

## America, North-West.

Jetté.

**On the Language of the Ten'a.** By the Rev. J. Jetté, S.J. Communicated by the Stonyhurst Anthropological Bureau, through the Secretary.

36

The geographical habitat of the tribes here designated as Ten'a may be roughly taken as lying between the 62nd and 67th of northern latitude, and between the 149th and 160th of western longitude, the native being distributed in sparse settlements along the river and streams which flow in this area. The purpose of this paper is to offer a substantial outline of their language and its grammatical peculiarities.

Within the area considered four dialects occur, viz., two extreme ones, spoken, one at the south-west corner, at Anvik, Koserefsky, on the Shagaluk Slough, and on the Innoko River, the other at the north-east and east end, at Tanana, Rampart, Fort Hamlin, and the Tanana River, and two central ones, which are mainly the subject of this sketch, spoken in the intervening space and joining at Nulato. This locality is, for this very reason, styled in the native traditions: Nił-ro-tena-dadlerün-ten, or "the place where we are tied together," and the term is explained by the natives as an allusion to "the two strings of the language, which are there knotted to each other." They themselves distinguish the two central dialects; the one spoken below Nulato—all bearings and directions are referred to the Yukon River—being termed Yudoo Rokanaga, or the Lower Language, and the one spoken above this point being called Yune'a Rokanaga, or the Upper Language. The lower dialect gradually modifies, as the distance from Nulato increases, and finally degenerates into the uncouth and inarticulate extreme lower dialect spoken at Anvik and Koserefsky. This point is the lower limit of Ten'a speech, the next village, Paimiut, belonging to the Eskimo, whose language has nothing common with the Ten'a. The upper dialect also undergoes alterations at Tanana and other points more remote from the Nulato centre; but these are slight, and almost exclusively limited to differences of pronunciation. Nevertheless, I shall consider this as the extreme upper dialect within the area considered. It is almost superfluous to remark that any one of the four dialects is perfectly understood by those who speak any of the remaining three.

## I.—PHONETICS.

## § 1. On the Alphabet and Sounds.

The alphabet which I shall use agrees, in its main lines, with that of Professor Max Müller, as given on p. 173 of *Notes and Queries* (3rd ed.). I have thought it best, however, to review here all the sounds of the language, as they furnish interesting data for comparison with other connected idioms.

The Ten'a has seven vowel sounds: a, e, é, i, o, u, ŭ. [a, ε, e, i, ɔ, u, ʊ]

a is normally sounded as in *America*; thus: *aba*, sick; *ten'a*, man; a shade of difference is perceptible when it is followed by a consonant in the same syllable, its sound being then shortened and coming near to the French *a* short; thus: *eslan*, I am; *ttar*, sinew.

e is the *e muet* of the French, or a German *ö* very short; it has the sound of e in *supper*, *cripple*. When followed by a consonant in the same syllable its sound is nearly as in *debt*. It has the former sound in *tena*, us, and the latter one in *ten'a*, man or child (as related to parents).

é has the sound of *a* in *date*; thus: *teréla*, thou shalt be.

i has the sound of *ea* in *neat*; thus: *si*, I; *tabit*, net.

o has always its open sound, as in *philology*; it never sounds as in *note*; thus: *ron*, we; *yorron*, you; *rott*, sled.

u as *oo* in *fool*; thus: *uza*, name; *uyo*, ashamed; *kun*, also; *tu*, water.

ŭ as *u* in *full*, and even shorter; thus: *kŭn*, fire, husband; *tŭ*, what?

[a]  
[ə][ε] ?  
[ʌ][e]  
[i][ɔ]  
[u]

[ʊ]

There are only four diphthongs, and in these the two sounds are perceptible though blended together. They are:—

- [a'x] ai as in *aisle*; thus: *sakaih*, boy, boys.  
 [k'e'ix] éi has no English equivalent, but is easily obtained; *kéih*, birch; *keréih*, gunwale.  
 [ʔo'ix] oi as in *boil*; thus: 'oih, snow-shoes; *es'oih*, I go.  
 [k'u'ix] ui as the French *ouil* in *quenouille*; thus: *kuih*, roseberry.  
 There are fifteen consonant sounds, viz., ' , b, d, g, h, k, l, t, m, n, r, s, t, y, and z.

[ʔ] The first, represented by the apostrophe, ' , is a very slight aspirate; it can be imitated by making an almost imperceptible stop where it occurs; thus: *ten'a*, man; *ket'on*, leaf; *es'on*, I eat.

b as in English *bid*; thus: *aba*, sick; *ban*, his mother.

d as in *dock*. The *d* and the first sound of *t*, however, are, as in German, less differentiated from each other than in English or French.

g as in *gate*, *get*; thus: *ega'an*, I act.

[x] h represents the German *ch* soft, as in *sch*; thus: 'oih, snow-shoes.

l as in English; thus: *eslan*, I am; *lo*, hand; *lot*, mouth.

t̄ as in Polish, or ll in Welsh; it is the palatal or lateral *l*, and is one of the most frequent sounds in the language; thus: *tik*, dog; *tēt*, skin, &c.

m as in English; thus: *me*, his; *mēn*, swamp.

[ŋ]-k n as in English; thus: *nen*, thou; *ten*, trail; *eszun*, I am good. Before a *k* it has a shade of nasality; *nenkoka*, the surface of the earth.

r varies from the sound of English *r* in *car*, to that of German *ch* hard as in *Buch*. The latter, somewhat softened, ought to be taken as the normal sound. The lower dialect has a much stronger pronunciation of this sound than the upper one, and the difference is illustrated by the white men's transcriptions of the two names *Nulato* and *Kaltag*. The same suffix *tor*, pronounced in the upper language, in *Nulator*, has lost its final aspirate and become *Nulato*, whilst in *Kaltor*, pronounced in the lower language, it has preserved its guttural aspirate and changed it into a *g*, *Kaltag*.

s as in *sin*; thus: *si*, I; *osu*, agreeably to.

[t̄] t has four sounds: the first as in French, but nearer to a *d*; as *tetan*, he acts; the second accompanied by a slight aspiration, as in English: this occurs mostly after an *s*; *lesto*, I stay; the difference between these two is practically negligible. The third sound is accompanied by a distinct aspiration, as *me-to*, his father; the fourth is the explodent *t* which occurs but seldom; *keto*, feather; *me-ta*, its horns.

[k] k has also several degrees. The first is void of any aspiration, as the *c* in French, *car*, or in Italian, *come*; thus: *negetet*, I fear; *kon*, here. The second has the aspiration which accompanies the English *k* in *kite*; thus: *negetet*, I am stretched; *kon*, abdomen. The third has a stronger aspiration, and we would naturally write it as *kh*; thus: *ka*, foot. The fourth is the explodent, which occurs in very few words; thus: *kéih*, birch; *kas*, alder. The fifth is an undifferentiated sound, intermediate between *k* and *r* (German *ch* hard); thus: *nakatla*, fox; *atokot*, now. The first, fourth, and fifth sounds are of rare occurrence.

y has its consonant sound; *yō*, louse, lice; *yō*, sky.

z as in *zeal*; *uza*, name; *yoza*, small.

In groups of consonants each preserves its peculiar value. The most common combinations are: *ts*, *dz*, *t̄t*, *dl*.

In addition to the above sounds, the extreme dialects, both upper and lower, present the sound *tch*, or that of English *ch* in *church*. It occurs where the central dialects have a *k* or *g*. Thus: *tchun* for *kun*, also; *tchor* for *kor*, big.

Moreover, the extreme lower dialect replaces:—

t̄ by the English *th* (as in *think*); *édhaththon*, for *ulat̄t̄ton*, he hears.

l by *dh* or English *th* (as in *this*); *édhaththon*, for *ulatttton*, he hears; *dhesto*, for *lesto*, I stay; *rono-yini-kesedhet* for *rono-yini-keselet*, I suffer.

z by *zh* or French *j* (as *s* in *pleasure*); *éjé* for *uza*, name.

n by *ñ* as *te ñeta* for *te neta*, he is.

b by *v* as *ve-to*, his father, for *me-to*.

u by *é* as *éjé* for *uza*, name; *ñején* for *nezun*, he is good. The two sounds *f* and *r* (rolling or liquid) seem to be altogether foreign to the language, and ordinary natives cannot pronounce them. They say, *ko'ih* for *coffee*; *Alusen* for *Russian*; *labbits* for *rabbits*, &c. The sounds *sh, j, &c.*, as in *sharp, John*, are unpronounceable to uneducated natives of the central dialects; they will pronounce *salp, tson, &c.*

### § 2. Laws of Euphony.

The phenomena described under this heading are apparently traceable to no other cause than the requirements of the Ten'a ear.

*Surds and Sonants.*—The following sounds are related to each other as surd to sonant; *h* to *y*; *k* to *g*; *t* to *l*; *r* to its softer sound *r* (no difference in the writing); *s* to *z*, and *t* to *d*; consequently also *ts* to *dz* and *tt* to *dl*. The softer or unaspirated sounds of *k* and *t* also act as sonants to the hard or aspirated ones. [x] → [ç]

Initial and final consonants are generally surd; when they are juxtaposed to a vowel, either added to the word or belonging to another which is uttered continuously with it (such as the possessive pronoun), they are changed to the corresponding sonants. This change is not always so great as to require an alteration in the spelling. The alteration is generally needed to ensure correctness of pronunciation, with *t, s, t,* and *ts*; it may be conveniently omitted with *h, k, r,* and *tt*. Thus we say:—

*tét*, skin, belt; *se tél*, my skin; *se lela*, my belt.

*ttabas*, semi-circular knife; *se ttabaza*, my knife.

*ranit*, for the purpose of; *rott ranide*, a thing for a sled.

*tebets*, it is broad; *itebedza*, it is not broad.

*taras'ot*, I shall go; *taras'ol é?* shall I go? *tarasol a?* may I go?

*rott*, sled; *so rotta*, my sled.

*tté*, head; *se tté*, my head.

*Glides.*—The sounds *i* and *t* are used as glides.

The *i* is used (1) between a vowel and the *h*. This *i* is always written, in our actual orthography, and most of our so-called diphthongs are reducible to the *i* glide; (2) between *é* and *t*, as in *kétoké*, one thing, pronounced *kéitoké*. This glide is very short, and omitted in the writing.

The *t* is used (1) between *s* and *l* or *t*, as in *eslan*, I am, pronounced *estlan*; *so'ostt*, we (two) shall go. This glide is not written in the first person singular of verbs, as *eslan*, because its insertion would mislead to a false notion of the root; it is written in all other cases; (2) between two *l*'s, when nothing else separates them, as *tallta*, he has begun to be. This glide is always written.

*Assimilation.*—A vowel is likened in pronunciation to the one that follows it; thus before the word *ot*, wife, the possessive pronoun *se* becomes *sō*, and we say *so-ōt*, my wife. This is called assimilation. Only the short vowels *ā, ē, ō* are thus assimilated to a following one, not, however, to *é* or *i*. The assimilation takes place also when the two vowels are separated by *'*, *h*, or *t*. Thus:—

*nū ūsa*, thy name, for *ne uza*.

*tso'on*, we eat, for *tse'on*.

*nūkhūdzā*, he is small, for *nēkhūdzā*.

*rorotsét*, they tell a lie, for *rarotsét*.

