# Introduction to the Carrier Syllabics 

William J. Poser, Ph.D.

# William J. Poser <br> © 2010, 2019, 2023 <br> Prince George, British Columbia http://billposer.org 

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## Preface

This little book is an introduction to the Carrier syllabics, the first and most distinctive writing system used for the Carrier language of the central interior of British Columbia. It is aimed primarily at those who wish to learn to read and write in syllabics, who all too often have had no recourse other than to try to teach themselves using the chart in the Roman Catholic Prayerbook and some other publications of Father Adrien-Gabriel Morice.

This approach leaves much to be desired. First, that chart is labelled in the Roman writing system used by Father Morice in his scholarly work, a writing system with which few people are now familiar. Second, a chart by itself does not explain the principles according to which the writing system is organized. Third, the chart is restricted to the sounds native to Carrier and leaves the student unprepared to read and write words containing sounds borrowed from other languages. Finally, the chart presents such information as it contains all at once rather than providing a graduated introduction.

This book may also be of interest to those who merely want to know how the system works and would like a more detailed exposition than the summaries available elsewhere. It is not an introduction to the Carrier language. Most of the book assumes no knowledge of the language beyond a basic acquaintance with its sound system and with the Carrier Linguistic Committee writing system now in common use. For those not familiar with the CLC writing system, a chart is provided that explains it in terms of the International Phonetic Alphabet and standard linguistic terminology. This will only be useful to those with some knowledge of linguistics.

The book consists of two main parts. The first provides a systematic explanation of the way in which the syllabics represent the sounds of Carrier. This is provided with a small set of exercises. The second works through some real text of varous types so as to give the student some experience of reading real syllabic texts and the attendant difficulties. These texts are provided with transliterations into the CLC writing system and English translations but with the exception of particular points of interest are not otherwise annotated or analyzed. A full appreciation of the second part of the book will, therefore require a knowledge of the Carrier language.

In view of the relationship of the Carrier syllabics to the Cree syllabics, the nature of which is rarely appreciated, a brief comparison of the two systems is provided. In addition to the exercises, a small vocabulary is provided in a selection of dialects, and a few reading passages.

Thanks to Marlene Erickson, Chris Harvey, Cora MacIntosh and Shana Schwenter for their comments and suggestions, and to Kent Sedgwick for information on the history of the Fort George cemetery. All of the photographs were taken by the author. The image of the keyboard on page 37 is due to Chris Harvey and used by permission. The font used for the syllabics is Chris Harvey's OskiDakelh font. The font used for the symbols of the International Phonetic Alphabet is the Summer Institute of Linguistics' Doulos IPA.

Bill Poser<br>Prince George, BC<br>2012-05-20

## Introduction

The first writing system used for Carrier was the "Déné syllabics" designed and introduced in 1885 by Father Adrien-Gabriel Morice, an Oblate missionary, at the Stuart's Lake mission in Fort Saint James. This writing system is known in Carrier as $\operatorname{Jiv} \leqslant \mathrm{n}$ B dulkw'ahke "frog feet". Father Morice always referred to syllabics in Carrier as $\operatorname{DB} \supset \boldsymbol{B r}^{\boldsymbol{T}}$ duchunk'ut "on wood" but this term is not used by Carrier people today and there is no evidence of its use in the past.

The Carrier syllabics were inspired by a writing system used in the Northwest Territories, Alberta, and Saskatchewan for Slave, Dogrib, Blackfoot and Chippewyan, which in turn was derived from the Cree syllabics created in 1840 by the Reverand James Evans. The Reverend Evans originally created the syllabics to write Ojibwe but was refused permission to use them for publications by his missionary society, only to receive permission after his transfer to Cree territory. A variant of the Cree syllabics was subsequently adopted by the Ojibwe. Today both syllabics and a roman system are widely used to write Cree. Some Ojibwe communities use syllabics little if at all, while others use syllabics exclusively.

The syllabics used to write Inuktitut by most Inuit people in Canada outside of Labrador are also derived from the Cree syllabics. Although the Carrier syllabics are related to the other Canadian syllabic systems, they are quite different in detail.

The syllabics were used to write Babine as well as Carrier in the narrow sense. There are examples of small bits of English and Latin written in the Carrier syllabics. Sekani people also used the Carrier syllabics, but to write Carrier, which many Sekani people knew. There is no evidence of the use of the syllabics to write Sekani.

Father Morice taught the syllabics only a few times, but they spread rapidly from one person to another and soon came to be widely used. Within a few months of the introduction of the syllabics, a lengthy message was written on the wall of the Richfield jail (near Barkerville). This is the first known document in the Carrier language. Considerable material was published in syllabics, including two editions of the Roman Catholic Prayerbook, a reading primer, and 24 issues of a bimonthly newspaper published from 1891 to $1894 .{ }^{1}$ Headstones were inscribed in syllabics. Carrier people corresponded with each other in syllabics and wrote messages on blazes on trees. Some kept diaries and business accounts in syllabics. For several decades there appears to have been mass literacy in syllabics.

Use of the syllabics began to decline in the 1920s due to the fact that most Carrier children began to go to residential school in 1922. There the use of Carrier was forbidden except for hymns and prayers. Furthermore, since the syllabics were taught primarily in the winter out on the trapline, when people had more leisure time than during the busy summer, children who were at residential school ceased to learn the syllabics in the traditional way. For a few years in the early 1930s, children at Lejac Residential School were actually taught the syllabics in school so that they could read the Prayerbook, but this soon came to an end with the publication in 1938 at the behest of the Bishop of a new version of the Prayerbook in a roman-based writing system.

At present, most people literate in Carrier use the Carrier Linguistic Committee writing system introduced in the 1960s. This English-based system is technically slightly better than the syllabics in that it makes certain distinctions, such as that between the lamino-dental ("fronted") and apico-alveolar consonants in onset position, not made in the syllabics. Perhaps more importantly, it could be typed on an ordinary typewriter and set in type using ordinary fonts. Furthermore, although learning it requires new correspondences between letters and sounds to be learned, anyone who knows how to read and write in English already knows all of the letter shapes. The syllabics, on the other hand, are perceived by proponents as distinctively Carrier, more attractive, and easier to learn. The technological advantages of the CLC system are no longer of much significance since typewriters are no longer in use and

1 In the second issue of the newspaper, dated November 1891, Father Morice reported that 84 people in 16 communities had subscribed.
syllabics are easily entered and printed using computers. As a result, there has been a recent resurgence of interest in the syllabics, and even people who cannot actually read or write in syllabics like to use the syllabics for tattoos and decorative inscriptions.

## How the Syllabics Work

## Consonant-Vowel Units

## H

Let us begin with the letter V , which represents hoo. Like most of the characters in the Carrier syllabics, this character represents a consonant followed by a vowel. Each such character comes in six related forms. If we rotate this letter $90^{\circ}$ so that it points to the left instead of down, we get <, which represents $h a$. If we rotate this letter another $90^{\circ}$ so that it points upward we get $\Lambda$, which represents $h o$. Finally, if we rotate it yet another $90^{\circ}$ so that it points to the right we get $>$, which represents $h u$ The principle is that the shape of the letter tells us what the consonant is while its orientation tells us what the vowel is. Since there are only four orientations but six vowels, the vowels $e$ and $i$ are provided for by adding diacritics to the $u$ orientation. Adding a vertical bar gives us $>$, which stands for $h e$. Adding a dot gives us $>$, which stands for $h i$. Here are the six letters in the $h$ set.


Exercise 1 is appropriate here.

## The Alveolar and Velar Stops

Here are the six combinations of the consonant $d$ with the six vowels. They are just like the combinations with $h$ except for the rounded shape.


Here are the six combinations of $t$ with the six vowels:


And here are the six combinations of $t^{\prime}$ with the six vowels:


You can see that in each case the symbol points downward for $o o$, to the left for $a$, upward for $o$, and to the right for $u$. The vowel $e$ is represented by the orientation for $u$ and a vertical stroke. The vowel $i$ is represented by the orientation for $u$ and a dot.

