿ nä'	who
hä ⁿ you	what
hä ⁿ ta ⁿ , tã ⁿ ti, tã ⁿ teiha ⁿ	where
hä ⁿ tax ⁿ	whenever
tou	when
tousa ⁿ	why, what kind
tahou, tahoutax ⁿ	how many
touθouhu'	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.

nänā-ni-na ⁿ	it is I, "I"
nänā-ni-t ¹	it is he, "he"
nänā-häxk ⁿ	it must be he, "he"

Compare:

hineni-ni-na ⁿ	it is a man that I am, "I am a man"
hisei-ni-na ⁿ	I am a woman
hahā ⁿ kā ⁿ -ni-na ⁿ	I am a fool, I am crazy

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

mine	neinis ¹ tā ⁿ t ¹ ("he is mine")
yours	heinis ¹ tā ⁿ tī
his	hīnis ¹ tā ⁿ t ¹
ours	neinis ¹ tā ⁿ tībina ⁿ
yours	heinis ¹ tā ⁿ tīnina ⁿ
theirs	hīnis ¹ tā ⁿ tīnina ⁿ

ADVERBS

-ihi', -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.

teän-ihi',	under (teän-i-)
täs-ihi',	on (täs-i-, täx-)
ka ⁿ ā ⁿ -n-ihi',	slowly (kou-)
xou-w-uhu',	straight (xou-)
bä-h-ihi',	all (bä-)
nā ⁿ -ūhu',	out from the river or valley (nou-)
hanawu-n-ihi',	ha ⁿ wui-nih-ihi', down-stream
n-ā ⁿ wū-hu',	south
hawahō-nhu',	many times
hi'-ihi',	hu'-uhu', with, on account of
hiθa ⁿ w-ūhu',	really, truly (hiθa ⁿ bei-, to be so)
θei-n-ihi',	θeinei-si, inside
kouθ-ihi',	some time later
kox-θ-ihi',	over, beyond (kax-, violently, through)
ka ⁿ -kaxuθ-ihi',	over a hill
kanaw-ūhu',	meanwhile, at the same time
kanax-uhu',	obstinately, unduly
nih-ihi',	along, during
tou-θo-uhu',	at what price (tou, what)
kā ⁿ kā ⁿ θ-ihi',	homeward

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

hixte-ä-bā,	up, above (hixte-i-)
hā ⁿ θä-b ¹ ,	toward (hā ⁿ θä-, hā ⁿ θä-bi-)
nänä-bā,	nänä-bi, north
nā ⁿ tā-bā,	at the rear of the tent, opposite the door

-āⁿwu refers to the ground :

bīta'āⁿwu, earth
 hiθāⁿwu, on the prairie
 hiθawāⁿwu, under ground
 naxutāⁿwu, above ground

-ou :

hän-āⁿ, hard, hän-ou, very hard
 hä'nä'-ei, fast, hä'nä'ou, very fast
 nā'āsi, thus, nānāhis-ou, alike
 hä-nä', who, häⁿ-y-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-θⁱ, animate, and -ei, -i-i, inanimate. They occur either with a prefix hä- 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," nīs, 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, nīt. The stems for "nine" and "ten" are used without reduplication or the prefix hä-. The ordinals are formed, with reduplication, by the suffix -awā. This is sometimes further enlarged by the ending -na' when inanimate, and when animate has the ending -tⁱ. Numeral classifiers have not yet been observed, except -āⁿnā, which is employed when camps, towns, herds, or portions are referred to, and which may be a locative or collective: yāneyi-āⁿnā-naⁿ, four bands.

Counting	Cardinal	Cardinal	Ordinal
1 tcāseix	hä-nīsi-xt ⁱ (an.)	nā-nīsi-xt ⁱ	nā-nīt-awā-t ⁱ
	hä-nīs-et ⁱ (inan.)	nā-nīs-et ⁱ	nā-nīt-awā-(na')
2 nīs ⁱ	hä-nīsi-θ ⁱ (an.)	nā-nīsi-θ ⁱ	nā-nīsi-awā-t ⁱ
	hä-nīs-ei (inan.)	nā-nīs-ei	nā-nīsi-awā-(na')
3 nāsa ⁿ , nāsax	hä-nāi-θ ⁱ	nā-nāi-θ ⁱ	nā-nāsi-awā-t ⁱ
4 yein ⁱ	hä-yeini-θ ⁱ	yā-neini-θ ⁱ	yā-neini-awā-t ⁱ
5 yāθan ⁱ	hä-yāθani-θ ⁱ	ya-nāθani-θ ⁱ	ya-nāθani-awā-t ⁱ
6 nīt-a ⁿ -tax ^u	hä-nīt-a ⁿ -taxu-θ ⁱ	nā-nīt-a ⁿ -taxu-θ ⁱ	nā-nīt-a ⁿ -taxu-awā-t ⁱ
7 nīs-a ⁿ -tax ^u	hä-nīs-a ⁿ -taxu-θ ⁱ	nā-nīs-a ⁿ -taxu-θ ⁱ	nā-nīs-a ⁿ -taxu-awā-t ⁱ
8 nās-a ⁿ -tax ^u	hä-nās-a ⁿ -taxu-θ ⁱ	nā-nās-a ⁿ -taxu-θ ⁱ	nā-nās-a ⁿ -taxu-awā-t ⁱ
9 θi' ^{na}	θi'a-taxu-θ ⁱ		θi'a-taxu-awā-t ⁱ
10 bātā-tax ^u	bātā-taxu-θ ⁱ		bātā-taxu-awā-t ⁱ

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.

1	tcāseix	11	tcāseini		
4	yein ¹	14	yeinīni	40	yeiyu'
5	yāθan ¹	15	yāθanini	50	yāθaya'
7	nāsa ⁿ tax ^u	17	nāsa ⁿ tax ^u ini	70	nāsa ⁿ tasa ⁿ '
8	nāsa ⁿ tax ^u	18	nāsa ⁿ tax ^u ini	80	nāsa ⁿ tasa'

Other forms: *nītaⁿ*, first, before; *nāsaⁿouhu'*, *nisaha'a*, both; *tcāⁿxaⁿ*, another one; *tcāseix*, one, inanimate; *tcāsā'*, one, animate.

The suffix *-tax^u*, in 6 to 10, appears to be found also in *tahoutax^u*, how many, and *hāⁿtax^u*, 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 PRAYER¹

hä ⁿ -heisanā'nin ¹² Ha! our father,	nānitānē'ina ⁿ³ hear us,	na-h ^a bācībē'hin ¹⁴ and grandfather.	hāθē'i ⁵ All
naha'ā ⁿ sē'hi'it the shining ones	nanaxkunihi'ita'wa ⁿ⁹ I also mention,	hīcī' ⁷ day	nī'ha'ya ⁿ yellow,
häse'isen ¹⁸ wind	hī'i'θeti good,	nā'yeitci timber	i'i'θetin ⁹ good,
bita'a'wu earth	ū'θetin ⁹ good.		
tāsāē'hi Animal	hā ⁿ θitcā'θtin ¹⁰ listen	hiθa ⁿ wā ⁿ wu ¹¹ under the ground!	naxutā ⁿ wu ¹¹ above the ground
tāsāē'ihi animal,	nāteci ¹² in water	tēsāēhe'iha ⁿ¹³ animals,	teibāh'tcāhā'θtī ¹⁴ all listen!
hātēyawa ⁿ ni'na ⁿ¹⁵ Your food-remnants	hā ⁿ twani'bīnī ¹⁶ we will go to eat.	hā ⁿ tihī'iθē'hi ¹⁷ May they be good!	
hā ⁿ tihiteihikā ⁿ tā ⁿ¹⁸ May there be long	hā ⁿ waθa'w ^u breath	hīnāitī't ¹⁹ life!	hā ⁿ tihiawa ⁿ ho'ua ⁿ May increase
hīnā ⁿ tānī't ¹⁹ the people,	teia ⁿ nā' ²⁰ children	hānāteihānye'it ²¹ of all ages,	hisē'hihi ²² girl
naha-hana'xa'āhixi ²² and boy	nax'-hine'n and man	hānāteixānye'it of all ages,	hi'sei woman,
bāh ^a e'ihāhin ²³ old man,	hānāteixānye'in of all ages,	bātābi' old woman.	hā ⁿ tnīnoxanē'ia ⁿ no ²⁴ It shall give us strength
bī'ciwa ⁿ²⁵ the food	hā ⁿ neika ⁿ huθi ²⁶ while runs	hīcī'e the sun.	hā ⁿ 'θā ⁿ Oh that!
nēixā ⁿ²⁷ my father!			
teixtē'ā'θtī ²⁸ listen,	nābā'cīwa ⁿ²⁷ my grandfather!	nā ⁿ nihī'iθa' ^{a29} for what I ask,	kakau'θetca ⁿ³⁰ thoughts,
bātā ⁿ³¹ heart,	bixā ⁿ θeti't ³² love,	hanaw ⁿ nāitī't happiness!	hā ⁿ tnīnīθixanābēθen ³³ We will eat you.