There are also instances of reversed assimilation by which the following vowel is likened to the preceding. This happens mostly in the suffixes *a* and *en*.

*Transfer and Transposition.*—The exchange of places between two consecutive syllables constitutes what I call transfer; between two consecutive letters or sounds it is the transposition.

The transfer happens when the liquid syllables *le* or *ne* occur before the syllable *te*; this is then transferred before the liquid syllable, and a long *i* is prefixed. Thus the verb *lettra*, I kill, would have for its future, *letarattrat*, but this becomes *itelarattrat*; *nestaih*, I go to bed; future, *itenarastat*, instead of *netarastat*.

In these forms, *ite* may be, at option, syncopated into *i*; *ilarattrat*, *inarastat*; exactly as in Latin *amarunt*, *amasse*m, for *amaverunt*, *amavissem*.

The transposition occurs between *r* and a following vowel if this is short. Thus: *taräge'ik*, I shall act, is pronounced *täarge'ik*, &c. To preserve the words in a recognisable shape I have kept the regular orthography of these words, it being easy to remember how they should be pronounced. In the preposition *rö*, however, as this inconvenience did not occur, the spelling has been changed to *ör* whenever the transposition occurred.

*Syncope, Condensation, and Contraction.*—The syncope has been described. It is altogether at the speaker's option. By condensation and contraction I designate similar phenomena; in the condensation the result of the fusion of sounds is a consonant, in the contraction it is a vowel.

Condensation occurs in the groupings *tset* and *tsed*, reducing them respectively to *s* and *z*. Thus: *tsetat'tan*, we sent, becomes *satttan*; *a tsedalenik*, we touched, becomes *a zalenik*, &c. Condensation is not altogether optional. The best usage (1) requires it to be made before a long vowel; (2) leaves it at the speaker's option before an *i*; (3) rejects it before a short vowel, especially if followed by another short syllable.

Contraction occurs mostly in verbs, and should be studied directly on the verb forms. It is never optional, but absolutely required by grammar. The most frequent occurrences are:—

<i>ane</i> ,	contracted to <i>é</i> or <i>éi</i> ,	as <i>rélat</i> (for <i>ranelat</i> ),	<i>reilan</i> (for <i>ranelan</i> ).
<i>ene</i> ,	„ „ <i>i</i>	„ <i>tsilan</i> (for <i>tsenelan</i> ).	
<i>one</i> ,	„ „ <i>u</i>	„ <i>rulan</i> (for <i>ronelan</i> ).	
<i>une</i> ,	„ „ <i>u</i>	„ <i>ruyo</i> (for <i>runeyo</i> ).	
<i>ai</i> ,	„ „ <i>é</i>	„ <i>rénla</i> (for <i>rainla</i> ).	
<i>oi</i> ,	„ „ <i>u</i>	„ <i>runtan</i> (for <i>rointan</i> ).	
<i>ui</i> ,	„ „ <i>u</i>	„ <i>untya</i> (for <i>uintya</i> ).	
<i>ärä</i> ,	„ „ <i>ö</i>	„ <i>töla</i> (for <i>tarala</i> ).	
<i>ürü</i> ,	„ „ <i>ü</i>	„ <i>nüyat</i> (for <i>nuruyat</i> ).	
<i>rü</i> , <i>rää</i> ,	„ „ <i>o</i>	„ <i>orlat</i> (for <i>raorlat</i> or <i>rorlat</i> ).	
<i>ruu</i> ,	„ „ <i>ü</i>	„ <i>urla</i> (for <i>rurla</i> ).	

### § 3. Prosody and Accent.

Ten'a vowels have a distinctly marked quantity, being long or short, with the exception of the *i*, which is, practically, always long. A long vowel is given, in the utterance, fully twice as much time as a short one.

There is, besides, a distinct accent, marked, as in English, by a peculiar stress on the accented syllable.

Moreover, the Ten'a also use the drawl, which consists in protracting unusually the sound of a vowel, at the same time raising the voice to a somewhat higher pitch. The drawl is emphatic and has the force of expression of a superlative. Thus: *nillot*, it is far, with a drawl on the *o*, means, it is very far. A drawled *a* is transformed into *é*; thus: *nedan*, no, when drawled becomes *nedén*; *ten'a rulan*, there are people, becomes *ten'a rulén*, there are many people. The drawl never falls on an unaccented syllable, and may be considered as an exaggerated accent.

Children are wont to make much use of the drawl, but this, in grown-up people is ridiculed as childish by all careful speakers.

All the roots are accented, and as these form the last syllable in verbs, it follows that all Ten'a verbs have an accent on the last syllable. The only exception to this rule being in the case of a dissyllabic root accented on its first syllable, as in *tso-esttáka*, I am bad; here the root is *tłáka*, and its accent is on the penult. Dissyllabic and polysyllabic roots have generally but one accent, and its place must be learnt for each individual case.

Besides the root-accent, Ten'a words of some length (and these are common enough) have one or more extra accents on their long syllables. Thus *řádđlětlě*, they stay, has the root-accent on *tlě*, the secondary one on *dā*. Note: The hyphen is used in this paper as an orthographic sign, to join parts of words which are accidentally, but not essentially, connected, such as prefixes and their verbs, &c.

## II.—GRAMMATICAL GENERALITIES.

Numbers and genders, or gender-like distinctions, exist in Ten'a, but their manifestations and effects on words are altogether different from what they are in our languages. As the verb is the main element of the Ten'a speech, it is in the verb that most indications relative to these accidents may be found.

*Numbers.*—The Ten'a has three numbers: singular, plural, and multiple, referring to one, several, or many. The dual is found exclusively in one verb, *es'oih*, I go, and its derivatives. In *ranes'aih*, I speak, the common plural has often the force of a dual, and the multiple is used for the common plural. But these are isolated cases.

*Genders.*—Although based on different considerations the Ten'a genders are grammatically of the same nature as ours. They are two: abstract and concrete. The abstract gender comprises all abstract terms and those expressing time or space, such as good, evil, life, death, day, night, year, house, eddy, &c. A few terms belong to the abstract gender, which we would have expected to find among the concrete ones, but the reason of the fact is always easily found. Thus: the mouth, *lō*, *lōt*, is abstract, because it is a cavity; so also is the abdomen, *kōn*; and again the eye, *nekot*, when considered as a cavity; but when considered as the organ filling this cavity, the eye, *nōra*, is of the concrete gender.

The concrete gender, designating all objects not comprised in the abstract, is subdivided into two sub-genders: the personal, comprising all the personal or rational beings, and the impersonal, including all the irrational ones. The devils are also relegated to the impersonal sub-gender categories. Two verbs, having innumerable derivatives, denote by their very form peculiar features of their object. These features, evidently salient to the Ten'a mind, distinguish those objects in twelve kinds or groups which have been called categories. They are: (i) plurals; (ii) innumerable or multitudinous; (iii) deteriorated; (iv) living; (v) common; (vi) hard; (vii) sheathed; (viii), dished; (ix) powdered; (x) folding; (xi) eatables; (xii) burning.

*Qualities.*—Some qualities of the object also influence the verb, especially length shape, &c.

*Parts of Speech.*—In an agglutinative language the parts of speech are not the words, as such, but the roots. Ten'a roots may be divided into two classes:—

I. Those that are used in their unagglutinated forms, and constitute words by themselves; these are: root-nouns, root-adjectives, article, pronouns, and particles. The root-nouns are so called to distinguish them from suffix-nouns, or nouns formed by the regular process of suffixation. Root-adjectives are very few, the adjectives being commonly verbs. Particles comprise our adverbs, prepositions, conjunctions, and interjections.

II. Those that are used only in the agglutinated condition, *i.e.*, combined with others: they are—emphasisers, verb-roots, prefixes, and suffixes.

To follow a convenient order we shall study them as follows in a subsequent paper:—(1) emphasisers; (2) root-nouns; (3) root-adjectives; (4) article; (5) pronouns; (6) verb-roots and verbs, including the adjectives; (7) prefixes; (8) suffixes and suffix-nouns, including numerals; (9) particles.

J. JETTÉ.

## England: Archæology.

St. George Gray.

## An Arrowhead of Rare Type from Banwell Camp, Somerset.

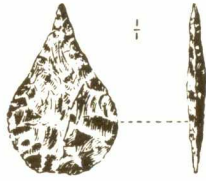
37

By H. St. George Gray.

In MAN, 1906, 96, a very thin flint arrowhead from Cannington Park Camp, near Bridgwater, was figured and described. Attention was drawn, not only to its remarkable thinness and slight weight, but also to its unusual outline, the upper portion of the blade being incurved, giving an ogee outline to the cutting edges of the implement.

Since recording the Cannington arrowhead another example of this type, also found in Somerset, has become known to me. The accompanying illustration represents, full size, a flint arrowhead picked up on the surface of Banwell Camp, by Miss Hilda Pritchard, daughter of Mr. J. E. Pritchard, F.S.A., of Bristol. Other arrowheads of flint found by Mr. Pritchard at the same camp were recently presented by him to Taunton Castle Museum, but the little implement

here figured is still in his private collection. The following are its dimensions:—Length, 22·5 mm. (a little over  $\frac{7}{8}$  inch); width, 15·5 mm. ( $\frac{5}{8}$  inch); maximum thickness, 2·8 mm.; weight, 16 $\frac{3}{4}$  grains. It is finely chipped on both faces and in general outline resembles the Cannington arrowhead, except that the incurving of the edges between the place of greatest width and the point is hardly so pronounced.



No arrowhead of this type is illustrated in Mr. J. R. Mortimer's great work on the burial mounds of East Yorkshire, but in Jewitt's *Grave Mounds*, p. 119, Fig. 159, a similar arrowhead (length, 1 $\frac{1}{2}$  inch) is figured—an arrowhead more closely resembling the Cannington specimen; it was found at Ringham-Low, Derbyshire.

Banwell Camp is a large oval earthwork about 500 yards long by 270 yards wide, covering some 20 acres and situated at the east end of Banwell Hill. In nearly every heap of earth thrown up from rabbit-holes one finds a flint flake or two and sometimes thick, coarse, British pottery. The nearest point at which flints are found *in situ* is near Maiden Bradley. The ancient trackway which ran along the top of the Mendip Hills from Uphill to Old Sarum passes about 300 yards to the south of Banwell Camp and through Maiden Bradley. H. ST. GEORGE GRAY.

## REVIEWS.

## Malay.

Skeat: Blagden.

*Pagan Races of the Malay Peninsula.* By Walter William Skeat, M.A., and Charles Otto Blagden, M.A. London: Macmillan, 1906. Two volumes. Pp. xl + 724; x + 855. 23 x 15 cm. Price 42s.

