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# THE YOKUTS LANGUAGE OF SOUTH CENTRAL CALIFORNIA 

BY
A. L. KROEBER

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By
A. L. KROEBER.

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# THE YOKUTS LANGUAGE OF SOUTH CENTRAL CALIFORNIA. 

The Indians of the Yokuts linguistic family, sometimes also called Mariposan, inhabited the southern end of the San Joaquin basin in California. Roughly, their territory extended from the Sierra Nevada to the Coast Range, and from the Tehachapi mountains which shut off the San Joaquin basin on the south from the desert, to the Fresno and Chowchilla rivers in the north. The higher Sierras all along this territory, and certain foothill regions in the south, were occupied by Indians belonging to the Shoshonean family. The great level stretch of valley throughout, and in most cases the foothills also, were occupied by the Yokuts. A detached branch of the family, known as the Cholovone, inhabited a small area on the east bank of the San Joaquin, in the vicinity of Stockton, considerably nearer the mouth of this river than the remainder of the stock. The Cholovone are perhaps entirely extinct and are certainly practically so. Their language is unknown except from one published vocabulary, which shows it to have been a Yokuts dialect not very different from the remainder of the family.

The Yokuts were divided into a large number of groups somewhat resembling small tribes. As is not uncommon in California, each of these groups had a dialect, but, what is unusual in California, each had a distinct tribal name as well. The various dialects are on the whole closely related. Their general structure and their phonetic system are virtually identical. There is also considerable similarity in vocabulary. It is probable that Indians from Kern river and from Fresno river could have conversed,
and that they could have learned to understand each other perfectly in a short time. The greatest divergences in vocabulary were seemingly shown by small groups geographically or otherwise more or less isolated from the others, the speech of the more important tribes through the whole range of territory of the family differing only dialectically. From many tribes vocabularies have never been obtained. For this reason the grouping of the dialects can only be determined approximately. The available evidence on this point is summed up at the end of the paper. For the present it is enough to state that there were two main branches of the family, which include the more divergent dialects peculiar to small groups such as the Paleuyami of Poso Creek. The two branches have been here called the Valley division and the Foot-hill division, from the fact that the former includes nearly all the valley tribes while the latter consists principally of the hill tribes on Tule river, Kaweah river, Kings river, and Dry creek.

The differences between the vocabularies of the many dialects consist both of phonetic variations of words and of radical differences. Prominent among the variations are vocalic mutations. These seem to be similar to a scheme of vowel changes which constitutes one of the most important means in the language of expressing structure. The radical differences in words between dialects that on the whole are closely related are sometimes surprising, occurring frequently in the most common words, such as man, woman, person, house, stone, eat, and sleep. A similar tendency toward as marked a prevalence of radical as of phonetic differences exists in the dialects of other linguistic stocks in California. At least one cause of this feature is certainly the universal tabu of the names of the dead; but it is scarcely possible that this cause alone is sufficient to explain the extent of the phenomenon. Among the Yokuts the people speaking one dialect generally understand and often know the radically different words of other dialects though they do not use them.

We owe the name Yokuts to Stephen Powers. It is the word denoting person or people in the majority of the dialects of this linguistic family, but in the usage of the Indians its application is not confined to individuals of their own linguistic family.

For this family there is, as might be expected, no native name. The exact form of the word is usually yokotc, sometimes yokots. Yokoch would therefore be the most accurate general orthography, provided the vowels were given the quality of continental open $o$ and spoken short with the accent on the first syllable. Yokut is of course only a false English singular.

As to the name Mariposan, it is sufficient to say that its sole claim to acceptance rests on the employment of a rule of priority borrowed from the system of modern biological technical nomenclature, never formally or generally accepted by anthropologists, and as undesirable to attempt to introduce into ethnology as it will be impossible to enforce in the end. It is derived from Mariposa, meaning butterfly in Spanish, the name of a California county which was not organized until after the American settlement. This county may once have contained some Yokuts Indians; but in its present smaller extent it does not cover one square mile of what is known to have been Yokuts territory.

The dialect specially investigated is that of the people calling themselves Yaudanchi, plural Yowechani, who inhabited the foothill region of Tule river. By most of their neighbors they are called Yaulanchi. At present they constitute a small fraction of the one hundred and fifty Indians on Tule river reservation, the majority being Yauelmani, a tribe originally farther south. It has seemed best to avoid confusion by first treating this dialect alone without reference to other dialects in regard to which less complete information was obtained, and then to follow with comparative notes on such material as was obtained from these other dialects, thus avoiding duplication of presentation as much as possible. The first part of this paper, therefore, consists of a discussion of the phonetics and grammar of Yaudanchi, followed by a vocabulary and interlinear texts in the same dialect. In part second are given comparative grammatical notes on the Yauelmani dialect of Kern rivcr. A third part of the paper deals more briefly with various other dialects, and includes a number of short texts, as well as comparisons and summaries. A comparative Yokuts vocabulary, covering all the dialects from which there is material, has been reserved for inclusion in a subsequent publication.

The investigations on which this paper is based were begun in 1900 for the California Academy of Sciences, but were mainly made in 1902, 1903, and 1904 in connection with the Ethnological and Archaeological Survey of California carried on through the liberal support of Mrs. Phoebe A. Hearst by the Department of Anthropology of the University of California.

## I. THE YAUDANCHI DIALECT.

Study of the Yaudanchi dialect was begun with a young man named Bob, a Wükchamni on Tule river reservation. The Wükchamni dialect is almost identical with the Yaudanchi. Most of the material obtained, including all the texts, is from Peter Christman, a man about sixty, who, both as a boy and as a man, has lived for years with the whites, and speaks English fluently.

## PHONETIC SYSTEM.



VOWELS AND VOCALIC MUTATIONS.
The Yaudanchi vowels are of two classes, pure and impure. The pure are the five vowels ordinarily distinguished, spoken clearly. E and o are open whether long or short. A with the quality of American a in bad is not found. The impure vowels will be familiar to any one acquainted with the neighboring Shoshonean family of languages. They are perhaps due to rounding of the lips. Though they have a certain uniform quality, due to their similar method of production, which makes them less easily distinguishable one from the other than are the pure vowels, they are very different from the merely obscure brief vowels in words like our better, cotton, madam, pencil, which almost lack quality.

Of the impure vowels, $\ddot{o}$ and $\ddot{u}$ correspond to e and i as $u, o, a$, do to $u, o, a$. This is true with a reservation. It is part of the
system of vocalic harmony permeating the language that an impure vowel tends to cause other vowels of the word to become impure. While this tendency is not a universal law, yet it is so far operative that there are few polysyllabic words containing only one impure vowel. The impure vowels may accordingly be either induced or radical. $U$ and $o$ are frequently induced; $a$ possibly always. $\ddot{U}$ and $\ddot{o}$ are more often radical than induced. I and e are also more resistant to being made impure by the proximity of an impure vowel than are $u$ and $o$. Finally $\ddot{u}$ and $\ddot{o}$ appear to differ more in quality from i and e than do $u$ and $o$ from u and o . Even though they lack the fullness of quality found in French and German closed ü and ö, yet they are distinctly $\ddot{u}$ and $\ddot{0}$ rather than i and e sounds.

Omitting $a$, which is uncommon and whose relationships are not quite clear, the nine vowels of Yaudanchi show certain groupings and affinities with one another. These relationships are not always consistent, but it is according to them that the sympathetic vowel changes in which the language abounds take place.

In verb-stems the vowels besides a fall into four pairs, each pair consisting of the two pure or of the two impure vowels respectively higher and lower in pitch than a: u and $\mathrm{o}, u$ and $o$, $\ddot{i}$ and $\ddot{o}$, and i and e. Upon the addition to the verb-stem of a modal-temporal suffix containing an a, a vocalic alteration occurs in the first and sometimes in the second syllable of the stem. The vowel of this syllable is changed to the other vowel of the same pair. U becomes $o$, and $o \mathrm{u}$; and similarly in the other three pairs, as: k'uik-un, k'oik-ad; k'on-ji, k'un-e-ad; höñ-ji, hüñ-ad; ep-ji, ip-ac. Radical a does not change and may be regarded as constituting a fifth set of verb-stem vowels. ${ }^{1}$

The same vocalic alternation occurs in numerals on addition of the suffix -in as in verbs before an a-suffix.

In the noun this vocalic law is, at least practically, not operative. There is observable in nouns the general tendency, already mentioned, and not confined to this class of words, for impure vowels to induce impurity in subsequent vowels in the same

[^0]word; and there is a still less rigorous tendency for the second vowel of the stem to agree with the first.

In certain ways the language seems to feel $u$ and $o$, and again $i$ and $e$, to be identical. Thus there are no suffixes containing e and o , but many with i and some with u ; evidently u and o , and $i$ and e, are regarded as one in this respect. A change of the possessive case-suffix -in to -un occurs as well on nouns whose last stem vowel is $u$, as on those that have o preceded by $u$. An occasional objective case-suffix -i takes the place of more usual -a most frequently when the stem contains either an o or $u$ followed by either an e or i.

There are a few special relationships of vowels. For instance, almost all suffixes have either a or i as their vowel. ${ }^{1}$ Under certain circumstances a and i also show a further correspondence. The usual objective and plural suffixes are -a and -i; but in a number of cases these suffixes become respectively -i and -a. A phonetic law obtaining in the plural is that the last vowel of the noun stem becomes either i or a according as the plural suffix is respectively -a or -i. When the plural suffix is $-i$, this induced ultimate a of the stem may be replaced by e; but this substitution of e can occur only when the unaffected ultimate vowel of the stem is a or i. Finally, disyllabic triconsonantal verb stems in a have their second vowel a when the stem is followed by an a suffix and i when followed by an i suffix.

There is some differentiation of $o$ and $u$ as regards their influence on case and tense suffixes. U in the stem, or o followed by u , cause the possessive -in and the past -ji to become -un and -ju. $U$ and $\ddot{u}$ in the stem also seem to produce respectively $-u \mathrm{n}$, $-j u$, and $-\ddot{u} \mathrm{n},-j u ̈ u$. O, however, and probably $o$ and $\ddot{o}$ as well, provided they are the only vowels of the stem, do not alter these suffixes. On the other hand $o$ in the stem, if unaccompanied by other vowels, causes the objective suffix -a to become -o, while u fails to produce any corresponding effect.

Vocalic changes, though most frequently induced in the stem by suffixion, occur also in the suffix through the influence of the

[^1]stem vowels. As just mentioned, the possessive case suffix -in and the verbal past suffix -ji regularly become -un and -ju after $u$ stems or $u-o$ stems. The objective suffix -a becomes -o after o stems; the instrumental -iñ or -ñi in the same circumstances changes to -on. The future and participial ending -in is subjected to the variations -en, -on, -un. Monosyllabic verb stems in $u$ that changes to $o$ in this tense, take -en; so do i stems, and, for unexplained reasons, a few a stems. Monosyllabic o stems take -un; monosyllabic u stems, -on; disyllabic u stems, -un; but disyllabic o stems, and some monosyllabic ones, retain -in unchanged. It is evident that the mutation of this verbal suffix takes place under rules resembling those applying to the verb stem itself when $i$ and a suffixes respectively are added, since $u$ stems are followed by o or e in the suffix, o stems by $u$ or $i$, $i$ stems by e, e stems by $i$, and a stems generally by what must be regarded as the normal or unmodified vowel, $i$; so that, excepting $a$, the vowel of the suffix tends to be opposed to the vowel of the stem. The more derivational intransitive suffix -in- is also subject to modification by the stem, being sometimes subjected to the tendency of contrast and in other cases assimilated to the stem-vowel.

Laws of vocalic harmony are thus not only operative from stem to suffix but also from suffix to stem.

The vocalic changes in suffixes are undoubtedly connected, either as cause or as effect, with the fact that with two exceptions, the locative and the reflexive, all suffixes that are in any way formal or grammatical contain only a or i as vowel. Of these two vowels, $i$ is susceptible to considerable change, being especially liable to assimilation by $u$ in the stem and, where what may be called the law of vocalic contrast in balanced pairs obtains, changing to e, $o, u, u$, and $\ddot{u}$. A on the other hand is much more stable as a suffix vowel, being practically unmodified except for some assimilation by stem 0 .

The different harmonic laws of Yokuts are, each by itself, simple rather than intricate and observed with considerable regularity; their complexity is due to their number. The rules for the change of the verb-stem do not apply at all to the noun. The addition, to certain stems, of one and the same suffix to indi-
cate both the objective and the plural has quite different effects on the stem-vowel according to the significance of the suffix. Nibetc becomes nibètc-i and nèbatc-i ; napac, napāc-a and napica; mukac, mokc-i and mukèc-i. Similarly -i added to onmid to denote the plural, forms onèmad-i ; when added to designate the death of the connecting relative, it makes onimid-i. ${ }^{1}$ The vocalic changes occurring in suffixes show the same degree of variability. The possessive noun-suffix -in is changeable only to -un, and that only by $u$ in the stem. The verbal future-suffix -in is changed to -en by $u$ and $i$, to -on by $u$, to -un by $o$. The numeral suffix -in is never changed. The verbal temporal-modal i suffixes -in, -ji, -itc, change their vowels differently; for instance, buk-en, bok-ji; t•uñ-on, t•oñ-ju; k'am-en, k'am-ji, k'am-ātc. The change to the opposite stem-vowel within the balanced pair occurs in verbs before a-suffixes; in the numeral before -in. The vocalic mutations in the language can therefore not be regarded as due to a single complex system of harmony which is always equally operative and differs in its results only through dissimilarity of circumstances. It is evident that there exists a general tendency toward vocalic harmony which takes form differently not only according to phonetic influences but in accord with logical differences, such as the grammatical categories and the distinction of the parts of speech. The Yokuts vocalic system thus is arbitrary rather than phonetically automatic, and appears to be influenced as much by impulses to express linguistic forms as by purely physiological habits.

The chief vocalic changes in the stem may be summarized as follows :

In the verb the vowels are grouped in pairs, with the same respective relation existing between the members of each pair; and, most regularly in monosyllables, each vowel changes to the opposite one of its pair according as suffixes containing a or i are added; as, ep-ji, ip-āc; höñ-ji, hüñ-āc; uk-un-ji, ok-n-āc; höp $u d-j i$, hüpod-at; yom-un( for yom-in), yum-ād.

In the numeral an identical change accompanies the suffixion of animate -īn : còpi-n, cupè-īn; tcudip-i, tcodep-īn.

In the noun this form of harmony does not seem to exist. On

[^2]the suffixion of -i or -a to indicate the plural, the last vowel of the stem turns respectively to -a or -i, accompanied by opposite tendencies affecting the quantity and accent of the preceding part of the stem : ne'ec, nèa'c-i ; o'nmid, onè'mad-i ; na'at, na'it-a ; napā’tum, na'ptim-a.

In terms of relationship, the suffixion of -i to indicate that the person through whom the relationship or connection exists is no longer living, turns the two last vowels of the stem, whatever they are, to i: onmid, onimid-i ; napatum, napitim-i ; onpoi, unipiy-i.

Without the stimulus of suffixion, and accompanied by no other change, vocalic mutations occur between the forms of verbs and nouns derived from the same radical: cokud, pieree; cikid, arrow ; muyuk, whirl; moyak, whirlwind.

Finally, vowel mutations are often the only changes occurring between dialects in certain words: hitec, hütac, wood.

Accompanying the vocalic mutations and allied to them is a frequent metathesis of vowels as regards consonants, and an appearance and disappearance of them between consonants. Hat'-pa-ñi, four, on the suffixion of -in becomes hat'-öp-in; the verb root pitid with suffix -āc becomes pètd-āe; hiwet, heut-ad; the verb stem tcadix with the intransitive derivative -in takes in different tenses the forms tcadax-n-ad and teadx-in-ji. The noun-stem onmid becomes in the objective and other cases un-imd-, in the plural onèmad-; axid becomes respectively axdand axèd-. The stem eñt.im, sleep, as in eñtim-ji, becomes iñetm -āe, and analogy with other verb stems makes it possible that even the apparent stem eñt.im is transposed from a radical ñet.im. One form of verbal reduplication, or rather monosyllabic stem-duplication, consists of a doubling of the syllable with a transposition of the vowel of the second syllable between the two stems: ka'm, ka'm-ji, ka'm-a-k'm-ac; t'uy, t'ui-ju, t'ui-t'ui, and t'uy-u-t'y-uwue; day, dai-ji, dai-dai, and day-a-dy-ac.

On the other hand metathesis, induction, and suppression of consonants are as rare as they are common in vowels.

Doubling of vowels as an accompaniment of length is not infrequently discernible, but is less marked than for instance in Yuki and some other American languages.

Diphthongs may be said scarcely to occur in the language. Ai, au, oi, ui, eu, iu occur, but almost invariably either finally, where they may be the natural result of original $y$ or $w$; or before vowels, where their second elements almost certainly represent $y$ or $w$; or, if before consonants, it is in cases in which the second element of the diphthong can be shown to be the remnant of a stem $y$ or w intermediate between two vowels; as in heut from the stem hiwet. Two verb-stems, waik to lose and waid to breakfast, apparently contain radical diphthongs. Gūiha and koiwoc are more doubtful cases in nouns. As waid forms waid-ji but waad-ad, it may be that it stands for disyllabic wayid, which should according to rule become wayid-ji and wayad-ad; so that even if this diphthong is radical it is treated in the application of the system of vocalic harmony as if it were a disyllable. Certainly the majority of the not very abundant diphthongs in the language are resolvable into a simple vowel plus y or w.

## CONSONANTS.

Surds, sonants, and aspirates are found in all the five series of sounds that will be described. Nasals occur corresponding to $\mathrm{k}, \mathrm{t}$, and p ; spirants exist, other than sibilants, only in the k series. The $k$ spirants however are both surd and sonant. W , y , and h are the only other consonants in the language, the Yaudanchi dialect having lost an I existing in most other Yokuts dialects. The aspirates are not violently stressed, but are nevertheless easily distinguishable from the unaspirated surds. The sonants differ less from the surds than in English but more thau in some Indian languages. They are distinguished from the surds with less difficulty than is the case in Costanoan, Washo, and certain Shoshonean dialects.

The gutturals are formed far back. Unfamiliar combinations of sounds pronounced with English k were reproduced by an Indian fluently familiar with English by tc and even palatal t. There is a possibility than in certain words velar k (q) sounds occur; the difference between these and the more anterior gutturals is however in any case slight, and only one k has been written.

The palatal compound consonants te, tc' and dj have been here included among simple sounds because the language, like most languages that possess these sounds, regards and treats them as simple.

Two classes of $t$ sounds exist, the tongue contact in one being below and the other above that in English t. T is interdental. T. is postalveolar or more probably even palatal, the tip of the tongue however appearing to be bent down towards the lower teeth. In quality this sound is quite close to tc. Very often, as in t•e, house, t . has an r-like quality, which has caused it to be written tr in many Yokuts vocabularies. It is not certain whether this r-like $t$. represents a sound distinct from the ordinary t. Only one t. has therefore been written. It is not certain whether $n, c$, and $j$ belong to the interdental or palatal class. In a few cases c has something the quality of r-like $t$, as in $c^{r}$ òopin, three, which may perhaps be coopin, with c. corresponding to t - as c to t .

The sibilants are surd $c$ and sonant $j$. It seems that these represent sounds intermediate respectively between English sh and s and zh and z ; though nearer sh and zh than s and z . Both c and s have actually been written in recording the language.

- Most Yokuts dialects possess an l, which in Yaudanchi has become uniformly $d$. $L$ is pronounced without difficulty by the Yaudanchi and a few words containing l, mostly nouns, such as limik, the prairie falcon, occur in the Yaudanchi texts obtained. These words have entered the dialect through the interchange of songs and traditions, and through intercourse between the small tribal groups. This intercourse has of course been increased since Indians of several dialects have lived together on a small reservation. There is not a Yaudanchi verb, pronoun, or adverbial particle containing an l. Even the nouns usually pronounced with $l$ are accepted as correct when spoken with $d$; as dimik, prairie falcon.

Probably all the sounds of the language can appear initially, finally, or medially. A few of the less common consonants such as $g$ and $j$ have not been found finally or initially, no doubt through incompleteness of material. $\mathrm{W}, \mathrm{y}$, and h when final become $u$, i, or '; they occur finally on stems.

Just as actual diphthongs are uncommon and radical ones probably entirely absent, so, while combinations of consonants are moderately frequent, there is no evidence of their occurrence in stems. Combinations of consonants never exist initially and scarcely ever finally; and there does not seem to be a case of their occurrence medially which cannot be either positively laid to suffixion or which is not subject to suffering the appearance of a vowel between the two consonants in certain grammatical forms of the stem. As unmodifiable particles also show no double consonants, and as no words ever possess combinations of three consonants, it is clear that radically the language is without combinations of consonants and that actual occurrences of such are due either to composition or to the laws of vocalic interinfluence and change.

Consonantal changes are as rare as vocalic mutations are frequent. There are no consonantal harmonies or assimilations. N becomes d in the objective of tacin, those: tacd-i; as is proved by the dual tacik, tack-i. Instances such as this are however almost without parallels. If tcox, skunk and tcukit, stink, are from the same radical, there is an instance of mutation between spirant and surd; but the derivation is uncertain.

## STRUCTURE OF THE SYLLABLE.

Stems and words occasionally begin with vowels, and not infrequently end in them. A few common suffixes such as $-a$, $-\mathrm{i},-\mathrm{u},-\mathrm{ji}$, considerably increase the number of vocalic endings. The typical syllable however consists of consonant, vowel, and consonant. This is the form of the majority of verb stems: t'uy, duy, toj, t'ic, t•uñ, tcup, ka'm, xate, xot, wot, ñaw, dox, pitc', höñ. Of the disyllabic verb stems the majority show the form : consonant, vowel, consonant, vowel, consonant; as: t-añit, kuyuk, xapit, hutok, nokum, dapay, tañay, tcadix, dadik, dixid. Many nouns can be derived from stems of similar construction, mainly disyllabic and triconsonantal: $\mathrm{t} \cdot u ̈ \mathrm{n} \tilde{u} \mathrm{k}$, muk'ac, wit'ep, nibetc, butcoñ, wutoñ, natet, t-uñot, tcayax, napaj, ontip, podut, yawud, cokod, detcip. It would be unfounded to say that these forms are more original, that is earlier in time, than such less symmetrical forms of the same stems as -ut'y-, t-añt- and
t-uñk-. But it is clear that the unconscious feeling of the language is that t'uy, t-añit, t•üñ̈uk are the normal or characteristic forms of these stems, whatever the frequency of occurrence of modifications. And such unconscious linguistic feeling, as revealed in phonetic and structural treatment, is all the basis of existence that roots have and on which it is justifiable to try to determine them.

## ACCENT AND ENCLITICS.

Stress accent of separate words is not very marked. It is partly dependent on quantity of vowels. Nearly every vowel that has been written long in the ultimate, penult, or antepenult carries what appears to be the word accent. There are a few exceptions such as pa't-ūjac. Unsuffixed words without long vowels most frequently are accented on the penult, sometimes on the antepenult. Suffixes, reduplication, and the appearances and disappearances of stem vowels contingent upon suffixes, affect the accent considerably. From tan are formed ta'n-ji and tan-ā'c; from t'uy, t'u'i-ju, t'uy-u'-t'y-uwuc, and t'oy-a'-t'y-ac; from ö'ka, ö̀kaj and ükā'c; from wi't'ep, wit'è'p-in and wit'i'phatc; from napā'tum, na'patm-a and napti'm-a; from o'ntip, uni'tpa, onè'tapi, uni'tipi; from a'ñt•u, añu't•wa; from in'jij, inè'jaji and ine'cnad. The system of vocalic mutations characterizing the dialect is more or less connected with the accent of words, and may be causally dependent upon it.

Certain pronouns and monosyllabic particles are accentless and more or less enclitic. They tend to draw the accent of preceding words toward themselves. Several enclitics together form a group, the first member of which derives an accent from the fact that it is followed by the others. Among the words that show most tendency toward enclitism are: the personal pronouns, which, if both subjective and objective are present, regularly join into a group with one accent; the possessive pronouns, which, if postposed, are clearly joined to the preceding word; and the negative, interrogative, and future particles am, hin, and hi. Examples are: a'm-na-mam-hi duyò'n, not-I-theewill eat; duyò'n na-mam-hi, eat I-thee-will; yi'una-an, wife-his; li'mik-na, li'mik-na, I am limik, I am limik. In these phrases
only the marked syllables are stressed, so that a'm-na-mam-hi duyò'n has the phonetic character of two words instead of five. The influence of these enclitics on the accent of words ordinarily independently accented is shown in : xi' nim amā'dite, he is my helper, as compared with taxnā'd-na amādi'tc-mam, come-I (to) help-thee. On the whole the accent of the isolated word tends to disappear in connected speech as against the accent of the phrase or sentence.

## SUMMARY.

Altogether the Yaudanchi phonetic system is regular and simple in content. It contains no difficult or violent sounds, and besides the impure vowels and the palatal $t$. consonants none that are uncommon in other languages. It is free from accumulation of either vowels or consonants and tends to a simple alternation of consonant and vowel. The consonants are unusually permanent and unaffectable by each other or vowels. In vowels well developed and important harmonies obtain; but these are not so much results of meaningless phonetic interaction as means of grammatical form.

## STRUCTURE.

Structurally Yokuts is very simple. Composition exists to an insignificant extent. A few derivational non-formal suffixes occur sporadically, but no precise meaning can be determined for most of them. There is not a prefix in the language. Such affixes to the verb as express instrument, position, motion, and even the object in certain American languages, are entirely lacking. There is no incorporation of pronouns in verb or noun. The appositional type of structure in which pronominal affixes hold together the sentence, or the more extreme one in which practically every word capable of grammatical form exists only with a pronominal affix, is almost without even reminiscences in Yokuts. For an American language it shows little verbal subordination, the sentence structure being quite simple. Altogether the highly complex and synthetical structure found in some American languages, and often thought to be characteristic of
them as a group, is absent, and although certain ideas are expressed by formal means which our own languages would not thus express, the Yokuts language on the broad lines of its structure, as compared with some of the more widely-spoken American languages such as Eskimo, Athabascan, Algonkin, Iroquois, and Maya, is superficially not very different in type from the Indo-European languages.

## MEANS OF EXPRESSION OF GRAMMATICAL STRUCTURE.

Three means are employed for the expression of form. First, reduplication, which is relatively unimportant. Second suffixation, which though not very extensively developed is the most used means of structural expression ; and third, vocalic mutation. In the derivation of stems or words vocalic mutation sometimes occurs without any further change; but as a means of grammatical form it exists only in conjunction with reduplication or suffixation, of which, strictly, it appears to be an induced accompaniment, though actually, in certain cases, it produces more striking changes in words than either of these processes alone.

## A. Reduplication.

Reduplication is both material or derivational and formal or grammatical in its function. Some nouns are already duplicated or finally reduplicated in their ordinary form: pon-pon, snow, ca-ca, eye, hoñ-hoñ, heart, te'im-tc'im, bat, xam-am, ribs, naj-oj, mother, nat-et, father. Some verbs are also reduplicated, usually finally, in their simplest form : tom-om, lie. Others are reduplications of a shorter base with some change of meaning: dañ-añ, listen, from dañ, hear; $g^{6} 0-g^{〔} 0-c$, was, lived, from $g^{6} o-j i$, sat. There are similar adjectives: inj-ij, good, is shown by its objective case inij-ya, for inij-a, to be a final reduplication of a stem inij. All these forms, being ungrammatical, will not be further considered except in the vocabulary.

Grammatical reduplication of fixed stems, to express not another meaning but a different aspect or relation of the meaning of the word, occurs in verbs and numerals. It is absent from nouns. In verbs it expresses iteration or repetition; in numerals distribution.

Verbal reduplication occurs most commonly in monosyllabic stems. As the entire stem syllable, with or without mutation or metathesis of the vowel, is repeated, the process is strictly one of duplication rather than of reduplication. This duplication takes two forms. In the imperative, which is the stem, and before modal and temporal suffixes containing i, the stem is duplicated without change or sometimes with a lightening of the second vowel to i: am dai-dai min napatma, don't kick your brother-in-law; duc-duc-wi nan, rub me; t'uy-t'uy-ut, was shot many times ; na max-max-ci, I gathered constantly ; cap-cap-it na, I was whipped; aj-ij nan, bite me several times. On the other hand, before the temporal suffixes -ac and -ad, and before the various forms of the reflexive suffix excepting the imperative reflexive, only the first of the pair of reduplicated syllables is identical with the normal stem syllable. This is followed by its vowel, or sometimes, apparently through influence of the a of the suffix, by a. Upon this in turn follow the consonants of the reduplicated syllable, either without any vowel or with only light short i between them. Thus : kac-a-kc-ad na, I am whispering; doy-a-dy-ac ma, you ate; hiāmu na t'ec-a-t'c-ac, long ago I came out. Contrasting with t'uy-t'uy-ut are t'uy-u-t'y-uwuc and t'oy-a-t'y-ac; with cap-cap-it, cap-i-cp-ūwic; with dem-dim-ji, dim-e-dm-ac; with dai-dai, day-a-dy-ac.

A third, somewhat intermediate form of reduplication, occurs on unsuffixed stems other than imperatives. A stressed vowel appears between the two reduplicated syllables, but the second of these is not deprived of its vowel, which at most is weakened to i. Thus bok-ò'-bik, tud-ò'-tud, püd-ö-pud from the stems bok, tud, and pod. Cap-à'-cap namamhi, I will whip you repeatedly, shows this form as contrasting with cap-cap-it na and cap-i-cpūwic.

Reduplication in numerals affects only the first syllable of the stem. This is entirely duplicated, with weakening of the vowel in the second syllable to i. Po'ñ-oi, cò'p-in, hat'-pa'-ñi, two, three, four, form poñ-pi'ñ-i, cop-ci'p-i, hat'-h $\ddot{u}^{\prime} t^{\prime}$-up, two each, three each, four each. The loss or modifications of the syllables following the reduplicated one are not caused by the reduplication; for the same modifications take place upon the
addition of certain suffixes,-another instance of the domination in the language of structural motives over phonetic ones.

There is an apparent objective case reduplication in personal pronouns, nan from na and mam from ma, which is really due to suffixation or analogy.

## $B$ and C. Suffixion and Vocalic Mutation.

As the grammatical use of reduplication is confined, it follows that nearly all formal expression in the language is due to suffixion, extended and aided somewhat by vocalic mutation. In view of the large part left to this process to fill, it is surprising that altogether scarcely thirty formal suffixes have been found in the language. As this number includes case and number suffixes as well as modal and temporal ones, it is evident that the economy which the language exercises in its means of expressing form extends also to the grammatical ideas expressed. The structure of the language is therefore necessarily simple.

## List of Suffixes Occurring in the Language.

Including for the sake of completeness a few purely derivational suffixes, we have the following as the total of known Yaudanchi suffixes.

Non-grammatical suffixes:
-oc, forming a few nouns, such as t'uy-oc, arrow, from t'uy shoot.
-ud, probably forming a few nouns, such as t-uñoc-ud, gate, from t.uñ, close.
-it, probably meaning place of, as in iñet-m-it sleeping place.
-i or -ui, perhaps forming nouns from verbs, as padu-i, pestle, from padu-, enter, and tcuduk-ui, index finger, from tcuduk, point, select.
-i , on certain terms of relationship, indicating that the person through whom the relationship existed is dead.
-in-in, on terms of direction and other words, meaning people of: xomot, south, xomt-in-in, southerners.
-am, on numerals, meaning ten and, -teen.

Semi-formative verb suffixes:
-da-, causative.
-ta-, frequentative.
-tcin-, -a-tcin, desiderative.
-cit-, benefactive, expressing that the verbal action is done for the object.
-in-, intransitive.
-wic- and modifications of it, such as -wid and -umdu-wic, reflexive.

Modal-temporal verb suffixes:
-ji, preterite.
-ac, preterite.
-in, future or present; also participle.
-ad, continuative.
-it, passive.
-ñitc, -añitc, future passive, and active verbal object-noun.
-itc, noun agent; purposive.
-ana, participle.
Suffixes of number:
-i (-a), plural in nouns.
$-n$, -in, plural in pronouns. ${ }^{1}$
$-k$, -ik, dual in pronouns.
-c-, occurring before dual and plural suffixes of demonstrative pronouns.
-atc, -hatc, diminutive, plural in adjectives.
An occasional plural ending -awayi is perhaps material rather than grammatical in meaning. Similar is -wadi, on plurals of tribal names.
-hin, collective of inanimate nouns.
Case suffixes:
-a (-i), objective on nouns, verbs, and adjectives.
-n, objective on demonstrative pronouns.
-wa, perhaps identical with -a, found only as the objective ending of plural personal pronouns.

[^3]-in, possessive.
-ñ, -ñi, instrumental.
-u, locative.
-nit, ablative.
Suffixes of numerals and interrogative pronouns:
-in, used for animate subjective substantival numerals, possibly collective.
-id, adverbial, signifying the number of times.
-ak, makes interrogative and indefinite pronouns more indefinite.
-tci, the same; suffixed to -ak.
It is a curious fact which has already been discussed that all the formal suffixes of the language except the locative and reflexive contain only the vowels a and i. That such of the suffixes as change $i$ to $u$ after $u$ stems, as the past $-j i$ and the possessive -in, are really i suffixes and not of indeterminate vocalic content becoming $i$ or $u$ according to the vocalic constitution of the stem to which they are attached, is made probable by the fact that $o$ stems are followed by the normal i forms of these suffixes. Analagous facts make the intransitive -in or the objective -a, which appear under circumstances as -un, -on, -o, seem to be true normal forms subject to vocalic modification rather than one of several equally undetermined alternative forms. This view of course applies not to the origin and history of these suffixes-of which nothing is known-but only to the feeling evinced by the language for their vocalic content in its treatment of them.

## CATEGORIES OF GRAMMATICAL FORM EXPRESSED.

As the means of expressing grammatical form are limited, so the morphological categories expressed in Yokuts are comparatively few in number. The range of these grammatical ideas has been given by the preceding list of suffixes. It may be summarized as follows. The categories finding expression to a greater or less degree are: the plural in animate nouns and in pronouns;
duality in the pronoun; cases, including an objective, a possessive, an instrumental, a locative, and an ablative; distribution in the numeral, and distribution or repetition in the verb; the distinction between the combination of the first and second and of the first and third persons in the pronoun; animation, and the number of events, in the numeral; and a causative, frequentative, desiderative, benefactive, intransitive, reflexive, continuative, purposive, preterite, future, passive, noun-agent, and participle in the verb. There is no indication of gender other than the distinction between animate and inanimate under certain circumstances in the numeral, and no expression of person other than by differences of stems in personal pronouns. All the grammatical categories enumerated are expressed by suffixes accompanied in most cases by vocalic mutation, except the category of distribution or repetition, which is indicated by reduplication.

## THE NOUN.

## PLURAL.

All nouns that refer to persons, and only such, have a plural. Names of animals seem to be used in the plural in certain special circumstances. For instance the plural of ñohoo, grizzly bear, is the same, ñohoo. But when bear-doctors, called simply grizzly bears, are spoken of, the plural form is ñoh'ica or ñohoica. Several such plurals of names of animals have been included in the consideration of the methods of formation of the plural, though they are not in ordinary use. The only inanimate plural that has been found is $t$-e-awayi, houses, from t-e. The suffix -awayi occurs also in nutc-ăwayi, easterners, mountaineers, from the singular nut'a, but its true meaning is unknown. Generally speaking, the plural in Yokuts may be said to be confined to words designating persons of various ages, sexes, and conditions, to terms of relationship, to tribal names, and to noun agents derived from verbs by the suffix -itc.

A dual found in the pronoun is without an equivalent in the noun. To designate two persons the plural is used.

The normal plural seems to be formed by the suffix -i. About one noun out of three however has the ending -a. What deter-
mines the choice of these two vowels in each case is not very clear. Stems with all classes of vowel-combinations occur proportionately about equally in the i-plural group and in the a-plural group. The final sound of the stem may be of more influence. All stems found ending in an $-i$ or $-u$ which appears to represent a radical -y or -w take the ending -i. Outside of this one group, however, there is again no regularity in the constitution of either the -i or the -a class. The majority of stems in -t , $-\mathrm{d},-\mathrm{te}$, -n , and vowels are followed by -i, the majority in -c and -m by -a, but there are a number of cases contrary to both these tendencies. As the number of available instances of the plural is small on account of its restricted use, the possibility of a determination of the rules governing the point in question seems problematical.

A number of stems ending in a vowel appear to offer difficulty to the addition of the vocalic suffix, especially as the language will not allow the plural -i suffix to become -y but insists on treating it as a full syllable. In the majority of such cases of vocalic stem endings not reducible to -y or -w , a c or te is introduced before the plural suffix whether this is -i or -a.

Besides suffixion, stem-changes mark the plural. These follow definite courses quite different from the phonetic changes occurring in the expression of other formal categories, and must be regarded as latent in the stem for use in the plural and induced by the stimulus of the suffix, rather than as the direct purely phonetic consequence of the addition of the suffix. On the suffixion of -i, the last vowel of the stem-whatever it is-turns to a ; on the addition of -a , the vowel becomes i . Accompanying ${ }^{\text {s }}$ the change of the last stem-vowel to a is a tendency to lengthen the latter part of the stem, wherever possible by the introduction of a vowel between two consonants, and to a shifting of accent toward the suffix. Accompanying the contrasting stem-change to i there is an opposite tendency to shorten the latter part of the stem, the accent advancing toward the head of the word, and a combination of consonants being frequently formed by the dropping out of the middle vowel in trivocalic stems. These two opposite changes occur quite regularly without exception or noteworthy modification, except that before the -i suffix the final stem-syllable, if a or i , may become è in place of a. The change
of accent occurs with less regularity than that of the quality of the final stem-vowel; in some words the accent even appears to alter in a manner the opposite of the usual one.

There is, especially before the -i suffix, a secondary and less regular tendency toward vocalic change in the first syllable of the stem, resembling the vowel-mutation occurring in the stem syllable of verbs, whereby $u$ becomes $o$ and o becomes $u$, with corresponding equivalences in other pairs of vowels. In trivocalic noun-stems this mutation accompanying the plural may extend to the second syllable. ${ }^{1}$ Nòno, plural nunè-i ; nip'èi, nèp'ay-i; tcunut, tcunot-a-tc-i. It is not unlikely that this mutation in the first syllable of the stem is a secondary effect of the suffix, that is to say, the direct result not of the addition of the suffix but of the alteration of the vowel of the final stem-syllable produced by the suffix.

In tribal names metathesis of a vowel in reference to its consonants is common. Bañka- becomes bañek-; -tci-, -atc-; -mni-, -man-; bokni-, buken-.

Besides the changes enumerated there are a number of more sporadic ones in the formation of the plural, such as the loss of final consonants (kou'tcu-n), of vowels (hit-wai-u), and the insertion of d (waksātci, wake'sdatci, unless waksãtci represents waksādtci).

The various modifications of the stem in the plural are shown in the following list. In this list all vowels marked long bear the word-accent. In words containing no vowel marked long, the accent is on the penultimate vowel or diphthong unless specially indicated.

[^4]| man | kou'tcun | kou'tca-i |
| :---: | :---: | :---: |
| woman | muk'ac | muk 'èc-i |
| young man | nòtco | nutcè-i |
| chief | dīya' | dè $\mathrm{a}-\mathrm{c}-\mathrm{i}$ |
| medicine man | añt.u | añt.aw-i |
| widower | hupana | hopna-tc-i |
| older brother | nibete | nebate-i |
| younger brother | nèec | nèac-i |
| younger sister | nòot | nòat-i |
| son | butcoñ | botcañ-i |
| daughter, child | axid | axèd-i |
| father's sister | güiha | guyò'a-c-i |
| bear | $\mathrm{d} u \bar{u} u \mathrm{n}$ | $\mathrm{d} \boldsymbol{u} \mathrm{w} \overline{\mathrm{a}} \times \mathrm{an}-\mathrm{i}$ |
| panther | wöhöcit | wöhöcat-i |
| wild cat | t'uñod | t'uñò ${ }^{\text {d }}$-i |
| mother's brother | ăgac | agèe-i |
| woman's sister's child | āxi | axēy-i |
| maternal grandmother | t'ut'a | t'ut'òa-c-i |
| paternal grandmother | bap' | bap'è-i |
| great grandfather | hit.wāiu | hiteèway-i |
| daughter-in-law | onmid | onèmad-i |
| mother-in-law | ontip | onètap-i |
| parent of child-in-law | makci | makèc-i |
| man's wife's brother | nip'ei | nèp 'ay-i |
| friend | nòtci | nuètc-i |
| deer | xoi | xuyèa-c-i |
| watcher (teid, guard) | tied-ite | teid-atc-i |
| tribal name | yaudantci | yowedtcan-i |
| tribal name | bañkalātci | bañe'klatc-i |
| tribal name | tcoinok | tcuyènak-i |
| tribal name | yokod | yuwèkad-i |
| tribal name | gāwia | gawèyay-i |
| tribal name | wetcig it | witcèg' at-i |
| tribal name | wimiltci | wimelatc-i |
| tribal name | yaudimni | yowe'dman-i |
| tribal name | teoinimni | tcuyenman-i |
| tribal name | bokni'nuwad | bukènwad-i |
| tribal name | wòwod | wowòwad-i ${ }^{1}$ |
| tribal name | kawāija | kaweije-tc-i |
| tribal name | tcunut | tcunòta-tc-i |
| tribal name | tadji | tadjè-tc-ay-i |
| tribal name | waksatci | wake'sdate-i ${ }^{2}$ |
| tribal name | tedamni | tièdam-i |
| tribal name | badwica | badòwac-i |

[^5]|  | A-Plurals. |  |
| :--- | :--- | :--- |
| girl | guyòdum | gòyum-a |
| old person | moxodo | moxdi-tc-a |
| older sister | naat | nait-a |
| mother | najoj | nājuj-a |
| father | natet | natit-a |
| father's brother | komo'yic | ko'myic-a |
| mother's sister | mo'koi | moko'i-o |
| grandfather | ènac | inac-a |
| son-in-law | napātum | napti'm-a |
| dog | tcè'jej | tcijā'j-a |
| grizzly bear | ñohoo | ñoho'i-c-a |
| man's sister's child | tca'yax | tcayi'x-a |
| woman's brother's child | napac | napic-a |
| father-in-law | naxa'mic | na'xmic-a |
| dancer (ka'm, dance) | ka'm-ātc | ka'm-itc-ha |
| tribal name | wüktcamni | wüka'tcmin-a |
| tribal name | xocòm-o | xòcim-a |
| tribal name | monadji | monadji-c-a |
| tribal name | tulamni | tula'-l-min-a |
| Shoshonean | malta | malāta-tc-a |

A collective -hin, on inanimate nouns, occurs several times in a text given in Part III.

| bokdo-hin | where many springs |
| :--- | :--- |
| yapkan-hin | many trees |
| doxmad-hin | rock-pile |
| tcodwon-hin | plains |

CASES.
Nouns are used with five case suffixes, an objective -a, a possessive -in, an instrumental -ñ, a locative -u, and an ablative -nit, making with the unaffixed subjective a total of six cases. The same suffixes are attachable to verb stems used as nouns, to verbal derivatives, and to verbal forms used participially. That these verb forms with case suffixes are no longer verbs but nouns is shown by the fact that their logical subject is in the possessive case. Adjectives take at least the objective, personal pronouns the locative, and demonstratives and interrogatives all the suffixes except the objective, for which they substitute a suffix peculiar to themselves.

[^6]The employment of these cases is on the whole indicated by their names, there being few special idiomatic uses.

The objective seems to be used with prepositional words: atc'e-u yapikn-a, close to the tree, padu-unun nim podt-a inside my body, pèna-u idk-a, near the water. The true nature of these prepositional words is however not clear; padu-unun is evidently the intransitive participle of the stem $\operatorname{pad} u$ to enter; atc'e-u and pèna-u seem to be locatives of unknown stems.

The possessive gives the appearance of being used as subject in certain clauses where it is really the grammatical regimen of a verbal noun. Thus ökac na kou'tcun-un duy-a, I saw the man eat, is really : saw I man's eating. It appears that after a passive the instrumental is expressed by the possessive: aj-it na tcejej-in, I was bitten by a dog, and waki-t yet tañ watāk-in, he was presented with one pine-nut. The possessive pronoun of the third person may or may not be used in addition to the possessive case to express possessive relation between nouns: yiuna an limk-in, wife his prairie-falcon's; but the possessive suffix is never omitted.

