

NOTES ON THE CHINOOK LANGUAGE.

BY FRANZ BOAS.

The Chinook language was spoken along the banks of Columbia River from the Cascades down to the Pacific Ocean. Since Horatio Hale published his great work on the philological results of the Wilkes Expedition, in which he made us acquainted with the languages of the North Pacific coast of America, no further material on the grammar of the Chinook has been published.

Two principal dialects of this language may be distinguished—the Upper Chinook, spoken from the Cascades to Grey's Bay on the northern bank and to a point a little above Astoria on the southern bank of the river, and the Lower Chinook, spoken on Shoalwater Bay, at the mouth of Columbia River and a little to the south of its southern entrance. The Upper Chinook is subdivided into a number of dialects, which differ to some extent, while the Lower Chinook had only two dialects—the Clatsop, which was spoken on Clatsop peninsula, and the Chinook proper, which was spoken on Shoalwater Bay. The difference between these latter dialects is very slight.

In the following lines it is intended to give a brief sketch of this language, based mainly on a series of texts collected by the author on Shoalwater Bay in 1890 and 1891. The remarks refer to the Chinook dialect, but occasional references to the Katlamat dialect of the Upper Chinook are given.

The following characters are used to render the sounds of the Chinook language :

a, e, i, o, u, have their continental sounds (short).

ā, ē, ī, ō, ū, long vowels.

ɛ the obscure *e* in *flower*.

ʰ, ʰ, ʰ, ʰ, vowels not articulated, but indicated by the position of the mouth.

ä as in German *Bär*.

â as *aw* in *law*.

ô as *o* in German *voll*.

- separates vowels which do not form diphthongs.

ai	as <i>i</i> in <i>island</i> .
au	as <i>ow</i> in <i>how</i> .
l	as in English.
ll	very long, slightly palatized by allowing a greater part of the back of the tongue to touch the palate.
l̄	posterior palatal <i>l</i> . The tip of the tongue touches the alveoli of the lower jaw, the back of the tongue is pressed against the hard palate, sonans.
ɹ	the same, short, surd (Lepsius's <i>ɹ</i>).
ɹ̄	the same, with very great stress of explosion.
q	velar <i>k</i> .
q̄	velar <i>g</i> .
k	as in English.
k̄	palatized <i>k</i> (Lepsius's <i>k'</i>), almost <i>ky</i> .
kx	might be better expressed as a posterior palatal <i>k</i> , between <i>k</i> and <i>k̄</i> .
x	same as <i>ch</i> in German <i>Bach</i> .
x̄	<i>x</i> pronounced at the posterior border of the hard palate, with <i>á</i> position of mouth.
x̄	palatal <i>ch</i> , as in German <i>ich</i> .
s, c,	are evidently the same sound and might be written <i>s'</i> or <i>c'</i> , both being palatized. <i>c</i> (English <i>sh</i>) is pronounced with open teeth, the tongue almost touching the palate immediately behind the alveoli. <i>s</i> is modified in the same manner.
d, t, } b, p, } g, k, }	as in English; but surd and sonant are difficult to distinguish.
h	as in English.
y	as in <i>year</i> .
w	as in English.
m	is pronounced with semi-closure of the nose and with very light compression of the lips. It partakes, therefore, of the character of <i>b</i> and <i>w</i> .
n	is pronounced with semi-closure of the nose. It partakes, therefore, of the character of <i>d</i> .
!	designates very great stress of the articulation of consonants.
!	designates very great stress of the articulation of consonants due to the elision of <i>g</i> .
°	is a very deep laryngal articulation due to the elision of <i>g</i> .
,	a pause.

It will be seen from this list of sounds that the phonetic system of the Chinook resembles closely that of the languages spoken farther north on the coasts of Washington and British Columbia. We find an abundance of guttural sounds and palatized *l*'s, frequent pauses,

many consonants pronounced with increased stress, and great variability of the vowels.

Variations of the vowel of the theme of nouns and verbs are due to various causes, namely, to emphasis, to diæresis expressing a plural or distributive, or to the endeavor to effect harmony between the vowel of the prefix and of the stem. *tEll*, tired, when emphasized becomes *täll*: *nikct*, not, goes through all stages from *nEkct* to *näkct*; *alxE'l'ökō*, he awakes; *alxE'l'ōyōkō*, they awake (theme -'ōkō) shows the occurrence of diæresis conveying a distributive or plural meaning; *ē'k'ala imōlak*, a male elk (theme -k'ala); *ō'k'ōla ō'pEnpEn*, a male skunk, shows the variation of the vowel of the theme, which takes place in order to bring about harmony between the vowel of the prefix (ē- masculine article, ō- feminine article) and that of the theme.

