

Source:	CheonHyeong Sim (沈天珩)
Title:	Proposal to Encode One Small Kana Letter
Date:	2025-01-15
Action:	To be considered by CJK & Unihan WG and UTC

Proposed Character and Properties

One small Katakana letter is proposed:

Codepoint	Character Name	Representative Glyph
1B168	KATAKANA LETTER SMALL ARCHAIC YE	ㄠ

General Category and Other Properties

1B168;KATAKANA LETTER SMALL ARCHAIC YE;Lo;0;L;;;;;N;;;;;

Line Break Properties

1B168 ; CJ # Lo KATAKANA LETTER SMALL ARCHAIC YE

Vertical Orientation

1B168 ; Tu⁻¹ # Lo KATAKANA LETTER SMALL ARCHAIC YE

Annotations for CodeCharts

1B168 ㄠ KATAKANA LETTER SMALL ARCHAIC YE
 · used for Marshallese transliteration
 →1B121 ㄠ KATAKANA LETTER ARCHAIC YE

Proposed Codepoint

My early document in 2016 to propose to encode some small Kanas⁻²⁻ attracted a proposal for more small Kanas from Ryusei Yamaguchi⁻³⁻ and some considerations from Japan NB⁻⁴⁻. After the discussion, the conclusion is that, dozens of codepoints in the Small Kana Extension block (1B130..1B16F) are reserved for possible future small Kanas⁻⁵⁻ as shown in the table below (grey cells indicate tentatively reserved codepoints):

Hiragana block: あいうえおつやゆよわかけ (codepoints omitted)																
Katakana block: アイウエオツヤユヨワカケ (codepoints omitted)																
U+	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
31Fx	ク	シ	ス	ト	ヌ	ハ	ヒ	フ	ヘ	ホ	ム	ラ	リ	ル	レ	ロ
1B13x	き	く	こ	さ	し	す	せ	そ	た	ち	て	と	な	に	ぬ	ね

1B14x	の	は	ひ	ふ	へ	ほ	ま	み	む	め	も	ら	り	る	れ	ろ
1B15x	ゐ	ゑ	を	ん	キ	コ	サ	セ	ソ	タ	チ	テ	ナ	ニ	ネ	ノ
1B16x	マ	ミ	メ	モ	ヰ	ヱ	ヲ	ン								

Thus, the next available codepoint would be U+1B168.

Attestations

The proposed small Kana letter could be found in at least the following two ancient books: [ミクロネシア語の総合研究](#) and [マーシャル語の研究](#), both from the Shōwa (昭和) era. Let us see the former one first:

