# Appendix A

Glossary

Resources

**Unangam** Values

The Right Way to Live as an *Unanga*x̂ Simple Instructions with the Long List

Interview Release Form

The Sound System for *Unangam Tunuu* 

How to Use the Aleut Dictionary/Unangam Tunudgusii

## **UNANGAM TUNUU / ENGLISH**

For words in *Unangam tunuu* E = Eastern dialect and W = Western dialect.

If no designation is noted, the words are familiar in both.

[r] = Russian loan word.

UT refers to the page number on which the word is found in *Aleut Dictionary/Unangam Tunudqusii*.

Word in *Unangam tunuu* "say-it" clue English definition

Sample: aadumaanux (UT 14) (aa thoom AAH noh): oval

Dialect (both E & W) Page on which you would find it in UT

The word *aadumaanu* can be found on page 14 of the *Aleut Dictionary/ Unangam Tunudgusii*. Since there is no E or W, it is understood in both Eastern and Western dialects. To come close to pronouncing it say "aa thoom AAH noh". The word *aadumaanu* means "oval" in English.

### Unangam tunuu dialect (Dictionary page) (say-it) English

aadumaanux (UT 14) (aa thoom AAH noh): oval qumugdux W (UT 336) (koom UG thoh): oval Aagamagna W (UT 2) (aah gham AAG nah): Elder Ludaaĝi**x** (UT 257) (loo THAAH ghih): Elder Ukaanuxta**x** E (UT 427 #3) (uk aahn NUHK tah): Elder achiigusaada £ E (UT 105) (a cheegh oo SAH thah): flat ichaaqida W (UT 170) (each aahk EE theh): flat aĝaasa**x** E (UT 31) (ah GHAAS eh): gift aĝaaza**x** W (UT 31) (ah GHAAZ eh): gift sigax W (UT 357) (segh ah): gift aĝada**x** E (UT 36) (uh RUH thuh): sun aĝadgix W (UT 36) (uh RUHTHE gegh): sun anĝaĝiisix (UT 75) (ang gha GHEES ih): life anguna (UT 91) (ung 00 nah): large atxax (UT 108) (ATK ah): smooth bruudnax [r] (UT 123) (BROOD neh): 2 boots chaaska £ (UT 132) (CHAAHS kah): cup chaasxix W (UT 132) (CHAAHS kheh): cup changana (UT 131) (chung AHN uh): valley chidĝaayu(m) tuduu E (UT 401) (chithe GUY yoo(m) • too THUU): purple uluudam qaxchikdaa W (Dirks, 2001) (oo LOO thum • kagh CHIK thaah): purple

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chidĝaayux E (UT 135) (chidthe GUY yoh): blue
chidĝix W (UT 135) (CHIDTHE gegh): blue
chidâix E (UT 135) (CHIDTHE geah): green
chidĝaayux W (UT 135) (chidthe GUY yoh): green
chiquudngix E (UT 139) (chih GOOTHE ngeh): flower
aahmaax W (UT 63) (AAH hmaah): flower
chiquudnqim qadunqin E (UT 293) (chih ROOTHE nqim • kahthe OONG in): seeds,
   lit. flower scabs
chiimluudax E (UT 142) (cheem LOO thah): field, meadow
chaamluudax W (UT 142) (chaahm LOO thah): field, meadow
tanasxax (UT 390) (ton USK ah): field, meadow
chixilâix E (UT138) (chih HIL gheh): bog
chigilgix W (UT 138) (chig RIL gheh): bog
chixtax (UT 138) (CHIH tah): rain
chuchxulalix E (UT 149) (chuchk oo LA lih): thorny
chuguulĝun E (UT 152) (choo GHOOL ghun): gravel
quganaalĝis W (UT 332) (kugan AHL ghis): gravel
chugux (UT 151) (CHEUGH oh): sand
chuhnisas W (UT 154) (choon EES us): hooks
chuhnunsin E (UT 154) (chuh NUN sin): (instrument for stabbing) hooks
chumnuqim qaxchikluu E (Dirks, 1992) (chum NUH qim • kaqh chik LOO): brown
chumnugim qa(x)chikdaa W (Dirks, 2001) (chum NUH gim• kah CHIK thaah): brown
chumnugix (UT 153) (choom NUH gegh): yellow
chuqudaachxuza x W (UT 156) (chuh ku thawch KOO zah): microscopic
chuulkix [r] (UT 153) (CHOOL kegh): sock
daaxsxituud(a)lakan E (UT 160) (thah skit toothe LA kan): small
chuqudax W (UT156) (chuh KUH thah): small
daxsxix W grain (UT 160) (THAH skegh): grain, seed
daaxsxis W (UT 160) (THAH skis): grains, seeds
hitnisangin E (UT 216) (hit nee SUNG in): plants
hitnisangis W (UT 216) (hit nee SUNG is): plants
hitxulix (UT 215) (hit HOO legh): seed, crumb
inix E (UT 201) (iH nyih): sky
inkax W (UT 202) (iN kah): sky
inkamaaĝux E (UT 202) (in kah MAAH roh): cloud
inkamiiĝux W ( UT 202) (in kah MEEH roh): cloud
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kamxax (UT 227) (KUM kah): celebration
kanuuya (r] (UT 230) (ka NOO yah): orange
kumatxax E (UT 248) (koo MAHT kah): fox skin sock
lista (IT 256) (LEE stuh): petal
qiiquusix E (UT 238) (keoh GHOO segh): mountain
kiiĝuusix (UT 238) (kihg GHOO segh): mountain
gaasa E (UT 311) (KAAH sah): seed
qalax (UT 302) (say KAH-lah): seed
gachxidigax E (UT 292) (kach kidth IG gah): smooth
gachxizigax W (UT 292) (kach kiz IG gah): smooth
galaa (UT 301) (kah LAA): bottom
gaxchiklux E (UT 296) (kahk CHIK loh): black
gaxchikdax W (UT 296) (kahk CHIK thah): black
gihmadgux E (UT 43, 324) (kih MOTHE goh): round
akamudiga X W (UT 43) (aka moogh EE thah): round
guma € E (UT 335) (KOO mah): white
quhmax W (UT 335) (KOO hmah)
quumhlaakdax E (UT 336) (koom HLOCK thah): gray, silvery
quuhmliix W (Dirks, 2001) (koom LEEH): gray
siimax E [r] (UT 361) (SEE mah): seed
siimina W [r] (UT 361) (seom IN ah): seed
siriivrax W [r] (UT 360) (sir EEV rah): silver
slux (UT 368 #3) (SLOOH): habitat
tanax (UT 388) (TA nah): habitat
suulutux E [r] (UT 377) (SOO luh toh): gold
zuulutux W [r] (UT 377) (ZOO luh toh): gold
taanga (UT 292) (TAAHN gah): water
talĝin E (UT 386) (TAHL ghin): branches
talĝis W (UT 386) (TAHL ghis): branches
tngux E (UT 400) (tng oh): hard
tungax W (UT 409) (toong ah): hard
tugumax E (UT 402) (toogh OOM ah): beach
agux W (UT 30) (AH ghoh): beach
udigasalix E (UT 416) (oothe igh (ah) SA lih): to share
udixs W (UT 416) (OOTHE ihs): to share
udigda W (UT 416) (oo THIG thah): share
udigdada E (UT 416) (oo thig THAH thah): share
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uliigin (UT 436) (ool EEGH in): mukluks, skin boots