The instrumental is used in two special constructions. What we should consider the direct object of a verb, is, when this verb contains the suffix -cit, for the benefit of, put in the instrumental, the person benefited being treated as the object of the verb: max-cit-ji nan duy-añi, he-got me with-food, he got food for me; cuina-cti nan xè-ñi, buy me with-this, buy this for me. After waki, give, the person which we treat as dative is in Yokuts objective, our object in the instrumental; so that waki can be more literally rendered by our "present" than "give": wakī-ji tañ (obj.) ta-ñi tipdi-ñ, he-presented her with-that mountainquail. No instrumental of personal pronouns has yet been found, and it is possible that the present two constructions are merely due to a tendency of the language to avoid the use of the instrumental in personal pronouns.

The locative covers a wide range of meaning-at, in, to, on, in fact all locative ideas except the ablative-and refers to time as well as space: copin-au opodo, in three days; ñauuji wit'ep-au, he came to the boy. It also has the meaning for, on account of : mukc-iu xe-u tööcnad doowac, on account of this woman is being
made a battle (woman-at this-at is-making battle); ukn-au na nim t-okit, I was hit for drinking (drink-at I my hit-was) ; wi cox-ji vaka, ta-u tin tañ taudjata, he-killed cattle, for-that they him killed. The construction by which the addition of the locative suffix to the -ji past-suffix of the verb makes a dependent temporal clause, the subject becoming possessive, has already been referred to: tan-ji-u limk-in moxodo ent-im-ji, while-went (went-at, at the going of) prairie-falcon, the-old-man slept; xi nan amādac tcüxütc-n-au nim, he me helped when I was sick (sick-being-at my). Most names of places and the modern names of the days of the week are locatives: teit'at-iu, a place name (tcit'at, a species of clover) ; xo-en-au, sitting at, Sunday. On numeral stems the locative suffix gives an ordinal adverbial meaning: hat'pañi, four, hat'pa-u, the fourth time, as opposed to hat'-pud, four times.

As some of these case suffixes, such as the objective, are entirely syntactical in function, and all but the ablative are used at times as purely syntactical means, they must be regarded as true cases and not as adverbial postpositions. Their phonetic character, their effect on the stem, and their small number, also are evidence that their formal force and content far outweigh their material significance. There is no trace of any of the casesuffixes ever being used independently of a noun as an adverb or preposition. The presence of these cases in the language is naturally allied to the absence of incorporation in the verb. While similar case-suffixes are found in many Californian languages, usually also accompanied by lack of incorporation, their number in these languages is often larger, their sense more specific and adverbial, and the suffixes themselves in their phonetic form are more like independent stems. The partial resemblance of the terminatives, inessives, introessives, comitatives, similatives, and other cases in Maidu, Yuki, Pomo, Washo, and other central Californian languages, to suffixed prepositions, cannot be said to extend to Yokuts, except to a certain degree perhaps in the ablative.

## Objective.

The objective case presents considerable phonetic irregularity. Normally it seems to be indicated by -a. For this, -i, -o, and occasionally -u are substituted in not a few words, and a large number of words show no change whatever from the absolute or subjective form.

Like the analogous substitution of pluxal -a for more common $-i$, the cause of the use of objective -i in place of -a is not clear. The words found with objective -i are muk'ac, nibetc, natet, iwèitc, kaiu, nahāt, d•oxid, owik, t•e, koyoyitc, huc-widète, gòkwidète, and perhaps kocòyi and makci; there are no doubt a number of others.

Objective -o is found on monosyllabic and disyllabic o stems and on a few others usually containing $o$ in the first syllable followed by an i that disappears before the suffix; so that this -o is quite clearly due to influence of the stem. The stems taking -o are tot-, t•ot-, tcox, najoj, ucit, odix, bokid, dopit-, [domit], cokod, and perhaps yoñho and ñohoo.

Objective -u occurs on nòot, perhaps on najoj and hutulu, and on three stems the $u$ of whose last syllable disappears before the suffix, tukuyun, dumòdumute, and yipyeput. This -u is, like -0 , due to the influence of stem u-o sounds.

The objective of a large number of nouns, at least one in three, is without any suffix and identical with the subjective. This class includes terms of relationship, names of persons, animals, parts of the body, and natural and artificial objects, so that it is not in any way determined by meaning. While phonetic form and to a certain extent probably derivational constitution are evidently the causes of this lack of an objective suffix by such nouns, yet a considerable proportion of them are not actually explainable in these ways, as will be seen from the following circumstances.

Most duplicated or reduplicated nouns lack the objective suffix: tcej-ej, dog, coxcux and tcaktcak, two species of hawk, la'la', goose, hoñhoñ, heart, dapdap, leaf, xam-am, rib. A few duplicated nouns however show a suffix, such as te'imte'im, bat: te'imite'm-a.

The majority of nouns ending in vowels are also alike in the subjective and objective. These include nòtco, moxodo, diya', hupana, mokoi, mai, t'ut'a, hit-waiu, onpoi, xoi, tcitceu, coxgoi, k'ondjedja, hööpa, hayana, upyayi, yakau, nòotci, katcau, p'anuckai, woxono, t•ipni, t'uñoi, te'aiji, oca, t'ipeni, k'aiyaat•u, t'ukoi, tcoto. The final vowels of several of these nouns are quite strongly resistant to suffixation, as is shown by the complete loss of this vowel in the possessive (nòtc-in, hayan-in, tcot-in), or by such loss of the vowel with accompanying irregular effects, especially the addition of tc or $c$, in the plural (moxdi-tc-a, hopna-tc-i, t'ut'oa-c-i). Nouns with vocalic ending taking an objective suffix are much less frequent than those that do not. They include kaiu, t•e, añt•u, axi, nip'ei, ti'w, matci, t•üd $u$, tcudui, tcī; and probably the following, in which the final vowel seems to be repeated to form the objective suffix : caca, gūiha, makci, kocòyi, ñohoo, yoñho, hutulu.

Finally a considerable number of nouns ending in consonants do not change in the objective: komoyic, ènac, t'uñod, agac, itwap, bohad, coyod, t•ööd, tadxat., djamoc, ògun, pöötc, mènitc, k'ewèt, kècik, comot, mañad, tcuyon, mod•ak, añac, kiwec, witcet, hoñ-oc, tcit'at, bemamgutc, godòñkil, djitcpaapu, k'atcanat, kuyocud. The last half dozen of these are evidently not simple stems; and while their origin cannot be traced, it is possible that the same feeling of the language which usually prevents the addition of a suffix to duplicated and reduplicated nouns, may be operative in these composite, derivative, or onomatopoetic words. But for the great majority of the words in this list even such a tentative explanation is not available, since stems which are apparently simple and which have the same vowels as those here given, or the same consonantal ending, take objective suffixes.

The following list of subjective and objective forms gives the nouns found whose objective suffix is $-a$, those that have -0 and $-u$, those with $-i$, and shows the scope of the changes in the stem and the extent of irregularities. The objective case less its suffix, or sometimes with it-and never the subjective or absolute form of the noun-is invariably the base from which the possessive, instrumental, locative, and ablative cases are formed.

| English | Subjective | Objective |
| :---: | :---: | :---: |
| man | kou'tcun | kou'tcun-a |
| child | wit'ep | wit'èp-a |
| medicine-man | añt.u | añut.w-a |
| younger brother | nèec | nèec-a |
| older sister | nāat | nāat-a |
| son | butcoñ | butcoñ-a |
| daughter | axid | axd-a |
| son-in-law | napātum | napat'm-a |
| bear | d $\bar{u} u \times \sim \mathrm{n}$ | d $\bar{u} \times n-\mathrm{a}$ |
| panther | wöhöcit | wahact-a |
| man's sister's child | tcayax | tcayax-a |
| woman's sister's child | axi | axi-a |
| woman's brother's child | napac | napāe-a |
| grandmother | bap' | bap'-a |
| daughter-in-law | onmid | unimd-a |
| father-in-law | naxamic | naxame-a |
| mother-in-law | ontip | unitp-a |
| brother-in-law | nip 'èi | nip'èy-a |
| mountain-sheep | diwècip | diwecp-a |
| rabbit | ti'w | ti'w-a |
| beaver | töpük | töpk-a |
| raccoon | küt. $u$ | kït.u-a |
| small dark rabbit | mātci | mātcy-a |
| gopher | hung ${ }^{\text {ut }}$ | hunuxt-a |
| condor | wite | wīte-a |
| hawk, sp. | cuxup | cuxp-a |
| prairie-falcon | limik | limk-a |
| crow | aduut. | aduut.-a |
| bird | dètcip | dètcp-a |
| bat | te'imte'im | te'imite'm-a |
| water-snake | yax | yax-a |
| quail | hummud | humumd-a |
| eye | caca | caca-a |
| nose | t.üñük | t.üñk-a |
| ear | tuk | tuk-a |
| forehead | t.üdu | t.üdu-a |
| skin | tcudui | tcudi-a |
| bone | te'ii | te'īy-a |
| liver | dip | dip-a |
| kidney | tcinèkit | tcinèkt-a |
| vagina | umut | umta |
| guts | doc | doc-a |
| excrement | bidik | bid 'k-a |
| tail | gut | gut-a |
| tree | yapkin | yapikn-a |
| water | idik | idk-a |
| hunting arrow | cikid | cikd-a |

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| English | Subjective | Objective |
| :---: | :---: | :---: |
| bow | dayap | daip-a |
| town | t.ipic | t.ipe-a |
| world | p'āan | p'āan-a |
| wife | yiwin | yiun-a |
| body | podut | podt-a |
| game ball | odot | odot, odot-a |
| pestle | padui | paduy-a |
| cane, reed | kadkid | kadikd-a |
| fish | dopit. | dopt.-o |
| skunk | tcox | tcox-0 |
| squirrel | yoñho | yoñho-o |
| head | tònt. | tòot.-o |
| belly | t.ot. | t.ot--o |
| hole | cokod | cokd-0 |
| mountain | domit | domt-o |
| fire | ucit | oct-o |
| pillow | odix | odx-0 |
| spring of water | bokid | bokd-o |
| younger sister | nòot | nòot-u |
| mother | najoj | najoj- ${ }^{1}$ |
| jackrabbit | tukuyun | tukuin-u |
| animal sp. | dumòdumute | dumodumte-u |
| owl | hutulu | hutulu-u |
| lip | yipyeput. | yipiyapt-u |
| woman | muk'ac | mok'c-i |
| older brother | nibete | nibetc-i |
| father | natet | natèt-i |
| parent of child-in-law | makci | makci-i |
| wolf | iwèite | iwètc-i |
| coyote | kaiu | kaiiw-i |
| eagle | d.oxid | d.oxd-i |
| bald eagle | owik | òk-i |
| raven | gòk-udètc | gok-udètc-i |
| gopher-snake | huc-udètc | huc-udetc-i |
| frog | koyoyite | koyoyitc-i |
| house | t.e | t.è-i |

The nouns that do not change for the objective have been previously given.

It appears from this list that the considerable changes in the stem occurring in the expression of the plural are not found in

[^7]the objective. As a rule the quality of the stem vowels is not affected by the objective suffix. There is however an inclination to drop the last vowel of the stem before the suffix. A considerable proportion of nouns, about half, indeed do not show this shortening; but when monosyllables and stems with vocalic ending, which are incapable of such change beyond softening i and $u$ to $y$ and $w$, are omitted from consideration, at least three nouns out of four are seen to drop their last stem vowel before the objective suffix. Limik makes limk-a; cuxup, cuxp-a; yiwin, yiun-a; dūxun, d $\bar{u} \times n-a$; owik, òk-i ; wöhō̄cit, wahact-a; muk'ac, mok'c-i; ucit, oct-o. The exceptions found are butcoñ, put•on, tcayax, napac, nahāt-, nibete, aduut-, odot, gòkudète, hucudète, koyoyite. Not infrequently a vowel appears in the middle of the word to compensate for the loss of the one in the last syllable; or the double process may be regarded as a transposition of the vowel. In four-consonantal stems the new vowel usually appears between a double consonant in the middle of the word: ontip, unitp-a; kadkid, kadikd-a; te'imte'im, te'imite'm-a; onmid, unimd-a; hung' ut, hunuxt-a. In such cases there is occasionally a change in vowel quality also.

The word-accent also, which is no doubt causally related to the quantity and quality of the vowels of the word, is not affected by the objective suffixes as by the plural ones. Whereas in the plural the accent, according to the suffix added, usually moves forward or backward in the word, in the objective it almost always remains in place. This immovability of the accent before the objective suffix is no doubt connected, either as cause or as effect, with the tendency of the normal accent to rest on the penultimate syllable of the word, and the tendency of the last vowel of the stem to be lost before the objective suffix as its equivalent, as it were.

It will be seen that the considerable similarity between the plural and the objective suffixes,-respectively i, sometimes a; and a, sometimes $i$,-does not extend to the forms assumed by the stems to which these suffixes are added. On some words the suffixes are actually identical, whereas the stems differ vocalically according to the grammatical meaning of the suffix.

| Meaning | Subjective | Objective | Plural |
| :--- | :--- | :--- | :--- |
| woman | muk'ac | mok'c-i | muk'èc-i |
| older brother | nibetc | nibetc-i | nè'batc-i |
| parent of child-in-law | makci | ma'kci-i | makèc-i |
| older sister | naat | na'at-a | nait-a |
| man's sister's child | tcayax | tcayax-a | tcayix-a |
| woman's brother's child | napac | napāc-a | na'pic-a |
| father-in-law | naxamic | naxame-a | na'xmic-a |

The differences in the objective and plural forms of the above words, which are entirely typical, show that the vocalic changes in the stem are not due merely to the direct phonetic effect of the suffix, but are caused rather by the general rules of formation for these two categories; the specific influence of the suffixes, if it ever was dominant at all, must have been more in the development of the general methods of formation characterizing the category, and in stimulating the active operation of a process of analogization, than exerted on the particular forms of stems existing at present.

An entirely similar case, which has also already been referred to in another connection, is the difference in stem presented when the plural suffix -i, and the derivative suffix -i denoting the death of a connecting relative, are respectively added to the same stem :

| Meaning | Singular | Plural | Relative dead |
| :--- | :--- | :--- | :--- |
| Mother-in-law | ontip | onètap-i <br> onèmad-i | unitip-i <br> onimid-i |

## Other Cases.

The four remaining cases, the possessive, instrumental, locative, and ablative, follow the objective in usually causing the loss of the last vowel of consonantally ending stems, being in fact formed from the stem used in the objective, and not from the absolute or subjective stem-form. Thus: cikid, cikd-a, cikdañ; idik, idk-a, idk-au, idk-anit; limik, limk-a, limk-in, limk-au; cuxup, cuxp-a, cuxp-un. The only exception found is cokod, hole, objective cokd-o, locative cokod-iu. The possessive, instrumental, locative, and ablative agree among themselves and differ from the objective in being always expressed by a suffix and never identical with the subjective, as the objective is in many words.

The possessive ending is -in. On stems whose last vowel is $u$, or o following $u$ in a preceding syllable, -in becomes -un. Monosyllabic o-stems, as well as those containing ultimate o preceded by any vowel except $u$, and all stems whose last vowel is $i$, e, or a, take -in. The only exceptions are noot and najoj, which form noot-un and najoj-un, and which in the objective also take -u and -o instead of more regular -o and -a. Wöhöcit takes -un, t.ööd, -in.

Final vowels do not present the same resistance to the possessive as to the objective suffix. Usually the -in or -un is simply added: dīya', diya'-in; nip'ei, nip'ey-in; küt•u, küut•u-un; lā'la', lā'la'-in; upyayi, upyayi-in. Certain nouns impervious to the objective and usually causing the addition of -tc- or -c- in the plural, take the possessive suffix after losing their final vowel.

| Subjective-Objective | Plural | Possessive |
| :--- | :--- | :--- |
| hayana |  | hayan-in |
| tcoto |  | tcot-in |
| nòtco | nutcè-i | notc-in |
| ñohoo | ñoh-i-c-a | ñoh-ī-in |
| hupana | hopna-tc-i | hupan-in |
| moxodo | moxdi-tc-a | moxod-in |

The instrumental, locative, and ablative seem to be based to some extent on the objective even as regards the phonetic form of their suffixes. Where the objective shows what must be considered its normal form, namely $-a$, the characteristic endings of the three cases at present under consideration are added directly to this -a: duy, eating, food, objective duy-a ; duy-añi, by means of eating, duy-au, at, for, eating; idik, idk-a, idk-au, idkanit; tuk, tuk-a, tuk-añi, tuk-au. After monosyllables -añi replaces -añ. Where the objective is -0 , the instrumental is -oñ, the locative -o. Where the objective is unexpressed by a suffix, the formation of these cases varies. Some words show an instrumental in -ñi or -iñ, and a locative in -iu; others respectively -añ or -oñ, and au. On demonstratives which end vocalically the instrumental is -ñi, the locative -u, the ablative -nit. The following list shows such minor variations.

| Meaning | Subjective | Objective | Instrumental | Locative |
| :---: | :---: | :---: | :---: | :---: |
| bird | detcip | detep-a | detcp-añ |  |
| tree | yapkin | yapikn-a |  | yapikn-au |
| arrow | cikid | cikd-a | cikd-añ |  |
| water | idik | idk-a |  | idk-au |
| bow | dayap | daip-a | daip-añ |  |
| nose | t.üñu k | t.üñk-a | t.üñk-añ | t.üñk-au |
| ear | tuk | tuk-a | tuk-añi | tuk-au |
| forehead | t. $u$ d $u$ | t. $u$ d $u$-a | t. $u \mathrm{~d} u$-añ | t. $u$ d $u$-au |
| skin | teudui | tcudi-a | tcudi-añ | tcudi-au |
| bone | tc ${ }^{\text {i }}$ | te'ì-a | te'ī-añi | te'ī-au |
| vagina | umut | umt-a | umt-añ | umt-au |
| eye | caca | caca-a | caca-ñi | caca-u |
| guts | doc | doc-a | doc-oñi | doc-ou |
| head | toot. | toot.-0 | toot.-oñ | toot.00 |
| pillow | odix | odx-o |  | odx-0 |
| hole | cokod | cokd-o |  | cokod-iu |
| house | t.e | t.e-i |  | t.e-u |
| breast | pôötc | pöötc | pôötc-añ | pöötc-au |
| rock | yakau | yakau | yakau-añ ${ }^{1}$ | yakau-au ${ }^{2}$ |
| stick | witcet | witcet | witcet-añ |  |
| foot | wutoñ | wutoñ | wutoñ-añ | wutoñ-au |
| basket | katcau | katcau | katcaw-uñ | katcaw-u |
| sweathouse | moc |  |  | moc-au |
| brush | yawud |  |  | yaud-au |
| awl | bawuk |  | bauk-uñ |  |
| clover sp. | tcit'at | tcit'at |  | tcit'at-iu |
| tongue | tadxat. | tadxat. | tadxat-nii | tadxat.-iu |
| mamma | mènite | mènitc | mènitc-ñi |  |
| testicles | hoñ-oc | hoñoc | hoñoc-in | hoñoc-iu |
| leaf | dapdap | dapdap |  | dapdap-iu |

## Cases in the Plural.

The objective of the plural is uniformly identical with the subjective plural.

The possessive plural is formed from the subjective plural by the suffixion of -n. The possessive of -i plurals thus is -in, of -a plurals -an, and of the one -o plural found, mokoi-o from mokoi, mother's sister, it is -on, mokoi-on.

[^8]
## THE VERB.

Of the traditional categories of inflection of the verb : person, number, tense, mode, and voice, the Yokuts verb is entirely without expression of person. There is not even so much change for person as the one rudimentary inflection that persists in the verb of spoken English. This total lack of pronominal incorporation is perhaps the prime characteristic of the Yokuts verb.

Less frequent than pronominal incorporation, but sometimes held to be equally typical of the principles of procedure of American languages as a whole, is a differentiation of verb stems for number. Such differentiation may be by inflection and affixion, or may be radical; in transitive verbs it refers to the number of the object. This expression of number is, however, like that of person, entirely wanting in the Yokuts verb. There is one case of stem differentiation; taudj means to kill one, cox to kill more than one. How far the feeling of the language for the difference between these two stems is a grammatical one, or how far there is a connotation in one stem of "kill," in the other of "exterminate," it is impossible to say.

The reduplicated verb stem occasionally has the appearance of indicating a plurality of objects, but this is probably only incidental, the reduplication being used to express the repetition of the verbal act which usually is implied in a dynamic action affecting several persons or things, rather than to express the plurality of these persons or things themselves.

Tense, mode, and voice are all expressed by one method, suffixation, several phonetic elements existing to designate the various categories.

## SEMI-DERIVATIVES.

Contrasting with the tense, mode, and voice suffixes is another class of suffixes expressing ideas which most languages agree in regarding as less grammatical in nature than these and more derivative and stem-formative. Yokuts shows this same feeling in that it treats the affixes expressing this class of ideas differently from those relating to tense, mode, and voice. Such
semi-derivative suffixes always precede the grammatical ones, being joined directly to the stem. They include a causative, frequentative, desiderative, benefactive, intransitive, and reflexive.

The causative, which is not very frequent, is expressed either by the suffix -da or by lengthening, with change, of the ultimate stem vowel.

$$
\begin{array}{ll}
\text { t'ic, to emerge } & \text { t'ic-da-yan, let him come out! } \\
\text { üñ, to be leaning } & \text { ün-añ-da, lean it! } \\
\text { duy, to eat } & \text { dui-da-c, made eat } \\
\text { ka'm, to dance } & \text { tcān na mam ka'm-da-d, I will } \\
& \text { make you dance }
\end{array}
$$

Similarly ök-da-d from öka, see, and ep-da-d from ep, swim.

| üdük | sing | üdōök | make sing |
| :--- | :--- | :--- | :--- |
| uk-un | drink | uk-òon | make drink |
| dawid | run | dawāad | make run |
| tax-in | come | taxāan | make come |
| xuyu | return | xoyoo | bring back |

Had-ad, to raise, with its intransitive had-ad-in, to rise, is perhaps a causative formation from had-in, to rise.

The frequentative -ta is also not very common.

| aj to bite | aj-aj-ta-c | bit often |
| :--- | :--- | :--- |
| tcabop to lie on the belly tcabop-ta-ji | na | I was lying on my belly |
| had-ad to raise | hada-ta | raise it several times! |
| damna to try | daman-ta-c | tried (all his arrows) |
| t'uy to shoot | t'ui-ta-i | shoot repeatedly |

The desiderative is -tcin or -atcin.
$\tan$ to go na tān tan-atcin-ad I too would-like-to-go duy to eat duy-atcin-ad na I would like to eat öka to see üka-tcin-in tañ wishing to see him t'umi to throw at tomoi-tcin-ac manan you tried to throw at me xate to stab xatc-atcin-ac manan you tried to stab me

The suffix -cit expresses the fact that the action of the verb is done for the benefit of some one. The noun or pronoun designating the person thus affected is in the objective case, the object itself in the instrumental.
$\max$ to get max-cit-ji nan duy-añi brought-for-did me foodwith: he got me something to eat.
tü̈ to make tüüc-ücta nan daip-añ
$u ̈ \mathrm{~d} u ̈ \mathrm{k}$ to $\operatorname{sing} \quad u ̈ \mathrm{dk}-u ̈ \mathrm{ct}-\mathrm{a}$
cuina to buy cuina-cti nan xèñi
bi to finish bii-cit-in tan-ji
make-for me (with-) abow. sing for. buy me this!
having made it for him, he went.

The intransitive -in is frequent. Many verbs, such as uk-un, to drink, regularly contain this suffix. In some cases it denotes automatic, uncaused, unintentional action: wox-ji, fell, implying causation, wox-in-ji fell, of itself. T•ati-ji na tañ, I broke it, literally, break-did I that; t-at.i-n-ji nan xe, I broke it unintentionally, literally, broke me this; na tööc-ad doowac, I make battle; nanau tööc-n-ad doowac, for-me (literally, me-at) is-made battle. Had-ad, to raise, had-in, to rise, and had-ad-n-ad, rises. T'oñ-un, to drown, tüüj-ïn, to become, t'uy-in, to be night, tawin, to be day, dok-in, to be satisfied from hunger, hic-in, to hide, yiw-in, to marry, tax-in, to come, and other stems, show this suffix.

The reflexive, which in phonetic detail is somewhat variable, is an important formative. Its fundamental form is perhaps -wic, which also appears as -ūj, -wac,- woc, often with the introduction of a preceding long vowel. In this supposed fundamental form the reflexive verb is used as an abstract noun. The tenses of the reflexive are formed by adding the usual suffixes to this base, forming -wici, -ūcac, and -ūead or -wicad; only the future and participial suffix -in seems averse to being superadded to the reflexive (as to the intransitive), so that the future is expressed by -wic without any further suffix. A suffix related to the reflexive, and appearing to have the force of referring the verbal action to the body, is -wid, appearing with tensesuffixes as wid-èn, wid-ji, wid-ed, and perhaps wita. An imperative -we is perhaps connected more nearly with this form rather
than with the -wic reflexive. ${ }^{1}$ The suffix -umdūuc or -umduwic denotes a person accompanied by that one of his relatives designated by the stem of the word. The category of reciprocity does not appear to be strictly distinguished from the reflexive. The reciprocal forms obtained contain the reflexive suffix, the frequentative -ta, and are usually reduplicated. It is not certain how far these means are actually used to express the idea of reciprocity, and in how far they are the expression of the repetition which is very apt to be implied in any plural verb with the object "each other."

| doo-wac | battle |
| :--- | :--- |
| katd-ūwic | kated-game |
| tcom-woc | a hiding and guessing game |
| tcatcn-ūwic | stave game |
| t.it-wac | copulation |
| hoyo-wac | name |
| tañy-ūwic | ceremony of drinking jimson-weed (tañai) |
|  | I kicked myself (day) |
| dai-wicu na | I whipped myself (eap) |
| cap-wicu na | I used to whip myself |
| cap-a-uj-ad na | I shall whip myself |
| cap-ā-wic nihi | I hit myself with a stick (wot.) |
| wot--wici na | I used to hit myself |
| wot--òj-od na | I shall hit myself |
| wot-òwic nihi | I shall eat myself (duy) |
| duy-òwic nihi | made herself, turned to, a log |
| tcān na tüüj-wac t'oñotemi | I shall be t'oñotcim (tüc, make) |
| tcān t'uy-u-t'y-uwue t-aatei | there will be a great battle, (people will shoot |
|  | each other, t'uy) |
| tööj-ūj-ac woxono | combed herself (tcönic) |
| tcanj-ūj-ac |  |

[^9]

TENSE, MODE, AND VOICE.
The final suffixes of tense, mode, and voice are two preterites in -ac and -ji; a finite future and a present participle in -in; a continuative, indefinite as to time, in -ad; a passive in -it; a future passive and an active verbal objective noun in -nite, sometimes -añite; an agent in -ite; and a participial form in -ana. The unaffixed stem is used for the imperative and sometimes in the indicative. Cases can be added directly to the stem treated as a noun, as well as to some of the temporal-modal forms. The suffix -ana may possibly be a case form of the participial ending -in; the locative -u added to the preterite -ji makes a temporal participle.

## Vocalic Mutations of the Stem.

The stem preceding these modal-temporal suffixes often undergoes a vocalic change previously referred to. The form of
the stem which may be considered the normal one occurs before i-suffixes; a changed form before a-suffixes. The mutation as it occurs in monosyllabic stems ending in a consonant is as follows:

| Before $i$-suffixes | Before $a$-suffixes |
| :---: | :---: |
| u | 0 |
| 0 | u |
| $u$ | $o$ |
| 0 | $u$ |
| $\ddot{u}$ | $\ddot{o}$ |
| $\ddot{o}$ | $\ddot{u}$ |
| i | e |
| e | i |

A undergoes no change. Monosyllabic stems ending in vowels also do not change.

Disyllabic stems are fewer and their changes more complicated, so that the principles governing their mutations are not so clear. Where the stem is derivative from a monosyllabic radical, either by reduplication, by the common intransitive suffix -in, or by some other suffix, there is a considerable tendency for the secondary syllable to contrast, according to the pairing just given, with the primary one, whatever the form of the stem; so that in these verbs the vocalic mutation is a double shift. For instance :

| Before i-suffixes | Before $a$-suffixes |
| :---: | :---: |
| t'oñ-un | t'uñ-on |
| dem-dim | dim-edm |
| höp-ud | hüp-od |
| dötc-ün | dütc-ön |
| wo-wud | wu-wod |

Sometimes, on the contrary, the derivative -in assimilates with the stem vowel. In this case, when the stem vowel changes before an a-suffix, the vowel of the derivative disappears.

| Before $i$-suffixes | Before $a$-suffixes |
| :---: | :---: |
| tid-in | ted-n |
| uk-un | ok-n |
| tüüc-ün | tööc-n |

Disyllabic stems whose vowels are i and e interchange these before a-suffixes; disyllabic i stems change the first ito e and lose the second.

| eñt•im | iñet•im |
| :--- | :--- |
| ipe | epi |
| hiwet | heut |
| ciwex | ceux |
| pitid | petd |
| winis | wens |
| xit.iu | xet•u |

Final vowels in disyllabic as well as monosyllabic stems are usually not changed; the preceding vowel also sometimes does not alter.

| waki | waki |
| :--- | :--- |
| hoyi | hoyi |
| xuyu | xuyu |
| öka | üka |
| k'ünu | k'an $u$ |
| t'umi | t'omi |
| tcit'a | tcet'a |

Disyllabic stems with primary a do not alter this. An i in the second syllable after an a in the first changes to a before asuffixes. If the first syllable ends in $w$, the second vowel, whether i or a, disappears before a-suffixes.

| cadik | cadak |
| :--- | :--- |
| tcadx-in | tcadax |
| amid | amad |
| a'-in | a'-an |
| bax-in | bax-an |
| hawid | hawad |
| dawid | daud |
| tawidj | taudj |
| awat. | aut. |
| tawac | tauc |

A fundamental feature of these verbal stem changes is that the altered stem vowel is not in direct accord or assimilation
with the vowel of the suffix that might be supposed to have caused the change. While the process of stem-mutation appears to be set in operation only when certain phonetic elements are suffixed, the mutations are by no means directly determined from these elements but entirely follow their own rules.

There are two apparent departures from the rule that one form of stem is used before i-suffixes, the other before a-suffixes. First, the stem otherwise found before a-suffixes occurs generally before the agentive-purposive -itc. Many verbs however show this suffix in the form -aitc, -èitc, -āte, and some of those that have merely -ite lengthen and accent the last vowel of the stem. It appears from these facts, and is confirmed by similar conditions in the Yauelmani dialect, that the full form of the suffix is not -ite but the equivalent of -a-ite, or -ite combined with another element, possibly the causative. This explains the a-suffix stem used.

Second, case suffixes, namely -a, -au, and -añi, are added to the i-suffix form of the stem. The explanation of this fact is that when provided with these case-suffixes the verb-stem is a noun, so that the verbal laws of vocalic change are inoperative. What seems to be the i-suffix stem-form in these case-formations is only the normal form of the stem, as it appears for instance in the unsuffixed imperative. This fact is typically illustrative of the nature of the laws of vocalic harmony in the language. Were the basis of these laws purely phonetic, that is to say physiological, the stem duy, which becomes doy-ad and doy-añite, should also become doy-a and doy-añi; that it remains duy before the case-suffixes -a and -añi is evidence that the grammatical circumstance, of the stem with the suffix -a or -añi being syntactically a noun, is of more consequence than the phonetic circumstance of the vowel of these suffixes being a; in other words that an abstract grammatical distinction entirely suspends and again sets in operation this concrete and physical phonetic law. That this potent distinction is the fundamental but purely formal one between noun and verb, is food for thought for those who have been taught to regard American languages as, in the higher linguistic sense, "formless."

It is of course theoretically possible that this inoperativeness of the verbal law of vocalic change before case suffixes is due to some original but now vanished difference between the phonetic content of the case suffixes and the modal-temporal suffixes; in other words, that -a and -añi fail to produce a stem-vowel change in verbs not because they are case-suffixes which by their presence convert the stem into a noun, but because in some former period they differed vocalically, just as now they differ consonantally, from the suffixes -ad and -añite, and that the stemdifferentiation, which at that time occurred before the two sets of suffixes according to physiological influences, became crystallized and has survived as an apparent psychological distinction to this day when the suffixes no longer bear their original form. Such an explanation is entirely possible and will no doubt be made by those who are so inclined; nevertheless, when we do not go beyond what we actually have knowledge of, which is the language in its present form, it is indisputable that in this point grammar, that is to say psychological activity, predominates over physiological activity or phonetics.

The use of the two contrasting verb-stem forms is recapitulated in the following classification.

| First form of stem | Second form of stem |
| :---: | :---: |
| -ji | - ac |
| -it | - ad |
| -in | -ana |
| -nite | -añite |
| [-ite] | -ite |
| uffixed stem, indicative. | Unsuffixed stem, indicative, re- |
| uffixed stem, imperative. | duplicated. |
| -añi, -au, non-verbal] |  |

A number of verbs, a minority of those known, show a secondary differentiation of stem in regard to the future and participial suffix -in and the past suffix -ji.

Monosyllabic o stems containing two consonants usually change $o$ to $u$ before -in, so that the stem of this tense agrees exceptionally with the a-suffix stem.

| $-i n$ | $-j i$ |
| :--- | :--- |
| buk | bok |
| cux | cox |
| dux | dox |
| hut | hot |
| wut. | wot. |

The stem of the passive in -it seems to agree with the -in form in these verbs.

Certain disyllabic stems lose their second vowel, which is light, before -in and the passive -it, but retain it before -ji and in the unsuffixed stem. This difference is evidently merely due to the vocalic beginning of -in and -it as compared with consonantal -ji. There is no approximation to the a-suffix stem, for this tends to emphasize the second stem vowel instead of dropping it.

| -in | -it | $-j i$ | Imperative | $a$-suffix |
| :--- | :--- | :--- | :--- | :--- |
| dukd-un | dukd-ut | dukud-ji | dukud |  |
|  | hupc-ut | hupuc-yu | hupuc |  |
| patd-in | patd-it | patid-ji |  |  |
| pitew-in | pitcw-it | pitciu-ji | pitciu |  |
| amd-in |  | amid-ji | amid | amad- |
| pitd-in |  | pitid-ji | pitid | pètd- |

Another occasional stem-difference between the -in-tense and the -ji-tense is accompanied by a double form of the -in-tense. This difference within the -in-tense seems to be due to a distinction made between the two meanings expressed by the suffix, namely a finite future or present and a participle. In the verbs in which the forms for these two ideas are not alike, the participial -in has the stem-form of the -ji-past; the stem of the future -in differs.

| Imperative | -in future | -in participle <br> or stem | -ji | - $a$-suffix |
| :--- | :--- | :--- | :--- | :--- |
| waid | waad-in | waid-in | waid-ji | waad- |
|  | hüpod- | höpud | höpud- | hüpod- |
| tcup | tcup-an | tcop-un | tcop-un-ju | tcop- |
| t'ui | t'oy-an | t'uy-in | t'uy-in-ji | t'oy- |

The temporal and modal suffixes are not much modified by the stem. -Ji and -it follow the rule of the possessive suffix -in in their susceptibility to the stem; they become -ju and -ut after
stems containing $u$ in the final syllable and after disyllabic stems containing $u$ followed by o. The suffix -in undergoes greater modifications, which have been described in the general discussion of the laws of phonetic mutation. This suffix shows some tendency to contrast the quality of its vowel with that of the stem. The -nite and -añite suffixes do not change; -ite varies somewhat irregularly, being sometimes -èitc, -aitc, -utc. After pure a-stems it becomes -atc. The a-suffixes -ac and -ad are unmodified except that pure $o$ stems usually cause a change of a to 0 . A softening to e on stems whose last vowel is i is also heard. -Ana is unaltered; it has some power of assimilating the preceding syllable to -a-.

## Imperative.

The imperative is the stem of the verb. It agrees with the stem of the i-suffix forms, as found most purely in the -ji past. The singular imperative is the stem alone; the dual, plural, and optative are indicated by the postposed enclitics yak, yan, han, and ca. Yak and yan are sometimes attached to other words and may precede the verb. Han is usually heard as a separate word. Ca sounds much like a suffix, but as it does not affect the vowel quality of the verb stem as it should if a suffix, resembling in this respect yak, yan, and han; and as it is always so closely followed by the pronoun that this forms part of it as much as the particle itself does of the verb; there seems no reason to regard it as anything else than an enclitic.

Yak denotes the dual, yan the plural. These forms are related to the pronouns, whose indications of dual and plural are $-k$ and $-n$. Ya, their first element, is found as an independent adverb at the head of imperative and optative sentences. Han indicates a modified imperative, sometimes translated "I want you to." Ca indicates the optative of the first person.

| dox | spill! |
| :--- | :--- |
| t.'ik | tie! |
| pite' | count! |
| dūi | eat! |
| dūi-ak | eat! (dual) |
| dūi-an | eat! (plural) |
| taxin | come! |
| taxin-iak t'ic-yak | come, come out, you two! |


| ôka-yak nan am öka | look at me, you two! don't look! |
| :---: | :---: |
| am yan ôka | don't ye look! |
| am yak pat-ūja | don't you two fight! |
| tau-yan xoodo | there make him sit! (plural) |
| ka'm han | I want you to dance! |
| ka'm han yan | I want ye to dance! |
| nuhuk han | kneel! |
| teuduk han | point at it! |
| höñ-han xiñ | I want you to smell this! |
| ya'-mak e'p-ca-mak ta'xin, piti'd-ca-na-mam | let us (two) swim. come here, I will tell you <br> a story (come, relate-let-I-thee). |
| ka'm-ca-mak | let us two dance. |
| ya'mak t'ui-t'ui-ca-mak tacdi | let us go shoot them. |
| ya'mai doo-ca-mai | let us (plural) play. |

The future indicated by the suffix -in, by the particle hi, or by both, is frequently used to express the imperative.

## Future and Participle.

The important suffix -in expresses both a finite tense, primarily future but verging on the present, and a participle used like the English present participle when it is adjectival to the subject of the principal verb, as in "he went singing." In ordinary simple verbs it is the suffix -in that has both these meanings; in the reflexive both significations appear to be expressed without the suffix -in; and only after the derived intransitive -instem and in certain verbs like k'on, daka, öka is there the distinction that the future indicative is expressed by the stem but the participle adds its proper -in. Tax-in, to come, is used for "will come"; tax-in-ji is came, tax-in-in, coming. Dötc-ün-ün, being cold, padu-un-un, being inside, uk-un-un, drinking (uk-un, will drink), are other cases.
tau akam ni hi daka, there perhaps I shall spend-the-night.
puñyid dakā-in am tacdi wat $\ddot{u} k \bar{a} a c$, twice spending-the-night, not them anyone saw.
pinètji. . . .bok hotc-in-in tañ, he asked, wishing to find her.
hideu tanāad tawidj-in, where does-he-go dying?
cukid-ji muk' $a c$ üka-tcin-in tañ, made-a-hole the-woman seewishing him.
ama tā-nit bii-cit-in tan-ji, then there-from finished-it-for-him-having came.
ot-in-in tid-in-ji, falling he-rolled-down.
In a few verbs, namely $\ddot{u} \mathrm{tad}$ hungry, öka see, hüpod menstruate, in which the unsuffixed indicative stem with future meaning takes the place of the -in-suffix future, this unsuffixed indicative stem differs from the imperative and i-suffix stem and agrees in vocalic form with the second or a-suffix stem.

The unsuffixed reduplicated stem is also used as a future or perhaps an indefinite indicative. The reduplication in this case is always of the kind with metathesis of the second vowel, and the first syllable has the a-suffix form of the stem.

| hiemxac na haya-wic | to-morrow I shall-laugh (cf. haya-uc-ad) |
| :--- | :--- |
| hiemxac na ah-in | to-morrow I shall-cry (cf. ahn-ad) |
| wica akam ni hi yo ütad | soon perhaps I shall again hunger |
| ta na mam üka | if (lit. that) I you see |
| na ka'm-a-ki'm | I dance |
| xit.iu hi | angry will-be |
| teān na tud-ò-tud xiñ p'ãna | (future) I burn this country |

The future is usually accompanied by one of two particles: tcān, placed at the head of the sentence, perhaps meaning soon, and denoting the immediate future; and hi, indicating a more general future. Hi is an enclitic and is postposed to the personal pronouns. It has the effect of changing na, I, and ma, you, to ni and mi: ni'hi, mi'hi. No other similar modification of the pronouns seems to exist.
tant-i'n namamhi
tcā-na tux-òn
dux-è'n mi-hi
pitew-in na tañ pite'-è'n na tañ hi

| $\mathrm{a}^{\prime} \mathrm{m}$ | na | hootiid | hawid-in | hi | tañ tcok-un |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |

Continuative.
The suffix -ad marks a continuative and usitative, which appears to be entirely indefinite as to time, since it is sometimes past, sometimes present, and sometimes future.
> hide ma tanāad where are you going?
> hunai na heutad I am just traveling (for-nothing I go)

## Past Tenses.

The past is expressed by the two suffixes $-j i$ and $-a c$. These may perhaps be related in origin. -Ji forms the ordinary narrative tense. The -ac forms do not seem to be used without being connected with an adjacent -ji form, though they are probably not strictly dependent or subordinate forms. Sometimes the -ac tense occurs in what corresponds to a relative or temporal clause in a sentence whose principal verb has the suffix -ji; occasionally the relation is the opposite; and sometimes both tenses are distinctly finite, but the two sentences in which they occur present a certain contrast. The -ac tense is probably in some way analagous-not equivalent-to the Indo-European pluperfect, which also cannot exist without at least a logical reference to some other past time.


There is no present tense-suffix in the language, this tense being expressed variously by the future, the continuative, and the -ji-past suffixes.

Passive.
The passive in -it is in every sense a true passive, and not very uncommon. It is past in meaning, or present when the present passive state implies a past action.

| buk-it na | I was found |
| :--- | :--- |
| dukd-ut na | I am buried or I was buried |
| na hupe-ut | I was selected |
| na had-ad-it | I was raised (na hadinji, I rose) |
| pite'-it mak | we were counted |
| bi-it ma | you are eaten ('you were finished') |

## Participles and Verbal Nouns.

The -itc suffix forms a noun agent: tcow, work, tcuwèitc, worker, $\ddot{u} \mathrm{~d} \ddot{\mathrm{u}} \mathrm{k}$, sing, $\ddot{u} \mathrm{~d} \tilde{k} \mathrm{k} u ̈ \mathrm{tc}$, singer, yiwin, marry, yuwènitc, husband, ka'm, dance, ka'māatc, dancer. The same form is also used as a purposive: tan-ji t.okt-ik-itc, he went to hunt. Of course there is no wide difference between "he went hunting," "he went as hunter," and "the hunter went."
taxn-a'd na amād-i'tc mam come I to-help you
xe ${ }^{\prime}$ nim amā'd-ite he (is) my helper

The phonetic formation of this verbal is not clear, as it appears to be usually derived from the a-suffix stem of the verb but sometimes from the i-suffix stem, and as often -itc becomes -èitc, -āitc, or -ātc, or is accompanied by lengthening of the last stem vowel.

| yuwènitc | yiwin | marry |
| :--- | :--- | :--- |
| dòowitc | doo | play |
| üdōkütc | üdük | sing |
| ipyitc | ipi | get water |
| hawaditc | hawid | do |
| hiutitc | hiwet | go, walk |
| dixedite | dixid | make basket |
| amāditc | amid | help |
| goyuwinitc |  | gamble |
| tcit'èitc | tcit'a | eat clover |


| dapyitc | dapi | pick, gather |
| :--- | :--- | :--- |
| pite'èitc | pite' | count |
| pudāitc | pod | cross stream |
| tcuwèite | teow | work |
| ka'maate | ka'm | dance |
| ahanatc | ah-in | cry |
| ükāatc | öka | see |
| wòudutc | wo-wud | stand |
| tièditc | teid | guard |

Like -in and -itc, the suffix -nite has two functions. It forms a future-present or continuative passive; and it forms an active verbal used as the object of an indicative verb, the subject of the verbal being rendered possessive by the substantivification. The passive form on some stems is -añitc instead of -ñitc, in which cases the stems undergo the a-suffix mutation.

| dai-ñite na | I shall be kicked |
| :--- | :--- |
| bok-ñite na | I shall be found |
| day-a-dy-a-ñite na | I am being kicked |
| watak ta patd-añite | someone was being cut open |
| tcãn mai cox-ñite | now we shall all be killed |
| hā-ñi mi hi hoyo-ñite | what-with you will named-be? |

hiam na tcuñ-ju nim tcowo-ñitc, now I have-completed my working.
haujad ta ma hoitcad nim tañ tamna-ñitc, how-many-times that you wish my that trying (me to try it)?
ükāc na min tañ dui-da-ñitc, I saw you making him eat (saw I your him eat-making).