The scope of this work which, excluding a comparative vocabulary of about 150 pages, runs to about 1,200 pages, is defined in the preface, where it is stated to be "essentially a compilation from many sources," though differing from most books of that kind, "first, in being based to a very large extent on materials hitherto unpublished, and accessible only through private channels of information, and secondly in having "been constructed with special knowledge of the subject and in a critical spirit," but it soon becomes evident that the authors in describing their work as essentially a

§ 1. *The Emphasizer a.*

The *a* is not remarkably emphatic, but rather calls the hearer's attention to the fact that the word which it affects occurs in the sentence in some peculiar connection. It is added to nouns, verbs, and some particles (adverbs and prepositions). When agglutinated after a consonant it generally softens its sound from surd to sonant, as already described (MAN, 1907, 36, p. 53): when after a vowel it is assimilated to it, presenting the phenomenon of reversed assimilation (*ibid.*). Thus:—

<i>rott</i> , sled	- -	<i>rotta</i>	<i>midō</i> , canoe	- -	<i>mido'o</i>
<i>taak</i> , shirt	- -	<i>taaga</i>	<i>sasi</i> , watch, clock	-	<i>sasii</i>
<i>dtet</i> , mountain	-	<i>dtela</i>	<i>tu</i> , water	- -	<i>tuu</i>

The *a* is used after nouns—(1) in the vocative or address form, as: *sakāiha*, boys, fellows, from *sakaih*; *itaa*, papa: *inaa*, mamma; *kanaa*, friend (upper dialect), from *kana*; *dzīna*, friend (lower dialect), from *dzīn*. Proper names, even of foreign origin, receive it as well as others, and the persons called, *e.g.*, Telodzoib, Alexis, Mary Jane, will be addressed as: *Telodzōiha*, *Alexīa*, *Mary Jane-a*. This use of *a* with the vocatives is quite general, but is by no means obligatory. It can be compared to our use of the interjection *O* for the same purpose. The emphatic vocative in *a* should always be used when necessary to remove doubt or ambiguity; in other cases, at the option of the speaker. (2) To denote possession or dependence. In this case the *a* does not, as the English 's, affect the name of the possessor, but that of the thing possessed; and, consequently, it occurs even when the possessor's name is represented by a pronoun. Thus: *Paul rotta*, Paul's sled; *se taaga*, my shirt; *Kayar rodtela*, the Kayar mountains; *ne midoo*, your canoe; *sa kana ke sasii*, my friend's watch; *Yukon roke tuu*, the water of the Yukon. It can be added to foreign words as well, and I have heard: *se ke mink-skina*, my mink-skin.

Exceptions to this rule are: (1) Abstract nouns, which never take the *a*; *Paul yar*, Paul's house; *sa kayar*, my village, my native place; *sa kana tal'onkat*, my friend's fish-trap, &c. (2) Nouns representing parts of the body or persons of kin, because they denote a relation much closer than mere possession, which is always implied in their meaning, and consequently no special form is required to mark this relation. With these the *a* is unnecessary, but it is left at the speaker's option to use it for the sake of euphony. Thus we say regularly: *so-kūn*, my husband; *so'ot*, my wife; *ne-to*, your father; *nōn*, your mother; *me-ttē*, his head; *mo-kūt*, his neck; &c. But we say, indifferently: *so-kōn* or *so-kōna*, my arm; *se-tten* or *se-tena*, my leg; *ne dzay* or *ne-dzaya*, your heart; *nu-ūr* or *nu-ūra*, your elder brother; &c. The *a* is much more strictly needed in the case of possessed nouns than with mere terms of address; and its omission with the former would generally render the sentence unintelligible.

The *a* is used after verbs, in all the negative forms; and then, in the upper dialects, it is pronounced with a slight drawl. As in *ke'son*, I eat; *keles'ona*, I do not eat; *lesdo*, I stay; *esdoa*, I do not stay; *nett'an*, I see; *nett'āna*, I do not see; *taras'ot*, I shall go; *telaras'ola*, I shall not go; &c. In current conversation, however, when the verb contains other marks of negation, the *a* may be omitted, as: *te yar idoa*, or *te yar idō*, he is not at home; *too sudelinia*, or *too sudelinī*, you do not believe me, &c. A few verbs, generally transformed negatives which have acquired an affirmative meaning, present the *a* even in the affirmative, as: *a-so-dega'ana*, I despise, whose original meaning was, I do not care about; with these some speakers use a second *a* in the negative: *a-so-dega'anaa*, whilst others make the negative as the affirmative.

The *a* is used after some adverbs and other particles, when these are taken absolutely, without further specification. Thus: *yunotsēna*, *yunāna*, on the other side of the river, of the sea. But if any further specification is made, besides that expressed by the adverb, the *a* is omitted: *yunōtsēn se yar*, my house across the river;

*yunān na kayar*, your native place beyond the sea. In particles ending with a vowel, the *a* is generally replaced by *t*: *yunīt*, up the river; *yunī se yar*, my house up the river; *yudōt*, down the river; *yudō Kaltag*, down the river at Kaltag. As the particles ending in *tšen* may drop the final *n*, they are capable of the same modification, and we have *yunōtsēt*, on the other side of the river, perfectly equivalent to *yunōtsēna*; *se tootsēt* or *se tootsēna*, behind me, &c.

In other cases the use of emphatic *a* with a particle seems to be almost exclusively a matter of euphony.

In the lower dialect the noun-forming suffix, *é*, is often replaced by *a*; and there exists a special interrogative particle *a* or *'a*. Neither of these should be mistaken for the emphazier *a*.

### § 2. The Emphasizer *yū*.

The *yu* is properly emphatic, although, as will soon be explained, it is also used as a pluralizer. When used as emphazier it implies that much stress is laid on the word which it affects, and about corresponds to expressions like "indeed," "to be sure," "undoubtedly," &c. Thus: *si-yu*, I indeed; *nezun-yu*, assuredly it is good; *narat'anyu*, most certainly I saw it.

In the negative obligative of verbs, a tense used as prohibitive, the *yu* occurs together with the *a*, which it follows. The strong accent on the *yu* then absorbs altogether the slight one which accompanies the *a*, and it requires a practised ear to detect even the presence of the *a*. Thus: *kenūrū'ihāyū*, *rurūtsē'tāyū*, do not steal, do not lie, are commonly heard as: *kenuruihyu*, *rurutsétyu*. The *a* is so slight in these forms that even the softening of the preceding consonant is omitted, and we say *rurutsétayu*, where we ought to have: *rurutsédayu*. The more correct speakers, however, soften the consonant when they pronounce slowly. But if the *a* which precedes the *yu* has been previously assimilated to a foregoing vowel, it preserves its distinct individual utterance, though very short: *yet ne-rūyōōyū*, do not go there.

In the extreme upper dialect the negative of the obligative does not receive the emphazier *yu*, but takes instead of it the adverb *suu*.

### § 3. The Emphasizer *rū*.

The *rū* is properly a suffix denoting time or place, which accidentally serves the purpose of an emphazier after a verb. When it occurs pleonastically, not being called for by the grammatical requirements of the sentence, it serves only to accentuate the word to which it is connected, and cannot be analysed but as an emphasis word. *E.g.*, in constructions like these: *Dzanyit rulan ru*, it being Sunday, to mean: "because it is Sunday," or "though it is Sunday"; *keintanru*, you having some, *i.e.*, although you have some (of the things you refuse to give me), &c.

In the lower dialect the suffix *tšen* is often used in the same way.

The emphaziers, although their vowel is short, are always accented, the accent being accompanied by a slight elevation in the voice. The *yu* is much more strongly accented than either of the other two.

J. JETTÉ.

### England: Archæology.

Bullen.

**Polished Stone Implements from Harlyn Bay.** *By the Rev. R. Ashington Bullen, F.L.S.* **38**

On December 17th, 1907, I exhibited at the Institute two specimens about the finding of which there can be no mistake. Colonel Bellers bought the site of the Prehistoric (late Celtic) burial ground from Mr. Mallett in 1906. Colonel Bellers' sister-in-law was searching in the bank at the west side on July 14th, 1906, and (though ignorant of the importance of her find) dug out, at a depth of about 15 feet from the top of the section, close to the site of the slate-built wall where the flattened skeletons (probably a foundation sacrifice) were found in 1900, a polished slate needle



Tène III and very like a bronze specimen from Aylesford. The bronze fibula is of rather later type, the end of the bow is flattened to cover the spiral spring, and the spring is a separate piece of metal; the pin was of iron and worked on a sort of hinge on the small bar of iron on which the spring is coiled.

Both these fibulae, in Mr. Smith's opinion, belong to the century from 50 B.C. to 50 A.D., and thus agree perfectly with the evidence of date afforded by the pottery. Speaking generally of the pottery sent to him, Mr. Smith remarks, "So far as I can judge it all dates from the early years of our era. The purely British type of pottery is well represented," Nos. 24 (Fig. 2) and 26 (Fig. 5) being very characteristic late Celtic. In the face of this evidence it would seem that there need be little hesitation in assigning as the date of the formation of the rubbish heap the early years of the first century A.D. The early date of the Arretine ware makes it scarcely probable that the accumulation went on after the Roman conquest. The near neighbourhood of the dwelling to the big camp of Martinsell makes one wonder if there was any connection between these two events, the abandonment of the dwelling site and the occupation of the country by the Romans. It would certainly be very interesting to know to what period the camp belongs.

Among the other objects found were two iron sickle-shaped keys, a sling stone of baked clay, an iron bridle bit, a pair of bronze tweezers, the handle of a weaving comb, a bone gouge, several worked bones, eight pottery spindle whorls, six discs or roundels of pottery, fragments of worn quern stones, pieces of brick and iron slag.\*

M. E. CUNNINGTON.

### America, North-West.

On the Language of the Ten'a (iii). (Continued from MAN, 1908, 37.)

By the Rev. J. Jetté, S.J.

Jetté.

12

#### IV.—ROOT-NOUNS.

The term root-nouns, in its strictest sense, applies to those nouns that are primitive roots, not reducible to simpler elements. These are short, monosyllabic or dissyllabic, exceptionally trisyllabic. Such are many words designating:—

(1) Parts of the body as : *té*, head ; *küt*, neck ; *nōra*, *nekō*, *nehōt*, eyes ; *lō*, *lōt*, mouth ; *lō*, hand ; *kā*, foot, feet ; *tēn*, bone, leg ; *dzāy*, heart ; *tūra*, hair ; *sēk*, body ; &c.

(2) Persons of kin : *tō*, father ; *ōn*, mother ; *ten'a*, child ; *kūn*, husband ; *'ot*, wife ; *ūra*, elder brother ; *kētā*, younger brother ; *ōda*, elder sister ; *tādza*, younger sister ; *tōya*, uncle (on the father's side) ; *l'a*, uncle (on the mother's side) ; &c.

(3) Plants and animals : *kéh*, birch ; *tsēbā*, spruce ; *ttōt*, moss ; *sēs*, black bear ; *yēs*, wolf ; *noy'a*, beaver ; *tūka*, fish ; *kāt*, king salmon ; &c.

(4) Various objects, natural or manufactured : *dteť*, mountain ; *tīh*, hill ; *tīh*, strength ; *kūn*, fire ; *tū*, water ; *kōn*, rain ; *sō*, sun ; *oih*, snow-shoes ; *rott*, sled ; *kō*, bow, arrow ; *tsei*, *tsih*, canoe, boat ; &c.

In a broader sense we shall take the term root-nouns to include also nouns formed from those of the preceding class, when these, being combined into one word, form a term accepted in the language, as : *kūtken*, base of the neck ; *tēken*, occiput ; *kattora*, sole of the foot ; *ménkhāt*, lake ; *tēkat*, grave ; &c. These can be resolved into simpler elements, each of which is a root significant by itself.