uluudam tudagii W (UT 401) (oo LOO thum • too THAG ee): pink

uluuda (UT 436) (oo LOO thah): red

Unangam Anĝaĝiisingin E (Galaktionoff: 2001) (oo NUNG am • an ghah ghee SING in): traditional knowledge of Unangan

Unangam Anĝaĝiisingis W (Dirks: 2001) (oo NUNG am • an ghah ghee SING is): traditional knowledge of Unangas

usxi**m** inguqalaĝii E (UT 209) (oos kim • ing oo KAHLAH ghee): having many needles

yuli**x** E (UT 465) (YOO legh): leaf siĝli**x** W (UT 359) (SIHGH legh): leaf

English definition

n Word in *Unangam tunuu* 

"say-it" clue

Sample: beach: agux W (UT 30) (AH ghoh)

Dialect

Page on which you would find it in UT

The entry word is beach. It means agu x in the Western dialect of Unangam tunuu. Agu x can be found on page 30 of the Aleut Dictionary/Unangam Tunudgusii. To come close to pronouncing the word, say "AH ghoh". The second entry word is beach. It means tuguma x in the Eastern dialect of Unangam tunuu. Tuguma x can be found on page 402 of the Unangam Uuangam Unangam Un

Note this is but a simple glossary. To understand more about the word, look it up in the *Aleut Dictionary/Unangam Tunudgusii*, and you will find, for example, that Easterners also use the word, *agu\$*.

## **ENGLISH / UNANGAM TUNUU**

English Unangam tunuu dialect (Dictionary page) (say-it)

beach: aqu**x** W (UT 30) (AH ghoh)

beach: tuguma & E (UT 402) (toogh 00M ah)

black: qaxchikda**x** W (UT 296) (kahk CHIK thah) black: qaxchiklu**x** E (UT 296) (kahk CHIK loh)

blue: *chidĝaayu***x̂** E (UT 135) (chidthe GUY yoh)

blue: chidĝi**x** W (UT 135) (CHIDTHE gegh)

bog: *chixilĝi***x** E (UT138) (chih HIL gheh) bog: *chiĝilĝi***x** W (UT 138) (chig RIL gheh)

boots, two: bruudnax [r] (p 123) (BROOD neh)

bottom: qalaa (UT 301) (kah LAA)

branches: *talĝin* E (UT 386) (TAHL ghin) branches: *talĝis* W (UT 386) (TAHL ghis)

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brown: chumnugim gaxchikluu E (Dirks, 1992) (chum NUH gim • kagh chik LOO)
brown: chumnugim qa(x)chikdaa W (Dirks, 2001) (chum NUH gim• kah CHIK thaah)
celebration: kamxax (UT 227) (KUM kah)
cloud: inkamaaĝux E (UT 202) (in kah MAAH roh)
cloud: inkamiiĝux W ( UT 202) (in kah MEEH roh)
cup: chaaskax E (UT 132) (CHAAHS kah)
cup: chaasxix W (UT 132) (CHAAHS kheh)
Elder: Aagamagna W (UT 2) (aah gham AAG nah)
Elder: Ludaaĝix (UT 257) (loo THAAH ghih)
Elder: Ukaanuxta £ E (UT 427 #3) (uk aahn NUHK tah)
field (meadow): chiimluuda & E (UT 142) (cheem LOO thah)
field (meadow): tanasxax (UT 390) (ton USK ah)
field, meadow: chaamluuda X W (UT 142) (chaahm LOO thah)
flat: achiigusaadax E (p 105) (a cheegh oo SAH thah)
flat: ichaaqidax W (UT 170) (each aahk EE theh)
flower: aahmaax W (UT 63) (AAH hmaah)
flower: chiĝuudngix E (UT 139) (chih GOOTHE ngeh)
fox skin sock: kumatxax E (UT 248) (koo MAHT kah)
qift: aq̂aasax E (UT 31) (ah GHAAS eh)
gift: aĝaazax W (UT 31) (ah GHAAZ eh)
gift: siga? W (UT 357) (segh ah)
gold: suulutux E [r] (UT 377) (SOO luh toh)
gold: zuulutux W [r] (UT 377) (ZOO luh toh)
qrain, seed: daxsxix W grain (UT 160) (THAH skegh)
grains, seeds: daaxsxis W (UT 160) (THAH skis)
gravel: chuguulĝun E (UT 152) (choo GHOOL ghun)
gravel: quganaalĝis W (UT 332) (kugan AHL ghis)
gray, silvery: quumhlaakdax E (UT 336) (koom HLOCK thah)
gray: quuhmliix W (Dirks, 2001) (koom LEEH)
green: chidĝix E (UT 135) (CHIDTHE gegh)
green: chidĝaayux W (UT 135) (chidthe GUY yoh)
habitat: slu? (UT 368 #3) (SLOOH)
habitat: tanax (UT 388) (TA nah)
hard: tngux E (UT 400) (tng oh)
hard: tungax W (UT 409) (toong ah)
having many needles: usxim inguqalaĝii E (UT 209) (oos kim • ing oo KAHLAH ghee)
hooks: chuhnisas W (UT 154) (choon EES us)
hooks: chuhnunsin E (UT 154) (chuh NUN sin): (instrument for stabbing)
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large: anguna (p 91) (ung 00 nah)