Much like the -ñitc forms in function and use are the objectverbals formed directly from the simple verb stem with case suffixes.
ükāc na min üdk-a, saw I you (your) singing.
ökaj na min yiun-in ipe-i, saw I your wife's water-getting.
am-na hootcad minik $\ddot{u} \mathrm{k}-\mathrm{n}-\mathrm{a}$, not-I want ye to-look.
maiāju tööj-ad an t'uñ-na, himself made his drown.
dañāc na min xay-a, heard I you what-said (your speech). na hutop min xay-a, I shall-learn your language.

As previously stated, other case-formations of the verb stem are similarly used as nouns: ukn-au, at drinking, on account of drinking; duy-añi, in order to eat, for food.

The suffix -ana forms nouns and participles. Sometimes it has the appearance of an -in participle modified by the added -a of the objective; but this explanation does not cover many cases and is problematical. Generally -ana seems to have the force of a - one.

| tcapana | half | tcop | divide |
| :--- | :--- | :--- | :--- |
| yuwana | married one | yiwin | marry, wife |
| hupana | widow, widower |  |  |
| baxana | coward | bax | fear |
| hixana | fat one | hèxa | fat |
| ciñana | thin one |  |  |
| hayana | duck | hayin | fly |

xi katcau map-ana, this basket is-full (a-full-one).
bok-ji na main t-e-i at-ad-ana, found I our house open.
bok-ji na patad-ana, found I a-disemboweled-one.
haaktci na tau bok-ji nukam-ana, something I there found bent.
hanak tau ka dadak-ana, something there that is-hanging.
A characteristic construction of the language is a temporal clause formed by the -ji past tense to which the locative -u is added, the subject becoming possessive.
$u \mathrm{k}$ ā namamhi tuyuji-u min, I shall see you when you return (see I-you-shall return-at your).


## Interrogative and Negative.

The interrogative and the negative are not expressed by alteration of the verb, but by independent particles, hin and am, usually placed at the head of the sentence. Sometimes ti is found instead of hin, usually proclitic to ma, you.

## Verb Substantive.

There is no verb substantive. Two nouns or a pronoun and noun are simply put into juxtaposition. Xi djejej, this is a dog.

## THE PRONOUN.

## PERSONAL PRONOUNS.

- The personal pronouns, which are never abbreviated, ${ }^{1}$ much less incorporated, are differentiated for: the first and second persons and in part for the third, for singular, dual, and plural, for subjective, objective, possessive, and locative, and in the first person dual and plural for inclusion and exclusion of the second person.

| person. |  | Subjective | Objective | Possessive |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | na | nan | nim |
| Singular | 2 | ma | mam | min |
|  | 3 |  | - | an |
|  | 1 excl. | nak | nanak | nimgin |
|  | 1 incl. | mak | ? | magin |
| Duai | 2 | mak | mamak | mingin |
|  | 3 | - | - | angin |
|  | 1 excl . | nān | nanunwa | nimik |
|  | 1 incl. | mai | ? | main |
| Plural | 2 | mān | mamunwa | minik |
|  | 3 |  | - | anik |

There is no third person except in the possessive. When there is no noun-subject the third person of the verb is either unexpressed or is replaced by demonstratives or the particles tik, tin. The possessive of the third person may be altogether a formation by analogy. In other dialects, such as neighboring Yauelmani, "his" is amin instead of an, thus differing from

[^10]"your'" only by the initial a-. ${ }^{1}$ Whatever the origin of all the pronominal forms, and this probably cannot be definitely determined, analogy has certainly been a powerful factor in shaping them. The regularity of the series is very unusual. The objectives nan and mam, me and thee, might be regarded as due to reduplication-an unheard of process to indicate case, and one that would be unparalleled in this language both in respect to occurring in the pronoun and in being so incomplete as to lack a second syllable-or as assimilation of a case-suffix, such as the -n forming the objective of demonstratives, to the initial consonants of the stems. But as the forms nan and mam are the bases for the respective locatives, as well as for the dual and plural objective pronouns of the first and second persons, these views seem problematical. $\tilde{\mathrm{N}}$ does not enter into either the locative or plural of demonstratives; and above all the suffixion of a number-suffix to a case-suffix, as it might be alleged to occur in the dual na-n-ak, is the reverse of the process found without exception in nouns and demonstratives. ${ }^{2}$ The forms nan and mam can accordingly not be wholly explained by any of the grammatical processes operative in the language,-suffixion, reduplication, and vocalic harmony. They may or may not have been stems originally diverse from the subjective stems; analogy however has certainly helped to shape them. This analogizing force becomes doubly striking when one compares the possessive forms nim and min. The absence of a third person has perhaps contributed to this parallelism by leaving room for the balancing of $n$ and $m$ to be fully carried out in the first two persons: $n$ and $\mathrm{m}, \mathrm{n}-\mathrm{n}$ and $\mathrm{m}-\mathrm{m}, \mathrm{n}-\mathrm{m}$ and $\mathrm{m}-\mathrm{n}$.

The dual and plural suffixes of pronouns are in element -k and -n, both occurring also in demonstratives. The full forms of these suffixes are, for the subjective -k and -n , for the objective -ak and -un, for the possessive -g and -ik, added to the case forms of the singular, which are thus treated as stems. In nouns and demonstratives number suffixes always precede case suffixes. In the

[^11]possessive, the dual suffix seems to be used, strangely enough, for both dual and plural; the dual is differentiated from the plural by the further addition of -in, which is probably not the pronominal plural suffix here dealt with but the usual nominal and demonstrative possessive sign -in. In the objective plural there is a final suffix -wa, which may be related to the ordinary substantival objective singular case-suffix -a. The most regularly analogous forms of the first person in the dual and plural are the exclusive ones; the inclusive dual and plural are formed from the stem of the second person which they include. The inclusive dual mak is like the second person dual mak; ${ }^{1}$ the inclusive plural is mai, possibly formed from the stem ma of the second person by the substantival plural suffix -i to indicate this first person, as opposed to the plural maan or mān of the second person itself. The objectives of the inclusives were not obtained; their possessives, diversely from all the other pronominal possessives, are formed by addition of the regular substantival possessive suffix -in directly to the subjective.

The locatives of the personal pronoun are formed, as in the noun, from the objective as a base, by suffixion of $-\mathrm{au}, \mathrm{iu}$, or -u . So far as obtained they are:

| nan-au | for me, on account of $m^{2}$ |
| :--- | :--- |
| mam-au | for you |
| nanak-iu | for us (dual inclusive) |
| mamak-iu | for us (dual exclusive) |
| nanunwa-u | for us |

No instrumentals of the personal pronouns have been found; the language appears to show some inclination to avoid them.

There is no distinction in the third person between pronouns referring respectively to the subject and to a person or thing distinct from the subject,-se and eum.
maiāju an yiuna t-okji himself (ipse) his wife he-hit t-okji an yiuna tain he-hit his wife that-one's
Before the future participle hi, na and ma become ni and mi.

[^12]The possessive pronoun of the third person may be introduced between two nouns one of which is in the possessive case, though this is not often done; but such a possessive pronoun never replaces the possessive case-suffix,-another instance of the completeness with which syntactical case construction dominates in the language over the necessarily largely pronominal "incorporating' ' type of construction.
yiwin an limk-in the prairie-falcon's wife
yiwin limk-in the prairie-falcon's wife
The possessive pronoun is also often tautologically repeated: hatpau an ñauñitcau an, fourth-time his coming-at his.
cukidji an t-eu an muk'ac ta, pierced her house her woman the.

When both a subjective and an objective pronoun occur in a clause, they are closely coupled together. Except in cases of strong emphasis, the subjective precedes. The combination precedes or follows the verb. When it follows, it is usually enclitic to the verb; when it precedes, it is usually attached in similar manner to a particle at the head of the sentence, such as tcān, soon, at once (future), hin, the interrogative particle, or am, not. Other particles like hi in turn generally attach themselves to the end of the compound in the same manner; so that the word which they all follow may carry the accent for three or four syllables. The rule that the objective pronoun follows immediately upon the subjective is probably more regularly observed than any other governing the order of words in the language, and there is in it possibly a faint reminiscence of pronominal incorporation. That this customary coupling is however in no sense even partial incorporation is shown by the fact that the pronouns are not shortened or altered, that their position as regards the verb is not at all fixed, and that on occasion the compound can be broken up and disarranged. Both in the strictness of their order among themselves and in the fixedness of their position as regards the verb, the pronouns of French come much nearer to being incorporated than those of Yokuts.

| kèmid namam, | I embrace you |
| :---: | :---: |
| ohò'n namamhi, | I will look for you |
| teā'namam tanā'd, | I will take you with me |
| cu'inactid na'mamhi, | I will buy-it-for you |
| n manan ôkac, | did you see me? |
| namamhi tān taudjad, | I will kill you too |
| ma'm na ohòod, | You are the one I want (when the right one appears after several undesirable ones have been rejected) |

## DEMONSTRATIVES.

There are four demonstrative stems, falling into two groups; the radical consonant of one group is $k$ or $x$, of the other $t$. Xe, xi, and ka, meaning this, this, and that, refer respectively to the first, the second, and the third person, or to distances conceived of as equivalent. When there are no persons involved, xe refers to close proximity, xi to a short distance, ka to a longer distance, but within sight. When an invisible object, or one merely referred to, is spoken of, the demonstrative constituting the second group, ta, must be used. Ta, however, does not primarily mean "that invisible." It is a general indefinite demonstrative, sometimes similar to our article the, and quite generally used, especially in the objective, for the pronoun of the third person. Its locative tau, there, is also liberally strewn about sentences without much specific reference. Ta is even used of present objects and of persons within range of speech and just referred to by xi:

| widji | wite | am | i | hi | xin̄ | yiuna | nim | widen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Said | Condor: | Not | you | 1 | this | wife | my | tell ; |

$\underset{\text { not }}{\text { am }} \underset{\text { you }}{\mathrm{mi}} \underset{\text { will }}{\text { hi }} \underset{\text { her: }}{\text { tañ }} \underset{\text { get-water, }}{\text { ipein }} \underset{\text { tell." }}{\text { widen }}$

The difference between $x e$, xi, ka, on the one hand, and ta on the other, is therefore primarily between locally specific demonstratives and a locally indefinite one; secondarily, between proximity and visibility as opposed to distance and invisibility.

The four demonstrative stems form their cases and numbers as follows. The objective is -n. The possessive, instrumental, locative, and ablative are the noun case-suffixes -in, -ñi, -u, -nit. The dual and plural are formed with enlargement of the stem by -c, to which the number-suffixes: dual $-k$ and plural $-n$, connected with the -c by a vowel contrasting with the stem vowel, are appended. This gives the subjective forms. The objective are formed by apparent metathesis of the last vowel, or more probably by suffixion of -a or -i, before which the last vowel is lost. In this process -en- becomes -cd-. Ta-nit is often contracted to tāt.

Xe and xi differ only in the subjective singular; all their other forms are identical.

Subj. Obj. Poss. Instr. Loc. Abl.
Singular


Dual

| $\left.\begin{array}{ll}\text { This (xe) } \\ \text { This (xi) }\end{array}\right\}$ xi-c-ak | xi-c-k-a |
| :--- | :--- |
| That (ka) |  |
| That (ta) |  |$\quad$| ka-c-k-i |  |
| :--- | :--- |
| ta-c-ik | ta-c-k-i |

Plural
$\left.\begin{array}{l}\text { This (xe) } \\ \text { This (xi) }\end{array}\right\} x i-c-a n \quad x i-c-d-a$
That (ka)
That (ta) ta-c-in ta-c-d-i

These demonstratives are used indifferently as substantives or as adjectives, and for animate or inanimate objects.

In connected discourse tañ, that, him, it, like tau, there, is used so frequently, and with so little weight, that it occurs tautologically.
ama tañ natet an widji tañ wit'epa, then him father his told the boy.
widji tañ mikiti axda an, told her Mikiti daughter her.
If tañ were a true pronominal element, and actually incorporated in the verb by affixation, we should have here incorporation of the holophrastic type.

While true relative pronouns are lacking, the demonstratives in part fulfill their function.
ta injij mak daka, that good we spend-night (it is best that we spend the night).
ökac na tañ nòno xi nan kow-o-kw-oc, I see the man who hit me (see I that man this me hit).
ama tañ taut-aj xi tañ taut-ataji an najojo, then him he-killed this her killed his mother (he killed him who had killed his mother).
ama tanit tanji xi tau tud-o-td-ac, then thence he-went this there they-were-burning-it (went where they burned).

Tik and tin, dual and plural, containing the dual and plural suffix-elements -k and -n , are used with verbs of the third person lacking a substantival or demonstrative subject. The number of the subject of the verb is thus given even if the subject is lacking, the singular of course being indicated by the absence of the particles. While the $t$ - of these forms seems demonstrative, and their number-endings are undoubtedly pronominal-demonstrative, they seem to be merely particles indicative of the number of the understood subject and of the verb, and not to be felt as pronouns. Interpreters find difficulty in translating them and do not give the meaning "they."'1

The imperative dual and plural particles ya-k and ya-n that have been described contain the same dual and plural suffixes and are somewhat of the same nature.

[^13]
## INTERROGATIVES.

The interrogatives and indefinite pronouns are:
wat, who?, someone ; objective wat-i (?) ; possessive wat-in.
hed, hawed, which one?
han, what? something ; objective hāa; instrumental hā-ñi.
hide-u, where? somewhere; a locative ; ablative : hide-nit.
Two suffixes serve to render these stems more indefinite: -ak and -tci.
wat-ak, someone.
han-ak, hā-ak, something or other; hā-ak-tci, what, I wonder? hede-ak-tci, which one, I wonder?

The verbal root haud, hawd, to do, to do something, to do what?, to do how?, which seems to be almost certainly related to the stem of hā, what, forms the following in common use:
hawidin, haudinin, how? what for? thus; literally, doing what? doing thus.
haud-au, ever, at any time, at what time? when? ; with negative, never; hauj-ud is how many times?

It will be seen that the same stems are indeterminately interrogative or indefinite. When interrogative they do not require the presence of the interrogative particle hin; they are usually placed at the head of the sentence. It will also be seen that whereas the demonstrative does not differentiate for animateness and inanimateness, the interrogative-indefinites are divided between two groups of stems, wat- for the animate, h-, especially ha-, for the inanimate. Resembling the latter and probably related to it by analogy if not in origin is the interrogative particle hin.

## THE ADJECTIVE.

Adjectives are as infrequent and comparatively unimportant in Yokuts as in most American languages. It is difficult to determine whether they are at bottom more properly nouns or verbs. Their occasional use with case suffixes seems to designate them as nouns. A plural suffix -hate appears to belong primarily to adjectives used substantively. ${ }^{1}$ A few adjectives show unexplained variations of form ; punun, puutcutc, small; met•, large, mit-amut, large ones. A few adjectives of shape are reduplicated : cot-ot, circular, up-up-uc, buk-buk-uc, spherical, taptap-ic, flat (cf. dapdap leaves) ; also pun-un, puutc-utc, small, inj-ij good. Attributive and predicate forms are alike.
badjikin red
butawaca badjikniñ painted with red
punun an wutoñ
punin-hetc an wutoñ
baha'dja
bahadj-hate taxn-ad
wit'ep
wit'ip-hate
na punun
small his foot
small (ones) his feet
adult
large-ones are-coming
a-child
children
I am-little
na puutcute
I am-little, I am-a-baby
puutcute na t-ok-ci when-I-was-little (as-a-little-one)
I shot
na met-
nan met-
t.e met.
nau-ji tik met. t.e-i
xunò tau met:
xunò tau mit•a'mut
injij na wit'ep
I am-large
we are-large
the-house is-large
reached (they) large house
farther-off there is-a-large-one
farther-off there are-large-ones
injij nim djejej
inèjeji mak
good I am-boy
good my dog-is
good-are we
g'og'oc inèjaji
mononhoi

[^14]
## NUMERALS.

The numeral system is decimal. None of the numerals below ten are analyzable, except that hat'pañi, four, contains poñoi, two, and yüt-ciñ- $u$ t, five, contains yet, one. ${ }^{1}$ The numerals from eleven to nineteen are formed from those for one to nine by the suffixion of -am, or sometimes by addition of the words for "ten and." Thus, yetc-am, eleven, or t.ieu yo yet, ten and one. Twenty is two ten, and all the tens are formed thus. Twentyone is two ten one. One hundred is yet pite', one count. The hundreds are enumerated to t.ieu pite', ten counts, one thousand.

According to their function the numerals assume several forms. In most of these forms certain final phonetic elements are lost in several of the stems. These unstable endings are :

| 2 | $-0-($ usually $)$ |
| :--- | :--- |
| 3 | -n |
| 4 | $-\tilde{i}$ |
| 5 | $-\tilde{n} u \mathrm{t}$ |
| 6 | -i |
| 7 | -in |

One suffers no loss, but is somewhat irregular. Eight, nine, and ten are also not shortened.

The modifications of form undergone by the numerals are the following.

1. When the numerals are adjectives attributive to nouns, or are inanimate nouns in the subjective case, the full forms used in counting are employed.
2. When the numerals are nouns in the objective case, or adjectives modifying such nouns, the same forms are used, plus the objective suffix -a (-i).
3. When the numerals are animate nouns in the subjective case, such as "they three," "the four of them," with perhaps the idea of collectivity prevailing, the detachable endings are

[^15]lost, the suffix -in is added to the abridged stem, and the stemvowels, or more strictly most of them, undergo the change to the nearest contrasting vowel familiar from verb stems, i to e, e to i, u to o , o to u , a to $\ddot{0}$. The word hauj-un, how many? may also contain this suffix -in. ${ }^{1}$
4. To indicate a distributive, as "three each," in the objective, the detachable endings are lost, and the first syllable of the stem is duplicated, the vowel in its second occurrence being weakened to i .
5. To indicate cardinal adverbs, such as "four times," the numerals undergo the same loss of their detachable endings, in addition drop the vowel that then remains in their second syllable, and add the suffix -id, which is on some of them assimilated to -ad,- ud. Compare hauj-ud, how many times?
6. The ordinal adverbs, such as "fourth time," are formed like the last class, except that in place of the suffix -id they add the locative ending -u.

So far as obtained, the numerals of these different classes are given in the following list.

|  | Cardinal | Objective | Animate | Distributive | Adverbial | Ordinal Adverbial |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | yet | yet | yit-ein | yit-yit-in | yit-ate |  |
| 2 | poñoi | poñi-o | poño-iin | poñ-piñ-i | poñy-id | poñy-o |
| 3 | còopin | còopin-a | cupè-iin | cop-cip-i | copy-id | copy-o |
| 4 | hat'pani | hat'pañy-i | hat'op-iin | hat'-hüt'-up | hat'p-ud | hat'p-au |
| 5 | yüt-ciñut | yüt-ciñ-n-i | yüt-ec-iin | yüt-yüt-üc | yüt-c-ud | yüt-c-au |
| 6 | te'udipi |  | te'odèp-iin | tc'o-te'id-ip | te'odp-id | te'odp-o |
| 7 | nomtein |  | numète-iin | nom-nim-itc | nomte-id |  |
| 8 | mu'noc |  | mu'nde-iin | mu'n-mu'n-uc | mu'ne-ad |  |
| 9 | nònip |  | nunèp-iin | non-nin-ip | nonp-id |  |
| 10 | t.ieu |  | t.ieu-iin | t.i-t.i-u | t.i-ad, t.ie |  |

The detachable endings that are lost in certain of these categories do not represent concrete suffixes or sense elements, but are determined apparently by phonetic usage. In hat'-pañi, four, -pañi represents poñoi, two, but is cut in half when there is a loss of ending, hat'-pa being retained and -ñi lost.

The numerals from eleven to nineteen are formed from those for one to nine by the suffix -am, with loss of the detachable end-

[^16]ings. Stems whose first vowel is o change -am to -om. It will be seen that this derivative process is entirely similar to the gramamtical ones above described.
\[

$$
\begin{array}{ll}
11 & \text { yètc-am } \\
12 & \text { cuyukai } \\
13 & \text { copy-om } \\
14 & \text { hatcp-am } \\
15 & \text { yüt-c-am } \\
16 & \text { tc'odp-om } \\
17 & \text { nomtc-om } \\
18 & \text { mu'nc-am } \\
19 & \text { nonp-om }
\end{array}
$$
\]

Cuyukai is said to be the proper Yaudanchi form for twelve. Most other dialects have potcd-om, which is formed from potcot, given by the Yaudanchi as an alternative or more correct form for poñoi, two, but not yet found in the dialects that use potedom. In Yaudanchi also potcot seems to be used only in counting; the suffixes are all added to the stem poñoi.

The stem yet, one, appears as yet. and yetc in certain Yokuts dialects, and some of its Yaudanchi derivatives show the form yetc: yetc-am, eleven, yitc-a, alone. Yet-au, literally one-in, is together ; òma is first.

## ADVERBS AND UNSYNTACTICAL WORDS.

Other classes of words, which we call adverbs, conjunctions, prepositions, and interjections, are difficult to separate in Yokuts, and require little comment. A few words with the appearance of prepositions have been referred to in connection with the objective case. They are of several syllables and appear to have either a participial or a locative ending. The noun to which they refer is in the objective.

A number of adverbial words such as mun-au, outdoors, t'ic-au, in the open, bepat-iu, at the top, cik-au, in the side, hetcau, close, are locatives.

Conjunctions, besides yo, and, again, also, are about lacking. Their place is taken by the subordinating constructions of the verb, the participles and the case-suffixed verbals. Ama, then, is a common introductory particle in narrative. Ta, that, is sometimes used in the sense of if.
ta namam $\bar{u} k a$, ama namam kuwu, if I you see, then I you hit.
ta ma tan hi $\ddot{k}$ ka, wi paduan mam hi, if you him will look-at, then he-enter-to you will.

## ORDER OF WORDS.

The order of words in the Yaudanchi sentence is rather shifting. A usual order is quite perceptible, but this is often departed from. As regards the three chief parts of the sentence, the verb most frequently comes first, the subject next, and the object last. Locative nouns, and similar modifiers, commonly stand at either of the ends of the sentence. The adjective, whether attributive or predicative, almost always precedes its noun. The personal pronouns usually precede the verb, especially if there are nouns in the sentence. The frequent tañ, him, her, it, and tau, there, usually also precede the verb; tañ especially when it represents a noun subsequently expressed in the sentence. The subject and object pronoun form a rather close complex between which other words do not enter, and in which the order subject-object is not departed from except for special emphasis. The particle hi follows the pronouns, usually immediately upon them. The negative am, the interrogative hin, and all interrogative pronouns usually open the sentences in which they occur. A rarer interrogative ti usually precedes the pronoun of the second person. The introductory ama, then, heads the sentence in narrative. The possessive pronoun is used either before or after its noun; sometimes both before and after. Tik and tin follow the verb immediately or precede it; the same is to be said of yak and yan.

## VOCABULARY.

## COMPOSITION.

No certain case of full binary composition, like sugar-loaf, man-killer, has appeared in the Yaudanchi dialect of Yokuts. There are a few doubtful cases. Ñohoo ka'm, grizzly-bear dance, was heard as two words; so was k'amun hoyowoc, no name, the appellation by which a person whose names are tabu through death is addressed. Yitca-xooo virgin, bachelor, is "alone sitting," and may be two words or one, a description or a name. It is theoretically improbable that there is no binary composition whatever in the language; but the process is certainly not of much importance. The familiar class of words represented in so many American languages by mouth-stone and night-sun is lacking. In the place of such compounds Yokuts has for its nouns disyllabic and trisyllabic words a very few of which are derivable, more of which contain a familiar stem or suffix while the remainder of the word does not yield to analysis, and the great majority of which are even after some study as unassailable as monosyllables. ${ }^{1}$

A number of words, mainly names of birds, are formed of an onomatopoetic element, usually duplicated, followed by widètc, udètc, sayer :

| huhū'-udète, hmhm-udètc o-udetc | bull roarer, huhū-sayer chicken |
| :---: | :---: |
| pòkòk-udètc | ground owl |
| gòk-udète | raven |
| huc-udète | gopher-snake |

and a number of others.

[^17]
## DERIVATION.

Half a dozen derivational suffixes, all forming nouns, can be determined, though their meaning is not always clear.
-OC:

| t'uy | shoot | t'uy-oc | a kind of arrow |
| :--- | :--- | :--- | :--- |
| t.uñ | shut | t.uñ-oc-ud | door, gate |
| mök | swallow | mük-üc | throat |
| ho'ñ | egg, hoñ-hoñ heart | hoñ-oc | testicles |

-ud:
t.uñ-oc-ud door, gate (t.un, shut)
kuy-oc-ud knee (kuyo, ankle)

$$
-i,-u i,-o i:
$$

| pad $u$ | enter | padu-i | pestle |
| :--- | :--- | :--- | :--- |
| hiwet | go, walk | hiwit-i | tracks |
| tcuduk | point, select | tcuduk-ui | index finger |
| t'oñ | drown | t'uñ-oi | fish net |

-it, place of :

| eñt.im | sleep | iñet-m-it | sleeping place |
| :--- | :--- | :--- | :--- |
| t.it-wac | copulate (reflexive) | t.it-euc-it | house of prostitution |

-i in terms of relationship, with vowel change, denotes that the person through whom the relationship existed is dead:

| napatum | son-in-law | napitim-i | son-in-law after death <br> of daughter |
| :--- | :--- | :--- | :--- |
| nip'ei | wife's brother | nipiyi-t-i | etc. |
| ontip | mother-in-law | onitip-i |  |
| naxamic | father-in-law <br> onmid <br> onpoi | daughter-in-law <br> wife's sister, <br> husband's brother | naimic-i <br> onimid-i <br> unip-i |
|  |  |  |  |

-inin, people of :

| xomot | south | xomt-inin | southerners |
| :---: | :---: | :---: | :---: |
| xucim | north | xocm-inin | xocom-0, xocima, northerners |
| not, not-u | east | nutn-unun | nut'a, nutca-wayi, easterners |
| dat.u, dat.wun | west | dat.w-unun | westerners |
| pad-u | down-stream ( $二 \mathrm{in}$ ) | padu-unun | those below (=being inside?) |
| alit, Yaudanchi | grass sp. | alt-inin | people of alt-au |

The case suffixes, especially the locative, serve to derive words:

| doo | battle | doo-c-id-au | where-always-fight <br> (name of a place) |
| :--- | :--- | :--- | :--- |
| alit, adit | species of grass | alt-au | at-alit <br> (name of a place) |
| t'ic | emerge | t'ic-au | in the open, up from <br> a stream |
| g'o | sit | g'o-en-au | Sunday |
| wo-wud | stand | wud-au | Monday |
| poñoi | two | puñey-añet-au | Tuesday |
| còpin | three | cupey-añet-au | Wednesday |
| hat'pañi | four | hat'p-au | Thursday |
| yüt'ciñut | five | yit'c-au | Friday |
| sabado | (Spanish) | saualo | Saturday |

The intransitive derivative -in makes verbs from nouns:

| wutoñ | foot | wutoñ-n | to track |
| :---: | :---: | :---: | :---: |
| muk'ac | woman | mok'c-in | to lose in luck through a woman, to "be womaned.', |
| yet, yet'au | one, together | yitw-in | to gather |
| injij | good (=inij-ij) | inej-n-ad | likes |
| opod-o | sun | opod-n-id | sun shines |

There is some derivation by vowel change alone.

|  | Verb | cokod | Noun |
| :--- | :--- | :--- | :--- |
| cokud | perforate | cole <br> cikid | hole |
| hoñ-hoñ | breathe | hoñ-hoñ | heart |
| höñ | smell | mowak | whirlwind |
| muyuk | whirl | mown |  |

There is considerable derivation between nouns and verbs, with and without vowel changes, that cannot be classified or explained.

| xot | to rain | xotoo | rain |
| :--- | :--- | :--- | :--- |
| ciwex | to drizzle | ciwaxa | drizzle |
| winis | ready | winatum | servant, messenger |
| wicit | erectio penis | wicèta | elder-tree |
| t'oñ | drown | t'üñ-ük | thick |
| t'ic | emerge | t'ic-am-ya | in spring |
| copd | cover with blanket | copon | blanket |
| tcutya | carrying net | tcutui | put into carrying net |
| höpa | blood | höpud | menstruate |
| tipin | acorn-bread | tipin | to eat acorn-bread |
| dik | acorn-mush | dik | to eat acorn-mush |
| tañai | jimson-weed | tañy- | to drink jimson-weed |
| tcit'at | a species of clover | tcit'a | to gather or eat clover |
| axid | daughter, child | axad | to have a child |
| watcam | feather-ornament for watcim | to hold a feather- |  |
|  | hand |  | ornament |

A number of words show possible evidences of composition or derivation, though it is not possible to determine much about them.

| teok, t.okpud | hunt, hit | tcok-oyija | wasp |
| :---: | :---: | :---: | :---: |
|  | to cross a stream | pod-xoi | sucker |
| xoi | deer |  |  |
| $\mathrm{p}^{\prime}$ ān | world, land | p'ân-uckai | fly |
| k'on | fall, alight | k'on-djedja | a large species of lizard |
| pad-u | enter, in, down- | pad-euyami | tribal name |
|  | stream? | bad-wija | tribal name |
| xucim | north | xocomo, pl. xocima | tribal name |
| bok | find | bok-ninuwad | tribal name (so called "because they do not give up things that they find'') |
| tcoin-ok | tribal name | teoin-imni | tribal name |
| yawud | brush | yaud-imni | tribal name |
|  |  | yaud-antci | tribal name |
| opdi | day | opodo | sun ${ }^{1}$ |
|  |  | upic | moon |
| t.ööd | rattle-snake | t.üüd-um | rattle-snake medicineman |
| ho'ñ | egg | hoñ-tod | fish roe |
| k'oco | thigh | k'oco-yi | elbow |
| doe | intestines |  |  |
| teudui | skin | teu-doc-ui | navel |
| axid | daughter, child | axed-cat | husband |
| t.ipin | top, up, on, sky | t.ipni | magical, monster, supernatural |
| nòtco | young man | nòtci | friend |
| eñt.im | sleep | añatc-wat | dream |
| tuk | ear | tuk-uyun | jackrabbit |
| poñoi | two | potcot | two |
|  |  | hat'pañi | four |
| yet | one | yüt'ciñut | five |
| ก̃aw | arrive | ñamux | bring |
| hiam | already | hiam-u | long ago |
|  |  | hiam-xac | yesterday |
| yo | and, again, also | batc-yo | again |
| wa | far, wide, long | wa-wa-u | to-morrow |
| tean | now (future) | tcan-um | at once |
| wüxe | much, many | wiux-nad | very |
| on |  | on-tip | mother-in-law |
|  |  | on-mid | daughter-in-law |
|  |  | on-poi | wife's sister, |

[^18]Aм. ABCH. Eth., $2,18$.

## REDUPLICATION.

Reduplication occurs to some extent in the formation of stems. The forms it takes and the classes of words it affects, have been discussed under the general subject of reduplication; the specific cases will be found in the vocabulary and in the comparative discussion of reduplication in the last part of the paper.

## GENERAL CHARACTER OF THE VOCABULARY.

With so little analysis of evidently and probably derived stems possible, with very few deriving suffixes determinable and almost no composition, the majority of Yokuts words, whatever their original nature, must at least be treated as stems.

Of the verb stems, the majority are monosyllabic. A third or more are irreducible disyllables. The typical verb stem is clearly a vowel between two consonants or two vowels alternating between three consonants.

Of the noun stems only a small proportion are monosyllabic. These are:

| Parts of the body: | te'ı | bone |
| :--- | :--- | :--- |
| ca-ca | eye |  |
|  | tuk | ear |
|  | gut | tail |
|  | tot. | head |
| t.ot. | belly |  |
| dip | liver |  |
|  | doc | guts |
|  | hoñ-hoñ | heart |


| Terms of relationship: | neec $^{1}$ | younger brother |
| :--- | :--- | :--- |
| noot $^{1}$ | younger sister |  |
|  | naat $^{1}$ | older sister |
| bap' | paternal grandmother |  |

Persons:
mai person

[^19]| Animals : | xoi | deer |
| :--- | :--- | :--- |
|  | ti'w | rabbit |
|  | tcox | skunk |
|  | wīte | condor |
|  | teak | blaekbird |
|  | t.ōd | rattle-snake |
|  | yax | water-snake |
| Objects : | lau-lau | butterfly |
|  | t•e | house |
|  | moc | sweat-house |
|  | ka'te | arrow point |
|  | pon-pon | snow |
|  | p'ān | land |
|  | dap-dap | leaf |
|  | got. | tule sp. |
|  | eax | milkweed, string-fibre |
|  | hox | a shrub, string-fibre |
|  | pi'd | road |
|  | not | east |
|  | so'm | wristlet |
|  | tcok | a measure of beads |
|  | dik | aeorn mush |

LIST OF PRINCIPAL WORDS.
The following voeabulary is ineomplete, including less than two hundred verb radieals whereas the number in the language is presumably two or three times as great, and being deficient in the series of noun stems also. As the most eommon stems are included, some idea of the eharacter of the words of the language is however given. The nouns are classified in the following groups: Words denoting persons, terms of relationship, names of parts of the body, of animals, of plants, and of inanimate objeets, natural and artificial. The list of verbs is arranged alphabetically by stems. Following each stem and its signifieanee, are given, in all eases where they have been actually found, the imperative, the future-partieipial form, the continuative, and the two past tenses, together with other less eommon forms.

## Nouns:

## Persons:

| mai | person | tc'atic | neighbor |
| :--- | :--- | :--- | :--- |
| t.aatci | people | t'oñòtcim | hermaphrodite |
| kou'tcun | man | winātum | servant, messenger |
| muk'ac | woman | diya' | chief |
| wit'ep | child | añt.u | doctor |
| nòtco | youth | t'ec | rain-maker |
| guyòdum | girl | t-umiun, hupana widow, widower |  |
| moxodo | old person | wèet-it | bride |
| nòtci | friend |  |  |

## Terms of relationship:

| natet | father (address: opoyo) |
| :---: | :---: |
| najoj | mother (address: icaya) |
| butcoñ | son, man's brother's son |
| axid | daughter, child |
| nibete | older brother, cousin |
| nèec | younger brother, cousin |
| naat | older sister, cousin |
| nòot | younger sister, cousin |
| hukòj | older or younger brother or sister, by speaker of opposite sex |
| komoyic | father's brother |
| gūīha | father's sister |
| agac | mother's brother |
| mokoi | mother's sister |
| napac | woman's brother's child |
| tcayax | man's sister's child |
| axi | woman's sister's child, man's brother's daughter [cf. axid] |
| ènac | grandfather, man's grandchild |
| bap' | paternal grandmother, woman's son's child |
| t'ut'a | maternal grandmother, woman's daughter's child |
| hit.waiu | greatgrandfather, man's greatgrandchild (also ghost) |
| mokoiot | greatgrandmother, woman's greatgrandchild [cf. mokoi] |
| yuwènite | husband [=marrier] |
| yiwin | wife |
| naxamic | father-in-law |
| ontip | mother-in-law |
| napātum | son-in-law, sister's husband |
| onmid | daughter-in-law |
| makci | parent of child-in-law |
| nip'ei | man's wife's brother |
| onpoi | woman's husband's brother, man's wife's sister |
| itwap | man's brother's wife, woman's husband 's sister and brother's wife |

Parts of the body:

| tòt. | head, hair, skull | t'uñ | anal hair |
| :--- | :--- | :--- | :--- |
| ot.o | hair | umut | vagina |
| t.ïdu $u$ | forehead | tcudocui | navel |
| tcimèjid | eyebrows and lashes | tcuyon | urine |
| caca | eye | bidik | faeces |
| t.üñ̈ük | nose | dumkun | sweat |
| t.āañi | cheek | mañad | tears |
| tuk | ear | höxute | saliva |
| cama | mouth | nitet | mucus |
| yipyeput. | lip | t.oka | brains |
| tadxat. | tongue | bac | marrow |
| tèdi | teeth | piked | sinew |
| awaci | chin | kiuñat | tendons |
| djamoc | beard | hoñhoñ | heart |
| hocod, müküc | throat | comot | lungs |
| dgun | neck | dip | liver |

t-apad shoulder
pöötc breast, sternum
mènite mamma, milk
t.ot. belly
k'ewèt back
xamam rib
xoxoic hip
k'ocò (yokute) thigh
kadaca (poku) lower leg
kuyocud knee
kuyo ankle
wutoñ foot
put.oñ hand, arm
xapad finger, toe
kècik nail
k'ocoyi elbow
takātci palm
teda anus
poto penis
hoñoc testicles
iket
put.wid
t.umot
glans penis
semen
pubic hair
Animals:

| tcèjej | dog | bohad | ground-squirrel |
| :--- | :--- | :--- | :--- |
| duuxun | bear | yoñxo, | tree squirrel |
| ñohoo | grizzly bear | dumòdumutc | wood-rat |
| iweite | wolf | tciviyi, [tcivili] chipmunk |  |
| kaiu | coyote | atcgit | mole |
| au'tca | fox | hung'ut | gopher |
| huyaktitsi | badger | [p'icilu] | mouse |


| küt.u, t.it.ïn | raccoon | pohòot | weasel |
| :---: | :---: | :---: | :---: |
| nahāat. | otter | wöhöcit | panther |
| töpük | beaver | t'uñod | wildcat |
| tcox | skunk | divècip | mountain-sheep |
| tcitceu | polecat | coxgoi | elk |
| tukuyun, topod | jackrabbit | xoi | deer |
| ti'w | cottontail rabbit | coyod | antelope |
| mātci | small black rabbit | te'imte'im | bat |
| dètcip, tènip | bird | gòkudète | raven |
| d.oxid | eagle | aduut. | crow |
| owik | bald eagle | otcote | magpie |
| wite | condor | oiui | road-runner |
| t.anka | buzzard | t.aicudète | jay |
| dimik | prairie-falcon | xaixai | crested jay |
| üdate | sparrow hawk | tcak | blackbird |
| watcwate | falco columbarius, | tcakudu | meadowlark |
| te'iauna | circus hudsonicus | palādat | woodpecker |
| k'uxudète | accipiter velox | t. 'iwica | yellow-hammer |
| po'yon | accipiter cooperi | upyayi | mourning dove |
| tcümgutan | buteo swainsoni | tcuiditna | himantapus mexicanus |
| teaktcak | buteo lineatus | waxit. | crane |
| cuxup | hawk sp. | hayana | duck generically |
| coxcux | fish-hawk | wat.wat. | mallard duck |
| còtcudète | snowy owl | la 'la' | goose |
| [hutulu] | horned owl | datcai | mudhen |
| duk'tcatci | glaucidium gnoma | uyoiite | wood-duck |
| yo'mdjac | sarnia ulula | hoxodo | duck sp. |
| pokòkudètc | ground owl | hummud | quail |
| gugòtcup | a small owl | t.ipdi | mountain quail |
| bèmamgute | hummingbird |  |  |
| t.ööd | rattle-snake | koyoyite | frog |
| yax | water-snake | djitcpaapu | horned toad |
| hucudète | gopher-snake | k'ondjèdja | lizard sp. |
| godoñkid | king-snake | kahut.wai | lizard sp. |
| xot.uñut | snake sp. | xolpòyi | lizard sp. |
| capacipite | snake sp. | wilèli | lizard sp. |
| tcoto | turtle | k'atcānat | salamander |
| dopit. | fish | èpic | lake 'trout'" |
| dadim | trout | djakòmon | river "trout" |
| podxoi, ticaa | sucker | gòpa | perch |
| tcokoyija | wasp | laulau | butterfly |
| baònai | yellow-jacket | tc'anèkac | grasshopper |
| p'ānuckai | fly | b'ākid | flea |
| mumai | blowfy | tehet. | head louse |
| $k^{\prime}$ 'acop | mosquito | badad. | body louse |
| t'anāwute | dragonfly | gat.uk | worm |
| kakau | red ant | tabak | deer-tick |

## Plants:

$\left.\begin{array}{llll}\text { yapkin } & \text { tree } & \text { tcoxote } & \begin{array}{l}\text { soaproot } \\ \text { shrub used for string }\end{array} \\ \text { yawud } & \text { brush, grass } & \text { hox } & \begin{array}{c}\text { shrus } \\ \text { milkweed used for } \\ \text { te'axic }\end{array} \\ \text { live oak }\end{array}\right]$

## Natural objects:

| t.ipin | sky, above, up | teodowin | plain |
| :--- | :--- | :--- | :--- |
| opodo | sun | wages | sand |
| upic | moon | kuyo | salt |
| opdi | day | yakau | rock |
| toyono | night | witcet | stick |
| te'oitoc | star | hütac | wood |
| k'üdai | cloud | woxono | log |
| tceheñ | fog | idik | water, stream |
| xotoo | rain | bokid | spring |
| ciwaxa | drizzle | pāaji | lake |
| ponpon | snow | buyoñ | ice |
| xowot.o | hail | ucit | fire |
| dagòtak | rainbow | mod•ak | smoke |
| t.akaa | thunder | hapac | ashes |
| tcidaca | wind | capan | coal |
| moyak | whirlwind | xucim | north |
| yèlyal | earthquake | not | east, up-stream |
| p'āan | land, world | xomot | south |
| düñüt | earth | dat.uu | west, down-stream |
| domit | mountain |  |  |

## Artificial objects:

| t.e | house | giteu | wooden hairpin |
| :--- | :--- | :--- | :--- |
| moc | sweat-house | wadak | head-net |
| padāwa | entrance, cave | watcam | feather ornament |
| t.uñòcud | gate, stopper |  | carried in hand |


| t.ipic copon | town, people blanket | cèma | head-band of eagle down |
| :---: | :---: | :---: | :---: |
| dayap | bow | so'm | wristlet of eagle down |
| cikid | arrow | waiate | necklace, garland |
| t'uyoc | war-arrow | te'omis | tule case |
| djibaku | a kind of arrow | tcoxun | ceremonial skirt of |
| wuk'ud | a kind of arrow |  | eagle down |
| k'ate | arrow-point | pode, cuyut | beads |
| padui | pestle | xumana | long beads |
| padiñ | bed-rock mortar | bopoite | needle for piercing ear |
| pôwac | portable mortar | cakai | asphalt |
| k 'oiwoc | small mortar | xojojidj | white mineral paint |
| katcau | basket | kababañite | fathom |
| tcaiji | open-work seed-beater | histā | measure of shell- |
| kaiadju | sifting basket |  | beads (on hand) |
| t'aiwan | gambling tray of | tcok | half of hista |
|  | basketry | k'onomo | half of teok |
| bawuk | bone basket-awl | mononhoi | property |
| dahitci | moceasin | baut | shelled acorns |
| te'uñic | woman's dress | ip'in | ground acorns |
| badāwuñut. | pipe | tipin | acorn bread made in |
| sòkon | tobacco |  | flat basket |
| citet | cane | kodwidin | acorn bread cooled in |
| teapoi | digging stick |  | water |
| tock [sic] | crook for gathering wood | caca-ñite | acorn bread cooked in a hole |
| tcutia | carrying net | t'adic | soft acorn bread |
| odix | pillow |  | cooked in rocks |
| owon | tule boat | dik | acorn mush |
| huete | walnut dice | cècat | meat |
| odot | ball | üdam | myth |
| katet | ball stick | tibiknite | world of the dead |
| teupaiwit | swing | teèdañdu | passage to tibiknite |
| pucate | whistle | cokod | hole |
| mauwuūi | musical bow | pi'd | road |
| wocok | belt |  |  |

Adjectives.