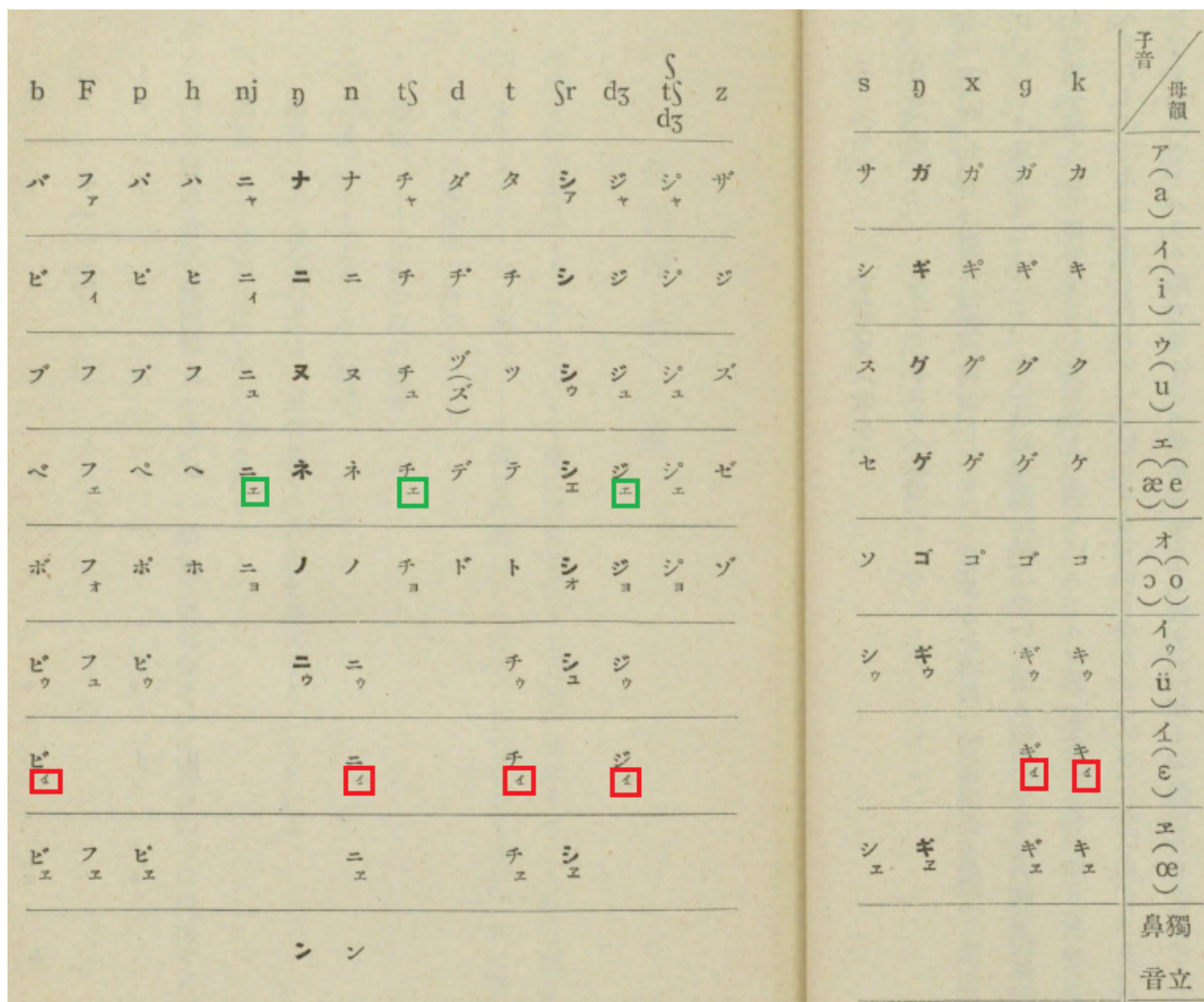


Fig.1 ミクロネシア語の総合研究 P24-25

In Fig.1, we could see some small ɛs marked in red; some small ɛs are marked in green for contrast – they represent for different pronunciations. However, in the main body of the same book, no small ɛs could be found but only small ɛs – even if only キɛ is listed in the table in Fig.1 but キε is not, the main body still prefers キε:

語及語分子を列擧する。

- (Ch) ラヘ(男)、トロ(牡) バラウアン(女)、バカ(牝)
- (K) ムアン(男) フェフェン(女)、ショボト(婦)
- (Po) オル(男)、ブタク(男童) リ(女)、ジェリペイン(女兒)
- (M) マーン(男)——接頭語ラ(男) キユレ(女)——接頭語リ(女)
- (Y) モオン(男) ビン(女)
- (Pa) サガル(男) チル(女)

備考

- (一) トロ、バカは本来牡牛、牝牛を意味する語である。
- (二) 男性を表示するラへは馬來語ラキ、タガログ語のララキにあたり、一語なることは云ふまでもない。オルは既述の如くリ(人)から分岐し
- (三) 女性を意味するビン、フェフェン、ジェリペインは舊爪哇語のビニを原語ガログ語でもビニビニといひ(ケルンに據る)、サンギル語ヅァヴィネ、サワヒネである。ショボトの *ʃɔpɔt* —— 又は *trɔ*、田中氏はツォーと音譯した

- カジャン(音立てる)(奏樂する)——原語ジャン(音)
 - カトントル(黒くする)——原語トントル(黒)
 - (マーシャル) キ、キック、ケとも轉呼せられる。
 - カムラム(照らす)——原語マラム(光)
 - キジョールル(急ぐ)——原語ジョールル(雷鳴)
 - キッピジ(葬る)——原語ピジ(中實を吸ひ盡したバンドダヌスの實)
 - キエマート(煮る)——原語マート(煮物)
 - ククレ(遊ぶ)——原語クレ(遊)
 - ケジャーク(届ける)——原語ジャーク(達する)
- カ(Ch) 語原を詳にせぬが「まみれたる」といふ意を以て名詞か或は右のカの轉用であるかも知れぬ。例
- カハガ(血まみれになる)——原語ハガ(血)
- カ(Po, ユ, Pa) カは序數を表示する原語で馬來語にも用ひらるではイカと稱へる。バラウ語のゴは其轉呼で、ゴネ及ゴンの二形を派

