Kristina HMELJAK SANGAWA

Macrostructure of Pre-modern Japanese Dictionaries: Chinese Models and Japanese Innovations

Abstract

Japanese lexicography, being based on a writing system that was derived in Japan from the Chinese writing system, is rooted in the Chinese lexicographical tradition, but developed its own systems to organise lexicographical information. The first dictionaries created in Japan listed Chinese characters according to their form and radicals, recording only Chinese language information, while later dictionaries also included Japanese glosses. The development of the two syllabaries, *hiragana* and *katakana*, facilitated the creation of dictionaries with phonetically ordered lists of words. This paper presents the development of different lexicographical systems and their backgrounds.

Keywords: Japanese lexicography, dictionary macrostructure, writing system, semasiological macrostructure, onomasiological macrostructure

Izvleček - Makrostruktura predmodernih japonskih slovarjev: kitajski vzori in japonske inovacije

Japonsko slovaropisje tako kot japonska pisava izhaja iz kitajske tradicije, a je skozi stoletja razvilo izvirne sisteme organizacije informacij. Prvi slovarji so na Japonskem nastali

po kitajskem vzoru, njihova makrostruktura je bila organizirana glede na grafično obliko pismenk, razporejenih po pomenskih ključih, mikrostruktura gesel pa je bila po kitajskem vzoru enojezična. Ob teh so kmalu nastali tudi dvojezični kitajsko-japonski slovarji s semantično pogojeno strukturo. Z razvojem fonetičnih zlogovnic hiragane in katakane se je nato pojavil še tip slovarja, ki japonske besede razvršča fonetično. V prispevku opisujemo ozadje in razvoj različnih sistemov organizacije informacij.

Ključne besede: japonsko slovaropisje, slovarska makrostruktura, sistem pisave, semaziološka razporeditev, onomaziološka razporeditev

1   Introduction

Dictionaries are cultural products that reflect the achievements and values of the cultural and social environments in which they were created. Dictionaries of past eras provide insight not only into the vocabulary of a particular era, but also into the social dimension of language use in that era. As tools that serve language users in different communicative situations, dictionaries reveal linguistic stratification, the broader positioning of language and the linguistic community in relation to other languages, and the wider values associated with language. This is also true for Japanese dictionaries: in the development of Japanese lexicography, from manuals for writing and reading characters in the Nara period, when the use of writing in Japan was just beginning to spread among a very small circle of monks and nobility, through the more convenient dictionaries with phonetic arrangements of native words in the Muromachi period,[1] to the blossoming of bilingual lexicography in support of an ambitious plan to adopt the technological achievements of the West in the Meiji period, and to today's diversified and flexible supply of lexical information through all the channels made possible by information and communication technologies, we can trace the changes in communication patterns, the social value of the different linguistic variants and the distribution of knowledge in society.

The sections that follow first introduce the writing system that was developed in Japan on the basis of the Chinese script, and which has shaped the development of Japanese lexicography. The types of dictionaries that evolved in Japan after the adoption of the script are then presented, with particular emphasis on the lexicographical structures and procedures adopted in Japan from the Chinese tradition, and on the original contribution of Japanese lexicographers to the development of lexicography for speakers of Japanese.

---

1   In this article, I use the standard Hepburn romanization system to transcribe Japanese words. A more detailed description of the system and its use in Slovenian texts is given in Mlakar and Ilc (2009).

2 The Japanese writing system

The overall development of Japanese lexicography is strongly conditioned by the Japanese writing system and its evolution (Seeley 1991/2000, Hirakawa et al. 2006). Writing – both the concept of writing itself and the actual system of Chinese characters – was introduced to Japan through Korean intermediaries, probably in the 5th century. Just as in medieval Europe only Latin was used for writing for a long time – both in areas where various Romance languages had already developed from Latin, but also in Germanic, Slavic and other areas where Latin was never the primary spoken language at all – so in Japan only Classical Chinese was initially used for writing.[2]

The difficulties in adopting Chinese characters for writing the as yet unwritten Japanese language were twofold: on the one hand, the objective technical difficulty of adapting a writing system that had been developed for and was optimally adapted to a typologically completely different language, and, on the other hand, the socio-cultural reluctance to use the vernacular instead of the more prestigious Chinese in situations of great symbolic significance, when writing was actually used, i.e. for administrative, religious, or scientific-philological purposes.

The objective technical difficulty in using Chinese characters to write Japanese stems from the fact that Chinese characters were developed to write an isolating tonal language with a predominantly monosyllabic monomorphemic vocabulary, whereas Japanese is an agglutinating language with a predominantly polysyllabic and polymorphemic vocabulary that also includes inflected word types. If the Chinese writing system adopted in Japan had been a system for transcribing the sound units of the language (according to what Haas (1983) refers to as the *cenemic* principle, in Hjelmslev's terms),[3] it would probably have been much more easily adapted for transcribing Jap-

147

---

2 Lurie (2011, 418) writes in more detail on the parallels between the role of Latin in Europe and the Chinese script in East Asia.

3 Hjelmslev (1938/1971, 161) uses the term *plérématique* (from Greek πλήρης (*pléres*) meaning "full") to refer to the content level of language, and *cénématique* (from Greek κενός (kenós) meaning "empty") to refer to the expressive level of language. Haas (1976, 153) applies the terms to the categorization of writing systems: according to Haas, the pleremic principle of writing is the principle in which each element of the writing system records one semantic unit of language (a word or morpheme), while the cenemic principle is the principle in which each element of the writing system records a sound unit of language (a phoneme or syllable). A more detailed explanation is also given by Coulmas (1989, 49), and in Slovene by Bekeš (1999, 221), while a more detailed typology of writing systems is presented by Daniels (2001).

anese, since Chinese has a more complex and diversified phonetic system with 400 distinct syllables (or 1,300 distinct syllables if tones are included), whereas the Japanese phonetic system has a four times smaller set of syllables, which would require a smaller number of characters than for the transcription of Chinese (Taylor and Taylor 2014, 259). However, since in the Chinese writing system (following the *pleremic* principle) each character records a single word or morpheme, transferring this system to another language requires a more complex adaptation.

When writing lexical words, it is plausibly intuitive to transfer the use of a character used for a word with a certain meaning in the original language to the transcription (and consequently the reading) of a word with the same or a similar meaning in another language, the transfer being a kind of translation. If, for example, in Chinese a word meaning "mountain" is written with the character 山, the same character can be used to write the Japanese word /yama/, which also means "mountain". However, it is more difficult to find a solution for writing proper names or function words that do not exist in the original language for which the script was developed and for which therefore there is no character.

In addition to such linguistic and technical difficulties, the use of Japanese for writing in all the situations in which writing was actually used, i.e. for state-administrative, religious or scientific tasks, was also hampered by social and value-driven reservations. The use of elite classical Chinese as an official and scientific language was the most socially acceptable and coherent choice at a time when, in Japan, the Yamato government was rapidly adopting not only the Chinese script but also the Chinese system of state administration as well as Buddhist, Daoist and Confucian doctrines. In the mid-6th century, a sutra transcription office (shakyōsho 写経所) was set up, which accelerated the spread of Buddhism, with originally Indian sutras being adopted in Chinese translation. As part of the Taika 大化 reform in the mid-7th century, which aimed to organise a Chinese-style centralised state, a Chinese-style code of laws was drawn up and a school for civil servants, the Daigakuryō 大学寮, was established, where education was based on the classic Confucian works. In such a context, Chinese characters were initially used to write official texts in classical Chinese rather than directly in Japanese.