| wüxe | many | up-up-uc | spherical |
| :--- | :--- | :--- | :--- |
| k'umui | all | buk-buk-uc | spherical |
| met. | large | wiic | bare, naked |
| pūnun, pūtcutc | small | padüx | smooth |
| inj-ij | good | nuite | erooked |
| dot.e | bad | badjikin | red |
| wā | long | te'नimat | green |
| at'e | short | tcodod | white |
| tap-tap-ic | flat | teümgutan | black |
| cot-ot | circular |  |  |

Adverbs and Particles.

| hohu, houu | yes (o nasal) | hunai | for nothing, in vain |
| :---: | :---: | :---: | :---: |
| k'amu | no | hiam | already, now |
| am | not | hiamu | long ago |
| penau | near | hiamxac | to-morrow |
| atceu | near | wawau | yesterday |
| munau | outdoors | hètci | today, now |
| pidau | at the door | wüxnad | very (cf. wüxe) |
| k'acuu | at the rear of the house | akam taan | perhaps, it seems too, also |
| t'icau | in the open, up from a stream | уо wica | and, also, again after a time, after- |
| tciunaj | through |  | ward |
| powo | across a stream | ama | and then, then |
| xamñi | on this side of | hi | future particle |
| t.ipin | up, high, above, sky | hin | interrogative particle |
| adid | down, low, below | ti | interrogative particle |
| hitca | perhaps | dap | particle expressing the |
| wit'i | a little |  | unexpected or a |
| widite | a little while |  | contrast ; indeed |
| maiāju | self, of himself, by itself (ipse) | we | particle expressing indefiniteness |
| hutñai | intentionally | wi | well! |
| niudi | another | hawe | well! |
| yitca | alone | ya | used with the optative |
| yet'au | together (=at one) | wöpate | utinam |
| heta | yet | tcuk'it | look out! |
| tean | future particle | hide | greeting |
| tcanum | immediately |  | (cf. 'where9'') |

Other forms found
ah-an-ate
aj-it; aj-a; aj-ij-ñitc
amd-a; amād-itc
axid, daughter, child
bax-n-a; bax-ana
bi-it; bii-nite
buk-it; bok-ñitc; bok-
o-bik
cap-cap-it; ref. cap-
āwic, cap-aujad, cap-
wiju
ciwaxa, noun
cokud-wid-èn, cokud-
wid-ji; cokod, hole;
cikid, arrow
cox-ñitc, cox-in-ji,
died, pl.; cox-in, of
the killed; cox-on-in
of the dead


Continuative
amād-ad
aut--ud
bax-an-ad
ceux-ad

Imperative
 ..... cutux
Other forms found
cuy-ut; cui-na-t
dadak-ana
daka
damna-ñitc
dañ-añ, listen; dañ-añ-
ta-ji
dapy-ite; dapi-it-au
dai-nite; day-a-dy-a-
nite; dai-da-nitc, a
ceremony
dim-e-dim; dem-dam,
thought (noun)
dixed-itc
refl. doo-wic, doo-wac,
do-wiji, doo-wac-iu
doow-ite
dodoc; dodoc-it
dok-o-dok
dokow-on-o
dutc-a-in-ad
dukd-ut
dumk-un, perspiration
duy-a, duy-añi
refl. duc-due-we, due.
duc-wid-ji
-ji past
dadik-ji
dakā-ji
dañ-ji
dapai-ji
dawit-ji
dai-ji
dem-dim-ji
doo-ju
dok-in-ji
doku-in-ji
dox-ji
dötc-ün-jü
dukyiu-ji
dukud-ji
dui-ju

|  |  |  |  |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |


| $\begin{aligned} & \text { U్ } \\ & \text { § } \\ & \text { + } \\ & . \underset{~ § ~}{4} \end{aligned}$ |  |  | $\begin{aligned} & \text { ష్ } \\ & \text { む } \\ & \text { ت్రూ } \end{aligned}$ | $\begin{aligned} & \text { I } \\ & \text { í } \\ & \text { or } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |









| $\begin{aligned} & \text { U } \\ & \text { B } \\ & \text { Uֻ } \end{aligned}$ |  | $\begin{aligned} & \text { ei } \\ & \text { O } \\ & 0 \\ & \text { ion } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |

Continuative
d.otex-ad
ip-ād
iñet.m-ad

Imperative
ep
eñt.im

gamble
be, sit, live
.
do thus, what
jump, fly
hic-in
Imperative
ep
eñt.im
guyu-na (9)
8


hic-n-ad
heut-ad
hodj-ad
hote-ad
-in tense
$\begin{aligned} & \text { ep-in } \\ & \text { iñt.im-in }\end{aligned}$
g'o-en
had-ad-in
hawid-in
[hay-in]
hiwet-in
hok-un
laugh
hide
walk, go, move
flow (q)
go to meet
breathe
kindle
wish, like
Stem
d.aj
d.otex
ep
eñtim
guyu ( 9 )
g‘o
had
hawid
hay
hay
hic
hiwet
hodj
hok
hoñ
hot' (9)
hote

Other forms found
cf．breathe höp－a，blood
hupe－ut
hut；hut－oo；hut－op， hutk－ad－iu，hutk－ad－nit ip＇ei，verb．obj．；ip＇y－ ite；ipi－au kaj－i－kj－i－wic（refl．） ka＇m－aate
kem－ic；kem－it－ac kii－wic
kuu－t
kuu－t
范 modots－yu＝modote－
ji－u
müküc，throat
mud－it－ji；mod－od－ite



## 

年 ， － mid－āc
mük－āe

Continuative

hot－id（9） ep＇y－ad
kaj－a－kj－ad药



Imperative
höñ
hupuc
 8


药 ロ 日
Meaning Meaning smell menstruate
select know pick，gather get water whisper ambrace body
 hit with hand ส็ ～
 lie घี get cover gather swallow cheat forget
Other forms found
nukom-un-ju; nukum-
n-ad; nukam-ana
nau-ñitc-au; ñau-ñi
odoi-t; udu-ta-ji
oh-n-o
oot-in-in
öka-t; üka-ate; ük-n-a




范
Meaning
squeeze with
hand
bend
kneel
bring
arrive
be on, put on
wish
fall
see
hungry
enter
project tongue
disembowel
fight
mourn for
ask
tell, answer
count
catch, stop
cross stream
creep
alive
go

Other forms found
tañy-uwic; tañai, jim-
sonweed
taw-in-in
 t'uñ-n-a
tud-o-tud
[tudo-ju=-reflexive ${ }^{2}$ ]
tomoi-tcin-ac;
tomoito-ñitc
tuxut
toi-n-it; toy-an; toy-
ono
t'ui-t'uy-ut; t'uy-a;
t'oy-a-t'y-a-ñitc;
t'oy-a-t'y-ac; t'uy-
u-t'y-u-wuc
tööc-n-ad; tüüc-ün-ju;
tüüc-wac; tüüc- $\bar{j} j-$
ad; tööc-ūj-ac; tüc-
ujjuj
t.añt-ūj-ac
-ji past
tañy-in-ji
taw-in-ji
tawac-i
tawid-ji
tax-in-ji
teid-ji
t'ic-i
tid-in-ji
toj-i
t'om-om-jo
t'oñ-un-ju
tud-un-ju
tudo-ju
tumī-ji
tux-ju
tuy-in-ji
t'ui-ju
tüüc-ju
t.añit-ji
-ac past
taudj-ac
tax-n-āc



tauc-ad
taudj-ad
tax-n-ad
tied-ad
ted-n-ad
ted-n-ad
t'uñ-on-ad
~




t.añt-in


Other forms found
t.at.ai-t-ad
t.aw-in-ji
t.au, payment
t.it-wac; t.it-wac-iu
t.o-t.o-t.-oc
t.ok-it; t.ok-ñite; t.ok-
t.o-t.o-t.-oc
t.ok-it; t.ok-ñite; t.ok-
ot.od; t.ok-ot.-o-
nite; t.ok-t.ik-ji;
t.ok-t.ik-itc; t.uk-è-
t.ik-itc
t.om-wic
t.uñ-oc-ud, door;
t.üñ-ük, thick
tcadx-ūj-ac; tcadax-
wuc; tcadx-in
[tcom-woc, hand-
guessing game]
teaw-a-tcw-ac; tcañ-a-
tciñ; tcaw-a; tcaw-
tcaw-a-tcw-ac; tcañ-a-
tciñ; teaw-a; tcaw-
a-tc-iu
tcik-en-itc
tcit'è-itc; tcit'at, the
species of clover
$-j i$ past
t.at.ī-ji
t.au-ji
t. ${ }^{\text {ik-ji }}$
t.it-ji
t.oo-ji
t.o-t.o-ji
t.ok-ji

tcadx-in-ji

te'itiu-ji
-ac past
t.aw-ad-ac
Continuative
t.aw-ad-ad
(1)
(1)




tcited-in

Stem
t.at.i
t.aw
t.aw
t.'ik
t.it
t.o
t.o
t.ok
t.om
t.uñ
teabop
tcadax
team
teaw, tcan
teik
tcit'a
tcitcik
teitid
te'itiu
Other forms found
tcop-un; tcop-un-ju
teow-o-ñite; tcow-oj-
iu; tcuw-è-ite
teanj-ūj-ac
teuñ-ut
tcap-ana, half; tcoop-
au, in the middle
te'uty-a, carrying net
 waki-t
ud-ète




-in tensc

药

wid-èn
[winis]


Mfcaning
carry
extinguish
agree
work
comb
accomplish
halve
put in carrying
net
urinate hurt, sick


Other forms found
wot--o-t-o-ñitc
wox-on-od; wox-in-ji
wod-a (imper. \&) ;
woud-ute; wuud-au,
Monday, at the
standing
wuton, foot
xatc-a-tcin-ac, wished
to stab
xay-a
xiti-uj-ic
xot-oo, rain
xwiu-ji-u
yet, one; yet-au, to-
gether
yiw-in, wife; yuw-en-
itc, yuw-ana, hus-
band
yum-ā-ñite
-ji past
wot--ji
wox-ji
woi-ji
wowud-ju
xapit-ji
xaii-ji
xot- $j i$
xwiu-ji
yam-ji
yitw-in-ji
yew-in-ji
yom-jo


范



## YAUDANCHI TEXTS.

The following Yaudanchi texts include all the myths and tales obtained and two incomplete texts based on myths of other Indian tribes. These two were obtained with the idea that a Yokuts text expressing the same ideas as texts extant in other languages might be convenient in comparisons aimed to bring out the essential qualities of different American languages. One of these two texts is a translation of part of an Arapaho story, the other of the beginning of a Chinuk myth. The former is the first text given, and illustrates the dependent constructions of Yokuts unusually well. It is followed by a full word by word analysis. The first lines of the second text, the story of which is purely Yokuts, have been analyzed in the same way. All the texts have been left exactly as recorded as regards the division of words. This was done because the question of the degrec of union between the pronouns and the tense and mode particles is at once a delicate one to decide and perhaps an important one in Yokuts, since the grouping of these words is the nearest approximation in this language to the common American characteristic of incorporation. In actual discourse these pronouns and particles are probably run together somewhat more than shown in the texts, as the informant unquestionably sometimes spoke with unusual slowness and distinctness for dictation. On the whole, however, the condition of the texts in this respect will indicate fairly the character and extent of such enclitic word grouping. In all cases the several words heard pronounced as one have been separated in the Indian text by hyphens and their English equivalents have been given as entirely separate words. Wherever a single Indian word has had to be translated by two or more English words in order to make its meaning clear, these English words have been united by hyphens. In regard to accents, also, the texts have been left exactly as recorded in spite of some inconsistencies and incompleteness. The word accent in Yokuts is not so marked that it would be wise to indicate it unless special attention had been given to it, which was not the case; the sentence accent, however, on account of the grouping of enclitic words, bears on the same question, of the degree of union
between them, that has just been referred to; and for this reason the accents, in spite of the imperfection of the record, have been retained where written and not added where omitted.

TANGLED HAIR. ${ }^{1}$


## ANALYSIS.

ta, if; indefinite demonstrative that, used sometimes as an equivalent of if. ma, you.
tañ, him; indefinite demonstrative that, ta; objective suffix of demonstratives, -ñ.
hi, future particle.
$u ̈ \mathrm{ka}$, see, look. Unsuffixed stem altered from öka.
wi, interjection.
paduan, will enter; -in or future tense of padu, to enter.

[^20]mam-hi, two words: mam, objective you, thee; hi, enclitic future particle. widj', for wid-ji, told; -ji past tense of stem wid, to tell.
an, his; possessive of third person singular; here enclitic to widj'.
yiuna, wife; objective case of yiwin, by suffix -a.
tanatcinin, wishing to go; stem tan-, to go; a-tcin, desiderative suffix; -in, suffix of participial-future tense.
ama, then; introductory connective.
tanit, thence; indefinite demonstrative that, ta; -nit, ablative suffix.
$\operatorname{tanji}$, went; -ji past tense of stem tan, go.
t.okt.ikite, to hunt; stem t.ok, reduplicated t.okt.ik; -itc, purposive and agent suffix of verbs.
ama, then.
d.ajd-ajtintoote, Tangled-hair, name; composed of stem d.aj, tangle, duplicated; tin, particle expressing the plurality of the subject of the verb; toote or tòt., hair.
ñauji, reached, arrived; -ji past-tense of ñau, to arrive.
tañ, that; indefinite demonstrative, here adjective, ta; -ñ, objective suffix of demonstratives.
yiuna-an, his wife. Two words: yiuna, objective of yiwin, wife; and an, his, possessive of the third person, here enclitic to yiuna.
wa-am-tañ, long not him. Three words: wa, far, long; am, not; tañ, indefinite demonstrative that, he, ta, with objective suffix -n.
őkaj, looked at ; -ji past tense of öka, see, look.
ama, then.
d.ajd-ajtintootc, Tangled-hair.
xwiuji, returned; -ji past tense of xwiu, to return.
hideenit, whence; interrogative-relative hide, hidee, where; -nit, ablative suffix.
taxn-ac, came, had come; ac past tense of stem taxn, come, probably related to tan, go.
am, not.
laa, anything; indefinite-relative something, anything.
tüücju, did; -ji past tense of stem tüüc, make, do form.
t.ipni, supernatural being, act, or power. Evidently related to t-ipin, up, sky, high.
$\tan$, for tañ, her?
oma, first, adverb.
nauñi, by his arrival; instrumental case, suffix -ñi as in nouns, of the stem ñau, arrive, reach.
tau, there; indefinite demonstrative ta, that; locative suffix -u . Tau is freely used without specific force.
tcan, soon; adverbial particle, usually at the head of the sentence, implying urgency or immediateness, and generally futurity.
xono, constantly.
taxin, comes; -in participial-future tense of taxn, to come. The full form taxin-in is used only participially; the finite present-future form is taxin, according to rule for -in verbs.
ama, then.
ñauñitcau-an, at his arrival; two words, ñaunitcau and the enclitic an, his; ñaunitcau is a locative participial form, composed of ñau, arrive; participle -ñite; locative -u or -au.
am, not.
t.añ, him; objective of demonstrative ta, by suffix -ñ. •
ükaad, ever looked at; continuative -ad tense of öka, see, look.
ama, then.
hatpauan, at his fourth; two words, hatpau, at the fourth, and enclitic an, his; hatpau is formed by the regular locative suffix -u from the reduced stem of hatpañi, four, which is derived from poñoi, two. The locative forms of the numerals are adverbial ordinals, denoting the nth time.
ñaunitcau-an, at his arrival; two words, ñaunitcau and the enclitic an, his, tautologically repeated from hatpau-an; naunitcau is the stem nau, arrive, with participial suffix -ñite, and the usual locative suffix -u or -au.
tau, there; locative of the demonstrative ta, that. Freely used without specific force in many cases.
cukidja-an, she pierced her; two words, cukidja and enclitic an, his, her. Cukidja is the -ji past tense form of stem cokud, to pierce, perforate, appearing also in cikid, arrow, and cokod, hole.
t.eu, house; locative, by means of the regular suffix -u, of t.e, house.
an, her; tautological to the enclitic an in preceding cukidja-an, both being attributive to t.eu, house.
muk'ac, woman.
ta, that; indefinite demonstrative, here attributive, implying previous mention rather than location.
paukuñ-an, with her awl; two words, paukuñ, with awl, from bawuk, awl, and the instrumental suffix -uñ, -in, -ni; and an, her.
ükatcinin, wishing to see; participial-future -in form of the stem öka, see, with the desiderative suffix -tcin.
tañ, that; demonstrative ta, demonstrative objective suffix -ñ; here attributive to t.ipni.
t.ipni, supernatural one; objective, identical with the subjective occurring previously.
ama, then.
widji, said; -ji past tense of stem wid, say, tell.
an, her.
demdam, thought; stem probably dim, used only in duplicated or reduplicated form. Verbal forms are dim-e-dm-ad, dem-dim-ji. Demdam here seems to be substantival, probably in unexpressed locative relation to widji: said in her thoughts. It seems less likely that it is the subject of widji. The omission of the sign of the locative is unusual and not explained.
ükā-na-mam-hi, I shall see you; four words, $\ddot{u} \mathrm{ka}$, see, and the three enclitics na, I, mam, objective you, thee, and hi, future particle; these three are in the usual order of pronominal subject, object, and future tense particle. Ulka is the unaffixed but altered stem form oka.
t.ipni, supernatural one; objective case, identical with the subjective.
xuyiujiu, at the return, when you return; stem xwiu, return; past tensesuffix -ji; locative suffix -u. The ending -jiu renders the verb participial, its subject being in the possessive case, and gives
the phrase the force of a temporal or causal clause.
min, your; possessive pronoun of the second person singular, subjective ma. Min is subject of the participle xuyiu-ji-u.
ama, then.
cokdo, hole; probably objectire, possibly locative, of cokod, hole.
an, her.
tau, there; indefinite demonstrative ta, that; locative suffix -u . ökac, looked; -ji past tense of öka, see, look.

THE PRAIRIE-FALCON'S WIFE.




## PARTLAL ANALYSIS.

 reduplicated form with the same narrative past suffix, $=$ $\mathrm{g}^{6} \mathrm{og} \mathrm{g}^{6} \mathrm{oj} \mathrm{ji}$.
tau, there, that-at, indefinite distant demonstrative ta, locative -u.
limik, prairie-falcon.
g' ògoc, lived.
an, his.
yiwin, wife; yiwin, marry.
haiana, mallard-duck. Hay- to jump, fly; -ana nominal participial suffix. (Derivation probable.)
g' òg' oc, lived.
tau, there, that-at.
kaiiu, kaiu, coyote.
yèt'au, together-with, one-at; yet., yit, one, -au locative.
tañ, him, that-one; ta, indefinite demonstrative frequently used as pronoun of third person; -ñ, objective suffix for demonstratives.
g' òg' oc, lived.
tin, (they) ; particle indicating the plurality of the subject; -n is the plural suffix of pronouns and demonstratives.
tau, there, that-at.
cupèiin, three, three of them. Subjective animate form, possibly collective in meaning, derived from copin, three, by loss of final -n, regular before suffixes, by addition of the suffix -in, and by accompanying change of the stem-vowels to those of contrasting quality: o to $u$ and $i$ to $e$.
ama, then, and then, frequent introductory or connective particle in narrative.
$\operatorname{tanji}$, went; stem tan, narrative past suffix -ji.
limik, prairie-falcon.
ama, then.
widji, told, said to; stem wid, narrative past suffix -ji.
kaiwi, coyote; from stem kaiu and objective suffix -i.
am-hi, not will; two words, the second accentless and enclitic. Am, not; hi, particle indicating the future.
eñt.im, sleep; the stem, used as imperative.
ama, then.
tanit, there-from, that-from; indefinite distant demonstrative ta, ablative suffix -nit.
yiwin, wife.
an, his.
limkin, prairie-falcon's, possessive case of limik, formed by regular suffix -in, with loss of unaccented second stem vowel.
tanji, went.
ama, then.
modotci, seed-gathered; stem modote, to gather k'isin seeds, narrative past suffix -ji.
ama, then.
tik, (they-two), particle expressing the duality of the subject, as tin does plurality; $k$ is the dual suffix of nouns and pronouns.
ñauuji, arrived, reached their house; from stem ñau, naw and narrative past suffix -ji.
yo, also, again, and.
limik, prairie-falcon.
yo, also.
ñauuji, arrived.
ama, then.
ineciin, well, probably being well, doing well, from stem inij, (from which inj-ij good, objective inij-ya, plural inej-aj-i), and active participial and future suffix -in; or possibly the subjective animate collective suffix -in of numerals as found in cupèiin.
tiin, they, $=$ tin, particle of plurality.
kumoi, all, adjective used substantively.
ñauuji, arrived.
ama, then.
t'awinin, becoming-day; stem t'aw or taw, not found without intransitive suffix -in; finite future tawin, active participle tawin-in, formed by the future and participial suffix -in which appears after -inonly with participial meaning.
yo, again, also, and.
$\operatorname{tanji}$, went.
limik, prairie-falcon.
THE PRAIRIE-FALCON FIGHTS.


## THE PRAIRIE-FALCON LOSES.



| li'mik-na | limik-na | limik-na | limik-na | nauji-tau |
| :---: | :---: | :---: | :---: | :---: |
| "Praie-falcon I, | prairie-falcon I, | prairie-falcon I, | prairie-falcon I." | Arrived that-at |



| $\underset{\text { again }}{\text { y }}$ | tidi'nji <br> rolled. | li'mik-na <br> "Prairie-falcon I, | li'mik-na <br> prairie-falcon I, | li'mik <br> prairie-falcon." | ñauuji <br> Arrived |
| :---: | :---: | :---: | :---: | :---: | :---: |
| tau | idkan | ama | tañ $\quad \overline{\bar{o}^{\prime}}$ kaj | idka | ama |
| that-at | water-at. | Then | that looked | water | Then |

[^21]
$\underset{\text { his }}{\text { an }} \underset{\text { beads }}{\mathrm{k}^{\prime} \overline{0^{\prime}} \mathrm{xa}} \quad \underset{\text { lost }}{\mathrm{t} \cdot \mathrm{awi}^{\prime} \mathrm{nji}} \underset{\text { prairie-falcon. }}{\text { limik }}$

[^22]mikiti.

da'pyite ama tanji ta'u-wa yaudau wi-a-mi-hi
to-gather. Then went that-at far brush. "Well, not you will


| da'paiji | ama' | tañ | te'utu'iju | ama | bi'in-an-tañ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| gathered. | Then | that | put-into-11et. | Then <br> finish her that |  |  |
| te'u'tia | ama | maxji | tci't'at | ama | tanit | tañ |
| carrying-net. | Then | seized | clover. | Then | that-from | that |

[^23]


[^24]

|  |  | $\begin{aligned} & h^{\prime \prime} a^{\prime \prime} n \\ & \text { "What } \end{aligned}$ | ta'ham | wā'a-an "Long its | xunò'nai-kau <br> further that-at |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { "Mountain-r }}{\text { t. } i^{\prime} p d}$ | il that; | kill |  | $\begin{aligned} & \mathrm{ama}^{\prime} \\ & \text { Then } \end{aligned}$ | tat that-from |
| went | ta | wit'e boy. | $\begin{aligned} & \text { ama } \\ & \text { Then } \end{aligned}$ | $\text { ta-ñau'ji } i^{2}$ that-reached. | Then |  |


$\underset{\text { shot; }}{\text { tu'iju }} \quad$| $\mathrm{t} \cdot \mathrm{a}^{\prime}$ udjac-tañ |
| :---: |
| killed that. |$\underset{\text { Then }}{\mathrm{ama}^{\prime}} \underset{\text { that-from }}{\text { tāt }} \underset{\text { came, }}{\text { taxi'nji }} \quad \underset{\text { presented }}{\text { wakīji }}$



|  | $\text { po'hutcyu }{ }^{3}$ <br> grew. | $\underset{\text { Then }}{\mathrm{ama}^{\prime}}$ | $\underset{\text { disliked }}{\text { awa'tsyi }}$ | $\begin{gathered} \mathbf{a}^{\prime} \mathbf{n} \\ \text { his } \end{gathered}$ | at |
| :---: | :---: | :---: | :---: | :---: | :---: |
| dai'ipa <br> bow | $\underset{\text { again. }}{\mathrm{yo}^{\prime}}$ | $\begin{aligned} & \mathrm{ama}^{\prime} \\ & \text { Then } \end{aligned}$ | widji <br> said: | $\underset{\text { "Not }}{\mathrm{k}^{\prime} \mathrm{amu}^{\prime}}$ |  |
| mu'nonhoi property | i $\underset{m y}{\operatorname{mim}}$ | paha'dhain ancestors'?" | $\underset{\text { Then }}{\mathrm{ama}^{\prime}}$ | widji <br> said | $\underset{\text { mikiti: }}{\text { miki'ti }}$ |
|  | $\mathrm{g}^{\prime} \mathrm{o}_{\mathrm{i}, \mathrm{~g}^{\prime},}^{\prime \prime} \mathrm{i}$ | o'itcad-na-n <br> "Wish I my | $\begin{aligned} & \text { tañ } \\ & \text { that } \end{aligned}$ | ui'kna see." | The |
| opened | a'nkin <br> their-two | t.è'i house. | $\begin{aligned} & \text { ama }^{\prime} \\ & \text { Then } \end{aligned}$ | $\begin{aligned} & \text { tall } \\ & \text { that-at } \end{aligned}$ | $\begin{aligned} & \text { 'o'g'oc } \\ & \text { were } \end{aligned}$ |
| all | inè'sasi <br> good | taiyup bows | a'yoc <br> arrows | 'p'on | 'umui |


| $\tan _{\text {that-at }} \mathrm{g}$ | $\underset{\text { was }}{g^{\prime} \partial^{\prime} g^{\prime} \text { oc }}$ | $\underset{\text { good }}{\text { inè'sasi }}$ | mo'nonhoi property. |  | $\underset{\text { Then }}{ }$ | tau |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| paduu'nju entered | tau that-at | ta <br> that | wi't'ep boy. | $\underset{\text { Then }}{\text { ama }}$ | ta | widji |
| djudj'añ | ãkel | hu'pue | hā'a <br> what | ma | 'od | ama |

[^25]Am. ARCH. Eth. 2. 20.


[^26]| $\underset{\text { you } 1}{\mathrm{ma}^{\prime} \mathrm{m}-\mathrm{na}}$ | ohó'od wish!" |  | $\begin{aligned} & \text { ama' } \\ & \text { Then } \end{aligned}$ | ño'hoo <br> grizzly-bear | tca'num <br> immediately: | $\begin{gathered} \text { i'njij } \\ \text { "Good } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underset{\text { Immediately }}{\text { tcanum }}$ | $\begin{gathered} \text { tañ } \\ \text { that-one } \end{gathered}$ |  | ctac | ño'hoo <br> grizzly-bear. | $\underset{\text { Then }}{\mathrm{ama}^{\prime}}$ | wodò'ic dodged |
| wit'èp | ama | yo'o | tañ | haini'ct | ama |  |
| boy. | Then | in | at-on | leaped | The |  |
| $\begin{gathered} \text { haii'nji } \\ \text { jumped-up-to } \end{gathered}$ | t.ipin <br> high |  | ā'wau ock-on. | $\begin{aligned} & \mathrm{ama}^{\prime} \\ & \text { Then } \end{aligned}$ | tā'nit that-from | $1 \mathrm{at} \mathrm{t}$ |
| t'ū'iju shot | $t \cdot{ }_{\text {up }}$ |  | ükāac looking | $\begin{aligned} & \mathrm{nlo}^{\prime} \mathrm{h} \\ & \text { grizzly-b } \end{aligned}$ |  | nd that |
| mükca'u-an thrort-in his |  |  | ama- Then th | añ <br> one | audjac <br> killed | xi-tañ |


|  | an | najò'jo | $\begin{aligned} & \text { ama }{ }^{\prime} \\ & \text { Then } \end{aligned}$ | tañ | $a^{\prime} u^{\prime} x j u$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { ama' } \\ & \text { Then } \end{aligned}$ | tat that-from | went. | $\begin{aligned} & \text { ama } \\ & \text { Then } \end{aligned}$ | that |  |
| $\mathrm{g}^{6}$ |  |  | mikitiin mikiti's. | ama' |  |  |
|  | tcudya'ĩ-an skin-with his |  | tain-ño'h'īn of-that grizzly-bear's. |  |  |  |
|  | Maternal | mother, | $i p ' e^{\prime} ’$ <br> get-water |  | run!" |  |
| aughter's-ch | hild." |  | at | ikiti | to-get-water. |  |
| t-from | ö'kaj saw |  | -bear's | tcu'dya skin. | Then |  |



|  | yo <br> again | ö́kaj saw | idkau-a'n-tau water-at her that-at | tcudya-an skin his |  | ño'h'iin grizzly;bear's. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tā'nit | taxinji | yo | xuyu'ji | am |  |

[^27]

## THE VISI' TO THE DEAD.


$\underset{\text { was-buried. }}{\text { dukdut }} \quad \underset{\text { Then }}{\text { ama }} \quad \underset{\text { that-at }}{\text { tau }} \quad \underset{\text { night }}{\text { toyo'no }} \quad \underset{\text { slept }}{\text { eñt-imji }} \quad \underset{\substack{\text { yuwè'nitc-an } \\ \text { husband her. }}}{\text { slan }}$

|  | yo <br> again | tanji went | to'yono night. | ama <br> Then | tau that-at | yo again | tau hat-at |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| iji | tau | yo | eñt.imji |  |  | yo | tanji |
| arrived, | that-at | ain | slept |  |  | aga |  |


| ama | tau-yo |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Then | there again | ent.imji <br> slept. | ama <br> Then | djoे'opau <br> middle-at | | toyo'no |
| :---: |
| night |



[^28][^29]

| $\tan$ | $\underset{\text { widji }}{\text { told }} \quad \mathrm{t}$ | t'è'idatc watchers | $\begin{aligned} & \mathrm{a}^{\prime} \mathrm{m}-\mathrm{mi} \text {-hi } \\ & \text { "Not you will } \end{aligned}$ | $\underset{\text { sleep!" }}{\substack{\text { eñt.imin }}}$ |  | $\underset{\text { Then }}{\mathrm{ama}^{\prime}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { tīk } \\ \text { (they-two) } \end{gathered}$ | xwi'yuji <br> returned; |  | $\begin{array}{cc}\text { jī } & \text { tī } \\ \text { (they-two). }\end{array}$ | ama Then | tik (they-two) | $\underset{\text { again }}{\text { yo }}$ |
| $\mathrm{ta}^{\prime} \mathrm{nji}$ went. | $\underset{\text { And }}{a^{\prime}}$ | tīk <br> they | $\underset{\text { agaln }}{\text { yo }} \quad \underset{\text { cam }}{\text { dat }}$ | da'kāji camped. | $\underset{\text { And }}{\text { ama }}$ | $\underset{\text { tik }}{\text { (they-two) }}$ |
| yo'o again | tanji | $\begin{aligned} & \mathrm{a}^{\prime} \mathrm{ma} \\ & \text { Then } \end{aligned}$ | $\underset{\text { slept. }}{\mathrm{e}^{\prime} \tilde{\mathrm{n}} \mathrm{imji}}$ | $\begin{aligned} & \text { ama } \\ & \text { Then } \end{aligned}$ |  | nuwac <br> lay |
| yè'etau one-at | wo'xono <br> log. |  |  |  |  |  |

FIGHT WITH THE PITANISHA


[^30]|  | $\overline{o^{\prime} k a j}$ saw | pit'a'nica <br> Pitanisha. | $\begin{aligned} & \text { ama } \\ & \text { Then } \end{aligned}$ | $\operatorname{tin}_{\text {(they) }}$ | widji <br> told |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { xel } \\ \text { "This-at } \end{gathered}$ | $\operatorname{taxin}_{\text {go }}$ | t'icau open-In, | xeu | nā'n-hi <br> we will | aus |
| taxin go." | $\begin{aligned} & \mathrm{ama}^{\prime} \\ & \text { Then } \end{aligned}$ | $\begin{aligned} & \text { ta } \\ & \text { that } \end{aligned}$ | nòno <br> man | hupuc selected | a'nik their. |  |
| Pitanisha |  | $\begin{aligned} & \text { tañ } \\ & \text { that } \end{aligned}$ | nòno man | taxnad coming. | $\begin{aligned} & \text { ama } \\ & \text { Then } \end{aligned}$ | sald |


| ta | yet |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| that | pit'a'nica | eiitawidin | am | huna'i |
| Pitanisha: |  |  |  |  |


| taxnad is coming! | ai | co'xñite |  | ama | ta | nòono |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Now we (inc | hall | dlled |  | that |  |
| wodò'yita <br> dodging | taxnin comes. | $\underset{\text { And }}{\text { ama }}$ |  |  | pit'a'nica Pitanisha | nji |
| okeu'-tañ <br> met him. | yò'o-xe Also this | tapa |  |  | taxnad were-going |  |


pit'a'nica

Pitanisha. $\quad$\begin{tabular}{c}
Tha

$\quad$

tcanu'm <br>
immediately

$\quad$

t'uit'uiyut <br>
was-shot-at-repeatedly

$\quad$

ta-no'no <br>
that man.
\end{tabular}

| $\underset{\text { Then }}{a_{\text {am }}^{\prime}}$ | $\begin{aligned} & \text { am-tiin-tañ-to'kji } \\ & \text { not (they) him hit. } \end{aligned}$ |  | $\begin{aligned} & \text { ama } \\ & \text { Then } \end{aligned}$ | $\underset{\text { these }}{\text { xican }}$ | t.aā'tci people |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| t'iji | xeu | yau'dau | ama | tcanum |  | woc |
| emerged | -at | rush-at. | Then | immediately |  | tied. |
| ama | teanum | pit'a'nica | da'witji | ama | ta | ye't |
| And | immediateis | Pitanisha |  | Then | hat |  |
| nòno | t'uit'uy | $t$ ama | wojojw |  |  | an |
| man | was-shot-repe | odiy. And | pierced |  |  |  |


| t'ü'yoc arrows | hetat <br> still | t'oyatyañite was-shot-repeatedly. | ama | $\underset{\text { st-last }}{\text { hi'a }}$ | tā'witsi. died. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| pit'anica Pitanisha | $\frac{\mathrm{da}^{\prime} \mathrm{w}}{\mathrm{ran}}$ | kumoi all. |  |  |  |

[^31]| I | y | te'ai'judète | nes-an | wit'ep | $\mathrm{d}^{\prime} \mathrm{g}^{\prime} \mathrm{oc}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ioi | and | Jay | younger-brother her |  | were |
| tīk | tau | yètau t' | t'oyo'no |  | hitewa'iu |
| (they-two) | that-at | One-at | night |  | nos |

[^32]


## SUMMARY.

The chief characteristics of the Yaudanchi dialect, ${ }^{2}$ which in the main apply also to all the other dialects of the Yokuts family, are a comparatively simple phonetic system, the presence of a series of impure vowels ${ }^{3}$ more or less parallel to the usual series, the occurrence of two classes of t-sounds, the presence of liard sonants and of stressed surds in all series of consonants, the absence of spirants except in the $k$ series and among the s-sounds, an extensive and varied development of vowel mutations, the presence of syntactic cases and of several locative and instrumental ones, a plural for words denoting persons, the absence of reduplication as a grammatical means in the noun but its presence in the verb and numeral, the complete lack of pronominal affixes in verbs, the vocalic differentiation of the verb stem into two principal forms determined probably by the suffixes, the indication of number in the verb by separate particles, a full and very schematic development of the personal pronouns in singular, dual, and plural, the absence of a personal pronoun in the third person except in the possessive, the occurrence of number and case suffixes in both personal pronouns and demonstratives different from those in nouns, the combination of personal pronouns and modal and temporal particles into clusters very nearly

[^33]equivalent to words but without abbreviation or phonetic modification of the particles composing these clusters, and a simple sentence structure marked by a lack of involved dependent constructions, the clauses occurring being either non-pronominal participial derivatives of verbs or non-pronominal verbal nouns with case suffixes. The number of grammatical categories in the language is not large and the means used to express them are still more restricted, consisting, besides a limited employment of reduplication, only of vocalic mutation and suffixion. The vocalic mutations are peculiar in being of a different character in the expression of different grammatical functions. The number of suffixes used for grammatical purposes is small, probably not exceeding thirty or forty. There are no affixes of the kind found in many American languages and denoting shape, spatial relation, or the instrument or object of action, all such ideas being expressed as in English only by words or circumlocutions. The use of suffixes for etymological derivation is restricted and composition of two independent stems is very unusual. Many verbs go back to monosyllabic stems, but on the whole the stems of the language are polysyllabic.

## II. THE YAUELMANI DIALECT.

The material on which the following comparative sketch of the Yauelmani dialect is based was collected in 1900. No texts were secured at that time and the work was not carried farther in subsequent years, except that a few songs and short formulas were recorded in this dialect in 1903. These are included with the texts from miscellaneous dialects in Part III. Except for these short texts all the material obtained is from a young middleaged man named José Maria, at Tule river reservation.

The Yauelmani, or at least the people at present speaking this dialect, are more numerous on Tule river reservation than the Yaudanchi, although the reservation is situated near or in the original territory of the latter. The Yauelmani territory seems to have been on Kern river in the vicinity of Bakersfield and in the plains northward. Its exact limits have not been determined. On the east and south this territory was adjacent to Shoshonean areas, on the west and north to other tribes of Yokuts family.

In general structure the Yauelmani dialect is closely similar to the Yaudanchi. There are however a number of distinct differences that are structural and not merely phonetic. The relation of the vocabulary of the two dialects is discussed in Part III. In probably a majority of words the two dialects differ either by phonetic variations or radically.

## PHONETICS.

The phonetic constituents of Yauelmani are on the whole much the same as those of Yaudanchi. The most important difference is that Yauelmani lacks the impure vowels, especially $\ddot{o}$ and $\ddot{u}$, of Yaudanchi. I takes the place of $\ddot{u}$, and e of $\ddot{o}$, as shown by the corresponding forms of certain words. It is possible that this i and e are not exactly the same as ordinary i and e of this dialect. Ilik means both water and sing in Yauelmani,
corresponding respectively to Yaudanchi idik and $\ddot{u} \mathrm{~d} \ddot{u} k$. The Yauelmani informant asserted that there was a difference in the quality of the vowels of this word according as the meaning varied; but the difference heard was imperceptible, so that it could not be determined whether the distinction really exists in the language or was due in this case to an unconscious intention to discriminate between the homonyms. Yaudanchi pöötc is piis in Yauelmani. It is worthy of note that most Yaudanchi words containing an impure vowel have been found represented not by phonetic equivalents but by entirely different stems in Yauelmani.

| sick, hurt | tcü̈xütc | tixt-in |
| :--- | :--- | :--- |
| cloud | k'üdai | k'ilei |
| beaver | t'öpük | t'èpik |
| panther | wöhöcit | wehèsit |
| make | tü̈uj, tööj | tic, tec |

One of the chief other phonetic differentiations of the two dialects is the occurrence in Yauelmani of 1 . This is usually d in Yaudanchi. In some cases 1 is represented by Yaudanchi n. Sometimes $y$ is the equivalent of $d$ in Yaudanchi and $l$ in other dialects. $\tilde{\mathrm{N}}$ does not occur in Yauelmani, being replaced throughout by n . S and c are distinguished with difficulty in Yaudanchi. In Yauelmani the sound nearer to s was heard more frequently than that approaching c. The difference between the two dialects extends to te, which is usually ts in Yauelmani. In some cases, including the suffixes -ñite, -atcin, and -tci, Yaudanchi te becomes t in Yauelmani.

## MEANS OF GRAMMATICAL STRUCTURE.

The various forms of reduplication found in Yaudanchi, and represented respectively by the forms: t'uy-t'uy, t'uy-u-t'y, tud-o-tud, and cop-cip-i, occur in Yauelmani.

Many Yauelmani suffixes are identical with the Yaudanchi ones and some differ only phonetically. A few of the most important Yaudanchi suffixes are however lacking, and a number
that have not been found in Yaudanchi are important in Yauelmani. The following list gives the suffixes determined for the two dialects.

Non-grammatical:

| Yaudanchi | Yauelmani | Meaning |
| :--- | :--- | :--- |
| -oc | -oc | noun formative <br> -ud |
| -it | -its 9 | noun formative <br> place of <br> -i, -ui |
| noun formative |  |  |
| -i |  | death of a connecting relative <br> -in-in |
|  | -in-in: | people of <br> desirer of |
|  | -at. | habitual place of q agent |
| -am | -lis | ten and, on numerals |

Number:

| $-\mathrm{i}(-\mathrm{a})$ | -i | plural, nouns |
| :--- | :--- | :--- |
| $-\mathrm{n},-\mathrm{in}$ | $-\mathrm{n},-\mathrm{in},-\mathrm{an}$ | plural, pronouns |
| $-\mathrm{k},-\mathrm{ik}$ | $-\mathrm{k},-\mathrm{ik},-\mathrm{ak}$ | dual, pronouns |
| -c | -s | connective, demonstratives |
| -hatc | -hats | diminutive, plural of adjectives <br> -awayi |
| -hin | - hal | plural collective? |
| collective, inanimate nouns |  |  |

Case:

| $-\mathrm{a}(-\mathrm{i})$ | $-\mathrm{a}(-\mathrm{i})$ | objective, nouns |
| :--- | :--- | :--- |
| $-\tilde{\mathrm{n}}$ | $-\mathrm{n},-\mathrm{in}$ | objective, demonstratives (-in, nouns) |
| - wa | - wa | objective plural, pronouns |
| -in | - in | possessive |
| $-\tilde{n i},-\overline{\mathrm{n}}$ | -ni | instrumental |
| -u | -u | locative |
| -nit | -nit | ablative |

On Numerals and Interrogatives:

| -in |  | animate collective |
| :--- | :--- | :--- |
| -id | -il | adverbial |
|  | $-a m$ | adverbial distributive |
| -ak | $-u k$ | indefinite |
| -tci | -ti | indefinite |

```
Semi-derivative, verbal:
\begin{tabular}{lll} 
l & -i, -u, -a & \begin{tabular}{l} 
causative \\
-da \\
\\
causative
\end{tabular} \\
-la & -li. & frequentative \\
-ta & -ta & frequentative \\
-a-tein & -a-tin & desideration \\
-cit & -sit & benefactive \\
-in & -in & intransitive \\
-wic & -wis & reflexive \\
\(\quad\)-wid & & \\
-umdu-wic & &
\end{tabular}
Mode and Tense, Verb:
\begin{tabular}{|c|c|c|}
\hline -ji & * & preterite \\
\hline -ac & * & preterite \\
\hline -in & -in & future \\
\hline -in & -hin & participle, present \\
\hline -ad & * & continuative \\
\hline * & -an & aorist \\
\hline * & -ahin & preterite \\
\hline * & -g 0 & continuative \\
\hline * & -g \({ }^{6}\) ohin, \(\mathrm{g}^{6}\) on & preterite \\
\hline -it & -it & passive \\
\hline -ñite & -nit & future passive \\
\hline -ite & -its & agent \\
\hline & -ini & agent \\
\hline -ana & & participle \\
\hline & -al & apodosis of hypothetical condition \\
\hline & -mi & from \\
\hline & -i & from, of \\
\hline & -a & habitual agent \({ }^{\text {P }}\) \\
\hline & -han & passive in dependent clause \\
\hline & -wal & ? \\
\hline * & -ka & imperative \\
\hline
\end{tabular}
```


## THE NOUN.

Very little material was obtained as to the plural in Yauelmani. It is confined to names of persons, and is formed by the suffix $i$ with more or less vocalic alteration of the stem as in Yaudanchi.

| youth | nòto | nòtèi |
| :--- | :--- | :--- |
| man | nòno | nònèi |
| woman | kaiina | kaèni |
| child | witep | witip-hats |

[^34]A suffix -hal, apparently corresponding to Yaudanchi -hin, is used on inanimate nouns with a collective meaning.

| silel-hal | pile of rocks |
| :--- | :--- |
| witcet-al | many sticks |
| lomet-al-iu | mountainous, mountain-many-at |
| tun-ò-hal | many pines |
| salam-hal | willows |

The case suffixes are the same as in Yaudanchi, with of course the regular change of the instrumental -ñi to ni, and plus an objective form not found in Yaudanchi. The Yaudanchi objective suffix -a or -i occurs on some words, but a number of others in Yauelmani show a suffix -in, the equal in form of the possessive suffix. The objective suffix for demonstratives in Yaudanchi is $-\tilde{n}$, which in this dialect becomes $-n$, and it is possible that the ending in question is to be explained as this suffix used on nouns. Certain words which take the -in suffix, such as nòto, young man, and nòno, man, are identical in form in the objective and possessive. Added to final $i$, the ending -in changes this to è. Occasionally the objective -in is modified to -n , -en, or -on . Whatever the suffix -in itself, it appears that its occurrence with objective meaning in Yauelmani must be connected with phonetic causes; since all words that take it end vocalically, while those that end in a consonant take -a or -i.

