More "Pure Chinook" from Joe Peter, 1941[*]

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The Joe Peter Chinook Transcription Project

Abstract: John P. Harrington tasked John P. (Jack) Marr to find a source of "Baker's Bay pure Chinook" (Lower Chinook of the Chinookan language family). Marr thought he had found a prospect, a man named Joseph (Joe) Peter, and proceeded to record himself reading English selections from Franz Boas's *Chinook Texts* for Peter to translate into a language that Marr understood to be "pure Chinook". The result was 30 recordings of poor quality, which are in fact Chinook Jargon gold, not any variety of Chinookan. These recordings have received little attention to date from language scholars. Such work as has previously been done requires some amendment to incorporate our team's findings. As methods and technology change, new discoveries will continue to emerge and add to the story. This research paper is to discuss how we as a group have approached the task of transcribing and analyzing these recordings of Chinook Jargon.

Keywords: Chinuk Wawa, Chinook Jargon, John Peabody Harrington, John Paul (Jack) Marr, Joseph (Joe) Peter

1 A trove of audio in "pure Chinook" turns out not to be Chinookan — but Chinook Jargon!

In early June 1941, John P. Harrington's associate John Paul (Jack) Marr tracked a Cowlitz-identified resident of Yakama Reservation named Joseph (Joe) Peter to a cherry orchard near The Dalles, Oregon, in hopes of recording a language by then thought to be on the brink of disappearing — if indeed not lost already. Marr himself had no training or background in linguistic methods but had dedicated himself to his patron Harrington's mission to recover what could still be recovered of endangered Indigenous languages. This he did by lugging around a 150-pound "portable" aluminum disc recorder to speakers of languages that Harrington had targeted. While many of these languages had been described by previous generations of linguists, Harrington found the phonetic workmanship of his predecessors more often than not flawed and in need of rechecking. One of his priorities for his young assistant's current Northwest field trip was to locate anyone who might still have knowledge of the Lower Chinook language recorded 50 years previously by Franz Boas — "the Baker's Bay pure Chinook", as he named the language in correspondence to Marr (Baker's Bay is the part of the mouth of the Columbia River just to the lee of Cape Disappointment). While Harrington often directed Marr to particular speakers, he also encouraged Marr to exercise initiative. And indeed, it could only have been by his own initiative that Marr learned that a man named Joe Peter, then picking cherries near The Dalles, was a speaker of "pure Chinook".

So important a find was this man's "pure Chinook" in Marr's mind, that he made special arrangements to ensure that a particularly copious recorded sampling be preserved of it.

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Accordingly, he rented a room and offered to pay Peter as much per day as the cherry orchard boss would pay, in return for two days' worth of intensive language work. Since Harrington wanted something to compare with Boas's earlier record of "Baker's Bay pure Chinook", Marr hit upon the strategy of reading from the free translations of Boas's (1894) *Chinook Texts*, breaking the latter into phrasal prompts for Peter to translate. And translate Joe Peter did, phrase by phrase, with impressive fluency and fluidity. Only Peter's "pure Chinook" turns out not to be the Baker's Bay variety, nor any other variety of Chinookan proper (including Kathlamet Chinook, as the recordings have in the past been erroneously labeled on the Smithsonian Institution's website): rather, they are pure *Chinook Jargon* (often termed Chinuk Wawa these days, following the language's autonym).

While these recordings constitute a valuable resource for carrying research on Chinook Jargon (Chinuk Wawa) forward (see Zenk & Johnson 2003; Zenk 2021), their audibility is marginal at best, rendering the work of transcribing and interpreting all 30 tracks (digitized from 15 original two-sided aluminum discs, 20 minutes per side) a truly monumental task. This contribution details our progress to date in turning that task into a team project — a collective endeavor pooling the ears and minds of members of two groups of enthusiasts: students of Chinook Jargon as spoken in British Columbia; and students of Chinuk Wawa as spoken in the Grand Ronde Indian Community of Oregon.

A note on the historical and continuing social and symbolic significance of this language is also in order here. When we say that Joe Peter replied with "impressive fluency and fluidity", we do not exaggerate. Joe Peter speaks a prosodically consistent (smoothly flowing) Chinuk Wawa, delivered rapidly and usually without perceptible hesitation in response to Jack Marr's English prompts. The team often requires many replays to capture the nuances of his spoken "Chinook", nor can we claim to have registered all of them (blame the poor quality of the audio source!). Taking Marr's observation that Peter had not used the language in "twenty or thirty years" at face value, it follows that Peter must have had an intensive and prolonged experience of the language during his earlier life. Did he grow up with it? From what we know of his family and community roots in the Cowlitz River region (see Zenk 2021 for such biographical information as we have), it would not be surprising were that the case. Cowlitz Prairie, in southwest Washington, along with French Prairie, in northwest Oregon, are two of the places most strongly associated with the language's creolization, a development that, furthermore, is closely tied to the sizeable Métis communities that formed in both places during the early to mid-nineteenth century (see Section 6 below). A founding member of our team, Darrin Brager, is a 57-year-old Métis and a member of the Métis Nation of British Columbia (MNBC), residing in Castlegar British Columbia. He comments below on the language's role and significance in his own family history, as well as for him personally:

> I have been actively studying Chinuk Wawa/Chinook Jargon for about four years now, including two years learning Chinuk Wawa (via Zoom) at Lane Community College in Oregon. I have become fairly proficient in both southern and northern Chinook Jargon. I continue to learn more and more all the time about the language, its uses, and methods of revitalization. I have a number of family members that in the past have made use of the language daily to do their jobs. My fourth Great Uncle was John Flett (Red River Métis), who worked under Superintendent Joel Palmer as a treaty interpreter using Chinuk Wawa to negotiate treaties in Oregon during the mid-nineteenth century. My Norwegian grandfather and my grandfather's Métis children (my aunts and uncles) also used Chinook Jargon for a working language as Fishers (Gillnetting based in Steveston) on the Fraser River into the 1950's. So, this language is personal for me — it has real meaning to me, as well as to my relatives past and present, both Indigenous and non-Indigenous, and I hope

> it will to many others also. Because of this, I am highly active in promoting the language and trying to provide learning opportunities for others to learn Chinuk Wawa too, which is a big part of the reason we have undertaken this pursuit.

2 Project description

In the recordings, Jack Marr reads or paraphrases an English phrase or sentence from *Chinook Texts.* These texts are traditional stories as told by Charles Cultee in Lower Chinook (a Chinookan language), not Chinuk Wawa, and transcribed and translated by Franz Boas. After hearing Jack Marr's English prompt, Joe Peter then responds with a translation of that phrase or sentence in Chinuk Wawa.

Fifteen aluminum discs were recorded in this manner, each consisting of two sides. Each recording (side) has a duration of approximately 20 minutes, providing nearly 10 hours total of recorded audio. Digital copies of the originals which reside at the Smithsonian Institution National Anthropological Archives (NAA), were obtained from the Smithsonian Online Virtual Archives (local numbers NAA INV.00000682 through NAA INV.00000696); as well as via a cache of WAV-form files made available to Henry Zenk by Ives Goddard and Daisy Njoku of the NAA. The sound quality of the recordings is generally very poor and sound quality frequently fluctuates. This is not helped by Joe Peter's rapid and often mumbled speech.