The language abounds in abstract terms. It is particularly remarkable that many concepts which we use in the form of adjectives occur as abstract nouns only. For instance, it is impossible to say "a bad man," but this is expressed by "the man, his badness." The Chinook does not say "I am sick," but "my sickness is on me;" he does not say "I shoot him," but "the action of shooting him I perform it against him." Abstract concepts of this character are very numerous.

There exist a surprisingly large number of onomatopoeic terms. Almost all names of birds may be considered such. A long series of verbs expressing actions accompanied by a noise or only more or less closely related to such noises are undoubtedly of onomatopoeic origin. These terms are not subject to inflection; they are repeated in order to express a frequent or repeated occurrence of the action. *LEX*, to tear; *q'ut*, to tear off; *ts'Ex*, to split; *Lxod'p*, to dig; *tEmm*, noise of walking; *k'Emm*, no noise; *hē'hē*, to laugh, are examples of words of this class.

The language has three well-defined genders. The genders are masculine, feminine, and neuter, the latter originally designating small objects. The gender is denoted by a prefixed article which is inseparably connected with the noun. In the dual and plural forms there is no distinction between these genders. We find the following articles:

Singular: Masculine, ē- or ī-	Dual, c-
Feminine, ō- or ū-	Plural, t-
Neuter, L-	Indefinite, L-

Examples :

Masculine :	<i>ē'k'ala</i> , man.	<i>ēq̄lq</i> , head.
	<i>igō'ma</i> , bird arrow.	<i>ēlēmē'tk</i> , bed.
	<i>ikanī'm</i> , canoe.	<i>ē'q̄ēl</i> , creek.
Feminine :	<i>ō'ō'kuil</i> , woman.	<i>ō'ō'lax</i> , sun.
	<i>ō'kumatk</i> , baton.	<i>ōgō'wē</i> , raspberry.
	<i>ō'kulaitan</i> , arrow.	<i>unā'lalā</i> , rattle of deer hoofs.
Neuter :	<i>l̄k̄jāsks</i> , child.	<i>l̄ā'pta</i> , roe.
	<i>l̄'ē'tcam</i> , horn.	<i>l̄ā'semilqs</i> , nose ornament.
	<i>l̄t̄cuq</i> , water.	<i>l̄gōl̄ē'l̄ēm̄k</i> , person.
Indefinite :	<i>l̄k'a'la</i> , a man.	<i>l̄ā'kil</i> , a woman.

Sometimes the masculine and feminine articles are used to distinguish large and small objects :

<i>ē'pqunx</i> , large basket.	<i>ō'pqunx</i> , small basket.
<i>ē'p̄enp̄en</i> , badger.	<i>ō'p̄enp̄en</i> , skunk.

The plural has generally the article *t-*, but often also *l-*. In numerous cases the article remains the same in singular and plural. Sometimes the plural has the feminine article, while the singular is masculine.

Plurals with the article *t-* : *ēqoa-inē'nē*, beaver ; pl., *tqoa-inē'nē*.

l̄ē'cgan, plank ; pl., *t̄ē'cgan*.

igitē'tcxala, piece of meat ; pl., *tgitē'tcxala*.

Plurals with the article *l-* : *ō'kumatk*, baton ; pl., *l̄kumatk*.

ō'p̄likē, bow ; pl., *l̄p̄likē*.

Plural with the feminine article : *ikanī'm*, canoe ; pl., *ōkunī'm*.

Suffixes denoting the plural are quite frequent. The most important is *-ukc* or *-ikc*. This suffix denoted originally a plurality of human beings. When used with numerals and indefinite pronouns it always designates human beings :

kā'nauwē, all ; *l̄kanauwē'tikc*, all people.

iqjēyō'qxul, old man ; *l̄qjēyō'qxtikc*, old people.

ē'ō'k, blanket ; *t!ō'kkc*, blankets.

-ma originally distributive (*-max* in Katlamat) :

ō'ō'lax, day ; pl., *l!alā'ma*.

ē'mal, bay ; pl., *l̄mā'lēma*.

-nana perhaps only with words designating relationship :

ōgu'lak, my aunt ; *l̄ge'lakēnana*, my aunts.

Sometimes very remarkable, although regular, forms originate through the elision of *q*. For instance, *é'qēL*, creek; pl., *t!ā'LEma*. The theme is *-qēL*. The *q* is elided, and owing to this fact the *t* is strengthened. The *ē* is transformed into *ā* on account of the article *t-*. *-ma* is the plural suffix mentioned before.