The three consonants just introduced are related. The unaspirated consonant, $d$, is open: $\subset$. Closing it off with a single line produces the aspirated consonant $t$ : . Adding an indentation produces the glottalized member of the set: $t^{\prime}$ Q.

| da | $t a$ | $t^{\prime} a$ |
| :---: | :---: | :---: |

You can see the same relationship in the letters for the velar consonants $\mathrm{k}, \mathrm{g}$, and k . ga is open: $\mathcal{E}$. Closing it off with a single line yields ka: $\mathcal{G}$. Adding an indentation yields k'a: $\mathcal{A}$.


Exercise 2 is appropriate here.

## The Alveolar Affricates and Fricatives

The affricates $d z a \mathfrak{G}, t s a \in \mathbb{E}$, and $t s^{\prime} a \notin$ work the same way.


They are based on the fricatives $s a \mathscr{E}$ and $z a \mathscr{C}$.


ひモルズ刃き
UんのDゆヲ
山タロロ円ロ
UG』曰包
あな囚⿴囗囚

| ts'o <br> 0 | ts'a | ts'o | ts'u | ts'e | ts'i |
| :---: | ---: | ---: | ---: | ---: | ---: |

Exercise 3 is appropriate here.

## The Nasals and B

Here are the letters $m a \in, n a \subset$, and $b a \llbracket$. Pay attention to the way $m$ and $n$ look in the different orientations:

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| mo 0 | ma | mo | mu | me | mi |
|  |  |  |  |  |  |
| noo | na | no | nu | ne | ni |
|  |  |  |  |  |  |
| boo | ba | bo | bu | be | bi |

The $m \in$ and $g \in$ series resemble each other. They are distinguished by the fact that the three prongs of $g$ are the same length while in $m$ one is markedly longer than the other two.


The $t \square$ and $b \llbracket$ series resemble each other and may be confused, especially in handwriting. They are distinguished by the fact that the cross-bar is at the very end in $t \mathrm{Q}$ but within the U shape in $b$ $\sigma$.


It is also possible to confuse $b u$ with $d e$.


In theory the vertical bar of $b u$ should meet the sides of the curve as shown here, while the bar diacritic of $d e$ should not. In handwriting, however, the vertical bar of bu may not extend as far as it should and the diacritic that distinguishes $d e$ from $d u$ may touch the sides of the curve.
Exercise 4 is appropriate here.

## The Laterals and Lateral Affricates - I, lh, dl, tl, tl'

Another set of related letters are: la C lha C tla C dla C and tl'a E. lha differs from la in the presence of a back-hook at both ends. The three affricates differ from $l a$ and $l h a$ in the presence of a crossbar. The ejective affricate has the characteristic indentation.

|  |  | $\int$ | D | 1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 100 | la | 10 | lu | le | li |
|  | $\square$ | $S$ |  | 1 |  |
| Iho | Iha | Iho | Ihu | Ihe | Ihi |
|  |  |  |  |  |  |
| tloo | tla | tlo | tlu | tle | tli |
| 1 |  |  |  |  |  |
| dlo | dla | dlo | dlu | dle | dii |
|  |  | 0 |  |  |  |
| tl'0 | tl'a | tl'o | t'u | tl'e | tli |

## The Palatal Affricates and Glide

 for $j a$ and $\mathcal{C}$ for $c h ' a$, we would expect C to stand for $c h a$. In fact, cha is written $\mathscr{G}$ and Q is used for $y a$.

あチ円ロショ
उल2णिण
б世2力か世


## SH

Here is $s h$. It is like $s$ but with an additional line like the one that makes $t a$ from $d a$.


Exercise 5 is appropriate here.

## W and WH

Finally, we have $w a<$ and $w h a \notin$.

| wo | $w a$ | $w o$ | $w u$ | $w e$ | $w i$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 |  |  |  |  |  |


$\forall$ whoo, A who and $>$ whi should not occur in modern Carrier text since wh cannot precede oo, o, or i. who $\mathbb{A}$ is however found in the writing of Father Morice, who seems to have heard whu as who. Also, people sometimes miss the $e$ in the sequence whei, which may be quite short, and may write $>$ whi for what should really be $\downarrow$ - whei.
Exercise 6 is appropriate here.
It is important to note that although in all cases the orientation of the character is associated in the same way with the vowel, it is not always possible to derive one orientation of a character from another by rotating it $90^{\circ}, 180^{\circ}$ or $270^{\circ}$. This works for the many characters that are symmetric about the x -axis in their a-form, such as $d a \mathbf{C}$, and for some others, such as $j a \boldsymbol{Q}$, but not for $m a \boldsymbol{\varepsilon}$, na $\mathbf{C}, l a \mathbf{C}$, tla $\mathbf{C}$, $d l a \mathbf{C}, t l^{\prime} a \boldsymbol{\varepsilon}$ or ya $\mathbf{Q}$.. For example, rotating moo $\boldsymbol{\omega} 90^{\circ}$ yields $\boldsymbol{3}$, which is not the same as $m a \boldsymbol{\varepsilon}$. When reading, you can rely on the the rule that pointing left means $a$, pointing upward means $o$, pointing to the right means $u$ (or with a dot or bar, $i$ or $e$ ), and pointing downward means oo, but when writing the orientation alone is not sufficient to determine the shape of the assymetric characters and you cannot in all cases rely on rotation. This inconsistency is no doubt a defect in the design of the syllabics.

## Isolated Consonants

Thus far we have only dealt with consonants that immediately precede a vowel. What about consonants that do not immediately precede a vowel, such as syllable final consonants? They are written with a separate set of symbols. There are only about half as many isolated consonant letters as CV shapes since many consonants occur only preceding a vowel.


For example, bulh "with" is written D , yoh "interior" is written 0 h .
Note that there are distinct letters for the fronted versions of $s$ and $z$.The distinction between the ordinary and fronted $s$ and $z$ is rarely made in practice. The syllabics do not provide any way of making this distinction immediately preceding a vowel.

The three isolated nasals are easily confused as they differ only in orientation.


One sound is written in a way that is unexpected from the point of view of the Carrier Linguistic Committee writing system. This is syllable-final $k$, which is written with the isolated $g$ character. For
example，gak＂nothing＂is written $E^{\prime}$ ，not $E$ ；lugok＂chicken＂is written $\supseteq \mathrm{m} \prime$ ，not $\supseteq \mathrm{m}$ ．The reason for this is that although there are three different velar stop consonants that can occur at the beginning of a syllable，namely $/ \mathrm{k} /$ ，$/ \mathrm{g} /$ ，and $/ \mathrm{k}^{\prime} /$ ，only one of them can occur at the end of a syllable．The phonetic properties of this sound are not the same as either $/ \mathrm{k} /$ or $/ \mathrm{g} /$ at the beginning of a syllable，so the whether to treat it as the syllable－final variant of $/ \mathrm{k} /$ or of $/ \mathrm{g} /$ is somewhat arbitrary．The CLC system treats it as a variant of $/ \mathrm{k} /$ ，but Father Morice treated it as a variant of $/ \mathrm{g} /$ ．

Another situation in which consonants do not immediately precede a vowel is when there are two consonants at the beginning of a syllable．To write $s, \underline{s}$ ，or $l h$ followed by another consonant at the beginning of a syllable we use the same isolated versions of these letters as we do at the end of a syllable．For example，sdus＂my lungs＂is written s Ds and lhnalh＂in each other＇s presence＂is written しくし．

The last situation in which consonants do not immediately precede a vowel is when the nasals are syllabic at the beginning of a syllable before another consonant．Here again the isolated letters are used． For example，mbat＂your mitts＂is written c $\mathbb{T}$ т and nludi＂your tea＂is written כִכ．

## Labiovelars

We have not introduced any letters for the labiovelar consonants $k w, g w, k w^{\prime}$ ，and $g h w$ ，nor will any be found in the chart．The reason is that these are written with the $w$－series preceded by the appropriate isolated consonant symbol．That is，$k w V$ is written $k-w V, g w V$ is written $g-w V, k w^{\prime} V$ is written $k^{\prime}-w V$ ， and $g h w V$ is written $g h-w V$ ．Some examples are $k w u n$＂fire＂$\rightarrow>$ ，gwada＇＂ 25 cents＂$\iota \leqslant \subset$＇，$k w^{\prime} u s u l$ ＂beads＂$v>$ ぶı，ooghwuz＂his thighs＂$\nabla \|>z$ ．This creates a context in which isolated consonant symbols may stack up，as in skwun＂my fire＂s $\rightarrow$＇，sgwada＇＂my quarter＂sı＜C＇，skw＇usul＂my beads＂ sv＞ぶ，and sghwuz＂my thighs＂sılzz．