Dr. Dave Robertson exposed the 30 recordings to his volunteer students of Chinook Jargon/Chinuk Wawa, who at Dr. Robertson's urging, attempted to transcribe the recordings. This was originally done individually as part of a haphazard crowd sourced attempt, with no real organized effort to do the work. Three of these students that had tried to transcribe as part of this initiative were Darrin Brager, Alex Code, and Nathan Fulton. Henry Zenk had earlier individually transcribed one complete side (side 1 of NAA INV.00000694), presenting the result as part of a contribution for *ICSNL 56* (Zenk 2021). However, the poor sound quality of the recordings proves to be a significant hurdle when transcribing alone. The process is laborious, time-consuming, difficult to remain consistent with and the final product is not always as accurate as desired.

The "Chinuk Wawa – GR" Discord[1] server was started by Darrin Brager in 2022 as a place where he and his language partners from the Lane Community College Chinuk Wawa program could communicate in Chinuk and share files they were working on. In the last couple of semesters of the Lane program in 2023, Darrin and his language partners opened the Discord server to other classmates, giving class alumni a place to stay connected and converse in the language after the Lane Chinuk program. The Discord server is currently open to alumni, current Chinuk students, and others that wish to learn Chinuk Wawa and want to help in the effort to revitalize the language.

In early 2023, we began hosting a weekly Wednesday night session on the Discord server where a few original members would get together to read Henry Zenk's (2017) Chinuk Wawa history of Grand Ronde: *shawash-iliʔi tilixam* or discuss other Chinook-related topics. After a few sessions, in about April 2023, Darrin suggested we could transcribe the Joe Peter audio recordings as a group instead of doing readings of Chinuk Wawa texts. The group then took a vote and decided to undertake the work of transcribing the Joe Peter recordings as a collective or community effort in the weekly sessions. This decision marked the beginning of the Joe Peter Chinook Transcription Project and we have met almost every Wednesday night since. Over time, our student group was

[1] Discord. Voice, video, and text communication application. https://discord.com/

joined by accomplished scholars in the field of Chinuk Wawa/Chinook Jargon to work on the project.

The first task for the transcription project was to prepare an audio track that the team could use for the transcriptions, as the existing recordings were extremely hard to hear and work with. Several attempts were made to clean up the audio, including one member (David Gilbert, Chinook Nation) purchasing an AI filter for Audacity[2] but we eventually decided to manually clean up the audio, as it provided the best results. Once we managed to clean up the audio, we needed a method to segment and transcribe it.

We chose to use ELAN[3] to segment the audio, which allowed us to add our text transcription to each segmented section of audio. Each segment consisted of a sentence from John Marr and the response from Joe Peter. Each recording consists of approximately 350 segments, and there are 30 recordings in total, each about 20 minutes long. The group spends about three to four months on average transcribing each recording. At this rate, we have only nine more years of work ahead of us!

Having many listeners together has proven to be more efficient and complete, and working together has made the task less daunting. In an effort to encourage community participation, transcriptions are performed as a group through the voice, video, and text communication features of the Discord platform. To attract participants, the Joe Peter Project was advertised in *Chinuk Wawa*, an annual magazine written by Lane Community College Chinuk Wawa students.

Considering the low quality of the original recordings, transcribing as a group inevitably leads to disagreement of what was said in parts of the recordings. Although this might seem like a hindrance to the transcription process, we have found it to be a strength. Noting areas of disagreement helps us identify sections of the recording where we are less confident in our transcription. Gathering such information would not be possible if the transcription was performed by one person alone. We have encountered many instances where two or more people confidently hear completely different words or phrases in the same section of audio. If only one of these listeners was transcribing this section, confidence in that transcribed section would likely be overstated. Conversely, if multiple listeners hear the same thing, it increases confidence in a section of audio where a single listener might have less confidence in their comprehension. We note where issues of clarity exist and accept that there will be inaccuracies and omissions in the transcription, as is to be expected with poor quality recordings.

3 Technical apparatus and methodology

The following technical apparatus and methods were important in the process: the aluminum disk recorder (or lathe), Audacity digital audio editor, ELAN audio annotation tool, the Discord social platform, Clipchamp video editing tool, and YouTube. A short description of these tools and their configuration as it applies to the project is below.

[2] Audacity. Audio editing and recording application. https://www.audacityteam.org/download/

[3] ELAN [Computer software]. (2024). Nijmegen: Max Planck Institute for Psycholinguistics, The Language Archive. Retrieved from https://archive.mpi.nl/tla/elan

3.1 Aluminum disk recorder

Figure 1: 1941 Fairchild disk recorder (Fairchild Aviation Corp. 1941)

Marr used a portable aluminum disk recorder to make the initial recordings. The recorded aluminum disks are in the care of the National Anthropological Archives as a part of the John Peabody Harrington papers / John Peabody Harrington Sound Recordings. These recorders were made by the Fairchild Aviation Corp. and its successors (Leebens 2018–2019). The aluminum disk recording technology is similar to that of modern record players and was heavily used in the early radio industry. We do not know what model Marr had, but it could not have been later than the 1941 model pictured in Figure 1 (Fairchild Aviation Corp. 1941). They were designed to withstand the rigors of field use for radio pre-recording as a part of a mobile studio, not necessarily for standalone use by non-technical users.

As we listened to the recordings, one observation the group made was that the recordings sometimes seemed distorted, as if they were running a bit fast or slow. The disk recorders were designed to set recording speed by the hertz cycles of the power supply. In a mobile studio, a filtering power supply would be used to ensure that this was stable. (There are also some adjustments that can be made through such filtering to improve sound quality.) Marr presumably was plugging this into rural mains power. Even today, mains power is not sufficiently stable to use directly for such a purpose. This explains the slight distortions we noticed.

Aluminum disk was an improvement on earlier technology like wax cylinders because they were more environmentally stable and did not need to be protected from heat. In the context of summer fieldwork, in a time when air conditioning was extremely rare, this is important. Additionally, while they could be bent and distorted, they did not break like shellac records. They did need power to drive the lathe and convert the sound waves to the magnetic signal the lathe used to inscribe the disk.

A major limitation of aluminum disks is that although they look like traditional records, they can only be played with a wood or cactus needle and using a metal stylus on a recorded disk will damage it to the point of unintelligibility. This has been particularly challenging for the preservation of aluminum disk recordings because although the technology was widely used before the advent of magnetic tape, most recordings were recycled during World War II metal drives, thus it was not uncommon for them to be found and ruined by someone not aware of this limitation. Finally, in the

plug and play configuration used in this case, and without the benefits of a recording studio, sound quality and clarity suffers. These disks were digitized by the Smithsonian Institute with financial support from the Arcadia Fund. We do not have any information about the methodology used. These digitized versions are what we are using for the transcription process.