Notes

¹ Bull. Am. Mus. Nat. Hist., XVIII, 315, 1907.

² 1st pers. pl. inclusive: neisanaⁿ, my father.

³ -n-, connective; -einaⁿ, he—me or they—us: thou—us is -eiāⁿ.

⁴ naⁿ' or nah^a is 'and'; the -h^a- may be part of this or part of the possessive elements hā—h-in¹, our; nābācībā, my grandfather.

⁵ Also a prefix of verbs.

⁶ na-, for naⁿ' or nah^a, and; -naxku-n-, with, a prefix of verbs; nih¹-, incomplete action; ita, stem; -w-, connective; -aⁿ, I—him.

⁷ Cf. hīcīe, sun, below.

⁸ Cf. hāsa'aⁿtī, swift, and the prefix of verbs hās-, swiftly, violently, very, hard.

⁹ These two words were heard as parts of the preceding ones, to the final vowels of which their initial vowels are assimilated.

¹⁰ hāⁿθi- apparently equals hāⁿtī-, optative; -in¹, transitive imperative.

¹¹ -āⁿwu, an ending of adverbs referring to the ground.

¹² Locative of netē¹, water.

¹³ -haⁿ, plural; -ēhi, -ehēi, may be -ēhi, denoting the agent, -ēhi, face, or -hi'ī, -hāhi, diminutive.

¹⁴ *tcī-*, imperative, regular in the negative, occasional in the positive; *-bäh'*, all; *tcähäθ-t-i*, compare *tcäh-t-*, note 10, is or contains the stem.

¹⁵ "Crumbs." Plural, with 2nd pers. possessive.

¹⁶ *haⁿt-*, purposive future; *wan-i*, go to do; *bī*, eat; *-n-*, connective.

¹⁷ *häⁿtihⁱ*, optative or precativ (cf. note 10), *-ihⁱ* probably denoting incompleteness of action; *iθe* appears to be the stem meaning good, cf. above, note 9; *-hi*, intransitive.

¹⁸ *häⁿtihⁱ*, as in last word; *-tcihi*, possibly *tcī-*, imperative, and *n-ihⁱ*, incomplete action; *käⁿ-t-äⁿ* suggests the "prefix" *kou-*, *kanou-*, long, far.

¹⁹ Cf. *hinenⁱ*, man, *hinenitän*, person, *hinana'ei*, Arapaho, *hiteni*, life symbol; *-itⁱ*, no doubt containing the pronominal ending of the 3rd pers., recurs below on abstract nouns.

²⁰ Plural (?) of *teiaⁿ*, child. The form has the appearance of a locative.

²¹ Unanalyzed, except for the abstract ending, cf. note 19.

²² *hisei*, woman; *-hi'ei*, *-hä'*, *-hähi*, etc., diminutive; *hanaxa'aha*, young man.

²³ *bähä'ei*, *behi'ei*, old, with perhaps the diminutive suffix. Compare the stems for old woman, in the second word following, and for grandfather, as in note 4. The ending of the next word changes from *-t* to *-n*, evidently to agree with the unexplained *-n* of the present noun.

²⁴ *haⁿtni-*, or *haⁿt-*, *haⁿtaⁿni-*, purposive future; *-ni-*, perhaps *ni'*, good; *-oxa-*, the stem, cf. *axa-wu*, give me food, *-axa-h-*, to bring, take, carry; *-n-* appears to be the connective, in spite of the *-h-* of *-axa-h-*; *-eiäⁿ* you then would be the pronominal ending, not fully clear, though *-eiäⁿ* is thou—us.

²⁵ Unknown derivation from *bī*, eat.

²⁶ *häⁿ*, while, continuing; *-ne-*, for *nī*, *nihⁱ*, incomplete action; *i-kaⁿ*, stem, to move, especially to run, usually with the intransitive suffix *-hu*.

²⁷ "Vocative," 1st pers. possessive, regularly a shortened form in terms of relationship.

²⁸ Imperative: cf. notes 10 and 14.

²⁹ *näⁿ*, perhaps my; *nih-*, *nihⁱ*, *nī*, *hī*, that which, he who, where.

³⁰ *-iθetcaⁿ-h-*, to think; *kaka-xa'änätaⁿ*, thought, think.

³¹ Indefinitive possessive prefix *b-ä-*, *b-ei-*, *w-a-*.

³² *bixaⁿ-θ-eθenⁱ*, I love you; for *-it* see note 19.

³³ *haⁿtni-*, one form of future of intent; *-niθixanä-*, unanalyzed; *-b-*, connective; *-eθen*, I—you.

TEXT II—AN ADVENTURE¹

<i>bihi'ei</i> "Deer"	<i>häⁿixinäⁿei²</i> now went hunting.	<i>hitaxaⁿhok³</i> He came to	<i>wotix</i> accidentally	<i>touciniehin</i> one who was pretty
<i>hisein⁴</i> woman.	<i>behieⁱnicⁱtcän⁵</i> All antelope	<i>hinaninouyuyaxkan</i> was her clothing.		<i>xanou⁶</i> Straightway
<i>häⁿixtctetciθänäⁿ</i> then he wanted to court her	<i>tahⁿnahawän⁷</i> when he saw	<i>hisein⁴</i> the woman.	<i>häⁿixänēitaxawūinä⁸</i> Then she motioned for him to approach.	
<i>waⁿhei</i> "Well,	<i>haⁿtibianⁿeθen</i> let me love you,"	<i>häⁿθaⁿhok³</i> said to her	<i>bihi'ei</i> "Deer."	<i>nah'nihäyaⁿ</i> "And yourself
<i>häcitanⁿani</i> please,"	<i>häⁿθeihok³</i> she said to him.	<i>hänäyihant¹⁰</i> Then he went to her.		<i>tänbä¹¹</i> Just
<i>haⁿtnitenaⁿhok¹²</i> he will be about to touch her,	<i>hīnaⁿnanax</i> to his surprise	<i>häⁿixwosätouhin¹³</i> then she cried (like a deer),	<i>teestcätcena'änⁿ</i> suddenly jumped,	
<i>tcätcebitä'eixaⁿ15</i> ran off looking back.	<i>häⁿi'bīnihaⁿhabä¹⁶</i> Then he saw she was	<i>bihi'ei</i> a deer.	<i>bihi'ei</i> "Deer"	<i>häⁿixtäyē</i> then was ashamed
<i>haⁿwo-nihⁱot-biä'än¹⁷</i> at being deceived in loving.		<i>häⁿnätcätēkänⁿhut¹⁸</i> Then he returned		<i>taxtäyēhit¹⁹</i> ashamed.

hā ⁿ ixxā ⁿ tā ⁿ 'einin Now later	bihi'i "Deer"	ta'bihi'ihinā ⁿ tin ²⁰ became like a deer.	nāyē ^θ a ⁿ nā ⁿ In the camp-circle		
hā ⁿ ixinikuhinā ⁿ 21 then was chased	bihi'i "Deer"	wā ⁿ ti like	bihi'i a deer.	wā ⁿ ti Like	bihi'i a deer
nī ^θ etouhāk ²² he cried,	wā ⁿ ti like	bihi'i a deer	tcātcena'a ⁿ 14 he jumped.	wā ⁿ ti like	bihi'i a deer
hāhnā ⁿ kuhnāhāk ^u he fled on the prairie;		hābāhiyeihanā ⁿ tāk ^u 23 all pursued.		tīcītānāt ²⁴ When he was caught,	
hā ⁿ ixnānā ⁿ nī ^θ a ⁿ kua ⁿ then his eyes looked different.	bihi'i "Deer"	hā ⁿ ixtatinā ⁿ now had his mouth open.	hā ⁿ ixbāhāneianā ⁿ 25 Then all held him.		
hā ⁿ nī At last	hā ⁿ ixtēinī ⁿ then he ceased	bihi'ihin ²⁶ being a deer.	nā'ā ^θ cīhit ⁱ For this he is named	bihi'i "Deer."	