It is not always easy to distinguish $/ / k h$ from $\| g h$ since they are identical but for a $30^{\circ}$ difference in orientation．


In practice，this is not much of a problem．In present－day Carrier，neither consonant occurs in syllable－ final position and only $g h$ appears before $w$ as $k h w$ is not distinct from $w h$ ．Indeed，for many speakers $g h w$ has merged with $w$ ．For such speakers，neither of these letters has a use．In older materials，$k h w$ and $g h w$ both exist and contrast，but $g h$ should not occur in syllable－final position．${ }^{2}$

2 The existence of a separate set of characters for isolated characters demonstrates that the syllabics are not actually a syllabary．These characters do not represent syllables，and many syllables cannot be written with a single character．

## Bare Vowels

Since Carrier syllables do not have to begin with a consonant, there is a set of letters for the vowels by themselves:


Exercise 7 is appropriate here

## Velar Fricatives

The $h<, k h \varangle$, and $g h \varangle$ series are similar in shape although they do not follow the pattern described above. Notice that $k h$ and $g h$ differ in how far out the cross-bar is. In print this is usually clear, but in handwriting it may be difficult to tell which letter is intended.



## Final W and WH

There is no character for isolated $w$. What is treated as a syllable-final $w$ in the CLC system is treated as an oo in syllabics. For example, wadlaw "sandpiper" is written $<C \nabla$ and 'aw "not" is written $\bullet \triangleleft \nabla$. Similarly, there is no character for isolated $w h$. What is treated as a syllable-final wh in the CLC system is treated as an oo followed by an $h$ in syllabics. For example, nawh "two (abstract)", is written $C \nabla^{\mathrm{h}}$.

## Glottal Stop

Glottal stop is written differently from the other consonants. It consists of nothing but a raised dot: • A dot obviously cannot point in different directions, so it stands on its own and is written together with the symbols for pure vowels. The six vowels preceded by a glottal stop are therefore written:

| $\bullet \square$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| '00 | 'a | 'O | 'u | 'e | 'i |

The same symbol is used in syllable-final position, e.g. 'oozi' "a name" ${ }^{\circ} \nabla \mathfrak{J}$ '.

Exercise 8 is appropriate here

## Punctuation

With one exception, no special punctuation is used with the syllabics: the punctuation is the same as in English. The exception is that an asterisk is placed before proper nouns, that is, the names of people and places. For example, the name "Mary" mali is written * $£$ Э. This convention, perhaps intended to make up for the lack of a distinction between upper- and lower-case letters, is observed only in the writings of Father Morice. It appears that Carrier people never adopted it.

## Problematic Cases and Extensions

The syllabics were originally designed for pure Carrier, without any sounds borrowed from other languages. There are adaptations for writing some borrowed sounds.
$r$ is written in two different ways. At the beginning of a syllable, it is written like an English $r$. For example, roomudis "rheumatism" is written $\mathrm{r} \nabla 3 \bigcirc \mathrm{~s}$. At the end of a syllable, $r$ is written with a little cross or plus sign. For example, the English month name October is written $\triangleleft \checkmark \square D+$.
$p$ is written by putting the isolated form of $b$ before $b$. For example, pol "Paul" is written ${ }^{\perp} \mathrm{A}$.
In the Prayerbook, Father Morice used an $h$ rotated 180 degrees 4 to write both /f/ and /v/. This letter is used only for writing Latin words in the Prayerbook, such as Ave $\triangleleft y \triangleright$. No examples of its use by Carrier people are known. On one headstone, $v$ is written by putting the isolated form of $k^{\prime}$ before $b$. The English month name November is written $\mathrm{VvD}_{\mathrm{D}} \subset \mathrm{D}+$.

There is no established way to write $f$, which has entered the language only relatively recently. Failing a decision to create a new set of characters, the easiest thing is to treat it like $r$ and use the English letter. lugafi "coffee" could be written DEf『.

Another problem is $t s$ at the end of a syllable, of which there are only a few examples. There is no special letter for isolated $t s$, so we use the isolated letters for $t$ and $s$ in sequence. For example, we can write 'oots "oats" ' $\nabla$ rs and balhats "potlatch" $\mathbb{T}$ Trs.

A more difficult problem is syllable-final $k w$. Father Morice did not provide for this since it did not occur in the Stuart Lake dialect in his time. Since there is no way to write a final w, we cannot handle this the same way as final $t s$. However, since final $k w$ is always preceded by $u$, and in the dialects in which final $k w$ occurs, oo is never followed by $k$ within the same syllable, we can just write words with final $k w$ the way they used to be pronounced. For example lhukw "fish" can be written U, as if it were lhook. Adding a symbol for isolated $w$ like the ${ }^{\circ}$ used in some other languages would be simpler. then lhukw could be written unambigously as $\bigcap^{\prime} \circ$.

Exercise 9 is appropriate here.

## Common Errors and Variants

It is very common both in material written by Carrier people and in the work of Father Morice for glottal stops to be left out, especially in syllable-initial position. The dot that represents the vowel $i$ and the vertical bar that represents the vowel $e$ are often omitted. Errors are especially frequent on headstones. Most headstone inscriptions were carved by stonemasons with no knowledge of Carrier or syllabics who merely copied from a work order. They often distorted the shape of the unfamiliar
characters and left out diacritics like the dot and vertical bar.
It is common for the $n$ series to be rotated in a non-standard way. For example, while the standard form of $n a$ is $C$, it is not uncommon for it to be written $\subset$.

## Mistakes to Avoid

One mistake that people learning syllabics often make is to use an isolated consonant symbol followed by a bare vowel instead of the symbol for the combination, e.g. ${ }^{s} \triangleleft$ instead of $\mathbb{E}$ for $s a$. If a symbol exists for a CV combination, it must be used. Isolated symbols followed by bare vowel symbols are used only when there is no CV symbol.

A similar error is to write ts as $t+s, d z$ as $d+z, t l$ as $t+l$, and so forth. For example, $t s o$ should be written $\mathbb{R}$, not ${ }^{\top} \Omega$.

Another mistake that beginners often make is in a way the opposite, that is, using a CV symbol instead of an isolated C symbol followed by glottal stop and a bare vowel symbol, e.g. $\mathrm{JND}^{\mathrm{J}}$ ni-lhe-n instead of $\nabla^{l} \cdot \triangleright^{\top}$ ni-lh-'-en for nilh'en. This kind of mistake is probably not so much an error in writing as an error in hearing the sounds: people who are not first language speakers of Carrier often find it difficult to hear the glottal stop in such sequences.

## Reading Real Text

## Printed Text

Printed text is in most respects the easiest to read since the characters are clear and in their standard forms．Moreover，since the great bulk of what is available consists of the Prayerbook and newspaper published by Father Morice，it was written and set by an expert．The main difficulty with these materials is that they were written by Father Morice in a somewhat old－fashioned version of the Nak＇azdli dialect as spoken by Father Morice，who，though evidently a very talented language learner， was not a native speaker of Carrier．Also，Father Morice frequently failed to write glottal stops at the beginnings of words．

## The Cheslatta Trail Sign

This photograph shows a recently erected sign at Dry William Lake beside Highway 16 marking the crossing of the old trail between Nadleh and Cheslatta．


It reads：BEC $\rightarrow$ ® tsetl＇adak whuti＂trail to Cheslatta＂．（The round white thing beneath the $/$ is the head of a screw，not a character．）

## The Prayerbook

Here is the hymn＂Ave Maria＂as it appears on pages 223 and 224 of the Prayerbook．

No 34．－Ave，Maria．
Air populaite．
1.


CD，OD DDD

＂＜u川．عゆ巴＂


Note the use of the letter y to write the $v$ of the Latin word ave．


Saint Mary，who is our mother，while she prayed an angel approached her and said＂Hail Mary＂．
and then：＂Rejoice．Thou art full of grace．The Lord is with you and will become your son．Hail Mary＂．

Father Morice missed the glottal stops at the beginning of＇ink＇ez，＇et，and＇ink＇e．

## The Newspaper

Here is the first page of the first issue of the newspaper issued by Father Morice for four years every other month beginning in October of 1891.

