

## Newly-Discovered Paper Records in *Kaida* Writing

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### Abstract

A collection of records written in various forms of native Okinawan scripts has recently been discovered at the National Museum of Ethnology in Osaka, Japan. One of the largest collections of such artifacts in existence today, it contains flat rectangular wooden boards containing bilingual inscriptions in Japanese and Yaeyaman *kaida* writing, from Ishigaki; paper records in *kaida* writing, from Yonaguni; and wooden sticks containing *sūchūma*, from the main Okinawan island.

The flat boards were read and described in Okinawan and mainland newspapers (Sasaki 2006), but the remainder of the collection has so far remained undescribed and undeciphered. The present paper is an English-language expansion and follow-up to the brief Japanese-language description given by the same author in the museum's magazine, *Minpaku*. It focuses on the paper records, with a description of the wooden sticks planned for a future article.

This short paper will introduce several artifacts containing *kaida* writing which were recently discovered at the National Museum of Ethnology in Osaka, Japan.

The artifact collection includes two flat boards, several sheets of paper, wooden sticks, and several strings of *barazan* knotted rope. All of these items were used in record-keeping in various parts of Okinawa prior to the early 20th century.

The more readable of the flat boards was reported on in the Chiba Nippō as well as in Okinawan newspapers in December 2006. The other Okinawan items were left unmentioned in the newspaper articles, and until now descriptions of them have been limited to an attempted decipherment of the papers in the July 2009 issue of the museum's monthly *Minpaku* magazine (Rosa 2009). The present paper is an English-language expansion and follow-up to the brief Japanese-language description given in *Minpaku*. It focuses only on the papers; for one of the wooden boards, see the Chiba Nippō (2006).

### 1. *Kaida* writing and the Further Isles

Prior to the introduction of Japanese schools in the late 19th century, which brought with them the Japanese language and its writing system, several different methods were used to record basic information. One -- the most developmentally advanced -- is *kaida* writing, in which pictographs, numerals, and family-name markings combine to create a system of partial writing that, while limited in scope, is sufficient to keep basic accounting records.

This system was used in the Yaeyama islands and Yonaguni -- Okinawa's "Further Isles". The islands most closely connected to *kaida* writing are Yonaguni (*Dunan* in the local

language) and Taketomi (*Tēdun*). Yonaguni is Japan's westernmost island, nearly equidistant from Taiwan and Ishigaki, and has a population of approximately 1700 as of 2010.

Three villages make up most of Yonaguni's population: Sonai in the north, Higawa (or Hinai) in the south, and Kubura in the west. The documents described below are believed, based on the family names that they include, to be from Sonai.

## 2. Types of characters

*Kaida* writing consists of three different types of characters, used together and referred to collectively as "kaida writing" (*kaida-di* in Yonagunian pronunciation), though the term can also refer only to the pictographs.

### 2.1 Pictographic characters

Characters in this group -- sometimes referred to by themselves as *kaida-di* in opposition to *sūchūma*- and kanji-based characters -- were designed by islanders in imitation of Chinese/Japanese characters, as pictures of the items they represent. These show varying degrees of abstraction, with some having diverged significantly from their underlying forms or being highly dependent on context (the form of "rice", for example, resembles not grains of rice, but rather the *masu* box in which rice could be stored). Others, such as "boat" and "handled pot", look very much like their real-world counterparts. See Rosa (2007) for a list of currently-attested characters along with their local-language pronunciations.

### 2.2 Kanji-based characters

Characters in this group strongly resemble kanji characters as used in China and Japan. These are mainly limited to numerals, plus the characters for "month" and "day". The stroke order of kanji is not necessarily maintained.

### 2.3 *Suchuma*-based characters

The following six characters are used to express basic units of volume.

○ + − □ △ |

In order, they are: one *hyō* (45 liters), 1 *to* (18 l), 1 *sho* (1.8 l), 1 *go* (180 ml), 1 *shaku* (18 ml), 1 *sai* (1.8 ml).

Previous examples from Taketomi show the same unit written multiple times, whereas examples from Yonaguni sometimes show the innovation of only writing the unit a single time, followed by the number of units.

