Introducing the *Lower Tanana Dene Dictionary, vers. 3.1*
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Alaska Anthropolocial Association 48th annual meeting, Feb. 26, 2021

A.H. Brooks 1908, 1st map of Troth Yeddha', 25 ft. contour interval

☼ *overtly informative;* 🅔 *environ. change;*
♡ *anatomical;* ≈ *pass-marker*

** Łu Toxwdraya'** ♡☼ ≈ 🅔 *'heart among glaciers'* Donnelly Dome

Otna' *'beyond river'* Copper River

Xosrotſ'odi ☼ *'one at headwaters of upward sun'* Mt. Hayes

See entry at p. 354
troth[2] **chə'th* /Hedysarum; difficult/ /V::N-bio veg V-stat/
troth, -trodha' *(n.)* MN **tsoth** *C* **tsol** *T* Indian potato, root of *Hedysarum alpinum*

Lower Tanana Dene Dictionary

Vers. 3.1, ff manual edits Jan 4. to Feb. 26
Version 3.0 January 4, 2021,
Vol 1. Intro c. 25 pp., √Table of Headwords 10 pp. main entries 448 pp
Vol. 2. nine Appendix A-I; Appn I LT word-initial Index 67 pp English Finderlist 167 pp., c. 310 pp., c. 760 pp as of Feb. 27
total lines Jan. 4 *.lex file = 57,268, total headwords =1154 h.w.

1) sample footer: 31 sections, ↻
Ø ' b ch ch' d dl dr dz g gh/x h j k k' l/ł n sh t t' tl tl' tr tr' ts ts' tth tth' y/s z/s zr/sr
2) Table of Headwords 10 pp↻
3) Appendix I: LT word-initial Index, 67 pp ↻
4) English Finderlist, 167 pp ↻

Kari 2019a:44 "The Proto-Dene Lex Loci ('word/law of location') is a theory of Dene prehistory that is a composite of geographic information (in Dene place names networks) and Dene lexicographic-etymological information." A bipartite SIGN(+GENERIC) generative geographic formula underlies the Dene place names networks in our study area. Dene geolinguistic data are information-rich. Especially noticeable are various *watershed tenure devices* (hydronymic districts, patterned duplications, geoduplicates) that reflect Dene vernacular collaborations to facilitate landscape recognition."
Ibid.:69 "These three well-known *overtly informative* place names tells us that early Tanana Valley Dene names must have preceded those of Copper River (rather than the reverse) **Xosrotſ'odi** (Lower Tanana) Mount Hayes, **'Atna'** (Ahtna), **Otno'** (LT) Copper River, and 1.22 **Łuu Tadzeey'** (Middle Tanana), **Łu Toxwdraya'** Donnelly Dome."
ibid. 71 "The resilience and durability of the Dene names are due in part to (a) unique typological features of Dene grammar (simplex nouns and postpositions and complex verbs with templatic word formation [Kari 2010a]) and (b) the vital orienteering, logistical, and auto-instructional features of Proto-Dene generative geography."

The 2021 LTDD, Vers. 3.1 is a mid-sized dictionary compiled in the *Lexware* Dene band label format. Vers. 3.1 consolidates nearly all of the primary data for LT at the Alaska Native Language Archive that span the years 1903 to 2000. LT is a highly conservative Dene language: with stem-initial/stem final distinctions for the *tl, tth, ts, tr, ch* series; full PD positive-negative inflectional paradigms, and verb forms that are transparent at both surface and underlying levels. The 31 alphabetized integrated root-morpheme sections (as well as the Table of Headwords) mirror LT's grammar and verbal concepts as well as LT's long-term eco-cosmographic lexical adaptation to the climate and resources of the Tanana River Basin.

The LTDD has several new features that will increase the book's usability for a broad range of users, from members of the Lower Tanana community, to language learners, to scientists in various fields, or to Deneologists. A new *root-type* notation, still a work in progress, has been useful. The root-type band identifies groups of roots by a) semantic category (anatomy, biology, color, temp(perature), tech(nology). Others are b) minor word categories; others are c) specific verb theme categories. The root-types allow entries to be compared within LT or among other Dene languages. LT has 217 N! "nouns without verbs" that are mainly succinct *simplex* entries. The common anatomical N!s (head, foot, hand) are always cognate between Alaska Dene and Navajo. OTH, some of the LT N! are rare, and are marked as true archaisms ∀.