## コミぶ C $\gg$ つ，


DDW Ds：3s $\quad$＊1891 DL 10 Eつ）



－$\sim \subset B \cup D D^{\prime \prime} D A D ? \wedge v>$（ $\triangle \rightarrow 1$ つ．



－＊
－DT DsB，AB，＊DC DD $\supset \mathcal{D C}$ ．
＊$\square$ ® $\triangleright$ r．－＊DD？$\nabla \cdot \triangleleft \tau$ BB＠z ふしふ．






－$\cup \subset D A D) \wedge v>,(B \rightarrow 1 \supset \sim$.






 3ค．



The first line reads：$\supset \mathrm{s} \overparen{3} \mathrm{~s} \subset \mid フ \prime$ dustl＇us nawhulnuk．This means＂the paper that tells a story＂

 Nak＇azdli is not marked in the syllabics．Note the asterisk＊preceding C 8 z马，which identifies it as a proper noun．The meaning is＂we made it at Fort Saint James＂．

After the masthead is a brief appeal for subscriptions．The remainder of the page consists of two sections．The first contains news from Carrier country，the second news from＂downstream＂．

The first item in the news from Carrier country is：


nak＇azdli et－dit lusman inle da，aluksi cha，domyaz cha，tsabungghun ndet la uda lhane yahadla et ilhut lhdzis za dahuszai．too buba yoo suli k＇e hutja lent＇oh．buba tenaduhdli．．

At Necoslie－Four weeks ago，Alexie and Little Dom died one night at Beaver Lake where many people once died together．It seems that the water went bad．Pray for them．

The next item is：：

## 

zoolya buzkeh ts＇ekeyaz whuzdli．bilomen ts＇utni．
Julia＇s child，a girl，was born．She is called Philomène．

The second item of the news from downstream，in the next－to－last line at the bottom of the page，is：

Bel Mashal Oganagan whomoodih suli．
Father Marchal has become boss of the Okanagan．

DI bel is a loan from French père and is the title of a priest．Note the use of the asterisk before the placename＂Okanagan＂．Alכ h whomoodih is the areally possessed form of moodih＂boss＂．In modern Stuart Lake Carrier it would be $>\boldsymbol{>}$ 〇n humoodih．

The next item，on the last line of the page，is：

ilhughun ts＇ilhkoht＇en uda chaimun silhghi andit za nelhghel yilhchoot
A policeman has finally caught a Chilcotin who killed a Chinese man some time ago．

Sometimes the news was about Father Morice himself．In the second issue of the newspaper he reports
that:

kwulat dzin nduhoolyiz, bel molis ooghwoo nduda hoghwa, aw yak'usda ooghwuni ye yaoolhduk ghait'oh inle.
For five days Father Morice was unable to preach the word of God because he had a toothache.


## Headstones

This is the gravestone of Agatha John in the Saik'uz (Stony Creek) graveyard.


It reads:

$$
\begin{array}{ll}
\triangleleft \in C \cdot \nabla B \supset B^{\top} & \text { agada' oots'unk'ut } \\
\mathbb{C} D C \cap \supset 5 & \text { ba tenadondli }
\end{array}
$$

"Agatha's grave. Pray for her."
Note that the initial glottal stop of 'Agada' is not written (the correct spelling would be ${ }^{\bullet} \triangleleft \in C^{\prime}$ ). The verb tenandonli is the second person singular optative affirmative. The use of the optative in place of the imperfective tenadindli DC 〇 $\supset$ makes the command softer and more polite. A literal English translation would be "mayst thou pray", but in English this is very old-fashioned whereas the Carrier is not.

People acquainted only with the Stuart Lake dialect are likely to take $\varangle b a$ "for her" to be a mistake for $\nabla \mathbb{C}$ ooba, or to think that the translation must be the odd "pray for Agatha's grave", but in fact $\mathbb{d} b a$ is correctly interpreted as "for her". The Saik'uz dialect differs from the Stuart Lake dialect in that, when the prefix $\nabla o o$ is added to $\llbracket b a$, the result is not $\nabla \llbracket o o b a$ but just $\mathbb{\square} b a$.

Here is a gravestone from Nak'azdli.


It reads:

$$
\begin{aligned}
& \text { D1D•CzE• Belzeni dazsa' } \\
& \text { १vDc氏+9 } \\
& 1918 \\
& \text { Novembar } 9 \\
& 1918 \\
& \text { "Virginia died November 9, 1918." }
\end{aligned}
$$

D1D. Belzeni is the Carrier adaptation of the French name "Virginie", equivalent to English "Virginia". CzE" is an error for CzE® dazsai. The /v/ of the English month name "November" is written with the isolated $k^{\prime}$ symbol $\vee$ preceding $\mathbb{D} b e$.

Here is a gravestone from Nadleh:


It reads：


1906
11 sanun udechoo dzen
bundada 5 dlok
et dazsai malizini
＂Marie－Eugénie died at five o＇clock in the morning on November 1st，1906．＂
As is so often the case，the initial glottal stops of＇udechoo and＇et are missing．
Next we will look at one of the gravestones from the Lheidli T＇enneh graveyard in Fort George Park in Prince George．The original graveyard was ploughed up and some of the dirt and its contents pushed to the centre and covered by a concrete monument by the City in 1957 when improvements were made to the park for the British Columbia Centennial．The headstones that could be recovered were later placed in a circle in a new cemetary area．Most of them had been damaged in the course of time，by vandalism，or during the clean－up operations，so they were reassembled to the extent possible and placed face－up on the ground．


It reads：

 Cz\＆ャ จণ DCUヶち
gadlin oots＇unk＇ut
wholh 1888t nawhonizut inle hoh
dazsai
ooba tenadoohdli
＂The grave of Catherine．She died in 1888．May you（plural）pray for her．＂
The form $\nabla \mathbb{B} \longrightarrow \boldsymbol{B r}^{\boldsymbol{r}}$ oots＇unk＇ut＂her grave＂is is either Stuart Lake or Stony Creek dialect．In the
 ＂for her＂is distinctively Stuart Lake dialect．In Lheidli dialect it would be just $\mathbb{T} b a$ ．The use of Stuart Lake dialect is not surprising in such a context since the Stuart Lake dialect came to function to a certain extent as the religious and literary language．Furthermore，given the date of this inscription，it is possible that it was composed by Father Morice himself，who would have used the dialect he knew．

The／t／after 1888 indicates that the year is in the multiplicative form，which would end in the multiplicative form of the number eight，namely uBכ lhk＇udit．

The spelling $\mathbb{A}$ who in the words $\mathbb{A} \downarrow$ wholh and CA $\boldsymbol{\square} \boldsymbol{\square}$ nawhonizut is typical of the period．At present such syllables do not exist．The equivalent in the modern language is $>$ whu．

The verb DCUn5 tenadoohdli is the second person plural optative of＂to pray＂．

## Handwriting

We＇ll begin with an example of handwriting by an expert user of syllabics and artist．The drum below，held by its owner，Peter Erickson，was made for his father，Lewis Erickson，by Nicholas Prince
 ts'iyane yoozilhts'ai "When the drum speaks, everyone listens to it.". (The fronting in ts'iyane and yoozilhts'ai is cannot be marked in syllabics.)


Here is one of the graffiti written on the inside wall of the fur warehouse at the former Hudson's Bay Post in Fort Saint James, now the Historic Park.

 known in Carrier as "Leyoncho". Notice how he has written the clusters /bl/ and /ns/, neither of which occurs in native Carrier words and neither of which was directly provided for by Father Morice.

Here is another of the graffiti from the same place.


It reads C8z马 "Nak'azdli".