Despite these obstacles, from the 7th century onwards a writing system gradually developed in Japan which also made it possible to write literary texts (poetry, later also diaries and other prose). In this system, Chinese characters were used to write Japanese according to three different principles.

One of the principles, as mentioned above, is *logographic*: a Chinese character originally used to write a Chinese word with a certain meaning was used to write a Japanese word with the same or a similar meaning, as in the example above of the character 山, which was created to write the Chinese word /sɛn/ (now /shān/) meaning "mountain", and in Japan came to be used to write the Japanese word /yama/, which also means "mountain". This principle is called in Japanese the *kun* principle or *kun'yomi*, which literally means "interpretive reading" or "explanatory reading", since reading the Chinese character using the corresponding Japanese word was a matter of translating or "interpreting" the character for Japanese speakers (Lurie 2011, 175-177, 389).

The second principle applied in Japan when using Chinese characters does not actually adapt the Chinese script to the Japanese language, but rather adapts the Japanese language to the Chinese script by introducing Chinese words, together with the characters used to write them in Chinese, into the Japanese vocabulary, while phonetically adapting them to the Japanese phonetic system. This principle, which in Japanese is called the *on* principle or *on'yomi* (literally meaning "reading the sound" in the sense of the original pronunciation of a Chinese word), has profoundly influenced the development of Japanese vocabulary, almost half of which is still made up of originally Chinese words (Satō 1981; Okimori et al. 2006, 71).

The third principle, called the *Man'yōgana* principle after the *Man'yōshū* collection of poems, is the *phonographic* principle, which is the same as the principle that led to the development of cenemic scripts from Egyptian hieroglyphs (Coulmas 1989). Chinese characters, originally created and used to write particular words, were used to write syllables or words that were pronounced the same but had a different meaning. This principle was most often applied to the pronunciation of the Chinese word that a particular character originally represented, so that, for example, the character 安, which originally represented the Chinese word /an/ ("peace"), was used to represent the syllable /a/ in any context, in words or syllables with unrelated meanings. This principle could also be applied to *kun'yomi*, i.e. the Japanese translation of the Chinese word represented by a certain character. For example, the character 女, which originally represented the Chinese word for "woman" and which was translated into Japanese as /me/ (which also means "woman"), was used to write the syllable /me/ in words with other meanings, i.e. irrespective of the meaning of the word for which the character was created in the first place. Two syllabic scripts, *hiragana* and *katakana*, evolved from the characters used according to this principle, through gradual standardiza-

tion and simplification. Each grapheme in these syllabaries represents one syllable, and these are nowadays used alongside Chinese characters to write function words and morphemes. However, the development and standardization of such a system was not simple and required much experimentation and innovation, which is also evident in the development of Japanese lexicography.[4]

3   A typology of Japanese dictionaries

While in Western lexicography (Shcherba 1941/1995; Hartmann 2006 et al.), the classification of dictionaries according to their macrostructure follows the established dyadic division into onomasiological dictionaries, in which entries are arranged according to the written form of the words (mono- and bilingual or multilingual dictionaries in alphabetical order), and semasiological dictionaries, in which entries are arranged according to semantic criteria (dictionaries of synonyms, thesauri, taxonomies, ontologies, etc.), three main categories are commonly used in Japanese lexicography, as described below.

The greater complexity in the organization of information in Japanese dictionaries compared to dictionaries of alphabetic languages stems from the difference between cenemic and pleremic writing systems (Haas 1976; 1983; Coulmas 1989; Bekeš 1999). While in cenemic writing systems, such as the Latin alphabet, *hiragana* and *katakana*, each grapheme represents one sound unit of the language (phonemes in the Latin alphabet, *syllapbles* in *hiragana* and *katakana*), in pleremic writing systems, such as the Chinese script, individual characters represent semantic units of the language (words or morphemes), which, in addition to their meaning, also have an acoustic form, so that the graphic characters are directly linked to the vocabulary, i.e. the lexical system, and through this also to the vocal realizations of words, and thus to the phonetic system. At the same time, the graphic characters (also because of their number) are structured and interconnected in form, thus forming a graphic system which is the third network (besides the semantic and the phonetic ones) on the basis of which dictionary information can be arranged.

In the case of cenemic scripts such as the Latin alphabet and *hiragana*, the total number of characters is known and small enough for users to memorise the standard order, which can be used to arrange (collate) words in dictionaries. In the Latin alphabet this is the alphabetical order (a, b, c, etc.),

---

4   For a more detailed description of the adoption of the Chinese script, see the chapter "Where Have the Chinese Characters Gone? Modernization of Writing Systems in the Periphery of the Sinographic Cosmopolis" (Bekeš 2024) in this volume.

in Greek α, β, γ, δ, ε, etc. These are traditionally established, arbitrary orders without linguistic or other known motivation (Daniels 2001, 71–72). There are too many Chinese characters, however, for users to be able to learn them all by heart and at the same time remember an arbitrarily agreed order of arrangement. Today, the usual criteria for ordering (and looking up) Chinese characters in dictionaries according to their form are the *number of strokes* of which the character is composed and the *semantic radicals*.

The number of strokes is the number of individual lines or dots that make up a character. For example, the character 三 is made up of three lines or "strokes", the character 木 is made up of four, the character 立 is made up of five, etc.

Semantic radicals are graphic units that – in complex, compound characters – indicate the semantic field of the character and of the word it represents. Most characters are made up of smaller graphic units that can indicate either a field of meaning or a pronunciation. The graphic units that indicate the primary field of meaning of a character are called semantic radicals and are also used as stand-alone characters. For example, the semantic radical 木 can be a stand-alone character that represents the word *mù* in Chinese and either the Chinese loanword *moku* or the native word *ki* in Japanese, both of which mean "tree" or "wood", or it can be part of more complex, compound characters. Most compound characters fall into two categories: semantic and phono-semantic compounds. Semantic compounds contain elements other than the semantic radical to indicate additional meaning; for example, the character 林, which is made up of two characters for the word "tree", represents the word "forest" (Chinese *lín*, Japanese *hayashi* or *rin*). Phono-semantic compounds (which include most of the characters in use today) consist of a semantic radical, indicating the field of meaning, and a phonetic radical or phonetic component,[5] indicating the pronunciation. For example, the character 松, which represents the word "pine" (Chinese *sōng*, Japanese in Chinese loanwords *shō*, native Japanese *matsu*), consists of a semantic radical 木, which indicates the semantic field of "wood", and a phonetic radical or phonetic component 公, which indicates a similar pronunciation in other compound characters (e.g. 訟 "to sue", Chinese *sòng*, Japanese in Chinese loanwords *shō*, and native Japanese *arasou*, *uttaeru*).