We shall also consider as root-nouns the words of foreign origin, mostly borrowed from the Russian, imported to designate things unknown to the Ten'a before their contact with the whites, as : *toyon*, rich man, chief, influential person ; *tsay*, tea ; *muké*, flour ; *sasi*, watch, clock ; *kalendas*, pencil ; *dinka*, silver, money ; *zolda*, gold ; *loset*, horse, horses ; &c.

\* A fuller account of the "find" at Oare will be published in the magazine of the Wilts Archaeological and Natural History Society.

If the Ten'a vocabulary had no other nouns than those already described, the common surmise of superficial observers that it is rather meagre would be fully justified. But it also comprises a variety of suffix-nouns, formed by a regular process from other words. The abundance of terms thus obtained and in common use among the Ten'a often puzzles the learner. After having mastered the genuine rendering of some common word, he finds himself at a loss when he hears the same expressed in a number of different ways, the possibility of which had never occurred to him. Thus, to take a common instance, "my wife" is exactly rendered by *so-'ot*. But a Ten'a will very often replace the proper word by some equivalent phrase, such as: *mor lesdonen*, the one with whom I cohabit; *ma kā testanen*, the one whom I love; *sa kā tenetanen*, the one who loves me; *se tlo réyonen*, the one who gave herself to me; *se tlo tseréttanen*, *se tlo raletanen*, the one who was given to me in marriage; *ulesniken*, the one whom I have taken; &c. All these are suffix-nouns, which may be used in place of the proper designation. They are equivalent, as may be seen, to relative clauses; and the suffix-nouns are in reality the only rendering which the language supplies for our relative clauses.

The suffix-nouns will be fully treated in a subsequent paper. Only a summary account, which will be found necessary to understand the present matter, is here supplied.

The suffix *é* (after a long vowel, *yé*) denotes things, and impersonal beings of the concrete gender: *aba-ranīdé*, thing for disease, *i.e.*, medicine; *ma ka testāyé*, the thing or things which I want; *ma kā te-tarastǎ'é*, the thing or things which I shall want. When the noun is very commonly used this *é* is generally changed to *a*: *to-ledōya*, black grouse (literally rooster, thing that roosts).

The suffix *ěn* denotes one person. After a long vowel *n* is inserted between the vowel and the suffix: after a short vowel there is reversed assimilation of the *e* to the preceding vowel: *yuttiten* (from *yuttit*, riverward), the first wife in the bigamous Ten'a household; *yunekōten* (from *yunekot*, landward), the second wife, so-called from their respective places in the house; *mor lesdōnen* (from *lesdō*), my wife, the one with whom I cohabit; *mor rasdōon* (from *rasdō*), my former or late wife, the one with whom I cohabited; *ro-tledōnen*, a married man, one who cohabits.

The suffix *na* denotes two or more persons: *ro-tledona*, married men (several); *ro-dadlettēna*, married men (many).

Suffix-nouns in *en* and *na* represent personal beings of the concrete gender.

The suffix *těn* (often shortened to *tě*, in which the *ě* assimilates when in position to do so) denotes the time when or the place where: *lestanten*, the place where I lie down, my bed; *nalestanten*, the time when or the place where I lie down.

The suffix *tor* denotes the times when or the places where: *lestantor*, when I am in bed; *nestaih tor*, when I go to bed. It is not properly a noun-forming suffix.

The suffix *tsěn* (often shortened to *tsě*, in which the *ě* assimilates) denotes the manner in which, the being so: *tsorōnōtsen* (from *tsorōnō*, we live) our life, our living; *kor tsūtsěntsěn* (from *kor tsitsen*, we are miserly), avarice; *ruzuntsen*, good, goodness; *tso-ruttakatsen*, evil; &c.

Nouns in *těn* and *tsěn* belong to the abstract gender.

Suffix-nouns are capable of all the constructions of root-nouns, and there is no difference between the two classes with regard to grammatical functions.

#### *Number Differentiation in Nouns.*

The greater majority of Ten'a nouns are not differentiated for number, and have the same form whether they represent a singular or a plural object. There are, however, several exceptions to this rule.

1. Suffix-nouns of the personal sub-gender normally admit number differentiation,

owing to the fact that the suffixes used in their formation are so differentiated, *en* representing singulars, and *na* plurals. Thus: *kūkāten*, trader; *kūkātna*, traders; *ketleten*, steersman; *ketletna*, steersmen.

2. Suffix-nouns of the abstract gender designating time or place are capable of the same distinction, owing to the difference in meaning between the suffixes *těn* and *tor*, *těn* being used for one time or place, *tor* for several. Thus: *yudoo ko-nest'oihten*, at the time that I walk (or walked) down; *yudoo ko-nest'oih tor*, during my walks down.

3. Some root-nouns representing persons can be pluralized. The pluralizers used are *kā*, and the emphazier *yū*.

The *kā* is a genuine pluralizer, serving no other purpose. It is used mainly with names of kindred. Thus: *ten'a*, child; *ten'aka*, children (as related to parents); *kōya*, grandchild; *kōyaka*, grandchildren (as related to grandparents); 'ot, wife; 'oka, wives; *kūn*, husband; *kūnka*, husbands; *kett'a*, younger brother; *kettaka*, younger brothers; *ōza*, nephew; *ōzaka* (in lower dialect), nephews (children of sister); *te'naka*, parents (used only in the plural).

The *ka* is used with: *kēla*, young man; *kēlaka* or *kēlka*, young men; *Blikana*, American; *Blikanska*, Americans.

The emphazier *yu* is used as a pluraliser with nouns that do not admit the *ka*; as: *ten'a*, man, human being; *ten'ayu*, men; *ūra*, elder brother; *ūrayu*, elder brothers; *ōda*, elder sister; *ōdayu*, elder sisters; *tādza*, younger sister; *tādzayu*, younger sisters; *l'a*, uncle (mother's brother); *l'ayu*, uncles; *tōya*, uncle (father's brother); *tōyayu*, uncles; &c. The word *yenayu*, meaning the relatives taken collectively, is used only in the plural. The words *rotana*, inhabitant, and *neñhoroten'a*, people, are used indifferently for singular and plural; when representing a plural, however, they may, at the speaker's option, take the *yu*: *rotanayu*, *nenkoroten'ayu*.

4. Foreign words designating persons also admit of a plural in *yu*, as: *kesak*, white man; *kesakyu* or *kesakayu*, white men; *mainel*, miner; *mainelyu*, miners; *toyon*, chief; *toyonyu*, chiefs; *sistel*, sister, nun; *sistelyu*, nuns; *Alusen*, Russian; *Alusenyu*, Russians.

5. The noun *kēla*, young man, besides the *ka*, can also take the *yu*: *kēlka* or *kēlkayu*, young men.

6. Two nouns have, apparently, an irregular plural; but they are evidently suffix-nouns, slightly altered. They are: *sōltān*, woman; *sōltānā*, women; *tenagt'on*, girl; *tenagottatna*, girls.

7. Of all impersonal beings, dogs are the only ones that enjoy the plural mark *ka*: *tīk*, dog; *tika* or *tēka*, dogs (for *likka*); *tikōza*, pup; *tikōzaka*, pups.

Apart from these exceptional cases the number of a noun is not expressed by a modification of the noun itself, but by a modification of the verb to which this noun stands as subject or object. When the noun stands as subject to a verb we have the usual method of using the singular or plural persons of the verb, but even this has its limitations, and cannot be practised as extensively in Ten'a as in other languages. For the only subjects that can be constructed with the plural persons of a verb are those of the personal sub-gender. Whenever an impersonal or an abstract noun is the subject, the verb has to be in the third person of the singular, as in the well-known Greek instance: *τα ζωα τρεχει*. We cannot, *e.g.*, say: "the trees are big," but we must say: "the trees is big," and as we have no difference between "tree" and "trees" we must resort to some other means to make the plural known. The Ten'a process consists in an alteration of the verb root, which is done in two ways:—

1. An altogether different root is used. Thus: *lesdo*, I stay; *dadletté*, many stay; the roots *do* and *té* express the same idea, viz., "to stay," but one conveys the notion of singularity or non-plurality, the other that of plurality or even multiplicity. Similarly: *lestan*, I lie down; *ledzēt*, many lie down; *ko nest'oih*, I walk about;

*ko-idedat*, many walk about. The difference in roots is also used to distinguish between singular and plural objects, as in: *ettkūt*, I take (one); *ettzuih*, I take (many or several); *ettsi*, I make (one); *esrōih*, I make (several, many); *tlo es'oih*, I give (one); *tlo esla*, I give (several, many); &c.

2. The same root is preserved, but is slightly altered to what will be described later as the *Multiple* form: with this a special *ye, ne, or yen*, called *multiplier*, is added to the verb. Thus: *ettbāts*, I boil (one); *ye-ettbās*, I boil (many); *eslan*, I am; *ye-dilaih*, many are.

Besides these two fundamental processes, other alterations are used to the same effect, viz.: (1) The multipliers, especially *ne*, are used without change in the root: *tseba ro-ni deré'o*, a spruce-tree stands; *tseba ro-ni ne-dale'o*, spruce-trees stand; *ko-nesenih*, I work; *ko tsidenih*, we work; *ko ne-tsidenih*, we (many) work. (2) The drawl is used on the root-syllable of the verb: *kelet uderékāt*, he bought a skin, or a few skins; *kelet uderékēt*, he bought many skins. (3) The multiplicity or quantity may be denoted by an adjective qualifying the noun: *ranoya lōne narat'an*, I saw many deer; *dinka nekore atan*, he has much money (lit. big money); &c. This last process, however, is seldom used except where no one of the foregoing is available.

As the Ten'a noun, separated from the suffix, does not express the accident of number, when it is used without specification it is always taken to represent the object signified as it naturally is (singular if it generally is so, plural if it is generally more than one). Hence it follows that nouns signifying objects which naturally are in pairs, as eyes, hands, shoes, snow-shoes, &c., unless otherwise specified, are taken to mean the pair, not one only. These nouns, therefore, are naturally plural; and when only one of the two associated objects is meant the noun has to be singularised, just as other nouns representing singulars have to be pluralised for plurals. The same happens with other nouns representing objects that are generally plural. The object singularised may be one of many or one of two:—

(1) For *one of many* the numeral "one," *kétoke*, is used in the form of a suffix-noun: *nenkoroten'a kétoken*, one of the people; *ranoya kétoke sitto niyo, tse sakaih kétoken yoko talyo*: one of the deer was lost and one of the boys went to look for it.

(2) For *one of two*, or of a pair. To designate one of these, excluding the other, the word *kat*, one-half of, is used: *se nora kat aba nelan*, one of my eyes (lit. one-half of my eyes) is sore: *ne mindaga kat rodé?* where is your other mitten? *mo kōna kat kālā*, he has lost one arm; &c.

The demonstratives *tātsēn* on this side, *yātsēn* on that side, *nitkootsēn* on both sides, are often used to specify one of two or both of two objects.

#### Construction of Nouns.

Ten'a root-nouns are never used in apposition, except, in the upper dialect, the appellation *kana*, friend; *kana Henry*, friend Henry; *sa kana Iluska*, my friend Iluska. In all other cases suffix-nouns must be used. Thus to say: "chief Paul" or "Paul the chief," turn "Paul, he who is chief": *Paul toyon nelanen*.

Suffix-nouns used in apposition must follow the noun which they qualify; except the numerals which may precede, but generally also follow it; e.g., *Paul kūkāten*, Paul, the trader (never *kūkāten Paul*); *nenkoroten'a kétoken* or *kétoken nenkoroten'a*, one man.