Various LTDD features can advance cross-disciplinary scientific inquiry of Beringian, Dene-Yeniseian and comparative Dene prehistory: the tightly structured root-affix inventory; the proper recognition of the PD interdentals and coronals; the identification of c. 50 derived roots with rare types of verb-root and noun-root formation, and LT's distinctive Subarctic boreal lexicon.

Working with a revisable LT verb complex file, we identify 132 v.pf. and 22 v.sf. that appear in four zones in 32 prefix slots before the Root/Stem and 4 suffix slots after the root/stem. All 154 *v.pf.* and *v.sf.* are distinguished by superscripts. The LTDD seems to be the first Dene dictionary that has an inventory of every prefix and suffix on record. The tracking of haplology (fi) is clarifying both morpheme ordering and layered derivations. In sum, the LTDD is the most versatile and accessible computerized Dene dictionary.

With Tim Montler's skillful computer support, the LTDD is being released in a two-volume print edition and as a digital edition. The digital edition has four hyperlinked files, making it possible to navigate between a) the Table of Headwords, b) the first pages of the 31 main sections, c) the English Finderlist and d) Appendix I, the Word-initial index.

The page-format and organization of the LTDD demonstrates how records for Dene languages can be accessible for many types of research or language practice and learning. The numerous abbreviations and conventions for verb themes for the LTDD are nearly identical to those for the Ahtna and Koyukon dictionaries. As you learn to recognize abbreviations, you are learning aspects of Lower Tanana and Dene grammar.
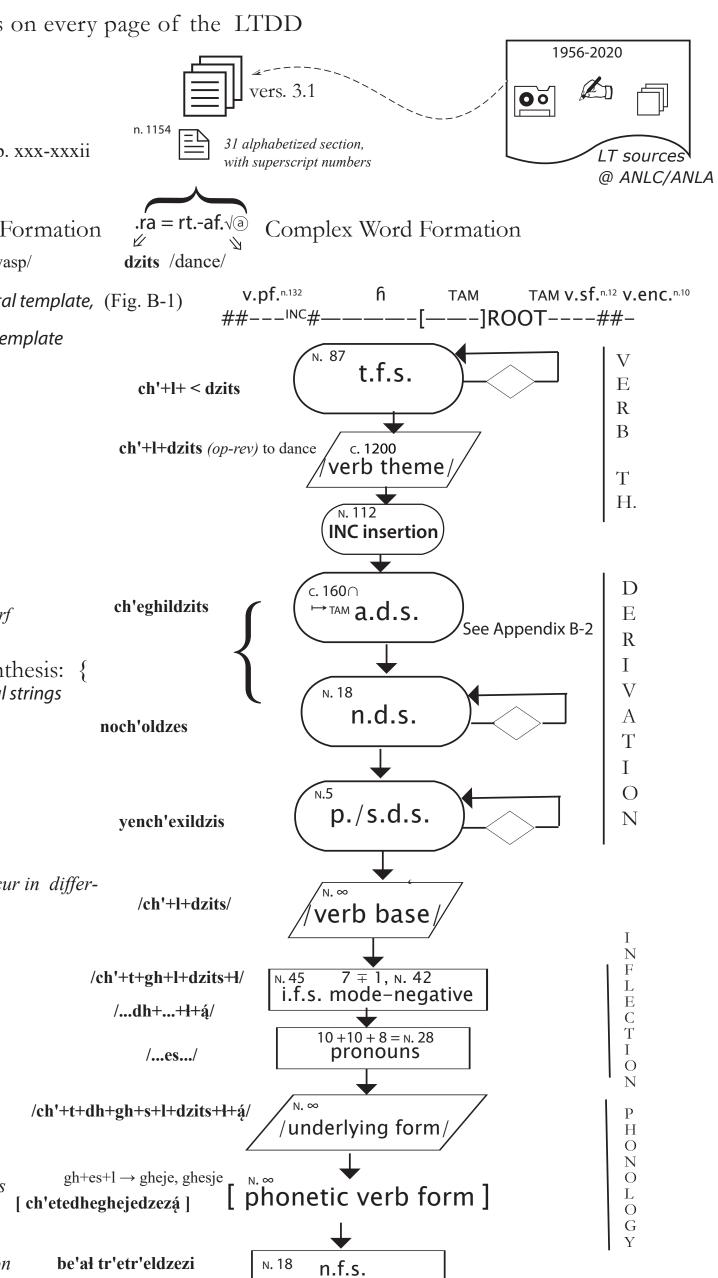