The word *sūchūma* is believed to derive from the Chinese word (Pinyin *Sūzhōumǎ*) for a system of horizontal and vertical lines, still used today on occasion, to write numerals. The characters in Okinawa do not express numerals in general, but are rather limited to the units of volume described above. These symbols can be arranged or stacked in groups: □□ represents four *gō*; ≡ is three *shō*; △△△△ is eight *shaku*.

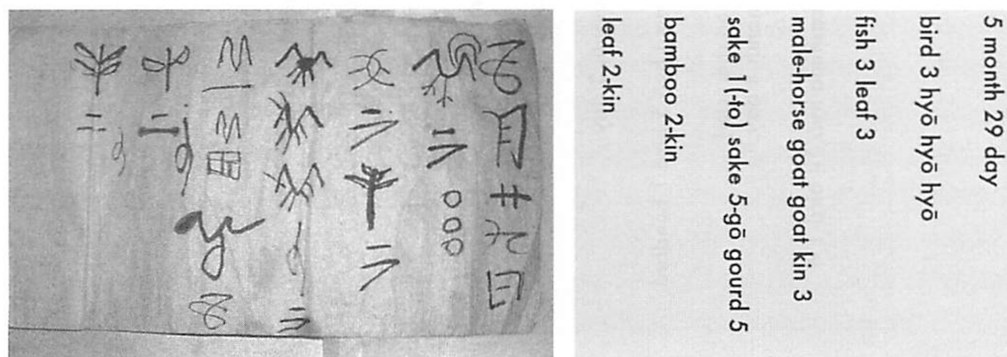
## 2.4 *Dahan* family symbols


Symbols called *dahan* (*da* 'house' + *han* '[personal] seal') were used to indicate individual families. Drawn on or carved into objects, these are still used today on occasion.



## 3. Paper records at the museum

### 3.1. A single family record: "May 29"

This single sheet contains no *dahan*, and seems to indicate the holdings (or obligations) of a single family on May 29 of an unknown year. Using various materials (Eizo Ikema's 1959 compilation plus the works of the present author, 2006-07), the characters can be read, as seen on the right

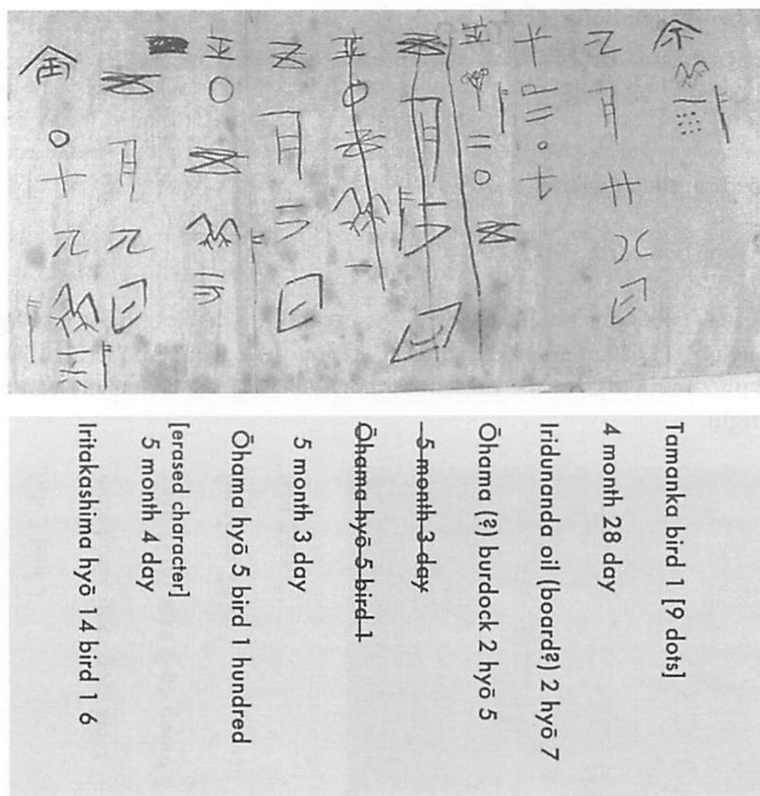


The character for 'sake' has a form not normally seen. In general, foodstuffs stored in wooden *masu* boxes are expressed with characters containing square boxes plus a distinctive marking on the top. Sake, for example, is a box with a zigzag line at the top, like this: . This document, however, omits the box portion, leaving only the zigzag line. This abbreviation has been seen with other characters (notably 'soy sauce' on Taketomi), but not generally with sake (one exception being Kiichi Yamuro's materials from his visit to Yonaguni around 1911).

