## Historical linguistics：Phonology（part 2）

I．Phonology of Old Japanese：Man＇yoogana
（1）Man＇yoogana：kana of the Man＇yoosyuu（万葉集）poetry collection，759ce
－Chinese characters that are used for their sound value－a syllabary
－also found in the $\operatorname{Kojiki}(712)$ and the Nihon shoki（720），two mytho－historical documents mostly written in Chinese but with poetry and proper names written in Japanese using man＇yoogana
－see also Wikipedia entry on＂Man＇yōgana＂ http：／／en．wikipedia．org／wiki／Man\％27y\％C5\％8Dgana
（2）Example（Shibatani 1990）：Writing the Japanese word yama＇mountain＇
（a）Write 山 — use the Chinese character that means＇mountain＇
（b）Write 夜麻—use Chinese characters that mean something else but sound like［ja］，［ma］
（3）A poem from the Man＇yoosyuu

## Poem \＃250（book III）

Text from Japanese Text Initiative at U．Virginia，linked from＂Online course materials＂ http：／／etext．lib．virginia．edu／japanese／manyoshu／
（a）Original text（spacing added for clarity）：
珠藻苅 敏馬乎過 夏草之 野嶋之埼尔 舟近著奴
（b）Conversion into hiragana：
たまもかる みぬめをすぎて なつくさの のしまがさきに ふねちかづきぬ
ta．ma．mo．ka．ru mi．nu．me．wo．su．gi．te na．tu．ku．sa．no no．si．ma．ga．sa．ki．ni Hu．ne．ti．ka．du．ki．nu
（c）＂Modern＂kanji／kana transcription：
玉藻刈る 敏馬を過ぎて 夏草の 野島が崎に 船近づきぬ
（d）Modern use of crucial kanji（info from JDIC）

- 乎 コオかああかなやよを かuestion mark；？
- 尔 ジニなんじしかりそののみ you；that
- 奴 ドやつ やっこ ぬ guy；slave；manservant；fellow
（e）Translation，by Akira Miyake＜http：／／mivake．net／english／96－250．html＞
Passing through Minume，where seaweed are reaped for offering to the altar，
the ship came near Noshima covered with summer greenery．
II. Some phonological characteristics of Old Japanese
(4) Phoneme inventory
(a) No word-initial /r/
(b) "Voiced" obstruents really prenasalized? Also, not generally found word-initially
(5) Syllable structure: CV syllables only, except V okay in word-initial position
- Consequence: Syllable=mora
III. How many vowels in Old Japanese?
(6) Analysis of patterns of man'yoogana usage:
(a) Find a particular Japanese word/morpheme, such as ko child
(b) See which kanji were used as man'yoogana for that word/morpheme
(c) Are all man'yoogana used to 'spell' [ko] syllables the same? —> NO.
(7) The koo 甲 / otu 乙 (A/B, set1/set2) distinction in the man'yoogana

| a | pa | ma | wa | ta | na | sa | ra | ya | ka |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| u | pu | mu | - | tu | nu | su | ru | yu | ku |
| i | pi ${ }_{1}$ | $\mathrm{mi}_{1}$ | wi | ti | ni | si | ri | - | $\mathrm{ki}_{1}$ |
|  | $\mathrm{pi}_{2}$ | $\mathrm{mi}_{2}$ |  |  |  |  |  |  | $\mathrm{ki}_{2}$ |
| e | $\mathrm{pe}_{1}$ | $\mathrm{me}_{1}$ | we | te | ne | se | re | ye | $\mathrm{ke}_{1}$ |
|  | $\mathrm{pe}_{2}$ | $\mathrm{me}_{2}$ |  |  |  |  |  |  | $\mathrm{ke}_{2}$ |
| 0 | po | mo | WO | to 1 | $\mathrm{nO}_{1}$ | $\mathrm{SO}_{1}$ | $\mathrm{rO}_{1}$ | $\mathrm{yO}_{1}$ | $\mathrm{kO}_{1}$ |
|  |  |  |  | $\mathrm{to}_{2}$ | $\mathrm{nO}_{2}$ | $\mathrm{SO}_{2}$ | $\mathrm{rO}_{2}$ | $\mathrm{yO}_{2}$ | $\mathrm{kO}_{2}$ |