Fig.2-3 ミクロネシア語の綜合研究 P75, P140

What is more, this book only explains vocabulary and grammar, without providing paragraphs. So let us see the latter one. Also, a similar table is provided at the front of the book:

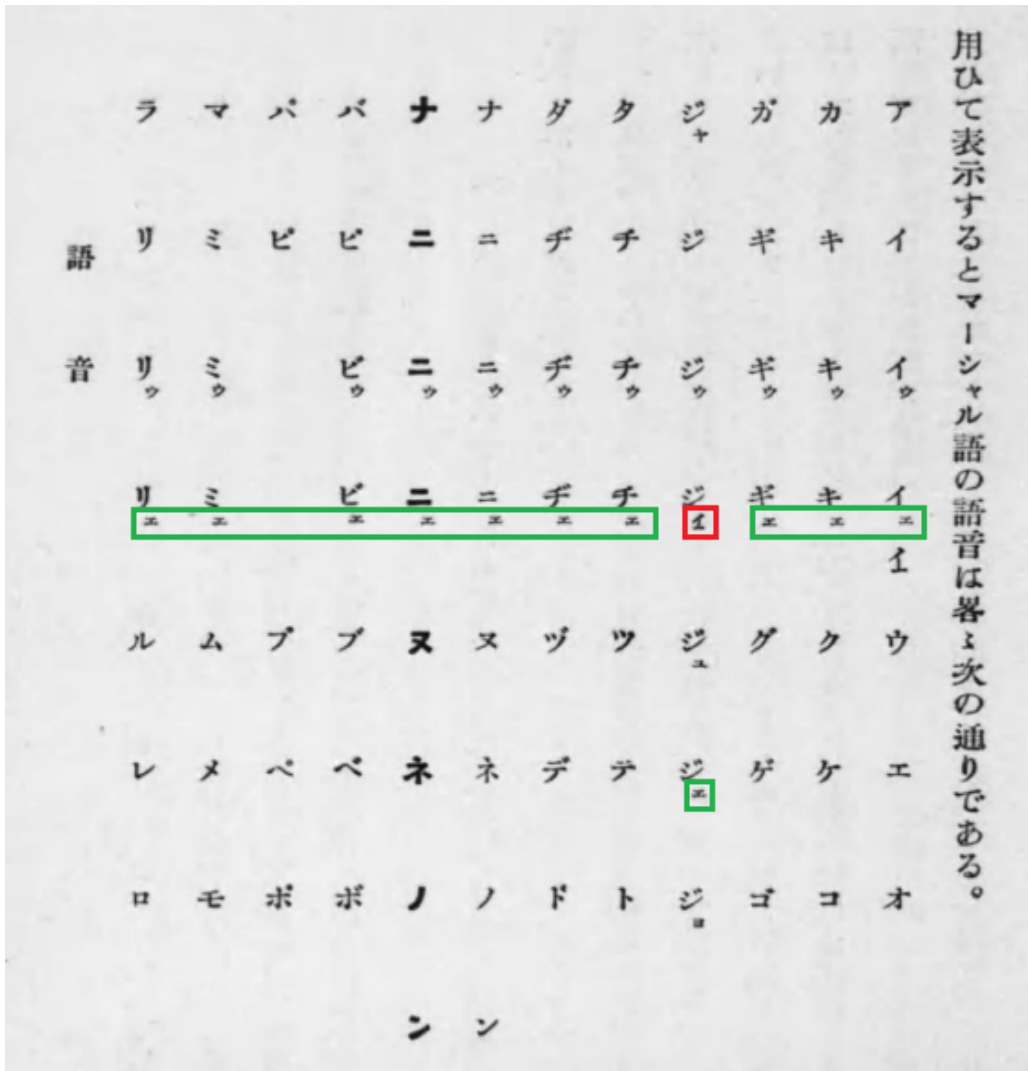


Fig.4 マーシャル語の研究 P7

Here, the author uses the small エ as much as possible – but still, ジエ exists, to represent something different from ジエ in Marshallese.