Objective.

| t.è-in | house (t.i) | kawayò-n | horse (kawayu) |
| :---: | :---: | :---: | :---: |
| nòto-in | youth | taut-inè-in | murderer (taut--ini) |
| nòno-in | man | tid-ik-l-inè-in | continued splitter |
| kodj-èn | small (kudji) | tid.ak-t-inè-in | continued splitter |
| totce-en | bad | hay-inè-in | laugher |
| nohoo-n | grizzly bear | hat-ya-in | glutton |
| hitwaia-n | ghost | insana-n | lover |
| pimtana-in | stump | manè-in | much (mani) |
| a: |  |  |  |
| witep-a | child | paln-a | flat (palin) |
| pus-a | dog | yapikn-a | tree |
| ilk-a | water, song | and most verb eat | ms, such as xat-a, |

```
-i:
```

| batcikn-i | red | kas-a-ts-i | puncher (kas-a-its) |
| :--- | :--- | :--- | :--- |
| yokots-i | person | oxoyo-ls-i | lover |
| lehèm-ts-i | runner | ax-ts-i | bed (axits) |
| xat-a-ts-i | eater (xat-a-its) |  |  |

Without objective suffix:

| kaiina | woman | xoi | deer |
| :--- | :--- | :--- | :--- |
| silil | rock | talap | arrow |

The forms taken by the other cases need no special comment. The locative appears as -u, -iu, -au, -ou, -o, as in Yaudanchi: t.è-u, xot-i-u (from xot-oi), ilk-au, oct-ou, lomt-o. Sili-u from silil is scareely an irregularity. There is a break after the second vowel of this word, apparently due to its aspiration, so that more accurately it is sili'l. Powers wrote it silekhl. Moreover, silil may be a reduplication from sil, and this form the one used in the formation of the locative. ${ }^{1}$

The use of the cases is the same as in Yaudanchi, but one or two idioms have been noted. An animate agent with a passive verb is put in the possessive, not in the instrumental. This holds in Yaudanchi also, and of the pronoun as well as of the noun. The possessive is used as the subject of verbal object clauses, the idiom in such cases being really: "I saw your eating" where we say: "I saw you eat." The object of such a verbal clause, which is itself an object, is in the instrumental. To express the idea of "for," the possessive case is used, at least in demonstratives. Many constructions were obtained in which the case endings were added directly to verb stems. In such sentences as: "I see you eat," the objective -a is added to the naked stem meaning to eat. Only very few verbs, including hiwet, to walk, ep, to swim, and huloc, to sit, lack the objective -a in such constructions and are used without any suffix. The locative is used on verbs with the meaning of "for the purpose of "; the possessive with the meaning "on account of," or "from," as in tui-t-un, from being struck. When a causative suffix is added to a verb, the person that is caused to perform the action is expressed in the objective, the person or object affected by the action, in the instrumental.

[^35]
## THE VERB.

Number and person are not expressed in the Yauelmani verb and the scope and methods of the expression of mode and tense agree quite closely with those in Yaudanchi, though some of the suffixes used differ entirely.

## SEMI-DERIVATIVES.

The causative is in some verbs expressed by -la, corresponding to Yaudanchi -da, and in others by -i , -a , or -u . This latter suffix replaces the lengthening of the last stem vowel in some Yaudanchi verbs. Yaudanchi forms $\ddot{u} \mathrm{~d} \overline{\mathrm{k}} \mathrm{k}$ from $\ddot{u} \mathrm{~d} \ddot{\mathrm{u} k}$, to sing; Yauelmani, ilik-i from ilik. Other occurrences are kosow-e, lihim-e, hatam-i, ukon-o, tan-a, cilit-i.

The frequentative -ta is alike in the two languages.
The desiderative -atin is the phonetic equivalent of -atcin or -tcin in Yaudanchi.
-sit is the Yaudanchi -cit, indicating that the verbal action is performed for some one's benefit. The idiom by which the object of the action is in the instrumental case is common to the two dialects.

The intransitive -in is as frequent as in Yaudanchi and like it varies in form to -n or -un.

The reflexive is -wis, corresponding to Yaudanchi -wic.

## SUFFIXES OF TENSE, MODE, AND VOICE.

In the matter of modal and temporal suffixes there is considerable difference from Yaudanchi. Of the four common tense suffixes of Yaudanchi the two preterites in -ji and -ac and the continuative in -ad do not occur in Yauclmani.

The future and indefinitely participial suffix -in is the only one of the four common to the two dialects. In Yauelmani it takes two slightly different forms corresponding to its two meanings in Yaudanchi. The future is expressed in Yanelmani by -in; an indefinite or present tense, which appears however to be finite and not participial, is expressed by -hin. In some verbs
the difference between the two suffixes is further increased by a difference in the stem, the future -in causing a lightening or omission of the last vowel and a consequent shortening of the stem, whereas -hin is added to the full unaltered verb stem as it is found in the imperative. In many other cases, however, the verb stem is alike for the two suffixes; and as their phonetic difference is so slight, they are frequently difficult to distinguish.

A suffix -ān seems to be an aorist, sometimes past and sometimes present in meaning. Related to this suffix in its influence on the stem is a preterite -āhin, which has some appearance of being composed of -an and -hin.

A continuative or indefinite present is formed by the suffix $-g^{6}$ ò. There can be little doubt that this is the verb stem $\mathrm{g}^{6} \mathrm{o}$, to live or be (appearing in Yaudanchi with the additional meaning "sit" and in certain northern dialects as "house"), which, through being an auxiliary, has become a suffix. That it is at present a suffix and not an enclitic is certain from the fact that in some cases it causes vocalic modification of the stem. Just as the preterite $-\bar{a} h i n ~ i s ~ f o r m e d ~ f r o m ~ t h e ~ a o r i s t ~-a ̄ n, ~ s o ~ t h e ~ t e m-~$ porally indefinite -g‘ò gives rise to a preterite -g'òn, also appearing in the forms -g'òin and -gòhin. It seems a little curious that the indefinite or present -hin should be used to derive the only two distinctly past tenses in the language, -āhin and g'òn; but there is a parallel in many Indo-European languages in the use of auxiliaries, which are themselves in the present tense, to express a perfect in the verb. The -g'ò and -g‘òn suffixes are in some verbs added directly to the stem; in others a connecting vowel, usually è, is inserted. An additional reason for regarding these two suffixes $\mathrm{g}^{6} \mathrm{o}$ and $\mathrm{g}^{6}$ on as derived from the verb-stem $g^{6} 0$, is the fact that they are the only suffixes found in this dialect with $o$ as their vowel. It may be added that this o never undergoes modification.

As in Yaudanchi, the future suffix -in changes its vowel, chiefly to e or o, after certain stems. The analogous suffix, -hin, seems to change less readily. The forms taken by the suffix -in may be summarized as follows: After monosyllabic or disyllabic i or e-stems the suffix is either -in or -en; after monosyllabic a-stems it is in some instances -in, in others -en; on disyl-
labic stems whose first vowel is a, and the second vowel i strengthened to a before an a-suffix and lost entirely before the present suffix, the form is -in; monosyllabic o-stems in some cases take -en, in others -on; disyllabic stems containing an ofollowed by an i take -cn; u-stems and disyllabic stems containing o and $u$ take -on.

The usual suffix indicating the agent is -its, Yaudanchi -itc. On certain verbs and after certain suffixes this form is not used, but the agent is expressed by -ini. This difference seems to be duc to a difference in meaning between the two suffixes, rendering each more appropriate for certain verbs. -Ini perhaps denotes a more habitual agent.

As in Yaudanchi, the suffix -its is not always used in its simple form. On disyllabic stems it appears as -its, except that stems containing only o or u alter the suffix to -uts. Monosyllabic stems, on the other hand, insert a vowel between the stem and the suffix, $\bar{a}$ after a-stems, ò after o or u-stems, and è after e or i-stems. This inserted vowel bears the accent. As an equivalent, disyllabic stems strengthen their second vowel as they do before a-suffixes. Some verbs in Yaudanchi have also been found to insert a vowel before this suffix, but the phonetic processes seem less clear in that dialcet than in Yauelmani. It is not improbable that this suffix is to be conceived as added to the causative of the stem, one form of which is expressed in Yauelmani by the addition of a vowel similar in quality to the vowels of the stem, and in Yaudanchi by the strengthening of the last stcm vowel much as before the present -its suffix on disyllabic verbs in Yauelmani. That this vowel-lengthening form of the causative has not been found on all verbs in both these dialects, but is replaced in some by the suffix -la, is not necessarily an objection to this view, as the causative vowel may now be present before the -ite suffix merely as a rudiment of the process which once introduced it there, and not with any active meaning.

The agent suffix -ini just mentioned perhaps expresses a more habitual agent than the suffix -itc. It is regularly found on some verbs in place of -ite, and apparently always after the frequentatives -ta and -li. It is however possible that the distinction of use between -ini and -ite is not due to any difference in meaning
but to phonetic causes, since the former suffix is found regularly on all verb stems whose imperative is -k instead of -ka, and only on such stems. It is to be observed that the frequentatives -ta and -li also have imperatives in -k instead of -ka.

The passive is expressed by the suffix -it, identical with the Yaudanchi form. The idiom by which the animate agent of the passive verb is in the possessive case is common to the two dialects.

The future passive is expressed by -nit, corresponding to Yaudanchi -ñitc.

The Yaudanchi participial form -ana has not been found, except perhaps in ins-ana, lover, apparently from ins-is, good.

## IMPERATIVE.

The imperative is regularly expressed by the addition of -ka, or, in a smaller number of verbs, k . This ending is added to the pure forms of the stem. In Yaudanchi the imperative is expressed by the stem without any ending. This difference is one of the most characteristic between the two dialects, coming to light even in a short vocabulary, and persisting throughout the two dialectic groups of which Yaudanchi and Yauelmani are representatives, from the southern to the northern limits of the family. It is probable that this ending -ka is not a true suffix. It certainly is felt as an, enclitic rather than as a constituent part of the word, even though its union with the stem seems to be quite close. Were it a true suffix becoming an integral part of the verb, it would seem that the same stem-vowel strengthening would occur before it that occurs before other asuffixes in the verb; but this is not the case. The stem-vowels retain before it what may be considered their normal (or i-suffix) form, corresponding to their form in the unsuffixed Yaudanchi imperative. The dual and plural imperative are respectively -ka-wik and -ka-wil. -Ik and -in are pronominal suffixes indicating the dual and plural. This fact is further evidence that the -ka preceding them is not a real suffix, for it is the distinct tendency of Yokuts, shown not only in the present dialect but in all known, to avoid coupling pronominal elements with the verb so closely as to actually combine them into a single word. In

Yaudanchi -yak and -yan indicate the dual and plural of the imperative. These two particles also contain the pronominal endings -ik and -in. While usually enclitic to the verb to such a degree as to resemble suffixes, this -yak and -yan are sometimes added to other words, a fact which proves them to be structurally and syntactically independent particles. Both from inherent evidence and from the analogues in Yaudanchi it is therefore clear that the Yaudanchi imperative endings are not regarded as suffixes by the language. ${ }^{1}$

The optative is expressed by the enclitic -xa or $-g^{6} \mathrm{a}$, corresponding to Yaudanchi -ca, similarly used.

## vOCALIC MUTATIONS.

The characteristic vowel mutations of Yaudanchi, according to which one of the stem vowels in many verbs changes in quality to a reciprocal vowel before certain suffixes, are found in much the same form in Yauelmani. As in Yaudanchi, the process does not seem quite regular, certain verbs prescrving their vowels, while others, apparently in the same phonetic circumstances, alter theirs. In disyllabic stems the second vowel usually changes. If $i$, it becomes $c$, or if i preceded by a, it becomes a; if $u$, it becomes 0 . A as the vowel of monosyllabic verbs, or the first vowel of disyllabic verbs, does not change. I also shows considerable resistance to modification. The other vowcls sometimes change and sometimes do not when they occur in monosyllabic verbs or the first syllable of disyllabic verbs. If they change e becomes $i$, $o$ becomes u , and u becomes 0 .

The suffixes that bring about these changes in the stem seem to be, as in Yaudanchi, those containing an a; whereas those containing an i, such as -in, -hin, -it, and -wis, do not cause a change in the vowcls of the stem, except that as already mentioned the future suffix -in sometimes causes a change in the opposite direction, namely, a lightening or omission of the second vowel of the stem. The a-suffixes are -ān and -āhin. The imperative with the ending ka does not affect the stem; as ex-

[^36]（




| $\begin{aligned} & \text { Agent } \\ & - \text {-its } \end{aligned}$ |
| :---: |
| xat－ā－its x |
| uk－on－uts |
| hulde－uts |
| lay－ã－its |
| kun－ò－its |
| sotox－its |
| wot．－ò－its |
| kas－ā－its |
| dimèdi＇m－its |
| tiexi＇l－its |
| hatām－its |
| ilèk－its |
|  |
| ip－èts |
| hiwèt－its |
| wu－wòl－uts |
| tat．ay－its |
| tid．èk－its |
| salap－its |
| kit－e－kit－its |
| tsis－è－its |
| piwec－its |
| lokow－its |

$\begin{array}{cc}\text { Passive } & \text { Reflexive } \\ -i t & - \text { wis }\end{array}$

镸
Preterite Continua－
$-g^{\bullet} \partial n \quad$ tive $-g^{\perp} \partial$

－it－wis

年

Aorist
$-\bar{a} n$
$\begin{array}{cl}\begin{array}{c}\text { Present } \\ \text {－hin }\end{array} & \begin{array}{l}\text { Preterite } \\ -\bar{a} h i n\end{array} \\ & \text { xat－ā＇in } \\ \text { uk－on－āhin }\end{array}$

hatam－ān
ilek－ān
ip－ān
cill－ān
hiwet－ān
tat－ay－ān
sipuy－ān
piwec－ān

|  |  |  |
| :---: | :---: | :---: |
|  |  | E 5 5 5 5 |

$\square$

$\quad$ Future
$\quad$－in
koy－en
sotx－en
tuy－on
wot－－wot．－
en
kas－en

켜 tot－oy－en
tid－ik－en
salip－hin
tsis－in
Meaning Imperative
等
uk－un－ka

kun－ka

sotix－ka
wot．－ka
kas－ka
demdim－ka demdim－in
$\begin{array}{ll}\text { texal－ka } & \text { texal－in } \\ \text { hatim－ka } & \text { hatm－in }\end{array}$ ilk－in，－en
waxl－in
cil－en
hiwet－in


axk－1
ep－ka
hiwet－ka

lokiu－ka


| Meaning | Imperative -ka | Future -in | Present <br> -hin | Preterite <br> -ăhin | Aorist -ān | Preterite $-g^{\bullet} \partial n$ | Continuative $-g^{i} \delta$ | Passive -it | $\begin{aligned} & \text { Reflexive } \\ & \text {-wis } \end{aligned}$ | $\begin{gathered} \text { Agent } \\ -i t s \end{gathered}$ | Other forms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| run | lihim-ka | lihm-en, lèhm-in | lihim-hin |  | lehem-ān |  |  |  |  | lehèm-its |  |
| whip |  | lap-en |  |  |  |  | ing-in-gio | lap-it |  | lap-a-its |  |
| like | ins-in-ka | tan-in | tan-hin |  | $\tan -\bar{a}$ | ins-in-g'dn | ins-in-g ${ }^{\text {d }}$ |  |  |  | ins-ana, lover |
| come |  | taxn-en |  | taxan-āhin | taxan-an |  |  |  |  |  |  |
| jump | cilit-ka |  | cilit-in |  |  |  |  |  |  |  |  |
| sleep | woi-ka | woy-on |  | woy-ãhin | woy-ān | wuy-è-g' ${ }^{\text {d }}$ |  |  |  |  |  |
| bite | as-is-ka | as-en |  | as-as-ăhin |  |  |  | as-it | as-is- |  |  |
| fall on | pat--in-ka | pat.-n-in | pat--in-hin |  |  | pat.-n-è-g' ${ }^{\text {d }}$ n |  |  |  |  |  |
| descend | kon-in-ka | kon-on-on | kon-in-hin |  |  |  |  |  |  |  |  |
| fly | hoy-in-ka | hoy-on-on | hoy-in-hin |  |  |  |  |  |  |  |  |
| hurt, sick |  |  | tixt-in-hin |  | tixèt-ān |  | $\begin{aligned} & \text { tixt-in- } \\ & \text { g̊o } \end{aligned}$ |  |  |  |  |
| recover |  |  | tail-hin |  | tāl- |  |  |  |  |  |  |
| tire |  | moy-on-on | moy-in-in |  |  |  |  |  |  |  |  |
| touch | kii-ka | kiy-en |  | kiy-āhin |  |  |  |  |  |  |  |
| do thus, say | wi-ka | wè-n |  | wiy-ăhin | wiy-ăn |  |  |  |  |  |  |
| splash | teapx-in-ka |  | $\begin{aligned} & \text { tcapx-in- } \\ & \text { hin } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { tcapx-in- } \\ & g_{0}^{\prime} \end{aligned}$ |  |  |  |  |
| make <br> tell | tosit-ka | tic-en tosit-en |  | tec-āhin |  |  |  |  |  |  |  |
| touch | tso-ko |  |  |  | tsow-ăn |  |  |  |  |  |  |
| track | dadit-ka |  |  |  |  |  |  |  |  |  | dad•at•, foot |
| kill | taud-a-k | taud.a |  | taud.ā-hin | taud.ă-n | taud.a-g'on |  | taud.a-t | taud.a-wis ,-was- | taud.-ini | tawid.-its |
| laugh taste | haya-k <br> tamna-k | haya |  | hayā-hin |  | haya-g'òn tamna-g' òn |  |  | hay-uwis- | $\begin{aligned} & \text { hay-ini } \\ & \text { tamn-ini } \end{aligned}$ |  |
| lie | banan-ak |  |  |  | banan-an | banan-g'dn |  |  |  |  |  |
| live, be | $\mathrm{g}^{\text {P }} \mathrm{o}$-k |  | g'o-in-in |  |  | $g^{\text {g }} 0$-g ${ }^{\text {d }}$ din | $\mathrm{g}^{\prime} 0-\mathrm{g}^{\prime} \mathrm{d}$ |  |  | geo-ini |  |
| hear | lana-k |  |  |  | $\operatorname{lan}$ ā-n |  | lana-g'd |  |  |  |  |

plained, probably because it is not a suffix. The agent suffix -its has the same effect on the stem as an a-suffix. In Yaudanchi this tendency of this suffix is also observable, though it is apparently less regular than in Yauelmani. The explanation of the exceptional effect of this i-suffix as due to its including the causative suffix, or another vocalic element, has been mentioned.

The phonetic effect of the two o-suffixes, namely, g'ò and $-g^{6}$ òn, has not become clear on account of an insufficient number of occurrences of these forms. At least in certain stems, such as huloc, hiwet, and woy, the o-suffixes produce vocalic changes from the i-suffix forms of the stem not produced in these words by the a-suffixes.

The behavior of the verb stem under the influence of its principal temporal and modal suffixes is illustrated in the appended list of Yauelmani verbs giving the forms actually found.

## VARIOUS SUFFIXES.

A suffix -mi, not found in Yaudanchi and used only on verb stems, has the force of from, because of, on account of, and sometimes, perhaps, of at or when. It is used in such cases as "I am sick from eating."

A suffix -i, also without known Yaudanchi parallel, has been found a few times as a suffix of verbs dependent on the stem moy-in, to be tired of. The subject of the verb with this -i suffix is in the possessive case. The construction of these forms is similar to that of stems with the ordinary objective suffix -a. That this -i is not the objective is made probable by the fact that the stems on which it has been found also appear with the objective -a.
hiem na moyin-hin ilek-i nim, now I am-tired of-singing my.
A suffix -han has been found with a passive meaning on verbs dependent on other verbs.
lan-a-g'o na min cil-han, hear I that-you were-seen.
An apparent suffix -wal has been found in a few cases, always before an imperative -ik. Its meaning is unknown and the existence of the suffix cannot be regarded as certain, since -lik, the
last part of -walik, admits in form of being the imperative of the iterative -li.

| yux-ul-wal-ek | crush it! |
| :--- | :--- |
| potox-wal-ek | smash it! |

A suffix -al is used on verbs in the apodosis of conditional sentences. Usually it is accompanied by a particle lac. The Yaudanchi material obtained happening to be lacking in conditional sentences, this suffix or its equivalent has not been found in that dialect.
kun-al na mam lac I should have struck you, (if. ...)
taxn-al na lac I should have come, (if....)
A suffix -a, found a few times, perhaps indicates a continuing agent.
hat-ya, glutton (from xat, eat?).
hulc-a, one who sits in one place.
wul-a, one who stands a long time.
Another somewhat doubtful suffix, also without known Yaudanchi equivalent, is -lis, appearing to denote the agent or place of an action.
oxoyo-lis, lover (oxoyo, desire, seek).
hot-one-ls, fireplace (hot-one-, build a fire). ${ }^{1}$
The case suffixes of nouns are freely used on verb stems and more instances of such constructions were obtained in this dialect than in Yaudanchi. The objective suffix -a is added to unsuffixed verb stems dependent as objects on another verb, as in "I saw you eat." The subject of the dependent verb is in the possessive case, showing that this dependent verb, in line with its laving a case-ending, is really regarded as a noun. This is further borne out by the fact that its logical object is not in the objective case but in the instrumental. Literally the construction then is: "I saw your eating by means of meat." It has been mentioned that a few verb stems, such as liwet, ep, and huloc, appear to occur in this construction without any objective case suffix. The locative is used with the sense of "for" as well as "at." The possessive occurs on passive verbs with the meaning

[^37]of from: tui-t-un, from being shot. On active verbs the possessive case ending does not appear to be used, the suffix -mi, not found on nouns and not known from Yaudanchi, taking its place with the meaning of "from." The instrumental also occurs on verbs. The Yaudanchi construction in which a temporal clause is expressed by the suffixion of the locative to a verb with the past tense ending -ji, the logical subject being in the possessive and the whole phrase having the force of a temporal clause, is lacking in Yauelmani on account of the absence of the -ji suffix, and no analogous construction has been found.

## PARTICLES.

The modal and temporal particles of Yauelmani are in part different from those of Yaudanchi. The ordinary future is expressed, in addition to the suffix -in, by the particle hi, which as in Yaudanchi tends to be enclitic to the pronouns and to alter na and ma, I and you, to ni and mi. A particle mi, usually at the head of the sentence, seems to correspond to Yaudanchi tcan, which does not occur. It is used before future verbs. The negative is ohom in place of Yaudanchi am. The interrogative is ki, which seems to correspond to Yaudanchi ti, used less frequently in that dialect than hin, which is without a representative in Yauelmani. If is expressed by acwa in the protasis and lac in the apodosis.

## THE PRONOUN.

The personal pronoun is used as in Yaudanchi and many of the forms are identical. What chiefly characterizes the Yauelmani pronouns as distinguished from the Yaudanchi, is first the formation of the possessive of the third person from a stem amin, instead of Yaudanchi an, and second the fact that in the dual and plural there are subjective and objective as well as possessive forms for the third person. In Yaudanchi this is not the case, the demonstrative pronouns being used for the object and the particles tik and tin to indicate the duality and plurality of the subject of the third person. These two Yaudanchi particles
and the Yauelmani subjective forms of the third person, amak and aman, render each other mutually unnecessary; so that whereas Yaudanchi entirely lacks the pronominal forms, Yauelmani is without the particles. Minor differences of the Yauelmani pronouns from the Yaudanchi are the fact that the objective ending wa is found in the dual as well as in the plural, that the connecting vowel in the dual and plural of the objective is i instead of a or u , and in the plural of the possessive o instead of i .

It is noteworthy that in spite of the presence in this dialect of forms for the third person throughout the dual and plural as well as in the possessive, there are no forms for the subjective and objective singular, he and him. These are, as in Yaudanchi, either simply understood or expressed by demonstratives.

|  |  | Subjective | Objective | Possessive |
| :---: | :---: | :---: | :---: | :---: |
| Singular | 1 | na | nan | nim |
|  | 2 | ma | mam | min |
|  | 3 | - - | - | amin |
| Dual | 1 excl. | nak | ? | nimgin |
|  | 1 incl. | mak | 9 | magin |
|  | 2 | māk | mamikwa | mingin |
|  | 3 | amak | amamikwa | amingin |
| Plural | 1 excl. | naan | naninwa | nimòk, nimòkun |
|  | 1 incl. | mai | ? | main |
|  | 2 | 9 | maminwa | minòk, minòkun |
|  | 3 | aman | amaminwa | amnòk |

The artificiality, so to speak, of the forms for the third person, and their probable derivation from the second person by analogy, are very strongly shown by this table. So full a form as the possessive amin without even a trace of a subjective or objective base, cither in this or in any other Yokuts dialect, and identical but for its initial a- with the min of the second person, is one point; another, even stronger on account of the absence of plural forms of the third person from Yaudanchi, is the exactly similar relation of the dual and plural forms to the dual and plural of the second person. It is clear from the lack in the singular of forms for the most common categorics, the subjective and objective, he and him, and from their absence in all numbers in Yaudanchi, that the language has a feeling against
personal pronominal forms of the third person. Their occurrence in the dual and plural in Yauelmani as equivalents of only semi-demonstrative particles in Yaudanchi, stamps them as primarily mere indications of number and case, their pronominal content being very subsidiary. It is on this account that their close similarity to the forms of the second person is so significant. In the possessive relation pronominal forms are for some reason felt as more important by the language, as is shown by their existence in all numbers in both dialects; but the lack of a historic base to go back to is evident from the entire difference of the forms used in the two dialects: an, unrelated to anything else, in Yaudanchi, and amin, closely connected by analogy with the second person min, in Yauelmani.

Three demonstratives have been found as against the four of Yaudanchi. These are ki, ke, and ta. Ki indicates proximity, ke a short distance, and ta a greater distance or invisibility. Ta corresponds to Yaudanchi ta, ke probably to ka, which is not in very frequent use, and ki to the Yaudanchi xe and xi, which in all cases except the subjective are identical in form in that dialect. In Yauelmani at least the locative of ki and ke, and perhaps other cases also, are alike or distinguished only with difficulty. The objectives of ki and ke are however distinct. The dual and plural of the demonstratives are formed much as in Yaudanchi, except that a greater resemblance to the suffixes of the personal pronouns is observable, especially in the objective.

|  | Sub. | Obj. | Poss. | Instr. | Loc. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Singular: |  |  |  |  |  |
| This (close) ki | ki-n |  |  |  |  |
| That (further) ke | ke-n |  |  |  |  |
| That (distant) ta | ta-n | kè-in | kè-ni | kè-u |  |
| ta-in | ta-ni |  |  |  |  |

Dual:
This (ki) ki-s-ik
That (ke)
That (ta)
Plural:
This (ki) ki-s-in ki-s-in-wa
That (ke)
That (ta) ta-s-in ta-s-in-wa ta-s-in-w-in
The interrogative and indefinite pronouns are given below. It will be seen that almost throughout they end in -uk. This
-uk seems to be the Yaudanehi suffix -ak, which in that dialect is added only to give an idea of indefiniteness. A seeond Yaudanehi suffix, -tei, is represented in Yauelmani by -ti, oeeurring about as frequently as in Yaudanehi, and distinetly with the foree in both dialeets of making for greater indefiniteness. It will be seen that except for this suffix -ti the -uk is always final. Thus, the objeetive hanuk, what, is to be explained as the stem ha, what, with the demonstrative objective ease suffix -n, plus -uk. The interrogative of plaee, hiyok or hiyuk, where, eontains the stem hiye and the same suffix -uk. Hiye is the equivalent of Yaudanchi hide and hile of other dialeets. ${ }^{1}$ The same stem with the loeative suffix, hiye-u, is the non-interrogative indefinite "somewhere."

| wat-uk | whoi |
| :---: | :---: |
| wat-òk-ti | some one (objective) |
| wat-au | some one |
| hā-uk | what? |
| hā-n-uk | what 9 (objective) |
| hā-n-òk | with what? (instrumental) |
| hā-uk-ti | something |
| hā-n-uk-ti | something (objective) |
| ha-wiy-uk | which, what kind? |
| ha-uyèn-uk | what for? why? |
| ha-ujin-uk | how many? |
| ha-wetam-uk | how ${ }^{\text {doing what? }}$ |
| hiy-ok | where? |
| hiye-t-uk | from where? |
| hiye-u | somewhere |
| hiye-nit | from somewhere |

## NUMERALS.

The numerals are radieally the same as those of Yaudanehi except that another word is used for nine. The ordinary eardinal forms are used both for eounting and as adjeetives with nouns. Two, three, and four take the objeetive suffix -a. When the numerals are suffixed or reduplieated they lose eertain final portions, whieh eorrespond exaetly to those similarly lost in Yaudanchi, and like these are determined by phonetie eauses

[^38]and not by etymology. The animate or collective suffix -in of Yaudanchi, and the ordinal adverbial forms produced by the locative suffix in that dialect, perhaps occur in Yauelmani, but have not been found. The adverbial form of the numeral expressing "the number of times" is formed by the suffix -il, corresponding to Yaudanchi -id. -Il is used on o-stems, -al on i-stems, and -ul on an o-stem, monos, the first vowel of which appears to replace an original $u$. The distributive is formed by reduplication, the stem as far as the first consonant after the first vowel being reduplicated and prefixed. The vowel of the prefixed syllable is that of the unreduplicated stem, except that i is strengthened to e ; the vowel of the second syllable, the original stem, is weakened to e, except again in monos. To indicate the adverbial distributive with the meaning "so many at a time," the suffix -am is added to the distributive forms.

|  | Cardinal | Objective | Adverbial | Distributive | Collective |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | in counting and as adjectives | as adjectives | the number of times |  | "-at a time" |
| 1 | yet. |  | yitsai | yet.-yèt.-in | yet--yet.n-am |
| 2 | ponoi | pony-o | pony-il | pon-pèni | pon-peny-am |
| 3 | c.òopin | c.òopin-a | c.opi-il | c.op-c.èpi | c.op-c.epy-am |
| 4 | hotponoi | hotpony-o | hotpi-il | hot-hètip | hot-hetp-am |
| 5 | yitsinil |  | yits-al | yet-yètis | yit-yets-am |
| 6 | tsolipi |  | tsolp-il | tsol-tsèlip | tsol-tselp-am |
| 7 | nòmtsil |  | nomts-il | nom-nèmits | nom-nemts-am |
| 8 | mònos |  | mons-ul | mon-mònos | mon-mòns-am |
| 9 | soponhot |  |  |  |  |
| 10 | t.ieu |  | t.iw-al | t.ei-t.èiu | t.ei-t.eiw-am |
| 11 | t.ieu yo y or yèts |  |  |  |  |
| 12 | t.ieu yo p |  |  |  |  |
| 20 | ponoi t.ie |  |  |  |  |
| 100 | yet. pits |  |  |  | , |

## COMPOSITION AND DERIVATION.

The traces of composition and derivation are as slight in Yauelmani as in Yaudanchi. The suffix -wiya is added to unsyntactical stems denoting shape or motion and makes of these verbs of action. The suffix seems to be derived from the stem wi, to do thus or to say, and its use in this way is analogous to that of the Yaudanchi suffix -wid-ète added to unsyntactical
terms representing animal eries, thus forming names of animals, as hue-udète. A Yauelmani suffix -at., -t., or hat. added to nouns seems to mean "he who desires." Thus, t-è-t., kawayu-t., mokèhat, insin-hat, one who likes to stay at home, one fond of horses, one who desires women, a woman who desires lovers. A few isolated eases of derivation or composition have been noted, such as k'ili, eloud, k'ili-a-g' 0 , it is cloudy ; maya-in-talap, large bows, the name of the Shoshonean Gitanemuk of Tejon; and paaji, lake, kuyu-paaji, ocean, literally salt lake. It is however to be observed, as in analogous Yaudanchi forms, that there is nothing to prove that sueh forms as the two last are true compound words and not merely colloeations or phrases.

## YaUELMANI SENTENCES.

In the absence of texts, the following Yauelmani sentences are appended. The transeription of these follows the methods employed in giving the Yaudanchi texts. Where two or more words,-usually all but one of them pronouns or other enelities, -were heard as one, they have been written as one, the component elements of the cluster being separated by hyphens. The English equivalents of such words have been separated. Hyphens conneeting English words indieate that all so connected are to be regarded as a unit equivalent to one Indian word; hyphens in the Indian text, other than for the purpose mentioned, are used in many eases to separate suffixes from the stem and from eaeh other, for the sake of making the strueture elearer. Generally the English translation is as if interlinear, the words following one another in the same order as their Indian originals. In a few cases, whieh will be obvious, a short Indian phrase has been more freely rendered by a longer English one and no attempt made at a word for word translation.