## A Little Vocabulary

| Enalish | Stuart Lake | Saik＇uz | Lheidli | Cheslatta | Ulkatcho | Nadleh |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| man | D | D | כ | D | כ | D |
| woman | BB | 8B | （8B | 8B | B⿴囗 | 8B |
| dog | $\bigcirc$ | $\bigcirc$ | ゆ | $\bigcirc$ | $\bigcirc$ | ๑ |
| sockeye | OR | OU | OU， | OU | OU， | OU |
| char | $\mathrm{D}^{\top}$ | $\mathrm{D}^{\top}$ | DT | DT | DT | DT |
| horse | ठzந | Dzந | つもら | つzら | つzら | つzら |
| cow | 3sUs | 3s s | 3s s | 3s s | 3s s | 3s $\mathrm{s}^{\text {s }}$ |
| moose | כ | כ | כ־ | כ־ | כ־ | כ־ |
| deer | Ds® | Ds® | Ds® | Ds® | Ds® | Ds® |
| cariboo | ナضn | $\rightarrow$ ¢ $n$ | 7¢n | $\rightarrow$ ¢ n | Эضn | $\rightarrow$ ¢ n |
| black bear | 习s | 习s | Эs | 习s | 习s | ふs |
| rabbit | $m_{n}$ | $m^{\text {n }}$ | $m_{n}$ | Eh | Eh | $m^{\prime}$ |
| goose | An | An | An | ＜n | ＜n | An |
| loon | Cఅ | C． | Cఅ | Cఅ | Cఅ | C． |
| water | ס | $\bigcirc$ | O | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| fire | $\rightarrow 0$ | $\rightarrow 0$ | $\rightarrow 0$ | $\rightarrow 0$ | $\rightarrow 0$ | $\rightarrow$ |
| stone | － | 田 | 仿 | B | B | 田 |
| tree | フib | Jib | つib | フib | Dib | フib |
| mountain | Đし | Đし | 曰し | 曰し | 曰し | 曰し |
| forest | Bran | －$\square_{\text {n }}$ | －$\square_{\text {an }}$ | －$\sim_{\text {a }}$ | $8>\square_{n}$ | －$\square_{\text {an }}$ |
| river | －$\square_{\text {m }}$ | －$\square_{\text {¢ }}$ | －$\square_{\text {¢ }}$ | －$\square_{\text {¢ }}$ | －$\square_{\text {¢ }}$ | －$\square_{\text {¢ }}$ |
| house | On | On | W | W | W | 0 |
| spoon | B B $^{\text {＋}}$ | Bゴル | ふコ¢ | ふコロ | ふコロ | 习ゴ氏 |
| fork | D $\nabla^{\text {® }}$ | D $\nabla^{\text {® }}$ |  |  |  | D $\nabla^{\text {® }}$ |
| knife | Dz®n | Ds | Ds | Ds | Ds | Ds |
| basket | D | ○ | 〇し | ® | ®し |  |
| canoe | B | B | B | B | B | B |
| shirt | UT | UzG？ | UzGコ | UzGコ | UzG？ | UzG？ |
| shoes | Bmo | Bmo | Bmo | Bmo | Bm＞ | Bmo |


| English | Stuart Lake | Saik'uz | Lheidli | Cheslatta | Ulkatcho | Nadleh |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| man | dune | dune | dune | dune | dune | dune |
| woman | ts'eke | ts'eke | ts'eke | ts'eke | ts'ekoo | ts'eke |
| dog | lhi | lhi | lhi | lhi | lhi | lhi |
| sockeye | talo | talukw | talukw | talook | talook | talook |
| char | bit | bet | bet | bet | bet | bet |
| horse | yeztli | yeztli | yeztli | yeztli | yeztli | yeztli |
| cow | musdoos | musdus | musdus | musdus | musdus | musdus |
| moose | duni | duni | duni | duni | duni | duni |
| deer | yests'e | yests'e | yests'e | yests'e | yests'e | yests'e |
| cariboo | whudzih | whudzih | whudzih | whudzih | whudzih | whudzih |
| black bear | sus | sus | sus | sus | sus | sus |
| rabbit | goh | goh | goh | gah | gah | goh |
| goose | khoh | khoh | khoh | khah | khah | khoh |
| loon | dadzi | dadzi | dadzi | dadzi | dadzi | dadzi |
| water | too | too | too | too | too | too |
| fire | kwun | kwun | kwun | kwun | kwun | kwun |
| stone | tse | tse | tse | tse | tse | tse |
| tree | duchun | duchun | duchun | duchun | duchun | duchun |
| mountain | dzulh | dzulh | dzulh | dzulh | dzulh | dzulh |
| forest | chuntoh | tintoh | tintoh | tintah | chuntah | tintoh |
| river | 'ukoh | 'ukoh | 'ukoh | 'ukoh | 'ukoh | 'ukoh |
| house | yoh | yoh | koo | koo | koo | koo |
| spoon | kechub | tsunts'alh | tsunts'alh | tsunts'alh | tsunts'alh | tsunts'alh |
| fork | be'ooget | be'ooget | be'ooduget | be'ooduget | be'ooduget | be'ooget |
| knife | lhuztih | tes | tes | tes | tes | tes |
| basket | telh | tilh | tilh | tilh | tilh | tilh |
| canoe | ts'i | ts'i | ts'i | ts'i | ts'i | ts'i |
| shirt | dzoot'an | dzoozt'an | dzoozt'an | dzoozt'an | dzoozt'an | dzoozt'an |
| shoes | kegon | kegon | kegon | kegon | kegon | kegon |

## Reading Passages

## Amazing Grace－Stuart Lake Dialect

CBsC DDOU－® DoU



DDンU－® DD DンU．

DDッU－• $\downarrow$ CBz Đs＠



－$\downarrow$ т $><$ CBz Dse．



DDつUー・ DD DッU．





## Stoney Creek Veterans Memorial Dedication－Stoney Creek Dialect




## The Raven and the Deer－Stuart Lake Dialect

CGOM DOB Ds®









## Mary John，Sr．＇s Desiderata－Stoney Creek Dialect



 VVっ® へn 引 CVE®．

## Transcription and Translation <br> Amazing Grace

Yak'usda yeunzoo-i unzoo
'Et 'i gha za dusjih.
'Oh da' nintanisja
'Awet sghu tileh
Yeunzoo-i tube unzoo.
Yeunzoo-i gha yak'uz tisyalh
Whus Sizi ooghu tisjun.
'Oh da' nintanisja
'Awet ooch'e' usli
'Et huwa yak'uz tisya.
Sizi 'en nemoodihti unli
'Oh da' ooghuni uschoot
'Et huwa ts'ih'un 'int'oh inli sulhni
Yeunzoo-i tube unzoo.
'Andit whuts'un oot'aninustan
Ooghuni ook'une' tist'en
Yeunzoo-i gha 'ilhiz hutisnalh
'Awet nedzi doghelh.
Here are the usual English lyrics:
Amazing grace (how sweet the sound)
That saved a wretch like me
I once was lost, but now am found
Was blind but now I see
It was grace that taught my heart to fear
And grace my fears relieved
How precious did that grace appear
The hour I first believed
Through many dangers, toils and snares
I have already overcome
It was grace that led me safe thus far And grace will bring me home
When we've been there a thousand years
Bright shining as the sun
We've no less days to sing God's praise
Than when we first begun

## Stony Creek Veterans Memorial Dedication

Saik'uz whut'en lhuhudughan ts'i ahdel-ne nahts'udilhti. Soo nusahba 'et hoowa Saik'uz whut'en ts'inli neba oodezti. 'Ahoolhyez nahnats'ulnih.

In recognition of $\underline{S}$ aik'uz veterans. Your courage makes us proud to be $\underline{S}$ aik'uz people. We will always remember you.

## The Raven and the Deer

This is a traditional story as told by the late Robert Hanson.

## Datsancho 'ink'e Yests'e

'Uda' datsancho tube ooye'ilts'ul inle'. Khuntsul yests'e tilh'en. Datsancho yuzih nat'o 'ink'e: "Yests'e, sba whuts'odutni. Sulh nuhoolyeh?" ni. Yests'e "dugwe'," yulh yatilhduk. Dzulhk'uz tot'as 'ink'e 'et nuholyeh." ni Datsancho. Dulhk'uz whehan'az. ullwk'ut whuts'un yo honilh'en. "Yests'e, dilk'un!" ni Datsancho. Huwuhudloh. "Datsancho, dilhgus!" ni Yests'e. Doochaza huwuhudloh. 'Et 'awet "Yests'e, nkechun dalhjut lhe'unt'oh!" ni Datsancho. Huwuhudloh. Yests'e tube whuts'udutni. 'Et 'uyulhni: "Datsancho, nyun n'untalkuk-i in'alh!" Datsancho tube hunilch'e! Yests'e dzulh k'ubeyutilhtal. Nal 'ust-un 'et da aiz 'Est Datsancho yo whet'o. Nyo yests'e yan'al. Datsancho yests'e yanus 'uyoonli. 'Aw ooyelhe'il 'usl.