The number of semantic radicals is sufficiently small for a standard order to be memorised. This order (like the alphabetical order for Latin letters) is used

---

5   The term *fonetik* is also used in Slovene (Saje 1998); a more accurate term would be *fonofor* (Eng. phonophoric), i.e. a phonetic carrier, as suggested by Boltz (1989, A-9 and 1994).

to arrange the characters containing these radicals in dictionaries and similar lists. The first work to categorise characters according to their structure and semantic radicals is 説文解字 (Chinese: *Shuōwén jiězì*, Japanese: *Setsumon kaiji*) from 100 CE, which lists 540 radicals and arranges them semantically (Yong and Peng 2008; 98-103). To facilitate memorization of these radicals, poems were also composed that contained radicals in meaningful verse in a standard order (Wan and Liu 2019). Later, the list of radicals was pruned and their order standardised. Today, a list of 214 radicals is used in standard dictionaries, arranged graphically in ascending order according to the number of strokes they contain; characters containing the same radical are arranged in ascending order according to the number of strokes of which they themselves are composed, and those with the same radical and the same number of strokes are additionally arranged by the shape of the first stroke (horizontal, vertical, oblique, etc.). This list of radicals and the consistent arrangement in ascending order by the number of strokes was introduced in 1615 CE. In 1616, the dictionary 字彙 (Chinese: *Zìhuì*, Japanese: *Jii*) was first used by Mei Yingzuo (梅膺祚, Japanese: Bai Yōso), a philologist of the Ming dynasty (Yong and Peng 2008, 286-287). The dictionary 康熙字典 (Chinese *Kāngxī Zìdiǎn*, Japanese *Kōki jiten*), commissioned by Emperor Kāngxī and published in 1716, is also arranged according to this system (Yong and Peng 2008, 291-293). This dictionary has served as the model for most character dictionaries up to the present day, and even in the Unicode[6] system the radicals and characters are arranged according to the same system.

In order to organise and search for information about linguistic units in dictionaries of languages written in Latin scripts, we can therefore start either a) from the semantic network of vocabulary, as realised in semasiological dictionaries (thesauri, ontologies, etc.), or b) from the phonetic system, as realised in onomasiological dictionaries (with alphabetically arranged entries). However, in dictionaries of languages written using a pleremic writing system, such as Chinese and Japanese, information about the language can be organised (and consequently searched) a) according to semantic criteria, as in European thesauri, b) according to the phonetic forms of the words (if there is a sufficiently standardised collation standard, i.e., a standard order according to which sounds are arranged) or c) by the graphic form of the characters and their elements, for which there may also be a collation standard by which they can be arranged and searched, such as the combined system of radicals and the number and shape of strokes described above.

---

6   See also Petrovčič (2024) in this volume.

Users who are looking for information on how to read an unfamiliar character and what it means, can only use dictionaries in which the words (characters) are classified according to graphic criteria, based on the form, basic elements and number of strokes of each character. If the users do not know how to read a character they encounter in a text, and do not know what it means, they cannot look it up in a list of pronunciations or meanings. Such dictionaries are therefore useful while reading. Conversely, users seeking information on the standard written form of a particular word, typically in a written text, can use dictionaries in which the entries (characters) are arranged according to the collation standard for the phonetic transcription of the word or (less efficiently for searching) according to the semantic categories in thesauri and similar types of dictionaries.

In the Japanese lexicographical tradition (Ueda and Hashimoto 1916/1968; Yoshida 1971; Kindaichi 1996, 16 etc.), following the example of Chinese dictionary terminology, dictionaries are divided into three main categories, reflecting the type of dictionary macrostructure or the way in which information is organised and, consequently, the possible ways in which this information can be looked up. These are:

1) dictionaries for searching according to character form 字形引辞書 *jikeibiki jisho*,
2) dictionaries for searching according to the meaning of characters 分類体辞書 *bunruitai jisho* and
3) dictionaries for searching according to pronunciation 音引辞書 *onbiki jisho*.

Dictionaries for searching according to character form 字形引辞書 *jikeibiki jisho* correspond to the Chinese category 字書 (Chinese: *zìshū* or Japanese: *jisho*), such as 説文解字 (Chinese: *Shuōwén jiězì* or Japanese: *Setsumon kaiji*, created in 100 CE), and the Japanese dictionaries *Tenrei banshō meigi* 篆隷万象名義 (c. 830-835), *Shinsen jikyō* 新撰字鏡 (c. 898-901), and *Ruiju myōgishō* 類聚名義抄 (c. 1100). There is no direct parallel to this category in Western lexicography.

Dictionaries for searching according to the meaning of characters 分類体辞書 *bunruitai jisho* correspond to the Chinese category 義書 (Chinese *yìshū* or Japanese *gisho*), such as the Chinese dictionaries 爾雅 (Chinese *Ěryǎ* or Japanese *Jiga*, 3rd century BCE, the oldest Chinese dictionary), 釋名 or 釈名 (Chinese *Shiming* or Japanese *Shakumyō*, c. 200), and the Japanese dictionary *Wamyō ruijushō* 和名類聚抄 (c. 931-938). These correspond to semasiological dictionaries (such as thesauri, etc.) in Western lexicography.

Finally, dictionaries for searching according to pronunciation 音引辞書 *on-biki jisho* correspond to the Chinese category 韻書 (Chinese *yīnláng,* Japanese *insho*). This is where Okimori et al. (2008, 9-11) place, for example, the Chinese dictionaries 切韻 (Chinese *Qièyùn,* Japanese *Setsuin*, c. 601) and 韻海鏡源 (Chinese *Yunhai jingyuan,* Japanese *Inkai kyōgen*, c. 780), and the Japanese dictionaries *Tōgū setsuin* 東宮切韻 (9th century, not preserved) and *Dōmō shōin* 童蒙頌韻 (1109). This is the closest category yet to the category of onomasiological dictionaries as we know it in Western lexicography.

In addition to these, there are two other categories in Chinese and Japanese metalexicography, which include reference works that are not dictionaries in the strict sense. The first is 類書 (Chinese *leishu* or Japanese *ruisho*), which comprises a series of encyclopaedic-anthological works in which quotations from other works are systematically collected and arranged according to semantic categories. The second category is 音義 (Chinese *yīnyì* or Japanese *ongi*), which includes collections of glosses to particular sutras or other classical works; these are thus not dictionaries of general vocabulary, but rather annotations or glossaries to individual specific writings (Okimori et al. 2008, 10). The earliest example of a glossary with *kundoku* annotations, dating from the late 7th century, falls into this category (Lurie 2011, 185-187).

4   Historical development of Japanese dictionaries

The historical development of Japanese lexicography has been strongly influenced by Chinese lexicography and philology from the very beginning, as all other spheres of cultural development in early medieval Japan, but through innovations lexicography was gradually brought closer to Japanese readers and writers with a less thorough knowledge of the Chinese language, script and philology.

4.1   Emulating Chinese models

The oldest Japanese dictionary mentioned in historical sources is the *Niina* 新字, which is known only from the twenty-ninth volume of the *Nihonshoki* 日本書紀 chronicle, where it is stated that it was compiled in 682 by Sakaibe no Murajiiwatsumi 境部連石積 who described Chinese characters in forty-four volumes (*kan* 巻). The dictionary itself has not survived, but a few fragments of 7th-century glossaries have survived, suggesting that the first lexicographical works were already being compiled in Japan in the second half of the 7th century (Okimori et al. 2008, 9).