$\longrightarrow$ Did Old Japanese have 8 distinct vowels?
(8) Morphemes with alternating vowels I (data from Shibatani 1990; also Martin 1987)
(a) Alternation between $/ \mathrm{i}_{2} /$ and $/ \mathrm{o}(2) /$
$\mathrm{ki}_{2}$ 'tree' $\sim$ ko2-no-pa 'leaf of tree' | $\mathrm{ki}_{1}$ 'wooden pestle': no alternation $\mathrm{pi}_{2}$ 'fire' $\sim$ po-naka 'middle of fire' | $\mathrm{pi}_{1}$ 'day': no alternation
(b) Alternation between $/ \mathrm{i}_{2} /$ and $/ \mathrm{u} /$ $\mathrm{mi}_{2}$ 'body' $\sim$ mupakari 'hostage' | $\mathrm{mi}_{1}$ 'water': no alternation
(c) Alternation between $/ \mathrm{e}_{2} /$ and $/ \mathrm{a} /$
$\mathrm{ame}_{2}$ 'rain' $\sim$ amado 'sliding door (on exterior wall)'
$\mathrm{me}_{2}$ 'eye' $\sim$ ma-yuge 'eyebrow' | $\mathrm{me}_{1}$ 'female': no alternation sake $_{2}$ 'rice wine' $\sim$ saka-duki 'cup for rice wine'

Analysis
(a) Why the vowels alternate

- The form that appears with another morpheme is the basic form
- The "final" form had a suffix /-i/ at an earlier stage
(b) Implications for the diachronic origin of $/ \mathrm{i}_{2} /$ and $/ \mathrm{e}_{2} /$
- /o $(2)+\mathrm{i} />/ \mathrm{i}_{2} /$ • $/ \mathrm{a}+\mathrm{i} />/ \mathrm{e}_{2} /$
- $/ \mathrm{u}+\mathrm{i} / \mathrm{>} / \mathrm{i}_{2} /$
(10) Morphemes with alternating vowels II (data from Martin 1987: 51)

| Modern verb root | /ok-/ 'put' | /oki-/ 'arise' | /okos-/ 'awaken' (tr.) |
| :--- | :--- | :--- | :--- |
| Old Japanese root | ok- 'put' | ok- 'arise' | oko $_{2 \text { S- 'awaken' (tr.) }}$ |
| Analysis: < *oko 2 -s |  |  |  |$|$| Continuative form |
| :--- |
| oki |

- Modern Japanese intransitive/transitive pairs with /i/ ~ /o/ (Tsujimura Ch 3, +) oki- okos- 'arise' / 'raise, awaken'
oti- otos- 'fall' / 'drop'
horobi- horobos- 'perish' / 'destroy'
hi- hos- 'dry out' / 'dry off' (trans.), 'hang out to dry'
(11) Hypotheses about the phonetic values of these "extra" syllables?
(a) $/ i_{2} /$ vs. $/ i_{1} /$
- No contrast after $\qquad$ consonants
- Contrast likely to involve palatalization
- Origin of $/ \mathrm{i}_{2} /: / \mathrm{u}+\mathrm{i} /$ or $/ \mathrm{o}(2)+\mathrm{i} /$
- Proposal: $/ \mathrm{i}_{1} /=[\mathrm{ji}] \quad / \mathrm{i}_{2} /=[\mathrm{u}(\mathrm{i} \mathrm{i}]$
(b) $/ e_{2} /$ vs. $/ e_{1} /$
- No contrast after $\qquad$ consonants
- Contrast likely to involve palatalization
- Origin of $/ \mathrm{e}_{2} /:$ */a+i/
- Also, origin of $/ e_{1} /: * / i_{1}+a /$ [evidence not shown above]
- Proposal: $/ e_{1} /=[j e] \quad / e_{2} /=[e] \quad$ Note: any $/ e /$ is rare in 1st syllable
(c) $/ \mathrm{o}_{1} / \mathrm{vs} . / \mathrm{o}_{2} /$
- No contrast after $\qquad$ consonants
- Contrast likely to involve (degree of) backness and/or rounding
- Most people propose: $/ \mathrm{o}_{1} /=[\mathrm{o}]$ or [wo]
$/ \mathrm{o}_{2} /=[\varnothing]$ or [ə]
- Issues with this, based on typology and vowel inventory:
i u - Too many back V contrasts compared to front V?
(e) ø/ə o •/ $\mathrm{o}_{2} /$ more common than $/ \mathrm{o}_{1} /$ in OJ; unlikely for [ $\left.\varnothing\right]$ ? a