Another innovation seen in the page above is the connection of five squares to represent five *gō*. Other documents use a single square plus a numeral to express this; e. g.  or .

The following sheets, which may have all been attached together at one point, contain many different *dahan* and presumably record the holdings or obligations of many families in the same village. All of the *dahan* seen here are from the village of Sonai in northern Yonaguni, and pronunciations are given, where possible, in local pronunciation (Yonaguni Township Board of Education, 1993).

### 3.2. Single detached sheet, April 28



With no date heading the first line, we can assume that this page was once connected to others -- the similar handwriting implies that it was once part of the three-page document described in the next section.

Points of interest include a nine-dot pattern in the first line (other dot patters will be seen later), several crossed-out lines, and a character resembling that for 'scale' to the right of some of the pictographs. A more cursive version of this character, also seen several times in the following pages, was used to express the measurement *kin* (600 grams). Can it be concluded that this symbol is used to indicate that the item or animal it is appended to was measured on a scale?

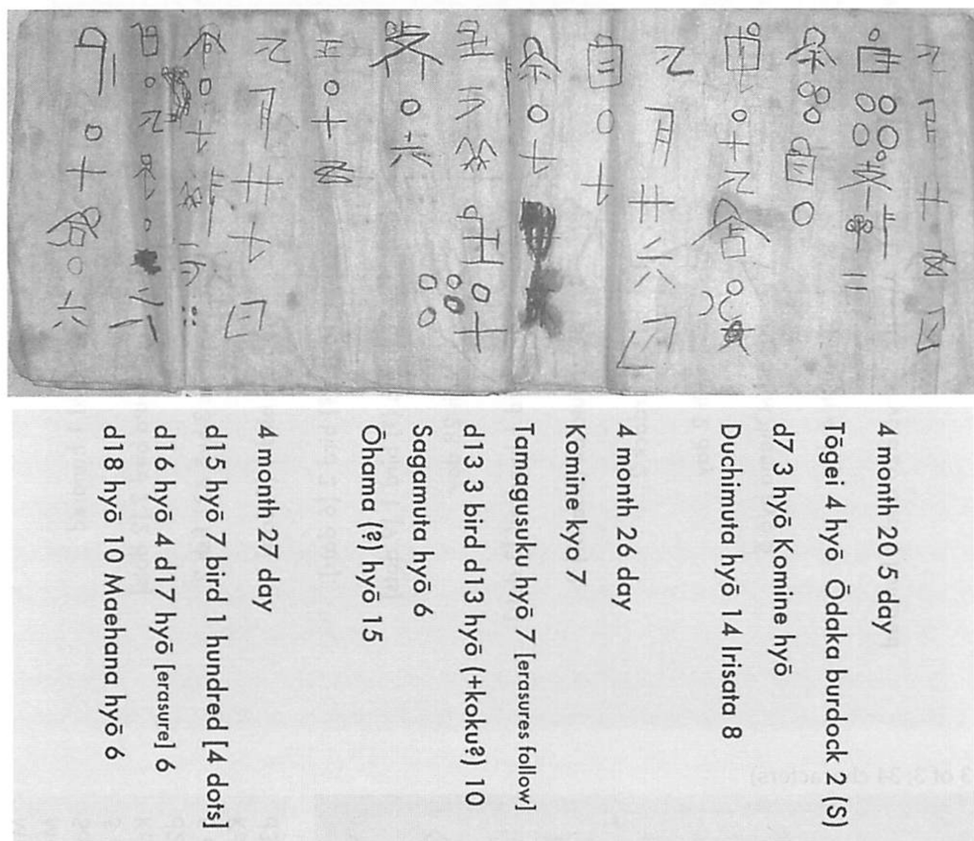
### 3.3. A three-page document containing records from multiple families

This document is one of the longest yet seen among materials containing *kaida* writing. Totalling 172 characters, it includes *kanji*-based dates, *dahan* family markings, *sūchūma* numerical quantities, and pictographs for animals and foodstuffs.