The following two dictionaries have also not survived; these are the *Yōshi kangoshō* 楊氏漢語抄 "*Yang's Glossary of Chinese Words*" and the *Benshoku ryūjō* 弁色立成. Their existence is assumed only on the basis of quotations taken from these works and included in the 10th-century dictionary *Wamyō ruijushō* 和名類聚抄 (or also 倭名類聚聚抄), but it is clear from these quotations that lexicography was already being developed in Japan in the 7th century (Yamada 1995).

The earliest surviving Japanese dictionary for searching according to character form, i.e. of the 字書 *jisho* category, is the *Tenrei banshō meigi* 篆隷万象名義 (*Record of the Names of All Things in Tensho and Reisho Notations*), compiled by the monk Kūkai, probably between 830 and 835 (Li, Shin, Okada 2016). What is interesting here is that the dictionary is considered to be the oldest Japanese dictionary, as it was edited in Japan by a Japanese author, but it does not contain any Japanese characters at all, but rather Chinese characters with Chinese pronunciation notation and explanations of meaning only in Chinese. It contains one thousand characters, each presented in two calligraphic styles: *tensho* 篆書 (a seal script that was standardised for the needs of official scribes in the early 8th century BCE) and *reisho* 隷書 (a clerical script for general use that became standardised for the needs of official scribes in the Han dynasty in the last two centuries BCE). Each character is accompanied by an explanation of its meaning in Chinese and a record of the reading of each individual character according to the 反切 system, *fănqiè* in Chinese and *hansetsu* in Japanese (Ikeda 1994). This is a system in which two (or more) characters are used to record the pronunciation of a single character, with the first (音字 Ch. *yīnzì* or Jpn. *onji*, or also 父字 Chinese *fùzì* or Japanese *fuji*) used to indicate the initial sound of the syllable that the described character represents, while the second (韻字 Chinese *yùnzì* or Japanese *onji*, or also 母字 Chinese *mŭzì* or Japanese *boji*) – and the rest of the characters if there are more than one – is used to represent the rest of the syllable, i.e. the vowel nucleus and – if present – the final consonant (Hayashi 1989; Nito 2012; Sasaki 2005).

The monk Kūkai probably compiled the dictionary on the basis of Chinese dictionaries he had learned about while studying in China, since it follows both the arrangement of the entries and the structure of the content of each entry in the dictionary 玉篇 (Chinese *Yùpiān*, Japanese *Gyokuhen* or *Gokuhen*) compiled by Gu Yewang 顧野王 (Japanese: Ko Yaō) in the 6th century, and likewise contains characters arranged according to the graphic principle of semantic radicals, with a description of the pronunciation according to the *fănqiè* system and an explanation of the meaning.

155

Almost at the same time, in 831, the Confucian philologist Shigeno no Sadanushi 滋野貞主, at the Emperor's command, compiled another comprehensive dictionary in a thousand scrolls, the *Hifuryaku* 秘府略 (*Treasury of Definitions*), which survives only in part. It contains information from hundreds of Chinese sources, arranged according to semantic criteria.

In addition to dictionaries in the strict sense, it is also worth mentioning glossaries of the *ongi* 音義 type, which collected glosses and commentaries on particular sutras or other classical works. Since they are limited to one specific work, they are not general dictionaries in the strict sense, but they are the earliest examples of lexicographical works from which modern and later dictionary editors drew. *Ongi* glossaries appeared in the 8th century; the earliest of those produced in Japan is the *Shin'yaku kegonkyō ongi shiki* 新訳華厳経音義私記 from the late 8th century, which lists the characters, compound words and harder-to-understand terms in the Avataṃsaka sutra, or *Kegonkyō* 華厳経 in Japanese, in the order in which they appear in the sutra. It lists meaning and pronunciation glosses in classical Chinese for most terms, but it also includes some 160 explanations in Japanese, written according to the *man'yōgana* principle, partly with the same choice of characters as used in the *Man'yōshū* collection (Okimori et al. 2008, 26-27). The work is therefore not only an important testimony to the development of philology at the time, but also a primary source for research on the development of the Japanese phonetic system.

4.2 Innovations in Japanese lexicography

4.2.1. Japanese translations

The first innovation that Japanese lexicography brought to dictionaries, which were originally based on Chinese models, was the addition of Japanese explanations or translations to individual entries. Yamada (1943, 77) describes this as a "natural" development (*shizen no sei* 自然の勢) going from the first annotated transcriptions, which explained the pronunciation or meaning of the more difficult passages and which appeared as soon as writing was adopted, through the first *ongi* 音義 glossaries, i.e. lists of comments and explanations to individual texts, to the final stage, dictionaries of Classical Chinese with Japanese explanations. Bailey points out that while Yamada provides a reasonable account of the conceptual evolution of Japanese lexicography, this study overlooks the interactions and overlapping developments of all these sources, since commentaries were in fact used not
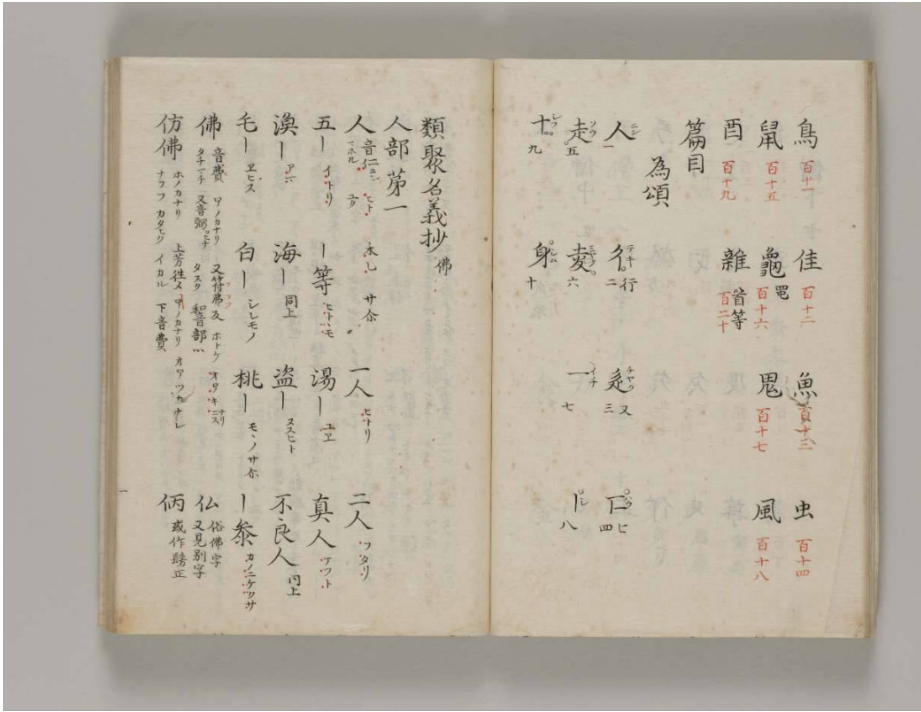
Figure 1: The *Ruiju myōgishō* dictionary (transcript held by the National Institute of Japanese Literature 国文学研究資料館) (https://kotenseki.nijl.ac.jp/biblio/200017313/viewer/22).

only in the texts but also in most of the dictionaries, while at the same time the dictionaries later served as the basis for, and the tools used in, the compilation of new *ongi* glossaries (Bailey 1960, 8).