Nouns are placed in continuous construction to express some dependence or connection between them. The three ordinary relations thus expressed also require the same construction in English, viz., possession, material, and purpose.

(1) To denote possession, or relations similar to possession, the name of the thing possessed or dependent follows the name of the possessor or independent term, and takes

the emphazier *a*, according to the rules stated in the former part of this paper: *Paul yar*, Paul's house; *itaa rott'a*, my father's sled.

When the second or dependent noun is really possessed as property by the first, it generally takes the possessive article *ke*: *Paul ke teltüdla*, Paul's gun. The same occurs if a very special attribution, though not a real possession, is meant: *tena ke toyona*, our chief.

When the second or dependent noun represents a person of kin it takes the possessive pronoun, even though immediately preceded by its noun: *Paul me-to*, Paul's father, lit. Paul his-father; *su-ura me-ten'a*, my elder brother's child, lit. my elder brother his-child. I have adopted the practice of writing a hyphen between those nouns and the pronoun preceding them, as a warning that the pronoun is not detachable.

When the second or dependent noun represents a part of the body or its whole, the possessive pronoun may be used before it, at the speaker's option: *Paul tté*, or *Paul me tté*, Paul's head. Some speakers extend this practice to many other nouns, but this is ridiculed as childish by the best and most correct critics.

When the first or independent noun represents an abstract thing, the second takes the prefix *ro*: *Yukon rodtela*, the Yukon mountains; *yudoo rokanāga*, the lower dialect, lit. the language of the down-river region. If this second noun has already the possessive article *ke*, the *ro* is prefixed to this: *Nulator roke toyona*, the chief of Nulato.

(2) Nouns are also placed in continuous succession to denote that the second represents a thing made of the material designated by the first. Thus: *teken midōya*, a board canoe; *kéh midōya*, a birch-bark canoe; *tsobé tluť*, an iron tie, i.e., a chain; *kōn tū* rain water; &c.

The words *yar*, *kōnōn*, house, are exceptions to this rule because they designate primarily the space enclosed, not the structure; they are not *of* the material, but *within* it. So we say: *lo'on yi yar*, a stone-house, lit. a house in the stones; *teken yi konon*, a log house, lit. in the logs; &c.

(3) The continuous construction also marks that the second or dependent noun represents an object used for some purpose signified by the first, as: *sān kōnōn*, summer house; *korudenihite yar*, work shop; *nōrōlūn ttok*, goggles, lit. glasses for the blink.

Nouns constructed as objects of verbs or prepositions always precede these.

#### Compound Nouns.

Roots may be associated to form compound nouns. The more common combinations are:—

(1) Juxtaposition of two nouns: *menkāt*, lake, from *mén*, swamp and *kat*, hole; *ttākāt*, fire-place; *ttékāt*, grave, lit. bone-hole; *kaledzuihtla*, toes, lit. foot-fingers.

(2) Association of a noun and preposition: *kūtken*, base of the neck (*kūt*); *kattora*, sole of the foot; *yōbāra*, horizon, lit. edge of the sky; *tobāna*, beach, lit., border of the water; *dzannidzet*, midday; *kettitnidzet*, midnight; *dzāndōtōkōt*, week, i.e., between the days; &c.

(3) Suppression of the variable pronoun-part in verb, thus leaving a word composed of the prefixes and root of the verb, and used as an abstract noun (i.e., representing the abstract idea, but belonging to the concrete gender). Thus, from—

*so-degetsih*, I rejoice; *sōtsih*, joy.

*su-dego'ot*, I play; *su'ot*, play.

*rogenēk*, I tell; *rōnēk*, news, report.

*ko-nesenih*, I work; *koīnih*, work, job.

*yeťkoih*, it dawns; *yekoih*, light.

*mu-utalegeyon*, I am armed; *mu-utayōna*, weapon.

J. JETTÉ.

l by *dh* or English *th* (as in *this*); *édhaththon*, for *ulatttton*, he hears; *dhesto*, for *lesto*. I stay; *rono-yini-kesedhet* for *rono-yini-keselet*, I suffer.

z by *zh* or French *j* (as *s* in *pleasure*); *éjé* for *uza*, name.

n by *ñ* as *te ñeta* for *te neta*, he is.

b by *τ* as *ve-to*, his father, for *me-to*.

u by *é* as *éjé* for *uza*, name; *ñején* for *nezun*, he is good. The two sounds *f* and *r* (rolling or liquid) seem to be altogether foreign to the language, and ordinary natives cannot pronounce them. They say, *ko'ih* for *coffee*; *Alusen* for *Russian*; *labbits* for *rabbits*, &c. The sounds *sh, j, &c.*, as in *sharp, John*, are unpronounceable to uneducated natives of the central dialects; they will pronounce *salp, tson, &c.*

### § 2. Laws of Euphony.

The phenomena described under this heading are apparently traceable to no other cause than the requirements of the Ten'a ear.

*Surds and Sonants.*—The following sounds are related to each other as surd to sonant; *h* to *y*; *k* to *g*; *t* to *l*; *r* to its softer sound *r* (no difference in the writing); *s* to *z*, and *t* to *d*; consequently also *ts* to *dz* and *tš* to *dl*. The softer or unaspirated sounds of *k* and *t* also act as sonants to the hard or aspirated ones. [x] → [g]

Initial and final consonants are generally surd; when they are juxtaposed to a vowel, either added to the word or belonging to another which is uttered continuously with it (such as the possessive pronoun), they are changed to the corresponding sonants. This change is not always so great as to require an alteration in the spelling. The alteration is generally needed to ensure correctness of pronunciation, with *t, s, z, and ts*; it may be conveniently omitted with *h, k, r, and tt*. Thus we say:—

*tēt*, skin, belt; *se tel*, my skin; *se lela*, my belt.

*ttabas*, semi-circular knife; *se ttabaza*, my knife.

*ranit*, for the purpose of; *rott ranide*, a thing for a sled.

*tebets*, it is broad; *itebedza*, it is not broad.

*taras'ot*, I shall go; *taras'ol é?* shall I go? *tarasol a?* may I go?

*rott*, sled; *so ratta*, my sled.

*tté*, head; *se tté*, my head.

*Glides.*—The sounds *i* and *t* are used as glides.

The *i* is used (1) between a vowel and the *h*. This *i* is always written, in our actual orthography, and most of our so-called diphthongs are reducible to the *i* glide; (2) between *é* and *t*, as in *kétoké*, one thing, pronounced *kéitoké*. This glide is very short, and omitted in the writing.

The *t* is used (1) between *s* and *l* or *t*, as in *eslan*, I am, pronounced *estlan*; *so'ostt*, we (two) shall go. This glide is not written in the first person singular of verbs, as *eslan*, because its insertion would mislead to a false notion of the root; it is written in all other cases; (2) between two *l*'s, when nothing else separates them, as *taltla*, he has begun to be. This glide is always written.

*Assimilation.*—A vowel is likened in pronunciation to the one that follows it; thus before the word *ot*, wife, the possessive pronoun *se* becomes *sō*, and we say *so-ōt*, my wife. This is called assimilation. Only the short vowels *ā, ē, ō*, are thus assimilated to a following one, not, however, to *é* or *i*. The assimilation takes place also when the two vowels are separated by *'*, *k*, or *h*. Thus:—

*nū ūsa*, thy name, for *ne uza*.

*tso'on*, we eat, for *tse'on*.

*nūkhūdzā*, he is small, for *nēkhūdzā*.

*rorotsét*, they tell a lie, for *rarotsét*.

There are also instances of reversed assimilation by which the following vowel is likened to the preceding. This happens mostly in the suffixes *a* and *en*.

*Transfer and Transposition.*—The exchange of places between two consecutive syllables constitutes what I call transfer; between two consecutive letters or sounds it is the transposition.

The transfer happens when the liquid syllables *le* or *ne* occur before the syllable *te*; this is then transferred before the liquid syllable, and a long *i* is prefixed. Thus the verb *lettra*, I kill, would have for its future, *letarattrať*, but this becomes *itelarattrať*; *nestaih*, I go to bed; future, *itenarastat*, instead of *netarastat*.

In these forms, *ite* may be, at option, syncopated into *i*; *ilarattrať*, *inarastat*; exactly as in Latin *amarunt*, *amassem*, for *amaverunt*, *amavissem*.

The transposition occurs between *r* and a following vowel if this is short. Thus: *taräge'ik*, I shall act, is pronounced *täärge'ik*, &c. To preserve the words in a recognisable shape I have kept the regular orthography of these words, it being easy to remember how they should be pronounced. In the preposition *rö*, however, as this inconvenience did not occur, the spelling has been changed to *ör* whenever the transposition occurred.

*Syncope, Condensation, and Contraction.*—The syncope has been described. It is altogether at the speaker's option. By condensation and contraction I designate similar phenomena; in the condensation the result of the fusion of sounds is a consonant, in the contraction it is a vowel.

Condensation occurs in the groupings *tset* and *tsed*, reducing them respectively to *s* and *z*. Thus: *tsetatťtan*, we sent, becomes *satttan*; *tsedalenik*, we touched, becomes *zalenik*, &c. Condensation is not altogether optional. The best usage (1) requires it to be made before a long vowel; (2) leaves it at the speaker's option before an *i*; (3) rejects it before a short vowel, especially if followed by another short syllable.

Contraction occurs mostly in verbs, and should be studied directly on the verb forms. It is never optional, but absolutely required by grammar. The most frequent occurrences are:—

<i>ane</i> ,	contracted to	<i>é</i> or <i>éi</i> ,	as <i>rélat</i> (for <i>ranelal</i> ), <i>reilan</i> (for <i>ranelan</i> ).
<i>ene</i> ,	"	" <i>i</i>	" <i>tsilan</i> (for <i>tsenelan</i> ).
<i>one</i> ,	"	" <i>u</i>	" <i>rulan</i> (for <i>ronelan</i> ).
<i>une</i> ,	"	" <i>u</i>	" <i>ruyo</i> (for <i>runeyo</i> ).
<i>ai</i> ,	"	" <i>é</i>	" <i>rénla</i> (for <i>rainla</i> ).
<i>oi</i> ,	"	" <i>u</i>	" <i>runtan</i> (for <i>rointan</i> ).
<i>ui</i> ,	"	" <i>u</i>	" <i>untya</i> (for <i>uintya</i> ).
<i>ärä</i> ,	"	" <i>ö</i>	" <i>töla</i> (for <i>tarala</i> ).
<i>ürü</i> ,	"	" <i>ü</i>	" <i>nūyat</i> (for <i>nuruyat</i> ).
<i>rü</i> , <i>räö</i> ,	"	" <i>o</i>	" <i>orlat</i> (for <i>raorlat</i> or <i>rorlat</i> ).
<i>ruu</i> ,	"	" <i>ü</i>	" <i>urla</i> (for <i>rurla</i> ).

### § 3. Prosody and Accent.

Ten'a vowels have a distinctly marked quantity, being long or short, with the exception of the *i*, which is, practically, always long. A long vowel is given, in the utterance, fully twice as much time as a short one.

There is, besides, a distinct accent, marked, as in English, by a peculiar stress on the accented syllable.

