(J) Marshallese Phonology (1/3) [15 Points]

Marshallese is an Austronesian language spoken by over 50,000 people, primarily in the Marshall Islands, where it is the official language alongside English. One notable feature of Marshallese is its vowels: It seems to have many different vowel sounds, but linguists have argued that all of these vowels can be analyzed as variants of just 4 vowels. One linguist, Mark Hale, chose to use emojis rather than more conventional symbols to represent these vowels, as they behave differently from vowels in most languages.

On the next page is a table with some Marshallese words written in standard Marshallese spelling, followed by underlying forms that have been hypothesized by linguists, as well as the words’ pronunciations and English translations. (An underlying form is how a word is stored in a speaker’s mind. This form is then modified to yield the pronunciation.) Study this table and then answer the questions below.

**J1.** Fill in the blank cells in the table below. If you don’t want to draw the emojis, you can use S instead of the soccer ball ( Allocator), C instead of the coffee mug ( Makeup), Y instead of the yin-yang symbol ( YinYang), and P instead of the phone ( Phone). If you do choose to draw the emojis, make sure it’s totally clear which one you’re drawing!

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Underlying Form</th>
<th>Pronunciation</th>
<th>English translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>bar</td>
<td>/pʰɾ̥ɾ̥/</td>
<td>(a)</td>
<td>‘rock (object)’</td>
</tr>
<tr>
<td>jābōj</td>
<td>(b)</td>
<td>[lʰaːbʰəɾ̥ɾ̥]</td>
<td>‘level (tool)’</td>
</tr>
<tr>
<td>jook</td>
<td>(c)</td>
<td>[tʰə:k]</td>
<td>‘shy’</td>
</tr>
<tr>
<td>kewa</td>
<td>/k̥jw̥ɾ̥ɾ̥/</td>
<td>(d)</td>
<td>‘peer’</td>
</tr>
<tr>
<td>eor</td>
<td>/i̥ɾ̥ɾ̥/</td>
<td>(e)</td>
<td>‘bleached’</td>
</tr>
</tbody>
</table>

**Pronunciation and spelling notes:**
- In the spellings, note that l and J are different letters (the second has a small hook under it).
- In the underlying forms and pronunciations, note that [u] and [u̯] are different symbols.
- [ŋ] is pronounced like the ng in sing. [j] is pronounced like the y in yellow. [u̯] is pronounced somewhat like the y in yellow, but it is formed farther back in the mouth.
- A superscript [’] means that the preceding sound is pronounced with the tongue raised toward the roof of the mouth (palatalized). A superscript [’] means that the preceding sound is pronounced with the back of the tongue raised (velarized). A superscript [”] means that the preceding sound is pronounced with the lips rounded (labialized).
- [o, a, y, æ, u, ə, e] are all vowel sounds. The symbol [:] after a vowel indicates that the vowel is long.
- We will not tell you how the emojis are pronounced, nor how the letters in Marshallese spelling are pronounced—that is for you to figure out!
## (J) Marshallese Phonology (2/3)

Marshallese examples:

<table>
<thead>
<tr>
<th>Spelling</th>
<th>Underlying Form</th>
<th>Pronunciation</th>
<th>English translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>doñi</td>
<td>/rɬɒŋ writable/</td>
<td>[ɾɬoŋ writable]</td>
<td>‘hip’</td>
</tr>
<tr>
<td>kwarkor</td>
<td>/kʷɔɬɔŋ writable/</td>
<td>[kʷoŋ writable]</td>
<td>‘to bandage’</td>
</tr>
<tr>
<td>make</td>
<td>/mɬɪŋ writable/</td>
<td>[mɬɛɡye]</td>
<td>‘alone’</td>
</tr>
<tr>
<td>nuknuk</td>
<td>/nɬɪŋ writable/</td>
<td>[nɬiuk writable]</td>
<td>‘clothing’</td>
</tr>
<tr>
<td>lɔr</td>
<td>/lɬɒŋ writable/</td>
<td>[lɬoŋ writable]</td>
<td>‘black sea anemone’</td>
</tr>
<tr>
<td>kutak</td>
<td>/kʊɬɔŋ writable/</td>
<td>[kʊɬuŋ writable]</td>
<td>‘to scratch’</td>
</tr>
<tr>
<td>kuuj</td>
<td>/kɬɪŋ writable/</td>
<td>[kɬiŋ writable]</td>
<td>‘cat’</td>
</tr>
<tr>
<td>mō</td>
<td>/mɬiŋ writable/</td>
<td>[mɬɛɬ]</td>
<td>‘stretchy’</td>
</tr>
<tr>
<td>eakeak</td>
<td>/jɬkɬiŋ writable/</td>
<td>[jækɟæk writable]</td>
<td>‘ghost’</td>
</tr>
<tr>
<td>raj</td>
<td>/ɬɪŋ writable/</td>
<td>[ɬɪɛt]</td>
<td>‘whale’</td>
</tr>
<tr>
<td>keek</td>
<td>/kɬiŋ writable/</td>
<td>[kɛ:k]</td>
<td>‘cake’</td>
</tr>
<tr>
<td>tömmelok</td>
<td>/]\ɬɪŋ writable/</td>
<td>[tɬɛmɬɛɬɛɬoŋ writable]</td>
<td>‘to smack one’s lips’</td>
</tr>
<tr>
<td>piŋ</td>
<td>/pɬiŋ writable/</td>
<td>[pɬiə]</td>
<td>‘chilly’</td>
</tr>
<tr>
<td>rom</td>
<td>/rɬɪŋ writable/</td>
<td>[ɾɬoŋ writable]</td>
<td>‘wink’</td>
</tr>
<tr>
<td>bojet</td>
<td>/pɬɒɬɪŋ writable/</td>
<td>[pɬoɬɛɬɛɬt writable]</td>
<td>‘faucet’</td>
</tr>
<tr>
<td>toʊ</td>
<td>/tɬɪŋ writable/</td>
<td>[tɬoŋ writable]</td>
<td>‘mountain’</td>
</tr>
<tr>
<td>Majel</td>
<td>/mɬɬɪŋ writable/</td>
<td>[mɬoɬɬɛɬɛɬt writable]</td>
<td>‘Marshall Islands’</td>
</tr>
<tr>
<td>pənuk</td>
<td>/pɬɪŋ writable/</td>
<td>[pɬænɬiuk writable]</td>
<td>‘to pile up’</td>
</tr>
<tr>
<td>pilimŋ</td>
<td>/pɬɪɬɬɪŋ writable/</td>
<td>[pɨɬiɬɨt writable]</td>
<td>‘film’</td>
</tr>
<tr>
<td>puwaj</td>
<td>/pɬɒɬɪŋ writable/</td>
<td>[pɬuɬwɒal writable]</td>
<td>‘coward’</td>
</tr>
<tr>
<td>wa</td>
<td>/wɬɪŋ writable/</td>
<td>[wɒo]</td>
<td>‘canoe’</td>
</tr>
<tr>
<td>pelŋok</td>
<td>/pɬɪŋ writable/</td>
<td>[pɬɛɬɬoŋ writable]</td>
<td>‘ajar’</td>
</tr>
<tr>
<td>jouj</td>
<td>/tɬɪŋ writable/</td>
<td>[tɬeʊɬɪt writable]</td>
<td>‘kindhearted’</td>
</tr>
<tr>
<td>Qkwɔj</td>
<td>/wɬɪŋ writable/</td>
<td>[wɬoŋ writable]</td>
<td>‘August’</td>
</tr>
<tr>
<td>bokɔp</td>
<td>/pɬɪŋ writable/</td>
<td>[pɬoŋ writable]</td>
<td>‘smallpox’</td>
</tr>
<tr>
<td>nebar</td>
<td>/nɬɪŋ writable/</td>
<td>[nɬɛɬoŋ writable]</td>
<td>‘praise’</td>
</tr>
<tr>
<td>eŋtɔk</td>
<td>/jɬɒɬɪŋ writable/</td>
<td>[jæŋɬɛŋ writable]</td>
<td>‘shipwrecked’</td>
</tr>
<tr>
<td>nɑŋ</td>
<td>/nɬɪŋ writable/</td>
<td>[nɬoːt writable]</td>
<td>‘will be’</td>
</tr>
</tbody>
</table>

![nacilo](nacilo.png)
(J) Marshallese Phonoloji (3/3)

J2. Explain how the pronunciation of a Marshallese word can be determined from its spelling and/or underlying form.

J3. The sound /u/ is never pronounced in any Marshallese word. Therefore, it might seem strange that this sound is included in descriptions of the language (such as in the underlying forms on the previous pages). Explain why linguists believe that /u/ is present in the language even though it is never directly observed.