[^39]amingin t-ii, of-them-two the-house.
k'ili, cloud.
k'iliāg' $o$, it is cloudy.
pāaji, lake.
kuyu-pāaji, ocean, (salt-lake).
yaha mak huloc-xa mak, come we-two, sit let us-two!
na mamikwa cil-hin, I ye-two see.
ma naninwa cil-hin, you us-two see.
hitsi na-mam cil-en, to-morrow I you see-shall.
wa ta nono $\mathrm{g}^{6} 0 \mathrm{~g}^{6} \mathrm{o}$, far that man is.
cil-ān-na amin uk'n-a, see I his drinking.
hòhu cilaan-ma nim xat-a, yes, see you me eat.
nim xat, my food.
hanuk na xat-ān inis-a, something I eat good, what I eat is good.
insis t.ii, good house.
na insis, I am good.
insis nim t.ii, good my house, I have a good house.
cil-hin na inisa t.èn, see I good house.
cil-hin na inisa xat-a, see I good food.
maiek t.ii, large house.
taut.a-na-kin puus-a mets-nan as-is-in, kill-shall I this dog because me bites.
hawiy-uk puus-a ma taut-an, which dog you killed?
ta ki nan ta as-as-āhin, tan na taut-āhin, that this me that bit, that-one I killed.
hauj-in-uk ma taut-āhin, how-many you killed?
hot'pony-o na taut.-āhin, four I killed.
c.òopin-a na taut--āhin, three I killed.
hauyèn-uk ma taut--āhin, what-for you did-kill-them?
hā-nò-k ma $\tan$ taut--āhin, with-what you him killed?
hā-n-uk ma cil-āhin, what you did-see?
hā-uk-ta, what (is) that?
hā-uk-ki, what (is) this?
hā-uk-ke, what (is) this (more distant)?
wat-uk-ma, who (are) you?
cil-hin-na hā-n-uk-ti, see I something.
hā-uk-ti tahan-an xāmi, something comes hither.
pat-in-hin na hā-n-ok-ti, fell-on I something.
tsūp-a yokots, some people, part-of-the persons.
tsūp-a silel, some-of-the stones.
hā-utsin yokots, few people.
māni yokots, many people.
cil-hin-na $\tan$ hat-yã-in, saw I that glutton.
cil-hin-na $\tan$ xat-a-ts-i, saw I that-one who-eats.
cil-hin-na ta-in xat-a, saw I that-one eat.
cil-hin-na ta-n xat-a, saw I that food.
taut-inè-in na cil-hin, the-killer I saw.
na nòno, I-am a-man.
ma kāiina, you-are a-woman.
na hule-a, I-am a-sitter.
na hulac-t-ïni, I-am a-repeated-sitter.
t.ipin ki-n xat-a, on-top-of this food.
$\mathrm{g}^{6} \mathrm{o}-\mathrm{g}^{6}$ o ta-u kudjala ke-u xat-au, is there the-spoon at-this food-at.
yawalya-k, run around, look for it!
yit-was na amaminwa, go-with I them (yit,, one, -wis reflexive).
api-na mam tahan, with I you come.
api-na-mam $\mathrm{g}^{6}$, with I you live.
$\mathrm{g}^{6} \mathrm{~d}-\mathrm{k}$ ta-u, live there! (a farewell greeting).
g'oे-k wik ta-u, live you-two there!
g'oे-k wil ta-u, live ye there!
$g^{\prime}$ òna kè-u, live I here.
g'ò-in-in-na kè-u, live I here.
$\mathrm{g}^{6} \mathrm{\delta}-\mathrm{g}^{6}$ o ki-ma kè-u, live (question) you here ?
nibets nim nak yèt-iu tahan-ān, older-brother my he-and-I together come.
yit-was na puus-a nim tahan-āhin, accompanying I dog my came.
$g^{6} \mathrm{o}-\mathrm{g}^{6} \mathrm{o}-\mathrm{in}$-nak, live-together we-two.
toxil-nit na tahan-an, west-from I come.
xosim-na tanān, north I go.
witcet ki panan-g' o kè-u oct-ou, stick this lies this-at fire-at.
amtsau ki-n oct-o huloc-on-na, near this fire sit I.
t-ipin ki-n oct-o, over this fire.
ax-its, bed.
atil ki-n ax-ts-i, under this bed.
tot.ii-ka, break-it!
tot-ii-li-k, break-several-pieces!
na tot-i-lè-hen, I shall-break-several.
walan-na tsòop-āhin toineu, yesterday I broke-it in-the-middle.
tsūup-un, noon.
salap-ta-g' òn-nan walan nimòkun t.amut, shaving-were we yesterday our beards.
cil-hin-na minòkun calp-a, see I you-plural shaving.
potox-wãl-ek yèt.o yux-un-uk, smash-it-entirely, pulverize-it!
potox-potox-wāl-ek amāminwa, smash them!
piwec-ān aman, pound-acorns they.
piwac-ta-k, pound-acorns-intermittently!
piwic-ka, pound-acorns! (once or continuousty, for a short or long time, but without intermission).
pāiic, mortar.
potox-potox-wal-ini, one-who-mashes-everywhere.
kit.-è-kit.-its, one-who-cuts.
tid.èk-its, one-who-splits.
tid.ik-l-ini, one-who-splits-repeatedly.
tid-ak-t-ini, one-who-splits-repeatedly.
salap-t-ini, one-who-whittles-repeatedly.
mokè-hat, one-who-likes-women.
ins-in-hat., one-who-likes-lovers.
kawaiu-t., one-who-is-fond-of-riding-horseback (kawaiu, horse).
tè-t., stay-at-home (t.i, t.e-, house).
AM. ARCH. Гith. 2, 22.
hat-ya ma, glutton you.
xat-iin ma, glutton you.
xat-ā-its nan cil-hin, the-eater me saw.
hulc-a, one-who-sits-in-one-place.
hulac-tā-hin na, I sit, get up, sit again, and so on.
wowul-mu-na-mam cil-hin, standing I you saw.
cil-hin-nan xat-mi, he-saw me when-he-was-eating, (from, at, eating).
hulac-t-ini nan cil-hin, he-who-sits-down-repeatedly me sees.
ohom na mam cil-aan, not I you see.
an-ki mi-hi lap-en, you will hit-him?
hosoon ki ma, cold (question) you?
ohom, no.
inès-as-i mak, are-good you-and-I.
inès-as-i māk, are-good ye-two.
yet.o mai inès-as-i, all-together we are-good.
lap-ka, whip!
lap-ka-wik, whip-ye-two!
lap-ka-wil, whip-ye!
kun-kun-ka-wik, hit-repeatedly-ye-two!
kun-kun-ka-wil, hit-repeatedly-ye!
lap-wis-in-ma, whip-self you.
lap-wis-in, he-whips-himself.
lap-wis-in aman, whip-themselves they.
lap-i-lp-iis-a-g'o aman, whip-one-another they.
kun-u-kn-us-a-g'o amak, strike-each-other they-two.
lai-i-ly-is-a-g'o amak, kick-each-other they-two.
wot-i-wit-is-a-g' o mak, beat-each-other we-two.
xat-xa-mak, eat let me-and-you.
lap-xa-mak, whip let us-two (I and you).
lap-it nak, whipped-are we-two (I and he).
ukòn-u-k nan, drink-give me!
lap-xa na, whip let me!
tan-xa-mak t.èu, go let us-two house-to.
walan-na-mam ep-la-g' on, yesterday I you made-swim.
walan-na-mam lap-lap-la-g'oin, yesterday I you made-whip-repeatedly.
walan-na-mam xat-la-g' oin, yesterday I you eat-gave.
cil-aan-na min uk-òn-u ki-n ta-ni ilk-ani, saw I your giving-to-drink him with-that water.
cil-aan-na min xat-la ke-ni ta-n, saw I your giving-to-eat with-this to-that-one.
cil-aan-na min cilit-i-han-an, saw I your making-him-jump.
cil-aan-na kūn-a min ki-n puus-a silel-ni, saw I striking your this dog stone-with.
cil-aahin na walan kun-a-la min ki-n nòtò-in kè-ni puus-ani silel-ni, saw I yesterday making-strike your this youth by-means-of-this dog stone-with (I saw you make the youth strike the dog with a stone).
hawètam-uk ma ta-n tiic-in, how you that make?
wi-mi, thus.
ins-in-g' o na-mam, like I you.
ins-in-ka mam, love me!
ines-til-sit-g'o na-mam, or ines-tal-sat-g ${ }^{6}$ o na-mam, do-well-for I you. c.oopin cilit, three jumps.
yit. kun, one stroke.
tixt-in-hin-na hotp-il kun-t-un min, sick-became I four-times hit-being-from of-you.
tixt-in-hin-na kun-mi, sick-am I hitting-from.
tixt-in-hin-na lap-lap-t-in amin, sick-am I repeatedly-whipped-being-from ofhim.
na ilak-ta-g' dhon ama na kun-ut, I sang-a-long-time, then I was-struck.
hitsi-na ilak-ta, tomorrow I shall-sing-a-long-time.
ilak-ta-k, sing (a long time, or continually)!
taxan-āhin-na t.è-nit mèts na hosòon, came I house-from because I cold.
tixt-in-hin-na hosiuw-mi, get-sick I cold-being-from.
hosiu-ta-u-nim tixèt-an ot-o, cold-continually-from my hurts head.
mi na-mam ilik-i, shall I you sing-make.
mi na-mam hatam-i, shall I you dance-make.
walan-na mam ilik-i-g' òn, yesterday I you sing-made.
uk-on-òhin nan, drink-he-made me.
lihim-i na-hi tan, run-make I shall him.
ta lihim-hin, he runs.
hiwīt-i na-hi tan, walk-make I shall him.
hiem-ma tan-hin, now you go?
tan-a na-mam-hi, take (make-go) I you shall.
mi-na kin tan-a, shall I this take.
mi na-mam ep-la, shall I you swim-make, or put-in-the-water.
tan-ăn-ki-ma, going-are (question) you?
wiy-āan-nan, he-says-to me.
wiy-aahin nan tān-ki-mi-hi, said-to me: "go (question) you will!"'
wiy-aan nan tān-hi, he-told me go he-would.
ma ki nan cilit-i, you (question) me jump-make?
cilit-è-hin nan, jump-makes me.
cilit-i na-mam-in-wa, jump-make I ye.
kun-ā-la na mam hi, hit-make I you shall.
walan-na-mam kun-ā-la-g‘ $\delta \mathrm{n}$, yesterday I you hit-made.
nòtu-na wa $g^{6} o$, east I far live.
toxil-ki ma g' o, west do you live?
hitsi ni-hi tau g' $o$, to-morrow I shall there be.
mīna tau $\mathrm{g}^{6} \mathrm{o}$, shall I there stay.
atil ilk-a, bottom-of water.
hatim-hin-na, dance I.
paiutè-n hatim, Paiute's dance.
paiuti hatam-an, the-Paiute is-dancing.
ilik-sit-g' o-na paiutè-n, sing-for I Paiute.
tsumun-amin, end its.
tsumun amin ilk-in kon-in, end its water's fall's.
woi-ka, sleep!
walan-na wuy-è-g6 òn, yesterday I slept.
c.oopin toino hiem tan-in, three nights now went.
tsum-un amin wũy-un nim, end its sleep's my. insis nim wūi, good-is my sleep.
ins-in-g‘ o-na nim wũy-a, like I my sleep (I like to sleep).
ines-tam-na kon-in-hin, well I descend.
cil-e-g o-na batsikn-i pūs-a, see I red dog.
silit-hin-na t.ipin ki-n silel, jump I on this rock.
witset ki panan-g' o kè-u sili-w, stick this lies on-this rock. cil-e-g‘òhin na as-a min ta-s-in-wa, see (saw q) I biting your those.
as-is-in nan aman, bite me they.
as-is-in na a-mam-in-wa, bite I them.
as-is-in na kin, bite I him-close-by.
as-is-in na ken, bite I him-somewhat-near.
cil-e-g' òn-na min lai-han-ahin xat-au-min, saw I your having-been-kicked eating-for your.
cil-e-g‘ òn-na min as-is-(h)an-än min uk-un-t-au, saw I your having-been bitten your drinking-for.
cil-aan-na ki-n puus-a xat-ān, see I this dog eat.
cil-aan-na kè-in puus-un xat-a, see I this dog's eating.
kè-in puus-un xat, this dog's food.
cil-hin-na kè-in xat-a, see I this-one's food, see I this-one eat.
ki tau nòno xat-in, this there man eats.
cil-hin-na ki tau nòno xat-ān, see I this there man eat.
cil-hin-na kè-in tau nònò-in xat-a, see I this there man eat.
tixt-in-hin na mèts na ki-n xat-in, sick-am I because I this eat.
tixt-in-hin na ta-ni xat-āni, sick-am I that by-means-of-food.
tixt-in-hin-na xat-mi ki-n, sick-am I eating-from this.
tail-hin-na hatim-mi, recover I dancing-from.
tail-hin-na kè-ni hatm-āni, recover I this dance-by-means-of. mi-na hatm-in ama-na tāl-an, shall I dance, then I recover-shall. wot--it-na kè-in nòno-in, hit-was $I$ of-this man.
pok-in-ki-ma, find did you?
wot-sit-it na min, hit-for-am I for-you.
kun-hun-na, hit-with-the-hand I.
cil-hin-na puus-un lap-lap-han-ain, see I dog's being-whipped. cil-hin-na min kun-han-ain, see I your being-struck. cil-it-aman, seen-are they.
lana-g' o-na-min cil-han, hear I you to-have-been-seen.
lana-ahin na min cil-a nohoo-n, heard I you saw grizzly-bear.
ilk-in kono, water-fall.
walan-na pat-an na ilk-au, yesterday I fell I water-in.
pat-n-in na ilk-au, fall-shall I water-in.
pat-in-hin-na xoti-u, fall I ground-on.
kon-in-ka, descend!
wa-nit t.ipi-nit ilik kono-n-on, far-from high-from water falls.
lomt-o-nit tahan-an ilik, mountains-from comes the-water.
toxil tan-aan ilik, west goes the-water.
palu-wa $\mathrm{g}^{6} \mathrm{o} \mathrm{g}^{6}$ o paaci, down far is lake.
pus na-mam wiyaan, xat-en mi-hi, (?) I you told, eat you would.
wut-è-g' o-na ki $\tan$ hi nono xat-en, knew I this it would man eat.
wut-è-g‘o na kon-on-ma-nan-hi, knew I strike you me would. taud.ak, kill!
mi-na-mam taud.a, shall I you kill.
walan-na-tan taud•a-g، òn, yesterday I him killed.
hitsi-na-tan taud.a, tomorrow I him kill.
k'ehèian mèts na tan taud-āhin, (sorry) because I him killed.
cil-hin-na amin tan taud.a, saw I his him killing.
cil-hin-no min wat-òok-ti taud-a, saw I you some-one kill.
taud-a-nit na-hi, killed-shall-be I shall.
ma-hi tau taud-a-nit, you will there killed-be.
haiyu-wis-ka-nan, laugh-at me!
waxil-sit-ka-nan, cry-for me!
ilik-sit-g' $\delta$-na-mam, singing-for-am I you.
texal-sit-g'o-na-mam, speaking-for-am I you, I interpret for you.
texal-g'o-na-mam, speaking-am I you, I talk of you.
taud.a-sit-g' o-na-mam tani, killing-for-am I for-you that-one.
kun-sut-un-na-mam kèni, strike-for I for-you this-one.
mi-na tamna, shall I taste.
tamna-sit-ka nan, taste-for me!
mi-na kīy-en tan, shall I touch that.
kii-sit-g'o-na-mam, touch-it-for I for-you.
lap-lap-it-na, whipped-am I.
lap-ats, a whip.
mi-na lap-en, I shall whip.
wot-it, he-is-hit.
wot--wot-it-na, am-hit-several-times I.
wot.-g'o na kin pūs-a, hit I this dog.
wot-en na ken pūs-a, hit I that dog (at some distance, but visible).
oyog‘ $\grave{\text { on na }}$ kisinwa nònèhi, seek $I$ these men.
oyoxan-nan aman, seek me they.
tasin nan nònèi oyoxo, those me men seek.
kisik nan nònèi oyoxo, these-two me men seek.
tasin nan ins-in-g' òn, those me like.
ki talap, this bow.
nim talap, my bow.
kè-in nòno-in talap, this man's bow.
c.òopin nònèi, three men.
tixt-in-hin-na xat-mi xoi, sick-am I eating-from deer.
taiil-hin-na ukun-mu ilk-a, well-am I drinking-from water.
xòno na as tixt-in-g' 0 , constantly I ( 1 ) am-sick.
mi-na kin xat-en xoi, ama na tahan t-è-u-nim, shall I this eat deer, then I go house-to my.
as-it-na puus-un, bitten I dog-of.
as-en-na-mam, bite-shall I you.
lai-it-na nòno-in, kicked-was I man-of.
kun-ut-na witèp-in, struck-was I child-of.
witèp-in sasa, child's eye.
nòno-in tinik, man's nose.
kainha-n sasa, woman's eye.
ki nan nòno cil-hin, this me man sees.
cil-hin na kin nòno-in, see $I$ this man.
tixtin-hin-na cil-mi hitwaia-n, sick I seeing-from ghost.
tixtin-hin-na hitwaia-ni, sick I ghost-by.
hitwaia nan libim-è-hen, ghost me run-made.
tosit-en-na-mam-hi, tell-shall I you shall.
pus-na-mam wiyaahin, kun-kun-ut-ni-hi, (9) I you told, struck-be I should. kun-ut-na, I am struck one blow.
kun-kun-ut-na, I am struck many blows or all over my body.
cil-hin na maiek t-è-in, see I large house.
maiek pūs nan as-is-in, a-large dog me bit.
ki pūs kudjii, this dog is-small.
cil-hin na kodjè-n pūs-a, see I small dog.
ins-in-g' 0 -na-min ilk-a, like I your singing.
ponoi ilik, two songs.
walan-na ilek-āhin, yesterday I sang.
c.òopin nim hatim, three my dances, I have three dances.
ins-in-g'o na wiy-ain hat'm-a min, like I do-thus (the-way-of) dance your. wi-ka, do-it-thus!
wiy-ain ilik-a, thus sing!
hawiyuk-min ilik, what-kind is-your song?
hawīyuk, how-does-it-look ?
nè-ki, like this.
nè-pus, like a-dog.
cil-en-na-mam-hi hitsii, see I you shall to-morrow.
xat-atin-g' $o$ na manèn, eat-like $I$ much.
cil-hin-na xat-a min pus-a, see I eating your dog, I see you eating a dog.
xoi-n sasa, deer's eye.
puus-un sasa, dog's eye.
kainha-n t.inik, woman's nose.
mani witip-ats, many children.
silil, rock.
silel-hal, rocky, a lot of rocks.
yet--yet-in nimògon tok xoi, one-each our kill deer.
pon-pèn-i nimògun tok xoi, two-each our kill deer.
bèpatiu ki-n lomt-o, top-at this mountain.
taud-ahin na kè-ni talap-ni, killed-(him) I this-with bow-with.
kopin ki-n deiwitc, inside this basket.
yèt.o nònèi taud.a-t, all the-men were-killed (every man was killed).
yèt.o $\mathrm{g}^{6} \mathrm{o}-\mathrm{g}^{6} \mathrm{o}$ nònèh-in yet.-yet.-in t.i, every is men's one-each house.
yet.0 $\mathrm{g}^{6} \mathrm{og}^{6}$ o ta-s-in-w-in nònèh-in t.i yit., all is of-those men's house one
(they have one house together).
yet.-yet.-n-am na amaminwa kun-kun-hun, singly I them strike.
witcet-al, many sticks lying about.
mi-na ki-n tot.i-li yet.-yet.-n-am witset, will I this break each-singly stick.
c.òp-c.epy-am aman taxan-an, three-at-a-time they came.
kè-u, here (from ki).
kè-u, there (from ke).
kè-u taxn-en, hither he-comes.
hiyok ma $\mathrm{g}^{\prime} \mathrm{og}^{6} \mathrm{o}$, where you live?
hiye-t-uk ma tahan-an, whence you come? (hiye-t for hiye-nit before -uk).
hiye-nit na tauac tahan-an, somewhere-from I (9) come.
ki na tau $\mathrm{g}^{6} \mathrm{og}^{6}$ o konon-on ponpon, this I there live falls snow.
bis nan ti hi watau as-en, ama na ta-n kun-on, if (\%) me (?) will anyone bite, then I him hit-will.
acwa-ma-nan as-as-āhin walan, kun-al-na-mam lac, if you me had-bitten yesterday, struck-should-have $I$ you indeed( $\%$ ).
acwa ma insis, wan-al-na mam nac kawaio-n, if you good, give I you indeed (8) horse.
hot-è-g' on-na kun-on mi-hi ta-n, knew I hit you would him.
acwa ha ma walan taxan-ähin, wan-al na mam lac xat-ani, if (9) you yesterday had-come, presented-should-have I you indeed ( $q$ ) with-food.
acwa ma-nan walan kun-āhin, as-al-na-mam lac, if you me yesterday hadstruck, bitten-should-have I you indeed (?)
acwa ma t.è-u g6 o-g on, taxn-al na lac ta-u, if you at-home had-been, come-should-have I indeed(?) there.
manè-in na at-in hites, anum na tumk-un-un, much $I$ cut wood, that $I$ warm-will-be.
diln-au hiwet-in ki-n lomt-o, along walk this mountain.
koyoii-koyoii-wiy-ãhin amin hoiin, zigzag-going his flight.
hoiin-hin tukal-iu, he-flies straight.
tukal witset, straight stick.
mi-na hiwet-an ayan-aya-wiya, shall I walk swaying-going.
hot-ònè-hin na, make-a-fire $I$, keep-up-a-fire $X$.
hot-òne-ls, fire-place.
palam-palam•wiy•an, flames (二 are-flaming).
palam-am-wiy-āhin, flames (=were-flaming).
tul-ul-ul-wi oct-in, hissing of-fire.
tuk-tuk-wi oct-in, crackling of-fire.
salats-wiyan, daybreak.
xap-la yokots, angel (flying person).
taud-a-wis-in amak, kill-themselves they-two.
lap-i-lp-is-an amak, whip-each-other they-two.
tuy-u-ty-us-ahin amak, shot-each-other they-two.
tixt-in-hin-na min tui-t-un, sick-am I your being-shot-from.
tuy-ut-na, am-shot $I$.
tixt-in-hin-ma amin tui-t-un, sick-are you by-him being-shot-from.
moy-on-on na tui-tui-mu, tired I from-shooting.
hiem na moy-in-in nim ilek-i, now I am-tired my singing (of singing).
hiem na moy-in-in as-as-i nim, now I am-tired biting my (of biting).
hiem na moy-in-hin as-as-i nan, now $I$ am-tired biting me (of being bitten). moy-on-on na hiem kun-ow-i nan min, tired I now striking me of-you (of being struck by you).
hiem na moy-in-hin kun-dेw-i mam nim, tired I now striking you of-me (from striking you).
wa mi-hi-tan lap-en, ta-na-mam as hi cil-en, (i) you will him strike, that $I$ you (i) shall see.

## III. OTHER DIALECTS AND COMPARISONS.

This third part of the present paper deals briefly and comparatively with all the Yokuts dialects on which material is available. As originally written, this part contained discussions of six or eight dialects besides Yaudanchi and Yauelmani. Subsequently an opportunity arose to make a special study of the territory, tribal divisions, and dialectic groups of the Yokuts family as a whole. This study was carried out in the early part of 1906, and included among its results about twenty vocabularies, of different dialects, available for systematic comparison. This increased body of material has made possible a determination of the principal divisions of the Yokuts family. While many dialects have become entirely extinct, it appears, from the information obtained, that none of those thus lost was sufficiently distinctive to exclude it from the several dialectic groups that have been established. In other words, these groups appear to represent all the principal divisions of the Yokuts language at the time of its first contact with white civilization, and the dialects that have been lost to differ from those known only in minor features.

The linguistic material obtained in the last study made was recorded at so many places, and from so many different individuals, that it was impracticable to extend it beyond vocabularies, and to enter into grammatical investigations, in the time that was available. Previous knowledge of the structure of Yaudanchi and Yauelmani however made it possible to determine certain structural features, such as the pronouns and the verbal suffixes, in many cases, and the morphological information secured in this way is sufficient, when combined with the more readily obtained lexical and phonetic results, to allow of a satisfactory general classification of all the dialects.

## DIALECTIC DIVISIONS.

As stated at the opening of this paper, the Yokuts dialects were numerous, each small tribe, of which there were about forty, possessing a dialect distinct, in at least some words, from all others. At the same time the differentiation of even the most diverse dialects was not very great. Barring two small specialized groups comprising together not more than three or four dialects, all the dialects were more or less intelligible to one another. Structurally they are very uniform, and even lexically they differ more conspicuously by the use of different stems to express the same idea than by serious modifications of the same stem. Altogether the dialects, including the two specialized groups just mentioned, fall quitely clearly into two divisions, of which the Yaudanchi and Yauelmani that have been described are typical grammatical representatives. These two divisions have been called the Foot-hill and Valley divisions.

The relation of these two divisions to the topography of the Yokuts territory is, when particularly considered, quite striking. As has been stated, the Yokuts occupied the entire southern half of the San Joaquin-Tulare Valley, besides almost all the adjacent foot-hills. They did not reach high into the mountains, which were held everywhere by Shoshoneans and, in the south, by Chumash. The present Tule river reservation, which is situated on original Yokuts territory, is farther up in the mountains than almost any other habitat of cven the Foot-hill tribes, a circumstance due probably to the presence in the Tule river region of a well marked sceondary range of the Sierra Nevada, which served as a natural dividing line between the two stocks. Within the Yokuts family the dialectic distinction between the inhabitants of the plains and those of the foot-hills is equally sharp. Not only that adjacent tribes living respectively in the valley and in the hills spoke differently, but, with only two exceptions, all valley tribes cverywhere belonged to one division, and all foot-hill tribes to another. These two exceptions were, first, at the extreme northern end of the Yokuts territory, on the San Joaquin and Fresno rivers, where dialects belonging to the Valley division, but forming a well-marked subdivision, were spoken in
the foot-hills as well as on the plains. ${ }^{1}$ Second, at the extreme south of the Yokuts territory, two similar and much specialized Foot-hill dialects were spoken about Buena Vista and Kern lakes. While these lakes are in the great Tulare plain, and the tribes inhabiting their shores were separated from the other tribes of the Foot-hill division by the Valley tribes on Kern river and Tulare lake, yet the two lakes are comparatively close to the mountains that shut off the Tulare basin on the south; and, as these mountains, while forming part of the Coast Range, are also connected with the southern Sierra Nevada into one long continuous system swung about in a semi-circle, the habitat of this isolated lake group is not so diverse from that of the remainder of the Foothill division as at first appears.

In connection with the sharp differentiation of dialects spoken in the valley and in the foot-hills, it is to be observed that almost throughout the Yokuts territory, at least from the San Joaquin southward, the distinction is equally sharp topographically. The foot-hills end abruptly, in some cases quite boldly, at the edge of the plain, and a few yards, sometimes a single step, bring one clearly from one zone into the other. North of the San Joaquin river the physiography is usually quite different, as the foot-hills slope almost imperceptibly into the valley in a long peneplain. This is the character of the country among the northern Yokuts tribes that live in the foot-hills but speak Valley dialects. It is also the character of the country among the Miwok, the stock adjoining the Yokuts on the north, and it appears that in this family, although its range is much higher into the mountains than that of the Yokuts, there is no such marked division into Foot-hill and Valley dialects as exists in the latter.

## VALLEY DIVISION.

The Valley division consists of two groups, a northern, and a principal one occupying most of the valley proper.

[^40]The Northern group comprised the tribes living directly on the San Joaquin and on the streams to the north, the Fresno and the Chowchilla. From this group material is extant from the Chukchansi, Kechayi, Dumna, and Chauchila dialects. The dialects of the adjacent Dalinchi, Hoyima, Heuchi, Pitkachi, Wakichi, and perhaps Toltichi, also belonged to this group.

The main Valley group extended over the territory from lower Kings river to lower Kern river, that is to say, the land bordering on these streams as well as on the lower courses of Tule and Kaweah rivers and the smaller neighboring streams, as also on Tulare Lake. This was the largest group of Yokuts dialects, and formed linguistically a close unit. It included Yauelmani, Wechikhit, Nutunutu, Tachi, Ċhunut, Wowolasi, and Choinok, from which there is material, besides Wimilchi, Apiachi, Telamni, Wowowali, Koyeti, Truhohayi, and probably others, all or most of which are extinct.

The Chulamni, or Cholovone, occupying a detached territory in the vicinity of Stockton on the eastern bank of the lower San Joaquin river considerably to the north of all the remaining Yokuts tribes, also spoke a dialect belonging to the Valley division. Its affinities are very markedly with Chauchila, the northernmost dialect of the Valley division, and which, while most closely allied to the Northern dialects in the foot-hills, such as Chukchansi, shows so many special affinities to the main Valley group as to make it nearly a transition between the two.

## FOOT-HILL DIVISION.

The Foot-hill division occupied a smaller area than the Valley division, and the number of tribes included in it was smaller. The number of its subdivisions is however greater, and these subdivisions differ considerably more from one another. The Northern and Valley dialects of the Valley division are practically identical in structure and in phonetics, the differences being lexical. Among the four Foot-hill groups, however, there are grammatical and phonetic differences, besides lexical divergences considerably greater than those existing in the Valley division. The four foot-hill groups were spoken respectively on Kings
river, on Tule and Kaweah rivers, on Poso creek, and at Buena Vista and Kern lakes.

The Kings River group is the northernmost of the Foot-hill division, and in every way closest to the Valley division. It is, for instance, phonetically entirely similar to the Valley dialects. Structurally it also agrees with the Valley dialects in certain respects, although other features, and these apparently more numerous and distinctive ones, ally it with the adjacent Tule-Kaweah group of the Foot-hill division. Lexically, also, it shows many affinities with both the groups of the Valley division, but the body of its words it has in common with the other Foot-hill groups. The Chukaimina, Michahai, Aiticha, and Choinimni, as well as probably one or two other tribes living on the immediate Kings river drainage, such as the Toikhichi and Kocheyali, from whom no material has been secured, formed this group. The Gashowu of Dry creek, the next stream to the north of Kings river, between it and the San Joaquin, also belonged to this group, although their dialect shows a number of special affinities with the adjacent Northern group.

The Tule-Kaweah group of the Foot-hill division comprised a small number of tribes: the Yaudanchi, Wükchamni, and possibly two or three others, such as the Gawia, Yokod, and Bokninuwad. In this group there appear for the first time the sounds $\ddot{o}$ and $\ddot{\ddot{ }}$ and the other impure vowels that have been encountered in Yaudanchi; also $\tilde{n}$, which may have been an original sound of the language lost in the greater number of other dialects; while 1 is changed to d. Lexically this group is more different than its northern neighbor, the Kings River group, from the Valley division, and the same is true of its grammatical features. Thus, while "his" in all Valley dialects is "amin," it is "imin" in the Kings River group, but "an" in the Tule-Kaweah group. This group is the central one in the Foot-hill division, and linguistically also intermediate between the less specialized Kings River group and the more specialized Poso Creek and Buena Vista Lake groups, and may be regarded as typical of the Foothill division. Accordingly Yaudanchi, which belongs to this group, and Yauelmani, which forms part of the principal Valley subdivision, are typically representative, although they are geo-
graphically almost in contiguity, of the two main branches of the Yokuts family.

A much specialized group of the Foot-hill division comprised the Paleuyami of Poso creek, and possibly one or two neighboring dialects, such as Kumachisi. This small dialectic group does not show the $\ddot{o}$ and $\ddot{i}$ and impure vowels of the Tule-Kaweah group, nor has it changed 1 to $d$, although it uses n. Its greatest divergence is lexical. It possesses many stems peculiar to itself, and where the stems which it uses are those of other dialects, they are usually phonetically altered in Paleuyami, the vowels being particularly modified. The pronouns are as divergent as those of any Yokuts group; the verbal forms resemble those of Yaudanchi. While the distinctness of this dialectic group is considcrable, it clearly forms part of the Foot-hill division.

A fourth Foot-hill group, a small body on the plains around Buena Vista and Kern lakes, seems to have consisted of only two tribes, the Tulamni, and another the proper name of which appears to have been entirely forgotten and which is therefore designated by the term Khometwoli, meaning simply southerners, applied to it by its Yauelmani and other neighbors. This small Buena Vista Lake group is lexically still more distinctive than the Poso Crcek group, especially in the number of its stems peculiar to itself. Both phonetically and structurally, however, it appears to be about as close to the remaining Foot-hill groups, especially the Tule-Kaweah, as the Poso Creek group. Like the Tule-Kaweah dialects it possesses $\ddot{o}$ and $\ddot{\ddot{u}}$ and $\tilde{n}$.

RELATIONS OF DIALECTIC GROUPS.
As can be seen, grammar, lexical content, and phonetics usually present about similar degrees of distinctiveness in these several dialectic groups, so that a natural classification presents no complexitics. Such a classification is illustrated in the following three diagrams. The first of these, figure 226, indicates the degree of difference or similarity between dialectic groups by the relative linear distances between the figures representing these groups. This graphic method is of course more or less imperfect while confined to a representation in two dimensions. As
will be seen, the area occupied in this diagram by the four Foothill groups is much greater than that covered by the two Valley subdivisions, indicating a much greater divergence from one an-


Fig. 226.
other of the former. This contrast is further accentuated by the fact that the closely similar Valley groups comprised a much greater number of dialects. If the extent of territory inhabited by the groups, and not the degree of their dissimilarity, had been indicated in this diagram, the Valley area would have been considerably larger than the Foot-hill area.

This first representation has the disadvantage that it shows only the actual degree of difference between dialectic groups, without any reference to the nature or cause of this difference.


Fig. 227.

While, for instance, the Poso Creek and Buena Vista Lake dialects are perhaps more divergent even from their nearest ally, the Tule-Kaweah group, than this is different from all the other groups, even of the Valley division, yet it is not unlikely that these so divergent dialects are comparatively recent specialized offshoots from a former generalized Foot-hill branch, now represented more nearly in its early state by the Kings River or TuleKaweah subdivisions. With the probable original relation of the groups in view, a second diagram in the form of a tree of relationship has therefore been arranged in figure 227. This diagram expresses approximately the degree of similarity between dialectic groups by the distances between the ends of the lines representing them, while at the same time the branching of these lines illustrates the presumable origin and connection of the dialectic groups.

A third diagram, figure 228, has been arranged to show sche-


Fig. 228.
matically the relation of the dialectic groups to the Yokuts territory. If it is borne in mind that the geography of this sketch is only diagrammatic, and that the relationship of the dialectic groups is indicated by the chain of figures representing them, the meaning of the figure will be clear.

## LEXICAL RELATIONS OF DIALECTS.

The principal characteristic of the vocabulary of the Yokuts dialects is the great number of totally distinct stems used in different dialects for the same word. This feature is the more pronounced on account of the comparatively great uniformity of words when their stems do not change, and especially on account of the marked structural similarity pervading all divisions of the family. The diversity of dialects as regards stems becomes particularly apparent when, after having the conditions of Yokuts in mind, one turns for comparison to the larger families of the continent, as for instance Shoshonean. This family, adjoining the Yokuts on the east, has an immensely greater territorial extent, reaching from Wyoming to Southern California and from Oregon to Texas. Its dialectic groups are well marked; but as one turns the pages of a comparative vocabulary, he is impressed by the almost endless variability, time and again, of the same stem, with a persistence, however, of this stem through all or nearly all the dialects. In Yokuts the stems vary much less, and in fact are often identical ; but instead, new radicals constantly appear as one passes from one dialectic group to another.

It is probable that a similar comparative phonetic uniformity but radical diversity characterizes many of the linguistic families of California, especially those in the large Central morphological group. This feature has been exaggerated by writers who have : received impressions of the native languages by coming more or less in contact with the Indians without systematically collecting linguistic material; but, allowing for the necessary modification on this account, these impressions are nevertheless correct. Study shows conditions entirely similar to those of Yokuts to exist in Yuki, Pomo, and Costanoan. Dr. Dixon's recent study of the Shasta and Achomawi, as a result of which he has united these two groups into a single family, deals primarily with lexical similarities, but gives negative evidence of the great radical diversity that must exist in this now unified family. The miscellaneous published Maidu and Wintun vocabularies show quite clearly that the same conditions exist at least to a considerable degree in
these two stocks ; precisely to what extent, remains to be seen. All these languages, with the exception in a measure of the ShastaAchomawi, are phonetically very simple and clear. In none of them do radical syllables appear to contain two consecutive consonants; in all full, simple, and naturally produced sounds predominate greatly over impure, unusual, or phonetically idiomatic ones. In all there is very little phonetic modification, especially of consonants, upon contact of stems in composition or derivation. Even the vowels undergo little change in this way except for some phonctic harmony in Maidu and Yokuts. It is evident that with this quality of phonetic simplicity fundamentally impressed upon the consciousness or rather unconsciousness of these languages, extensive and complicated phonetic variations such as characterize Indo-European and some of the larger Amcrican families, cannot so well occur between dialects.

While the comparatively slight diversification of dialects through altcrations in them of the same radicals, is thus causally directly connceted with the phonetic character of the Central Califormian languages-slight as compared with the total degree of differentiation of dialects,-the origin of the corresponding opposite characteristic of great radical diversity is less easily explained cven in a general way. It is probable that this radical differentiation is due largely to the general tendencies which have resulted in the diversification of the languages of California into so many families or apparent families, so far as this diversification may have arisen within California and not be duc to successive immigrations of already distinct stocks. But what those diversifying tendencies are is not yet known. All that can at present be conjectured is that they are conncetcd, as they are co-existent with, the tendencies toward phonetic and structural simplicity that are so deeply impressed upon almost all the Central Californian languages.

Borrowing of words from other families will account for the radical diversities between dialects only to a slight extent. It is becoming evident that there has been more or less borrowing between almost all the familics of the Central Californian group. In a few cases the number of stems held in common by two or more stocks is in fact so large as to raise the question whether it
does not point to their original unity. In most eases, however, the borrowed words constitute only a small portion of the total vocabulary of any family or dialect, and, what is more, they are as often stems denoting special ideas as they are words of more primitive meaning and considerable significance in linguistic comparisons. A second cause that has no doubt been operative in producing the differentiation of dialects, exactly to what degree is hard to determine, is the prevailing taboo of names of the dead. This in some cases probably has led to borrowing ; but more frequently to the use of a stem properly belonging to a dialect and cognate in meaning to, but as a radical distinct from, the one which is temporarily or permanently dropped. This process, it will be seen, would explain a great number of diversities in Yokuts. It is however hard to imagine that this cause alone could have been productive even of only a large part of the extensive differentiation occurring. Where a single dialect shows a different radical from the other dialects of the same group, this explanation of the taboo as cause is reasonable enough ; but when entire groups of dialects possess different radicals from other groups, it is evident that further factors must be taken into consideration. And these factors still remain to be discovered.

Numerous instances could be given of the disappearance of stems in one or more of the dialectic groups of Yokuts, and of the appearance in these dialects of other stems, often utterly unchanged from their forms in other groups but with a different meaning.

For instance, the usual Yokuts word for house is $\mathrm{t} \cdot \mathrm{i}$, varied occasionally to t.e and tei. In most Northern dialcets this stem disappears and is replaced by xo. The usual meaning of xo is to be or live, which it appears to possess in all dialects. In addition it has probably given rise to the continuative suffix xo found in the Valley, Northern, and Kings River groups. In the Foothill dialects this stem xo acquires the additional meaning of sit, replacing entirely the Valley stem huloc.

The usual Foot-hill stem for sleep is eñt.im. In Paleuyami this is replaced by k'eneu, which is nothing but the usual Foothill radical k'ün $u$ or k'aniu, meaning to lie. In the Valley dialects sleep is expressed by woi, which is also the term for lie.

The usual Yokuts term for smoke is mod•ak. In most Northern dialects this disappears to be replaced by a stem tsehan, which reappears in Yaudanchi as tceheñ with the meaning of fog. The same stem, tceheñ, replaces the usual word for cloud, k'üdai or k'ilei, in Wükchamni, Aiticha, and Choinok, while in Tachi the stem ccel, which usually has the meaning of rain, appears for cloud. In place of this stem ceel, which is the customary one in the Valley dialects for rain, xotoo is characteristic of the Foothill dialcets. But in certain special Foot-hill and Valley dialects, such as Tulamni, Gashowu, Tachi, Chunut, and Nutunutu, a stem gono, meaning fall, appears.

The usual stem for medicine-man is ant-u. The Northern dialects show a stem teic, which is the radical having in Yaudanchi, and apparently in most other dialects, the meaning of make. The medicine-man is he who makes.

In Paleuyami the usual Yokuts words for head and hair, ot-o and dool, are replaced by a form t.uk, which is nothing but the Foot-hill and Northern stem tcuk, meaning in these dialects brain.

Such instances could be indefinitely multiplied, and were the Yokuts languages known more thoroughly an even greater number of radical diversities could no doubt be explained in this manner than is now the case. At the same time there is evidently a large clement of diverse stems whose origin cannot be explained in this way. Such stems may also once have taken their rise through dialectic shifting of meaning; but the process and the fact can no longer be traced or determined.

To illustrate the degrec of uniformity and diversity of the stems in the several dialectic groups of Yokuts, a comparative vocabulary of a few selected terms is here given. The fuller vocabularies from which this table is drawn will be presented in a future publication dealing specifically with the tribal divisions and dialcets of the family.








Tulamni
Khometwoli
Paleuyami
Yaudanchi
Wükchamni
Chukaimina
Michahai
Aiticha
Choinimni
Gashowu
Chukchansi
Kechayi
Dumna
Chauchila
Wechikhit
Nutunutu
Tachi
Chunut
Wo'lasi
Choinok
Yauelmani




芯




 Tulamni


Of about two hundred and twenty-five common words on which there is sufficient material for comparisons in the vocabularies obtained, one hundred and fifty, or fully two-thirds, show two or more distinct radicals in the totality of dialects. Of the remainder, forty-three, or barely a fifth, go back to the same radical in all six dialectic groups. In the case of about thirty words only one stem appears in the dialectic groups from which there is material, but information is lacking in regard to one or two groups. As these are usually the specialized Poso Creek and Buena Vista Lake groups, in which divergent radicals most frequently appear, a certain part of these thirty words would no doubt have to be added, were the information complete, to the one hundred and fifty showing two or more stems. In any case it is clear that at least two-thirds of the most common linguistic ideas, including nouns, verbs, adjectives, adverbs, and numerals, and excluding only personal and demonstrative pronouns, are expressed by diverse stems in one or more of the six structurally so closely united dialectic groups of Yokuts.

The respective proportion of words showing uniform and diverse stems is very different in the several classes of words. The figures are given in the accompanying table. It will be seen that the numerals are conspicuously uniform. Only the word for nine differs; but for this there are four distinct stems. Of next greatest uniformity are adverbial and interrogative pronominal stems. The proportion of uniform stems does not vary very much in the different classes of nouns and verbs, being twentyseven per cent for verbs; thirty-two per cent, the highest proportion, for parts of the body; twenty-nine per cent for the names of a few of the more important artificial objects; twenty-four per cent for natural objects, including the cardinal directions and names of plants; and twenty-two per cent for mammals. Words denoting birds and animals other than mammals, indeed apparently show a very high frequency of uniform stems, amounting to about one-half, but this circumstance is due to two factors; first the accident of an unusually large number of gaps among these words in the vocabularies from the more specialized dialects; and second the greater predominance in this class than in others of onomatopoetic terms. It is notable that the proportion of
words derived from diverse stems is greatest in nouns denoting persons and in adjectives, in both of which classes the percentage of uniform stems is nothing.

|  | ldent <br> in all groups | Items in all so far as known | Differen Stems | Percentage of total formed by identical stems |
| :---: | :---: | :---: | :---: | :---: |
| Numerals | 9 | - | 1 | 90 |
| Nouns |  |  |  |  |
| Persons | - | - | 13 | 0 |
| Parts of the Body | 11 | 5 | 31 | 32 |
| Artificial Objects | 4 | 1 | 12 | 29 |
| Natural Objects | 6 | 3 | 29 | 24 |
| Mammals | 2 | 3 | 18 | 22 |
| Birds and other Animals | 3 | 16 | 20 | 49 |
| Adjectives | - | - | 9 | 0 |
| Adverbs and Interrogatives | 5 | 1 | 6 | 50 |
| Verbs | 3 | 1 | 11 | 27 |
| Total | 43 | 30 | 150 | 33 |

These proportions are of general interest in three points. First, in the comparatively small number of uniform verbal stems, showing that verb stems in this language are not more prinary, original, or less subject to change than noun stems. Second, in the fact that the uniformity of stems in words denoting parts of the body is not materially greater than among nouns of other meaning, which is contrary to the usual supposition, which is no doubt often correct, that terms denoting parts of the body are less subject to alteration in dialectic differentiation than are other classes of substantives. Third, in the great uniformity existing among the numerals. This uniformity among numerals is indeed paralleled by the conditions existing in many languages, but is exceptional for California. ${ }^{1}$

The principal words found which go back to a single stem in all the Yokuts dialects are the following: The numerals from one to eight, ten, ear, eye, nose, mouth, eyelid, tooth, beard,

[^41]woman's breast, bone, tears, sweat-house, boat, road, north, south, night, fire, water, panther, skunk, condor, goose, fish, louse, far, who, what, where, drink, give, and laugh. The following are radically alike in all the dialectic groups from which there is information, but may show different stems in those groups which are not represented in these words in the vocabularies: Lips, navel, ankle, faeces, urine, sinew, arrow-point, hail, star, leaf, tobacco, plains oak, manzanita, polecat, otter, beaver, bald eagle, magpie, blackbird, bluejay, mountain quail, pigeon, woodpecker, yellowhammer, road-runner, crane, kingsnake, lake trout, spider, up, and stand. As stated, most of the names of birds are onomatopoetic. The words which show radically different stems in one or more of the dialectic groups are too numerous to be listed, but include nine, person, man, woman, child, old man, old woman, father, mother, chief, friend, head, hair, tongue, neck, hand, fingernail, belly, back, foot, heart, blood, liver, brain, skin, house, bow, arrow, pipe, meat, name, west, sun, moon, day, cloud, rain, snow, smoke, ash, ice, earth, world, stream, mountain, rock, salt, wood, willow, tule, dog, bear, coyote, wolf, fox, wildcat, deer, elk, antelope, hare, rabbit, ground-squirrel, gopher, raccoon, badger, bird, eagle, buzzard, horned owl, raven, crow, humming-bird, quail, lizard, frog, fly, worm, white, black, red, large, small, good, bad, all, much, down, to-morrow, yesterday, no, eat, run, dance, sing, sleep, talk, see, kill, sit, lie, walk, and cry.

To determine the relative degrees of affinity or specialization of the several dialectic groups, computations have been made of the number of stems they respectively have and have not in common with other groups. The Kings River group of the Foot-hill division shows similarities to the Valley division, and was therefore compared with both the groups of this division as well as with the nearest group, the Tule-Kaweah, of the Foot-hill division. Excluding on the one hand words possessing identical stems in the four groups, and on the other hand words showing stems peculiar to the Kings River group, the Kings River group agrees with the Tule-Kaweah group fifty-four times and differs from it thirty-three times; and agrees with the Northern and the principal Valley groups respectively thirty-five and thirty-three times and differs from them fifty-two and forty-eight times. The
proportion of words of the Kings River group going back to the same stem as the corresponding words in the Tule-Kaweah group is thus about sixty per cent., whereas the proportion between Kings River and the two Valley groups is only forty per cent. While the Kings River group makes the nearest approach within the Foot-hill division to the Valley division, it thus clearly belongs with the Tule-Kawcah group to the former.

Within the Kings River group the Gashowu, spoken on Dry creek, between Kings river and the San Joaquin, shows the most specialization, and many of its differentiations are in the direction of the forms found in the Northern group, which is on the San Joaquin. A computation, however, shows forty-six stems agrecing with Kings River forms and differing from Northern forms, and only twenty of opposite affinity. While Gashowu therefore has something of a transitional character, and must be regarded as the one of all the Foot-hill dialects approaching most nearly to the Valley division, it yet belongs distinctively to the Kings River group.

Chauchila, which, as the only plains dialect in the Northern group from which there is material, may be taken as representative of these, differs in a number of cases from the foot-hill dialects in this group, and in these cases almost always agrees with the forms of the main Valley group. The proportion of its agreements and disagreements with these two groups-the main Valley and the Northern as typified by the dialects spoken in the foot-hills-is nearly equal, but somewhat in favor of the Northern group by about nineteen cases to fifteen. The sub-group of Northern dialects spoken in the plains, to which besides Chauchila the isolated Chulamni of the region about Stockton is known to have belonged, as well as probably Hoyima, Heuchi, Pitkachi, and Wakichi, thus formed a true transition betwcen the principal Valley group and the sub-group of Northern dialects spoken in the foot-hills: Chukchansi, Dalinchi, Kechayi, and Dumna. Of course all these groups and sub-groups, the principal Valley, the Northern of the plains, and the Northern of the hills, belong to the Valley division.

The Northern group, including both its plains and foot-hill sub-groups, shows the following result on comparison with the other five groups of the family :

Northern Group.

| Group | Identical stems | Different <br> stems | Percentage of <br> identical stems |
| :--- | :---: | :---: | :---: |
| Buena Vista | 16 | 55 | 23 |
| Poso Creek | 24 | 47 | 34 |
| Tule-Kaweah | 35 | 58 | 38 |
| Kings River | 54 | 37 | 59 |
| Valley | 61 | 27 | 69 |

In addition there are thirty-six words in which the majority of the Northern dialects show stems peculiar to themselves. It is evident from this table that the Northern group forms part of the Valley division, that within the Foot-hill division its nearest relative is the Kings River group, to which it is contiguous; and that the Buena Vista Lake group is apparently the most specialized of all Yokuts groups.

Finally a computation was made as to the respective degrees of specialization of Poso Creek and Buena Vista Lake, the most modified groups, and their relationship to other groups. Paleuyami, representing the Poso Creek group, showed thirty-eight words radically distinct from the corresponding words of other dialects, or, if words are excluded which were not represented in all groups, thirty-two. The two dialects representing the Buena Vista Lake group showed sixty-seven words of radical distinctness, or, omitting the words not fully represented in all dialects, fifty-five. The relation of these two groups to the other groups of the family is shown by the following table. In this table the thirty-two to thirty-nine and fifty-five to sixty-seven stems peculiar respectively to the two groups in question, have been included in the series of figures expressing the number of words found showing stems different from those of the other dialects.

|  | Buena Vista |  |  |  | Poso |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

It will be seen that the proportion of stems held in common with other groups is throughout higher for Paleuyami than for the Buena Vista Lake dialects. The order of affinity is the same in both cases, namely, first with Tule-Kaweah, next with Kings River, and then with the two groups of the Valley division, the principal Valley group coming before the Northern. As regards the relation of the two dialects to cach other, while the percentage of stems held in common by the two is of course the same for both of them, their position toward each other in their respective ranks of affinity is differcnt. To the Poso dialect the Buena Vista group is among those presenting the fewest similarities, showing in fact, next to the distant Northern, the smallest number of stems held in common. This fact must be interpreted as proof of a really great divergence from each other of these two specialized groups. To the Buena Vista group, on the other hand, the Poso Crcek group ranks very high in the scale of affinities, the proportion of common stems being almost as great as with the Tule-Kaweah group, which is the Buena Vista group's ncarest relative. This apparently contradictory circumstance is due to the fact that the great degrec of specialization of the Buena Vista group has lowered the proportion of all its other similarities, thus giving Poso Creek an unduly high apparent degree of resemblance to it. The number of stems common to the two groups and peculiar to themselves is only six. If the two groups were a common offshoot from the main Yokuts stock, and only of comparatively late differentiation from each other, the number of such stems would certainly be very much greater.

It thus appears that the Poso Creek and Buena Vista Lake groups are independent divergences from the Foot-hill division of the Yokuts family and probably from the Tule-Kaweah group or its progenitor; that they have comparatively little in common with cach other ; and that Buena Vista is the more specialized of the two, diffcring more than any other group in its lexical content from the remaining Yokuts groups.

In all the above computations words showing the same stem in all dialectic groups have been entirely excluded from consideration.

## PHONETIC RELAATIONS OF DIALECTS.

The phonetic changes and equivalences of the Yokuts dialectic groups are few and simple. There are only three affecting entire groups with any frequency. These are, first a change of usual l to d, confined to the Tule-Kaweah group, within which it is universal; second the occurrence of $\ddot{o}$ and $\ddot{u}$ in the Tule-Kaweah and Buena Vista groups; and third the occurrence of ñ in the Tule-Kaweah, Buena Vista, and Poso Creek groups. It will be seen that all these phonetic specializations are confined to the Foot-hill division and that the northernmost group within this division, the Kings River, is free from them and agrees phonetically with the groups of the Valley division. While the first of these three mutations, the change of $l$ to $d$, holds universally in the dialects in which it occurs, the substitution of the other sounds, $\tilde{\mathrm{n}}$ for n and $\ddot{o}$ and $\ddot{u}$ for e and i , is only partial in the dialectic groups in which they appear. But obversely ñ, $\ddot{0}$, and $\ddot{u}$ are universally replaced by $n$, e, and i in those groups in which they do not appear.

The change of 1 to $d$ in the Tule-Kaweah group requires no particular discussion. The fact that it is confined to only one of the six groups in the family, and that one a small group, shows this $d$ to have been almost certainly a comparatively late development from a more original l. It is possible that this change of 1 to $d$ is due to Shoshonean influence, for the Mono division of the Shoshonean family entirely lacks l. The case for this supposition is however not very strong, for the Kings River and Northern Yokuts groups are also in contact with the Mono and have retained l, whereas within the Tule-Kaweah group, which has made the change to d, only the tribes on Kaweah river, such as the Wükchamni, are in contact with Shoshoneans of the Mono division, the Tule river tribes, such as the Yaudanchi, having. been in closer touch with the Shoshoneans of the distinct Kern River group, whose dialect contains 1 .

Of course d, corresponding to $t$ as $g$ does to $k$, appears in all Yokuts dialects irrespective of whether or not they possess $l$.