3.2 Audacity

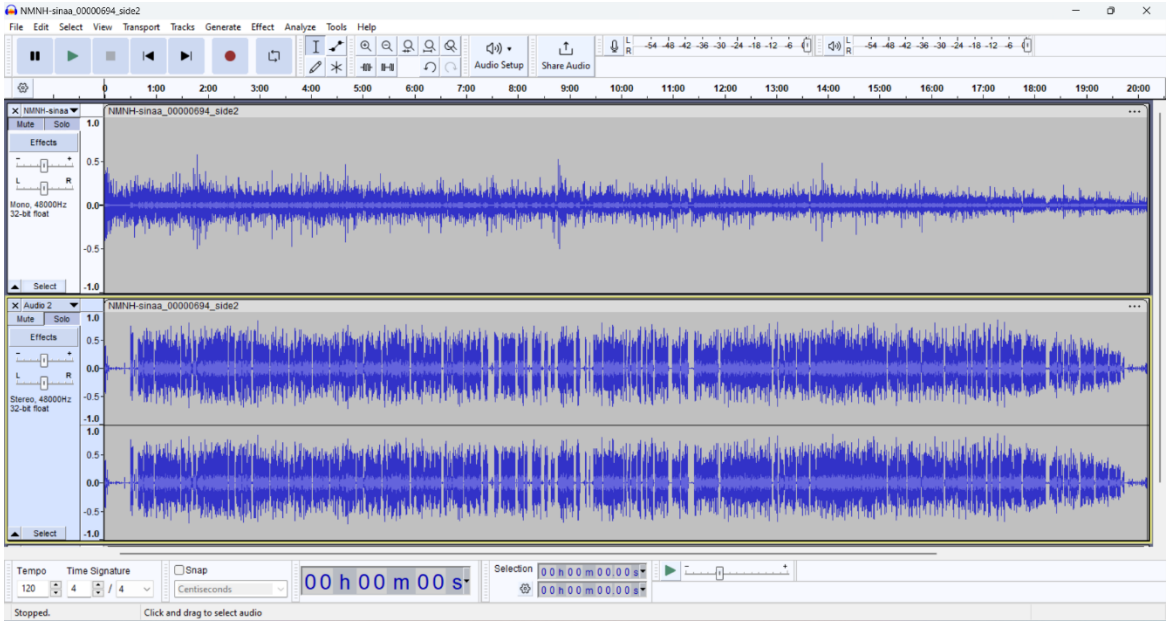

Figure 2: Audacity application screenshot

The Joe Peter Transcription Project made use of the Audacity computer application for our audio improvement and amplification efforts. This freely available application has proved a useful option for our team, to easily and cost effectively reduce or eliminate anomalies and normalize audio levels. Audacity has a user-friendly interface (see Figure 2) that allows us to easily edit our audio files. To improve the original mono audio recordings which are in .mp3 and .wav formats, the following procedure was used:

- Download the appropriate version of Audacity for your operating system.
- Run Audacity and open the audio file you wish to work with.
- If the audio is mono, make a stereo track:
    - Create a copy of the mono track.
    - Create a new stereo track.
    - Copy and paste the mono track into the stereo track.
- Do a first pass with the Click Removal tool.
- Use the noise reduction filter to do an initial removal of noise in the audio.

- Manually repair spikes and anomalies using the repair filter, taking care not to remove any vocals from the speakers.
- Manually adjust the output level using the amplification filter to normalize the output.
- Do a second pass of the noise reduction filter to remove noise introduced by the amplification process.
- Export the finished stereo recording in 32 bit or higher .wav format.

The nature of the recording device used, an aluminum disk recorder,[4] causes the audio recording output waveform to be cone shaped with the large end of the cone at the beginning of the recording and the small end of the cone at the end of the recording (see Figure 3). This cone effect is very defined, and the audio at the beginning of the recording is very loud in comparison to the end of the recording. These recordings also are riddled with noise, anomalies, and spiking, and these issues cause problems when trying to normalize the output. We had tried AI vocal isolation early in the process and one of our team purchased a third-party Audacity filter. This filter worked great for a few small clips of audio, but overall, it was not an output that was usable. The AI removed words along with spikes and anomalies, and it also removed any feeling or sound warmth that existed originally. To help alleviate the issues mentioned with AI, we adopted manual methods of analysis and removal of noise, spikes, and anomalies. Great care is taken to preserve the recorded words, warmth, and feeling of the audio output. These manual methods are tedious and time-consuming, taking a few hours to complete for each 20-minute recording, but it produces the best results for our application (see Figure 4).

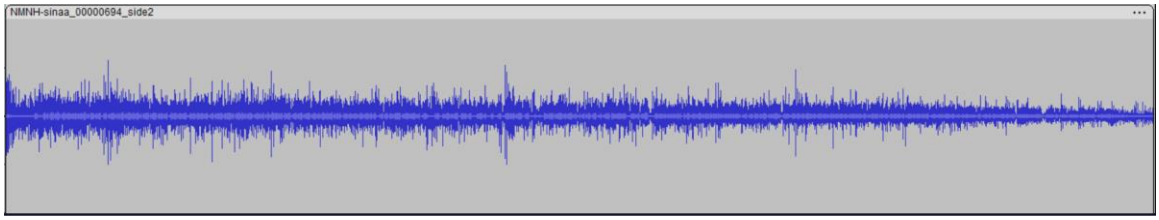

Figure 3: Original mono waveform

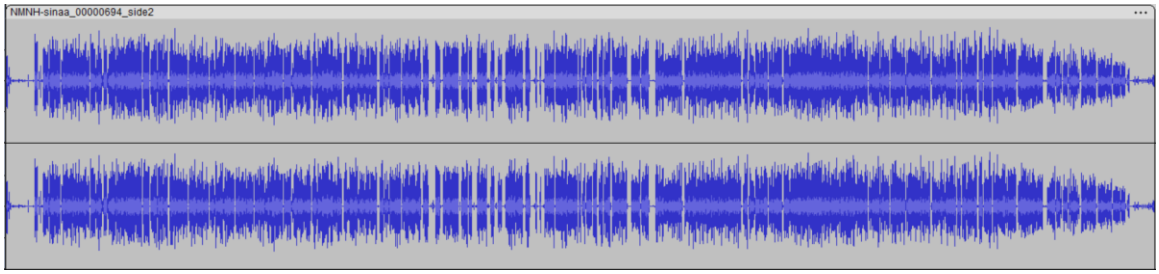

Figure 4: Improved stereo waveform

[4] Aluminum disk recorder. A large but mobile recording device which records audio on an aluminum disk the size of a typical vinyl record. The device weighs approximately 150lbs and the disks would hold two recordings about twenty minutes long.

3.3 ELAN

The Joe Peter Project uses a computer application called ELAN to efficiently transcribe the recordings during group meetings. ELAN is a transcription program that allows the user to synchronize annotations with video and audio files and includes numerous tools useful for transcription. The following setup procedure is performed prior to group sessions for each 20-minute audio segment:

- Audio files (original and noise-reduced copies in .wav format) are added as "linked files" into the program.
- The speakers (Joe Peter and Jack Marr) are added as "tiers" to organize the transcription. The tiers are assigned their own color-codes to visually separate the speakers in the program.
- The individual phrases are broken into timestamped segments using the "Segmentation Mode" option. This is accomplished by selecting "adjacent annotations" and assigning a segmentation key. Then the user plays the audio and strikes the segmentation key after each speaker has finished their phrase or sentence. Annotation segments are further manually edited as needed.
- Using the "Transcription Mode" option, the speaker's initials are added to each annotation line for the purpose of exporting annotations to video and to save time during group transcriptions.

Group transcriptions are performed using the "Transcription Mode" option in ELAN. In this mode, each annotation segment is given a text field for transcription. The segment audio will automatically play upon first entering a segment and the audio can easily be replayed and looped using key commands or the user interface. During transcription, the source sound files can be readily changed between the original recordings to noise-filtered recordings, or multiple sound files can be overlayed. This aids in comprehension where the quality of the recording makes a segment difficult to understand.

Transcriptions are written with a custom keyboard that contains all relevant characters of both Chinuk Wawa and English alphabets, though Chinuk Wawa characters are prioritized over English characters. For example, the "ɬ" character replaces the "z" key, but "z" can still be accessed through alt-states. This keyboard was developed by Nathan Fulton with Microsoft Keyboard Layout Creator Version 1.4. The Chinuk Wawa orthography used in this project is described in Chinuk Wawa Dictionary Project (2012). Other Chinuk Wawa keyboards are also available.[5]

In an effort to maintain consistent notation throughout transcriptions, the group has developed a notation standard as summarized in Appendix B. In-situ examples of this notation standard can be seen in the transcription excerpt provided in Appendix C.