Notes

¹ Bull. Am. Mus. Nat. Hist., xviii, 20, 1902.

² For hāⁿix-, see note 29 to following text; inaⁿ, hunt; -ei, causative, here: go to.

³ -hokⁿ, it is said, they say. Cf. Michelson, Bur. Am. Ethn. Ann. Rept., xxviii, 237, 1912.

⁴ An apparent instance of the objective or oblique case: hisei, woman.

⁵ bā-, behi'i-, behici-, bābānei-, all, completely; naⁿsicāⁿ, nisiteāⁿ, antelope.

⁶ Also a "prefix" of verbs.

⁷ tahⁿ-, when; n-aⁿha-w, see; āⁿtⁱ, he—him.

⁸ Cf. h-itaxaⁿ in the third word of this text; with this "stem" compare itā-s, itā-s, reach, meet. For hāⁿix-, see note 2: -wūināⁿ, from -wu-n, to, for, with, or more probably from -awui-ni, become, begin, and -n-, connective, -āⁿ, -aⁿ, he—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 haⁿt-i-bixaⁿ-*θ*-e^θenⁱ, I will love you.

¹⁰ hānā- = hāⁿnāⁿ-, which see in note 29 to next text; iyihaⁿt suggests the analysis iyi-h-āⁿtⁱ, but the form otherwise found is stem iyihāⁿ with connective -n-.

¹¹ Also a prefix, but here heard as a separate word.

¹² haⁿt-nī-; ite-n, take; -hokⁿ, see note 3.

¹³ hāⁿix-; wos-,[?]; āⁿto, itou, cry, make a noise, shout; -hi, intransitive; -n,[?]

¹⁴ Cf. teesis-, begin; tcā-, again, back, or perhaps reduplication here, "jumped about"; tcena'āⁿ, jump.

¹⁵ Cf. tcā-, 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 hāⁿix-, as ante; bini-h-, possibly from bī-n, bī-h, find; aⁿha-b-āⁿ, he sees him.

¹⁷ Perhaps from bixaⁿ-*θ*, to love.

¹⁸ hāⁿnāⁿ-, as above; tcā-, back, again; -te-,[?]; i-kaⁿ-hu, run, travel; -tⁱ, he.

¹⁹ tahⁿ-, when, because; tāye, be ashamed, as in the preceding sentence; -hi, intransitive; -tⁱ, he.

²⁰ taⁿ-, for tahⁿ- (?); bihi'i, deer; -hi-nāⁿti-n, compare nī-waxū-nāⁿtⁱ, she who turned into a bear, and the independent word wāⁿti in the next sentence.

²¹ hāⁿix-; in-i-, about, aimlessly, at random; -ku-hi-nāⁿ, possibly from -ku-*θ*, make a motion to, transitive, and -hi, intransitive.

²² nī-*θ*,[?]; etou, for itou or āⁿto, shout; -hāk, for -hāxkⁿ, conditional, subordinating.

²³ hā-, (?); bāh-, all, as in note 5; iyeiha-n-, for iyihāⁿ-n, pursue; āⁿtākⁿ, uncertain, but evidently contains the "conditional," as the word in note 22.

²⁴ tīc-i-, when; ite-n, catch; -āt, for -āⁿtⁱ, equals -āⁿtⁱ, he—him.

²⁵ Again the prefix "all," as in notes 5 and 23.

²⁶ Perhaps the intransitive verbifying suffix -hi.

TEXT III—TANGLED HAIR¹

hinen A man	hän ⁿ nixā ⁿ tihok ^{u2} lived alone.	nā ⁿ hā ⁿ ina ⁿ eihok ^{u3} He went to hunt.	hā ⁿ eita ⁿ wūna ⁿ hok ^u He told her
hīnini his wife,	ha ⁿ ta ⁿ nīna ⁿ ēiti ⁸ when he was about to go to hunt:	ha ⁿ na ⁿ ya ⁿ "Mind!	teibā ⁿ ta ⁿ ka ⁿ ha ⁿ wunā ⁿ⁴ do not look at him
ha ⁿ tanitā ⁿ seini ⁵ when he comes to you	na ⁿ nā ⁿ tēiti ⁶ a powerful one	hīna ⁿ hā ⁿ teineiti ⁶ with tangled hair	hīha ⁿ wuxuwa ⁿ⁷ who is hard to satisfy about
a ⁿ tītei plates.	hā ⁿ inā ⁿ ya ⁿ He will make a noise	ha ⁿ ta ⁿ nītā ⁿ sā ⁷⁸ when he will come	na ⁿ and
teibā ⁿ yeiθā ⁿ eini do not look there	hītā ⁿ seinihinā ⁿ ku ⁸ where he comes.	hā ⁿ inā ⁿ ya ⁿ He will make a noise;	hota ⁿ nītoutca ⁿ na ⁿ θi ⁹ he will shout;
hā ⁿ na ⁿ ya ⁿ mind!	teibā ⁿ neia ⁿ ha ⁿ wunā ⁿ⁴ do not look at him	na ⁿ nā ⁿ teiti the powerful one,	hā ⁿ bā ⁿ teitēiti ¹⁰ he might enter
hā ⁿ yeiā ⁿ 'ā ⁿ¹¹ your tent,"	hā ⁿ θa ⁿ hoku ¹² he said to her	hīnini ¹³ his wife	ta ⁿ teā ⁿ θeia ⁿ t ¹⁴ when he went away.
na ⁿ nā ⁿ teā ⁿ θicina ⁿ eihoku ¹⁵ And he went to hunt	tīcinīhiθa ⁿ ti ¹⁶ after he had told	hīnini his wife;	na ⁿ nā ⁿ na ⁿ θa ⁿ hoku he left her
tīna ⁿ eiti ¹⁷ to hunt.	na ⁿ hā ⁿ nā ⁿ citā ⁿ seiniθi ⁵ And then he came to	hīnini his wife,	hīna ⁿ ha ⁿ teineiniθi ¹⁸ he whose hair was tangled.
na ⁿ hā ⁿ teita ⁿ ka ⁿ ha ⁿ wa ⁿ hoku ⁴ And she did not look at him.	na ⁿ nā ⁿ teā ⁿ isā ⁿ ya ⁿ ka ⁿ nei ¹⁹ And he went back	ta ⁿ teineia ⁿ ha ⁿ wa ⁿ ti ⁴ when she did not look at him,	hā ⁿ teā ⁿ isā ⁿ ya ⁿ ka ⁿ i ¹⁹ he went back to
hā ⁿ tisā ⁿ nīθi ²⁰ where he had come from,	nuhu that	hīna ⁿ ha ⁿ teinihiniθi ¹⁸ one with the tangled hair,	ta ⁿ θa ⁿ nīheiti he failed
nuhu that one	tā ⁿ bā ⁿ tītā ⁿ seiti ⁵ on first coming	nuu that	a ⁿ ha ⁿ kā ⁿ neineiθi ²¹ demented one,
hā ⁿ yawūtā ⁿ seiθi ⁵ whenever he came to	nīteita ⁿ ka ⁿ ha ⁿ wa ⁿ hoku ⁴ her who did not look at him.	na ⁿ ya ⁿ neiniā ⁿ wa ⁿ nī ²² But the fourth time	hā ⁿ ta ⁿ nā ⁿ hoku ²³ she made a hole
ha ⁿ teā ⁿ ci by means of	beihā ⁿ 'ā ⁿ¹¹ an awl	ha ⁿ xūti at the left of the door	nīna ⁿ nā ⁿ¹¹ in the tent,
ta ⁿ hīnā ⁿ teā ⁿ θeia ⁿ nīθi ¹⁴ when he turned back,	hī'ihī' with	beihā ⁿ 'ā ⁿ¹¹ an awl,	ta ⁿ hūhīθiwa ⁿ ha ⁿ wa ⁿ ti ^{4, 24} as she looked through,
θihā ⁿ 'iθā ⁿ hīθi ²⁵ "Let me see him!"	hā ⁿ hāku she said.	hā ⁿ nā ⁿ eiwa ⁿ ha ⁿ wa ⁿ ti ⁴ Then she looked out	hīhīθi' through
nuu that	ā ⁿ ta ⁿ na ⁿ tihini hole	ha ⁿ xūti at the left of the door	hīθi' through.
ha ⁿ 'heite "Here!"	hā ⁿ θeihoku ¹² he said to her	na ⁿ inā ⁿ sa ⁿ ya ⁿ ka ⁿ i as he turned back.	ta ⁿ teiteia ⁿ neiti ¹⁰ When he came in
hā ⁿ θeihoku he said to her:	ta ⁿ nīā ⁿ einā ⁿ na ⁿ²⁶ "I am hungry,	na ⁿ teia ⁿ xa ⁿ wu ²⁷ give me to eat,	