As regards the second principal phonetic peculiarity, the appearance of $\ddot{o}$ and $\ddot{u}$ and the so-called impure vowels in the TuleKaweah and Buena Vista groups, it is almost certain that Shoshonean influence must be reckoned with. This $\ddot{o}$ and $\ddot{u}$, and perhaps other impure $o$ and $u$ sounds, are characteristic of the Shoshonean family, being found in all its dialectic branches except the southernmost of those in southern California. The Shoshonean family occupies almost the entire territory extending along the eastern side of the Sierra Nevada, and thence south and westward through southern California to the ocean. The four purely Californian families with which the Shoshoneans come in territorial contact along this stretch, the Maidu, Miwok, Yokuts, and Chumash, all show these impure $\ddot{o}$ and $\ddot{i}$ sounds. Moreover these four families are, so far as known at present, the only ones in California that possess these sounds. The case could not well be stronger for the territorial continuity of characteristics due to interinfluence. It is rendered still stronger by the circumstance that one division of the Miwok or Moquelumnan family, which is separated from the remainder of the stock, and out of reach of direct Shoshonean influence, in the northern Coast Range of the state, appears to lack these $\ddot{o}$ and $\ddot{u}$ sounds in question. Yokuts would appear to have been influenced less than the three other stocks, since the great majority of its dialects, including many of those in the foot-hills in direct contact with Shoshoneans, lack the $\ddot{o}$ and $\ddot{u}$. The two dialectic groups possessing $\ddot{o}$ and $\ddot{u}$ probably had closer relations with the neighboring Shoshoneans than any other groups excepting that on Poso creek. The TuleKaweah group was in contact with both the Mono and Kern River divisions, and the Buena Vista group in close proximity to the Kern River, Kawaiisu, and Serrano divisions, besides being in direct contact with the northeasternmost Chumash. Why the Paleuyami of Poso creek, who were probably more intimately associated with Shoshoneans than any other Yokuts group, should lack these sounds is difficult to understand. The Paleuyami dialect, however, often pronounces its vowels, especially i, e, o, and $u$, with a quality somewhat different from that which they have in other dialects; $i$ and $u$ especially are open to the point of sounding impure. In the dialects lacking $\ddot{o}$ and $\ddot{u}$, e and i always
replace them. The other impure vowels, which, as has been stated of Yaudanchi, are frequently only induced by $\ddot{o}$ and $\ddot{u}$, are replaced by the ordinary simple vowels in other dialects. Whether $\ddot{o}$ and $\ddot{u}$ are original in the words in which they occur, or only subsequent modifications of e and i , is not certain; but the great preponderance of dialects lacking $\ddot{o}$ and $\ddot{u}$, and the proximity of the dialects possessing these sounds to Shoshonean territory, makes the latter explanation more probable; so that in this respect also the Valley and Kings River dialects seem to represent a more original state of the language than the southern Foot-hill groups.

The sound ñ, occurring in the three southern Foot-hill groups and replaced in all others by n , is the most difficult to understand. The evidence for influence of other families is not very strong. Mono and the other Shoshonean divisions in contact with the Yokuts, excepting the Kern River group and some of the southeastern Mono, all lack ñ, as does Chumash. This fact would accord with internal circumstances which tend to show that this sound is an original one in Yokuts. If this is the case, the $\tilde{n}$ occurring in the Kern River division of Shoshonean is probably due to Yokuts influence.

Whereas $\tilde{n}$ is invariably replaced by n in the Valley and Kings River dialects, n of these dialects is replaced by $\tilde{n}$ in only a certain number of words in the three southern Foot-hill groups. Of a hundred Valley or Kings River words containing n medially, about forty southern Foot-hill words have ñ; of one hundred containing n finally, about twenty-five in the Foot-hill group replace it by $\tilde{n}$; of one hundred beginning with $n$, not more than five or ten show initial ñ in the southern Foot-hill groups. While there is thus a marked tendency for $\tilde{n}$ to appear finally and especially medially, it is clear that its appearance is not entirely or directly due to its position in words. An examination of its relations to the vowels of the words in which it appears also brings out no definite conclusions. There is thus no apparent internal cause for the appearance of $\tilde{n}$. This circumstance, coupled with the fact that a stem containing $\tilde{n}$ and appearing in several of the Foot-hill dialects invariably shows $\tilde{n}$ and not n in all the dialects of these groups in which it occurs, makes it probable that this
sound goes back to the period when these three groups, and perhaps all the groups of Yokuts, were not yet fully differentiated. As the three southern Foot-hill groups are now so much specialized, they cannot have been separated very recently. It is therefore clear, first that $\tilde{\mathrm{n}}$ is almost certainly a sound of some antiquity in the dialects in which it occurs, and second that it may have been an original general Yokuts characteristic which has been lost in those three of the Yokuts groups that now contain the greater number of dialects.

Other than these three dialectic equivalences there are none in Yokuts that are general enough to be of much comparative significance in our present knowledge of the language. In a few words $l$ and $y$ correspond interdialectally. Usually the Valley group shows y.

| English | Poso | Buena Vista | TuleKaweah | Kings | Northern | Valley |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| where | heli- | helteli | hidetedi tcodod | hile- | hile- | hiye- |
| tooth | tile |  |  | teli | teli | teyi |
| white |  |  |  | tcoyoyi | (djolol) | djolol |
| tule | kololis |  |  |  | koyis |  |
| buzzard |  |  |  |  | Chunut: | got.ela |
|  |  |  |  |  | Yauelmani: | kot.eya |
| bow |  |  | dayap | dalip |  | t.alap |

There is some irregular accordance between $t$, $t$., and tc. Some of the principal instances are shown in the following table. It will be seen that the Valley dialects show most tendency to palatalize $t$ sounds formed at the teeth in other dialects. While $t$ and $t$. sound much alike to the untrained Indo-European ear, they are quite distinct to the Yokuts, and it seems strange that these equivalences between them should exist. It is however significant that these equivalences of $t, t$, and tc are on the one hand infrequent and on the other hand not always in the same direction, although in the case of any one word all the dialects of one group are usually a unit in regard to the sound they show.

| English | Poso | Buena <br> Vista | Tulehaveah | Kings | Northern | Valley |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| one | yit | yit | yet | yete | yet | yet, yete |
| belly | t.ot | tcote | t.ot. |  |  | tot. |
| bow |  |  | dayap | dalip ${ }^{1}$ |  | t.alap |
| earth |  |  |  | xotol | xotsoi | xot.oi |
| sweat |  |  | dumkun | t.umun | teumak | t.opox |
| rabbit | tiu |  | tiu | teu | teu | tciu |

[^42]Several instances of equivalences of $t, t$, and te between Yaudanchi and Yauelmani have been given in the discussion of the phonetics of the latter dialect.

There are some correspondences between $s$ and $t$. In most words there are only one or two dialects which sporadically show one of these sounds in place of the other.

Mouth : cama; Gashowu, t-ama.
Eye: caca; Gashowu, Choinok, t-at•a.
Nose: t.inik; Chukchansi, sinik.
Beard: Southern Foot-hill, d•amoc, djamoc; Kings River group and Valley division, damut.

Testicles: Tule-Kaweah, hoñoc; Valley, honot-, honoc.
Badger: t-aniu, t-anau; Choinimni, sanau.
Fish: lopit• Chukchansi, lopis.
In a few cases x and k correspond. The usual form for fingernail, xecix, becomes kecik in the Tule-Kaweah group. Horn, usually koyec, is xoyec in Gashowu and Dumna. In the Valley division the demonstrative stems indicating proximity are hi and ki, in the Kings River group of the Foot-hill division ke, and in the three southern Foot-hill groups xi, or xe and xi.

As has been said in the discussion of Yaudanchi, it is not quite clear whether s and c are two distinct sounds in Yokuts or only one. If distinct, the two are certainly much alike. There is some individual variation. Women especially are apt to pronounce $s$ and ts much more sharply and clearly than men, from whom c and te are more frequently heard. There is probably also some slight dialectic difference in this respect, as in certain Valley dialects, such as Yauelmani, s and ts are almost always heard.

While, as has been shown, radical differences between dialects are much more conspicuous in Yokuts than phonetic ones; and while regular phonetic mutations between dialects are but slightly developed; there yet are, as might be expected, many stems that, in an apparently irregular fashion, assume more or less different forms in the six groups and even in individual dialects. Only, these differences are neither very striking nor of such nature or degree as to have any appreciable significance in the present state of the study of the language. The kind and
extent of these "irregular" differences are represented in the selected comparative vocabulary given. Onomatopoetic words seem particularly liable to such irregular and certainly often meaningless modification, as a few examples of names of animals will illustrate.

Hummingbird: bèmamgutc, dèmamtcui, dèmamuku, dèmaitcu, bèmanduts, bèmamtcui, bèmax, gümax. The accent is in all forms on the first syllable.

King-snake: godoñkid = golonkil, golonki, gololki, golonti, golwonti, golontil.

Species of lizard: kondjedja, kondjedjwi, kondjodjuwi, kondjedji, kondjowi.

There are a few cases, but only a few, where the initial consonant of stems becomes lost or altered in certain dialects, so much so that the identity of the stem could not be asserted were it not for transitional forms in other dialects. The principal instances obscrved of this nature arc the following.

Forehead: Valley, pit-iu; Poso Creek, peleu; other Foot-hill groups, tiliu.

Tongue: Northern and Valley, talxat-; Tule-Kaweah, tadxat•; Poso, talapis; Buena Vista, aladis; Kings, madat.

Belly : Northern, balik; Kings, olok'; Gashowu, luk'in.
Brains: Northern, Tule-Kaweah, Buena Vista, tcoga, tcok; Chauchila, oka; Kings, hoga; Valley, hop, hup.

Saliva : Poso, kelyi; Buena Vista, gülüyi ; Kings kilet., kelit•; Choinok, helawat; Northern, hedjil; Gashowu, Chauchila, hexil.

Bear: Dumna uyun; Chauchila, Tachi, ului; Choinok, Yauelmani, moloi.

## GRAMMATICAL RELATIONS OF DIALECTS.

As has been said, a comparative grammatical examination of the Yokuts dialcets closely corroborates their classification on lexical grounds. There is evident the same primary distinction between Foot-hill and Valley dialects, with a greater diversity in the former and with particular specialization in the Poso Crcek and Buena Vista Lake groups. The structural features most readily available for comparison are, first, the pronouns,
especially the personal ones; and, second, the verbal suffixes of mode and tense.

## PERSONAL PRONOUNS.

In at least seven-eighths of the Yokuts dialects the personal pronouns are remarkably uniform, the extent of the variations being shown by the two full tables previously given of the Yaudanchi and Yauelmani forms. In the great mass of dialects there are no variations of moment from these forms, and the more elementary forms, such as the subjective, objective, and possessive of the singular of the first two persons, na, ma, nan, mam, nim, and min, are absolutely identical. The third person shows more variation. In all dialects it lacks subjective and objective singular forms. The possessive, his, in all Valley dialects is amin, clearly related through analogy to the possessive of the second person, min. In the Foot-hill division the Kings River dialects show the form nearest the Valley form, namely, imin. The Tule-Kaweah group has an, made familiar from Yaudanchi, while the Poso Creek and Buena Vista forms are not known. There is a further difference between the Valley and Foot-hill divisions in that the former possesses subjective forms of the third person in the dual and plural, amak and aman, which at least the Tule-Kaweah group of the Foot-hill division lacks. These subjective Valley forms of the third person are, however, not true pronouns. They are not used as the equivalent of English "they," but merely as an indication of number, frequently with nouns as well as verbs, so that they equal in func- ${ }^{\text {s }}$ tion the Yaudanchi number-particles tik and tin.

The Poso Creek and Buena Vista groups show the greatest peculiarities in the forms of their pronouns. Their singular subjective and objective forms are indeed identical with those of all other dialects: na, ma, nan, and mam; but their possessive forms vary from the usual ones,-principally through the introduction of k sound into the forms for the first person. Poso Creek says gen for "my," Buena Vista mik. Poso Creek has men for the possessive of the second person, while the Buena Vista group has the usual min. It will be seen that while the forms used in these two groups vary from all others, and from
each other, there yet is within each dialect a parallelism of form between the first and second persons, similar to the parallelism existing in all other dialects : Poso Crcek, gen and men; Buena Vista, mik and min; other groups, nim and min.

The k appearing in the possessive pronoun of the first person of these two southernmost groups is interesting because it would seem to be due to the influence of extraneous linguistic stocks. K is the radical element expressing the first person in the Chumash languages, with which the Buena Vista dialects were in immediate territorial contact. K is also found in the pronouns of the first person in the Kern River branch of the Shoshonean family, the branch of the family with which the Paleuyami of Poso creek were undoubtedly in closest relation. The general Shoshonean radical indicative of the first person is $n$, which appears in the Kern River dialects with the addition of k : nögi or nöki, instead of usual n $\ddot{u}$. It is scarcely to be supposed that the two southern Yokuts groups directly borrowed their $\mathbf{k}$ pronominal forms from the adjacent Shoshonean and Chumash stocks. Such borrowing is both highly improbable on general grounds and unlikely because these Yokuts dialects show the k only in the possessive pronoun, the subjective and objective elements of the first person being the usual Yokuts $n$. It is rather to be imagincd that acquaintance with languages of contiguous families, and the unconscious influence of these, stimulated or reawakened a tendency that led to the use of these $k$ forms in the affected Yokuts dialects. While such tendencies may seem intangible and vague, and it must be admitted that we as yet know practically nothing of their real nature, there nevertheless is evidence that they existed. It is well known, for instance, that the great majority of the numcrous linguistic families of North America have either n or m or both for the roots of their pronominal stems of the first and second persons. This wide-spread agreement can scarcely be interpreted as an indication of original relationship of these families, many of which are as utterly distinct in fundamental structure and general phonetic character as they are totally diverse in their words. Neither can the phenomenon be attributed to accident, for the number of cases is far too great. It can also scarcely be imagined that pronominal
forms are above all others particularly liable to direct borrowing in American languages. It is accordingly necessary to conceive of a certain deep-seated tendency, not yet well understood, which either results in the production of pronominal forms in $n$ and $m$ by most stocks, and their adherence or reversion to such forms; or which renders most stocks particularly susceptible to external influence in the phonetic shaping of their pronominal stems. Conditions are certainly very remarkable in California as regards this wide-spread uniformity, as has been previously pointed out. ${ }^{1}$ Of twenty-one families now recognized, seventeen or eighteen have $m$ as the primary constituent of their pronominal stem denoting the second person; nine, or nearly half, show n in the first person, and four show k. The distribution of these four families is also instructive. They are Miwok, Costanoan, Salinan, and Chumash, occupying a continuous area in central California practically enclosing the Yokuts territory. As to these four families must be added the contiguous southernmost dialectic groups of Yokuts, and the also contiguous Kern River Shoshonean dialectic group; and as the sound $k$ does not elsewhere in California appear as an expression of the first person, except that in Yurok, far in the north, it is used in combination with n in the form nek; it is evident that this occurrence of k to denote the first person is not accidental, but due to the interinfluence of territorially adjacent stocks. Even if it is held that this argument is weakened by the probable superficiality of the diversity of the families at present recognized as distinct in California, the explanation of this k as due to an original identity of the several stocks possessing it, cannot be accepted, for while some or many of the Californian linguistic families may ultimately prove to be related, this can safely be affirmed not to be true of the stocks here in consideration. Chumash and Salinan are in morphological type and phonetic character quite distinct from Costanoan, Yokuts, Miwok, and the remaining families of California. ${ }^{2}$ The large and well defined Shoshonean family can also certainly not be regarded as genetically related to the minor and diverse Californian stocks. It is therefore clear that at least

[^43]part of the occurrence of $k$ stems to denote the first person in California is due to the influence upon each other of distinct but geographically adjacent families.

The demonstrative forms are also a ready means of distinguishing the Yokuts dialectic groups. The indefinite demonstrative ta, expressive of reference rather than of distance, but when referring to distance indicating remoteness and not proximity, seems to be used in all dialects without variation; but the forms of the several stems more or less definitely expressing distance vary phonetically. The usual stem of the demonstrative specifically indicating remoteness without invisibility is ka, found probably in all the dialects of the Valley division and in the TuleKaweah group of the Foot-hill division. In the Kings River group of the Foot-hill division the similar form gai is used. The two southern Foot-hill groups show somewhat aberrant forms, Poso Creek ko, and Buena Vista xuntu. The demonstratives indicating propinquity are sometimes one and sometimes two in number, but in the latter case always quite similar in form. The fundamental form is perhaps ki, corresponding to the ka indicating.remoteness. The Valley division shows two forms, hi and ki, the former apparently indicating greater nearness. The principal Valley differs from the Northern group in using the hi stem in reduplicated form. In the Foot-hill division the Kings River group has ke. The three southern groups of this division all show xi, with the addition at least in Tule-Kaweah of xe. The relation of these forms indicating proximity may be briefly expressed thus: xi forms in the three southern Foot-hill groups are replaced by ki and hi forms in the most northern Foot-hill group and in the Valley division.

## VERBAL SUFFIXES.

The structural factors most important in the classification of the Yokuts dialects are the tense and mode suffixes of the verbs. Prominent among these, both on account of the uniformity with which it coincides with the divisions and on account of the readiness with which it is obtained in securing information, is the
imperative. When asked to translate an English verb stem into their language, the Yokuts, like people of many other linguistic stocks, are likely to give the imperative form. Accordingly, once the imperative ending is known, almost any Yokuts vocabulary containing half a dozen verbs, no matter how inaccurately rendered, is almost certain to be sufficient to show to which division of the family the dialect in question belongs. The Valley dialects throughout use a form -ka, while the Foot-hill dialects all lack any suffix. So far as known this rule suffers no exceptions. The -ka ending, as has been brought out in the discussion of Yaudanchi, does not, like the usual a-suffixes, affect the quality of the stem vowels of the verb. There is therefore some reason for regarding it as being an enclitic particle in the inward consciousness of the language, rather than a true suffix. The -ka ending itself is subject to but little dialectic modification, other than becoming -ga in some dialects, or lightening its vowel until its form is almost -k. Of the known dialects Chauchila alone shows a tendency to vary the a of this ending to harmonize with the vowels of the stem of the verb: -ka, -ku, -ki, etc.

The true tense and mode suffixes of Yokuts are of two kinds. First those which like the future and present -in, the reflexive -wic, and the agentive -itc, appear to be found in all dialects with no alteration except slight phonetic modification; and second the remainder, of which each is confined to certain groups of dialects. Of this class the most prominent are the past suffixes -ji and -ac and the continuative -ad or -al, which are characteristic of the Foot-hill division, and the past -an and continuative -xo characteristic of the Valley division. The scant Poso Creek material does not show the continuative -al, but on the other hand there is no evidence that it is absent. The only exception to the general appertainment of these suffixes respectively to the two divisions is that the Kings River group lacks the -al continuative of the other Foot-hill groups and replaces it by the typical Valley form -xo. In addition to these two classes of suffixes corresponding to the two divisions of the family, there is a verbal form -am, or -mi, of a significance not yet determined, which is characteristic of the Northern and probably also the Kings River dialects, but is lacking in the main Valley and the Tule-Kaweah group.

A means of determining whether any dialect belongs to the Foot-hill or Valley division, with apparently as much certainty and readiness as by the imperative suffix, is furnished by the negative, no. All Valley dialects have the form ohom, all Footlill dialects k'amu, except that the Buena Vista group shows $u^{n} h u^{n}$ or $a^{n} h a^{n}$.

## COMPOSITION AND DERIVATION.

In the discussion of Yaudanchi a particular point was made of the apparent scarcity of evidences of composition and derivation in this dialect, although many of its words were of several syllables and of a length and appearance which in other linguistic families would be almost prima facie evidence of their derivative nature. The statement to this effect was written when but few of the dialects of the family were known to the writer. As the subsequent accessions of material have brought the number of dialects represented by considerable vocabularies to more than twenty, and as these have been systematically compared, it might be expected that evidence of the composite structure or derivative nature of many stems had thereby been obtained to a sufficient degree to necessitate a modification of the statement previously made. This is however not the case, for the collation of the various vocabularies not only fails to explain the origin of the Yaudanchi words, but makes it clear that derivative processes are of small significance in the etymology of all the branches of the Yokuts family. Three or four derivative suffixes are indeed visible in the compared vocabularies; but these suffixes are nearly all derivable from an inspection of the Yaudanchi material alone, are of indefinite significance, are applied to a comparatively small number of words, and make the original meaning of the stems to which they are appended, many of which are polysyllabic, no clearer than before. As has been said before, the lexical differentiation of the Yokuts dialects takes place primarily through the employment of radically different stems, and secondarily through minor phonetic modifications which are clearly not of structural or derivational significance. Etymological differences between dialects are so few because derivation is a factor of negligible significance in Yokuts.

A striking instance of the failure of dialectic comparisons to shed any light on the origin of Yokuts words is furnished by the numerals four and five. These words are undoubtedly derivative, four, hat-pañi or hoto-ponoi, being certainly formed from poñoi or ponoi, two, and yit-cinil, five, from yet, one. This being the case, it might be supposed that in so great a number of dialects as have been examined, and these belonging to six distinct groups, there would be a certain number which showed forms for four and five containing the elements two and one in combination with other elements than the dialects previously known, or containing the same elements in a phonetic form that would make them identifiable with stems of known significance. This supposition is however not a fact. The twenty-one dialects show forms for these two numerals that are in their elements absolutely identical and that present variations which are clearly only phonetic, that is to say, in themselves meaningless. It is therefore clear that, while it cannot be doubted that these two words are composite in origin, this original composition yet goes back to an earlier stage of the language; and that in its present stage, as proved by their unity in the most diverse dialectic groups, these composite forms are regarded and treated by the language purely as radical stems. The same fact is emphasized by the words for fourteen and fifteen, which are formed from the abbreviated stems for four and five by the addition of the suffix -am. As stated in the presentation of Yaudanchi, the abbreviation of these two numerals before this decimal suffix runs counter to their etymology, the second element of each being, as it were, deliberately cut in two and the final portion lost before the suffix. Hat-pañi becomes hatc-p-am, and yit-cinil yit-c-am. These two forms hatc-p-am and yit-c-am have been found not only in Yaudanchi but in five other dialects, representing all the principal groups of the family; and their forms in these six dialects are, except for variations in the quality of their vowels, absolutely identical. Here again it is clear that the derivational process has long since become crystallized, and that the derived form is treated by all dialects alike as a radical unit. In other words, while there is some etymological derivation in Yokuts, the process is a completed rather than an active one, and the fluidity of
elementary parts and the possibility of their free combination so characteristic of many American languages, is entirely wanting.

The following are the principal derivational suffixes apparent in the comparative vocabularies.
-atc, -itc, diminutive; Yaudanchi -hate, apparently a plural of adjectives when used substantively.
akd-atc, child in Michahai, Choinimni, Gashowu, and Dumna, from axid, daughter, child.
got-etc, small in Northern dialects, from got-i, large.
mets-ots, small in Buena Vista, from stem met, large.
gu-itc, beads in Wükchamni.
-ic, -uc:
Tail: Foot-hill, gut; Valley, gut'-uc.
Liver : dip; Kings River, dalap-ic.
Arrow: t'uy-oc; t'ui, shoot.
Woman: Valley, muk'-èla; Foot-hill, muk'-ec.
Tongue : talxat•; Poso and Buena Vista, talap-is, alad-is.
Thigh: k'oh-ic, k'ow-i, gow-i.
Sun, moon: Valley, o'p; Kings and Tule-Kaweah, up-ic, up-uc.

Wood: hit'-ec ; hit'-el, ash.
Ash: Tule-Kaweah and Poso, hap-ac.
Sand: Tule-Kaweah and Kings, wak'-ac.
Digger-pine: ton, Tule-Kaweah, toñ-ac.
-il, -ul:
awaic-il, awatc-il, chin ; some dialects, awac, awadji.
tcimec-il, eyebrow; some dialects, d-imit.
gepc-il, shoulder; some dialects, gapsai.
kuyo-c-il, knee; kuyo, ankle.
cayat-el, foot, in Paleuyami.
hacp-el, Choinok; hacpay-al, Yauelmani; has-oski, Tachi: lungs.
getsñ-il, gatsiñ-il, bow, in Paleuyami and Buena Vista.
humn-ul, quail.
hit'-el, ash; hit'-ec, wood.
-ui, -tcui:
Navel: tcutkuc; Buena Vista, tsotus; Yaudanchi, tcudoc-ui.
Knee: upuc; Choinimni, poc-opc-ui.

Kidney : tsiliuxai ; Tachi, tsilamg-ui.
Hummingbird: bèmamgutc, etc.; bèmam-tc-ui, dèmam-tc-ui ; Tachi, ho-ho-tc-ui.

Butterfly: wal-ap-tc-ui, dab-ā-dap-tc-ui; wal-wal, butterfly, dap-dap, leaf.
-na:
Snake sp.: delits-delits-na.
Hummingbird : kum-kum-na.
Horned owl ; hi-hi-na.
The most conspicuous indications of composition or derivation other than by these suffixes are found in the following words:

Four : hat-pañi, hoto-ponoi; poñoi, ponoi, two.
Five: yit-cinil, yit-icnil; yit, yet, one.
Man: Buena Vista, kohote; Tule-Kaweah, kouhte-un ; Kings, butc-on.

Woman : Foot-hill, muk'-ec; Valley, muk'-èla
Girl: Northern and Valley dialects, various, gai-na, woman, girl, gai-ta, girl, little girl.

Old man, old woman : mox-elo, mok-djo, mok-nitc, motc-atc, mote-odo ; Poso, nem-halatci, nem-a, large.

Father: no-pop; Tule-Kaweah, na-tet; no- is possibly originally the possessive pronoun of the first person; cf. mother, noom, na-joj.

Sweat-house: moc; Poso, muc-añ.
Pipe: baum, etc.; Poso, bam-uñ; other dialects, cuk-ut, cukmai.

Belly : balik, olok', luk'-in.
Sun, moon, day ; o'p, op-odo, up-ic, op-di, ob-ol-iu.
Snow : ponpon; some Valley dialects, hayau; Poso and Buena Vista, caway-an.

Large: Tule-Kaweah, met•; Valley, mat-ek, may-ek.
Jackrabbit: Poso, tok-coc; Yaudanchi and Yauelmani, tukuyun; tuk, ear.

Rabbit: tiu, tciu; Poso, yem-tseu.
Flat tule: got•; Poso, gats-wei ; Buena Vista, gats-iwi.
Dog: tcec-ec ; Northern, tce-xa.

## REDUPLICATION.

The failure of extended comparative material to show any considerable processes of derivation by composition or affixation in Yokuts is repeated in the similar failure of this material to throw much light on processes of derivation by reduplication. A considerable number of duplicated and reduplicated words are evident, but in a very great majority of the cases these retain their reduplicated form, often with more or less phonetic modification, through all the dialectic groups. Where such a reduplicated form is not shown by one or more groups, it is usually the stem itself that fails to appear in these groups, not the reduplication of the stem. Dul-ul, mountain, and inc-ic, good, exist in these reduplicated forms in all dialects in which they appear at all. ${ }^{1}$ In the dialects in which they are not found, they are replaced by the entirely distinct stems lomit and met-, or similar forms. It is evident that reduplication like composition is no longer an active word-forming process in the language, but that the forms which it has produced are usually treated by the language as simple stems.

Of course the purely grammatical process of reduplication in the numeral and verb to express distribution and iteration, which can be applied at will to any stem of these two parts of speech provided that its significance allows, is of a different character from the etymological reduplication here discussed, and must not be confused with it.

The etymological reduplication found in the Yokuts dialects takes several different forms. First there is simple duplication, usually of monosyllabic stems, as in dapdap, leaf. Second there is a form resembling this, in which the first syllable of a disyllabic or polysyllabic word is repeated, including at times the consonant following as well as preceding the vowel of the duplicated syllable. If the words in which this form of reduplication occurs can be regarded as composite, then the first monosyllabic constituent of the words is entirely repeated, and the process must

[^44]be considered as a duplication of an entire stem or word-element. If however such words are not composite, then the process is to be regarded as merely a phonetic reduplication of the first syllable of a word. Such forms as pud-pud-ui and yip-yap-ut. are examples. Third, there occurs a process that has the appearance of final reduplication. This differs from the two preceding methods in that the reduplicated portion of the word seems never to contain more than one consonant, whether this be initial or final. Thus we have inc-ic and wile-li. Fourth and finally, there are a few words showing duplication or initial reduplication with a shifting of the vowel of the second of the reduplicated syllables to a position between the two duplicating syllables. Thus poc-o-pc-ui, knee, undoubtedly related to a form upuc found in other dialects; and dab-ā-dap-tcui, butterfly, probably related in origin to dap-dap, leaf. This form of reduplication also occurs, as has been mentioned, in connection with grammatical reduplication in the verb. It is infrequent as an etymological factor. Reduplication of the first two types, or full duplication and initial reduplication, is the most frequent, thirty-five or forty instances having been noted, mostly of the first of these two classes. Final reduplication has been found in about twenty-five words.

## Duplication.

Man: nò-no, V, N.
Eye: ca-ca.
Heart : hon-hon, hoñ-hoñ.
Arrow: g'el-g'el, P.
Earthquake: yel-yal.
Cloud: p'ia-p'ai, BV.
Snow: pon-pon.
Ice : gañ-geñ, P .
Ocean : hòu-ho, N.
Leaf: dap-dap.
Duck sp. : k'ui-k'ui.
Snake sp.: dèlam-dèlam
delits-delits-na.
Butterfly: lau-lau.
wal-wal.

Worm: k'ewas-k'ewas, N. wek-wik, V.
Hawk sp. : wate-watc.
Mallard duck: wat-wat.
Duck sp. : con-cen, P.
Duck sp. : ox-ox, BV, ox-ux-um, P.
Road-runner: oi-ui.
Goose: la'-la'.
Bluejay : t-ai-t-ai, etc.
Horned owl : him-him, etc.
Magpie : otc-otc.
Walk: tiu-tiu, P.

## Initial Reduplication.

Lips: yip-yap-ut., yibebit., yebit.
Lower leg: pud-pud-ui, bul-bul-ui.
Long beads: tca-tca-yal, BV.
Thunder : mi-mi-at.
Stand: wo-wu-l.
Turtle : koi-koy-ot.
Bird : we-wu-tsoi, V, wi-wi-tsi, P.
Horned owl : hi-hi-na, him-him.
Small owl: gu-go-tcup.
Hummingbird : kum-kum-na, K, ho-ho-tcui, Tachi.
Duck sp. : ox-ux-um, P, ox-ox, BV.

## Final Reduplication.

Father: no-p-op, na-t-et.
Mother: na-j-oj.
Throat: so-lo-lo, K, N.
Fingers : xal-al-nit, xal-il-it, K; xapal, V, T, BV.
Foot: dad-at- (?).
Mountain : dul-ul, dul-au; gop-up-at, BV.
Plain: wal-al, V.
Rock: sil-il, N, V, P; odox-ix, BV.
Tule sp. : kol-ol-is, P, koy-us, koy-is, N.
White: djol-ol, tcoy-0i.
Good: inc-ic.
Lie : ban-an-.

Dog: tcec-ec, FH.
Weasel : cam-im, N, K.
Duck sp. : tco-gu-gu, to-gu-gu, V.
Lizard sp. : kon-dje-dja, etc. wi-le-li, wu-lo-lu.
Frog: o-gu-ku.
Butterfly: wo-ge-gi.
Woodpecker: pal-ad-at, pal-ag-ak.
Small owl: co-li-li.
Ground owl: we-dji-dji.
Hummingbird: bem-am-guts, etc.
Dove: up-la-li, up-ya-yi.
Reduplication with Change of Vowel.
Knee: poc-opc-ui, K.
Wood-rat: dum-ò-dum-ute, T.
Snake sp.: cap-ā-cip-itc, lap-a-lip-it.
Butterfly: dab-ā-dap-tcui.

## SUMMARY.

For convenience, the principal phonetic and grammatical differences and correspondences of the six dialectic groups are reviewed in the following table.

|  | Foothill |  |  |  | Valley |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Buena <br> Vista | Poso <br> Creek | Tule- <br> Kaweak | Kings River | Northern | Valley |
| 1 | 1 | I | d | 1 | I | I |
| ñ | n | n | n | $n$ | n | n |
| $\ddot{O}, \mathrm{u}$ | $\ddot{O}, \ddot{u}$ | e, i | $\ddot{O}, \ddot{u}$ | e, i | e, i | e, i |
| Imperative | - | - | - | - | -ka | -ka |
| Preterite | \% | -ji | -ji | -ji | - | - |
| Preterite | -ac | \% | -ac | -ac | - | - |
| Preterite | - | - | - | - | -an | -an |
| Continuative | -al | $\%$ | -ad | - | - | - |
| Continuative | - | - | - | -xo | -xo | -xo |
| Fut., Partic. | -in | -in | -in | -in | -in | -in |
| Reflexive | ? | ? | -wic | -wic | -wic | -wic |
| Agent | -ite | -ite | -ite | -ite | -itc | -ite |
| My | mik | gen | nim | nim | nim | nim |
| Thy | min | men | min | min | min | min |
| His | \% | 9 | an | imin | amin | amin |
| This |  | xi |  | $\} \mathrm{ke}$ | $\underset{\mathrm{ki}}{\mathrm{hi}}$ | hihi |
| This | $\}^{x i}$ | xi | $\mathrm{xi}$ | $\}^{\mathrm{ke}}$ | $\mathrm{ki}$ | ki |
| That | xuntu | ko | ka | gai | ka? | ka |
| That | ta | ta | ta | ta | ta | ta |
| Where | hel | heli-u | hide-u | hile-u | hile-u | hiye-uk |
| No | $\mathrm{a}^{\mathrm{n}} \mathrm{a}^{\mathrm{n}}$ | k'ami | k'amu | k'amu | ohom | ohom |

## THE VARIOUS DIALECTS.

## PALEUYAMI.

Phonetically, Paleuyami is much specialized. Its vowels particularly have been affected, and with an apparent perversity that has an aspect of unconscious deliberateness. Words containing two similar vowels in other dialects, often have one altered in Paleuyami so as to contrast with the other : ilik becomes elik. On the other hand in a smaller number of words diverse vowels are assimilated in Paleuyami, usually to i : tc'olipi becomes te'ilipi. Metathesis of vowels is frequent: xecix becomes xisex. Finally there are simple changes of single vowels. The most frequent of these changes is to e, most often from a or i . The contrary changes, to a and i , are few; or i following o , sometimes becomes a, and e followed by a becomes i. Between o and $u$, change to the former is more frequent, just as e is favored over i. U followed by i becomes o followed by o.

Similar vowels differentiated in Paleuyami:

| yet-sili | yit-sinil |
| :---: | :---: |
| t-eñik | t-inik, $\mathrm{t} \cdot \mathrm{üñük}$ |
| pietc | piic, pöötc |
| elik | ilik |
| xelul | silil |
| tihet | tihit. |
| t-epid | t.ipdi, tcipit |
| piel | pi'l |
| teicuc | tcecec |
| t-iel | t.eel, t.ööd |
| hoñheñ | hoñhoñ, honhon |

Different vowels assimilated in Paleuyami:

| te'ilipi | te'olipi |
| :--- | :--- |
| minits | menit- |
| wihicit | wehecit, wöhöcit |
| wiwitsi | wewutsoi |
| opt.o | apt-u |

Metathesis of vowels in Paleuyami :

| menuc | munac |
| :--- | :--- |
| t-eiu | t-ieu |
| wetcip | witcep |
| tcimicel | tcimecil |
| tilei | teli |
| xisex | xecix |
| ecil | icel, ücad |
| k'eli | k'ilei, k'üdai |
| isen | esin, ösün |
| heliu | hileu |
| etis | hit'ec, hüt'ac, hit'ic |
| wexi | wüxe, wixe |
| dibek | tepik, töpük |

Paleuyami changes to e:
sextel
keiu
wiwel
wa'en
k'eneu
det-i
wetek
eñt-eu,
сеса
cema
gepcil
keyu
meñal
xowet.
djamee
hetpeñi
sitxil
kaiu
wowul
wa'n, wan
k'aniu, k'ün $u$
dot.i
watak
ant•u, añt•u
caca
cama
gapcai
kuyu, kuyo
manal
xowot.
d-amoc
hatpañi, hotoponoi
Paleuyami changes to 0 :

| tok | tuk |
| :--- | :--- |
| got | gut, gut'uc |
| xo | ka |
| tsoyotis | teayatac, tcoitoc |
| xocom | xucim, xucum |
| opoc | upie, upuc |
| ocot | ucit, ucut, ocit |

got
xo
tsoyotis
xocom
орос
ocot
tuk
gut, gut'uc
ka
tcayatac, tcoitoc
xucim, xucum
upic, upue
ucit, ucut, ocit

Paleuyami changes to i :

| hiba | hèpa, hōpa |
| :--- | :--- |
| hig'a | hèxa |
| gixa | gèxa, k'ōxa |
| yit | yet |
| k'ami | k'amu |

Paleuyami changes to u :
nut
mut-ka
humñol
Paleuyami changes, to a:
lopat-
lomat
comat
xotai
gats-wei
not, notu
mod-ak
humnul
lopit.
lomit
comot
xotoi
got.

Grammatical Forms.
Pronouns:

| S 1 | na, na'en, poss. gen. |
| :--- | :--- |
| S 2 | ma, ma'en, poss. men. |
| D 1 | mak |
| P 1 | mai |

Demonstrative forms:
xi, xiu, xen, xien ; ko, xota, go-awe; ta, ta-in (or ta-en, his).
han-ta, what?
wat-entex, who?
Verbal forms:
hiem toyon-si, it is (already) night.
na-an ti ma, will you eat?
tsaa na na-an, I will eat.
hel ma tawaca, are you thirsty?
ama na tawaca, I am not thirsty.
heliu ma tanāwi, where are you going?
k'eneu-ji, xai-si.
lolh-in.
wod-oyits, hatam-its, dancer, singer.
ui-ui-wil-eits, road-runner.
ho', wiwel, tiutiu, sit, stand, walk!

Miscellaneous:
kumui-tcin, all; waxe-tcin, many.
notci-gen, my friend.
tok-men, your ear.
citcil-hal, deer.

BUENA VISTA GROUP: TULAMNI AND KHOMETWOLI.
Pronouns:

| S 1 | na | nan | mik |
| :--- | :--- | :--- | :--- |
| S 2 | ma | mam | min |
| D 1 ex. | nak |  |  |
| D 1 in. | mak |  |  |
| P 1 ex. |  |  |  |
| P 1 in. | mayi |  |  |
| P 2 | man |  |  |
| P 3 | aman |  |  |

Aman, they, is a Valley form. Yaudanchi lacks it.
Demonstratives:
xi, this, plural xi-san ; xi-ts, here, xi-ten, there.
xuntu, that, plural xunto-s-an ; xuntu, xonto, and xata were also given as equivalents of Yauelmani ke-in, this one's, his.
ta, that.
han-wil, what?
Forms of nouns:
sas, sas-al, eye, probably eyes, in other dialects caca.
suk'-al, "ear,'" probably ears; in other dialects tuk.
This -al is evidently the occasional Yauelmani plural-collective suffix of inanimate nouns -hal.

Cases: locative, hulas-iu, tsidjests-iu, tcapan-au; possessive, got-eya-n.

## Verbal forms:

lui', eat! (imperative).
luy-on, biy-en.
luy-os, tawate-ac.
haa-l, tana-al, tawatc-al, xahayaw-al, oho'-l, gune-al.
ma'lac-itc, hiwet-atc.

## WUKCHAMNI.

Except for some lexical differences, this dialect is practically identical with Yaudanchi.

Pronouns: na; nim, min, an.
Demonstratives: xi; ka; ta-ñ; han.
Adjectives: puunun, pudjidj, little.
Nouns: t-i, t•eu.
Verbs: wokiy-ad, tan-āad, taut•a-d; daid-ji; duy-on ; hai-wuc, hoyo-woc ; cañ-cañ-wid-eitc, kux-wud-eitc.

The locative mam-au, at you, is used in the phrase xi-mamau, this, or here, near you. A form xi-ne-u, here, differs from Yaudanchi xe-u, but has northern analogues.

## CHUKAIMINA AND MICHAHAI.

Pronouns: na, nim; ma, mam, min; imin; mak.
Demonstratives:
ke, this, locative keu, keua, possessive kin.
kai, gai, that, locative kau, gau, possessive kan.
ta, that.
han, what?
Nouns:
nihin-au, dul-au.
Numerals:
yetc-am, eleven, potcd-om, twelve, etc., as in Yaudanchi.
Verbs:
tah-an, nah-an, xo-on.
tawat-a, dead.
yuwanwaca, marry.
hayu-ac, waxal-ac, tawat-ac.
laha-ite, moccasins.

AITICHA.
Pronouns:

| S 1 | na | nan | nim |
| :--- | :--- | :--- | :--- |
| S 2 | ma |  | min |
| S 3 |  |  | imin |

Demonstratives:
ke, this, objective ki-n.
gai, that, possessive ka-n.
ta, that.
han, what?
Verbs :
hoitcue, tawat-a-c.
ukun kin, drink this!

CHOINIMNI.
Pronouns:
nim-a, my [sic]; min-a, thy [sic] ; imin, his.
Demonstratives:
ke, this, ke-u, here.
gai, that, ganiu, there.
ta, that, tau, there.
han, what?
Numerals:
The suffix -am is used for eleven to nineteen as in Yaudanchi.
Verbs:
wan-āc, elk-ac, xahi-ac, ikā-ac, taut-a-c, wowol-ac, k'anuw-ac, waxal-ic.
xoot-xo, dau'hali-xo.

GASHOWU.
Pronouns:

| S 1 | na | nan | nim |
| :---: | :---: | :---: | :---: |
| S 2 | ma | mam |  |
| S 3 |  |  | amin |
| D 1 ex . |  |  | nimgin |
| D 1 in. | mak |  |  |
| P 1 in. | mai |  | main |
| P 2 | man |  |  |
| P 3 | aman |  |  |

Cf: wixi aman dumna, many the (lit., they) Dumna.
The form for his, amin, is that of the Valley and Northern dialects; the Kings River dialects have imin.

Demonstratives:
ke, this, obj. kin, poss. kèin, loc. ke (for keu?).
gai, that, loc. gani, ganiu.
ta, that.
han, what?
Numerals:
yetcam, eleven; potcdom, cophiom, hatcpam, yit-tcam, tcolpom, nomtcom, muntcom, nonpom, twelve to nineteen.
Verbs:
tah-an.
wan-aac, wan-ci; ika-ac, eka-ci ; hatam-ic, xahi-ac, hoitc-ic, tauta-c, xoo-oc, k'anuw-ac, heut-ic, waxal-ic, ukn-ac, nah'-ac, pan-ac, lok'òn-oc (luk'in).
daw'hali-xo.
haya-wic-ac, tcaplu-wic.
kam-ini, tcic-īni.
xo-mi, wowul-mu, banana-mi.
KECHAYI.
Of the few pronominal forms obtained, the one of most interest is amungun, their.

Demonstratives found were hi, plural hi-c-in, locative he-u, and gi, locative g-eu.

The imperative shows the ending -ka or -ga.

## DUMNA.

Pronouns:

| S 1 | na | nan | nim |
| :--- | :--- | :--- | :--- |
| S 2 | ma | mam | $\min$ |
| S 3 |  |  | amin |

D 1 in. mak
P 1 in. mai
P 2 mān
Demonstratives:
hi, this; heu, here.
ki, gi, this; geu, here.
kini, this (?) ; kineu, geneu, here (?).
hān, what?

Nouns:
ton, digger-pine, plural tun-āa; ut'u, tree, ut'ò-a, timber. These plurals of inanimate nouns are unexampled in all other dialects that are grammatically known. Nònei, plural of nòno, man, occurs in other dialects also.
cutcon-au, (in the) brush.
aked-atc, child; poyod-ate, old man.
Adjectives:
got-ete, small, apparently from got•i, large.
Numerals:
yetcam, eleven, potedom, twelve; copiom, hate'pam, yit'tcam, tcolpom, nom'tcom, mun'tcam, non'pom, thirteen to nineteen.

Verbs :
lihim-ga, run, holoc-ga, sit, wowul-ga, stand, ugun-ga, drink, wan-ga, give, yet-ka, speak-all imperative.
ogon-an, drink, wiy-an, say, tac-an (taic), see.
tanyuc-a-xon.
tcapli-wic, moccasin; dat-la-wac, stepping-ceremony.
hacaw-ana, dead.
ma ti-ma wihi, did you say it?