Irregular plurals are not very frequent :

Lkĵāsks, boy; pl., *tqā'sōsinikc*.
ō'ōkuil, woman; pl., *tā'nEMckc*.

Certain words occur only as *plurale tantum*; they are collective terms :

t!ōL, house; pl., *t!ōLē'ma* (theme, *-quLē*).
txut, smoke.
nauā'itk, net; pl., *nauā'itgEMA*.

The dual has the article *c-*. It has, as a rule, no suffix :

iqjēyō'qxut, old man; dual, *cqjēyō'qxut*.
Lkĵāckc, child; dual, *ckĵāckc*.

Some words are *duale tantum*. In many cases the reason is obvious, while in others it remains obscure :

ckulkulō'L, double-headed harpoon.
cEqxō, double-pointed arrow.
c'ē'Lxatct, rain.
ckEnī'm, toy canoe.

There are no cases. The possessive relation is always expressed by means of the possessive form. All local relations are expressed by means of the preposition *gō* (in Katlamat by the postposition *pa*). The indirect object and the instrumentalis are not expressed by a separate preposition or by a form of the noun, but by incorporation in the verb (see below).

As the possessive form is closely connected with the personal pronoun, I give the latter first :

I, <i>nai'ka</i> .	we two, inclusive, <i>txai'ka</i> .	we, inclusive, <i>lxai'ka</i> .
thou, <i>mai'ka</i> .	we two, exclusive, <i>ntai'ka</i> .	we, exclusive, <i>ntcai'ka</i> .
he, <i>ia'xka</i> .	you two, <i>mtai'ka</i> .	you, <i>mcai'ka</i> .
she, <i>āxka</i> .	they two, <i>cta'xka</i> .	they, <i>lā'xka</i> .
it, <i>lā'xka</i> .		

These independent forms of the pronoun are compounds of *n-*, *m-*, etc., which are the pronominal stems.

The possessive form is derived from these stems, a few forms excepted. The possessive pronoun stands between the article and the noun. It has separate forms for the various articles:

MASCULINE.	FEMININE.	NEUTER.
Chief.	Chieftainess.	Dog.
my, <i>ilci'xak;Emana.</i>	<i>ōgu'xak;Emana.</i>	<i>LgE'xēwucx.</i>
they, <i>imē'xak;Emana.</i>	<i>ōmē'xak;Emana.</i>	<i>Imē'xēwucx.</i>
his, <i>iā'xak;Emana.</i>	<i>ōyā'xak;Emana.</i>	<i>Liā'xēwucx.</i>
her, <i>ilcā'xak;Emana.</i>	<i>ōgō'xak;Emana.</i>	<i>Lgā'xēwucx.</i>
its, <i>iLā'xak;Emana.</i>	<i>ōLā'xak;Emana.</i>	<i>Lgā'xēwucx.</i>
our two selves, incl., <i>ilxa'xak;Emana.</i>	<i>ōlxā'xak;Emana.</i>	<i>Llxā'xēwucx.</i>
our two selves, excl., <i>intā'xak;Emana.</i>	<i>ōntā'xāk;Emana.</i>	etc.
your two selves, <i>imlā'xak;Emana.</i>	<i>ōmlā'xak;Emana.</i>	
their two selves, <i>ictā'xak;Emana.</i>	<i>ōctā'xak;Emana.</i>	

The dual and plural have the same forms which are found in the neuter. It appears from this paradigm that the only forms which are not derived from the personal pronoun are the first person singular and the third person feminine singular.

Adjectives have always the gender of the noun which they accompany. They have also always the article, but the feminine is here *a-* instead of *ō-*, as it is in the pronoun.

many: masc., *ē'xau-it*; fem., *ā'xau-it*; neut., *LE'xau-it*; pl., *ō'xu-it*.

It was mentioned before that most of our adjectives are expressed by means of abstract nouns; p. e.:

a pitiful man, *ē'k'ala Liā'xauyam* = the man his pity.

a bad woman, *ō'ō'kuil itcā'qjatxala* = the woman her badness.

Among the numerals only "one" has the article and consequently gender. It has also a separate form for human beings:

All objects except human beings.	Human beings.
1. m., <i>ēxt</i> ; f., <i>aēxt</i> ; n., <i>Lēxt</i> ; d., <i>ctēxt</i> ; pl., <i>tēxt</i> .	m., <i>ēxat</i> ; f., <i>aē'xat</i> , etc.
2. <i>mōkct.</i>	<i>amó'kctikc.</i>
3. <i>Lōn.</i>	<i>Lō'nikc.</i>
4. <i>lakt.</i>	<i>La'ktikc.</i>

Numeral adverbs as well as other adverbs are formed by the suffix *-ē*: *mō'kctē*, twice; *mā'Lnē*, seaward.

