



# Salish Root Project

## Reading the Pharyngeals

*An Introduction to Seeing Hidden Structure in Salish Words*

Extension Document 007

### What Are the Pharyngeals?

In many Salish languages, there are sounds that come from deep in the throat.

These sounds are often difficult to hear at first, especially for English speakers, because English does not organize sound the same way.

Within the Salish Root Project, these sounds are called **pharyngeals**.

The four primary forms are:

ɣ	ɣ́	ɣʷ	ɣ́ʷ
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These are not decorative marks or accidental sounds.

They are often deeply connected to how Salish languages organize:

- interiority
- orientation
- emergence
- realization
- recurrence
- carried conditions
- outward manifestation
- movement through space and time

As learners begin noticing these patterns, many words that once felt disconnected begin revealing relationships.

## A Practical Reading Principle

A useful working principle in Salish Root Project materials is this:

A Salish word generally contains one primary vowel.

That vowel may be located in the root, or it may be located in the suffix.

It cannot be primary in both places at the same time.

When a written word appears to contain more than one vowel sound, the learner should begin asking:

Which vowel is primary?

And what are the other vowel-like sounds actually pointing to?

Often, those additional vowel-like sounds are connected to consonants that English-trained ears do not easily hear or that older orthographies may not write clearly.

These may include:

ɣ	ɣ̣	ɣ <sup>w</sup>	ɣ̣ <sup>w</sup>
w	ẉ	y	ỵ

Seeing these consonants matters.

They are not secondary details.

They help learners recognize:

- root shells
- whether the vowel is carried by the root or by the suffix
- word families
- spelling variation
- vowel behavior
- prefix and suffix structure
- relationships between forms

When learners can see the consonants clearly, pattern recognition becomes much stronger.

This is one reason the Salish Root Project writes pharyngeals and related consonants explicitly: it helps the structure of the word remain visible.

## Why Many Learners Miss Them

Many older writing systems did not clearly write the pharyngeals.

Sometimes they were:

- partially written
- simplified
- replaced with vowels
- hidden inside spellings

- interpreted differently by different linguists

Because of this, learners often encounter words that appear unrelated on the surface even though they share deeper structural connections.

One goal of root-shell analysis is to help make those hidden structures visible again.

As learners encounter the pharyngeal forms more consistently, visual familiarity gradually increases and the structures themselves become easier to recognize intuitively.

## The Four Main Forms

The examples below are not meant to be memorized all at once.

Instead, they are meant to help learners begin noticing:

- recurring sound patterns
- hidden pharyngeals
- spelling variation strategies
- root-shell continuity
- how related words cluster into structural families

As learners begin recognizing these repeated structures, words that once felt isolated often begin revealing deeper relationships.

ʕ

*Primary pharyngeal form in this section*

### *Deep Interior Orientation*

This form often relates to:

- interior framing
- experiential positioning
- deep orientation
- temporal or spatial framing
- holding something within a lived condition

One important thing learners quickly notice is that the sound of ʕ is often heard differently depending on surrounding structure.

Sometimes the pharyngeal itself is clearly audible.

Sometimes the surrounding vowel becomes more prominent to the English ear.

Because English does not organize sound the same way, learners often hear:

- an “e-like” sound
- an “a-like” sound
- a glottal stop before a vowel
- or what sounds like a vowel with no consonant present

Within the Salish Root Project framework, these are often different ways the same underlying pharyngeal orientation is surfacing.

A learner does not need to hear **ʕ** perfectly at first. The first step is to notice that something is shaping the vowel. When the same kind of sound pattern appears across related words, the learner can begin asking whether the vowel is carrying a hidden pharyngeal. This turns listening into pattern recognition. Over time, **ʕ** becomes less like an unfamiliar symbol and more like a guidepost showing where the word's deeper orientation is being held.

## Common Prefix Forms

Learners commonly encounter hidden or partially visible pharyngeals in prefixes such as:

- **ʕs- / es-** — **stative, imperfect aspect**
- **ʕt- / et-** — **again, return, reapplication**
- **ʕc- / ec-** — **present situational framing; here, this moment**

These older spellings frequently preserve the vowel impression while partially concealing the deeper pharyngeal structure.

## The “e-sounding” ʕ

In many words, the English ear hears an “e-like” sound where the underlying structure contains **ʕ**.