After comparing the transliterated words in the main body of the book with the modern Marshallese orthography and phonetic system⁶, we could get a rough correspondence for vowels as the following table:

Height	Unrounded		Rounded
	Front	Back	
Close	イ /i/	イウ /u/	ウ /u/
Mid	エ	イエ(エ) /ɛ/	オ
Open	/e/~ε/	ア /a/	/o/~ɔ/

Note that, we could hardly get the exact correspondence since so many dialects in the Marshall Islands vary from each other. What is more, the book was published in Shōwa 4 (1929), which is almost a hundred years ago, the language itself may also change. Also, the transliteration is not that precise, e.g. it does not distinguish /l/ from /r/, so may be the vowels.

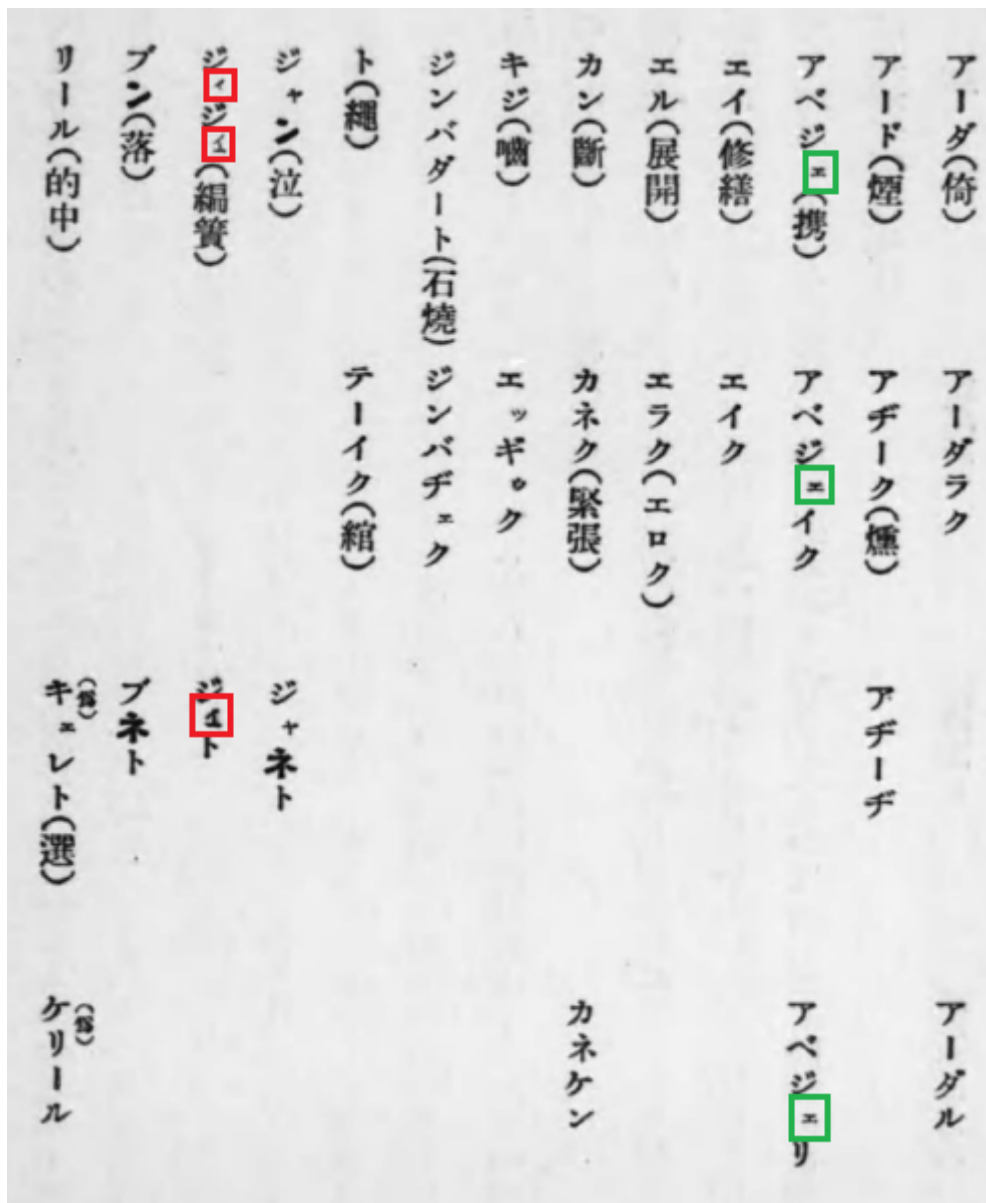


Fig.5 マーシャル語の研究 P86

In Fig.5, a part of the main body explaining the grammar, both ジエ and ジエ appears, the former one is marked in red, while the latter one is marked in green.

Different from the previous book, this book provides so many meaningful paragraphs as valuable running texts. Let us see one piece which contains the proposed character:

一六八

だ。彼が將に達せんとする時、一つの波が起つて彼を抛り出した。押流されて岩礁に還りついた時彼は再泳いだ。彼が將に達せんとするや、再び波が落ちかゝり再抛り出された。押流されて再彼處に現はれた其時には彼は甚疲れて殆ど死にさうであつた。乃で岩礁に上り、息も絶々に坐つた。休息した後彼は弟に對つて「私は疲れたから汝が泳がねばならぬ」というた。乃で彼は泳いだ。

波が打上げる時には彼は水に潜り、固く底を捉へ、其が去る