hän ⁿ θa ⁿ hoku ¹² he said to her	nuhu' that	hīseini ²⁸ woman.	hänä ⁿ a ⁿ tīteīheiti ²⁹ Then she gave him for a plate	ha ⁿ einā ⁿ³⁰ a clay one.
hiha ⁿ wnän ⁿ isou' ³¹ "It is not the kind		na ⁿ tīteīta ⁿ na ⁿ³² I use for plates."	hänä ⁿ a ⁿ tīteīheiti ²⁹ Then she gave him for a plate	
bäcīna ⁿ³⁰ a wooden one.	hiha ⁿ wnän ⁿ isou' ^u "It is not the kind	na ⁿ tīteīta ⁿ na ⁿ I use for plates,"	hähä ⁿ ku he said.	
hän ⁿ ä ⁿ a ⁿ tīteīheiti Then she gave him for a plate	ka ⁿ ka ⁿ ha ⁿ wa ⁿ ti a war-bonnet.	ka ⁿ xu Again	hän ⁿ inā ⁿ eihīti he said the same.	
hän ⁿ ä ⁿ a ⁿ tīteīheiti Then she gave him for a plate	hībixūta ⁿ nīni ³³ her dress.	ta ⁿ na ⁿ nä ⁿ ' "Very nearly!"	hän ⁿ θa ⁿ hoku he said to her.	
na ⁿ hän ⁿ ä ⁿ a ⁿ tīteīheiti And then she gave him for a plate	hīwā ⁿ nīna ⁿ³³ her moccasins.	ta ⁿ na ⁿ nä ⁿ ' "Very nearly!"	hän ⁿ θa ⁿ hoku he said to her.	
ka ⁿ xu Again	hän ⁿ ä ⁿ īcībīni ³⁴ then she lay down	ha ⁿ θi ⁿ einei ⁿ i' ³⁵ flat on her back.	nä ⁿ nä ⁿ ' "That is it!"	hän ⁿ θa ⁿ hoku he said to her.
na ⁿ ta ⁿ ha ⁿ ta ⁿ wa ⁿ nīni ³⁷ And when he had eaten		hän ⁿ ä ⁿ īkā ⁿ θeinei ⁿ i ³⁸ then he slit her open.	wa ⁿ hän ⁿ inīsei ³⁹ She was pregnant with twins,	
nīsa ⁿ u' ³⁹ both	ha ⁿ na ⁿ 'än ⁿ hīa ⁿ⁴⁰ were boys,	nīsa ⁿ na ⁿ³⁹ the twins.	hän ⁿ nä ⁿ 'itā ⁿ na ⁿ ti ⁴¹ Then he took them;	
tcä ⁿ xa ⁿ⁴² one	nuu that	ha ⁿ na ⁿ 'än ⁿ hīa ⁿ⁴⁰ boy	hän ⁿ nä ⁿ iwa ⁿ cieiwa ⁿ ti ⁴³ then he put in the water	
ha ⁿ xäbeinä' ⁴¹ in the spring,	na ⁿ and	tcä ⁿ xa ⁿ one	a ⁿ hän ⁿ i ⁿ θeikū ⁿ ä ⁿ⁴⁴ he threw under	θä ⁿ ya ⁿ ka ⁿ xu' the right side of the door
nīna ⁿ nä ⁿ¹¹ at the tent.	hän ⁿ nä ⁿ na ⁿ θiteā ⁿ θia ⁿ ti ⁴⁵ Then he went away		tī ⁿ θeikū ⁿ ä ⁿ ti ⁴⁶ after he had placed	teī ⁿ yanā ⁿ ' the children.
hän ⁿ inā ⁿ kei He returned,	nä ⁿ hīnā ⁿ ni ⁴⁸ this man,	hän ⁿ einīci' ⁴⁹ he called	hīnīni his wife,	
hän ⁿ īcä ⁿ ti ⁿ θini she did not answer,	ta ⁿ nīcīa ⁿ ti ⁴⁹ when he called her,	hīnīni his wife.	na ⁿ And	xa ⁿ xa ⁿ nōu ⁵⁰ straightway
hän ⁿ īä ⁿ ini ⁵¹ he knew	ta ⁿ nä ⁿ einei ⁿ θi ⁵² that she was dead		ta ⁿ tcä ⁿ ti ⁿ θeini ⁿ θi ⁵² when she did not answer.	
hän ⁿ nä ⁿ tcī ⁿ θina ⁿ ha ⁿ wa ⁿ ti ⁵³ Then he went in to see.	ha ⁿ hän ⁿ eikā ⁿ θeini ⁵⁴ She was slit open.		neiteīnīhī ⁿ θa ⁿ na ⁿ ou ⁵⁵ "I told you."	
hän ⁿ θa ⁿ hoku he said to her.	hän ⁿ nä ⁿ i ⁿ biwa ⁿ huti ⁵⁶ Then he cried.	hän ⁿ nä ⁿ na ⁿ θina ⁿ hit' ⁱ Then he went off.		

Notes

¹ Field Columbian Museum Publications, Anthropol. 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 aⁿ and äⁿ, though aⁿ was sometimes confused with o. Arapaho long vowels were usually heard

and written as geminated 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 in print, probably make its orthographical neglect preferable.

² The ending -hok^u, given by Dr. Michelson as a stem meaning "say," is common as a quotative. Text II, note 3.

³ nã^u,?; ina^u-ei, hunt, go to hunt, probably containing -ei, causative; -hok^u, "quotative"; ha^uta^unĩ-, ha^utĩ-, ha^ut-, purposive future, as in the preceding text; -ti, for -tⁱ, he, intransitive.

⁴ teĩ-, negative, teĩ-bã-, negative imperative; ta^uk-, nei-, not determined; ta^u-, when; na^u-, nah^u- (also independent, perhaps regularly loosely proclitic rather than prefixed), and; hä^u-, probably related to hä^u'ix-, hä^unã^u-, see note 29; a^uha-w, stem, to see; -hok^u, "quotative"; -ti, -a^u-ti, ei-ti, 3rd pers.; -nã^u, not clear, but evidently pronominal, -nã occurring quite regularly as the subjective and objective element of the 2nd pers. plural.

⁵ ha^utanĩ-, future; na^u-, and; hä^unã^u-, "then"; tä^ubã^u-, just, only, first begin to; hä^uyaw-, if the translation obtained is literal, would mean "whenever" (independent, hä^u-tax^u, whenever, hä^u-you, what); itã^u-s, to come to; -ni, -ni^uĩ, -^uĩ, modal-pronominal; -ti, see note 6.

⁶ These two words contain the 3rd pers. ending -(ei)-tⁱ, and are to all appearances verbs.

⁷ iha^uwu-, with pronominal prefix, a frequent form of the negative in verbs.

⁸ Cf. note 5.

⁹ hota^unĩ- for ha^uta^unĩ-, cf. note 1; itou, stem.

¹⁰ teitei, enter; cf. teit-, teit^u-i-, in, entering.