*ʕtšemn, written /et-šé-mn/*

“One inclined to sleep.”

Root:

- **ʕt** — sustained condition, dormancy

Suffix:

- **-š** — directive, benefactive
- **-emn** — one inclined toward

This form helps reveal the underlying **ʕt** root structure more clearly because the pharyngeal is heard with a stronger “e-like” quality.

Compare:

*ʕitš, written /ʔi-tš/*

“Sleep.”

Root:

- **ʕit** — result in sustained condition, dormancy

Suffix:

- **-š** — directive, benefactive

In this form, the “i” sound becomes more prominent over the pharyngeal.

This contrast helps learners begin noticing how the same root shell may surface differently depending on surrounding structure.

## The “a-sounding” ʕ

In other forms, the English ear often hears:

- an “a-like” sound
- or even a glottal stop preceding the vowel

Many learners interpret these forms as beginning with:

- “a”
- “ʔa”

Within Root Calculus analysis, these may still reflect the same underlying pharyngeal orientation.

*ʕaymt, written /ʔaym-t/*

“Remain angry.”

Root:

- ʕay — arranged together

Suffixes:

- -m — do to the implied
- -t — stative

Examples:

- ʕaymt — s/he is angry
- ʕs ʕaymty — s/he is staying angry

Many learners hear this as beginning with a glottalized “a” sound.

## Revealing the Root Through Structural Change

When the word structure shifts, the deeper root shell often becomes easier to see.

*ʕymist, written /ey-mist/*

“S/he was being angry.”

Root:

- ʕy — arrange together

Suffixes:

- -m — do to the implied
- -ist — reflexive intransitive

Examples:

- **ƒymist** — was being angry
- **ƒs ƒymisty / es eymi** — is being angry

This contrast helps learners begin recognizing:

- the root shell continuity
- hidden pharyngeals
- spelling variation
- how vowels may shift around the same underlying orientation

## Stationary / Poised Orientation

The **ƒat** examples are useful because they can be compared directly with the **ƒit** example above.

In **ƒitš**, the **i** vowel is prominent over the **ƒ**.

In **ƒatƒt**, the **a** vowel is prominent over the **ƒ** in a similar way.

This helps learners understand that the pharyngeal may still be present even when the vowel quality is what the ear notices first.

*ƒatƒt, written /ʔaá·tat/*

“Falcon.”

Root:

- **ƒat** — stationary

Reduplication:

- augmentive reduplication

Within the Root Calculus framework, this has been interpreted as:

“the one of pronounced poised stillness.”

The falcon becomes a powerful example of how Salish roots often organize around orientation and condition rather than simple object labels.

In this form, the harmonics of the **a** vowel and the first **ƒ** help produce the open **a-sounding** quality heard in the word.

## Ponderosa Pine

*sƒatq<sup>w</sup>ƒp, written /sʔa·tq<sup>w</sup>ƒp/*

“Ponderosa pine.”

Root:

- **ƒat** — stationary

Suffixes:

- **-q<sup>w</sup>** — amass, alter toward
- **-ɬp** — foliage, pass through base

Within this interpretation, the tree may be understood through its persistent outward-pointing needle structure — a year-round stationary expression of growth.

Plural:

*sʔtʔatq<sup>w</sup>ɬp, written /sa-tʔát-q<sup>w</sup>ɬp/*

“Ponderosa pine trees.”

In this form, the **q<sup>w</sup>** sound also helps bring out the **a-sounding** quality of **ʔ**. This is another useful listening example: the learner may hear the vowel strongly, but the pharyngeal structure is still part of what is shaping the word.

This family helps learners see how:

- pharyngeals
- reduplication
- root shells
- spelling variation

all continue interacting together across related forms.

## ʔ and Social Orientation

One useful way to think about the pharyngeal is that it is not simply a sound.

It is also connected to orientation and positioning.

The same underlying **ʔ** may surface differently depending on:

- mouth posture
- social orientation
- openness
- vocal shaping
- surrounding structure

For example:

A highly open greeting-like form may produce a more open “a-like” quality.

A neutral or responsive form may produce a more centered “e-like” quality.

Within the Root Calculus framework, these are not completely separate sounds, but different realizations of the same underlying orientational structure.