The oldest dictionary to include Japanese glosses to Chinese characters is the *Shinsenjikyō* 新撰字鏡 (*Mirror of Characters, New Selection*), compiled between 898 and 901 by the Buddhist monk Shōjū 昌住 as a tool for reading difficult characters. It contains approximately 21,300 Chinese characters, which are arranged graphically, based on semantic radicals, and thus belongs to the category of *jisho* 字書. It uses only 160 radicals and is therefore a simplification compared to the above-mentioned Chinese dictionary 玉篇 *Yùpiān / Gyokuhen*, which uses 542 radicals. While the primary organizing principle is graphic, characters within each graphic category are classified partly into semantic fields, and partly by pronunciation, according to the four

tones order (Sakakura 1950; Fukuda 1971/72). Each entry includes the character's pronunciation in Chinese as well as its pronunciation (or translation) in Japanese, which is written according to the *man'yōgana* system, i.e. exclusively in Chinese characters.

This work was later the basis for the dictionary *Ruiju myōgishō* 類聚名義抄 (*An Annotated Classification of Pronunciations and Meanings*), which was compiled in the 11ᵗʰ century (Kaneko 1996, 269) and later revised several times. The *Ruiju myōgishō* dictionary contains 32,000 characters or character compounds, which are arranged according to their graphic form by semantic radicals, but the number of these radicals – when compared with the *Shinsenjikyō* dictionary – is here further reduced to 120. Each entry contains, alongside the main character or character compound, a Chinese pronunciation (*on'yomi*) according to the *fănqiè* system and a Japanese pronunciation, i.e. translation into Japanese (*kun'yomi*), written partly in *man'yōgana* and partly in *katakana*, as illustrated in Figure 1. The Japanese pronunciations also have tone markings, marking the accent in Japanese, making the dictionary a valuable resource for research into the evolution of the Japanese sound system in the Heian period (Yamada 2003). The dictionary also contains quotations from classical Chinese literature, and was meant both as an aid to reading and to writing.

The second oldest dictionary containing Japanese translations is the *Wamyō ruijushō* 和名類聚抄 (or also 倭名類聚鈔 or 倭名類聚抄 or abbreviated Wamyōshō 和名抄 or 倭名鈔 or 倭名抄), compiled in 931–938 by Minamoto no Shitagō 源順 at the behest of Princess Kinshi or Isoko 勤子, fourth daughter of Emperor Daigo 醍醐 (Yamaguchi et al. 1996, 81). Several transcriptions survive, the shortest comprising 10 volumes and the longest 20. The dictionary collects mostly nouns, which are arranged semantically along the lines of the Chinese dictionary 爾雅 (Chinese *Ěryǎ,* Japanese *Jiga*, 3ʳᵈ century BCE), with Japanese equivalents (translations, explanations, or commentaries) added to each headword in *man'yōgana* notation, perhaps because the dictionary was intended for a woman (Konno 2014b, 94).

Figure 2 shows how the translations (the native Japanese equivalents of the Chinese headwords) are written half the size of the *man'yôgana* characters. For example, under the headword 星 ("star"), the author first quotes from the dictionary 説文解字 (Chinese *Shuōwén jiězì*, Japanese *Setsumon kaiji*; this is the part in large characters beginning with 説文云, literally "*Shuōwén* states ... "); the entry ends with the word 和名 (*wamyō*, "Japanese name") in smaller characters, followed by the spelling of the native Japanese word *ho-*

shi (meaning "star") in Chinese characters according to the *man'yôgana* system, i.e. 保之 (*hoshi*). Sometimes the mark 和名 (*wamyō*, "Japanese name") is omitted, as in the following entry for 明星, where the entry ends in 阿加保之, i.e. the phonetic spelling of the word *akahoshi* according to the *man'yôgana* system. Figure 2 shows a transcription of the dictionary with readings in *katakana* to the right of most headwords and *kunten* markings added to the explanations.
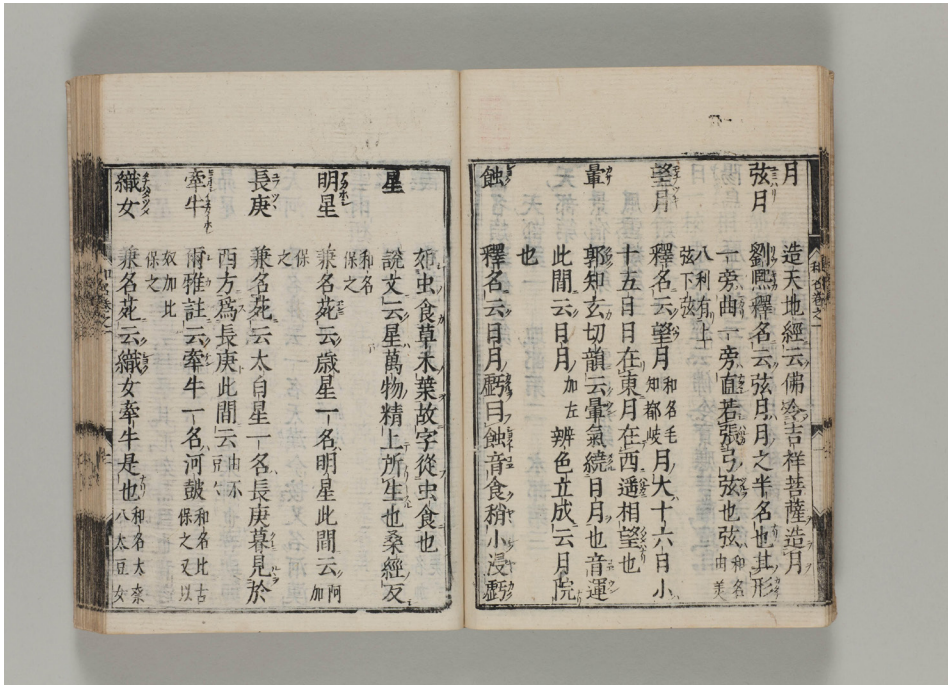
Figure 2: *Wamyō ruijushō* (from the Dataset of Pre-Modern Japanese Text of the National Institute of Japanese Literature, provided by the Center for Open Data in the Humanities) (http://codh.rois.ac.jp/iiif/iiif-curation-viewer/index.html?pages=200020691&pos=11, DOI:10.20730/200020691).