[5] Talapas keyboard. http://digitalchinuk.pbworks.com/
Keyman chinuk_wawa keyboard. https://keyman.com/keyboards/chinuk_wawa?bcp47=chn
Duployan test keyboard. https://dscorbett.github.io/duployan-test/

3.4 Discord

Discord is an application that enables users to communicate through voice, video, and text channels in a manner that encourages community building. Users can establish "Discord servers" for a community with persistent multimedia text channels and with voice and video channels that are available for all members of the server at any time.

Discord was initially designed for voice and text communication within small groups of online video gamers, but its use has expanded to serve as an online communication platform for a wide variety of communities of all sizes. The Joe Peter Chinook Transcription Project uses Discord to live-stream audio and video of transcription work performed in ELAN while also accommodating group communication through live voice and text chat. This allows the group to listen to, transcribe, and discuss the Joe Peter recordings together in real-time. Figure 5 shows a screenshot from an attendee's perspective during a livestream transcription session.

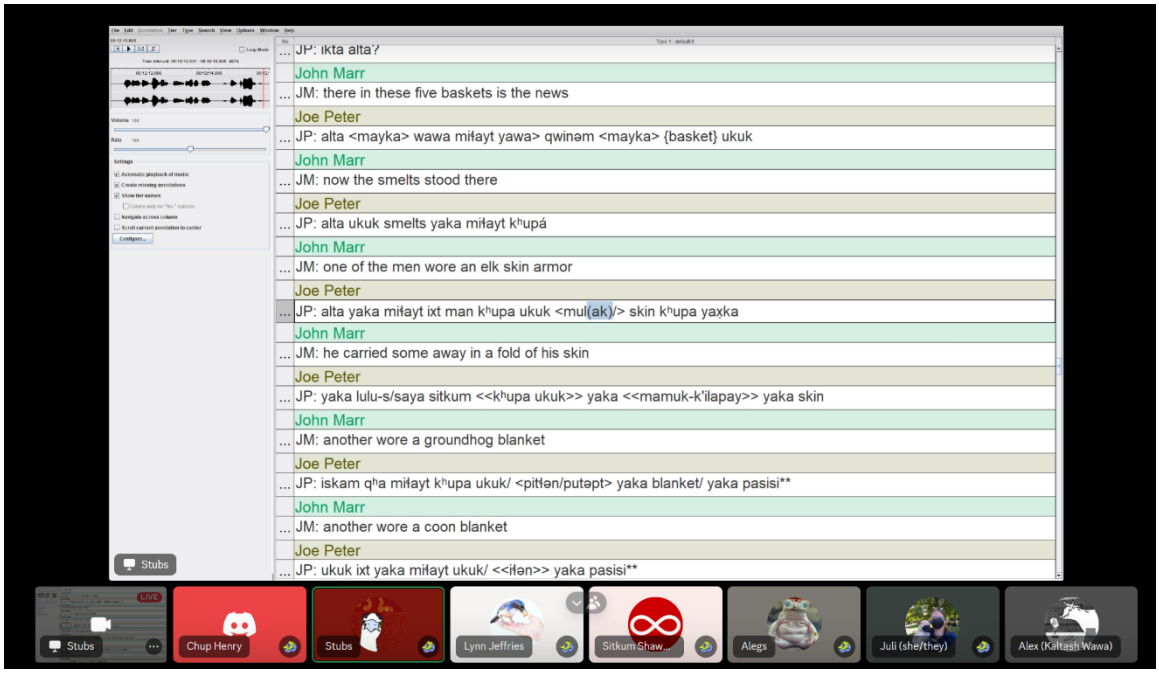

Figure 5: Viewer's screenshot of session

The following steps were followed and are recommended to live-stream ELAN through Discord for group transcription:

- Download the appropriate Discord application for the user's operating system. Establish a Discord server if one does not already exist for the user's community. If one does exist, join the community server by means of an invite link from the community administrator.
- Add ELAN as "game" in Discord:
    - First make sure ELAN is running on the user's computer.
    - In Discord, click on user settings (the gear icon in the lower left-hand side).

    - Under “activity settings” click “registered games”.
    - On the right-hand side of the text “not seeing your game?” click on “Add it!”
    - Select “ELAN” from the drop-down window and click the “add game” button.
- Join a Discord voice or video chat channel:
    - Click the desired server icon on the far left-hand side of Discord. The server’s channels will now be listed on the left-hand side of Discord.
    - Scroll to the desired voice channel (marked with a speaker icon) and click the channel name to enter voice chat.
    - To begin streaming, make sure Elan is running. In Discord, click on the voice channel again to view the lobby, then click on the share screen button on the bottom of the lobby.
    - Select the ELAN pane to begin streaming.
- How to watch the stream:
    - Click the desired server icon on the far left-hand side of Discord. The server’s channels will now be listed on the left-hand side of Discord.
    - Scroll to the desired voice channel (marked with a speaker icon) and click the channel name to enter voice chat.
    - Click on the voice channel again to view the lobby, then click on “view stream” in the tile showing an image of the live stream.
- General recommendations:
    - Download the Discord application for your device rather than use the browser version of Discord for improved sound quality and functionality.
    - All participants should enable noise/echo suppression settings to prevent feedback loops. To do this in Discord:
        - ◊ Click on user settings (gear icon).
        - ◊ Under “app settings” click “voice & video”, enable echo cancellation and select a noise suppression method (Krisp or Standard).
    - All participants should wear headphones or earbuds to prevent feedback loops.

Although not required, an ultrawide or dual monitor setup is recommended for the user who is live-streaming ELAN. This allows the streamer to see both Elan and Discord simultaneously while maintaining an approximate 16:9 aspect ratio in ELAN for streaming. Because a 16:9 aspect ratio is the current standard format for landscape video, maintaining this approximate aspect ratio in ELAN prevents difficulties for viewers. Figure 6 shows a screenshot from the streamer’s perspective while live-streaming a transcription session with ELAN on the left and Discord on the right of the screen.

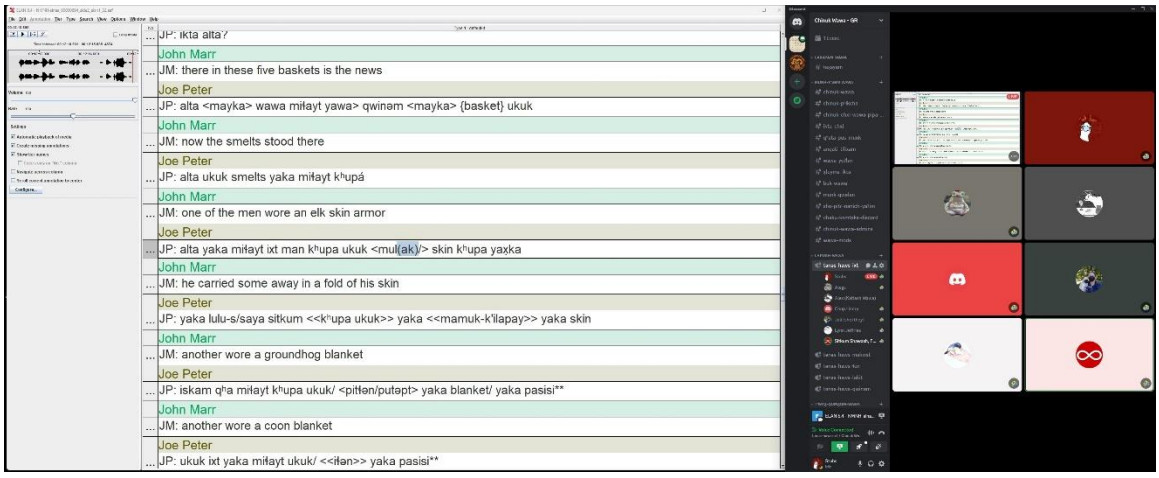

Figure 6: Streamer's screenshot of session

3.5 ClipChamp[6]

The Joe Peter Transcription Project utilizes the Clipchamp application to create movies to enable the public to see the final result of our groups transcription efforts. Clipchamp is a widely used and readily available application which is easy to use. Below is the general method and steps we followed:

- Download Clipchamp for your operating system if not using a Windows 11 device.
- Sign in and start a new project
    - Click "Create a new video."
- Set up your project
    - Select the 16:9 aspect ratio (ideal for YouTube[7]).
- Add audio track
    - Click "Media" on the left sidebar.
    - Click "Add Media" to upload your audio file.
    - Drag the audio file to the timeline.
- Add introduction slide
    - Click "Text" on the left sidebar.
    - Drag a text template to the timeline at the start.
    - Edit the text for your introduction.