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leaf: siĝlix W (UT 359) (SIHGH legh)
leaf: yulix E (UT 465) (YOO legh)
life: anĝaĝiisix (UT 75) (ang gha GHEES ih)
microscopic: chuqudaachxuzax W (UT 156) (chuh ku thawch KOO zah)
mountain: kiiĝuusix (UT 238) (kihg GHOO segh)
mountain: qiiquusix E (UT 238) (keoh GHOO seqh)
mukluks, skin boots: uliiqin (UT 436) (ool EEGH in)
orange: kanuuyax [r] (UT 230) (ka NOO yah)
oval: aadumaanux (UT 14)(aa thoom AAH noh)
oval: qumugdux W (UT 336) (koom UG thoh)
petal: lista (IT 256) (LEE stuh)
pink :uluudam tudagii W (UT 401) (oo LOO thum • too THAG ee)
plants: hitnisangin E (UT 216) (hit nee SUNG in)
plants: hitnisangis W (UT 216) (hit nee SUNG is)
purple: chidĝaayu(m) tuduu E (UT 401) (chithe GUY yoo(m) • too THUU)
purple: uluudam gaxchikdaa W (Dirks, 2001) (oo LOO thum • kagh CHIK thaah)
rain: chixtax (UT 138) (CHIH tah)
red: uluudax (UT 436) (oo LOO thah)
round: akamudigax W (UT 43) (aka moothe EE gah)
round: qihmadgux E (UT 43, 324) (kih MOTHE goh)
sand: chugux (UT 151) (CHEUGH oh)
seed, crumb: hitxulix (UT 215) (hit HOO legh)
seed: qaasax E (UT 311) (KAAH sah)
seed: galax (UT 302) (say KAH-lah)
seed: siimax E [r] (UT 361) (SEE mah)
seed: siimina W [r] (UT 361) (seom IN ah)
seeds, lit. flower scabs: chiquudngim qadungin E (UT 293) (chih ROOTHE ngim ● kahthe
OONG in)
share: udigda W (UT 416) (oo THIG thah)
share: udigdada E (UT 416) (oo thig THAH thah)
silver: siriivrax W [r] (UT 360) (sir EEV rah)
sky: inix E (UT 201) (iH nyih)
sky:inkax W (UT 202) (iN kah)
small: chuqudax W (UT156) (chuh KUH thah)
small: daaxsxituud(a)lakan E (UT 160) (thah skit toothe LA kan)
smooth: atxax (UT 108) (ATK ah)
smooth: qachxidiqax E (UT 292) (kach kidth IG qah)
smooth: qachxizigax W (UT 292) (kach kiz IG gah)
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sock: *chuulkix* [r] (UT 153) (CHOOL kegh) sun: *aĝadax* E (UT 36) (uh RUH thuh)

sun: aĝadgi**x** W (UT 36) (uh RUHTHE gegh)

thorny: *chuchxulalix* E (UT 149) (chuchk oo LA lih) to share: *udigasalix* E (UT 416) (oothe igh (ah) SA lih)

to share: udixs W (UT 416) (OOTHE ihs)

traditional knowledge of *Unangam: Unangam Angagiisingin:* E (Galaktionoff: 2001)

(oo NUNG am • an ghah ghee SING in)

traditional knowledge of *Unangas: Unangam Angagiisingis* W (Dirks: 2001)

(oo NUNG am • an ghah ghee SING is)

valley: changana (UT 131) (chung AHN uh)

water: taanga (UT 292) (TAAHN gah) white: quma (UT 335) (KOO mah) white: quhma (UT 335) (Koo hmah)

yellow: chumnugix (UT 153) (choom NUH gegh)

#### PLANT GLOSSARY:

**alternate**: Leaves that grow one above the other on opposite sides of a stem, not in pairs.

angiosperms: Plants that carry their seeds in fruits (cf. gymnosperm).

annuals: Plants that go through their whole life cycle in one growing season.

atom: One of the basic units of matter.

basal: Leaves at or near the bottom of the stem.

biennial: A plant that needs two growing seasons to complete its life cycle.

bonds: The links between atoms when they form molecules.

**botanist**: Plant scientist.

**bulblet**: A rounded part of a plant usually found underground.

**carbon**: a common element which occurs with other elements in all plants and animals. Its chemical symbol is C.

**carbon dioxide**: A gas in the air that is changed into food for the plant through photosynthesis. Its chemical formula is CO2.

carnivore: A consumer that eats other animals.

catkin: The flowering part of some plants such as willows.

cell wall: The stiff outer layer of a plant cell.

**chemical formula**: The sets of letters and numerals that scientists use to show the composition of molecules.

**chlorophyll**: The green pigment that helps plants make food from the energy in sunlight.

chloroplast: The green body in a plant cell that contains chlorophyll.

chromosomes: Found in the cell nucleus, they contain the instructions for the

development of the next generation.

constant: A condition that does not change, especially in an experiment.

consumer: In a food chain, the one who eats the producer.

cotyledon: Seed leaves that store food for the seed's first growth.

cytoplasm: The material enclosed by the cell wall except for the nucleus.

**detritivore**: In a food chain, those who eat dead or decaying matter. **dominant**: In a plant community, the most numerous kind of plant.

dormant: Inactive.

embryo: The seed part that is the beginning of the new plant.

epicotyl: The part of the plant embryo that will become the stem, leaves, flowers and

fruit.

food chain: Flow of energy from the sun to green plants to animals.

food web: Network of food chains.

**fruit**: The mature, ripe part of the plant that contains the seeds.

germination: Beginning of growth by a seed.

gymnosperms: Plants that carry their seeds in cones.

habitat: The environment need by a particular species for its survival.

**herbarium**: A collection of plant specimens. **herbivore**: A consumer that eats only plants.

**hydrogen**: The most abundant element in the universe; a tasteless, odorless gas. The hydrogen atom is the smallest and simplest atom known. The chemical symbol is H.

**hypocotyl**: The part of the plant embryo that will become the lower stem and root.

hypothesis: In an experiment, the idea to be tested.

lichen: Plant-like combination of a fungus and algae.

**lobed**: Leaf edges that have deep indentations.

margins: In leaves, the edges.

**mitochondria**: The power factories for a plant cell that change food into energy so that the cell can grow, divide, and do its work.

molecule: One of the basic units of matter, made up of two or more linked atoms.

mordants: chemicals that help a dye keep from fading.

**nectar**: Sugary liquid produced by plants, usually in the flower.

node: Place where a leaf connects to a stem.

nucleus: The control center for a cell.

observation: Carefully looking at something; using facts to describe something.

opposite: Leaf arrangement in pairs on each side of the stem.

ovaries: The swollen part of the pistil that contains the seeds.

**oxygen**: A chemical element (atom) with the symbol O. A life-supporting gas with the chemical formula  $O_2$ .

palmate: Branching leaf vein pattern coming from the base of the leaf.