In the dictionaries containing Japanese translations and explanations of Chinese characters or words we can thus see the beginning of bilingual lexicography in Japan, which was indispensable for reading and writing in the diglossic environment of premodern Japan. From the introduction of Classical Chinese as the chosen prestige tool of written communication between the 6th and 8th centuries, to the deliberate unification of spoken and written language at the end of the 19th and the beginning of the 20th, the Japanese diglossic linguistic space consisted of, on the one hand, a spoken language that changed

over the centuries, and, on the other hand, a written language that did not take these changes into account. The written language was further subdivided into the native *wabun* style and the Chinese *kanbun* style (Frellesvig 2010). In the native *wabun* style, archaic forms were preserved over the centuries, despite changes in speech at the level of sound, morphology, syntax and vocabulary. The *kanbun* style, on the other hand, was actually a foreign language, originally Classical Chinese rather than Japanese, which became part of the linguistic repertoire of Japanese educated people over centuries of use (Clements 2015). This is probably also why, in the Japanese lexicographical tradition, dictionaries containing Chinese characters or words with Japanese equivalents or explanations do not belong to the same category as the bilingual dictionaries that began to emerge at the time of contact with European languages, even though they also juxtapose the vocabularies of two originally separate language systems (Tono 2016). However, since Classical Chinese (especially its vocabulary, and to a lesser extent its syntax) has been part of Japanese linguistic education throughout history, lexicographical works that offer Japanese explanations alongside Chinese characters are categorised separately in the Japanese tradition from bilingual dictionaries which juxtapose Japanese and foreign language in alphabetic script.

4.2.1. Distribution of entries according to Japanese pronunciation

The second major innovation in Japanese lexicography was the new ordering of entries according to their Japanese pronunciations. The first use of Japanese pronunciation as a criterion for the arrangement of dictionary entries can be traced back to the pedagogical-encyclopedic dictionary *Shōchūreki* 掌中歴 (Manual Calendar or Handbook), compiled in 1122 by Miyoshi Tameyasu 三善為康. The handbook is basically organised according to semantic criteria as an encyclopaedia of contemporary culture, the entries are grouped into semantic categories and the whole work falls under the category of *bunruitai jisho* 分類体辞書, but in the category *myōjishū* 名字集, which lists surnames, these are arranged in the order of the *Iroha* (Bailey 1960, 13). *Iroha* is a pangram, i.e. a poem containing all the syllables of the Japanese syllabary, and each only once. For this reason it came to be used as an ordering ("collation") criterion for arranging Japanese words, similar to the way alphabetical order is used as a criterion for arranging words or character strings in the Latin script.

Table 1: The *Iroha uta* poem

Original *hiragana* with Romanization	Modern spelling and pronunciation	Translation into English
いろはにほへと i ro ha ni ho he to	色は匂へど Iro wa nioedo	Even the fragrant blossoms,
ちりぬるを chi ri nu ru wo	散りぬるを chirinuru o	Will scatter.
わかよたれそ wa ka yo ta re so	我が世誰ぞ Wagayo darezo	Who in this world
つねならむ tsu ne na ra mu	常ならん tsune naran	Will always be?
うゐのおくやま u wi no o ku ya ma	有為の奥山 Ui no okuyama	Mountains of impermanence
けふこえて ke fu ko e te	今日越えて kyō koete	Let us cross them today
あさきゆめみし a sa ki yu me mi shi	浅き夢見じ Asaki yume miji	Without shallow dreams
ゑひもせす we hi mo se su	酔ひもせず yoi mo sezu	And without delusions.

Not long after this manual, at the beginning of the Kamakura period, the first work was produced in which all the dictionary entries were arranged in the order of the *Iroha* poem. This is the *Iroha jiruishō* 色葉字類抄 or 伊呂波字類抄 dictionary, compiled by Tachibana Tadakane 橘忠兼 between 1144 and 1145, and then continually updated over a period of almost 40 years. The first edition was probably in two volumes, the earliest surviving edition is in three volumes, and there is also an updated edition with a title that has the same pronunciation but a different spelling, i.e. 伊呂波字類抄, in ten volumes (Okimori et al. 2008, 42; Konno 2014b, 131). In this dictionary the words are arranged into 47 chapters according to their first syllable in the order of the *Iroha* poem, and within each sound-based chapter into a further 21 semantic categories (Bailey 1960, 18):

ten 天 ("heaven"),

chigi 地儀 ("geography"),

shokubutsu 植物 ("plants"),

dōbutsu 動物 ("animals"),

jinrin 人倫 ("human relations, morals"),

jintai 人体 ("human body"),

> *jinji* 人事 ("human affairs"),
>
> *inshoku* 飲食 ("food and drink"),
>
> *zōmotsu* 雑物 ("miscellaneous goods"),
>
> *kōsai* 光彩 ("colours"),
>
> *hōgaku* 方角 ("directions"),
>
> *inzū* 員数 ("numbers"),
>
> *jiji* 辞字 ("words", containing characters that do not belong to other categories, are written with one character and are linked to the same *kun'yomi*, i.e. are pronounced or interpreted with the same Japanese word; they are arranged in order of ascending syllable count),
>
> *jūten* or *chōten* or *chōden* 重点 ("repetition", these are words in which the same morpheme is repeated, which can express plurals, such as 年々トシトシ *toshitoshi* "years"),
>
> *jōji* 畳字 ("repeated characters", this category lists multi-morphemic Sino-Japanese words, such as 陰晴 インセイ *insei* "cloudy and clear ", etc.),
>
> *shosha* 諸社 ("Shinto shrines"),
>
> *shoji* 諸寺 ("Buddhist temples"),
>
> *kokugun* 国郡 ("lands and localities"),
>
> *kanshoku* 官職 ("official titles, functions"),
>
> *seishi* 姓氏 ("clan names, patronymics"),
>
> *myōji* 名字 ("family names").

The dictionary also contains everyday native words. Each word is listed in Chinese characters with its pronunciation in *katakana*, and some words have additional explanations in the Chinese *kanbun* style. These explanations are relatively few in number and are clearly intended as semantic indices of polysemous words rather than to provide a broader semantic explanation of all the Japanese words contained.

This suggests that the dictionary was probably organised in such a macrostructure in order to serve as an aid to writing texts and poems, rather than for reading older texts with archaic or lesser-known words, which is a feature of its predecessors.

The order of the *Iroha* poem was well known in the late Heian period. Organised in this way, the dictionary allowed users to quickly find the spelling of any common word for which they wanted to check the standard written form. Until then, dictionaries of the type 切韻 (Chinese: *Qièyùn* or Japanese:

Setsuin) were used to write or find the correct form of the desired word in the order of their pronunciation in Chinese (*on'yomi*), although this clearly required prior knowledge of the Chinese pronunciation of the desired character, or dictionaries of the *bunruitai* 分類体 type, in which words are arranged according to semantic categories, such as the Japanese *Wamyō ruijushō* 和名類聚抄, but where searches could be very time-consuming.

Rather than following the categories of the 10th century *Wamyō ruijushō* 和名類聚抄 dictionary, the list of categories in the *Iroha jiruishō* dictionary is more akin to the categorizations, based on Chinese models, that are found in the two dictionaries of Japanese words for writing Japanese-style poetry from the beginning of the 12th century, the *Kigoshō* 綺語抄 (*Handbook of Rare Words*), compiled by *Fujiwara no Nakazane* 藤原仲実, and the *Waka dōmōshō* 和歌童蒙抄 (*Introductory Guide to Writing Japanese Songs*), by Fujiwara no Norikane 藤原範兼 (Bailey 1960, 18-20). However, by introducing a basic arrangement according to the pronunciation of words in Japanese, *Iroha jiruishō* made it easier and faster to access information about word forms. The introduction of collation according to the established order of Japanese pronunciation was thus a distinctly practical move, bringing the dictionary to a wider audience of less skilled writers.