Moreover, the Ten'a also use the drawl, which consists in protracting unusually the sound of a vowel, at the same time raising the voice to a somewhat higher pitch. The drawl is emphatic and has the force of expression of a superlative. Thus: *nillot*, it is far, with a drawl on the *o*, means, it is very far. A drawled *a* is transformed into *é*; thus: *nedan*, no, when drawled becomes *nedén*; *ten'a rulan*, there are people, becomes *ten'a rulén*, there are many people. The drawl never falls on an unaccented syllable, and may be considered as an exaggerated accent.

Children are wont to make much use of the drawl, but this, in grown-up people is ridiculed as childish by all careful speakers.

All the roots are accented, and as these form the last syllable in verbs, it follows that all Ten'a verbs have an accent on the last syllable. The only exception to this rule being in the case of a dissyllabic root accented on its first syllable, as in *tso-esttāka*, I am bad; here the root is *tlāka*, and its accent is on the penult. Dissyllabic and polysyllabic roots have generally but one accent, and its place must be learnt for each individual case.

Besides the root-accent, Ten'a words of some length (and these are common enough) have one or more extra accents on their long syllables. Thus *rāādłēlē*, they stay, has the root-accent on *tlē*, the secondary one on *dā*. Note: The hyphen is used in this paper as an orthographic sign, to join parts of words which are accidentally, but not essentially, connected, such as prefixes and their verbs, &c.

## II.—GRAMMATICAL GENERALITIES.

Numbers and genders, or gender-like distinctions, exist in Ten'a, but their manifestations and effects on words are altogether different from what they are in our languages. As the verb is the main element of the Ten'a speech, it is in the verb that most indications relative to these accidents may be found.

*Numbers.*—The Ten'a has three numbers: singular, plural, and multiple, referring to one, several, or many. The dual is found exclusively in one verb, *es'oih*, I go, and its derivatives. In *ranes'aih*, I speak, the common plural has often the force of a dual, and the multiple is used for the common plural. But these are isolated cases.

*Genders.*—Although based on different considerations the Ten'a genders are grammatically of the same nature as ours. They are two: abstract and concrete. The abstract gender comprises all abstract terms and those expressing time or space, such as good, evil, life, death, day, night, year, house, eddy, &c. A few terms belong to the abstract gender, which we would have expected to find among the concrete ones, but the reason of the fact is always easily found. Thus: the mouth, *lō*, *lōt*, is abstract, because it is a cavity: so also is the abdomen, *kōn*; and again the eye, *nehot*, when considered as a cavity; but when considered as the organ filling this cavity, the eye, *nōra*, is of the concrete gender.

The concrete gender, designating all objects not comprised in the abstract, is subdivided into two sub-genders: the personal, comprising all the personal or rational beings, and the impersonal, including all the irrational ones. The devils are also relegated to the impersonal sub-gender categories. Two verbs, having innumerable derivatives, denote by their very form peculiar features of their object. These features, evidently salient to the Ten'a mind, distinguish those objects in twelve kinds or groups which have been called categories. They are: (i) plurals; (ii) innumerable or multitudinous; (iii) deteriorated; (iv) living; (v) common; (vi) hard; (vii) sheathed; (viii) dished; (ix) powdered; (x) folding; (xi) eatables; (xii) burning.

*Qualities.*—Some qualities of the object also influence the verb, especially length, shape, &c.

*Parts of Speech.*—In an agglutinative language the parts of speech are not the words, as such, but the roots. Ten'a roots may be divided into two classes:—

I. Those that are used in their unagglutinated forms, and constitute words by themselves; these are: root-nouns, root-adjectives, article, pronouns, and particles. The root-nouns are so called to distinguish them from suffix-nouns, or nouns formed by the regular process of suffixation. Root-adjectives are very few, the adjectives being commonly verbs. Particles comprise our adverbs, prepositions, conjunctions, and interjections.



II. Those that are used only in the agglutinated condition, *i.e.*, combined with others: they are—emphasisers, verb-roots, prefixes, and suffixes.

To follow a convenient order we shall study them as follows in a subsequent paper:—(1) emphasisers; (2) root-nouns; (3) root-adjectives; (4) article; (5) pronouns; (6) verb-roots and verbs, including the adjectives; (7) prefixes; (8) suffixes and suffix-nouns, including numerals; (9) particles.

J. JETTÉ.

England: Archæology.

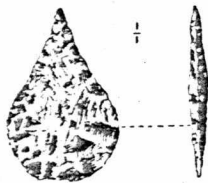
St. George Gray.

An Arrowhead of Rare Type from Banwell Camp, Somerset. 37

By H. St. George Gray.

In MAN, 1906, 96, a very thin flint arrowhead from Cannington Park Camp, near Bridgwater, was figured and described. Attention was drawn, not only to its remarkable thinness and slight weight, but also to its unusual outline, the upper portion of the blade being incurved, giving an ogee outline to the cutting edges of the implement.

Since recording the Cannington arrowhead another example of this type, also found in Somerset, has become known to me. The accompanying illustration represents, full size, a flint arrowhead picked up on the surface of Banwell Camp, by Miss Hilda Pritchard, daughter of Mr. J. E. Pritchard, F.S.A., of Bristol. Other arrowheads of flint found by Mr. Pritchard at the same camp were recently presented by him to Taunton Castle Museum, but the little implement here figured is still in his private collection. The following are its dimensions:—Length, 22·5 mm. (a little over  $\frac{1}{2}$  inch); width, 15·5 mm. ( $\frac{3}{4}$  inch); maximum thickness, 2·8 mm.; weight, 16 $\frac{3}{4}$  grains. It is finely chipped on both faces and in general outline resembles the Cannington arrowhead, except that the incurving of the edges between the place of greatest width and the point is hardly so pronounced.



No arrowhead of this type is illustrated in Mr. J. R. Mortimer's great work on the burial mounds of East Yorkshire, but in Jewitt's *Grave Mounds*, p. 119, Fig. 159, a similar arrowhead (length, 1 $\frac{1}{2}$  inch) is figured—an arrowhead more closely resembling the Cannington specimen; it was found at Ringham-Low, Derbyshire.

Banwell Camp is a large oval earthwork about 500 yards long by 270 yards wide, covering some 20 acres and situated at the east end of Banwell Hill. In nearly every heap of earth thrown up from rabbit-holes one finds a flint flake or two and sometimes thick, coarse, British pottery. The nearest point at which flints are found *in situ* is near Maiden Bradley. The ancient trackway which ran along the top of the Mendip Hills from Uphill to Old Sarum passes about 300 yards to the south of Banwell Camp and through Maiden Bradley. H. ST. GEORGE GRAY.

#### REVIEWS.

Malay.

Skeat: Blagden.

*Pagan Races of the Malay Peninsula.* By Walter William Skeat, M.A., and Charles Otto Blagden, M.A. London: Macmillan, 1906. Two volumes. 38 Pp. xl + 724; x + 855. 23 x 15 cm. Price 42s.

The scope of this work which, excluding a comparative vocabulary of about 150 pages, runs to about 1,200 pages, is defined in the preface, where it is stated to be "essentially a compilation from many sources," though differing from most books of that kind, "first, in being based to a very large extent on materials hitherto unpublished, and accessible only through private channels of information, and secondly in having "been constructed with special knowledge of the subject and in a critical spirit," but it soon becomes evident that the authors in describing their work as essentially a

§ 1. *The Emphasizer a.*

The *a* is not remarkably emphatic, but rather calls the hearer's attention to the fact that the word which it affects occurs in the sentence in some peculiar connection. It is added to nouns, verbs, and some particles (adverbs and prepositions). When agglutinated after a consonant it generally softens its sound from surd to sonant, as already described (MAN, 1907, 36, p. 53); when after a vowel it is assimilated to it, presenting the phenomenon of reversed assimilation (*ibid.*). Thus:—

<i>rott</i> , sled	- -	<i>rotta</i>	<i>midō</i> , canoe	- -	<i>mido'o</i>
<i>taak</i> , shirt	- -	<i>taaga</i>	<i>sasi</i> , watch, clock	-	<i>sasii</i>
<i>dtet</i> , mountain	-	<i>dtela</i>	<i>tu</i> , water	- -	<i>tuu</i>

The *emphasizer a* is used after nouns—(1) in the vocative or address form, as: *sakāiha*, boys, fellows, from *sakaih*; *itaa*, papa: *inaa*, mamma; *kanaa*, friend (upper dialect), from *kana*; *dzīna*, friend (lower dialect), from *dzīn*. Proper names, even of foreign origin, receive it as well as others, and the persons called, e.g., Telodzoib, Alexis, Mary Jane, will be addressed as: *Telodzōiha*, *Alexīa*, *Mary Jane-a*. This use of *emphasizer a* with the vocatives is quite general, but is by no means obligatory. It can be compared to our use of the interjection *O* for the same purpose. The emphatic vocative in *a* should always be used when necessary to remove doubt or ambiguity; in other cases, at the option of the speaker. (2) To denote possession or dependence. In this case the *a* does not, as the English 's, affect the name of the possessor, but that of the thing possessed; and, consequently, it occurs even when the possessor's name is represented by a pronoun. Thus: *Paul rottā*, Paul's sled; *se taaga*, my shirt; *Kayar rodtela*, the Kayar mountains; *ne midoo*, your canoe; *sa kana ke sasii*, my friend's watch; *Yukon roke tuu*, the water of the Yukon. It can be added to foreign words as well, and I have heard: *se ke mink-shina*, my mink-skin.

Exceptions to this rule are: (1) Abstract nouns, which never take the *a*; *Paul yar*, Paul's house; *sa kayar*, my village, my native place; *sa kana tal'onkat*, my friend's fish-trap, &c. (2) Nouns representing parts of the body or persons of kin, because they denote a relation much closer than mere possession, which is always implied in their meaning, and consequently no special form is required to mark this relation. With these the *a* is unnecessary, but it is left at the speaker's option to use it for the sake of euphony. Thus we say regularly: *so-kūn*, my husband; *so'ot*, my wife; *ne-to*, your father; *nōn*, your mother; *me-ttē*, his head; *mo-kūt*, his neck; &c. But we say, indifferently: *so-kōn* or *so-kōna*, my arm; *se-tten* or *se-ttena*, my leg; *ne dzay* or *ne-dzaya*, your heart; *nu-ūr* or *nu-ūra*, your elder brother; &c. The *emphasizer a* is much more strictly needed in the case of possessed nouns than with mere terms of address; and its omission with the former would generally render the sentence unintelligible.

The *emphasizer a* is used after verbs, in all the negative forms; and then, in the upper dialects, it is pronounced with a slight drawl. As in *ke'son*, I eat; *keles'ona*, I do not eat; *lesdo*, I stay; *esdoa*, I do not stay; *nett'ān*, I see; *nett'āna*, I do not see; *taras'ot*, I shall go; *telaras'ola*, I shall not go; &c. In current conversation, however, when the verb contains other marks of negation, the *a* may be omitted, as: *te yar idoa*, or *te yar idō*, he is not at home; *too sudelinia*, or *too sudelinī*, you do not believe me, &c. A few verbs, generally transformed negatives which have acquired an affirmative meaning, present the *a* even in the affirmative, as: *a-so-dega'ana*, I despise, whose original meaning was, I do not care about; with these some speakers use a second *a* in the negative: *a-so-dega'anva*, whilst others make the negative as the affirmative.