**parallel**: Leaf vein pattern from base to tip. **perennial**: A plant that lives from year to year.

petal: A flower part that is usually colored.

**phloem**: The tube that carries food (sugars) made in the leaves to the rest of the

plant.

**photosynthesis**: The process of plants making their own food. "Putting together with light."

pinnate: Branching leaf vein pattern coming from the mid-vein.

pistil: The female part of the flower that produces seeds.

pollen: The yellow powder found on the stamens.

pollution: Impure, contaminated.

**primary consumer**: In a food chain, the plant-eaters.

producer: In a food chain, those who make food out of non-living matter such as

sunlight, minerals, and air.

**respiration**: In plants, the breakdown of food for energy. **secondary consumer**: In a food chain, the meat eaters.

**seed coat**: The protective outer layer of a seed.

**seed**: The part of a flowering plant that will grow into a new plant under the right conditions.

**sepals**: The outermost flower structure that usually encloses and protects the other flower parts.

smooth or entire: Leaf edges that are not cut or toothed.

solar: From the sun.

**specimen**: One example of a whole group.

stamen: The male part of a flower that produces pollen.

stationary: Not moving.

stomata: Tiny pores on leaves through which oxygen, carbon dioxide and water pass.

(s. stoma) **subjective**: Opinion.

**toothed**: Leaf edges that have indentations. **transpiration**: Water loss through the stomata.

**vacuole**: Fluid-filled part of plant cell that helps keep the cell rigid. **variable**: A condition that changes, especially in an experiment.

vein: Branching parts in a leaf that carry water and food and help support the leaf.

**whorled**: Three or more leaves arranged wheel-like around the stem.

**xylem**: The tube that carries water and minerals from the roots throughout the plant.

### PLANT IDENTIFICATION GUIDES, FIELD GUIDES

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http://www.pressenter.com/~breck/index.htm

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**Basket Weaving** 

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For more informtion about Fast Plants™:

http://www.fastplants.org/

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http://school.discovery.com/sciencefaircentral/scifairstudio/handbook/scientificmethod.html

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#### Supplies:

Pacific Papers 15702 119th Ave. NE Bothell WA (800) 676-1151 http://www.pacific-papers.com/

Herbarium Supply Company 3483 Edison Way Menlo Park CA 94025 (800) 348-2338 http://www.herbariumsupply.com

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Activity to learn basic classification techniques:

http://globe.fsl.noaa.gov/sda-bin/wt/ghp/tg+L(en)+P(landcover/LeafClassification)

#### FLOWER PARTS

http://netspace.org/MendelWeb/MWflower.html

#### CELL

Virtual Cell that can be dissected:

http://www.life.ucic.edu/plantbio/cell/

Jello cell:

http://askeric.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Science/Biological/BIO0035.html

#### **PHOTOSYNTHESIS**

Activity site:

http://www.pbs.org/ktca/newtons/9/phytosy.html

Center for the study of photosynthesis:

http://photoscience.la.asu.edu/photosyn/education/learn.html

Hinkle Creek Elementary School, 4th grade class wants to know about the plants in your area and has a Web site with excellent illustrations and sound:

http://tgjunior.thinkquest.org/3715/index.html

This site discusses photosynthesis, food chains and more:

http://www.alienexplorer.com/ecology/Ecology.html

Questions and answers about photosynthesis at this site:

http://www.sciencenet.org.uk/database/Biology/Lists/photosynthtable.html

### FOOD CHAINS, FOOD WEBS

Interactive food web work sheet included here:

http://www.geocities.com/Heartland/Ranch/2200/foodchains.htm

http://www.planetpals.com/foodchain.html

#### LICHENS

Lichen information with lively illustrations:

http://mgd.nacse.org/hyperSQL/lichenland/index.html

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Alaska Traditional Knowledge and Native Foods database:

http://www.nativeknowledge.org/db/nutriout.asp

Guidelines for how to interview an Elder: http://www.ankn.uaf.edu/interview.html

## **INTERNET GENERAL**

Alaska Native Knowledge Network. Use the searchable index to locate plants:

http://www.ankn.uaf.edu/

Ask Eric lessons:

http://ericir.syr.edu/Virtual/Lessons/

Eisenhower National Clearing House for curriculum resources:

http://www.enc.org/

University of Alaska Anchorage Alaskool project:

http://www.alaska.org

US Department of Education lesson site:

http://www.thegateway.org/

## **APPENDIX VALUES**

# This work is a draft to be shared for regional input. Values of the Unangan/Unangas

These rules for living from the tradition of the people of the Aleutian and Pribilof Islands are presented to you by the *Unangam* Elders' Academy through the Association of *Unangan/Unangas* Educators and the Aleutian/Pribilof Islands Association. Volunteers asked for input from the communities of St. Paul, St. George, Atka, Nikolski, Unalaska, Akutan, King Cove, Sand Point, False Pass, Nelson Lagoon, and Anchorage about what was important to learn as an *Unangax* in each place, followed up on suggested research, then presented the data to the group who would like to share this with you.

Alaska Native educators have made a great effort to bring forward these enduring cultural values that have sustained them. Remember that these rules for living are part of our tradition and if we are mindful to teach them to our young people we can go forward as the successful people we are destined to be.

Please share your thoughts about what you have read in this brochure. If you have comments or questions about these values please send them to:

Association of *Unangan/Unangas* Educators PO Box 220196 Anchorage, AK 99522-0196

## **APPENDIX VALUES**

Qawalangin / Niiĝuĝis

Eastern dialect / Western dialect

## Values of the *Unangan/Unangas*

Kudaliiĝin maqaxtakan txichin aguqangin / Kadaangis maqaxtal txichix aguqangis The way of our beginning, our ancestors

Udaadan tanangin kugan Unangan anangin / Udaadan Unangam tanangin kugan anangis Our people's land and sea around here

lxtaqangin lulalix matalix anĝaĝiingin matakun / Hixtanangis luulal ama matal anĝaĝiingin matakus

Believe in them and keep them going through time

Aniqdun ngiin aqaaĝan aĝnangin qulingiin akux gumalgakux. / Kinguuĝingin wan slum kugan haqaaĝan aĝnangin qulaan akux gumalgakux.

For the coming generations that we don't see yet, for their time here.

Father Michael Lestenkoff

Anĝaĝiisix matanaan imin ixamnakux. Anaĝix ukunachin imchin ugutaasaamchim aĝnaxtxichin. / Anĝaĝiisiin sigax imis akux mal sigaan inixsiisada.

Life is gifted to you. What you make of it is your gift in return.