Not seen in previous discoveries is the addition of small circles attached to some of the *dahan*. A large circle, in general, usually indicates one *tawara* of rice, but these circles are significantly smaller. It is possible that these circles were used as checks to indicate which families had completed their payments.

*Dahan* were matched against those listed in the Yonaguni Board of Education's 1993 compilation. Still-undecipherable *dahan* are given here with the letter "d" followed by a temporary catalog number.

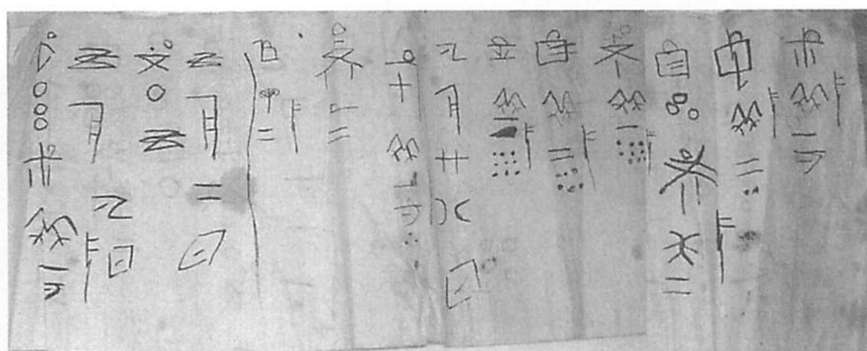
(1 of 3; 72 characters)



Dates on these sheets are nearly one month prior to those on the single sheet. It is unclear, however, if the same person wrote both documents, or if they are from the same year.

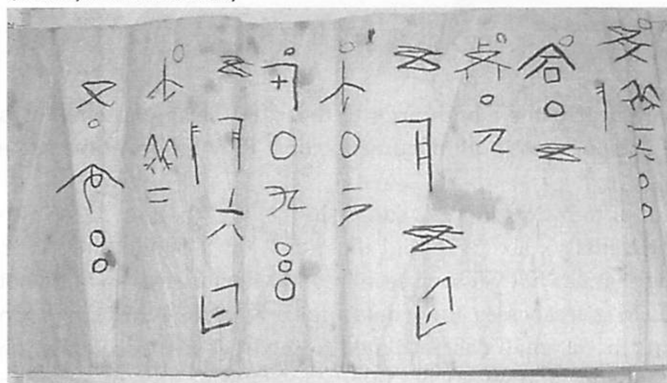
There is an arrangement of four dots in a 2x2 square in the twelfth line. These also appear in patterns of two (horizontally), six (3x2), and nine (3x3) on the following page. This is a feature of *kaida* writing that has not yet been seen in other documents, and it is not yet clear what the dots refer to. In several cases, these dots appear after the bird pictograph. Basil Chamberlain (1895) claims that a small dash attached to the oval-shaped pictograph for "egg" is used to indicate ten eggs, and eggs were often carried in groups of ten or so using sling-like holders made of *wara* rope. Could they refer to eggs?

(2 of 3; 66 characters)



d20 bird 1 hundred  
 Duchimuta bird 2 [2 dots]  
 Komine 3-hyō d21 fish 2  
 Ōdaka bird 1 [9 dots]  
 Tōgei (?) bird 2 [6 dots].  
 Ōhama (?) bird 1 [9 dots]  
 4 month 28 day  
 d24 bird 1 hundred [3 dots]  
 Sagamuta oil (board?) 2  
 d16 burdock 2  
 5 month 2 day  
 Higashi-Ōhama hyō 5  
 5 month 4 day  
 d17 3-hyō d20 bird 1 hundred

(3 of 3; 34 characters)



Matsumura bird 1 6 hyō hyō  
 Maehana hyō 5  
 Sagamuta hyō 4  
 5 month 5 day  
 Komi hyō 3  
 d29 hyō 9 3-hyō  
 5 month 6 day  
 Komi bird 2  
 d31 d15 2-hyō

This final page contains a single instance of the “scale”/“kin” character appended to the left of another pictograph rather than to the right. In addition, its form is horizontally reversed, resulting in a mirror image. All of the *dahan* except [d15] in the last line have small circles appended.