[6] Clipchamp. Widely used, free audio editing software. https://clipchamp.com/en/
[7] YouTube. Widely used, free video sharing platform. https://www.youtube.com/

    - Adjust the duration of this slide by dragging its edges in the timeline to match the introduction length.

- Add text slides aligned with audio
    - Click “Text” again and drag a text template to the timeline after the introduction slide.
    - Click on the text box in the preview window and type your text (up to 4 lines per slide).
    - Adjust the font, size, and position as needed.
    - Listen to the audio to determine where the next slide should start.
- Align slides with speech
    - Drag the edges of each text slide to match the timing of the speech in the audio.
    - Duplicate and edit slides as needed by right-clicking on the slide in the timeline and selecting “Duplicate.”
    - Continue aligning each text slide with the corresponding part of the audio.
- Preview and adjust
    - Click the play button to preview your video.
    - Ensure each text slide aligns with the speech in the audio track. Adjust durations as necessary.
- Preview and export
    - Click “Export” at the top right.
    - Select 720p or higher resolution for YouTube.
    - Click “Export” to process and download your video.

By following these basic steps, you can create a simple, text-based movie in Clipchamp suitable for YouTube. Clipchamp is a great application that rivals paid applications and allows for quick movie development to easily create a great movie for your project.

3.6 YouTube

The Joe Peter Transcription Project has also utilized YouTube as our initial method of bringing our transcription efforts to the public. YouTube is readily available, free of charge, easy to use and is a great way to share the efforts of the team quickly and easily. YouTube is an excellent choice to get your work in the public eye quickly with very little effort. It is also available to most people and the majority of those are already familiar with posting and watching content on the platform. A screenshot of our video *chinuk wawa / Chinook Jargon - sho pitr (Joe Peter) mamuk 693 side2* on YouTube can be seen in Figure 7.

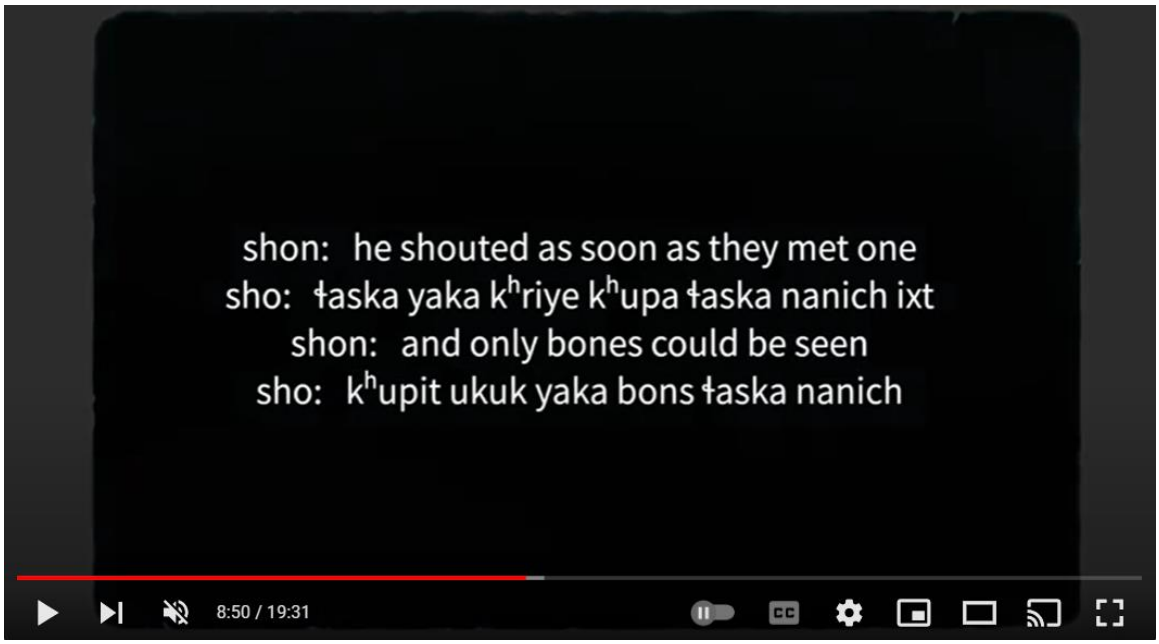

Figure 7: Screenshot of YouTube video

4 These things are not the same

In the year since the group has begun its committee transcription efforts to decipher these recordings, it has become apparent that not all things said by Joe Peter are as we expect them to be, according to what we have learned or have been taught about the language. During transcription sessions, we often find ourselves asking, "Why did he say it that way?" or "Why did Joe Peter add words that John Marr didn't say?" or "Did he just use a word from another language?". Such mysteries help motivate our transcription efforts every Wednesday night.

One example of a previously undocumented loan word is Joe Peter's use of the Cowlitz word for 'skunk cabbage', *q'ilt* (Kinkade 2004:194).

(1) JPM: One day his wife went to get a skunk cabbage.
JP: *ixt…* *ixt* *san* *yaka* *łuchmən* *yaka* *łatwa*
one one day 3SG woman 3SG go
yawa *yaka* *iskam* *q'ilt.*
there 3SG take skunk.cabbage
'One… one day his wife left, there she got skunk cabbage.'
(694 side 2, 00:07:38.084 – 00:07:48.734)

Was *q'ilt* an established part of Joe Peter's Chinook Jargon or was this instance his first time using *q'ilt* as a loan word?

Here are two further examples of unusual usages that have emerged from our work to date on these recordings:

(2) JPM: I cannot help you.
JP: *wik* *nayka* *<wik qʰata pus>* *nayka* *eylan* *mayka.*
not 1SG cannot 1SG help 2SG
'I not [false start], I can't help you.' (694 side 1, 00:17:50.700 – 00:17:54.014)

(3) JPM: Are you hungry?
JP: *mayka* *na* *ulu?*
2SG Q hungry
'Are you hungry?' (694 side 2, 00:04:44.902 – 00:04:46.274)

In example (2), *wik qʰata pus* 'impossible, cannot' (literally, 'no how IRR') is documented in a Roman Catholic Chinook catechism from 1863 (Zenk 1997:435), but so far as we know has not turned up in other records of the language (at least, not in records from the Oregon-Washington subregion). Example (3) exemplifies the question particle *na*, historically well documented but obsolescent in the Chinuk Wawa used by the most recent generations of Grand Ronde community speakers (Chinuk Wawa Dictionary Project 2012:170).