Tuman ilaanuĝitxin, Unangan maqaxtadqangin mataaĝin matakun. / Anĝaĝiisiin, ilaazat ama Ulamis anĝaĝinangis maqaxsingis idaxtalagadax.

Know your family tree, relations and people's history.

Tanaĝnangin lĝayuusalix anĝaĝiimchin aĝnaxtxichin. / Tanax, Alaĝux ama slum imuunuu huzuu anaĝim anaĝinĝis sahngaxtada.

Live with and respect the land, sea, and all nature.

Wan alaĝum ilan anaĝim anĝaĝinangin usuu Aguuĝux agach ngiin aĝiqaa. / Algas ama anaĝim anĝaĝingis huzungis Aguuĝum agacha ngiin aĝiqaa haqataasada.

Respect and be aware of the creator in all living things.

Txin achigalix anĝaĝigumin anuxtanatxin aŝsaasaduukuŝtxin. / Huzugaan txin achigaŝ agacha mada ama txin sakaaĝatada.

Always learn and maintain a balance.

Qaqamiiĝux qalgadam ukulganaa ngiin ugutaasakun. / Qaqamiiĝux qalgadax Anĝaĝix ngiin axtanaa akux.

Subsistence is sustanance for the life.

Unangam tunuu unangqasining asix tunuxtalaagnaqing. Unangan anaan Ukuxtachxikux. / Unangam tunuu Unangas alganaa ukuchxizax ama huzux ngiin tunuxtachxizax.

Our language defines who we are and lets us communicate with one another.

## **APPENDIX VALUES**

## The Right Way to Live as an Unangax

Simple Instructions with the Long List

- 1. Udigdada. E / Udigida. W / Share.
- 2. Tutada. E & W / Listen.
- 3. Txin anguynixtaĝulux. E / Txin manitalagada. W / Don't be boastful.
- 4. Agitaasitxin ixamnaasada. E / Anĝaĝinas iĝamanaasada. W / Be kind to other people.

- 5. Agitaasiin sismida. E / Anĝaĝinas kiduda. W / Help others.
- 6. Tuman tanax agliisaaxtan. E / Tanax agliisada. W / Take care of the land.
- 7. Tuman alaĝux agliisaaxtan. E / Alaĝux agliisada. W / Take care of the sea/ocean.
- 8. Tuman taangax agliisaaxtxin. E / Taangax haqayaasada. W / Take care of the water.
- 9. Manachin ilam axtalakan agliisaachin. E / Anaĝis mal agumis ilam axtalagada. W / Do not do anything to excess.
- 10. Txin ugutada. E / Qaĝatada. W / Be happy.
- 11. *lĝayuuŝtxin, anaĝim atxaĝingin agachan madada*. E / *Txin sakaaĝatal anaĝis mada*. W / Behave yourself: Do the things you know are right.
- 12. Chxadalagaaxtxin. E / Chxalagada. W / Don't steal.
- 13. Adluudaĝiĝulux E / Adalulagada. W / Don't lie.
- 14. Ludakiim axtax samtaaxtxin. E / Ludaaĝis, tukus ama uchiitilas sahngaxtada. W / Respect Elders (including parents, teachers, & community members).
- 15. Agitaasiin samtasaaxtxin. E / Agitaadaan sahngaxtada. W / Respect your peers.
- 16. *Kayutuuxtxin.* E / *Kayutuda.* W / Be strong.
- 17. Agitaasiin matanangin imin giduĝiisalagaaxtxin. E / Silaa txin gikuun alagada. W / Don't be envious of what belongs to another.
- 18. Anĝaĝix ixamanax ixtalix kayux ixamanax atxaxtalix manaa imin ugutaasalix aaxtxin. E / Anĝaĝinax iĝamanas manaa ngaan hixtada. W / Admire one who does well by honest means.
- 19. *Maamin iîtanatxin madada.* E / *Anaĝis maamis hiîtaqaan aguun mada.* W / Don't make promises quickly, but keep those you make.
- 20. Anĝaĝiisanatxin anĝaĝim agitaasingin agachan liidalix anĝaĝiisada. E / Matal anĝaĝiikaan agacha anĝaĝisada. W / Live like you want people to see you live.
- 21. Igilnaaxnaxtxin. E / Qaqatulagada. W / Don't be greedy.
- 22. Slax, aĝadax, tugidax, kayux sdan tunum manginulux kugan iĝadĝulux. E / Slax, aĝadgix, ama sdas hadangiin iĝamanax agacha tunuxtaasada. W / Don't talk bad about the weather or the sun, the moon, or the stars.
- 23. Agitaasaan adaan tunum ixamnanginulux igadgulux. E / Angaginax adalus hadaan hilgadagulax. W / Don't slander another person.
- 24. Kadaan axtaaĝanaxtxin. E / Kadamis agalagada. W / Don't get ahead of yourself.
- 25. Aduxtanaan akidada. E / Adut akida. W / Pay your debts.
- 26. Qagamiiĝux. E / Qagamiiĝux. W /Subsistence.
- 27. Tunuun ugunuxtalakan anĝaĝiixtxin. E / Unangam Tunuu ugunuxtalagada. W / Don't forget your Unangan Language.

l,			_, give my permi	ssion to the
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me for education	onal purposes regarding tra	aditional Cultu	re, History, and	Language.
	nat this information may be ny and the Association of <i>L</i>	•		ng cleared with the <i>Unangam</i> or appropriateness.
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	kn.uaf.edu/mataatua.html			
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If your budget allows and you would like to contribute in some way to the descendants of the people sharing this knowledge with the world here is an easy way to do so. Education is key to appreciating and sharing traditional knowledge before it is lost. Following are two excellent scholarship foundations, which serve the *Unangan/Unangas*:

- 1) The Aleut Foundation <a href="http://www.aleutcorp.com/found.html">http://www.aleutcorp.com/found.html</a>
- 2) The Edna P. McCurdy Scholarship Foundation <a href="http://www.ounalashka.com/">http://www.ounalashka.com/</a> (Click on "Edna P. McCurdy Scholarship Foundation)

There may be new scholarship foundations, which were unknown at the time of this project. Sharon Lind at The Aleut Foundation will be able to tell you if any have become firmly established.