*Primary pharyngeal form in this section*

### *Marked or Realized Interior Orientation*

The glottalized form often signals that something has become:

- outwardly realized
- intensified
- crossed beyond a prior condition
- brought into visible manifestation

This is not simply “stronger.”

Within the Root Calculus framework, marked forms often indicate a type of beyond-ness: a prior limit, condition, or orientation no longer holds in the same way.

Examples:

- **ƒ**
- spellings written as **-e?** or **-a?**
- affectionate or realized forms



*Primary pharyngeal form in this section*

### *Carried or Released Interior Orientation*

The rounded pharyngeal often relates to:

- accumulation
- carrying outward
- gathering
- release from within
- movement through unfolding conditions
- collected force or stored condition
- cohesion through gathering

One important thing learners quickly notice is that many commonly taught orthographies represent ƒ<sup>w</sup> with:

- **o**
- **ow**
- vowel-led spellings

This is one reason many learners do not initially recognize these forms as sharing a common pharyngeal structure.

Within the Salish Root Project, the pharyngeal forms:

- ɸ
- ɸ̣
- ɸ<sup>w</sup>
- ɸ̣<sup>w</sup>

are used consistently across teaching materials, presentations, publications, and root-shell analysis.

Many learners are initially more familiar with vowel-led spellings such as:

- olq<sup>w</sup>
- oweleʔn
- solší

As learners gradually begin reading forms such as:

- ɸ<sup>w</sup>lq<sup>w</sup>
- ɸ<sup>w</sup>elʔn
- sɸ<sup>w</sup>lšictn

the underlying structural continuity of the root shell becomes much easier to see.

At first, the visual shift can feel unfamiliar or even uncomfortable.

Many learners experience an instinctive reaction that the newer forms “look wrong” simply because the eye has been trained by earlier spelling conventions.

Over time, however, repeated exposure helps the learner begin recognizing the deeper patterns more naturally.

As pattern recognition strengthens, the pharyngeal spellings often become easier to process visually than the older reduced spellings because the underlying relationships remain visible directly in the word itself.

One of the major benefits of consistent pharyngeal representation is that learners can begin seeing:

- root-family continuity
- vowel behavior
- structural clustering
- related derivations
- hidden relationships between words

more directly and consistently.

The goal is not simply to change spelling.

The goal is to help learners see the structure that was already there.

## Unite / Accumulate

ɸ<sup>w</sup>l

“Unite, accumulate.”

This is one of the clearest teaching roots for introducing ɸ<sup>w</sup> because many related forms preserve the same orientational feeling:

- gathering
- collecting
- accumulated force
- cohesion through coming together
- carrying stored condition

## Belly / Stomach

*ʕ<sup>w</sup>lín, written /ʔo·lín/*

“Belly, stomach.”

Root:

- **ʕ<sup>w</sup>l** — unite, accumulate

Suffix:

- **-in** — come to act at/with/to something

Within Root Calculus interpretation, the stomach becomes a place of gathered or accumulated intake.

This is also a strong example of:

- hidden pharyngeals
- older spelling strategies
- the “o-sounding” realization of ʕ<sup>w</sup>

## Shoreline Accumulation

*ʕ<sup>w</sup>elín, written /ʔowe·leʔ·n/*

“A place where things naturally accumulate.”

Examples include:

- shoreline drift accumulation
- debris gathering at fences
- materials settling into corners

Root:

- **ʕ<sup>w</sup>el** — accretion, be accumulated

Suffixes:

- **-í** — outward expression
- **-n** — act at/with/to something

This family shows accumulation becoming outwardly visible through environmental movement and flow.

*ɽʷlqʷenʹ, written /ʔol·qʷeneʔ/*

“Accumulation on the shore.”

Examples:

- driftwood
- debris
- gathered shoreline material

Root:

- ɽʷl — unite, accumulate

Suffixes:

- -qʷ — amass, alter toward
- -enʹ — outward act at something

## Helping / Stored Energy

*ɽʷlqʷ, written /ʔol·qʷ/*

“Help, assist.”

Within the Root Calculus framework, this relates to:  
using accumulated or stored energy to assist another.

This may include:

- free time
- effort
- stored resources
- carried strength
- accumulated capacity

Rather than simply “help,” the structure reflects accumulated force being redirected outward.

