The Solid Phase of Water in Carrier William J. Poser

1. Introduction

Words for snow have drawn attention primarily as a result of the "Great Eskimo Vocabulary Hoax", the myth that Eskimos have an unusually large number of words for snow. This myth was debunked by Martin (1986), whose work was further popularized by Pullum (1991) and Pinker (1994). In response, Tony Woodbury prepared the list of words for snow in Central Alaskan Yup'ik Eskimo presented in Woodbury (1994), which, though brief, is the most extensive such discussion known to me by someone with firsthand knowledge of the language. Derby (1994) provides a list of 49 terms for Greenlandic Eskimo extracted from a dictionary. Here I present the lexical field of snow and other solid forms of water in Carrier, a language in which such terminology is extensive.

Carrier is the native language of much of the central interior of British Columbia, including the area along the Fraser River from north of Prince George to south of Quesnel, the Nechako Valley, the areas around Stuart Lake, Trembleur Lake, and Fraser Lake, and the region along the West Road and Blackwater Rivers, as far as the Coast Range, including the Kluskus Lakes, Ootsa Lake and Cheslatta Lake. Carrier people call themselves and their language Dakel. The center of the region is at roughly 125° West, 54° North. Carrier territory is therefore below freezing a substantial part of the year. At Prince George, the capital of the North, which is generally somewhat warmer than many other parts of Carrier territory, the statistically expected date of the first frost is 2 September, that of the last frost, 4 June. The average winter temperature is -12°C. Annual snowfall averages 166cm. The region contains hundreds of lakes and ponds, some quite large, as well as an extensive network of rivers. All lakes and rivers freeze over every winter.

Carrier is dialectally quite diverse, but the terminology in this domain is similar. For the sake of consistency, except where otherwise noted the forms given are from the Stuart/Trembleur Lake dialect.

For purposes of presentation, we may distinguish four basic kinds of solid water: snow, ice, hail, and frost. Whether such a division makes sense for Carrier is taken up later.

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2. Frost

There is just one basic term for "frost" \underline{so} , and one derivative, $doh\underline{zo}$ "frost up high", e.g. on trees.¹

3. Hail

For "hail" there are two synonymous words, one merely a short form of the other. These are ?indlu and ?indlutsan. ?indlu etymologically means "hard"; it is a form of a verb no longer in productive use. Two different verbs are used to describe hail falling. Both verbs take one of the nouns for "hail" as subject; the notion of hail is not implicit in either of them. If the hail is sparse, forms of nanhkat "it is falling distributively to the ground" are used; if it is dense, forms of naltih "it is raining".

4. Ice

For "ice" there are two basic, general terms: $t_{A}n$ "ice over a surface" and t_{AM} "piece of ice". t_{AM} is used for sheets of ice adhering to a surface, such as the ice over a lake or river or on a road. $L_{A}m$ is used for any piece of ice that may be thought of as a separate, manipulable, object, such as ice cubes and icicles. This does not mean that $l_{\perp}m$ must be small: the term includes pieces of ice of any size, such as the large chunks sometimes thrust up on the shore of rivers during break-up. Thinness and flatness is not sufficient to make a piece of ice $t_{\Lambda}n$. Unless the ice adheres to a surface, it is $t_{\Lambda}m$. Thus, if you freeze water in a pan or cookie sheet and break it out in a single piece, even though it may be a thin sheet it is $l_{\perp}m$. Similarly, a sheet of ice cut out of the surface of a lake ceases to be $t_{\perp}n$ and becomes $t_{\perp}m$. Curiously, the term for "glacier" tu appears to be a variant of $t_{\perp}m$, one or the other presumably reflecting dialect borrowing. In addition to these two terms of general application, there is a third, highly specialized, but to my knowledge, underived term for ice. This is $ts_{\Lambda}l$ the thin layer of ice that floats upon the water as the ice begins to freeze.

The verb "to freeze" has the stem $t_{A}n$, as in $x^{w}_{A}tit_{A}n$ "it (a body of water) is going to freeze up". This is evidently related to the noun "ice adhering to a surface". (The noun "piece of ice" is probably related to the old verb "to be hard" that also underlies "hail".)

¹ Fricatives and affricates with underscores are lamino-dental. For conservative speakers these contrast with apico-alveolars. The alternation observed in this example between voiceless /s and voiced /s is typical, though not exactly regular. Nouns beginning with a voiceless fricative typically change it to its voiced counterpart when possessed or in combination.

There are a number of more specific terms for ice, all of them derived. As with any other concrete noun, the suffix -jaz "small" may be added to $l_{\Lambda}m$ to yield $l_{\Lambda}mjaz$ "small piece of ice", such as an ice cube. Icicles are known as $l_{\Lambda}mdz_{\Lambda}s$, but there is also a more specific term $h_{\Lambda}k^{w}$ ' $\Delta z\gamma u$, literally "cold teeth", which denotes icicles hanging in a regularly spaced row so that they look like teeth.

A number of terms describe the ice associated with bodies of water. $t_{\Lambda}nzai$ is "clear ice". $t_{\Lambda}nd_{3\Lambda}s$ is an "ice floe", while $t_{\Lambda}n\gamma a$, literally "ice hair", denotes the ice that clings to the shore. $t_{\Lambda}nzul$ denotes lake ice heaved up on another piece of ice or the shore so as to leave a space between it and the water. Openings in the ice over bodies of water are also of interest. We have the general term $t_{\Lambda}nk'et$ "hole in the ice" as well as some more specialized terms: $t_{\Lambda}ntsikak'et$ "airhole in ice", ink'et "spy hole in ice", $tal\underline{d}z_{\Lambda}l$ "open water near the outlet of a lake which never freezes though surrounded by ice" and nildze "a spot in a frozen swamp where the ice is melted".