エオ^(其) エ・リット^(年長)。 エジ^(彼) ナジ^(將) テバレ^(達)、 エジ^(其) ジ^(行) エ^(其) ダク^(其)
 ジ^(行) ム^(其) オン^(其) ノー^(彼) イム^(圖) ルグチ^(船出)。 エダル^(行) エダル^(行) エダル^(行) エダル^(行)
 ラク^(其時) イ^(於) ペリジ^(再) エ^(再) ト、 エ^(再) パル^(再) アイ^(彼)。 ケ^(時) エジ^(彼)
 ナジ^(將) テバレ^(達) エ・バル^(再) ブン^(落) ジ^(行) ム^(其) オン^(其) ノー^(彼)、 パル^(再)
 ルグチ^(船出)。 エダル^(行) エダル^(行) エダル^(行) ラク^(其時) パル^(再) イ^(於) ジ^(行) ム^(其)
 エ^(彼) アル^(有) ワロク^(出現)。 エラク^(其時) エ^(彼) ワロク^(出現)、 エジ^(彼) ブイジ^(船)
 ミジ^(死)。 エカヌジ^(其) キジ^(再) エ^(再) ロク。 エ・ムイジ^(乃) エ^(乃) ワネネロク^(上陸)
 (ワン・エーネ・ロク) イム^(圖) ジ^(行) ム^(其) ト、 ブエ^(彼) エ^(彼) ナニン^(船)
 ミジ^(死) ウォト^(唯) ジリク^(心許) (今少しで死ぬ)。
 ケ^(時) エ^(其)・ムイジ^(乃)
 アーン^(彼の) カッ^(休息) キ^(再) ジ^(再) エ^(再)、 エジ^(彼) パ^(言) ナン^(E) エオ^(其) エ^(其)・リク^(小)
 「クオン^(彼) アイ^(彼) ブエ^(彼) イ^(我) キジ^(再) エ^(再) ロク」。 インネム^(乃) エジ^(彼)
 アイ^(彼)
 エラク^(其時) イー^(彼) ブ^(打) エー^(打) ブ、 エ^(彼) ヅ^(時) ロク イム^(圖) レ^(四時) ビシ^(四時) ラル^(下)。

Fig.6 マーシャル語の研究 P168

エ・ムイジ エ ワネネロク イム ジ^ジエ^ト、 ブエ エ ナニン ミジ ウォト ジリク。
 乃で岩礁に上り、息も絶々に坐つた。

If we write this sentence in the modern Marshallese orthography, it will be:

Emōj e wānāneļok im jijet, bwe e nañin mij wōt jidik.

It seems that the vowel *e* in “jijet” is more likely to be /e/ rather than /ʌ/, so we would better clarify that the word ジジエト is really not a misprint. Fortunately, we could find the same word in the main body (grammar explanation) and at the back (glossary) of this book, as shown in Fig.7 and Fig.8 respectively.