¹¹ These words all contain a locative suffix.

¹² hä^u-^uã^u-hok^u, he (A) said to him (B); hä^u-^uẽi-hok^u, he (B) said to him (A). 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 "suus-*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^u and si^u, of which one indicates the continuance and the other a change of grammatical subject or agent in the sentences which they open.

¹³ Without the final -n in other occurrences in this text, as *ante*.

¹⁴ ta^u-, when; teã^uθ-ei-, teã^uθ-i-, off, away.

¹⁵ na^u-, and; teã^uθ-i-, away; ina^u-ei, go to hunt; -hoku, quotative.

¹⁶ tie-, tie^unĩ-, when, after, with implication of completed action; hi-,?; -^uã^u-, cf. hä^u-^uã^u-hoku, note 12; -ti, he.

¹⁷ t-, tĩ-, tih^u-, ta^u-, tah^u-, when, after, to, because.

¹⁸ Compare the corresponding form in note 6.

¹⁹ na^u-, and; teã^u-, back; i-sã^u, go, come.

²⁰ hä^ut-, hä^ut-a^u-, where; i-sã^u, go, come.

²¹ hahã^ukã^u, crazy.

²² yã-neini-awã-tⁱ, the fourth, animate, yã-neini-awa-na^u, inanimate. The ending -ni is evidently the same as is found on the cardinal numbers from 11 to 19, and on words denoting measures of time.

²³ tanã-s, pierce, make hole in. Cf. tä^u-, tanã^u-, tou-, tanou-, to stop, or by stopping; also the fourteenth word below in the text.

²⁴ ta^u-, when, as; a^uha-w, a^uha-b, see; hũhi^uĩ-w- is evidently a form of the independent word hĩhi^uĩ^u-i or hĩhi^uĩ^u (as below), probably for hĩhi^uĩ^u-i.

²⁵ ^uĩ-, i^uĩ-, let me.

²⁶ äsini-h, to anger; äsina-nã-tⁱ, 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^u is the regular intransitive of the 1st pers.

²⁷ *tcī-*, positive or negative imperative; *aⁿxaⁿ-wu*, *axa-wu*, give to eat!

²⁸ Objective of *hisei*.

²⁹ *aⁿtītei*, plates, *ante*; *-h-ei*, causative; *hänäⁿ-*, *hänäⁿäⁿ-*, correlative with *hänⁿix-*, mentioned in the preceding text. The force of these two common prefixes is not clear. Informants left them untranslated or rendered them by "then." They appear to be relational to the discourse as a whole rather than syntactical or grammatical. For *hän-* alone see note 4.

³⁰ Compare Gros Ventre *haⁿ'äⁿtyⁿ'*, lime, white earth; and *haäninin*, better *haⁿ'äninin*, 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-naⁿ* compare *bäcinaⁿ*, a wooden one, just below, from *bäcⁿ'*, wood.

³¹ *i-haⁿwu-*, negative of verbs.

³² *aⁿtītei*, plates, as in note 29; *-ta-n*, *-ta-na*, to, for, of; either the initial *n* or the final *-naⁿ* denotes the first person.

³³ *hi*, her; *bixütⁿ'*, dress; *wa'a*, *wa'aha*, moccasin, plural *-naⁿ*.

³⁴ *īci-bi*, *isi-bi*, lie down.

³⁵ *-ihiⁿ'i*, *-ihiⁿ'*, the commonest suffix of adverbs.

³⁶ Compare *nähäⁿ'*, *nuhuⁿ'*, this; *hinäⁿ'*, that, visible; *nänä-ni-naⁿ*, I, it is I; *nänä-häxkⁿ*, he, it must be he.

³⁷ *naⁿ-*, and; *taⁿ-*, when; *haⁿt-*, future intent, and *aⁿwaⁿ*, eat; or *h-aⁿtaⁿ-*, eat (cf. *ata-wu*, eat up for), and *-wa*, *-bä*, cause.

³⁸ *i-käⁿθei-n*, cf. *kaⁿäⁿθei-n*, cut open belly (*ka'aⁿ-b*, bite, *kaⁿne-n*, open, *kaⁿu-s*, cut off); *-eitⁿ'*, he (B)—him (A).

³⁹ *nīsⁿ'*, two (counting), *hä-nīs-ei*, two, inanimate; *-naⁿ*, plural.

⁴⁰ *hanaxa'aha*, young man; *-hiⁿ'i*, *-häⁿ'*, *-hähi*, diminutive; *-aⁿ*, for *-aⁿ'*, *-häⁿ*, plural. For: *hanaxa'ähihaⁿ'*.

⁴¹ *ite-n*, take, catch.

⁴² Compare *tcäseix*, one, in counting.

⁴³ *i-waⁿciei-w* for *waⁿcie-w*, *waⁿcie-b*, take into water.

⁴⁴ *i-θei-kü-θ* for *θei-ku-θ*, put in; *-äⁿ'*, he—him.

⁴⁵ *naⁿθi-?*; *tcäⁿθi*, for *tcäⁿθ-i-*, away, usually a "prefix," here obviously the "stem," since it is followed directly by the pronominal ending.

⁴⁶ *tic*, or *tisi-*, when, after, completed action.

⁴⁷ *teiaⁿ*, child; *-naⁿ*, plural.

⁴⁸ For: *nähäⁿ' hinenⁿ'*.

⁴⁹ This transitive stem seemingly is used without the usual connective consonant. Compare the endings of the two occurrences of the stem: *-aⁿtⁿ'* and *eitⁿ'*, the A and B forms according to the table of pronominal endings, occur, here and elsewhere in the text, in subordinate verbs; *-äⁿ*, 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 *äⁿina-n*. This form seems to be intransitive and without pronominal suffix.

⁵² *taⁿ-* once means that, once when.

⁵³ *tcīθ-i-*, in, entering, to enter; *aⁿha-b*, *aⁿha-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 *-eθenⁿ'*, I—you, is lacking; *n-ei-* seems to be the part of the word meaning I.

⁵⁶ *bīwaⁿ-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 reduplications or similar expansions, are frequent, but the laws by which they are governed are not often clear.

wos, bear; waotäⁿ-n-os, black bear.

hitānaⁿ(n) ī-bī, buffalo cow.

nixaⁿt-ou-iθä, white-man woman.

naⁿts^e, rabbit; naⁿk-āⁿts, "white rabbit," jackrabbit; nawat-aⁿts, "left-hand rabbit," cottontail rabbit.

naⁿts-ou-hitānaⁿ, white buffalo.

naⁿk^u-θotei, "white belly," donkey; wanot^e, some one's belly; na-naⁿty-ix-ty¹, he is white.

ha'aⁿ-ty¹, white clay, lime; ha'ā-n-inin, Gros Ventre; ha'ā-n-iθä, Gros Ventre woman.

b¹-teiby, louse, "some one's louse"; bei-teiby, "red louse," flea; θei-teiby, "flat louse," bedbug; baxa'aⁿ-teiby, "thunder louse," butterfly.

aⁿwu, down; aⁿwu-nihi¹, down along a stream; n-aⁿw¹-naⁿtyinei, "lower-Assiniboines," Sioux.

kāka-yaⁿ, flat, it is flat; kāka-tyi, he is flat; kāk-ou-biθ, "flat wood," cut lumber, planks.

bāθ-ani¹i, "large gopher," prairie-dog; bāθ-āⁿtsu, "large mouse," rat; bās-ou, bāθ-ei-(y)aⁿ, bānāθ-ei-(y)-aⁿ, large (inanimate), it is large, a large thing; bānāθ-ei-tyi, he is large, a large one; bās-initāⁿ, "large person," a giant; hābāty-initāⁿ (hābā-ty¹-initāⁿ?), a large person.

baxa-aⁿ, red, inanimate; bei-x-ty¹, he is red, red (animate); bānā-ty¹, he is red; bānāⁿ bis, red wood; bax-ou, "red porcupine(?)," badger; nix-bā-ä'ā-naⁿ, I was red headed; bānābā-'tā-naⁿ, I have red ears; bānāⁿb(āⁿ)-aⁿtsō-naⁿ, 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:

ī-bā-, nose; be-icä, nose. Arapaho: -i-θä-, b-eic.