The verb is incorporating to a degree. The subject, the direct and the indirect objects, are all expressed in it. We may distin-

guish between intransitive, medial, and transitive verbs. The first class are formed mainly by prefixing the pronoun :

<i>nōc</i> , I am there.	<i>iōc</i> , he is there.
<i>mōc</i> , you are there.	<i>ōc</i> , she is there.
	<i>Łōc</i> , it is there.

The same class embraces the numerous verbs which consist of an adjective or noun or an unchangeable (mostly onomatopoeic) term and an auxiliary verb. I give here the historical present of such a verb :

Łōx anE'xax, I fall ; *Łōx atxE'xax*, we two (inclusive) fall ; *Łōx antExax*, we two (exclusive) fall ; *Łōx alxE'xax*, we (inclusive) fall ; *Łōx antc'xax*, we (exclusive) fall.

Łōx amE'xax, thou fallest ; *Łōx amtE'xax*, you two fall ; *Łōx amce'xax*, you fall.

Łōx nē'xax, he falls ; *Łōx nā'xax*, she falls ; *Łōx alE'xax*, it falls ; *Łōx acE'xax*, they two fall ; *Łōx nō'xox*, they fall, etc.

The perfect is :

nkēx, I have been ; *mkēx*, thou hast been ; *ikē'x*, he has been.
akē'x, she has been ; *Łkēx*, it has been, etc.

Transitive verbs always incorporate the object. When subject and object, and I may add here, indirect object, are nouns, the pronouns of the third person having the corresponding genders and numbers are incorporated. If the objects are pronouns, they are as well incorporated. Subject and object are prefixed, the former preceding the latter. While in most cases the pronouns can be readily recognized in these prefixes, there are a number of exceptions. The prefix of the third person singular masculine and feminine subject differs from the pronoun as found in the intransitive verb. Furthermore, in the combination : subject first person, object second person, certain modifications are found. I select a few examples in order to illustrate the formation of these forms :

-*ukL*, to carry.

I carry thee, *ayā'mukL*. I carry you two, *ayā'mtukL*. I carry you, *ayā'mcukL*. I carry him, *anā'yukL*. I carry her, *ā'nukL*. I carry it, *ānE'ŁukL*. I carry them two, *anE'ctukL*. I carry them, *anE'tukL*. We two, inclusive, carry him, *atxgā'yukL*. We, inclusive, carry him,

alxgā'yukL. We two, exclusive, carry him, *antgā'yukL*. We, exclusive, carry him, *antcgā'yukL*.

Thou carriest him, *amā'yukL*. You two carry him, *amtgā'yukL*. You carry him, *amcgā'yukL*.

He carries him, *atcā'yukL*. She carries him, *agā'yukL*. It carries him, *alGā'yukL*. They two carry him, *acgā'yukL*. They carry him, *atgā'yukL*, Somebody carries him, *aqā'yukL*.

The last form serves as a passive. A real passive is not found.

Whenever an indirect object accompanies the verb the pronoun of the indirect object followed by an *l*, which designates the indirect object, is also prefixed to the verb. It follows the pronominal suffix designating the direct object :

-ōt, to give (probably *-ō-* verbal prefix, and *-t* direction toward).
atcilxā'lōt, he gave it (masc. objective) to us ; *a-*, historical present ;
tci-, he, *-i-*, masc. object. ; *-lx-*, us ; *-a*, probably euphonic ; *-l-*, designating indirect object.
atcEmanā'lot, he gave thee to me.

The indirect relation of intransitive verbs is expressed in the same manner :

ē'tcic!a ayanā'lax, I am sick = my sickness is on me.

Medial verbs are such verbs as may be transitive, but appear without an object. They are formed by the reflexive prefix *-x* or *-xE**L*, which follows the subject prefix and precedes the verb.

na-ixE'lqam, he shouts. *atcigE'lqam*, he calls him to himself.
agiō'la, she shakes him. *nē'xEla*, he shakes.

The verb has not very many tenses. The most important are :

a- (prefix), the historical present ; *ayā'mukL*, I carry thee.

-a (suffix), future ; *yamō'kLa*, I shall carry thee.

a-x, present, expressing often repeated actions ; *ayā'mukLx*, I used to carry thee.

There are practically no moods. The imperative of the intransitive verb is identical with the future, while in the imperative of the transitive verb the subject prefix is omitted : *ē'kLa*, carry him. The interrogative is formed by the suffix *-na* (*-tcē* in Katlamat), which is appended to the one mood of the verb.