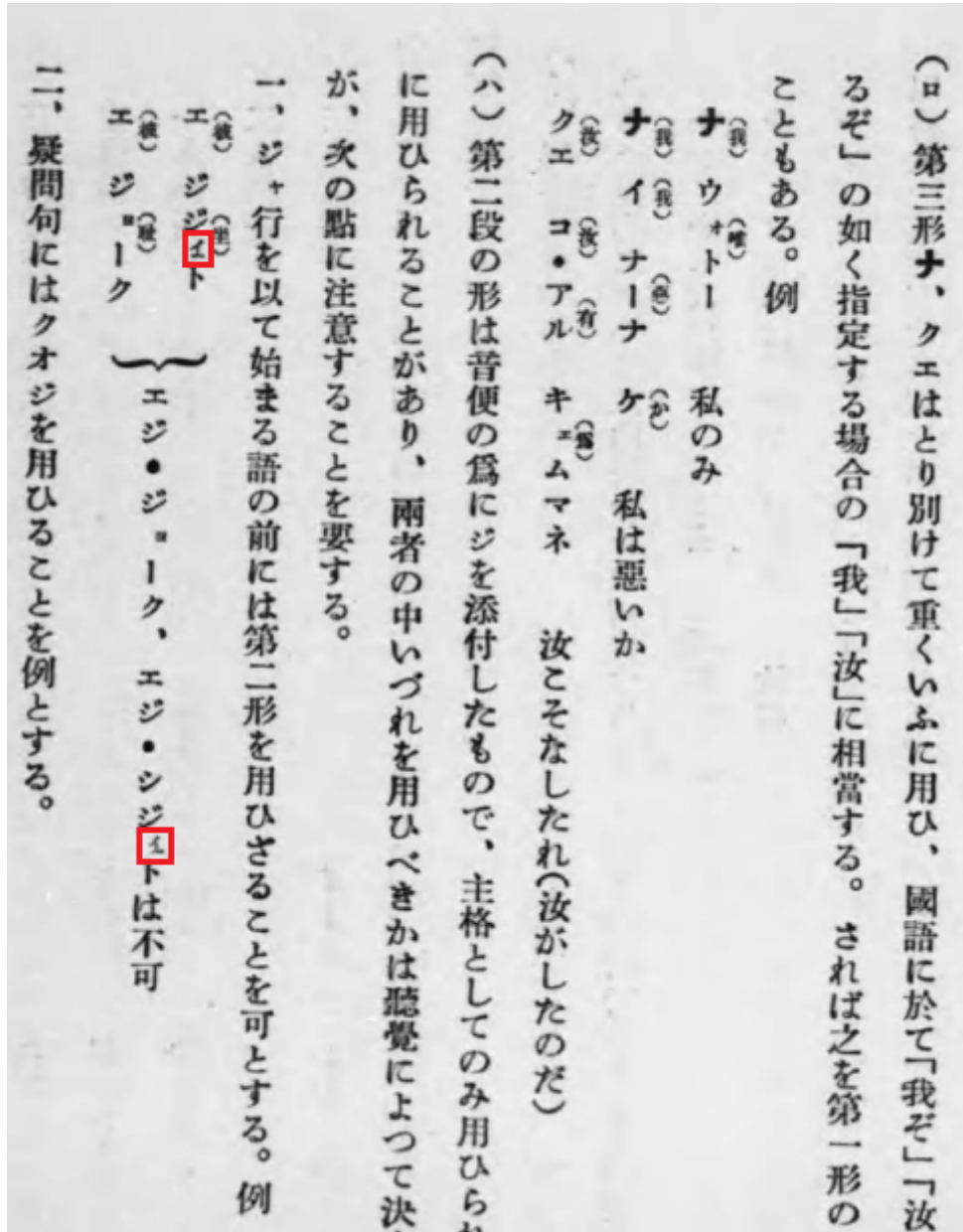


Fig.7 マーシャル語の研究 P60

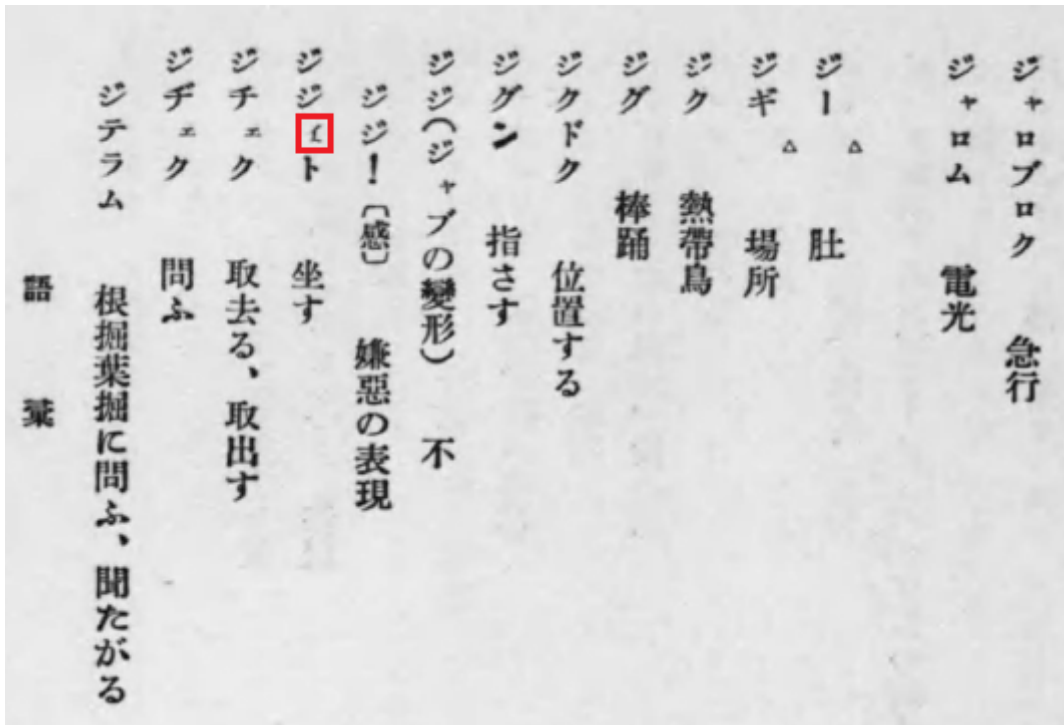


Fig.8 マーシャル語の研究 P223

Also, we may find some detailed pronunciation rules on Wikipedia⁷:

When a vowel phoneme appears between consonants with different secondary articulations, the vowel often surfaces as a smooth transition from one vowel allophone to the other.^[23] For example, *jok* 'shy', phonemically /tʰɛk^w/, is often realized phonetically as [tʰiɛ̃k^w].^[23] It follows that there are 24 possible short diphthongs in Marshallese.^[23]

Phoneme	ɔj_ɔʏ	ɔj_ɔʷ	ɔʏ_ɔj	ɔʏ_ɔʷ	ɔʷ_ɔj	ɔʷ_ɔʏ
/i/	[i̯u]	[i̯u̯]	[u̯i]	[u̯u̯]	[u̯i̯]	[u̯u̯]
/e/	[e̯ɔ]	[e̯ɔ̯]	[ɔ̯e]	[ɔ̯ɔ̯]	[ɔ̯e̯]	[ɔ̯ɔ̯]
/ɛ/	[ɛ̯ʌ]	[ɛ̯ɔ̯]	[ʌ̯ɛ]	[ʌ̯ɔ̯]	[ɔ̯ɛ]	[ɔ̯ʌ]
/æ/	[æ̯u̯]	[æ̯ɔ̯]	[u̯æ]	[u̯ɔ̯]	[ɔ̯æ]	[ɔ̯u̯]

Fig.9 Detailed Pronunciation Rules on Wikipedia

Since *j* is a palatalized consonant, while *t* is a velarized consonant, according to the Marshallese orthography, the word “jijet” may probably be pronounced as [tʰiz̩i̯ɛ̃tʰ], which may explain why the author of this book chose to use /ʌ/ to represent the vowel *e* in “jijet” (even the vowel in the certain dialect a hundred years ago recorded by the author of the book might be closer to /ʌ/). Thus, ジジエト STANDS NO CHANCE of being a misprint.