The *Iroha jiruishō* dictionary, the last great dictionary of the Heian period, thus introduced innovations that were highly practical, while still reflecting the influence of the classification systems found in Chinese literary anthologies. This can be attributed to the fact that its author, like most Heian-era lexicographers, was also a literary scholar.

The *Iroha jiruishō* had a profound influence on the later development of Japanese lexicography. The *Setsuyōshū* 節用集 (literally "A Collection That Requires Little Effort"), was compiled on the same principle.

In the following Kamakura (1185–1333) and Muromachi (1336–1392) periods, the use of dictionaries, which until the Heian period had been mainly restricted to monks and literati among the nobility, also became widespread among soldiers, thanks in part to the pedagogical zeal of the Zen monks (Bailey 1960, 24). The dictionaries produced in the Muromachi period were mostly compiled by anonymous Zen monks for practical pedagogical reasons rather than for the purpose of philological analysis. This era also saw the emergence of publishing houses in towns outside the capital and the spread of movable-type printing, which was taken over from the Korean peninsula at the end of the 16th century, all of which led to a wider reach of dictionaries and their use outside the capital and beyond the elites.

The Muromachi period saw the emergence of practical dictionaries designed to aid reading and writing, combining the data and macrostructures of various previous types of dictionary. The dictionary from this period that underwent the most reprints and revisions was the *Setsuyōshū* (or *Secchōshū*) 節用集. It was created between 1444 and 1474 (Okimori et al. 2008, 52). Like the *Iroha jiruishō*, the *Setsuyōshū* is primarily organised according to the pronunciation of Japanese words, in the order of the *Iroha* poem, while within each section, words beginning with the same syllable from the *Iroha* series are further arranged into semantic categories ranging from *tenchi* 天地 "natural phenomena" to *genji* 言辞 "words" that do not belong to other categories. More than 50 versions of the original *Setsuyōshū* dictionary survive, and in the later Edo period the name *Setsuyōshū* became synonymous with the term "dictionary" in general, resulting in hundreds of different works with this name.

In the Edo period (1603–1867) dictionaries were no longer just tools for checking the correct form of words or the pronunciation of unfamiliar characters, but more broadly pedagogically oriented manuals with the characteristics of textbooks. The large-format editions of the *Setsuyōshū* 節用集, the most widely used dictionary in the Edo period, contained an increasing number of appendices and annexes. For example, the *Dai Nippon eitai setsuyou mujinzō* 大日本永代節用無尽蔵 dictionary, printed in 1750, contains no fewer than 170 appendices with lists of place names, plants, diseases, names of the months, maps, recipes, etc., partly before the main part (100 pages in size) containing dictionary entries, and partly after it (Yuasa 1995, 229-230).

5   Reflections of social change in the development of Japanese pre-modern lexicography

While in the Heian period the sphere of dictionary compilers more or less coincided with the limited circle of people who also used those same dictionaries (philologists and literati from the ranks of nobility, and monks), in the Kamakura period a dividing line was gradually drawn between compilers and users, i.e. between the few philologists who compiled the dictionaries and the ever-widening circle of literate people who used them (Akutsu 2005, 168).

From the Nara and Heian periods to the end of the Muromachi period, several shifts in the use of dictionaries can be observed.

While the first dictionaries were mainly tools for reading and understanding unfamiliar words, organised primarily either according to the form of the characters or according to semantic criteria into semantic fields, with the

spread of literacy user-friendly dictionaries, organised phonetically and serving as writing aids, gradually developed and spread.

The first dictionaries were mainly intended for philological study and a relatively limited circle of people, while later dictionaries served the everyday needs of a growing number of readers and writers.

In the Edo period, the spread of literacy and education among the lower social classes and the development of commercially oriented publishing businesses led to the expansion of the use and production of dictionaries, which also became increasingly convenient and user-friendly. The first dictionaries for children were also produced at this time (Sekiba 1993).

The history and development of Japanese lexicography thus reflects changes in Japanese society related to language and literacy. These occurred from the Nara and Heian periods, when members of the priestly and noble castes had a virtual monopoly on knowledge and its dissemination in written form, to the relative democratization of knowledge in the Edo period, when the broader masses gradually gained access to writing and printed books.

It is therefore perhaps no coincidence that in parallel with the gradual shift away from elitism and a strictly hierarchically organised society towards a relatively more democratically organised one, there was also a shift away from the predominantly hierarchical macrostructures in dictionaries, organised by semantic categories, towards a more egalitarian arrangement of words according to a standardised order of pronunciation, which can be seen not only in Japan with the adoption of the pronunciation order in the *Iroha* poem (and later the more scientific *fifty sounds* order *gojūonjun* 五十音順), but also in the adoption of the alphabetical order in the arrangement of words in dictionaries in Europe during the late Middle Ages (Weijers 1989; Daly and Daly 1964). Such changes were only possible after the emergence and spread of a standardised word order (collation norms) and standardised orthography, and with the spread of universal literacy.

Sources

Akutsu, Satoru 阿久津智. 2005. "Nihon ni okeru jisho no shiyō ni tsuite" 日本における辞書の使用について [On the Use of Dictionaries in Japan]. *Takushoku daigaku gogaku kenkyū – Takushoku Language Studies* 拓殖大学語学研究 110: 163–173. https://ci.nii.ac.jp/naid/110004812496/.

Bailey, Don Clifford. 1960. "Early Japanese Lexicography." *Monumenta Nipponica* 16 (1/2): 1–52. doi: 10.2307/2383355.

———. 1960b. "The Rakuyōshū." *Monumenta Nipponica* 16 (3/4): 289–376. doi: 10.2307/2383204.

———. 1962. "The Rakuyōshū [Continued]." *Monumenta Nipponica* 17 (1/4): 214–264. doi: 10.2307/2383263.

Bekeš, Andrej. 1999. "Pojmovni okvir za klasificiranje sistemov kitajske in japonske pisave." [A Conceptual Framework for Classifying the Chinese and Japanese Writing Systems.] *Azijske in afriške študije / Asian and African Studies* 3 (1/2): 218–238.

———.2024. "Where Have the Chinese Characters Gone? Modernization of Writing Systems in the Periphery of the Sinographic Cosmopolis". In *Foundations and Futures: East Asian Intellectual, Political and Linguistic Landscapes*, translated and edited by Marko Ogrizek, ppg. 171–188. Ljubljana: Znanstvena založba Filozofske fakultete Univerze v Ljubljani.

Boltz, William G. 1989. "The typological analysis of the Chinese script: A review article of John DeFrancis. Visible Speech, the Diverse Oneness of Writing Systems. Honolulu: University of Hawaii Press, 1989.« *Sino-Platonic Papers* (14): A-1–A-9. http://sino-platonic.org/complete/spp014_chinese_book_reviews.pdf.

———. 1994. *The Origin and Early Development of the Chinese Writing System*. New Haven, CT: American Oriental Society.

Clements, Rebekah. 2015. *A Cultural History of Translation in Early Modern Japan*. Cambridge: Cambridge University Press.

Coulmas, Florian. 1989. *The Writing Systems of the World*. Oxford: Blackwell.

———. 1996. *The Blackwell Encyclopedia of Writing Systems*. Oxford: Blackwell.