SOME LOWER TANANA ARCHAISMS ∀

trok **chrə-k* /bad weather/ /dV::top ∀/
cf. **trol** chinook wind. *both appear to be derived roots; a verb theme so for only in LT: important archaism*

ch'+n+O+trok ∀ *(op.)* be bad weather (any season) **noch'exwnghitrok** it is bum weather *+VVT;*
notr'exwnghitrok we had bad weather; **noch'wxtenotroyh** we will have bad weather

trol *chrə -L* /chinook wind/
possible derived root; only in LT, MT, At. Den, Tc, UT, UK, only in Central-southern Alaska Range;
dosdza ∀ *(n.)* "blue goose," blue-color phase of immature snow goose *(Chen caerulescens)* highly interesting. *unique LT root*

lel, lex *lux-l* /baited hooks/ /V::N!-tech ∀/
a rare Tanana R. term, cf. Ahtna-M = **lox**;
lel *(im.s.n.) MN* **lex** *T* multiple baited fish hooks MK 74; *interesting archaism, WTitus, 7-20-93, "used in ice fishing for burbot, they used to use bird claw hooks."*

Fig I-2. Sample dictionary page
pp. 142-143, dz-section

DENE INTERRUPTED SYNTHESIS WORD FORMATION
horizontal template joins vertical strings, layer upon layer

Fig. I-3. Concepts on every page of the LTDD

H-5 Łuk'a, salmon anatomy

This LT salmon diagram is a good illustration of team work across Dene languages. Most of the terms are typical terms—head, mouth, bone, skin, liver, brain, spine. Also there are fish-specific term such as **-guthga'** 'scales,' **k'un'** 'roe'. The fin terms are comprehensive and logical: **-chala' xw'ogha t'wga'** (adipose fin) 'fin near fishtail'. Two rare fish antomy terms recorded by Jetté, and confirmed by Vernel titus, with **-drwghwl** 'pectoral girdle' and 'bone socket at base of fish fins', allow us to reconstruct a rare Proto-Dene compound noun **j'ughal.* So far this is only found in Koy. and LT.
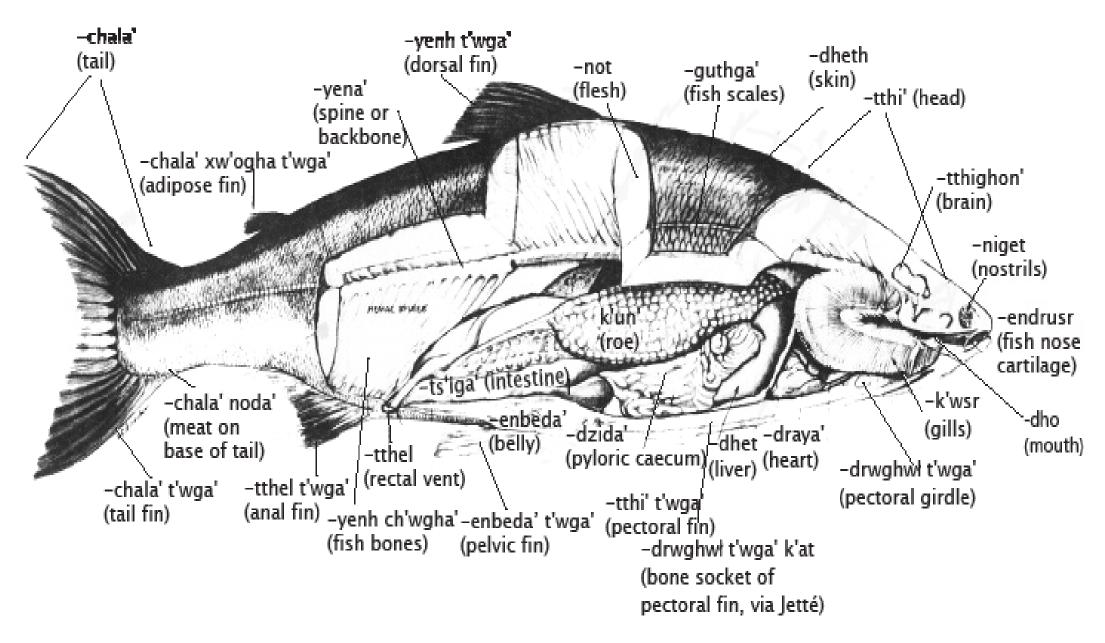
Figure 2-1. Semidiagrammatic drawing of an adult female salmon, with portions cut away, showing the location and identity of various internal features. (From I. S. Smith and G.R. Bell 1975.) Terms by Virgil and Vernel Titus and Andy Jimmy.