## The Raven and the Deer

Once the raven was very hungry. Suddenly, he spotted a deer. The raven flew down beside him and said: "Deer, I am bored. Will you play with me?" The deer answered: "Alright." "Let's go to the mountaintop and play there" said the raven. They went up to the top of the mountain. From the mountaintop they looked down. "Deer, your skin is red!" said the raven. They laughed. " Raven, your skin is black!" said the deer. Again they laughed. Then Raven said, " Deer, your legs look rotten!". They laughed. Deer was not happy with this insult so he said, " Raven, you eat garbage!" Raven got very angry. He kicked the deer off the mountain. He died where he landed. Raven went flying down, down, down where he feasted on deer meat. The raven outsmarted the deer and is no longer hungry.

## Mary John, Sr.'s Desiderata

'Et hoowa ndi neghunek 'i ts'otun. Neye'ut'en cha 'ink'ez neyun cha 'et ndi yun Kanada huyulhni 'i kw'utuzdelhts'i 'et hoowa neyun ts'utni. 'Et ndi ts'iyawh ts'uhoontun de 'et si nus de njan dakelhyun k'udelhts'ine soocho ho:dool'eh. 'Et si nus de tst'iyanne buba 't'en holeh. 'Et hoohoont'i hoh si dahootsai.

Therefore, we must keep our language. We must keep our culture, and our land so that even in Canada we can still feel that we have our own country. While we preserve all this I hope people will be able to get an education here on Carrier land, and in the future there will be work for everyone and they will die happy.

## Resources

## Fonts

The font used here for the syllabics is Chris Harvey's OskiDakelh font, a Unicode-encoded Truetype font available at no cost from:
http://www.languagegeek.com
The font itself may be downloaded from:
http://www.languagegeek.com/font/oskidakelh.zip
Instructions for installing the font are available at:
http://www.ydli.org/dakinfo/InstallingFonts.html.
This font will work with word-processors such as OpenOffice.org Writer and Microsoft Word.

## Input Methods

Chris Harvey also provides keyboard definitions for entering the syllabics conveniently in Microsoft Windows. One allows you to type in the Carrier Linguistic Committee system and converts on the fly to syllabics. The other assigns syllabic characters to single keys.


Image ©2009 Chris Harvey
These keyboards work on Microsoft Windows systems and allow you to type in syllabics in programs such as Microsoft Word and OpenOffice.org Writer. Versions for Mac OS X are now also available.

Another way to enter Carrier syllabics, not as fancy but somewhat simpler to install, is to use Yudit, a text editor that can be downloaded at no cost from:
http://www.yudit.org
Yudit is a simple text editor, not a full-fledged word-processor, but it comes with a keyboard definition for entering the Carrier syllabics. This keyboard definition allows you to type in the Carrier Linguistic Committee system while the characters appear in syllabics.

In the image below the user has just entered a $b$. Since Yudit cannot tell at this point what will follow, it cannot decide what syllabic character to display so it just displays a roman $b$ to let the user know what he or she has typed so far.


Next, the user enters a $u$ and Yudit replaces the $b$ with $D b u$.


Next, the user enters an $l$, which Yudit displays as such since it cannot yet decide what syllabic character is intended.


Next, the user enters an $h$. Yudit still cannot decide what syllabic character is intended so it displays the $h$ as such.


Now the user enters a space, allowing Yudit to conclude that a vowel will not follow. Yudit therefore displays the isolated $l h$ character $ᄂ$.


If the user had typed a vowel instead of a space, Yudit would instead have displayed a CV character. Here is what would result if the user had typed an $a$.


The behaviour shown here is typical of roman alphabet input methods. However, some will display nothing until they are able to select a syllabic character; they will not display roman letters as
intermediate stages.
Instructions for using Yudit to type in syllabics are available at:
http://ydli.org/dakinfo/yuditinfo.htm

## Games

A game that may be used to practice syllabics is WordSearch, in which words are presented mixed with meaningless characters and the user is required to find the real words. A version of WordSearch with some Carrier wordlists is available at no charge from the Yinka Déné Language Institute web site: http://www.ydli.org/download.htm. Here is a screenshot:


In this case, the list of words to find is in the CLC writing system. It could also be in syllabics or in English. Although the program comes with several sample word lists, new word lists are easily added.

Another game that is useful for drilling one's knowledge of syllabics is Scramble, which presents words with the letters out of order and requires you to put them into the correct order. It too is available from the YDLI web site. Like WordSearch, it comes with several sample lists of words but others are easily added. The unscrambled word may be entered either by typing in the space provided or by clicking on the scrambled characters in the order desired. This makes it possible to play the game even if you have no keyboard definition for the syllabics.

In the screenshot below, the word $\mathbb{B}$ Эヶ $₫$ a chunihcho "fisher" has been presented out of order and the user has entered the first two characters in the correct order.


## Publications

For further information on the Carrier language itself, an overview may be found in the author's The Carrier Language: A Brief Introduction published by the College of New Caledonia Press, ISBN 978-0-921087-45-8. This book contains some discussion of the syllabics and includes a mini-dictionary of 229 words written in both the CLC system and syllabics. A full bibliography is to be found on the web site of the Yinka Déné Language Institute at http://ydli.org, from which several dictionaries and other works are available. Laminated pocket-sized syllabics charts are also available.

For the development of the Cree syllabics and the more closely related variants, see the paper "The early development of Inuktitut syllabic orthography" by Kenn Harper in Études/Inuit/Studies 9.1.141162 (1985).

For those interested in the Unicode encoding of the syllabics, the syllabics are found in the Canadian Aboriginal Syllabics range. The relevant sections of the standard may be downloaded from:
http://www.unicode.org/charts/PDF/U1400.pdf
http://www.unicode.org/charts/PDF/U1800.pdf
The Unicode standard is not easy to use for dealing with Carrier because the names used do not correspond to anything normally used for Carrier and because the Carrier characters are mixed with a large number of other characters used for Cree, Inuktitut, and other languages. For a Carrier-oriented exposition of the Unicode encoding, see:
http://www.ydli.org/dakinfo/dulktop.htm

## Exercises

## Exercise 1

Without looking up the character, say what the vowel is and how you can tell:
(a) $\forall$
(b) $\sim$
(c) $\cap$
(d) $\mathfrak{9}$
(e) $\exists$
(f) 9

## Exercise 2

(a) Rewrite the following words in the CLC writing system:
(1) WC
(2) $\square \square$
(3) $\square 3$
(4) BO
(b) Rewrite the following words in syllabics:
(1) gaga
(2) togo
(3) tak'e
(4) t'idoo

## Exercise 3

(a) Rewrite the following words in the CLC writing system:
(1) $\ddagger \backsim$
(2) $\mathcal{E} \cdot$
(3) $\mathcal{E} B$
(4) $\cap \Omega$
(b) Rewrite the following words in syllabics:
(1) dadzi
(2) took'o
(3) tseda
(4) ts'it'a

## Exercise 4

(a) Rewrite the following words in the CLC writing system:
(1) D
(2) D
(3) $ग \mathbb{}$
(4) C 3
(b) Rewrite the following words in syllabics:
(1) neke
(2) taba
(3) nedotoo
(4) k'ani

## Exercise 5

(a) Rewrite the following words in syllabics:
(1) neloo
(2) neghatl'i
(3) dunetighudli
(b) Rewrite the following words in the CLC writing system:
(1) $\supseteq \triangleright 5$
(2) $B \subset \sqsubseteq$
(3) 85

## Exercise 6

(a) Rewrite the following words in syllabics:
(1) whuch'a
(2) nuya
(3) jeyo
(b) Rewrite the following words in the CLC writing system:
(1) $>\mathrm{DC}$
(2) ৩ৎ
(3) $\gtrdot \cdot$