The *emphasizer a* is used after some adverbs and other particles, when these are taken absolutely, without further specification. Thus: *yunotsēna*, *yunāna*, on the other side of the river, of the sea. But if any further specification is made, besides that expressed by the adverb, the *a* is omitted: *yunōtsēn se yar*, my house across the river;

*yunā na kayar*, your native place beyond the sea. In particles ending with a vowel, the *a* is generally replaced by *t*: *yunīt*, up the river; *yunī se yar*, my house up the river; *yudōt*, down the river; *yudō Kaltag*, down the river at Kaltag. As the particles ending in *tsen* may drop the final *n*, they are capable of the same modification, and we have *yunōtsēt*, on the other side of the river, perfectly equivalent to *yunōtsēna*; *se tootsēt* or *se tootsēna*, behind me, &c.

In other cases the use of emphatic *a* with a particle seems to be almost exclusively a matter of euphony.

In the lower dialect the noun-forming suffix, *é*, is often replaced by *a*; and there exists a special interrogative particle *a* or *'a*. Neither of these should be mistaken for the emphasizer *a*.

### § 2. The Emphasizer *yū*.

The *yū* is properly emphatic, although, as will soon be explained, it is also used as a pluralizer. When used as emphasizer it implies that much stress is laid on the word which it affects, and about corresponds to expressions like "indeed," "to be sure," "undoubtedly," &c. Thus: *si-yū*, I indeed; *nezun-yū*, assuredly it is good; *narut'anyū*, most certainly I saw it.

In the negative obligative of verbs, a tense used as prohibitive, the *yū* occurs together with the *a*, which it follows. The strong accent on the *yū* then absorbs altogether the slight one which accompanies the *a*, and it requires a practised ear to detect even the presence of the *a*. Thus: *kenūrū'ihāyū*, *rurutsē'tāyū*, do not steal, do not lie, are commonly heard as: *kenuruihyū*, *rurutsētyū*. The *a* is so slight in these forms that even the softening of the preceding consonant is omitted, and we say *rurutsētayū*, where we ought to have: *rurutsēdayū*. The more correct speakers, however, soften the consonant when they pronounce slowly. But if the *a* which precedes the *yū* has been previously assimilated to a foregoing vowel, it preserves its distinct individual utterance, though very short: *yet ne-rūyōdyū*, do not go there.

In the extreme upper dialect the negative of the obligative does not receive the emphasizer *yū*, but takes instead of it the adverb *suu*.

### § 3. The Emphasizer *rū*.

The *rū* is properly a suffix denoting time or place, which accidentally serves the purpose of an emphasizer after a verb. When it occurs pleonastically, not being called for by the grammatical requirements of the sentence, it serves only to accentuate the word to which it is connected, and cannot be analysed but as an emphasis word. *E.g.*, in constructions like these: *D: anyit rulan ru*, it being Sunday, to mean: "because it is Sunday," or "though it is Sunday"; *keintanru*, you having some, *i.e.*, although you have some (of the things you refuse to give me), &c.

In the lower dialect the suffix *tsen* is often used in the same way.

The emphasizers, although their vowel is short, are always accented, the accent being accompanied by a slight elevation in the voice. The *yū* is much more strongly accented than either of the other two.

J. JETTE.

England: Archæology.

Bullen.

Polished Stone Implements from Hariyn Bay. By the Rev. R. 38  
Ashington Bullen, F.L.S.

On December 17th, 1907, I exhibited at the Institute two specimens about the finding of which there can be no mistake. Colonel Bellers bought the site of the Prehistoric (late Celtic) burial ground from Mr. Mallett in 1906. Colonel Bellers' sister-in-law was searching in the bank at the west side on July 14th, 1906, and (though ignorant of the importance of her find) dug out, at a depth of about 15 feet from the top of the section, close to the site of the slate-built wall where the flattened skeletons (probably a foundation sacrifice) were found in 1900, a polished slate needle

Tène III and very like a bronze specimen from Aylesford. The bronze fibula is of rather later type, the end of the bow is flattened to cover the spiral spring, and the spring is a separate piece of metal; the pin was of iron and worked on a sort of hinge on the small bar of iron on which the spring is coiled.

Both these fibulae, in Mr. Smith's opinion, belong to the century from 50 B.C. to 50 A.D., and thus agree perfectly with the evidence of date afforded by the pottery. Speaking generally of the pottery sent to him, Mr. Smith remarks, "So far as I can judge it all dates from the early years of our era. The purely British type of pottery is well represented," Nos. 24 (Fig. 2) and 26 (Fig. 5) being very characteristic late Celtic. In the face of this evidence it would seem that there need be little hesitation in assigning as the date of the formation of the rubbish heap the early years of the first century A.D. The early date of the Arretine ware makes it scarcely probable that the accumulation went on after the Roman conquest. The near neighbourhood of the dwelling to the big camp of Martinsell makes one wonder if there was any connection between these two events, the abandonment of the dwelling site and the occupation of the country by the Romans. It would certainly be very interesting to know to what period the camp belongs.

Among the other objects found were two iron sickle-shaped keys, a sling stone of baked clay, an iron bridle bit, a pair of bronze tweezers, the handle of a weaving comb, a bone gouge, several worked bones, eight pottery spindle whorls, six discs or roundels of pottery, fragments of worn quern stones, pieces of brick and iron slag.\*

M. E. CUNNINGTON.

#### America, North-West.

On the Language of the Ten'a (iii). (Continued from MAN, 1908, 37.)

By the Rev. J. Jetté, S.J.

Jetté.

12

#### IV.—ROOT-NOUNS.

The term root-nouns, in its strictest sense, applies to those nouns that are primitive roots, not reducible to simpler elements. These are short, monosyllabic or dissyllabic, exceptionally trisyllabic. Such are many words designating:—

(1) Parts of the body as: *tté*, head; *küt*, neck; *nōra*, *nekō*, *nekōt*, eyes; *lō*, *lōt*, mouth; *lō*, hand; *kā*, foot, feet; *tten*, bone, leg; *dzāy*, heart; *tura*, hair; *sēk*, body; &c.

(2) Persons of kin: *tō*, father; *ōn*, mother; *ten'a*, child; *kün*, husband; *'ot*, wife; *ūra*, elder brother; *kētta*, younger brother; *ōda*, elder sister; *tāda*, younger sister; *tōya*, uncle (on the father's side); *va*, uncle (on the mother's side); &c.

(3) Plants and animals: *kēh*, birch; *tsēbā*, spruce; *ttōt*, moss; *sēs*, black bear; *yēs*, wolf; *noy'a*, beaver; *tūka*, fish; *kāt*, king salmon; &c.

(4) Various objects, natural or manufactured: *dtēt*, mountain; *tih*, hill; *tih*, strength; *kün*, fire; *tū*, water; *kōn*, rain; *sō*, sun; *oih*, snow-shoes; *rot*, sled; *kō*, bow, arrow; *tsei*, *tsih*, canoe, boat; &c.

In a broader sense we shall take the term root-nouns to include also nouns formed from those of the preceding class, when these, being combined into one word, form a term accepted in the language, as: *kūtken*, base of the neck; *ttēken*, occiput; *kattora*, sole of the foot; *mēnkāt*, lake; *ttēkat*, grave; &c. These can be resolved into simpler elements, each of which is a root significant by itself.

We shall also consider as root-nouns the words of foreign origin, mostly borrowed from the Russian, imported to designate things unknown to the Ten'a before their contact with the whites, as: *toyon*, rich man, chief, influential person; *tsay*, tea; *muké*, flour; *sasi*, watch, clock; *kalendas*, pencil; *dinka*, silver, money; *zolda*, gold; *loset*, horse, horses; &c.

\* A fuller account of the "find" at Oare will be published in the magazine of the Wilts Archaeological and Natural History Society.

If the Ten'a vocabulary had no other nouns than those already described, the common surmise of superficial observers that it is rather meagre would be fully justified. But it also comprises a variety of suffix-nouns, formed by a regular process from other words. The abundance of terms thus obtained and in common use among the Ten'a often puzzles the learner. After having mastered the genuine rendering of some common word, he finds himself at a loss when he hears the same expressed in a number of different ways, the possibility of which had never occurred to him. Thus, to take a common instance, "my wife" is exactly rendered by *so'ot*. But a Ten'a will very often replace the proper word by some equivalent phrase, such as: *mor leslonen*, the one with whom I cohabit; *ma k̄a testanen*, the one whom I love; *sa k̄a tenetanen*, the one who loves me; *se tlo réyonen*, the one who gave herself to me; *se tlo raletanen*, the one who was given to me in marriage; *ulesniken*, the one whom I have taken; &c. All these are suffix-nouns, which may be used in place of the proper designation. They are equivalent, as may be seen, to relative clauses; and the suffix-nouns are in reality the only rendering which the language supplies for our relative clauses.

The suffix-nouns will be fully treated in a subsequent paper. Only a summary account, which will be found necessary to understand the present matter, is here supplied.

The suffix *é* (after a long vowel, *yé*) denotes things, and impersonal beings of the concrete gender: *aba-ranīdē*, thing for disease, *i.e.*, medicine; *ma ka testāyé*, the thing or things which I want; *ma k̄a te-tarastā'é*, the thing or things which I shall want. When the noun is very commonly used this *é* is generally changed to *a*: *to-ledōya*, black grouse (literally rooster, thing that roosts).

The suffix *žen* denotes one person. After a long vowel *n* is inserted between the vowel and the suffix: after a short vowel there is reversed assimilation of the *e* to the preceding vowel: *yuttiten* (from *yuttit*, riverward), the first wife in the bigamous Ten'a household; *yunekōten* (from *yunekot*, landward), the second wife, so-called from their respective places in the house; *mor lesdōnen* (from *lesdō*), my wife, the one with whom I cohabit; *mor rasdō'on* (from *rasdō*), my former or late wife, the one with whom I cohabited; *ro-šledōnen*, a married man, one who cohabits.

The suffix *na* denotes two or more persons: *ro-šledona*, married men (several); *ro-dadlettēna*, married men (many).

Suffix-nouns in *en* and *na* represent personal beings of the concrete gender.

The suffix *tžen* (often shortened to *tš*, in which the *ž* assimilates when in position to do so) denotes the time when or the place where: *lestanten*, the place where I lie down, my bed; *nalestanten*, the time when or the place where I lie down.

The suffix *tor* denotes the times when or the places where: *lestantor*, when I am in bed; *nestaiħ tor*, when I go to bed. It is not properly a noun-forming suffix.

The suffix *tsžen* (often shortened to *tšž*, in which the *ž* assimilates) denotes the manner in which, the being so: *tsorōnōtsen* (from *tsorōnō*, we live) our life, our living; *kor tsitsžentsžen* (from *kor tsitsen*, we are miserly), avarice; *ruzuntsen*, good, goodness; *tso-ruttakatsen*, evil; &c.

Nouns in *tžen* and *tsžen* belong to the abstract gender.

Suffix-nouns are capable of all the constructions of root-nouns, and there is no difference between the two classes with regard to grammatical functions.

#### *Number Differentiation in Nouns.*

The greater majority of Ten'a nouns are not differentiated for number, and have the same form whether they represent a singular or a plural object. There are, however, several exceptions to this rule.