θā-n-ībā-ty¹, "flat nose he is," pig

ta-n-ībā-ts, "pierced nose they are," Nez Percé Indians

bāⁿās-ōbāⁿ-naⁿ, "large nose I am," I have a large nose

-ä'ä-, head; bi-ta'an (or bit-a'an?), head. Arapaho: ä'ei-; ha-kuhäⁿ, head; bei-θe'ä, hair.

bänäθ-ä'ä-naⁿ, I am large headed

kāka-ä'ä-nin, "flat head men(?)," Flat-head Indians

-täxä-, belly; wa-n-ot^o, belly. Arapaho: wa-not.

häⁿtyis-täxä-naⁿ, I am small-bellied

-aⁿtsö-, eye; be-söθ, eye. Arapaho: bä-cisä.

wanāⁿwaⁿθ-aⁿtsö-naⁿ, I have ugly eyes

Identical:

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

wanāⁿθ-ityi-naⁿ, I am ugly mouthed

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

bänäbäθ-ⁱtän-(n)aⁿ, I have large ears

-aⁿtsötä-, tooth; bi-tsitⁱ, tooth. Arapaho: bei-teiθ.

ninänⁱ-aⁿtsötä-naⁿ, I have pretty teeth

-öθana-, neck; wa-θana, neck. Arapaho: bä-sonaⁿ.

bänäs-öθana-ni-naⁿ, I have a large neck

-tinä-, mammae; be-ten, breast. Arapaho: bä-θen-eteⁱ, breast-water, milk.

bänäbäs-tinä-naⁿ, I have large breasts

Several other nouns occur in two forms:

-okay-, house, in composition only; -yei, house, independent word with possessive pronoun; nin^{an}, house, independent word without possessive. Arapaho: -akae or -akay, -i-yei, ninaⁿ.

wux-n-okay-än, "(?)-houses," the Minitari

wasöin-hiyei-hi-ts, "grass their houses," "they have grass houses," a Shoshonean tribe

-äⁿwu-, water, in composition only; netsⁱ, water. Arapaho: -aⁿwu, neteⁱ.

bäⁿ-äⁿwⁿhaⁿθäⁿ-netsⁱ, red rain

nanaⁿk-äⁿwⁿ netsⁱ, white water

tsök-äⁿwⁿ, clear water

hou-n-äⁿwⁿ, muddy water

waotäⁿ-n-äⁿwⁿ, black water

waotäⁿ-n-otsⁱ, "black water," coffee

nixaⁿt-ou-netsⁱ, "white man's water," whisky

bete(n)-nitsⁱ, "breast water," milk

beθⁱ-nitsⁱ, "wood-water," sap

VERBS

AFFIXES OF MODE AND TENSE

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

Prefixes

n-, nī-, naⁿ-, incomplete action, present; Arapaho: nī-nih^l-, nīnih^l-, incomplete action, past; Arapaho: nih^l-nih-ise-n-, completed action, past; perhaps: once continued action now completed; Arapaho: nih-isi-haⁿtaⁿ-, haⁿtaⁿni-, future, probably of intent; Arapaho: haⁿt-, haⁿt-ī-, haⁿtaⁿnī-nih^l-aⁿtaⁿ-, "was about to"; nih^l- and haⁿtaⁿ-haⁿ-ē-, interrogative, present; Arapaho: kih^l-, kaⁿ-, kaⁿhei-, kaⁿhā-, kaⁿhu-haⁿ-ex-, interrogative, past
 haⁿ'aⁿtaⁿ-, interrogative, future
 tsō-, tsu-, tsā-, tse-, negative; Arapaho: teī-, teih-haⁿ-(n), optative, "let me"; Arapaho: häⁿ-tī-, häⁿ-tih^l
 hax-, that, when, subordinating; Arapaho: taⁿ-, tah^a-ihi-, if, past unreal supposition
 nāⁿθei-, perhaps; Arapaho: naⁿxei-

A few etymological affixes have also been distinguished:

näye-x-tsō-, niyā-x-tsō-, try to; Arapaho: näye-teāⁿ-sō-, begin to; Arapaho: teāsis-naⁿwa-, näⁿbi-, make a motion to; Arapaho: nawu-, näbi-

Suffixes

-etyi, reflexive; Arapaho: -eti, -uti
 -ēhi, -ōhu, agent; Arapaho: -ēhi, -ōhu
 -n-äxku, added to personal ending, conditional; Arapaho: -h-äxkⁿ, n-äxkⁿ
 -yaⁿ, ending of many adjectives in the absolute or inanimate form; Arapaho: -aⁿ, -yaⁿ

PRONOMINAL ENDINGS AND CONNECTIVES

The intransitive endings are:

	<i>Gros Ventre</i>	<i>Arapaho</i>
I	-na ⁿ	-na ⁿ
You	-n ⁿ n	-n ^l
He	-ty ^l	-t ^l
We	-nin	-na ⁿ
You	-nä ⁿ	-nä ⁿ
They	-ts(1)	-θi

The intransitive imperative is expressed by -ts; äniy-i-ts, talk! This ending has not been observed in Arapaho.

The transitive conjugation is substantially the same as in Arapaho.

	<i>Gros Ventre</i>	<i>Arapaho</i>
I—you	-etin	-eθen ¹
I—him	- ⁿ , - ¹	-a ⁿ '
I—you (pl.)	-etina ⁿ	-eθenä ⁿ
I—them	-ou	-ou
I—it	-awa ⁿ	-awa ⁿ
you—him	-ots ¹	-a ⁿ t ¹
he—me	-ein ⁿ	-eina ⁿ
he—you	-ein ¹	-ein ¹
he—him	-aty ¹	-a ⁿ t ¹
they—you	-ein ⁿ (¹)	-einani
they—him	-ots ¹	-a ⁿ θi

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

<i>Meaning</i>	<i>Verb</i>	<i>Me</i>	<i>You</i>	<i>Him</i>	<i>You</i>	<i>Them</i>	<i>It</i>
see	a ⁿ ha		b	kw ²⁵	b	w	t
strike	ta ⁿ	b	b	w			
shoot	teī	by	by	by			bit ²⁶
kick	tāθa		n	n			
tell	n-ī		t ²⁷	t ²⁷		t ²⁷	
kill	naha			'			

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

teī-by-in	shoot him!
nihī ¹ -in	kill him!

The transitive endings occurring with the interrogative prefix haⁿex- are evidently the same as the Arapaho personal suffixes used in the negative formed by -ī-haⁿwu-.

	<i>Gros Ventre</i>	<i>Arapaho</i>
I—you	-etä	-eθ
I—him	-ä ⁿ	-a ⁿ
you—him, them	-ä ⁿ	-a ⁿ , -a ⁿ na'
he—me	-'	-e
he—him, them	-', -ä ⁿ	-ä
they—me	-ei	-ei
they—him, them	-', -ä ⁿ	-äna ⁿ

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 teī-. The equivalent of the Arapaho negative in -ī-haⁿwu- has not been observed.

ne-tsä-äsaⁿ, I am not swift
 nä-tsä-ätcesöu-hi, I am not small
 he-tsu-naⁿha-b-et¹, 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.

bear	wos(ö)	wosö'n
elk	(h)iwasö ⁿ	(h)iwasöhin
wildcat	beθa ⁿ tyä	beθa ⁿ tyän
crow	(h)ouu	(h)oun
fly	nōubā ⁿ	nōubān
feather	bii	bīin
bone	hiθ ^{an}	hiθan
tent	nin ^{an}	nīnan
stone	(h)axa 'änä ⁿ tyä ⁿ	(h)axa 'änä ⁿ tyän

-aⁿ, -haⁿ, as in Arapaho.