## A Quick Overview of the *Unangam Tunuu* Sound System

by Barbara Švarný Carlson

To learn more consult *Aleut Grammar/Unangam Tunuganaan Achixaasi* by Knut Bergsland, which contains detailed linguistic descriptions. If a class is ever offered in your area, take advantage of it, as they have been rare. Like many in my generation English was my first language. While I am by no means yet fluent in *Unangam tunuu*, I am deeply grateful to those who help me learn. It has been my extreme good fortune to study formally for one semester and informally for years with Moses Dirks. Additionally, I have been lucky to work with Nick Galaktionoff, Sophie Sherebernikoff, and Iliodor Philemonof. This introduction will get you started. The Association of *Unangan/Unangas* Educators plans to have a Web site soon with links as they are developed and become available. URLs to visit to check if anything new is ready are the following:

Alaska Native Knowledge Network:

http://www.ankn.uaf.edu

Association of Unangan/Unangas Educators:

http://www.ankn.uaf.edu/Unangan

For a free downloadable font for Unangam tunuu:

http://www.alaskool.org/language/fonts/unangam/unangam\_font.htm

Language resources from Alaskool:

http://www.alaskool.org/language/languageindex.htm

Check with your school to see if other resources are available such as audio tapes made by instructors who speak the language.

### **INTRODUCTION:**

The Native language of the people of the Aleutian and Pribilof Islands is called *Unangam tunuu* (sometimes referred to as *Unangax̂*). To say words in Unangam tunuu, one must learn several sounds that are not produced in the English language. The "say it" cues in the plant curriculum text are a user-friendly way to help non-speakers pronounce the words in the units. You must learn the sound system to say words you find in the *Aleut Dictionary/UnangamTunudgusii* and the written language.

#### THIS IS EASY:

- 1. Unangam tunuu spelling is regular and easy to learn (as opposed to English, which is irregular and takes years to master).
- 2. There are 3 basic vowels, which can be long or short, referring to the length in time (having nothing to do with "long" or "short" vowels in English).
- 3. There are only five consonant sounds not present in English: q, x, g, x and ĝ.

#### Vowels:

The three basic vowels, a, i, and u, are each either short (in time) or long (in time). The long vowels are written double.

a aa i ii u uu

These correspond roughly to the following English vowel sounds:

- a has a sound midway between the vowels of English father or hot and that of tub as in the *Unangam tunuu* word, *alax̂*The duration is short.
- has a sound midway between the vowels of English rod and that of tub as in the *Unangam tunuu* words, *aang* and *aĝalaa*The duration is long.
  - i has a sound midway between the vowels of English hit and heat, as in the *Unangam tunuu* word, *hitnisangis* The duration is short.
  - ii has a sound midway between the vowels of English hid and bead, as in the *Unangam tunuu* word, *kiika*î The duration is long.
  - u has a sound midway between the vowels of English good and food as in the *Unangam tunuu* word, *chunusi*x The duration is short.
- uu has a sound midway between the vowels of English good and food as in the second syllable of the *Unangam tunuu* word, *uxchuuda*ŷ The duration is long.

The vowels e and o are used only in loanwords from Russian and English.

"Long vowels always have some degree of accent, and when in the last syllable of a word, tend to 'steal' the usual word-accent from the second-last syllable."

-Michael Krauss, Professor Emeritus, University of Alaska Fairbanks, Alaska Native Language Center, April 2002

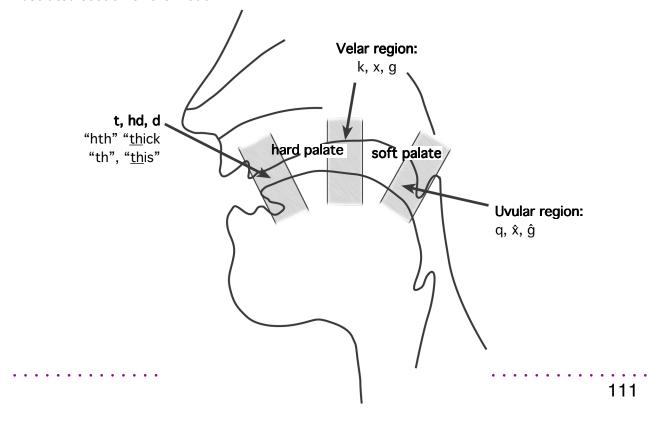
#### **HOW THESE SOUNDS ARE MADE:**

The five consonant sounds not present in English are shown inside the shaded boxes on the following chart. The additional consonants are to help you visualize the progression (left to right) in sound production from the front of the mouth to the back.

	TONGUE TIP	VELARS (mid-mouth)	UVULARS (back of mouth)
air flow voice not stopped sounding	t	k	q
air flow not stopped	hd "hth" " <u>th</u> ick"	х	Ŷ.
air flow not stopped voice	d " <u>th</u> is"	g	<b>ĝ</b> sounding

Voice is the sounding, vibrating or buzzing of the vocal chords. Try pronouncing sequences like the following with no vowels in between: szszszsz..., fvfvfvfv..., and you will feel your voice turning on and off; on for z and v; and off for s and f. Likewise, for English th as in thick (Unangam tunuu hd) and th as in this (Unangam tunuu d). hd, d, hd, d, hd, d, hd, d.... So also for Unangam tunuu xgxgxgxg..., and  $\hat{x}$ ,  $\hat{g}$ ,  $\hat{x}$ ,  $\hat{g}$ ,  $\hat{x}$ ,  $\hat{g}$ ,  $\hat{x}$ ,  $\hat{g}$ ..., the x and  $\hat{x}$  with the voice off; and the g and  $\hat{g}$  with the voice on.

This diagram shows where the sounds are articulated in the mouth. Make each sound and see if it seems to be made in the correct spot. If not, try producing the sound in a way that will target the illustrated section of the mouth.



### **Description of sounds:**

Note that x and g have a noticeably smoother sound, with the tongue up against the hard (bony) palate, compared with  $\hat{x}$  and  $\hat{g}$ , with the tongue up against the soft palate, two soft surfaces together, which have a more gurgling, rough or flabby sound.

Note that d is pronounced as in English <u>th</u>is and mo<u>th</u>er, not like English d (except in some people's pronunciation of loanwords from Russian and English). Likewise, g is pronounced as noted above, not like English g (with the airflow stopped, except in some people's pronunciation of loanwords from Russian and English).

Description of h sounds:

There are six combinations starting with h. They are not difficult; hy and hw are also in English, but the others are not. Say them fast.

hy as in English huge

hw as in the way some people pronounce English what

hm, hn, hng are like m, n, ng except that they begin with h, voicelessly, almost "snorted"

hl is like I except that it begins with h, voicelessly.

These are preserved mainly in Atkan, but exist to varying degrees in other dialects.