1. Suffix-nouns of the personal sub-gender normally admit number differentiation,

owing to the fact that the suffixes used in their formation are so differentiated, *en* representing singulars, and *na* plurals. Thus: *kūkāten*, trader; *kūkātna*, traders; *kūfleten*, steersman; *kūfletna*, steersmen.

2. Suffix-nouns of the abstract gender designating time or place are capable of the same distinction, owing to the difference in meaning between the suffixes *tēn* and *tor*, *tēn* being used for one time or place, *tor* for several. Thus: *yudoo ko-nest'oihten*, at the time that I walk (or walked) down; *yudoo ko-nest'oih tor*, during my walks down.

3. Some root-nouns representing persons can be pluralized. The pluralizers used are *kā*, and the emphasizer *yū*.

The *kā* is a genuine pluralizer, serving no other purpose. It is used mainly with names of kindred. Thus: *ten'a*, child; *ten'aka*, children (as related to parents); *kōya*, grandchild; *kōyaka*, grandchildren (as related to grandparents); *'ot*, wife; *'oka*, wives; *kān*, husband; *kānaka*, husbands; *kētta*, younger brother; *kētataka*, younger brothers; *ōza*, nephew; *ōzaka* (in lower dialect), nephews (children of sister); *te'naka*, parents (used only in the plural).

The *ka* is used with: *kēla*, young man; *kēlaka* or *kēlka*, young men; *Blikana*, American; *Blikanaka*, Americans.

The emphasizer *yū* is used as a pluraliser with nouns that do not admit the *ka*; as: *ten'a*, man, human being; *ten'ayu*, men; *ūra*, elder brother; *ūrayu*, elder brothers; *ōza*, elder sister; *ōzayu*, elder sisters; *tādza*, younger sister; *tādzayu*, younger sisters; *ta*, uncle (mother's brother); *ṭayu*, uncles; *tōya*, uncle (father's brother); *tōyayu*, uncles; &c. The word *yenayu*, meaning the relatives taken collectively, is used only in the plural. The words *rotana*, inhabitant, and *neñhoroten'a*, people, are used indifferently for singular and plural; when representing a plural, however, they may, at the speaker's option, take the *yū*: *rotanayu*, *nenkoroten'ayu*.

4. Foreign words designating persons also admit of a plural in *yū*, as: *kesak*, white man; *kesakayu* or *kesakayu*, white men; *mainel*, miner; *mainelyu*, miners; *toyon*, chief; *toyonyu*, chiefs; *sistel*, sister, nun; *sistelyu*, nuns; *Alusen*, Russian; *Alusenyu*, Russian.

5. The noun *kēla*, young man, besides the *ka*, can also take the *yū*: *kēlka* or *kēlkayu*, young men.

6. Two nouns have, apparently, an irregular plural; but they are evidently suffix-nouns, slightly altered. They are: *sōltān*, woman; *sōltānā*, women; *tenag'ton*, girl; *tenag'ōttāna*, girls.

7. Of all impersonal beings, dogs are the only ones that enjoy the plural mark *ka*: *tēā*, dog; *tēā* or *tēka*, dogs (for *likka*); *tēkōza*, pup; *tēkōzaka*, pups.

Apart from these exceptional cases the number of a noun is not expressed by a modification of the noun itself, but by a modification of the verb to which this noun stands as subject or object. When the noun stands as subject to a verb we have the usual method of using the singular or plural persons of the verb, but even this has its limitations, and cannot be practised as extensively in Ten'a as in other languages. For the only subjects that can be constructed with the plural persons of a verb are those of the personal sub-gender. Whenever an impersonal or an abstract noun is the subject, the verb has to be in the third person of the singular, as in the well-known Greek instance: *τα δένδρα μέγαλα*. We cannot, e.g., say: "the trees are big," but we must say: "the trees is big," and as we have no difference between "tree" and "trees" we must resort to some other means to make the plural known. The Ten'a process consists in an alteration of the verb root, which is done in two ways:—

1. An altogether different root is used. Thus: *lesdo*, I stay; *dadlettē*, many stay; the roots *do* and *tē* express the same idea, viz., "to stay," but one conveys the notion of singularity or non-plurality, the other that of plurality or even multiplicity. Similarly: *lestān*, I lie down; *ledzēt*, many lie down; *ko nest'oih*, I walk about;

*ko-idedat*, many walk about. The difference in roots is also used to distinguish between singular and plural objects, as in: *ettkūt*, I take (one); *ettzuih*, I take (many or several); *etttsi*, I make (one); *esrōih*, I make (several, many); *tlo es'oih*, I give (one); *tlo esla*, I give (several, many); &c.

2. The same root is preserved, but is slightly altered to what will be described later as the *Multiple* form: with this a special *ye, ne, or yen*, called *multiplier*, is added to the verb. Thus: *ettbāts*, I boil (one); *ye-ettbās*, I boil (many); *eslan*, I am; *ye-dilaih*, many are.

Besides these two fundamental processes, other alterations are used to the same effect, viz.: (1) The multipliers, especially *ne*, are used without change in the root: *tseba ro-ni deré'o*, a spruce-tree stands; *tseba ro-ni ne-dale'o*, spruce-trees stand; *ko-nesenih*, I work; *ko tsidenih*, we work; *ko ne-tsidenih*, we (many) work. (2) The drawl is used on the root-syllable of the verb: *kelet uderékāt*, he bought a skin, or a few skins; *kelet uderékēt*, he bought many skins. (3) The multiplicity or quantity may be denoted by an adjective qualifying the noun: *ranoya lōne naratt'an*, I saw many deer; *dinka nekore atan*, he has much money (lit. big money); &c. This last process, however, is seldom used except where no one of the foregoing is available.

As the Ten'a noun, separated from the suffix, does not express the accident of number, when it is used without specification it is always taken to represent the object signified as it naturally is (singular if it generally is so, plural if it is generally more than one). Hence it follows that nouns signifying objects which naturally are in pairs, as eyes, hands, shoes, snow-shoes, &c., unless otherwise specified, are taken to mean the pair, not one only. These nouns, therefore, are naturally plural; and when only one of the two associated objects is meant the noun has to be singularised, just as other nouns representing singulars have to be pluralised for plurals. The same happens with other nouns representing objects that are generally plural. The object singularised may be one of many or one of two:—

(1) For *one of many* the numeral "one," *kétoke*, is used in the form of a suffix-noun: *nenkoroten'a kétoke*, one of the people; *ranoya két-ke sitto niyo, tse sakaih kétoke yoko talyo*: one of the deer was lost and one of the boys went to look for it.

(2) For *one of two*, or of a pair. To designate one of these, excluding the other, the word *kať*, one-half of, is used: *se nora kať aba nelan*, one of my eyes (lit. one-half of my eyes) is sore: *ne mindaga kať rodé?* where is your other mitten? *mo kōna kať kālā*, he has lost one arm; &c.

The demonstratives *tātsēn* on this side, *yātsēn* on that side, *nītkootsēn* on both sides, are often used to specify one of two or both of two objects.

#### Construction of Nouns.

Ten'a root-nouns are never used in apposition, except, in the upper dialect, the appellation *kana*, friend; *kana Henry*, friend Henry; *sa kana Iluska*, my friend Iluska. In all other cases suffix-nouns must be used. Thus to say: "chief Paul" or "Paul the chief," turn "Paul, he who is chief": *Paul toyon nelanen*.

Suffix-nouns used in apposition must follow the noun which they qualify; except the numerals which may precede, but generally also follow it; e.g., *Paul kūkäten*, Paul, the trader (never *kūkäten Paul*); *nenkoroten'a kétoke* or *kétoke nenkoroten'a*, one man.

Nouns are placed in continuous construction to express some dependence or connection between them. The three ordinary relations thus expressed also require the same construction in English, viz., possession, material, and purpose.

(1) To denote possession, or relations similar to possession, the name of the thing possessed or dependent follows the name of the possessor or independent term, and takes

! my one side gloves

the emphaticizer *a*, according to the rules stated in the former part of this paper: *Paul yar*, Paul's house; *itza roča*, my father's sled.

When the second or dependent noun is really possessed as property by the first, it generally takes the possessive article *ke*: *Paul ke teltüda*, Paul's gun. The same occurs if a very special attribution, though not a real possession, is meant: *tena ke toyona*, our chief.

When the second or dependent noun represents a person of kin it takes the possessive pronoun, even though immediately preceded by its noun: *Paul me-to*, Paul's father. Lit. Paul his-father: *su-ura me-ten'a*, my elder brother's child, lit. my elder brother his-child. I have adopted the practice of writing a hyphen between those nouns and the pronoun preceding them, as a warning that the pronoun is not detachable.

When the second or dependent noun represents a part of the body or its whole, the possessive pronoun may be used before it, at the speaker's option: *Paul té*, or *Paul me té*, Paul's head. Some speakers extend this practice to many other nouns, but this is ridiculed as childish by the best and most correct critics.

When the first or independent noun represents an abstract thing, the second takes the prefix *ro*: *Yukon rodčela*, the Yukon mountains; *yudoo rokanāga*, the lower dialect, lit. the language of the down-river region. If this second noun has already the possessive article *ke*, the *ro* is prefixed to this: *Nulator roke toyona*, the chief of Nulato.

(2) Nouns are also placed in continuous succession to denote that the second represents a thing made of the material designated by the first. Thus: *teken midōya*, a board canoe; *kēk midōya*, a birch-bark canoe; *tsobé tluŕ*, an iron tie, i.e., a chain; *kōn tū* main water: &c.

The words *yar*, *kōnōn*, house, are exceptions to this rule because they designate primarily the space enclosed, not the structure; they are not *of* the material, but *within* it. So we say: *lo'on yi yar*, a stone-house, lit. a house in the stones; *teken yi kōmon*, a log house, lit. in the logs; &c.

(3) The continuous construction also marks that the second or dependent noun represents an object used for some purpose signified by the first, as: *sān kōnōn*, summer house; *korudenichte yar*, work shop; *nōrōlūn tōk*, goggles, lit. glasses for the blink.

Nouns constructed as objects of verbs or prepositions always precede these.

#### Compound Nouns.

Roots may be associated to form compound nouns. The more common combinations are:—

(1) Juxtaposition of two nouns: *menkāt*, lake, from *mén*, swamp and *kat*, hole; *tšākčēt*, fire-place; *tšékāt*, grave, lit. bone-hole; *kaledzuihtla*, toes, lit. foot-fingers.

(2) Association of a noun and preposition: *kūtken*, base of the neck (*kūt*); *kātorā*, sole of the foot; *yōbāra*, horizon, lit. edge of the sky; *tobōna*, beach, lit., border of the water; *džannidzet*, midday; *kettitidzet*, midnight; *džāndōtōkōt*, week, i.e., between the days; &c.

(3) Suppression of the variable pronoun-part in verb, thus leaving a word composed of the prefixes and root of the verb, and used as an abstract noun (i.e., representing the abstract idea, but belonging to the concrete gender). Thus, from—

*so-degetsih*, I rejoice; *sōtsih*, joy.

*su-dego'ot*, I play; *su'ot*, play.

*rogenčēk*, I tell; *rōnčēk*, news, report.

*ko-nesenih*, I work; *kōnih*, work, job.

*yečkoih*, it dawns; *yekoih*, light.

*mu-utolegeyon*, I am armed; *mu-utayōna*, weapon.

J. JETTÉ.