Examples:

- ɽʷlqʷšcut — help oneself
- ɽʷlqʷšit — help it

## Fire

*sɽʷlšictn, written /sol·ší/*

“Fire.”

This is one of the most useful public examples because it is such a familiar word while also preserving the deeper structure.

Structure:

- **s-** — nominal
- **ɥʷl** — unite, accumulate
- **-š** — directive/benefactive
- **-ic** — resultant edge
- **-tn** — device, means

This family helps learners begin recognizing the orthographic shift:

**o** → **ɥʷ**

and how many familiar words may contain hidden pharyngeals.

## Water / Gathering Force

*ɥʷlqʷetkʷ, written /ʔol-qʷe/*

“Go to the water.”

Root:

- **ɥʷl** — unite, accumulate

Suffixes:

- **-qʷ** — amass, alter toward
- **-etkʷ** — state of fluidity/liquid

Within Root Calculus interpretation, water is understood through gathering force:

it gathers:

- people
- animals
- debris
- vegetation
- movement

Examples:

- **ɥʷlqʷetkʷ** — went to the water
- **ɥʷelqʷ** — arrive at water
- **ɥʷelqʷn** — arrived at that water
- **ɥs ɥʷelqʷny** — is arriving at the water

This family demonstrates how the same root shell continues across:

- movement
- accumulation
- shoreline gathering
- environmental flow

- human activity

## Learning to Notice ɬʷ

When learners begin seeing forms such as:

- olqʷ
- oweleʔn
- solší

as structurally related to:

- ɬʷlqʷ
- ɬʷelšín
- sɬʷlšictn

many seemingly separate words suddenly begin revealing root-family continuity.

This is one of the major gateways into seeing:

- root shells
- spelling variation
- hidden pharyngeals
- vowel behavior
- structural clustering across Salish words

ɬʷ

*Primary pharyngeal form in this section*

### *Beyond-Carried Realization*

This form often combines:

- outward carrying
- release
- structural disruption
- emergence beyond prior containment
- realization beyond a held condition

In many words, ɬʷ appears in situations involving:

- breaking
- loosening
- coming apart
- release from cohesion
- grouped or collective formations
- carried structures becoming externally realized

One important thing learners begin noticing is that many older spellings represent ɬʷ differently.

The same underlying structure may appear written as:

- $\acute{s}^w$
- $u?$
- $o?$
- $a^w$
- $w$

This is one reason many related words are difficult to recognize at first.

## Structural Disruption / Breaking

*$ma\acute{s}^w, ma^w$*

“To break, take apart, undo, put out of position, make unusable.”

This root family often relates to cohesion no longer holding in the same way.

Examples:

- $ma\acute{s}^w$  — broken, taken apart
- $\acute{s} ma\acute{s}^w$  — it is broken

The marked rounded pharyngeal helps signal a carried structure becoming disrupted or released beyond its prior held condition.

*$m\acute{s}^w sqa\acute{x}\acute{s}$ , written / $mo\cdot sqa\cdot \acute{x}e?$ /*

“His/her car or horse broke down.”

This form extends the same structural orientation into something becoming nonfunctional or no longer operating as intended.

Prefix:

- $m\acute{s}^w\text{-}\acute{s} \dots$  — break, nonfunctioning

*$\acute{c}ma\acute{s}^w pl\acute{s}$ , written / $\acute{c}\cdot ma^w\cdot ple?$ /*

“Break handle, dismantle connection, break the lead rope.”

Here the construction relates to a connection no longer holding together in the same way.

## Competitive Pressure / Breaking Force

*$\acute{c}m\acute{s}^w sa\acute{x}nm$ , written / $\acute{c}\cdot mu?\cdot sa\acute{x}\cdot nm$ /*

“Arm wrestle.”

Root:

- **mí<sup>w</sup>** — break, take apart

This form reflects pressure applied against another structure or held condition.

It also provides a useful example of spelling variation:

- **mí<sup>w</sup>**
- **u?**

Both may reflect the same underlying pharyngeal structure.

## Loose / Ill-Fitting Conditions

*nlí<sup>w</sup>ups, written /n-lw-ops/*

“Baggy pants.”

Root:

- **l<sup>w</sup>** — loose, ill fit

This family relates to cohesion or fit no longer holding tightly.

Again, learners can see different spelling strategies representing the same deeper structure.