## TOLTICHI.

A divergent northern dialect, which has become extinct, was the Toltichi, spoken by the Yokuts tribe living farthest up the San Joaquin river. The last person actually using this dialect, a woman, is said by the Yokuts informants to have died thirty years ago. She was related to the old woman from whom the Dumna material used in the present paper was obtained, and from this Dumna informant a brief vocabulary of the Toltichi dialect was secured. This vocabulary, however, raises some doubts, and for this reason the dialect has not been included in the general consideration of the others. The fifty or sixty Toltichi words obtained show forms that go back quite clearly to stems characteristic of the northern Yokuts group. There are however two marked peculiarities, one phonetic, the other lexical. First, there are uniform consonant changes: s, c, and h to x , and
$\mathrm{n}, \mathrm{l}, \mathrm{y}$, te and sometimes t to w . Second, the numerals are peculiar in not being Yokuts at all, nor Miwok or Shoshoncan nor apparently of any other known linguistic family. These divergent numerals render the Toltichi dialcet very puzzling. It is beyond doubt that the set of numerals obtained existed somewhere in this region, for a second informant among the northern Yokuts was sufficiently acquainted with the series to state that it was correct. On general grounds, however, it seems highly improbable that a dialect differing from the other northern Yokuts dialects principally only in regular phonetic mutations should possess a numeral system radically peculiar to itself. It is possible that this numeral system belonged to a distinct linguistic family on the upper San Joaquin, almost extinct at the coming of the whites, and that these people, through intercourse with the neighboring Yokuts, were familiar also with Yokuts, which, on account of the phonetic characteristics of their own language, they barbarously distorted; but there is no direct evidence whatcver to support such a conjecture. A further complication is caused by the fact that the phonetic mutations characterizing the bulk of the Toltichi material obtained are so extreme and consistent that they differ totally in nature from all known phonetic equivalences and changes of Yokuts dialects and dialectic groups. The informant evidently held a strong impression of the phonetic peculiarity of the language, particularly its roughness, for she pronounced its k's as far back in the throat as possible and emphasized as strongly as possible both the guttural and the spirant character of the x with which she replaced the s of her own dialect. As she spoke this it still bore some audible resemblance to $s$, and was formed with the lower lip drawn into the mouth. It seems very unlikely that any language was actually thus spoken. It must thercfore be concluded that the phonetic peculiarities of this dialect have been exaggerated in the record obtained. Once this exaggeration is accepted, it becomes doubtful to what extent it was carried. It may be concluded that the dialect differed from the neighboring Yokuts dialects in the dircetions indicated by the material obtained; but whether only slightly, or to the degree shown by this vocabulary, must be doubtful.

If, accordingly, the Toltichi were Yokuts, ${ }^{1}$ and not people of another linguistic family whose distortion of Yokuts has been imitated in the scant material secured, they must be regarded as a specialized offshoot of the northern group. If their language is at all fairly represented by the vocabulary, it possessed sufficient distinctness to entitle it to be regarded as a separate branch, and the number of Yokuts dialectic groups would have to be increased from six to seven. After all considerations, however, the internal nature of the information secured raises so many doubts, that it has seemed best to regard the available material as only tentative, and to refrain from definitely regarding the Toltichi as forming a distinct Yokuts dialectic group.

The material obtained is here given, together with the Dumna equivalents. It will be seen that the presence of the imperative suffix -ka, and of the form amin for the possessive pronoun of the third person, if correct, place Toltichi close to the other northern Yokuts dialects.

| English | Toltichi | Dumna |
| :--- | :--- | :--- |
| 1 | nās | yet |
| 2 | bis | punoi |
| 3 | nayo | sòopin |
| 4 | āmin | hatepanai |
| 5 | hie | yitecinil |
| 6 | otol | te'olipi |
| 7 | makate | nomte'in |
| 8 | te'eitemak | mon'oc |
| 9 | wā'dite | nònip |
| 10 | wadi'te | ts'ieu |
| person | wokote | yokote |
| men | wo'wèi | nònei |
| woman | mok'èwa | mok'èla |
| child | $k^{\prime}$ 'ow-itc | ak'd-atc |
| ear | xuk | tuk |
| eye | xaxa | sasa |
| nose | winik' | t.inik |
| mouth | xama | cama |
| hand | p'oñox | b'onoc |
| foot | ta'wau' | dad.ats |
| back | katauw | gadai, cotox |

[^45]| English | Toltichi | Dumna |
| :--- | :--- | :--- |
| house | cāme, xāmx | sāmic |
| acorn | k!imin | k'inim |
| berries sp. | waxato | taxāti |
| sun | xapiu (hot) | xapil, op |
| fire | ocit, oxit | ocit |
| water | iwix | ilik |
| creek | wak!ai | wakai |
| earth | xowai | xotsoi |
| world | ho'g!i | holki' |
| dog | kèxa | tcèxa |
| grizzly bear | wox'o | nohoo |
| coyote | x'aiu | kaiu |
| deer | xow | xoi |
| elk | xoxgoi | soxgoi |
| eagle | wo'ucul | wi'usul |
| buzzard | x'ots | hots |
| rattlesnake | wat.it. | nat.it. |
| small fish | wopit. | lopits |
| salmon | gāwaxit | gāyaxit |
| eat | xat-ga | xat-ga |
| drink | ugun-ga | ugun-ga |
| sleep | woxi-ka | woi-ka |
| talk | wat-ka | yet-ka |
| run | wuxim-ka | lihim-ga |
| stand | xwoxwul-ka | wowul-ga |
| sit | howox-ka | holoc-ga |
| greeting | xawaxan | hawaan |
| where | xiw'eu | hileu |
| where are you | xiw'eu ma | hileu ma tāne |
| going | tan'i(n) |  |
| his | am'in | amin |
|  |  |  |

## CHUKCIIANSI.

Pronouns:

| S 1 | na | nim | nan-au |
| :--- | :--- | :--- | :--- |
| S 2 | ma | $\min$ |  |
| S 3 |  | $\operatorname{amin}$ | amam-au |
| P 1 in. | mai |  |  |
| P 3 |  | amungun |  |

The locatives nan-au, by me, and amam-au, at him, were translated "here" and "there." It is not probable that the hypothetical objective of the third person singular, amam, to which amam-au points, has any actual existence. Yauelmani
amam-in-wa, them, has the same hypothetical base, and this base does not occur in Yauelmani.

Demonstratives:
hi, locative he-u.
[ki, not obtained], locative ki-n-eu.
Nouns:
op-in, sun's.
nasi-n, rattlesnake's.
hoyim-h-an, of the Hoyima.
tcaucil-h-an, of the Chauchila.
The locative in -u, -au, -iu is frequent.
Verbs:
-ka, imperative: winis-ka, hulos-ka, xat-ka, woi-ka, gun-ka, taic-ka, adj-idj-ka; heu-ne-k, pana-k.
-xon, continuative : yuncun-xon, quakes, honhon-xon, breathes, paix-im-xon, menstruates (honhon, heart, payax, blood).
-an, past: tac-an, panai-an.
-it, passive : tuy-han-it, be shot.
-wic, reflexive: dani-wis-an, dui-wac, puxpux-wac.
-in, intransitive : heu-n-en, thus, heu-ne-k, do thus!

## CHAUCHILA.

Pronouns:

| S 1 | na | nan | nim |
| :--- | :--- | :--- | :--- |
| S 2 | ma | mam | min |
| D 1 in. |  |  | magin |
| P 1 in. | mai |  | main |

Demonstratives:
he, this, poss. he-n-in, loc. he-u.
ke, that, loc. k-eu.
wat, who, some one.
hileu, where?
Nouns:
nopop-in father's.

Verbs:
-ka, imperative.
-in, future-present.
-am (?)
-xo, -è-xo, continuative.
-wic, reflexive.
The vowels of the three suffixes -ka , -in, -am are assimilated to the vowels of the stem. This is exceptional in Yokuts. Usually it is the stem-vowels that are affected by the suffix. When the suffix vowel is altered, in other Yokuts dialects, it is as frequently to contrast with the stem-vowels as to agree with them. The assimilation of the vowel of the imperative -ka is especially noteworthy, as in Yauelmani and other dialects this ending appears to be an enclitic rather than a true suffix, and fails to affect the vowels af the stem as a-suffixes do.
-ka: lui-ku, ukun-ku, tui-ku, gun-ku, lihim-i-ki, cilit-ki.
-in: ac-ac-an, woy-on, hiwet-en, ciel-en, tay-en.
-am : dauc-am, thirsty; wok-om, kill.
-x0: etil-xo, tay-e-xo.
-wic : wok-woc, hoyo-wuc, lon-i-wic.

## HOYIMA.

A few phrases of this dialect were given by Chauchila and Chukchansi informants. They appear not to be strictly accurate.
helo naxon dut, Chauchila hileu nexo ux (?), what do you say (?)
haulen dut, Chauchila hileu nen ux (?), Chukchansi ha weta, what do you say?
etel-am na, Chauchila etil-xo na, I am hungry.
haul ma dut, Chukchansi haual ma du, when was that?
wiy-en, Chukchansi heu-n-en, thus.

## WAKICHI.

A few Wakichi phrases were obtained from the Dumna informant. The differences that these show from the equivalent Dumna phrases have probably been exaggerated.
wi-hin, say.
wiy-āahin, said; Dumna, wiy-ān.
ut-upa ma wi-hin, Dumna ma ti-ma wi-hi, did you say it?
hau hin duta, Dumna hawā an dita, what is the matter?
Wakichi, Pitkat.i, and Hoyima were said to use buuc, not tcèxa, for dog. This would include them with Chauchila, Chulamni, and probably Heuchi in the valley half of the Northern group, as contrasting with Chuckchansi, Dalinchi, Kechayi, and Dumna of the foot-hill half of the same group.

Pronouns:

## WECHIKHIT.

| S 1 | na | nim |
| :--- | :--- | :--- |
| S 2 | ma | $\min$ |
| S 3 |  | amin |
| D 1 ex. |  | numògin |
| D 1 in. | mak |  |
| P 1 in. | mai |  |
| P 2 | mān |  |

Demonstratives:
hehi, this, hetam, here; ga, that, gau, there; wat-oku, han-uku, hiye-uku or hiye-uk, who? what? where?
Nouns:
p'an-in, world's.
Verbs:
holuc-k, sit! wan-ka, give!
taut•a-xo, kill; tcow ${ }^{\text {u }}$-xo, work.
tān, go.
-in suffix : xat-en, lihim-en, hatm-en; wipil-en, texal-en, sil-en, ugn-on, woy-on, wow'l-on.
-wic reflexive: tanyu-wis, hoyo-woc, dat-la-wac.

## NUTUNUTU.

*Pronouns: na, ma, mak, nim, min, amin.
Demonstratives : hehe-n, apparently possessive; heham, here; gau, there.

Verbs: xat-k, ugun-k, cil-k; wooi-an, huits-in, tsow-on.

TACHI.

| S 1 | na | nan | nim |
| :--- | :--- | :--- | :--- |
| S 2 | ma | mam | min |
| S 3 |  |  | amin |
| D 1 1 in. | mak |  | makin |
| P 1 1 in. | mai |  |  |

Demonstratives :
hihi, hehi, this (near).
ki, this, poss. ke-in, loc. ke-u.
ka, ga, that.
wat-uk, who?
han-uk, what?
haucun-uk, how many?
hiye-uk, hiye-k, where?
Numerals:

| 11 yètc-am | 16 tcolp-om |
| :--- | :--- |
| 12 batsd-om | 17 nomtc-om |
| 13 copi-om | 18 munc-am |
| 14 hotcp-om | 19 coponhot-min |
| 15 yitc-am |  |

Nouns:
tatci, pl. tatcètcayi.
t-uxoxi, pl. t-uxòxayi.
tcunut, pl. tcunòtati.
(wimiltci), pl. wimèlatci.
(wetcixit), pl. witcèxatci.
(wowol), pl. wowòwoli.
(nutunutu), pl. nutant-ic-a.
witep, child, pl. witip-ate, witip-hat.
Possessive: -in.
Locative : -u.
Instrumental : -ni.
Verbs:
Imperative: - k , -g.
Continuative: -xo, -e-xo.
Preterite: -ahin.
Future-present:-in.

Agent: -itc.
(Future passive) : -nite, -nit.
Reflexive: -wic.
Causative: -la.
Future particle: min.
Negative particle : ohom, òm.
Tachi phrases:
kè-in pūuc puuc-un dadat. mīn mai oy-in āwo
hilata òm na min hot'-è-xo hoyowoc hiek ma xo hètci kè-u na xo toxil
òm na mam cil-ahin hiāmi hiek ma ta
kè-u na $\tan$ nim tce-u hīk min tci
kè-u na xò-n nibet.-in nim tce-u
òm nim t.a witip-hat nèec
c.oyòl-in pīl
yokote
yoktco-lis
nòtco-in, mokela-n
xocima-n
tèc-itc
xohot-ite
yèt-au
dat-la-wac
munoi
munuy-uwue
his dog.
dog's foot.
shall we move across, we shall move to the other side.
(q) not I your know name.
where you live now?
there (this-at) I live west.
not I you saw long.
where you go
there I go my house-at.
where your house?
there I live older-brother's my house-at.
not my (?) children youngerbrother's.
antelope's road, milky way.
person.
somebody.
man's, woman's.
of the northerners.
a kind of medicine man (maker).
ceremonial clown.
all (one-at).
rattlesnake ceremony (making-step, $=$ dai-da-nitc).
jimson-weed (tanai).
jimson-weed-drinking ceremony ( $\tan y$-uwis).

## CHUNUT.

Pronouns : na, I, ma, thou, mak, we two.
Demonstratives: hetam, here, apparently from stem hi; ki, this, ke-u, there; ga, that; wat-uk, who; han-uk, what, hiye-uk, where.

Nouns: toino-in op, night's luminary, moon.
Verbs: The imperative ending was usually heard as -ga. The continuative -xo appears in oho-xo na I like; -an in tah-an; -wic in hoyo-woc ; -ite in tsalai-wiy-èits.

## wo 'Last.

Pronouns found are na, ma, mak, nim, min, amin.
The demonstrative ta appears as ta-n, him, ta-in, his.
Who? is wat-uk; where? hiye-uk or hiyòku.
The imperative usually ends in k , sometimes in ka or ke .

## сноглок.

Demonstratives:
ki, this; ka, that; hiy-uk, where?
Verbs:
xat-ka, ukun-ka, woi-ka, tui-ka.
taut-a-k, teowo-k.
got-on, strike.
gon-in-hin, fall.
san-san-wi-èitc, tree-squirrel.

## TEXTS IN VARIOUS DIALECTS.

The following short texts have three sources. Numbers 1 to 27 are all transcriptions of phonographic records of songs obtained from Peter Christman, the principal Yaudanchi informant employed. Many of the songs were said by him to be in Yauelmani, Tachi, and other dialects. How far they may be mixed with Yaudanchi forms, or translated into the latter, is in many cases not certain; so that they can be used as material for a comparative study of dialects only with reservations. Numbers 28 to 35 were obtained from an old man called Chalola, by birth half Wowol, but speaking the Yauelmani dialect. The first five of these, numbers 28 to 32 , are songs from a myth, and were recorded without the aid of a phonograph; the last three, numbers 33 to 35 , are prayers or ceremonial speeches. All the material from this informant is good Yauelmani. Lastly, numbers 36 to 38 , thred short ceremonial speeches, are Tachi, obtained from a Tachi informant named Tom. The transcription and translation of the texts resemble those of the Yaudanchi texts. Translations in parentheses are given on the authority of the informant.

1. Mourning-ceremony song.
yèwò yèwò
ahanè
2. The same.
yò waxāle
ahanè
3. The same. Last song of the ceremony.
yōuyahè
wīāhè
Ah is Yaudanchi for crying in mourning, waxil in other dialects; yōuyahè is said to be from yuy, to thrust or motion toward, as during this song the dancers motion toward the fire; wīàhè is said to be from the stem wi, to say.
4. Ohowish ceremony song. Wükchamni.

| wita <br> said | t'öpük <br> beaver |  | yo and | nahaate <br> otter |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| wita <br> said | $\tan _{\text {him }}$ | wo | ohowite-u <br> ohowish-medicine-man | t'uiju <br> shot | ma-nan you me |
| ama <br> then | $\begin{gathered} \text { oh } \\ \text { rish. } \end{gathered}$ | $n e-m$ | maya <br> self | ma-nan <br> you me | t'uiju <br> shot |

5. Rattlesnake ceremony song.

[^46]| dok'on <br> belly-full | teixac-ma <br> (iie) you |
| :---: | :---: |
| am-nan <br> not mo | pitciu <br> touch |



| a-ma <br> not you | haa <br> anything | hawad'i <br> ean-do |
| :---: | :---: | :---: |
| am-nan <br> not me | pitciu <br> touch |  |

am-nan pitciu

| te'odwonhin <br> plains | t•ööd <br> rattlesnake |  |
| :---: | :--- | :---: |
| tc'ododin | ma | caca |
| white | you | eye |

The language is Yaudanchi. Several interesting forms oceur. Opodnid is perhaps the continuative of an intransitive derivative from the word sun : opodo, -in, -ad. The collectives in -hin and -han have not been found otherwise in Yaudanchi, but recall the inanimate collective -hal of Yauelmani. The informant once said tiñel-hal for tiñel-han. The latter he translated "squirrel town." In addition to the forms given in the song, namely, yapkan-hin from yapkin, and doxmad-hin and te'odwon-hin, he also used the word bokdo-hin, "where many springs." As spring is bokid, the ending -hin is in this word added to the locative suffix. None of the nouns in question are capable of taking an ordinary plural. The forms -hin and -han have some appearance of being possessives.
6. Dancing song, said to be in archaic Chunut dialect.

```
wèhè yōhō
    wehe yoho
I na kiitcau 
kalagawiw
    (invisible)
widäta not'
east
walan-iho
    yesterday
```

7. An old dancing song of the Tachi Indians.
$\underset{\text { who }}{\text { hanuk-u }} \underset{\text { brave? }}{\text { tcipin-ēwe }}$
yèha
yeha
$\underset{\text { sonth }}{\text { xomòt-i }} \underset{\text { we }}{\text { māy-a }} \quad \tan -i y o$
yèha
yeha

$\underset{\text { ask }}{\text { pinèt'iux }} \quad \underset{\text { I }}{\text { na }} \quad$| tcay-e |
| :---: |
| down-feather |

Tcipin, Yaudanchi $t$-ipni, is wonderful, supernatural.
8. Said to be a Tachi song.

| xami <br> (come!) | xami <br> (come!) | wuala <br> stand | kè <br> (this) | na <br> I |
| :---: | :---: | :---: | :---: | :---: |
| nan <br> me | ki | ma | panahin | tcipni |
| (this) | you <br> nāyu <br> nayu |  |  |  |
| (arrive) |  |  |  |  |

9. Said to be a Tachi song.
```
wèhè yoho
    wehe yoho
\(\underset{\text { me }}{\text { nan-a }}\) ge ma ha \(\underset{\text { you }}{\text { wiihin }}\) (do not mind)
èkak tcan-a witcèpa
    see (that-distant) child
```

A very barbarous Tachi. Ekak is the Yaudanchi stem öka, not found in the Valley dialects, with the imperative ending -ka
or k found only in the Valley dialects. Child in Tachi is not witcep but witep. Tcan-a seems to be similarly formed, by substitution of te for $t$, from tan, Yaudanchi tañ, objective of ta, that.
10. A medicine man's song for dancing. He dreamed that his father said to him:

11. From the informant's grandfather.

| $\substack{\text { yò-nono } \\ \text { again } \\ \text { pīwaca }}$ | pana <br> (pursues) |  |
| :---: | :---: | :---: |
| grizzly-bear | man | me-nona |
| meain | pana | (parsues) |

For piwaca compare the Tachi form biwacï and Tulamni biawas. For pana compare song 8 .
12. Dreamed by a man the night after he had seen a water monster.

| Watin | xe <br> whose | t'uit'ai <br> thls | dupit. <br> shoot | fish? |
| :--- | :---: | :---: | :---: | :---: | :---: |

13. Grizzly-bear-doctor's song, learned from the bears by the informant's father-in-law.
```
mèedjin xolònon
        (noise of scratching)
    tcuyuak ma ha tala taaji
        (even if you enter)
    yakiuhaaliu
        at the rocks
    tā-na-mam otokotooji
        that I you
                                (raise)
```

Yakiuhaaliu is the locative of the collective -hal, which has so far been found only in Yauelmani, suffixed to the Yaudanchi stem yakau, rock, for which Yauelmani uses silil. The 1 in this and other words points to a Valley dialect.
14. Eagle song, for dancing. Dreamed by the informant's grandfather. Clearly a Valley dialect.

| yileyalè <br> earthquake |  |  |
| :---: | :---: | :---: |
| silika | nim | teican |
| see | my | emergence-at |

15. Dancing song. The informant's grandmother dreamed that she learned it from a coyote.

| mam <br> you <br> yèhā <br> yeha | wiliteyau <br> (in-front-of) | muyukun <br> whirl |  |  |
| :---: | :---: | :---: | :---: | :---: |
| uyayet <br> (mourn-for) | ke |  |  |  |
| that | tcèkèya |  |  |  |
| string |  |  |  |  |$\quad$| māyin |
| :---: |
| our |$\quad$| p'aanin |
| :---: |
| world's |

Said to be Yauelmani ; and in fact tcikei, string, and ke, that, are Yauelmani but not Yaudanchi forms. Cf. l in wiliteyau.
16. Coyote song. For dancing.

| na | kaiu cosote |  |  |
| :---: | :---: | :---: | :---: |
| $\underset{\text { we }}{\substack{\text { naan }}}$ | kaiu <br> coyotes |  |  |
| $\begin{aligned} & \text { ama } \\ & \text { then } \end{aligned}$ | $\begin{aligned} & \text { p'an } \\ & \text { earth } \end{aligned}$ | widji told. | tacki <br> those |
| $\underset{\text { then }}{\text { ama }}$ | $\begin{aligned} & \text { p'an } \\ & \text { earth } \end{aligned}$ | widji told |  |
| a-ma | n-hi | k'uye |  |

17. Coyote song. For dancing.

| kaiiu-na <br> coyote I |  | yawud <br> (do-thus) |  |
| :---: | :---: | :---: | :---: |
| $\underset{\text { then }}{\text { ama }}$ | na | t-ipinit from-above | lòlènac <br> (twirled) |
| kaiiu-na <br> coyote-I |  | yaud <br> (do-thus) |  |

18. Coyote song. For dancing.
$\underset{\substack{\text { kaiin } \\ \text { coyote }}}{\text { wita }}$
hanham-na kaiiu-na
what-am If coyote I
wi idkau-un na
well, water-in I
hanham-na
what-am I?
kaiiu-na
coyote I
This song is said to be from the Kings River or Northern
Yokuts.
19. Coyote song. For dancing. The deer says:

| xeu | nan | t'ui | cik'au-nim |
| :--- | :---: | :---: | :---: |
| here | me | shoot | side-in my |
| kaiyuwin <br> coyote's | mam | you | ta |
| that | t'uyoc |  |  |
| arrow |  |  |  |

20. Dancing song; about the deer.
```
wat-a nau
    who me
t'uyon
shoots?
t-ipinit
from-above
t'uyon
    shoots?
yèitcai
    once
t'uyon
    shoots?
wèhèn
    wehen
```

21. Dancing song about the deer.

| xuyiu retarn | naar |  |
| :---: | :---: | :---: |
| nòtu <br> east | $\underset{\text { we }}{\text { naan }}$ | xuyiu return |
| tahitcipau <br> to-Tehachap! |  |  |
| p'aani <br> land's |  |  |

22. Mountain-sheep song.

|  | hiye |  | ukunumū |  |
| :---: | :---: | :---: | :---: | :---: |
| or: | hideu wh |  | ukun drink-will |  |
|  | wa | na | dòmto | ukun |
|  | far | $\stackrel{\square}{6}$ | mountain-at | drink-will |

23. Ground-squirrel song. When the ground-squirrel, pohad, eats buckeyes, it becomes crazy.


Watcam is a feather ornament held in the hand, watcim is to hold or move it ; otcote, magpie, appears to mean magpie feathers.
24. Road-runner's song. Yauelmani or a Valley dialect. The Yaudanchi equivalent words as given by the informant are added.

| oyuoyu | nan | he |
| :---: | :---: | :---: |
| oyuy | nan | xe |
| road-runner | me | here |
| limini | mai |  |
| dawit-sa | mak |  |
| let-run | ns-two |  |
| hiam-a | na | tcokonit |
| hiam | na | tcokit |
| now | I | am-hit |
| tcokunau | nim |  |
| tcoxĩau | nim |  |
| feather-belt-in | my |  |

25. Otter song. Yaudanchi.

| nahait <br> otter | hāhi <br> (said): | $\underset{\text { "run }}{\text { dawit }}$ | in-brush!" |
| :--- | :---: | :---: | :---: |
| dañaad-na <br> hear I: | yaudau <br> "in-brush | dawit <br> run!" |  |

26. Water's song. Dreamed by a female relative, of his grandfather's generation, of the informant. The present version is in Yaudanchi. The original song is said to have been in the

Yokol dialect. In this the first line ran: yo ki-mi-nana taxenen, and the last: tolomit na ilekin.

| yo | ti-ma | taxin |  |
| :--- | :---: | :---: | :---: |
| again | do you | come? |  |
| Wa | ha | mai | kitewin |
| far | something | we | will-go |
| wa | na | kitiu |  |
| far | I |  | go |
| todomit | na | idkin |  |
| do-not-find | 1 | water's |  |

27. Pleiades song. Dreamed by a relative of the informant's father.
$\underset{\text { (spin-around }}{\text { guỳ̀pa }} \underset{\text { we }}{\text { nana }} \quad \underset{\text { spin-around) }}{\text { guyèpa }}$
hāini hamāna
(fly what-we?)
mòxumxai
(Pleiades)
Said to be in Paleuyami dialect.
28. Song from a myth about the prairie-falcon.

| xoiyu return | $\operatorname{nan}_{\text {to-me? (we?) }}$ |  |
| :---: | :---: | :---: |
| xoiyu | nan |  |
| return | ibid |  |
| ama | nim | hūwut. |
| then | my | gambling |
| t-awe | nan |  |
| beat | me |  |
| dokoi-nim |  |  |
|  |  |  |

29. Another.

| hiwèti | go |
| :--- | :--- |
| yo na | again I |
| hiwèti | go |
| naamtayo |  |
| lanīyo |  |
| hilalèkiyo |  |
| t-awat•e | beat |

30. Another.
```
yahī lulumai
yahīmai lulūmai
sawawa kanama
tanīyo
yapīwipiwimai
tawana tsiniyo
hilalīkiyo
t-awat.i t.awat.
```

31. Another.

| hila ma tā | you <br> hayāwiyu |
| :--- | :--- |
| (ridicule) |  |
| lòkoyowani | (ignorant) |
| waatin | whose |
| humuyu hile |  |

32. Another.

| hòsīmi | cold |
| :--- | :--- |
| hòsīwimīne | cold |
| wanit wilima | from-far (?) |
| lanā-na-ma | hear |
| hòsīmi | cold |

33. A prayer for good fortune. Yauelmani. Evidently a fixed formula. Spoken rapidly, rhythmically, and monotonously, with motions of the arms, alternately and together, to the heart and out again. Seven deities are addressed. The impure vowels found in the names of these deities do not occur in Yauelmani. The r occurring in pitsuriut is not a Yokuts sound at all.

| silkawil <br> see-ye | $\operatorname{nan}_{\text {me }}$ |
| :---: | :---: |
| $\underset{\text { see }}{\text { silka-nan }}$ | töuciut <br> name (=maker) |
| $\underset{\text { see }}{\text { silka-nan }}$ | bamāciut <br> name |
| $\underset{\text { see }}{\text { silka-nan }}$ | $\begin{aligned} & \text { yoxāxait } \\ & \text { name } \\ & \text { (=crusherя) } \end{aligned}$ |
| $\underset{\text { see }}{\text { silka-nan }}$ | etcèpat name |

```
    silka-nan pitsuriut
    se0 me name
    silka-nan tsukit
        see me name
    silka-nan ukat
    see me name (=looker?)
    yèt·a man amlin nan
together ye help me
    nim yèt·au t·ikexo texal
    my together is-tied talk
maiayiu lomto
with-the-large monntain
maiayiu silelhaliu
with-the-large rocks
maiayiu witsetaliu
with-the-large trees (woods)
yèt·au polut-nim
together bodymy
ucuk-nim
    heart my
yèt·au-ma-nan amalan
    together ye me help
t-èpani
supernatural
yò-ma
and you
daak
    day
yò-ma
and you
toino
    night
yet\cdota-man
    together ye
nan-silèxo
    me see
yò
and
yet.au ki
together this
p'aan
world
```

34. Prayer to the panther for success in hunting deer. Yauelmani. Down and kasyin seeds are deposited on the ground during the prayer.

| ya wehèsit | ya, panther <br> wökitska-nan t•iimi <br> (give) me (now) |
| :--- | :--- |
| wehèsit | panther |
| hanas | hunter |
| ma | you |
| yiitsa | alone |
| wökitska-nan t.iimi | (give)me (now) |
| wehèsit | panther |
| ma | you |
| yiitsa | alone |
| hanas | hunter |

35. Speech made by the old man in charge of the tanyuwis, the jimson-weed ceremony, to the novices. With each phrase he motions with the basket of liquid as if to give it. After the third phrase he hands the basket. Yauelmani dialect.

| ukunka <br> drink | $\underset{\text { thin }}{\text { this }}$ | ilka | töusyutin for-Töushiut |  |
| :---: | :---: | :---: | :---: | :---: |
| $\underset{\text { drink }}{\text { ukunka }}$ | kin | ilka water | $\underset{\text { for-that }}{\text { kèin }}$ | bamasyutin Bamashiut |
| $\underset{\text { drink }}{\text { ukunka }}$ | $\operatorname{kin}_{\substack{\text { thi }}}$ | ilka | $\begin{aligned} & \text { Kèin } \\ & \text { for-that } \end{aligned}$ | yuxaxaitin Yokhakhait |

36. Tachi formula spoken when one comes to strange water. When this formula is said, the beings in the water allow one to take of it.

| mak | $\begin{aligned} & \text { heham } \\ & \text { here } \end{aligned}$ | $\underset{\substack{\text { xoin } \\ \text { live }}}{\text { non }}$ | $\underset{\text { long }}{\substack{\text { liamu }}}$ | $\begin{aligned} & \text { pāna } \\ & \text { world } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| hehi | makin | ili |  |  |
| this | our | water |  |  |

37. Tachi formula, sung, accompanied by dancing, by an old woman at an eclipse of the sun.
```
\(\underset{\text { leave }}{\text { heucitka-nan }} \underset{\text { me }}{\text { mitèni }} \underset{\text { with-a-little }}{\text { opòni }}\)
anè nan yèt•au tcomcot'k (or tcom'k)
(not) for-me altogether eat-it
heucit
leave \(\quad\) man \(\quad\) miteni
```

38. Tachi formula spoken to the dead, to prevent their return as ghosts.

| miin | $\begin{aligned} & \text { ma } \\ & \text { you } \end{aligned}$ | $\underset{\text { go }}{\substack{\text { gin }}}$ | $\begin{gathered} \text { lakil } \\ \text { (another) } \end{gathered}$ | p'aana <br> land |
| :---: | :---: | :---: | :---: | :---: |
| huyetcim <br> (like) |  | $\tan _{\text {that }} p$ | p'aan <br> land |  |
| ohom <br> not | ma you | heha <br> here | xoyi |  |

## STATUS OF YOKUTS AMONG THE LANGUAGES OF CALIFORNIA.

From what has been said, most fully of Yaudanchi, it appears that Yokuts forms one of a group of linguistic families occupying the greater part of the state of California, especially its central region. This group of families, which has been defined in a general discussion of the types of structure of the languages of California, ${ }^{1}$ is marked by simple phonetics, the lack of incorporation, the presence of cases, and a simple transparent structure, and in addition to Yokuts includes Costanoan, Esselen, Maidu, Wintun, Yuki, Pomo, and perhaps other languages, besides showing certain general resemblance of type to Shoshonean, Lutuami, and Sahaptin. In certain respects Miwok or Moquelumnan, bordering Yokuts on the north, seems also to belong to this type. Chumash and Salinan, however, which are territorially in contact with Yokuts, occupying the adjacent coast, belong to another group, the Southwestern, which comprises only these two families and is marked by disagreement from the large Central Californian group in all the points that have been mentioned as typical of this. ${ }^{2}$ The characteristics that probably distinguish the morphology of Yokuts most sharply from that of the other linguistic families belonging to the same Central group, are its development of systems of vocalic mutation as an

[^47]accompaniment or means of grammatical expression, the predominance of polysyllabic stems, and the slight development of derivation by affixion and composition. It seems that these three features are all more or less related. Most of the other languages of the group of which it forms part show no vocalic mutation other than perhaps an occasional harmonizing of vowels. Esselen and Costanoan are probably, ${ }^{1}$ and Yuki and Pomo certainly, free from any developed vocalic mutation. The last two languages are characterized by great distinctness of stems, which are in large measure monosyllabic. This distinctness is not so apparent to the ear as it becomes visible on analysis. Most Yuki and Pomo words are actually composed of several stems, either independent or affixes, which scarcely affect each other's phonetic shape by being brought in contact, other than perhaps for insertions of euphonic vowels. In consequence, the words of three or four syllables in Yuki and Pomo almost always differ from those of equal length in Yokuts in being built up of a number of constituent parts, but on account of the comparative phonetic immutability of the parts the structure of the words remains transparent. Maidu shows vocalic harmony to a considerable extent and it will be interesting to know whether the scope and forms of this are similar to those of Yokuts harmony, especially as there seems to have been some borrowing of words between the two languages, indicating the possibility that they may at some time have been in closer contact. Maidu, however, appears to resemble Yuki and Pomo in that its words possess a transparent though sometimes elaborate structure. Wintun is too little known to allow anything definite to be said about it in this regard, but it seems that its structure, like that of Esselen and Costanoan, is simple, or if complex, clear, and that vocalic mutation is not developed. In its grammatical cases Yokuts resembles the other families of the Central group except in that it possesses only one local case that is specific, the ablative, whereas in the other languages a large number of specialized locative cases are usually found. A considerable diversity exists among the languages of the Central Californian group in regard to the expression respectively by characterizing affixes, or by descriptive phrases, of ideas

[^48]of shape, motion, dircetion, or instrument. The former method is found in a number of languages outside of California. Within the state it is known to occur in Washo, Maidu, and Pomo; and, on account of its intermediate geographical relation, it is not unreasonable to look for this fcature also in Wintun. On the other hand some languages of the Central group do not show such affixes. This is certain of Yokuts and Yuki, and probable of others. The extent of the development of the plural in Yokuts is very similar to that occurring in certain other families in the Central Californian group, such as Yuki. Some families, such as Pomo, show practically no plural, and others, like Miwok, a considerably more extensive one than Yokuts. The importance of reduplication is also about the same in Yokuts and in the other families of its typc. The same may be said of such features as the absence of articles and the frequency but grammatical indefiniteness and unimportance of demonstratives. The resemblances between distinct families belonging to one morphological type can of course be only general. With this in view, it is clear that Yokuts forms part of the Central Californian group of languages, its most marked peculiarity within this group being its correlated features of vocalic harmony, polysyllabic stems, and lack of structural composition.

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[^0]:    ${ }^{1}$ In some respects a balances with $i$ (just as the verb-suffixes are either a or $i$ ); the second syllable of certain a-stems varies between $i$ and a, agreeing with the suffix: amid-ji, amad-ac.

[^1]:    ${ }^{1}$ Besides a and i, only $u$ occurs in suffixes. E and o and all the impure vowels do not occur in suffixes except as directly induced from $a$, $i$, or $u$ by stem vowels.

[^2]:    ${ }^{2}$ See p. 201.

[^3]:    ${ }^{1}$ The plural -in of pronouns and the plural or collective animate -in of numerals may be identical.

[^4]:    ${ }^{1}$ If stems are omitted from consideration whose first vowel is a, which is not susceptible of this change, and if monosyllabic and biconsonantal stems are also excluded because their vowels on account of their proximity to the suffix are primarily affected by the law of i-a balance which most fundamentally characterizes the plural, it may be said that the majority of stems taking the -i suffix, and part of those with the -a suffix, undergo this mutation of the first or second stem vowel to its opposite within its vowelpair.

[^5]:    ${ }^{1}$ Wowud means stand, from the radical wud. Wowòwadi is perhaps not reduplicated but formed by development of -oे- into -owò-, as in y-uwè -kadi.
    ${ }^{2} \mathrm{Or}$, wake's-wadi, resembling the plurals kuma'tc-wadi and kuyèt-wadi of the tribal names kumatcesi and koyèti.

[^6]:    ${ }^{1}$ Or ñoh ’i-c-a.

[^7]:    ${ }^{1}$ Or najoj-o.

[^8]:    ${ }^{1}$ Instrumental and locative also yakau-ñ and yakaw-u.

[^9]:    ${ }^{1}$ The suffix -wid, imperative -we, is probably related to the independent stem wid, to tell or say, also to do or make; as wid-ji nan, he said to me. This stem appears in such words as hue-udetc, "hush-sayer," a species of snake, and kux-udète, kux-wid-èite, "kukh-maker,'" a species of hawk which is thought to produce a sound kukh as it parts the brush in dashing through it in pursuit of game. Hatic-wid, to sneeze, accordingly seems to be nothing but "to say hatish,'" or "to make hatish," and more obscure forms such as tcabop-wid and $\ddot{u} \tilde{n}-\ddot{u} \tilde{n}-w i d$ may contain the same stem. When Yokuts vocabularies are obtained it soon becomes noticeable that words are frequently given followed by wi. This is especially the case when an informant deliberates or appeals to a bystander; the latter will then often mention the word followed by wi, as ilik wi, literally "'say ilik," or "tell him ilik," but actually perhaps nearer, in general force, to our "it is ilik." It is doubtful from all this whether the -wid, -we suffix should really be regarded as unconnected with the reflexive, or whether the reflexive can be considered as probably genetically related to the verb stem wi, wid, of generalized meaning.

[^10]:    ${ }^{1}$ And never modified except for the change of na and ma to ni and m: before the future enclitic particle hi: nihi and mihi.

[^11]:    ${ }^{1}$ See the discussion of the comparative forms of the personal pronouns of all the Yokuts dialects in Part III. Certain groups of dialects possess subjective and objective forms of the third person in the dual and plural; but none in the singular.
    ${ }^{2}$ And even elsewhere in the pronoun, as nim-g-in, ma-i-n, nan-un-wa.

[^12]:    ${ }^{1}$ Probably differing however in length of vowel.
    ${ }^{2}$ In other dialects these locative forms have been found with locative meaning: nanau, at me, here; mamau, at you, there.

[^13]:    ${ }^{1}$ Similar conditions obtain in other Yokuts dialects which lack tik and tin. These dialects possess subjective dual and plural forms of the pronoun of the third person which are used like tik and tin to indicate the duality or plurality of the preceding noun or verb: aman, they, resembling man, ye, as amin, his (Yaudanchi an), resembles min, thine. No objective or singular forms of these dual and plural words have been found, a fact which corroborates the conclusion, already evident from their usage, that they are functionally not so much the equivalents of for instance the English personal pronouns, as primarily indications of number.

[^14]:    ${ }^{1}$ It seems, especially from the evidence of other dialects, that this suffix hate is really a diminutive.

[^15]:    ${ }^{1}$ Even though the words for four and five so evidently contain the stems of two and one, their forms in twenty different Yokuts dialects vary only phonetically and give no light on their composition. This is in accord with statements made below as to the scarcity of Yokuts words whose derivation is explainable.

[^16]:    ${ }^{1}$ This suffix -in may be identical with the -in indicating the plural of pronouns and demonstratives, and occurring also in the imperative and indicate particles ya-n and $t$-in expressing the plural.

[^17]:    ${ }^{1}$ It is worthy of note that an apparently composite word like hatpañi, four, certainly related to poñoi, two, appears in all the dialects known, of course with phonetic variations, but never any more structurally transparent; and that under the influence of suffixes its stem is unetymologically reduced to hatpa- not only in Yaudanchi but in the other dialects from which there is material.

[^18]:    ${ }^{1} O^{\prime} \mathrm{p}$ is sun and moon in other dialects.

[^19]:    ${ }^{1}$ The formation of the plural would indicate that these stems are disyllables.

[^20]:    ${ }^{1}$ Based on part of the text of an Arapaho myth.
    ${ }^{2} \mathrm{~d} \cdot \mathrm{aj}$, tangle, tin, particle of plural, tòte or tòt', head, hair.

[^21]:    ${ }^{1}$ Probably locative, perhaps objective.

[^22]:    ${ }^{1}$ Wiic is also bare. naked.
    ${ }^{2}$ For t-it-ji.

[^23]:    'A kind of supernatural being.
    ${ }^{2}$ Name of a place; tei't'at, a species of clover.

[^24]:    1 "Said k'öxkō."
    ${ }^{2}$ Said to be Padeuyami dialect for t'ut'a-nim. The form given for "my" by the Padeayami is gen, not kel.
    ${ }^{3}$ Objective; ct. the objective dètcip above.

[^25]:    ${ }^{1}$ For tiziuc.ji.
    ${ }^{8}$ For pūhute-ji.
    ${ }^{2}$ For tau-ñan'ji, there reached?
    ${ }^{4}$ For a wa't $\cdot \cdot \mathrm{ji}$.

[^26]:    ${ }^{1}$ Said to be Padeuyami dialect for ñohoo, grizzly bear.
    ${ }^{2}$ Said to be Padeuyami dialect; cf. met $\cdot$, large.
    ${ }^{3}$ For teanum.

[^27]:    ${ }^{1}$ ip'èji, brought water, was also said.

[^28]:    ${ }^{1}$ Or wit'èpau?
    ${ }^{8}$ For pitid-ji.

[^29]:    ${ }^{2}$ For ama, then?
    ${ }^{4}$ Yauelmani dialect: mèts, "because."

[^30]:    ${ }^{1}$ For tan-ñite?

[^31]:    IOI AND BLUEJAY.

[^32]:    ${ }^{1}$ Cf. Boas, Chinook Texts, 161.

[^33]:    1 "Head and bones also" = skeleton.
    ${ }^{2}$ See also d. 183.
    ${ }^{2}$ Lacking in most Yoknts dialects.

[^34]:    ${ }^{1}$ Lengthening of final stem vowel.

    * Suffix known to be lacking.

[^35]:    ${ }^{1}$ Like dulul, mountain, dul-au; injij, good, inij-ya; natet, father, natumduwic, in other dialects.

[^36]:    ${ }^{1}$ In Chauchila the imperative ending -ka is modified to -ku and -ki after $u$ and $i$ stems, so that in this dialect it can scarcely be regarded as anything but a suffix.

[^37]:    ${ }^{1}$ Cf. Tachi yoktco-lis, somebody, from yokote, person.

[^38]:    ${ }^{1}$ Cf. teyi, tedi, and teli, teeth, in the same dialectic groups.

[^39]:    amin t.ii, his house.
    mägin t.ii, of me-and-you the-house.
    nimgin t.ii, of-me-and-him the-house.
    mingin t.ii, of-you-two the-house.
    minòk t.ii, your (pl.) house.
    nimòk t .ii, our-and-their house.
    amnòk t .ii, their house.

[^40]:    ${ }^{1}$ The Northern group of dialects, while showing some unity and a number of stems peculiar to itself, appears to have consisted of two sub-groups, one comprising the tribes living in the plains, the other those in the hills. The dialects of the plains sub-group were the nearer to those of the southern Valley tribes. Thus even in this Northern group, which on the whole belongs distinctively to the Valley division, the distinction between Valley and Foot-hill dialects is to some degree maintained.

[^41]:    ${ }^{1}$ In Costanoan and Yuki the numerals vary enormously in different dialects, and in Pomo, Chumash, and other families there are also great variations of a radical nature. Many of these variations are due to the composite nature of the numerals above three, and occur most frequently in languages whose numeral system is quinary or quaternary. The decimal system of Yokuts, like most decimal systems, is less transparent as to origin. It is however noteworthy that those of the Yokuts numerals that are clearly derivative, such as four and five, show as great a uniformity in the various dialects as those that go back directly to a simple radical.

[^42]:    ${ }^{1}$ Some dialects: d-alip.

[^43]:    ${ }^{1}$ Amer. Anthr., n. s. V, 17, 1903.
    ${ }^{2}$ Ibid., 18.

[^44]:    ${ }^{1}$ At the same time there are found such unreduplicated forms of the same stems as the objective inic-ya and the locative dul-au. Similar forms, such as sil-iu from sil-il and nat-umduwic from nat-et, are evidence of some tendency especially for final reduplication to disappear before suffixation.

[^45]:    ${ }^{1}$ It may be said that several northern Yokuts informants were unanimous in declaring the Toltichi to have been a Yokuts tribe, and the one farthest up the San Joaquin river.

[^46]:    ${ }^{1}$ Handle, catch, take, stop.

[^47]:    ${ }^{1}$ R. B. Dixon and A. L. Kroeber, The Native Languages of California, American Anthropologist, n. s. V, 1, 1903. The families in one group are not etymologically or genetically related, but are structurally similar.
    ${ }^{2}$ Ibid., and Languages of the Coast of California South of San Francisco, p. 48 of this volume.

[^48]:    ${ }^{1}$ Pp. 49, 69 of this volume.