#### HOW TO GET A LOT OUT OF A FEW MINUTES OF PRACTICE:

Articulation Exercise #1:

In Unangam tunuu it is absolutely essential to learn to distinguish k, x, g, from q,  $\hat{x}$ ,  $\hat{g}$ . Pronounce the following consonant with its paired vowel listening to the sounds change:

ka	ki	ku	qa	qi	qu
xa	хi	xu	х̂а	λi	х̂и
ga	gi	gu	ĝa	ĝi	ĝu

Do this one every day or more. Remember from the table and diagram that these consonants form a very regular and orderly system. For example, k is to q as x is to  $\hat{x}$ . K and x sounds are produced mid-mouth and made with the tongue against the hard palate so they are smooth sounds. Conversely, their paired letters, q and  $\hat{x}$ , are produced at the back of the mouth and made with the tongue against the soft palate so they are rougher, more gurgling sounds. Likewise, x is to g as  $\hat{x}$  is to g and so on. Try it: You'll hear the difference.

440

#### Articulation Exercise #2:

kaga	kigi	kugu	qaga	qigi	qugu
xaga	xigi	xugu	х̂ада	хigi	х̂иди
gaga	gigi	gugu	ĝaga	ĝigi	ĝugu

The practice will allow you to hear and say the different sounds. For some people this is simple; for others a little harder. Do not be discouraged. With time and practice your ears will hear the differences and your tongue will produce the correct sounds.

### Articulation Exercise # 3:

kaqa	kiqi	kuqu	xaîa	xiâi	xuûu
х̂ада	хigi	х̂иди	х̂аkа	хікі	х̂иkи
gaĝa	giĝi	guĝu	ĝaxa	ĝixi	ĝuxu

#### Articulation Exercise # 4:

xaxaa	xixii	xuxuu	х̂ахаа	хіхіі	х̂ихии
kaqaa	kiqii	kuquu	gaĝaa	giĝii	guĝuu
gagaa	gigii	guguu	kaxaa	kaxii	kaxuu

Articulation Exercise # 5: You can pronounce *Unangam tunuu*!

aang	ting	hla <b>x</b>	sa <b>%</b>	da <b>%</b>	ama <b>x</b>
(hello, ves)	(me)	(hov)	(duck)	(eve)	(fish eggs)

Unanga <b>n</b>	Unanga <b>x</b>	Unanga <b>x</b>	Unanga <mark>m</mark> tunuu
(plural form = $3+$ )	(singular form = 1)	$(dual\ form = 2)$	(possessive)

Qila <b>m</b> ixamnaa.	Qa <b>m</b> aĝalaa.	Angalkinga <b>x̂.</b>	lîamnataku <b>î</b> !
(The morning is good.)	(Good afternoon.)	(Evening.)	(Very good!)

Kumxax, congratulations!

113

## **DICTIONARY**

As a girl in the 1950s, I tried to talk Grandma into helping me write an Aleut dictionary so I could learn the language. Despite my persistence, she refused to discuss my request, having been punished as a child for speaking the language. In Unalaska, she and many of her generation shielded their children from such mistreatment by speaking only English with them. One day in a moment of unexplained weakness, Grandma sat down at her kitchen table when she saw me come in with my little tablet and pencil. "Okay," she said, "I'll help you. What do you want to know?" Stunned, I opened the tablet and stammered, "uh, apple." Her eyes squinted up and she started to smile. Then, she laughed so hard she cried. When she stopped laughing she told me why we didn't have a real Aleut word for apple. I was unaware of many things at that age. (A Russian loan for apple is yaavlukax E or, brilliantly, the lesser-known crafted word, hlyangam gaayungin E (tree berries). Grandma and I talked about it. It was a touching moment and the time I began to realize that we were losing more than words by not holding on to our language. Shortly after that Grandma had the first of several heart attacks and we all moved away from Alaska. We never made my dictionary. Grandma (Alice Merculieff Hope) died young. It was nearly two decades later before my mother and I learned that we call ourselves Unangan. Grandma would have delighted in this book.

You may not read the Aleut Dictionary/ Unangam Tunudgusii, as I do, with the feeling that it honors the discussions Grandma and I could have had. Once you begin to use it, however, you will realize that it is a valuable and unprecedented resource. Ugutada, enjoy!

## How to Use the Aleut Dictionary/Unangam Tunudgusii

By Barbara Švarný Carlson

In the 1800s Ivan Veniaminov worked with *Unangam tunuu* speakers, Ivan Pan'kov, chief of Tigalda, and Iakov Netsvetov, priest of *Atâaâ* collaboratively to produce the first instances of *Unangam tunuu* written as literature. *Unangam tunuu* was an oral language, so it was written down in the orthography of Veniaminov, a Russian Orthodox priest later canonized as Saint Innocent. He was an exceptional scholar and dedicated journal keeper who helped preserve history and cultural information that would otherwise not have been recorded. Netsvetov wrote a dictionary in the *Niiĝuâ* (Atkan) dialect. (*Niiĝuâ* is the short form of the singular *Niiĝuĝis*.) Read more about these greatly significant contributions in the history and introductory sections of this text.

In 1994 the Alaska Native Language Center (ANLC) at the University of Alaska Fairbanks published Knut Bergsland's eagerly anticipated *Aleut Dictionary/Unangam Tunudgusii*. Knut Bergsland of Oslo, Norway, developed the new standard orthography for *Unangam tunuu* after a vote in the early1970s to allow the people themselves to decide whether it was necessary to provide a version in the alphabet of this country. In the history and introductory sections of this book, Bergsland exegetically chronicled a detailed listing of the speakers of *Unangam tunuu* with careful descriptions of the fieldwork in which Native speakers participated.

To pronounce words in *Unangam tunuu*, the Native language of the people of the Aleutian and Pribilof Islands, one must learn several sounds that are not produced in the English language. Use the Sound System for *Unangam Tunuu* in the Appendix for help. In *Unangam tunuu* there are two

## **DICTIONARY**

characters,  $\hat{x}$  and  $\hat{g}$ , that use a diacritical mark to distinguish them from x and g. The syntax or word order of the language is not the same as English. For information on that subject, one may refer to the definitive reference grammar of the language, *Aleut Grammar/Unangam Tunuganaan Achixaasi* $\hat{x}$ , by Knut Bergsland.

A treasury of untapped information, this text pulls together several centuries of recorded language information by diverse scribners and decades of exegetical work done by Dr. Bergsland and his partners in the region and at ANLC. Knut Bergsland was a perfectionist in the best sense of the word and users will learn a number of linguistic tools with which they might not have otherwise become familiar. This is not an English/Aleut dictionary; that is, you do not simply look up the word in English and go straight to its corresponding word in *Unangam tunuu*. The reason for this is that to include as much information as possible, a different format was used.