## Impact / Striking

*čcǐ<sup>w</sup>qin, written /č-co?-qin/*

“Beat on.”

Root:

- **cǐ<sup>w</sup>** — punch, beat

This provides another example where older spellings may partially conceal the pharyngeal structure.

## Grouping / Collective Structures

*tí<sup>w</sup>, written /tuw/*

“Many things together.”

This root family relates to grouped or collective organization.

Examples:

- **tí<sup>w</sup>sqelyx<sup>w</sup>** — crowd of people
- **tí<sup>w</sup>sqaxǐ** — herd of animals

The prefix:

- tʰw-ɬ-...

forms grouped or collective conditions.

Within the Root Calculus framework, this reflects many things held together within a carried collective orientation.

## Eggs / Cohesion Awaiting Release

*ʰwusʰ, written /ʔuʔ-úseʔ/*

“Egg.”

This is an especially useful teaching example because it shows:

- spelling variation
- hidden pharyngeals
- carried cohesion
- outward realization

Root:

- ʰwus — exceeded cohesion availability

Suffix:

- -ʰ — outward expression

Within the Root Calculus framework, an egg is not simply “fragile.”

It is a cohesive structure being held in readiness for release.

Examples:

- ɬʰwusʰ — small eggs
- snʰwusʰtn — nest
- ʰwusʰm — it laid eggs
- ʰs ʰwusʰy — it is laying eggs
- ʰs ntʰpus ʰwusʰ — boiled eggs

This family also helps learners begin seeing how:

- prefixes
- suffixes
- aspect markers
- diminutives
- nominalizers

all continue interacting with the same underlying root structure.

## Hidden Pharyngeals in Common Spellings

Many learners already know words containing hidden pharyngeals without realizing it.

Examples:

**es-**


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Often analyzed in the Salish Root Project as:

**ʃs-**

This combines:

- ʃ — spatiotemporal framing
- s — whole, structured, designed condition

This prefix often relates to:

- ongoing states
- imperfect aspect
- maintained conditions
- continuing activity

Examples:

- ʃs x<sup>w</sup>isty — walking
- ʃs č̣xsaqsy — enjoying food

**eʃ-**


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Often analyzed as:

**ʃʃ-**

This construction frequently relates to:

- recurrence
- return
- reapplication
- repeated engagement
- beginning again from a prior condition

**-eʔ / -aʔ**


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Many forms written this way may reflect an underlying:

**-ʃ**

This often indicates:

- outward realization
- manifestation
- emergence from interior orientation

## Learning to Notice

When reading Salish words, begin asking:

- What sounds repeat?
- Is there a hidden pharyngeal here?
- Why is this vowel present?
- What orientation does this word seem to hold?
- Which part stays constant across related forms?

You do not need to solve everything immediately.

The first step is learning to notice.

As learners begin seeing:

- root shells
- vowel patterns
- pharyngeals
- prefixes
- suffixes

many seemingly separate words begin revealing themselves as members of larger structural families.

## A Different Way of Seeing

English translations often focus on the final visible meaning of a word.

Salish languages frequently organize meaning through:

- orientation
- relation
- structure
- development
- experiential position
- movement through conditions

Root-shell analysis is an attempt to help learners see those deeper relationships.

The goal is not to replace earlier learning.

The goal is to widen the frame.

## Closing Thought

Many learners already feel that certain Salish words are connected.

Root-shell analysis simply begins asking:

What kind of connection are we seeing?

And once pharyngeals become visible, many hidden patterns begin opening at once.

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If this information has been meaningful or helpful to you, please consider supporting and following the work through the Salish Root Project.

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*For larger support toward the continued development of Salish Root Project materials, videos, and public resources.*

**GoFundMe:** [gofundme.com/f/salishradical](https://gofundme.com/f/salishradical)

The research behind this document did not emerge quickly. It represents years of continuous study, comparison, listening, questioning, organizing, testing, and rethinking how Salish structure is understood and presented.

Many of the patterns shown here only became visible after thousands of hours spent working across root families, vowel behavior, pharyngeals, morphology, orthographic systems, and spoken usage traditions.

A large part of this work is not simply gathering information, but finding ways to organize and present it so learners can actually see the patterns for themselves.

Your support helps keep this research moving forward and helps make more public learning materials, videos, documents, presentations, and root-shell analysis possible through the Salish Root Project.

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