References

- [1][L2/25-035: Request to Change VO for some Small Kana Letters and Bopomofo Letters](#), CheonHyeong Sim, 2025-01-13
- [2][L2/16-334: Hiragana and Katakana \(Small Letters\)](#), CheonHyeong Sim, 2016-11-03
- [3][L2/16-354: Proposal to add Kana small letters](#), Ryusei Yamaguchi, 2016-11-07
- [4][L2/17-091: Japanese National Body Contribution on Small Kana Characters \(SC2 N4523\)](#), Japan NB, 2017-04-01
- [5][WG2 N4825: Additional repertoire for ISO/IEC 10646:2017 \(5th ed.\) Amendment 2.0](#), Michel Suignard, 2017-06-05
- [6][Marshallese-English dictionary](#) (online)
- [7][Marshallese language](#) (Wikipedia)

**ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646**

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from
<http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from

<http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest *Roadmaps*.

Form number: N4502–F (Original 1994–10–14; Revised 1995–01, 1995–04, 1996–04, 1996–08, 1999–03, 2001–05, 2001–09, 2003–11, 2005–01, 2005–09, 2005–10, 2007–03, 2008–05, 2009–11, 2011–03, 2012–01)

A. Administrative

1. Title:	<i>Proposal to Encode One Small Kana Letter</i>
2. Requester's name:	<i>CheonHyeong Sim</i>
3. Requester type (Member body/Liaison/Individual contribution):	<i>Individual contribution</i>
4. Submission date:	<i>2025–01–15</i>
5. Requester's reference (if applicable):	<i>N/A</i>
6. Choose one of the following:	
This is a complete proposal:	<i>YES</i>
(or) More information will be provided later:	

B. Technical – General

1. Choose one of the following:	
a. This proposal is for a new script (set of characters):	<i>NO</i>
Proposed name of script:	
b. The proposal is for addition of character(s) to an existing block:	<i>YES</i>
Name of the existing block:	<i>Small Kana Extension</i>
2. Number of characters in proposal: <i>1</i>	
3. Proposed category (select one from below – see section 2.2 of P&P document):	
A–Contemporary <input type="checkbox"/>	B.1–Specialized (small collection) <input checked="" type="checkbox"/>
B.2–Specialized (large collection) <input type="checkbox"/>	C–Major extinct <input type="checkbox"/>
D–Attested extinct <input type="checkbox"/>	E–Minor extinct <input type="checkbox"/>
F–Archaic Hieroglyphic or Ideographic <input type="checkbox"/>	G–Obscure or questionable usage symbols <input type="checkbox"/>
4. Is a repertoire including character names provided? <i>YES</i>	
a. If YES, are the names in accordance with the "character naming guidelines"?	<i>YES</i>
b. Are the character shapes attached in a legible form suitable for review?	<i>YES</i>
5. Fonts related:	
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?	<i>CheonHyeong Sim</i>
b. Identify the party granting a license for use of the font by the editors (include address, e–mail, ftp–site, etc.):	

6. References:

a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? **YES**

b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? **YES**

7. Special encoding issue

Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? **NO**

8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see UAX#44: <http://www.unicode.org/reports/tr44/> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? **NO**

If YES explain

2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? **NO**

If YES, available relevant documents:

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? **NO**

Reference:

4. The context of use for the proposed characters type of use; common or rare) **Rare**

Reference:

5. Are the proposed characters in current use by the user community? **NO**

If YES, where? Reference:

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? **NO**

If YES, is a rationale provided?

If Yes, reference:

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? **YES**

8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? **NO**

If YES, is a rationale for its inclusion provided?

If Yes, reference:

9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? **NO**

If YES, is a rationale for its inclusion provided?	
If Yes, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character?	YES
If YES, is a rationale for its inclusion provided?	YES
If Yes, reference:	<i>U+1B121 is the regular form; proposed is the small form. We never unify the regular forms and the small forms for Kana since their functions are different.</i>
11. Does the proposal include use of combining characters and/or use of composite sequences?	NO
If YES, is a rationale for such use provided?	
If Yes, reference:	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?	NO
If Yes, reference:	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	NO
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility characters?	NO
If YES, are the equivalent corresponding unified ideographic characters identified?	
If Yes, reference:	

(End of document)