All the numerous forms which we find in most Indian languages expressed by derivatives, and which we express by auxiliary verbs, are here expressed by adverbs, which are followed by the verb in its declarative mood :

<i>qā'doxūē</i> , must.	<i>qē'xtcē</i> , will.
<i>ai'aq</i> , can.	<i>qxā'oxax</i> , cannot.

There are but few derivatives. I found the following :

Frequentative	<i>-a-itx</i> . <i>ax'ō'tōl</i> , he bathes.	<i>ax'ō'tōla-itx</i> , he bathes often.
“	<i>-l</i> . <i>agiō'la</i> , she shakes him.	<i>agiō'lal</i> , she shakes him often.
Causative	<i>-ta-mit</i> . <i>axō'la-itx</i> , he stands.	<i>axōlā'ētamitx</i> , somebody places him upright.

Word composition is not carried on to the same extent as among the neighboring languages. The language lacks altogether the faculty of incorporating nouns in verbs, which is so remarkable a feature of the Salishan, Wakashan, and Chimakuan languages. Local affixes are, however, quite numerous and of frequent occurrence :

<i>-p!</i> , into (<i>-pq</i> in Katlamat) ;	<i>ā'yōp!</i> , he entered.
<i>-pa</i> , out of ;	<i>ayō'pa</i> , he went out.
<i>-ptck</i> , from sea landward, from the middle toward walls of house ;	<i>ā'yōptck</i> , he went up from sea to land.
<i>-lx</i> , from land seaward, from sides of house toward middle ;	<i>ā'yōlx</i> , he went down to the beach.
<i>-wilxt</i> , upward ;	<i>ayō'wilxt</i> , he went up.
<i>-itcō</i> , downward ;	<i>ayō'itcō</i> , he went down.
<i>-t</i> , towards speaker ;	<i>ayō'tkxam</i> , he brought it here.
<i>-k</i> , on top of ;	<i>lōkōc</i> , it is on top of.
<i>-x</i> , on ground ;	<i>ē'xōc</i> , he is on ground.

It is worth remarking that reduplication is entirely absent from the language. The unchangeable words (mostly onomatopoeic terms) are duplicated (see above) in order to express a distributive—*i. e.*, to express that the action expressed by them refers to a plurality of objects :

kjau'kjau atci'tax, he tied them.

RISING AND FALLING OF THE SKY IN SIOUAN MYTHOLOGY.—On page 344 of the AMERICAN ANTHROPOLOGIST for October, 1892, appeared an article on the "Rising and falling of the sky in Iroquois legends." The present writer calls attention to the Omaha myth of "The Chief's Son and the Thunders," published in Contributions to North American Ethnology, vol. 6, "The Dhegiha Language, Myths, Stories, and Letters," pp. 185-188. In that myth it is said that the chief's son and his followers came at length to the end of the sky, which was perpendicular and, after descending quickly into a chasm in the earth, ascended as quickly to its former place. Thus it acted continually; therefore, in order to pass across the chasm in safety, one must watch his chance. The chief's son and all his followers but the last one crossed the chasm, but the warrior at the end of the line hesitated too long and was carried down into the chasm; but on the return of the party the followers were sent over the chasm in advance of the leader, who, as he sprang over, extended one arm down into the chasm and drew up the dead man, whom he thus restored to life.

J. OWEN DORSEY.

AMERICAN FOLK-LORE SOCIETY.—At the annual meeting of this Society, held in Boston, December 28th and 29th, the following papers were read:

- Abby L. Alger. Survival of Fire-sacrifice among Indians in Maine.
- Fanny D. Bergen. Animal and Plant Weather Proverbs.
- Franz Boas. Doctrine of Souls among the Chinook.
- H. Carrington Bolton. A Modern Oracle and its Prototypes.
- A. F. Chamberlain. Christ in Folk-lore.
- J. Owen Dorsey. Two Biloxi Tales.
- Adolf Gerber. The Relation of the Tales of Uncle Remus to the Animal Stories of other countries.
- George Bird Grinnell. Algonquian Blackfoot Creation Myths.
- J. C. Hamilton. The Algic Manabozho.
- H. R. Kidder. Chippewa Tale of the End of Hiawatha.
- George F. Kuuz. Folk-lore of Precious Stones.
- Henry R. Lang. Folk-lore of the Azorian Colonies.
- John Maclean. Blackfoot Mythology.
- Henry Mott. Medicine Men.
- W. W. Newell. Examples of Forgery in Folk-lore.
- D. P. Penhallow. Customs and Traditions of the Ainos of Japan.
- Archibald R. Tisdale. Tales of the Abnakis.