In the winter people travel over the frozen surface of lakes and rivers. Thus we have $t_{\Lambda}nk'_{\Lambda}tjati$ "trail or road over the ice". Of course, at some times of the year travel over ice is risky. A k'elul' is a path over the ice that is safe even when the ice around it begins to melt. Once the water begins to freeze, it is no longer possible to travel by boat. The beginning of winter, now equated with the month of November, is called $ban\gamma an n_{\Lambda}ts'_{\Lambda}kih$ "one travels by boat half the time".

Beaver travel under the ice between their lodges and the shore of the pond by means of a more-or-less fixed path. The path of the beaver under the ice is called tsata?ti or $tsan_{A}tix^{w}_{A}t?a$. The warm air released by swimming beaver as they move melts the underside of the ice a little. A good hunter can detect the thinner ice by tapping it and by locating the beaver's path set traps where the beaver come ashore or wait there to shoot them.

Sometimes beautiful patterns form within clear, cold ice. These are called $h_{\Delta}k^{w}$ ' $\Delta zsolindai$, literally "cold frost flowers".

5. Snow

Turning our attention now to snow, the general term is $j_{\Lambda}\underline{s}$. Blowing snow, however, is denoted by a distinct term tsil. Once on the ground, an accumulation of heavy, unsettled snow is $f_{\Lambda}t$. A snow bank or crust, on the other hand, is a $tsit_{\Lambda}n$ Individual snowflakes are $tf_{\Lambda}z$. Some people also use this term for dandruff.

There is just one verb meaning "to snow", though like other Carrier verbs it can take many forms, e.g. nadzaz "it is snowing", nadzaz "it snowed", natidzAz "it is going to snow", nax enidzaz "it has started to snow", tadzaz "it is snowing into water". The root of the verb is related to the noun "snow".

A snow shower is $t_{\Lambda}t_{d_{3}\Lambda}\underline{s}$, a nominalization of "it (suddenly) began to snow", while a blizzard is $t_{s}t_{t}t_{t}$.

There are a variety of terms for specific kinds of snow. $h_{\Delta}k^{w}$ ' $\Lambda \underline{z}j_{\Delta}\underline{s}$, literally "cold snow" is dry, powder snow, while $j_{\Delta}\underline{s}\underline{s}\underline{s}l$ "snow wet" is falling wet snow. Snow up high, as on trees, is $dohj_{\Delta}\underline{s}$ "above snow". Granulous snow is linludzih, while snow pellets are lisdlu. Another term for "powder snow" is $d_{\Delta}tf_{\Delta}ti$ "that which is soft to the touch". The verb $d_{\Delta}tf_{\Delta}t$ contrasts with $d_{\Delta}tle$ "it is compressible, mushy". Snow or ice cut up by the spring winds into fine needles is $t_{\Delta}nt_{\Delta}\gamma^{w}_{\Delta}s$.

There are several terms for fine, light snow. nadzoh is a light coating of snow on the ground. It's diminutive nadzojaz describes the fine-flaked snow that sometimes falls in the morning. Very fine, flour-like snow is either $x^{w} Azo$ or jat'ahzo.

There are also terms for melting snow. Slush in general is ?inze. When it is trapped between layers of ice, it is ?inze γ astu?. Water resulting from snow melting is $j_{\Delta}stu$ "snow water".

The first snowfall of the year is called *nonjas*, the last *nabe?dangi*.

Some times of the year are named in reference to snow. The month of February is called $t \int \Delta z s \lambda l \ uza l$ or $t \int \Delta z s \lambda l \ uza l$ or the medium-sized snowflakes", in contrast to March, which is $t \int \Delta z t \int 0 \ uza l$ "time of the large snowflakes". In the $Saik' \Delta z$ (Stoney Creek) dialect the term for February is different, though it also refers to snow. It is $un\Delta n \ ts'\Delta z jen \ nats'\Delta d\Delta t s \lambda n$ "we stand in it and defecate", referring to the depth of the snow. This is now usually shortened to $un\Delta n \ ts'\Delta z jen$ "we stand in it" by those who consider the full term indelicate. One term for winter is also related to snow. This is $j\Delta s k'\Delta t$, literally "on snow". However, this is not the term for the season: that is xit. $j\Delta s k'\Delta t$ is used only for counting winters. It is also the appropriate term for counting years and for stating someone's age.

There is no distinct category of frost in Carrier. The word <u>so</u> denotes not only frost but dew, fog condensed on windows, and so forth. It also underlies the verb "to dew", e.g. <u>nanadildzo</u> "there was dew". It is related to the verb "to be damp", e.g. <u>nanildzo</u> "It got damp". In other words, its real meaning is "condensation", liquid or frozen.²

Even these categories are not hard and fast. Notice that all four of the terms for fine, light snow cited above are based on the root zo. They are, in a sense, kinds of frost, which is to say a kind of condensation rather than kinds of snow.

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² In Carrier as in other Athabaskan languages, verb stems (almost) never begin with voiceless fricatives. There are numerous alternations between verb stems beginning with a voiced fricative and related forms with the corresponding voiceless fricative. For example, the stem of "be good" is zu, but the adverb "well" is su, which is also the form that shows up in the woman's name sujinka "beautiful earth".

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