It is also curious how Joe Peter's translations occasionally don't match Jack Marr's English prompts. Some instances could be explained by the possibility that Joe Peter was looking over Marr's shoulder, as it were, at the pages of *Chinook Texts*, and/or had some independent knowledge of these stories. One such example can be found 30 seconds into NAA INV.00000693 side 2, where Jack Marr's oration of *Chinook Texts* omitted the second half of the sentence, "and Blue-Jay was quiet". Joe Peter's response included a translation of this omission.

(4) JPM: They continued to go down the river.
JP: *yaka* *łatwa* *alta* *yawa* *kʰupa* *ukuk* *hayas-chək*
3SG go then there PREP that [big-water] river
ukuk *kəlákəla* *hilu-ikta* *yaka* *wawa.*
that bird [lacking-thing] nothing 3SG say
'He was now going along this river. That bird didn't say anything.'
(693 side 2, 00:00:31.543 – 00:00:41.255)

We usually have one or two group members following the Boas text when transcribing John Marr's section of the recordings. While he usually follows the text, we cannot count on it. Transcribing these sections also reminds us that our difficulties in being certain about what Joe Peter says is not entirely due to our language skills, but also the audio quality. Jack Marr's reading of Boas' text regularly skips anywhere from a phrase to several sentences when confronted with Boas' phonetic transcription of Indigenous names. It is clear that Marr had no idea how to read Boas' phonetic orthography (see Zenk 2021:468–469). At times, Marr will skip a section and Joe Peter will reply with information from that skipped section that moves the story further.

Despite Jack Marr's (often humorous) naivete when encountering Indigenous words in *Chinook Texts*, such examples still provide insight into Joe Peter's history, his Chinook Jargon, and the potential format of the recording sessions. Both Joe Peter and Jack Marr are no longer with us, so we may never know the answers to many questions that arise from these recordings, but we hope that as we continue to gather data, we will make further discoveries and these will move from interesting questions to useful patterns.

5 Transcribing as a lone wolf versus transcribing by committee (by Henry Zenk)

My interest in the Marr-Peter Chinook recordings predates my participation in the Joe Peter Chinook Transcription Project, which I joined only after it was already well underway. A previous exercise devoted to decoding and transcribing Joe Peter's "Chinook" is encapsulated in my contribution to *ICSNL 56* (Zenk 2021). That contribution includes (as an appendix) a complete transcript of one track (track 694 side 1), which I prepared on my own (as a "lone wolf") using some very old transcription software (Express Scribe v 5.13, which I acquired about 15 years ago). The audio source was a WAV-form sound file supplied to me by the Smithsonian Institution. I transcribed the old-fashioned way: by applying pencil to paper.

The results of this preliminary exploration of the massive data trove contained in the Marr-Peter recordings proved quite useful to our current team effort. By reading back my transcript to the group during our collective audits of the same track, I was able to save us much valuable time. For the most part, my perceptions of Joe Peter's Chinuk Wawa word forms agreed closely with those of the group. Usually, if not always, reference to my transcript cut down on the number of replays required to reach group consensus on the identification and spelling of Chinuk Wawa word-forms (note also: agreement on spelling has been facilitated greatly by our collective decision to spell following the usages of the Chinuk Wawa language program of the Confederated Tribes of Grand Ronde, Oregon, a system with which all team members are familiar). But such agreement did not always come immediately. Sometimes, it required many replays. And at occasional (if bearable) cost to my pride, it brought to light errors in my transcript. While I begged to differ with a group correction here and there, such cases were few and far between in comparison with ones that saw me join the group consensus.

Such considerations underscore the advantages of a team approach to the challenges posed by these scratchy old recordings. Not that we can expect to ever recover 100% of what Joe Peter actually said — more like 85% to 95%, depending on the quality of the source audio (which is somewhat variable). Below are some examples illustrating typical sources of error and disagreement encountered by the team, whenever it meets on Discord to thrash out another stretch of Joe Peter's "pure Chinook".

A particularly vexing difficulty encountered by the team arises with respect to certain unstressed word-forms that: (i) are only very faintly audible to begin with; and (ii) may or may not be shortened or clipped. An example is the causative auxiliary *mamuk*-, which in the Grand Ronde variety of the language (with which I am most familiar) appears usually as *munk*-. As I observed in Zenk (2021:474):

> my initial transcripts of [694 side 1] showed a number of instances of *munk*-. But on re-auditing the latter, I found myself unsure whether I had really heard an independent *munk*-, or just an unstressed *mamuk*- dissolving into the ambient background noise — and/or a slur-form: [mɑ.ũk], more or less. My suspicion now is that Peter uses *mamuk*- consistently, and that marginal audibility cannot be ruled out in the case of apparent exceptions.

As illustrated by example (5) (consisting of two versions of the same line set: first, as transcribed by myself in 2021; then, as heard by the group in 2024), my suspicion remains just that, a suspicion. Where I still believe that I hear a slur-form of *mamuk*- in this example, others in the group believe they hear *munk*-. This example also contains two significant corrections of my original hearing: the form *ukuk* (not *uk*, which is another problem case — compare (6) below); and

the phrase *yaka p'əqp'əq* (which I failed to hear at all in my earlier audit, but which repeated re-audits have convinced me is correct). Another point of difference I suspect is just an oversight: the forms *łaẋ* 'come out of, emerge' and *łaq* 'come off of, off' can be difficult to distinguish even under ideal conditions. Unless, perchance, these were not contrasting forms for Joe Peter, *łaq* is clearly the correct translation choice here.

(5) JPM: He took off his bearskin blanket and beat the fire.
JP: *yaka* *mamuk-ˈłaq* *uk* *yaka* *pasisi* *alta*
3SG [CAUS-off;] remove it that 3SG.POS blanket then
[pi *ya..]* *ˈq'wəl* *ukuk* *fayər*
?and [sttr] hit that fire
'He took off that blanket of his then and hit that fire.'
(Zenk 2021, appended example (16))

[as reheard by the team, May 2024:]
JP: *yaka* *<mu(n)k/ma(m)uk>-łaẋ* *ukuk* *yaka* *pasisi* *alta*
3SG [CAUS-out;] extract it [sic] that 3SG.POS blanket then
pi *yaka* *p'əqp'əq* *ukuk* *paya*
and 3SG beat that fire
'He took out [sic] that blanket of his then and beat that fire.'
(694 side 1, 00:01:56.000 – 00:01:58.000).

I extracted and renumbered 14 examples from my 2021 appended transcript to provide support for preliminary linguistic observations offered in the same paper (Zenk 2021:471–475). While these examples were selected from among more clearly heard tokens and exhibit few points of disagreement with the group's findings, this does not mean that they exhibit 100% agreement. Such disagreements as they bring to light are broadly representative of the difficulties the team encounters whenever it meets, as illustrated by examples (6) to (8) below (formatted as for (5) above):

(6) JPM: And the following morning the elkskins arose / and became elk.
JP: *alta* *come next* *ˈsan* *kʰanawi* *ukuk* *yaka* *ˈmitxwit* *alta*
then come next day all those 3SG stand now
uk *ˈmulak* *yaka* *skin* */* *yaka* *chaku-ˈmulak* *alta* *kʰanawi*
that elk 3SG.POS skin 3SG become-elk now all
'Then come next day there stood up all the skins of those elks / all became elks now.'
(Zenk 2021, linguistic example (4))

[as reheard by the team, 2024:]
JP: *<alta* *uk>* *tənəs-san* *kʰanawi* *ukuk* *yaka* *mitxwit* *alta* *uk*
then that [little-sun;] A.M. all those 3SG stand now that
mulak *yaka* *skin* */* *yaka* *chaku-mulak* *alta* *kʰanawi*
elk 3SG.POS skin 3SG become-elk now all
'Then that morning there stood up all the skins of those elks / all became elks now.'
(694 side 1, 00:17:57.036 – 00:18:01.318 / 00:18:02.788 – 00:18:05.383)

I can't now explain why I heard "come next *san*", where repeated audits clearly reveal that Peter used a regionally-known idiom for 'morning': *tənəs-san* (literally, 'small-sun/day'). Otherwise, the two audits are the same, except that I apparently had also missed an *uk* (second word-form in the second set).