#### WRITE IT RIGHT:

Entries are listed with the stem of the word followed by a hyphen and another letter(s). Many *Unangam tunuu* words are used as either nouns or verbs. If the word is used as a noun, the ending follows the pattern below:

$$-\hat{x} = 1$$
  $-x = 2$   $-n = 3$  or more (Eastern dialect)  
 $-\hat{x} = 1$   $-x = 2$   $-s = 3$  or more (Western dialect)

So, if the entry looks like this: *quma-x̂*, one white thing, write *qumax̂*, *E*; *quhmax̂ W*. If you want to write two white things, write *qumax E*; *quhmax W*. To write three or more white things in Eastern, *quman*; in Western, quhmas.

If a word is used as a verb, it will look like this: *quma-lix* (to turn white), and should be written as *qumalix* E; *quhmalix* W.

Remember, write qumax E or quhmax W, not quma-x, and qumalix E or quhmalix W, and not quma-lix.

Note: While the word for white is basically the same in Eastern and Western dialects, the Western word *quhmax̂* retains the "h" that has been dropped in some words in Eastern.

**HOW TO:** The Dictionary is set up so that it is easiest to find what an Aleut word means in English.

1. To find the *Unangam tunuu*, or Aleut equivalent of an English word, look up each entry listed under it in the index. You need to find the most appropriate time period, place, and meaning for your desired use.

The format presents each attested word (in the English Index) that matches the desired listing, in any dialect and time. Some words are archaic and no longer in popular use an any dialect. You must, then, look up each entry under a heading and read it to find the word you want.

It will be easy if the word for which you search is in the index. If not, try to think of a synonym. For example, if you are looking for "respond" and find nothing, try "answer." Often you will find many listed words for those you seek. You must then look each one up (the page number is conveniently listed right beside the *Unangam tunuu* word in the index listing).

## APPENDIX DICTIONARY

If you do not look up each word, you might end up with a word that has not been used since 1772 when you want a current word. You might end up with a word for En, the Eastern dialect speakers of Nikolski, when you wanted one for A, the Western speakers of Atka. Or, you might find a word that means something entirely different where you live than the word under which it was found in the index. You have to look up each word and read the entry to find the word you need. (There may be times when you will want to seek out archaic words!)

When you look up a word, you will find where it was attested or recorded. See page vii of the Dictionary for how to read this information. You probably will not want to use a word that is shown as attested in Atka if you are in King Cove (formerly from Belkofski) if another word can be found for your place.

2. Learn the significance of the symbols in the front of the book. The more tools you use, the more you will understand.

a/ha/aa/haa b ch d/hd f g/x ĝ/x i/hi/ii/hii k l/hl m/hm n/hn ng/hng p q r s/z t t<sup>r</sup> u/hu/uu/huu v w/hw y/hy

#### TIPS FROM A FREQUENT USER:

- A. Use bookmarks and paper stickies to crosscheck similar words.
- B. When you find a desired word, write it in a log and note the page number on which you found it. You will want to find it again and may forget how you found it as sometimes words can be located in a round-about way. You will not regret this method.
- C. Double check spelling and the correct use of diacritical marks. The meanings and pronunciations of words change without the marks.
- 3. Refer to the following alphabetical order (Dictionary General introduction, p xii): This order allows for the different combinations of words that have h vs. the dropped h being listed in a systematic way. Similarly, it allows for an orderly way to find g and x as opposed to  $\hat{x}$  and  $\hat{g}$ .

#### WHAT TO READ IF YOU DON'T HAVE TIME TO READ THE WHOLE THING:

This is an interesting introduction, and you will find helpful background information in addition to numerous explanations. If you do not have time to read the whole thing right away, it is useful to scan the content pages so that you will be able to find information when you need it. Some examples of things you may find useful follow:

Abbreviations and Sample Entries: pp vi - vii,

This section references all abbreviations telegraphically. You can easily learn on page vi the following and much more:

- E Eastern Aleut
- Eb E of Belkofski (now moved to King Cove)
- Ea E of Akutan (formerly Akun and other of the Krenitzin Islands)
- Eu E of Unalaska
- En E of Nikolski, Umnak Island
- A Atkan Aleut
- Au Attuan Aleut
- Ab Atkan of Bering Island
- Am Attuan of Copper Island (Mednyy)

**DICTIONARY** 

- This is important when you want to know the origin of a word. A word spoken in one location may vary or be totally different from its counterpart in another place.
- It tells you the Aleut word classes, such as noun, verb, and where to read more about them. (General Introduction 0.4)
- It tells what abbreviations in the entries mean, for example, *lit.* stands for the literal meaning of an Aleut word while *relig.* means that the word is found in religious text translations.
- It lists the sources of material cited so that you can sometimes determine in what circumstances and by whom information was documented.
- Page vii neatly shows sample entries with labels pointing to what they represent. You will find this extremely useful.

History: Describes the work of more than two centuries of contributing linguistic scholarship and documentation and chronicles events that led to this publication.

General Introduction: A complete description of format, order, academic linguistic devices employed. You might find this hard going, but it is replete with information necessary for the full utilization of all that is contained here.

Familiarizing yourself with the headings will enable you to locate specific help. These will be the most useful to new users. Get what you need and come back for the rest later.

- Dictionary format
- Alphabetical order
- Entries and subentries
- Attestation: locations and dates
- Historical Survey: An explanation of the distribution of the eight original sub-groups of *Unangan/Unangas*. These are the origins of some of the "federally recognized tribes" of which you may have heard.
- Aleut consonants and vowels
- Stress and related features of pronunciation
- Aleut treatment of Russian words
- •Sources: It is amazing to think that the very words in this dictionary can be traced to specific collections and in some cases to individuals. It has been interesting for me to learn who attested words in certain places and then to discuss that with an Elder. On one occasion my Elder friend confirmed a recorded person's knowledge of the language and told me it would have been good if I could have listened to him. It allowed us to have conversations that we otherwise would not have had and talk about subjects that might not have arisen. This text is full of touchstones.
- Main Entries and Subentries: The main section begins with an interjection of surprise in Attuan, "A!" and the heading on the first page is "A, HA, AA, HAA".
- Appendices: 10 appendices contain rich materials from various sources that would otherwise be difficult to locate.

After you have become used to finding the basic information you need, re-read the history or introductory sections. Gradually, your understanding of this invaluable tool will increase and your mastery will help you unlock its treasures. *Ukudagada*, good luck!

# **NOTES**