mouse	ā ⁿ tsu	ā ⁿ tsuh ⁿ
antelope	na ⁿ sity	na ⁿ sitya ⁿ
rabbit	na ⁿ ts ^o	na ⁿ ts'ha ⁿ
gopher	(h)ani'i	(h)ani'iha ⁿ
muskrat	iθos	iθosa ⁿ
otter	nēi	nēih ^{an}
squirrel	θaθa ⁿ ya'ei	θaθa ⁿ ya'eiha ⁿ
cat, puss	wus	wusha ⁿ
donkey	na ⁿ k ⁿ θotei	na ⁿ k ⁿ θoteihiha ⁿ
bald eagle	na ⁿ k ⁿ tiyēhi	na ⁿ k ⁿ tiyēhi ^{an}
turtle	bä 'änou	bä 'änouha ⁿ
fish	na ⁿ w ⁿ	na ⁿ wuh ^{an}
butterfly	baxa'a ⁿ -teiby	baxa'a ⁿ -teibiyiha ⁿ 28
river	nītsä	nītsaha ⁿ

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

deer	bihi'i	bihi'ihi
beaver	(h)äbes	(h)äbesöi
skunk	θou	θoue
cattle	wā ⁿ kety ¹	wā ⁿ ketyī
mountain sheep	(h)ot ^(e)	(h)otēi
wooden house	bātyiθou	bātyiθou'u
ear	wanatan	wanatanou
water	nets ¹ , nots	notsā ⁿ
louse	b'teiby	b'teiwuh ²⁸

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

dog	(h)ot ^o	(h)otibī
horse, "elk-dog"	hiwas'hā ⁿ θ	hiwas'hā ⁿ θebī
dragon-fly, "insect dog"	bīθa ⁿ hā ⁿ θ	bīθa ⁿ hā ⁿ θibī

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

tooth	bītsits	bītsit
horn	nīnis	nīnit
parfleche bag	houwanos	houwanot

²⁸ Apparently 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.

earth	bīta'āw ⁿ	bīta'āwū
stone	(h)axa'ānā ⁿ tyā ⁿ	(h)axa'ānā ⁿ tyēi
parfleche bags	houwanot	houwanote
bed	(h)ā ⁿ w ⁿ '	(h)ā ⁿ bā'

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

Word	Father	Mother	Son	Grandmother
vocative	nīθā ⁿ	na'ā ⁿ	neihe'	nīp
my	nīθina ⁿ	neina ⁿ	eihe'	eip
your	iθina ⁿ	eina ⁿ	iha'aha ⁿ	inīwaha
his	iniθina ⁿ	inan ^a		
our (incl.)	iθinan			
our (excl.)	āniθinan ¹ⁿ			
your	iθinanina ⁿ			

Word	Grandchild	Mother's brother	Hair	Mouth
vocative	nīsō	nis'hā ⁿ		
my	nīsā	nis'	nānīt ^{an}	netyi'
your	isā	ās'	ānīt ^{an}	etyi'
his	inisaha ⁿ	isa' ^{an}	inīt ^{an}	ityi'
somebody's			bīt ^{an}	betyi'

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.

ni-nā	it is it, that is it
ni-nā-ni-na ⁿ	"I," literally, it is I
nih-nā-ni-na ⁿ	it was I
ha ⁿ ta ⁿ -nā-ni-na ⁿ	it will be I
ni-nā-ni-ts	"they," it is they

NUMERALS

	<i>Counting</i>	<i>Cardinal</i>	<i>Ordinal</i>
1	tyāθei	äh-nīθi-ty ¹ (an.) äh-nīθ- ^e (inan.)	ni-nīt-awā ⁿ -ty ¹
2	nīθä	äh-nīsi-ts (an.) äh-nīθ-ēi (inan.)	ni-nīsa-uwā ⁿ -ty ¹
3	nāθä	äh-nīxi-ts (an.) äh-nāθ-ī (inan.)	ni-nāsa-uwā ⁿ -ty ¹
4	yān ¹	äh-yāni-ts (an.) äh-yān-ei (inan.)	ye-nāna-uwā ⁿ -ty ¹
5	yātan ¹	äh-yātani-ts (an.) ²⁰	ye-nātana-uwā ⁿ -ty ¹
6	neityā ⁿ tos		ni-neitya ⁿ tos-awā ⁿ -ty ¹
7	nīθā ⁿ tos		
8	nāθā ⁿ tos		
9	änhäbetā ⁿ tos		
10	betā ⁿ tos	äh-betā ⁿ tsi-ts (an.)	bätā ⁿ tos-awā ⁿ -ty ¹

The above ordinals are animate. The inanimate forms lack the animate intransitive ending -ty¹. The form for "second" was obtained without the prefixed reduplication. "First" is nītawū. 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, -ōin, Arapaho -ini: tyāθēin, nīsōin, nāsōin, yānin, yātanin, neityāⁿtosōin, nīθāⁿtosōin, nāθāⁿtosōin, änhäbetāⁿtosōin or änhänīθōu. Here the θ of "two" and "three" reverts to its Arapaho form, s. Twenty to 100 are made by -ōu; Arapaho, -aⁿ, -a', -u': nīθōu, nāθōu, yānōu, yātanou, neityāⁿ-taθou, nīθāⁿtaθou, nāθaⁿtaθou, änhäbetāⁿtaθou, betāⁿtaθou. Here s becomes θ. Twenty-two is nīθōu nīsōin, 39 änhäyānōu, 200 nīθä betāⁿ-taθou, 1000 bās betāⁿtaθou, "great hundred."

The only appearance of a "classifier" noted is -an-, corresponding to Arapaho -āⁿnä, a collective.

tyaⁿ'āyāⁿtei biθ yātan-an-ei, "heaps wood five," five piles of sticks

TEXT IV—TANGLED HAIR

ini'n A man	hōuxnīθā ⁿ teibā ⁿ 'ä ⁿ was living alone.	ā ⁿ 'tasnā ⁿ ka'nī In the morning	hōu'xa'atsō'u he went hunting.
hitō'uāni in the evening	wa ⁿ tyinānā ⁿ 'nīa ⁿ tyē'ity ¹ he returned.	nohuūte'ihā ⁿ ntinān "When I am away,	nohuū'θā ⁿ ts when comes
inī'tā ⁿ a person,	tsāb'ihē'i do not	tsō'titsinē'hin invite him!"	wā ⁿ tyi'tā ⁿ tyi he told her
hänā ⁿ 'yeisō ⁿ if he is about to	tsō'tyā ⁿ ts enter,	tsō'tyā ⁿ ts enter	inī'n ^a ta'tā ⁿ his wife. "Even
hänā ⁿ 't'asō ⁿ jhā ⁿ 'tē'i when he was away	i'n-ini'n this man,	hōū'ta ⁿ wū surely	a ⁿ 'hi'ta ⁿ wū' And indeed some one came.

²⁰ Or: häⁿ-yātani-ts, animate; häⁿ-yātan-ei, inanimate.