## Exercise 7

(a) Rewrite the following words in syllabics:
(1) schan
(2) nawhechak
(3) yests'e
(b) Rewrite the following words in the CLC writing system:
(1) $\exists \triangleright ゆ$
(2) $\square \supset B し$


## Exercise 8

(a) Rewrite the following words in syllabics:
(1) hukw'ut
(2) wadlaw
(3) skwunlawh
(b) Rewrite the following words in the CLC writing system
(1) $\triangleleft \cdot \triangleleft h$
(2) $\rightarrow \boldsymbol{r}$
(3) $ا \triangleright C \cdot \supset \cdot ا D z$

## Exercise 9

(a) Rewrite the following words in syllabics:
(1) roomudis
(2) payus
(3) waldur
(b) Rewrite the following words in the CLC writing system:
(1) $D \perp \Delta \Delta$
(2) $\supseteq £ f \triangleright$
(3) $<+\perp \mathrm{D}+$

## Answers to Exercises

## Exercise 1

Without looking up the character, say what the vowel is and how you can tell:
(a) $\forall-o o$ since it points downward
(b) $\widetilde{\sim}-a$ since it points to the left
(c) $\cap-o$ since it points upward
(d) $5-i$ since it points to the right and has a dot in it
(e) $\exists-e$ since it points to the right and has a bar in it
(f) $9-u$ since it points to the right and has no dot or bar in it. (This is not actually a Carrier character.)

## Exercise 2

(a)
(1) k'ooda
(2) koko
(3) tagi
(4) kit'oo
(b)
(1) $\mathcal{E}$
(2) Am
(3) $\square B$
(4) $\bullet \cup$

## Exercise 3

(a)
(1) seza
(2) sadzi
(3) tsak'e
(4) tazo
(b)
(1) $\subset \mathfrak{\emptyset}$
(2) $\mathrm{O} \mathfrak{\infty}$
(3) $B C$
(4) $8 \square$

## Exercise 4

(a)
(1) dune
（2）nedo
（3）neba
（4）nami
（b）
（1） DB
（2）$\square$ व
（3） $\mathrm{D} \cap$
（4） $8 \cdot$

## Exercise 5

（a）
（1） DU
（2）$D \checkmark \leftrightarrows$
（3）$\supset \supset \triangleright \triangleright 5$
（b）
（1）lheidli
（2）tsenadli
（3）k＇atle

## Exercise 6

（a）
（1）$\rightarrow \mathbb{C}$
（2）Je
（3） $0 \circ$
（b）
（1）hubuch＇a
（2）yooya
（3）wheni

## Exercise 7

（a）
（1）sGis
（2）Cゆヂい
（3）Ds®
（b）
（1）se＇uch＇ak
（2）tankelh
（3）ntsetselhyaz

## Exercise 8

（a）
(1) $>v>\boldsymbol{T}$
(2) $<C \nabla$
(3) $s \rightarrow>C \nabla n$
(b)
(1) a'ah
(2) gweh
(3) lhghuna'whudilhghuz

## Exercise 9

(a)
(1) $\mathrm{r} \nabla 3 \bigcirc \mathrm{~s}$
(2) $\perp \widetilde{C} \partial s$
(3) $<1 \mathrm{D}+$
(b)
(1) lubrot
(2) lugafi
(3) harpur

## The Relationship Between The Carrier and Cree Syllabics

Although the Carrier syllabics were inspired by the Cree syllabics they share only general principles of design and appearance：in detail they are almost entirely different．Here is a chart of the Cree syllabics．

|  | ê | a | â | i | ̂̂ | o | ô | isolated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $\nabla$ | ব | $\dot{\text { ¢ }}$ | $\Delta$ | $\dot{\Delta}$ | － | － |  |
| p | V | $<$ | $\dot{<}$ | $\wedge$ | $\dot{\lambda}$ | ＞ | $>$ | ＇ |
| t | U | C | С் | ก | ก் | $\bigcirc$ | う | ， |
| k | 9 | b | b | $\rho$ | $\dot{\rho}$ | d | j | ， |
| c | า | し | i | $r$ | $\dot{\text { 「 }}$ | J | j | － |
| m | 7 | L | L | $\Gamma$ | $\dot{\text { 「̇ }}$ | 」 | ј | c |
| n | $\bigcirc$ | Q | － | $\sigma$ | $\dot{\sigma}$ | م | ف | ， |
| s | 4 | $\bigcirc$ | ¢ | $r$ | ز | • | i | n |
| y | 4 | ל | ל | r | ＞ | ＋ | － | ＋ |
| ठ | 4 | ち | ち | ¢ | ¢ | ＊ | ＋ | $\ddagger$ |
| w | $\nabla$ ． | ব． | ¢ | $\Delta$ | $\dot{\Delta}$ | D． | $\dot{\text { D }}$ ． | 。 |
| h | ＂ | ＂ 4 | ＂்̇ | ＂$\Delta$ | ＂$\dot{\Delta}$ | ＂® | ＂1 | ＂ |
| hk |  |  |  |  |  |  |  | x |

There are also letters for $/ \mathrm{l} / \sum$ and $/ \mathrm{r} / 3$ ．These are used like the glottal stop and $/ \mathrm{r} /$ in Carrier：they precede the isolated vowel symbols，e．g．$\Sigma \triangleleft=/ \mathrm{la} /$ ．The symbol ${ }^{\times}$for $/ \mathrm{hk} /$ is used for convenience since this sequence of sounds is very common．

The sound system of Cree is much smaller than that of Carrier．While Carrier has six vowels，Cree has four，which can be either long or short．While Carrier has 41 native consonants plus three，／f／，／p／ and $/ \mathrm{r} /$ ，in loans，Cree has 10 native consonants plus two，$/ \mathrm{l} /$ and $/ \mathrm{r} /$ ，in loans．Thus，it is to be expected that the Carrier syllabics contain quite a few letters not found in Cree：\＆\＆\＆ロ \＆G \＆\＆M Q C
 but not in Carrier： $\mathrm{d} / \mathrm{k} /$ ，し／c／，L／m／，৭／n／，ᄂ／s／，৬／y／，さ／ठ／，₹／l／，३／r／，×／hk／as well as the dot diacritic for vowel length．

Only a few characters are shared by the two systems，and of these，only a few represent the same sound．$\triangleleft$ represents／a／in both systems，and more generally，a leftward orientation represents the vowel／a／in both．C has similar values in both systems but does not play exactly the same role since in Carrier／t／and／d／are distinct while in Cree there is only／t／with voiced and voiceless positional variants．

The remaining letters shared by the two systems have different values：

|  | Carrier | Cree |
| :--- | :--- | :--- |
| $<$ | h | p |
| $\Delta$ | o | i |
| $\nabla$ | oo | e |
| $\triangleright$ | u | o |
| ' | isolated l | isolated p |
| , | isolated g | isolated t |
| " | isolated gh | isolated h |

In short, although the two systems have a similar structure and some characters of similar shape, they are completely different writing systems.