AN EDITABLE LOWER TANANA VERB COMPLEX

The LT verb complex chart identifies 132 verb prefixes and 22 verb suffixes; the LTDD seems to be the first Dene dictionary that has an inventory of every prefix and suffix on record.

Lower Tanana Verb Complex
James Kari, Feb. 25, 2021

affix totals: v.pf. 132 (85#disjunct; 49+ conjunct);
v.sf. 22 (10 v.sf.[1], 2 v.sf.[2], 4 v.enc.[1], 6 v.enc.[2]); 112 INC

Disjunct Zone (n8)	Pronominal Zone (n5) 3	Qualifier Zone (n8) 2	TAM Operator‡ Zone (n8)	STEM TAM Ø -1	Suffix Zone (n2) -2 -3

TOTALS: 35 positions: 32 prefix slots in four zones +ROOT + 3 suffix slots; TAM STEM TAM = tense-aspect-mode prefix/suffix options; ‡term in Whorf 1932 affixes in underlying forms as in w.o. superscripts; SUPERSCRIPT POLICY: n[4321] ROOT n[2]; surface allomorphs excluded from LT verb complex
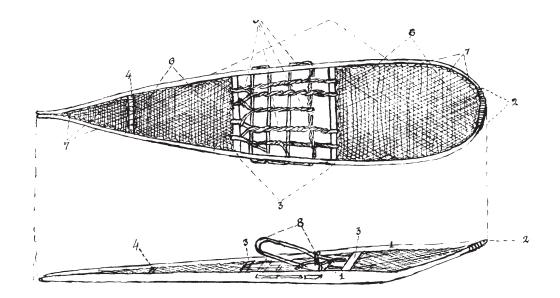
SYMBOLS: ∩ mutually exclusive slot; ⤳ conditional left movement, G gender notion; {d[1]} epenthetic affix; dh[1]/th[1] pf. with 2 forms
BOUNDARIES: ## word; # disjunct; +default affix bundary; [...] conjugation zone; PHON. RULES: __] precedes STEM; __|] precedes CLF+STEM; _Sl] precedes SBJ-CLF-STEM

fi = 12 haplological v.pfs. occur at different derivational layers but can appear only once at surface; G[R] super-haplological affix;
HAPLOLOGICAL INDEX = e.g., sum of d[2] in all strings & verb themes

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TABLE OF HEAD WORDS as cosmographic outline

The best place for first time users of the LTDD to gauge the scope of this dictionary is to read through the Table of Headwords: pp. xii-xx. The LTDD has 115 alphabetized headwords or separate entries. These are four bands: .tr root, .ra root-affix, .af affix and .lw loan words. The alphabetized headwords plus tag definitions are an outline of the cosmographic depth and breadth of the LT language. The material and natural world, the conscious and the subconscious, the lexical and the grammatical are consolidated as an alphabetical outline of Lower Tanana cosmography.

Jules Jetté's technical snowshoe drawing (c. 1914) with LT snowshoe terms

The specificity for parts of the snowshoe, underscores that was the greatest technical invention by the early Dene. Also **bold italics indicate anatomical** terms in the snowshoe lexicon. When and where was the first Proto-Dene snowshoe perfected?

JOPA negative No. 502.19. used with permission of JOPA

'oyh, -'oya' *der.rt.* snowshoes lit. 'customary compact object' < 'oyh , 'o', yh'

oih, n,j,snow-shoes-

1. **oyh dechenh** snowshoe frame < 'oyh , chen
2. **oyh tthi'** front 'head" of snowshoe < 'oyh , -thi
3. **oyh twk, ch'enotewga'** front edge *'forehead'*of snowshoe frame < to?
4. **oyh twk, ch'enotewga'** of frame front edge babiche lashing
5. **oyh ttth'o'** snowshoe crossbrace < 'oyh , ttth'o'
6. **-chala' tth'o'** snowshoe tail crossbrace < tth'o'
7. **oyh chala' tuk'** of snowshoe < 'oyh , cha
8. 7c. **ch'etthedle debedza'** snowshoe tail crosspiece *'anus broad one'* < ttbeti,
9. **kalenh** broad snowshoe *'foot'* lacing, center webbing < ka' , len?
10. **-katk'a** snowshoe frame foot area < ka'
11. **oyh ghwt, ch'engbwt** fine snowshoe lacing < ghwt', 'oyh
12. **sreyh tl'ul** fine eyehwb string on inner of snowshoe frame < zreyh
13. **sreyh** small-boot fore lacing holes on snowshoe frame < zreyh
14. **ch'ol dhagat** center foot footstrap 'throat' area on snowshoe < ch'o , dhak'

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