#### 4. Conclusion

Until the effort made in the present work, the Japanese/*kaidō* bilingual wooden boards deciphered by Sasaki (2006) were the only successfully-read examples of *kaidō*

writing in the museum's collection. It is hoped that the tentative conclusions about uncertain aspects of the papers described above can be made, confirming the meaning of these particular artifacts, and in general leading to a more complete knowledge of *kaida* writing and to a greater appreciation of the innovations and efforts that were made by the people of the Yaeyama islands at the turn of the last century.

### Bibliography

- Chamberlain, Basil H. (1895) *The Luchu Islands and Their Inhabitants*. Geographical Journal of Great Britain and Ireland, April-June 1895.
- 千葉日報 (2006/12/12) 『琉球王国の納税通知書発見 八重山のカイダー文字で』 (Chiba Nippō, December 12, 2006: *Tax Notices from the Ryūkyū Kingdom: Using Kaida Writing in the Yaeyama Islands*)
- 池間 栄三 (1959) 『与那国の歴史』 与那国：私家版。Ikema, Eizō. 1959. *A History of Yonaguni*. Privately printed.
- 池間 苗 (2003) 『与那国語辞典』 与那国：私家版。Ikema, Nae. 2003. *Yonaguni Language Dictionary*. Privately printed.
- Rosa, Mark (2006) *Kaida Writing in the Yaeyama Islands*. Master's thesis, University of Tokyo.
- Rosa, Mark (2007) *Kaida Character Dictionary*. Tokyo University Linguistics Papers (TULIP), Vol. 26.
- ローザ マーク (2009) 『八重山象形文字・カイダー字の新しい発見』 月刊みんぱく第382号。大阪：国立民族学博物館。Rosa, Mark. 2009. *A New Discovery in the Kaida Pictographic Script of the Yaeyama Islands*. in *Gekkan Minpaku*, Vol. 382. Osaka: National Museum of Ethnology.
- Sasaki, Toshikazu (2008/5/14-16) Personal communication at the National Museum of Ethnology.
- 佐々木利和 (2006) 『うすよごれた板きれなんだけど』 月刊みんぱく第349号。大阪：国立民族学博物館。Sasaki, Toshikazu. 2006. *It's Just a Dirty Board, But...* in *Gekkan Minpaku*, Vol. 349, Osaka: National Museum of Ethnology.
- 矢袋 喜一 (1915/1934) 『琉球古来の数学と結縄及記標文字』。東京：青年教育普及会 (Yamuro, Kiichi. 1915/1934. *Old Ryukyu Mathematics, Knotted Ropes, and Written Characters*. Tōkyō: Seinen Kyōiku Fukyūkai.)
- 与那国町教育委員会 (1993) 『与那国町の家畜耳印・家判・カイダー字・水田名』。与那国町：教育委員会 (Yonaguni Municipal Board of Education. 1993. *Farm Animal Ear Marks, Family Markings [dahan], Kaida Writing, and Field Names*. Yonaguni: Kyōiku linkai.)

### 新しく発見されたカイダー字の資料

ローザ マーク

**Keywords:** カイダー字、不完全な表記法、未解説表記法、記標文字、沖縄、琉球、与那国、竹富、ドゥナン、テドゥン

大阪府吹田市の民族学博物館で、各種の形に出来ている沖縄原住民の文字で記された記録が発見された。これほど大きい所蔵品はなかなか無く、(1) 日本語と八重山カイダー字のバイリンガルで書いてある平らな四角い板札、(2) 与那国からだと思われるカイダー字で書いてある紙、(3) 沖縄本島から蘇州馬 (スウチュウマ) で書いてある木簡がある。

板札はすでに沖縄や日本本土の新聞に解説・説明された (佐々木 2006) が、残りの資料は今まで未解説でその存在はまだ出版されていない。本記事は、筆者が民族博物館の雑誌「みんぱく」に日本語で説明したものを拡大し、ここでは英語で説明する。主題は紙の資料だけで、木簡は今後の記事にしたい。

(ローザ マーク Mark ROSA 博士課程)