## The Carrier Linguistic Committee Writing System

| CLC | Description | IPA |
| :---: | :---: | :---: |
| ' | Glottal stop | ? |
| a | Low back unrounded vowel | a |
| b | Unaspirated bilabial stop | P |
| ch | Aspirated palato-alveolar affricate | $t f^{\text {h }}$ |
| ch' | Ejective palato-alveolar affricate | t $f^{1}$ |
| d | Unaspirated apico-alveolar stop | t |
| dl | Unaspirated lateral affricate | tl |
| dz | Unaspirated apico-alveolar affricate | ts |
| dz | Unaspirated lamino-dental affricate | ts |
| e | Mid front unrounded vowel | e |
| f | Voiceless labio-dental fricative | $f$ |
| g | Unaspirated velar stop | k |
| gh | Voiced velar fricative | 8 |
| gW | Unaspirated labio-velar stop | $\mathrm{k}^{\mathrm{w}}$ |
| h | Voiceless laryngeal glide | h |
| i | High front unrounded vowel | i |
| j | Unaspirated palato-alveolar affricate | t |
| k | Aspirated velar stop | $\mathrm{k}^{\mathrm{h}}$ |
| $\mathrm{k}^{\prime}$ | Ejective velar stop | $k^{\prime}$ |
| kh | Voiceless velar fricative | X |
| kw | Aspirated labio-velar stop | $\mathrm{k}^{\text {hw }}$ |
| kw' | Ejective labio-velar stop | $k^{\prime \prime}$ |
| 1 | Voiced lateral approximant | I |
| lh | Voiceless lateral fricative | d |


| CLC | Description | IPA |
| :---: | :---: | :---: |
| m | Bilabial nasal | m |
| n | Alveolar nasal | n |
| ng | Velar nasal | ワ |
| o | Mid back rounded vowel | 0 |
| Oo | High back rounded vowel | u |
| p | Aspirated bilabial stop | $\mathrm{p}^{\text {h }}$ |
| r | Voiced alveolar approximant | 1 |
| S | Voiceless apico-alveolar fricative | S |
| S | Voiceless lamino-dental fricative | S |
| sh | Voiceless palatal fricative | § |
| t | Aspirated apico-alveolar stop | $\mathrm{th}^{\text {b }}$ |
| $\mathrm{t}^{\prime}$ | Ejective apico-alveolar stop | $\mathrm{t}^{\prime}$ |
| tl | Aspirated lateral affricate | t $\dagger$ |
| tl' | Ejective lateral affricate | tl' |
| ts | Aspirated apico-alveolar affricate | ts ${ }^{\text {h }}$ |
| ts' | Ejective apico-alveolar affricate | ts' |
| ts | Aspirated lamino-dental affricate | $\underline{t s}{ }^{\text {n }}$ |
| ts' | Ejective lamino-dental affricate | ts ${ }^{\prime}$ |
| u | Mid central unrounded vowel | $\wedge$ |
| W | Labio-velar glide | W |
| wh | Voiceless labio-velar fricative | $\mathrm{X}^{\mathrm{w}}$ |
| y | Voiced palatal glide | j |
| Z | Voiced apico-alveolar fricative | Z |
| $\underline{\text { Z }}$ | Voiced lamino-dental fricative | $\underline{\mathrm{Z}}$ |

## Character Outlines




| C | oo | a |  | u |  |  | Isolated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NONE | $\nabla$ | $\triangleleft$ | $\Delta$ | $\triangleright$ | － | － |  |
| h | V | $<$ | $\wedge$ | ＞ | $>$ | $\stackrel{\rightharpoonup}{ }$ | h |
| kh | $\forall$ | ＜ | A | ＞ | $\xrightarrow{1}$ | $\rightarrow$ | ／ |
| gh | $\nabla$ | 4 | A | D | － | － | 11 |
| w | V | $\leftarrow$ | $\wedge$ | $\rightarrow$ | $\gtrdot$ | $\rightarrow$ |  |
| wh | ＊ | $\Varangle$ | A | $\rightarrow$ | \％ | $\rightarrow$ |  |
| d | U | C | $\cap$ | $\bigcirc$ | D | $\bigcirc$ | T |
| t | $\bigcirc$ | $\bigcirc$ | 0 | D | D | $\bigcirc$ | T |
| t＇ | 0 | $\bigcirc$ | ค | D | D | ๑ |  |
| b | $\forall$ | － | A | D | D | D | 1 |
| g | U | $\varepsilon$ | m | 3 | 3 | 3 | ， |
| k | W | 8 | ■ | B | B | B | ， |
| k＇ | 0 | 8 | 凹 | B | B | B | $v$ |
| n | し | C | $\bigcirc$ | $\bigcirc$ | D | $\bigcirc$ | ， |
| m | u | $\varepsilon$ | $\eta$ | 3 | 3 | 3 | c |
| ng |  |  |  |  |  |  | u |
| y | $\bigcirc$ | e | 0 | ठ | ¢ | Ə |  |
| j | ర | a | 2 | 0 | 0 | $\theta$ |  |
| ch＇ | 6 | Q | 2 | 0 | r | $\bigcirc$ |  |
| 1 | U | C | 几 | $\bigcirc$ | D | $\bigcirc$ | 1 |
| tl | U | C | $\Omega$ | 5 | 5 | 5 |  |
| lh | U | C | $\Omega$ | D | D | Ю | し |
| dl | び | C | $\Omega$ | ら | 5 | Ђ |  |
| tl＇ | む | $\varepsilon$ | $\Omega$ | 5 | § | $\mathfrak{3}$ |  |
| z | U | $\sim$ | $\Omega$ | D | $\downarrow$ | $\ni$ | z |
| $\underline{\mathrm{z}}$ |  |  |  |  |  |  | $\pm$ |
| dz | U | G | $\Omega$ | Đ | 匈 | ¢ |  |
| S | U | $\varepsilon$ | $\Omega$ | З | $刃$ | $\#$ | s |
| S |  |  |  |  |  |  | 5 |
| sh | あ | $\mathscr{G}$ | Q | $B$ | B | $B$ | \＄ |
| ch | あ | ¢ | M | B | ® | 18 |  |
| ts | U | G | ＠ | $\square$ | ® | 9 |  |
| ts＇ | W | \＆ | $\mathbb{R}$ | 8 | ® | 刃 |  |


| C | 00 | a | $\bigcirc$ | u | e | i | Isolated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NONE | $\nabla$ | $\triangleleft$ | $\Delta$ | D | － | － |  |
| b | $\forall$ | © | A | D | D | D | 1 |
| ch | 円 | ¢ | \＆ | B | ＊ | \％ |  |
| ch＇ | $\zeta$ | Q | 2 | 万 | 万 | $\bigcirc$ |  |
| d | U | C | $\cap$ | $\bigcirc$ | D | $\bigcirc$ | T |
| dl | び | C | $\Omega$ | 5 | 5 | Ђ |  |
| dz | U | G | $\Omega$ | $\oplus$ | 㫚 | 匀 |  |
| g | U | $\varepsilon$ | m | 3 | 3 | 3 | ＇ |
| gh | $\nabla$ | ¢ | A | D | D | － | 11 |
| h | V | ＜ | $\wedge$ | $>$ | ＞ | $\stackrel{\rightharpoonup}{*}$ | h |
| j | ర | Q | 2 | 0 | 10 | 0 |  |
| k | W | 8 | ■ | B | B | B | ， |
| $\mathrm{k}^{\prime}$ | $\pm$ | 8 | m | B | B | B | v |
| kh | $\forall$ | ＜ | A | ＞ | ＊ | － | ／ |
| 1 | U | C | 几 | $\bigcirc$ | 1） | $\bigcirc$ | 1 |
| lh | U | C | $\Omega$ | D | D | $\bigcirc$ | し |
| m | u | $\varepsilon$ | $\eta$ | 3 | 3 | 3 | c |
| n | し | C | $\bigcirc$ | $\bigcirc$ | D | $\bigcirc$ | ， |
| ng |  |  |  |  |  |  | $u$ |
| s | U | $E$ | M | 入 | 円 | $\rightrightarrows$ | s |
| $\underline{\text { s }}$ |  |  |  |  |  |  | 5 |
| sh | แ | $\mathscr{¢}$ | \＆ | $B$ | B | $B$ | \＄ |
| t | $\bigcirc$ | 0 | 0 | D | D | ๑ |  |
| $\mathrm{t}^{\prime}$ | 0 | 0 | $\square$ | D | D | $\bigcirc$ |  |
| tl | U | C | $\Omega$ | 5 | 5 | 5 |  |
| tl＇ | む | $\varepsilon$ | $\Omega_{4}$ | 5 | 5 | 5 |  |
| ts | U | E | ＠ | $\bigcirc$ | ® | $\square$ |  |
| ts＇ | \＃ | $\&$ | W | 8 | 见 | ® |  |
| w | V | $<$ | 1 | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ |  |
| wh | ＊ | $\Psi$ | A | $\rightarrow$ | \＄ | $\rightarrow$ |  |
| y | $\bigcirc$ | e | 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |
| z | U | $\sim$ | $\Omega$ | $\checkmark$ | $\downarrow$ | $\vartheta$ | z |
| $\underline{\mathrm{Z}}$ |  |  |  |  |  |  | $\pm$ |