i'ninīn	naxkā ⁿ 'ka ⁿ	hītsō'wateātcini	ā ⁿ h	no'hu	ini'tā ⁿ
His wife	just	would not say anything.	And	that	person
kā ⁿ 'ka ⁿ '	hōūxnā ⁿ ā ⁿ θā ⁿ 'tī	hini'n'a ⁿ	ha ⁿ hītsō'watyātyin		
just	walked about.	His wife	would not say anything.		
hi'niθān	hōū'xtānī	i'θawū	tsō'tsōdjā ⁿ	ha ⁿ hu'ityinā-	
	He made as if to	in	enter,	but he did	
ītsōwatyī-istsō'djā ⁿ	nah'noū'uθā ⁿ 'nts	hi'n-inin	hōū'xnā ⁿ 'tcitanā		
not enter.	Returned	this man,	asked her:		
hā ⁿ āx ⁿ sō-nōunē'nitā ⁿ 'nt	nī'watyītā ⁿ 'nt	hini'n	wa'e'idiyā ⁿ 'ts		
"Has some one come?"	he said to her	his wife.	"Indeed he did!"		
niwatei'teity ⁱ	hihā'a ⁿ '	nī'wateita ⁿ	hanā ⁿ 'dyā ⁿ	ta'tā ⁿ	
she said to him.	"Is that so?"	he said to her.	"Now	even	
hānā'yeisō	hiθawū'	tixi'i'	tsōtyā ⁿ 'tsi	tsōtyā ⁿ 'ts	tsā'bh'e'isi'n
if he is about to	in		enter,	enter	do not let him!"
wā ⁿ 'tyī'ta ⁿ 'tyi	ini'n	naxtā'θi	hō'uxats'ōu	nu'hu-inen	
he said to her	his wife.	And again	went hunting	that man.	
haxkouta'nixty ⁱ	houxtē'	nōune'nitā ⁿ 'tē'hinin	nu'hu	ini'n	
When he was away long,	again	some one came	that	man.	
wā ⁿ 'tyīnā'xni'i'	tayani'	ti'isō'	tsōtyānits	nu'hu	ini'tān
He was about to		but did not	enter,	that	person
nuhuū'	inōunenitā ⁿ 'tē'itan	hōū'xkā ⁿ 'kanitākō'utyin	hitidjē ⁿ 'nā		
who	came.	Then he flapped	the door.		
wa ⁿ 'tyīnehī'i'tsa ⁿ 'nīne'ixty ⁱ	tsōdjā ⁿ 'ts	wa ⁿ 'tyītā ⁿ 'tyi	ā ⁿ h'ine'n		
She began to restrain herself no longer.	"Enter!"	she said to him.	And a man		
ōuxtsō'djānī	wa ⁿ 'tyīnehī'i'	byitsiwā ⁿ 'nā ⁿ	hō'husō ⁿ '		
it was who entered.	She began to	cook for him.	When she had		
byitsi'wa ⁿ 'nā	wa ⁿ 'tyīnehī'i'	haθa'wa ⁿ 'tyi	ā ⁿ hiyō'u-wā ⁿ 'tyi'nits		
cooked,	she went to	give him food.	And he said:		
ītsūnānī'i'θōu	nā ⁿ 'tyī'tsōtā ⁿ	wa ⁿ 'tyī'teity ⁱ	wa ⁿ 'tyīnehī'i'		
"That is not the kind	I use as plates,"	he said to her.	She went to		
ā'nätetyin	ā ⁿ 'tyī'tshā ⁿ 'tyi	ā ⁿ 'htā ⁿ θ	itsōnānī'θou	nā ⁿ 'tyītsō'tān	
change	his plate.	And again,	"That is not the kind	I use as plates,"	
wa ⁿ 'tyī'teity ⁱ	nī'watei-ka'sō	ānatyī'tsaha'a ⁿ	ā ⁿ h	hōū'uxni'θā	
he said to her.	Constantly she changed	his plates	and	the same	
nītē'idjī	wa ⁿ 'tyīnehī'i'	bihī	hatyī'tsaha ⁿ	i'nān	
he said.	Then she began	all	to use her plates,	every kind.	
wa ⁿ 'tyīnā ⁿ 'nī'i	ityhō'uwin	a ⁿ 'tyī'tshā ⁿ 'tyi	wa ⁿ 'tyīnā ⁿ 'nī'i'		
Then she began	not to know	what to use as a plate.	Then she began		
notyānā ⁿ 'tā ⁿ	otnā ⁿ 'dji'tsā ⁿ hā ⁿ 'tyi	wa ⁿ 'tyīnehī'i'	nāt'a'hni'i'		
to think	what to use as a plate.	Then she went and	drew off		
āxni'θetyin	hiwā'a'xa'	wa ⁿ 'tyīnā ⁿ 'n	a ⁿ 'tyī'tsha ⁿ 'tyi	wū'uu	
one of	her moccasins.	And she went and	used it as a plate.	"Ha,	
tanā'n'nā ⁿ	wa ⁿ 'tyītē'ity ⁱ				
that is very near,"	he said to her.				

UNIVERSITY OF CALIFORNIA PUBLICATIONS - (CONTINUED)

Vol. 7.	1. The Emeryville Shellmound, by Max Uhle. Pp. 1-106, plates 1-12, with 38 text figures. June, 1907	1.25
	2. Recent Investigations bearing upon the Question of the Occurrence of Neocene Man in the Auriferous Gravels of California, by William J. Sinclair. Pp. 107-130, plates 13-14. February, 1908 .....	.35
	3. Pomo Indian Basketry, by S. A. Barrett. Pp. 133-306, plates 15-30, 231 text figures. December, 1908	1.75
	4. Shellmounds of the San Francisco Bay Region, by N. C. Nelson. Pp. 309-356, plates 32-34. December, 1909 .....	.50
	5. The Ellis Landing Shellmound, by N. C. Nelson. Pp. 357-426, plates 36-50. April, 1910 .....	.75
	Index, pp. 427-443.	
Vol. 8.	1. A Mission Record of the California Indians, from a Manuscript in the Bancroft Library, by A. L. Kroeber. Pp. 1-27. May, 1908 .....	.25
	2. The Ethnography of the Cahulla Indians, by A. L. Kroeber. Pp. 29-68, plates 1-15. July, 1908 .....	.75
	3. The Religion of the Luiseño and Diegueño Indians of Southern California, by Constance Goddard Dubois. Pp. 69-186, plates 16-19. June, 1908	1.25
	4. The Culture of the Luiseño Indians, by Philip Stedman Sparkman. Pp. 187-234, plate 20. August, 1908 .....	.50
	5. Notes on Shoshonean Dialects of Southern California, by A. L. Kroeber. Pp. 235-269. September, 1909 .....	.35
	6. The Religious Practices of the Diegueño Indians, by T. T. Waterman. Pp. 271-358, plates 21-28. March, 1910 .....	.80
	Index, pp. 359-369.	
Vol. 9.	1. Yana Texts, by Edward Sapir, together with Yana Myths collected by Roland B. Dixon. Pp. 1-235. February, 1910	2.50
	2. The Chumash and Costanoan Languages, by A. L. Kroeber. Pp. 237-271. November, 1910 .....	.35
	3. The Languages of the Coast of California North of San Francisco, by A. L. Kroeber. Pp. 273-435, and map. April, 1911	1.50
	Index, pp. 437-439.	
Vol. 10.	1. Phonetic Constituents of the Native Languages of California, by A. L. Kroeber. Pp. 1-12. May, 1911 .....	.10
	2. The Phonetic Elements of the Northern Paiute Language, by T. T. Waterman. Pp. 13-44, plates 1-5. November, 1911 .....	.45
	3. Phonetic Elements of the Mohave Language, by A. L. Kroeber. Pp. 45-96, plates 6-20. November, 1911 .....	.65
	4. The Ethnology of the Salinan Indians, by J. Alden Mason. Pp. 97-240, plates 21-37. December, 1912	1.75
	5. Papago Verb Stems, by Juan Dolores. Pp. 241-263. August, 1913 .....	.25
	6. Notes on the Chilula Indians of Northwestern California, by Pliny Earle Goddard. Pp. 265-288, plates 38-41. April, 1914 .....	.30
	7. Chilula Texts, by Pliny Earle Goddard. Pp. 289-379. November, 1914	1.00
	Index, pp. 381-385.	
Vol. 11.	1. Elements of the Kato Language, by Pliny Earle Goddard. Pp. 1-176, plates 1-45. October, 1912	2.00
	2. Phonetic Elements of the Diegueño Language, by A. L. Kroeber and J. P. Harrington. Pp. 177-188. April, 1914 .....	.10
	3. Sarsi Texts, by Pliny Earle Goddard. Pp. 189-277. February, 1915	1.00
	4. Serian, Tequistlatecan, and Hokan, by A. L. Kroeber. Pp. 279-290. February, 1915 .....	.10
	5. Dichotomous Social Organization in South Central California, by Edward Winslow Gifford. Pp. 291-296. February, 1916 .....	.05
	6. The Delineation of the Day-Signs in the Aztec Manuscripts, by T. T. Waterman. Pp. 297-398. March, 1916	1.00
	7. The Mutsun Dialect of Costanoan Based on the Vocabulary of De la Cuesta, by J. Alden Mason. Pp. 399-472. March, 1916 .....	.70
	Index in preparation.	
Vol. 12.	1. Composition of California Shellmounds, by Edward Winslow Gifford. Pp. 1-29. February, 1916 .....	.30
	2. California Place Names of Indian Origin, by A. L. Kroeber. Pp. 31-69. June, 1916 .....	.40
	3. Arapaho Dialects, by A. L. Kroeber. Pp. 71-138. June, 1916 .....	.70
	4. Miwok Moieties, by Edward Winslow Gifford. Pp. 139-194. June, 1916 .....	.55