(7) JPM: They played dice with beaver teeth.
JP: *łaska hayu-ˈhihi yaka ukuk anqati ʔina yaka ˈlitá.*
3PL ongoing-play 3SG those ones long ago beaver 3SG.POS teeth
'They were playing the ones that long ago (i.e., originally?) were beaver teeth.'
(Zenk 2021, linguistic example (13))

[as reheard by the team, 2024:]
JP: *łaska hayu-hihi kʰupa-ukuk anqati ʔina yaka litá.*
3PL lots-play PREP-that long ago beaver 3SG.POS teeth
'They ?played [see discussion below] with those long ago beavers' teeth.'
(694 side 1, 00:03:46.470 – 00:03:50.548)

My mishearing of *yaka* for *kʰupa* I account to the interaction of marginal audibility with the distorting effects of my prior experience of the language — setting me up to hear what I expect (or think I might plausibly expect) to hear. Regarding the form *hayu-*, see below.

(8) JPM: He reached his house he heard batons.
JP: *yaka ˈłatwa kʰupa yaka ˈhaws yaka hayu- /*
3SG go PREP 3SG.POS house 3SG [sttr]
hayu-ˈkəmtəks [unintel]
ongoing-perceive [???]
'He went to his house, he was hearing ???' (Zenk 2021, linguistic example (14))

[as reheard by the team, 2024:]
JP: *yaka <qʼuʔ> kʰupa yaka haws yaka hayu- /*
3SG arrive PREP 3SG.POS house 3SG [sttr]
hayu-kəmtəks <uk hayu> ẋluyma
lots-perceive ?those many ?different
'He got to his house, he heard a lot of ?different [?unfinished?]'
(694 side 1, 00:08:12.360 – 00:08:17.346)

Again, see below regarding the form *hayu-*. Note that although I concur with the group that Peter is more likely to have spoken *qʼuʔ* 'arrive' than *łatwa* 'go', we are not 100% confident that this was the case. The audio quality is just too poor to know for sure. This example also provides one of the few cases in which I must part company with the group: audit and re-audit as I may, I still cannot make out that last word form. The group's consensus, *ẋluyma* 'different, strange', neither sounds to me to be what Peter actually said, nor does it make obvious sense to me as Chinuk Wawa in context. I might wonder: (i) did Joe Peter clearly hear or understand Marr's English prompt-word: "baton"?; (ii) did he perchance insert a word here from one of his other languages, whether or not he clearly understood Marr's prompt? We know that he was indeed prone to code-switch occasionally into English, albeit what he says here does not sound remotely English. We

know that he also spoke Northwest Sahaptin as an adult, and in earlier life (if not so much later) spoke Cowlitz Tsamosan Salish (Zenk 2021:468). While we are hampered in the attempt to identify intrusions from the latter two languages by our own general ignorance of them, my 2021 transcript does show a possible Yakama intrusion (appended example 65: perhaps a form related to Yakama *q'pu:ɬ* 'round, spherical'); and the group's transcript of 694 side 2 reveals a clear example of Cowlitz *q'ilt* 'skunk-cabbage' (example (1) above).

Regarding *hayu-*: In Zenk (2021:474) I cited examples (7) and (8) as evidence that Peter sometimes attached *hayu-* (derived from the adverb and adjective *hayú* 'much, many; often') to verbs as a marker of durative aspect, a usage "almost unknown" apart from the Grand Ronde variety of the language. That interpretation has since been questioned (see Section 6 below), and on reflection I must admit that it is by no means self-evident that that is how *hayu-* functions for Joe Peter. At the same time, the examples we have from him suggest that pre-verb *hayu-*, while perhaps not yet stripped of its lexical associations and thus not strictly equivalent to the marker of durative aspect (Robertson: imperfective aspect) recorded from some Grand Ronde community speakers, do usually exhibit the intonational contour typical of Chinuk Wawa compounds: as in [ˌhɑjuˈhi:hi] here. It is perhaps significant that of seven tokens heard on 694 side 1, four show *hayu-* attached to the verb *hihi* 'laugh, play'. Since *hayu-hihi* in all four occurrences denotes playing, not laughing, possibly the combination should be understood as an idiomatic compound: 'to play' (versus 'to laugh'). The combination *hayu-kəmtəks* in example (8) is particularly suggestive to me, since the same compound is heard as a Grand Ronde community idiom: 'to hear'. Hopefully, further work on the Joe Peter recordings will shed more light on the functions of *hayu/hayu-* in his variety of the language.

6 Brief linguistic evaluation of Joe Peter's Chinook Jargon (by David Robertson)

Joe Peter's usage of Chinook Jargon (here: CJ) differs noticeably from the two best-known dialects, in ways that show him to be speaking a continuation of the oldest variety. A short language history is useful here.

Mr. Peter's third lect is what we have come to call the "first creolization", which occurred at Forts Astoria (a.k.a. Ft. George) and Vancouver circa 1812–1841 as a distinct Métis community formed, consisting of Indigenous women from many ethnic groups in direct contact with the fur trade, marrying the predominantly French-Canadian male employees who were the great majority of the work force thereof (Barman 2014). These families not only traveled the "brigade" routes together, but permanently settled at those forts, creating distinct villages where Métis children were born and raised speaking the one language that was reliably understood among the adult population, CJ. In the adults' case, this was by definition the pidgin, i.e., second-language, variety of CJ documented as being in existence by 1805 (Lang 2008:15–16). But their children appear to have quickly transformed its grammar into something more rule-governed, among other ways by introducing:

- productive reduplication for pluractionality;
- a third-person pronoun distinction between animate/specific *yaka* and inanimate/nonspecific Ø (Robertson 2007);
- and a causative prefix *mamuk-* (from the verb 'to make, to do'). This change from a second to a first, community-wide language was the "first creolization" of CJ.

This Métis-associated variety of CJ is what we label the Early-Creolized dialect.

Two further dialect developments occurred starting in the mid-1850s. The Grand Ronde Indian Reservation was established in northwest Oregon, suddenly bringing dozens of linguistically diverse tribes into adjacency and intermarriage, and resulting in what we term the "second creolization" of the language, e.g., with:

- a new imperfective aspect prefix *hayu-* (from the word for 'much');
- a newer and more specific morpheme expressing 'for' + noun, *pus* (formerly an irrealis marker only, now replacing the existing multi-purpose preposition *kʰupa* in this function);
- and a new set of phonologically reduced personal pronoun morphemes, *na(y), ma(y), ya* et al. (compare older *nayka, mayka, ya(x)ka* et al.).

This is what we now term the Southern Dialect.

Simultaneously, major gold discoveries were taking place in what is modern British Columbia. Extremely large numbers of newcomers entered that region, where CJ had hitherto been unknown outside of the Fort Langley area (cf. Turkel 2004). Nonetheless, a widespread folk-linguistic assumption held that one could easily communicate with Native people using CJ, so these gold rushers brought either their own previous fluency, or the suddenly popular published dictionary pamphlets, with them. The result was the introduction of the Jargon into BC as a rapidly re-pidginized language, usually acquired by adults, which:

- lost significant amounts of existing lexicon (especially that derived from Lower Chinookan ideophones);
- added a good deal of English (typically more-specific vocabulary than the language had previously possessed);
- and innovated in some grammatical areas (such as devising a prefix *t'ɬap-* from the word for 'to catch; to find' for situations entered into without the subject's volitional control, cf. Robertson 2012).

This we now refer to as the Northern Dialect.

Joe Peter's Chinook Jargon lacks all of these sample features, and more, of both the Southern and Northern Dialects. Instead, it closely resembles what examples we have of early-creolized CJ (e.g., Hale 1846; Demers et al. 1871, John Ball ms. in Lang 2008). Thus, for example, Mr. Peter lacks the second creolization's *hayu-* aspectual prefix, only using full-word *hayu* in its original quantifier sense of 'much':

(9) *ɬaska hayu supna-supna.*
3PL much jump-RDUP
'They (the ducks) fluttered.' (literally: 'They much jumped all over the place.')
(694 side 2, 00:02:05.353 – 00:02:08.769)

And Mr. Peter expresses 'for' + noun with the long-established preposition *kʰupa*; when he uses the particle *pus*, it fulfills only the long-established function of predicative irrealis (expressing 'for/in order to' + verb; 'if'; and 'when'):

(10) *paywud* *kʰupa* *yaka* *chich*
firewood PREP 3SG.POS grandmother
'firewood for his grandmother' (694 side 2, 00:04:14.059 – 00:04:17.265)

(11) *q'ilt...* *łaska* *iskam* *pus* *məkʰmək.*
skunk.cabbage 3PL pick IRR eat
'They had... skunk cabbage to eat.' (literally: 'Skunk cabbage... is what they picked to eat.)'
(694 side 2, 00:13:15.275 – 00:13:19.097)

(12) *pus* *łaska* *patłach* *(n)sayka* *məkʰmək...*
IRR 3PL give 1PL food
'if they should give us food...' (694 side 2, 00:14:32.696 – 00:14:35.246)

(13) *...pus* *nsayka* *tilixam* *yaka* *chaku-olo*
...IRR 1PL relative 3 become-hungry
'... when our relatives become hungry' (694 side 2, 00:06:09.699 – 00:06:13.061)

This is an important discovery. The voluminous documentation that we have of Joe Peter is by several orders of magnitude the largest audio data set of full sentences, and of connected speech, in any dialect of CJ. And specifically, it expands our knowledge of the relatively obscure Early-Creolized dialect from dozens of sentences (Hale 1846; Demers et al. 1871; Gibbs 1863) to several thousand.

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Appendix A: project team biographies

Julie Baumler: A member of the 2022–2024 Lane Community College Chinuk Wawa cohort as well as a student of Chinuk Wawa as spoken (and written) in British Columbia. She is a former system administrator / programmer with a focus on i18n and lives in Eugene, Oregon.

Darrin T. Brager: A Métis/Michif man and member of the Métis Nation of British Columbia (MNBC), residing in Robson, British Columbia. He has been actively studying the two dialects of Chinuk Wawa for several years, including two years at Lane Community College alongside his classmates Lynn Jeffries and Nathan Fulton.

Alexander Code, MA: From Vancouver, BC, a student of Chinuk Wawa as spoken in British Columbia, editor of kaltashwawa.ca (a community project to share Chinook Jargon language), Museum Manager and Curator at the PoCo Heritage Museum and Archives (Port Coquitlam, BC).

Nathan Fulton, MS: Former Lane Community College Chinuk Wawa student and current student of Chinuk Wawa as spoken in British Columbia. He is an artist, caretaker and former environmental engineering consultant in the Portland, Oregon metro area.

Lynn Jeffries: Completed the two-year Chinuk Wawa program at Lane Community College in 2023, along with classmates Darrin Brager and Nathan Fulton, and has been a participant in the Joe Peter Chinook Transcription Project since it started. She is a puppet designer in Los Angeles, California.

Alexander Moreno: Second-year Chinuk Wawa student at Lane Community College who recently joined the Joe Peter Chinook Transcription Project. He is a Linguistics student at the University of Oregon in Eugene, and hopes to learn more about pedagogical materials and activities designed for whole-community classes, and non-traditional class environments.

David Douglas Robertson, Ph.D.: Consulting linguist for Indigenous groups, specializing in Chinook Jargon, Lower Chehalis Salish, and Clatsop-Shoalwater Lower Chinookan. His research is published daily at chinookjargon.com.

Henry B. Zenk, Ph.D.: Recorded a corpus of Chinuk Wawa texts, sentences, and conversations from elder speakers of the Grand Ronde Indian Community, Oregon, between 1978 and 1983. Since 1998 he has served as a linguistic consultant to the Chinuk Wawa language program of the Confederated Tribes of Grand Ronde.

Appendix B: transcription notation guide

Notation	Description
<text>	Low confidence of the bound section due to poor audio quality or strong division of the group's comprehension of the content.
<<text>>	Very low confidence in the bound section due to very poor audio quality.
tex(t)	This part of the word was not heard or may have been dropped from speech.
[text]	Transcriber's notes.
{text}	English word in Chinuk Wawa speech with English spelling.
<...>	Unknown word(s), or voiced sound(s).
text/	Pause in speech following text.
<text A/text B>	Low confidence in the bound section and group members hear either text A or text B in relatively even numbers.
|text|	Pronunciation notably deviates from words and variants documented in the Confederated Tribes of Grand Ronde dictionary.

Appendix C: Example of exported ELAN transcription

Below is a small excerpt of an ELAN transcription (694 side 1) that has been time-stamped and exported to text. ELAN is capable of exporting transcripts to various formats including video subtitles and delimited text. See Appendix B for a transcription notation guide.

JM: you are dead now therefore you see differently
00:03:18.085 - 00:03:20.980

JP: mayka miməlust alta kakupu mayka nanich x̣luyma
00:03:20.980 - 00:03:24.802

JM: now she carried her brother across to the other side
00:03:24.802 - 00:03:28.960

JP: alta yaka <hal> kʰupa yaka aw yawa inatay
00:03:28.960 - 00:03:32.483

JM: he saw the people
00:03:32.483 - 00:03:34.085

JP: yaka nanich ukuk tilixam
00:03:34.085 - 00:03:36.187

JM: they sang they played ihtlukum
00:03:36.187 - 00:03:38.641

JP: nayka nanich ukuk tilixam łaska hayu-iłkuma alta yawa
00:03:38.641 - 00:03:43.162

JM: they played dice with beaver teeth
00:03:43.162 - 00:03:46.470

JP: łaska hayu-hihi kʰupa-ukuk anqati ina yaka lita
00:03:46.470 - 00:03:50.548

JM: the women played their ihtlukum
00:03:50.548 - 00:03:54.143

JP: ukuk łuchmən łaska iłkuma wəx̣t
00:03:54.143 - 00:03:56.970

JM: they played hoops
00:03:56.970 - 00:03:58.440

JP: łaska mamuk łaska mamuk/ -hihi kʰupa ukuk luʔluʔ stik
00:03:58.440 - 00:04:03.490

JM: they played dice with 10 disks
00:04:03.490 - 00:04:05.503

JP: łaska mamuk wəx̣t/ łaska mamuk-hihi <<ukuk kʰupa uk tałlam {um} mamuk..ukuk luʔ/ luʔluʔ yaka>> lita <wik/uk> ina

00:04:05.503 - 00:04:13.852

JM: they played wakakʰuyi/ waka/ kʰuyi/ it's a game
00:04:13.852 - 00:04:30.620

JP: łaska mamuk-hihi ukuk wagakʰuyi
00:04:30.620 - 00:04:34.290