Daly, Lloyd W. and B. A. Daly. 1964. "Some Techniques in Mediaeval Latin Lexicography." *Speculum* 39 (2): 229–239. doi: 10.2307/2852727.

Daniels, Peter T. 2001. "Writing systems." In *The Handbook of Linguistics*, edited by Mark Aronoff and Janie Rees-Miller, 43–80. Oxford: Blackwell.

Frellesvig, Bjarke. 2010. *A History of the Japanese Language*. Cambridge: Cambridge University Press.

Fukuda, Yoshikazu 福田益和. 1971–1972. "Kojisho ni okeru bushu hairetsu no kijun – Shinsen jikyō to Ruiju myōgishō" 古辞書における部首排列の基準 -新撰字鏡と類聚名義抄 [How to Classify 'Bushu' in the Old Dictionaries Published in Japan]. *Nagasaki daigaku kyōyōbu kiyō Jinbunka-gakuhen* 長崎大学教養部紀要 人文科学篇 〔上〕12: 1–9, 〔下〕13: 1–10.

Haas, William. 1976. "Writing: The basic options." In *Writing Without Letters*, edited by William Haas, 131–208. Manchester: Manchester University Press.

———. 1983. "Determining the Level of a Script." In *Writing in Focus*, edited by Florian Coulmas and Konrad Ehlich, 15–29. Berlin: Mouton.

Hartmann, Reinhard R. K. 2006. "Onomasiological dictionaries in 20th-century Europe." *Lexicographica – International Annual for Lexicography / Internationales Jahrbuch für Lexikographie* 21: 6–19. doi: 10.1515/9783484604742.6.

Hayakawa, Isamu 早川勇. 2001. "Igirisu to Nihon ni okeru jisho no tanjō" イギリスと日本における辞書の誕生 [The Emergence of Dictionaries in Britain and Japan]. *Ningen to kankyō: Ningen kankyōgaku kenkyūjo kenkyū hōkoku* 人間と環境：人間環境学研究所研究報告 [Journal of Institute for Human and Environmental Studies] 4: 31–40.

Hayashi, Chikafumi 林史典. 1989. "Nihon kanji-on to hansetsu: Myōgaku *Han'on sahō* oyobi Mon'nō *Hansetsu bakkahen* no 'hansetsuhō'" 日本漢字音と反切：明覚『反音作法』および文雄『翻切伐柯篇』の''反切法'' [On the Fan-ts'ie in the Old Japanese Texts]. *Bungei gengo kenkyū Gengohen* 文藝言語研究言語篇 15: 170–155. http://hdl.handle.net/2241/13570.

Hirakawa, Minami 平川南, Okimori Takuya 沖森卓也, Sakaehara Towao 栄原永遠男 and Yamanaka Akira 山中章. 2006. *Moji hyōgen no kakutoku* 文字表現の獲得 [Mastering Written Expression]. Tokyo: Yoshikawa Kōbun- kan 吉川弘文館.

Hjelmslev, Louis. 1938/1971. "Essai d'une théorie des morphèmes." *Essais linguistiques*, Paris: Éditions de Minuit. 161–173 [1971 reprint of a paper presented at the 4th Congress of Linguists in Copenhagen in 1936, first published as part of the proceedings in 1938].

Ikeda, Shōju 池田証寿. 1994. "Tenrei banshō meigi deetabeesu ni tsuite" 篆隷万象名義データベースについて [A Database for Tenrei-bansho-meigi]. *Kokugogaku* 国語学 178: 68–60.

JACET Society of English Lexicography 大学英語教育学会英語辞書研究会, Ishikawa Shin'ichirō 石川慎一郎, Minamide Kōsei 南出康世, Murata Minoru 村田年 and Tōno Yukio 投野由紀夫. 2006. *English Lexicography in Japan* - 日本の英語辞書学. Tokyo: Taishūkan 大修館.

Kaneko, Akira 金子彰. 1996. "Ruiju myōgishō" 類聚名義抄. In *Nihon jisho jiten* 日本辞書辞典 *: The Encyclopaedia of Dictionaries Published in Japan*, edited by Takuya Okimori 沖森卓也 et al., 269–272. Tokyo: Ohfu おうふう.

Kawase, Kazuma 川瀬一馬. 1955. *Kojisho no kenkyū* 古辞書の研究 [Research into Ancient Dictionaries]. Tokyo: Kōdansha 講談社.

Kindaichi, Haruhiko 金田一春彦. 1996. "Kokugo jiten no ayumi" 国語辞典の歩み [Development of Monolingual Japanese Dictionaries]. In *Nihon no*

jisho no ayumi 日本の辞書の歩み [Development of Japanese Dictionaries], edited by the Jiten Kyōkai Society 辞典協会, 16–52. Tokyo: Jiten Kyōkai 辞典協会.

Konno, Shinji 今野真二. 2014a. *Jisho kara mita nihongo no rekishi* 辞書から みた日本語の歴史 [The History of Japanese as It Appears in Dictionaries]. Tokyo: Chikuma shobō 筑摩書房.

―――. 2014b. *Jisho o yomu* 辞書をよむ [Reading Dictionaries]. Tokyo: Heibonsha 平凡社.

Lendinara, Patrizia. 1999. *Anglo-Saxon Glosses and Glossaries (Variorum CS622)*. Aldershot: Ashgate Publishing.

Li, Yuan, Woongchul Shin and Kazuhiro Okada. 2016. "Japanese rendition of Tenrei bansho meigi's definition in early Japanese lexicography: An essay." *Journal of the Graduate School of Letters of Hokkaido University* 北 海道大学文学研究科 11: 83–96. doi:10.14943/jgsl.11.83

Lurie, David. 2011. *Realms of Literacy: Early Japan and the History of Writing*. Boston: Harvard University Asia Center.

Mlakar, Barbara and Iztok Ilc. 2009. Predlogi za zapisovanje in pregibanje besed iz japonskega jezika. [Suggestions for the Transcription and Inflection of Japanese Words]. *Azijske in afriške študije / Asian and African Studies* 13 (2): 3–13. http://www.dlib.si/?URN=URN:NBN:SI:DOC-NA4G-0GV9.

Nishizaki, Tooru 西崎亨. 1995. *Nihon kojisho o manabu hito no tame ni* 日本 古辞書を学ぶ人のために [Introduction to the Study of Ancient Japanese Dictionaries]. Tokyo: Sekaishisōsha 世界思想社.

Nito, Masahiko 二戸麻砂彦. 2012. "Setsuyō monji no kana hansetsu" 節 用文字の仮名反切 [*Fǎnqiè* in Kana in the *Setsuyō Monji* Dictionary]. *Yamanashi kokusai kenkyū – Yamanashikenritsu daigaku Kokusai seisaku gakubu kiyō* 山梨国際研究：山梨県立大学国際政策学部紀要 7: 1–16.

Okimori, Takuya 沖森卓也, Kurashima Tokihisa 倉島節尚 and Makino Takenori 牧野武則. 1996. *Nihon jisho jiten* 日本辞書辞典 [The Encyclopaedia of Dictionaries Published in Japan]. Tokyo: Ohfu おうふう社.

Okimori, Takuya 沖森卓也, Kimura Yoshiyuki 木村義之, Chen, Liwei 陳力衛 [チンリキエイ] and Yamamoto Shingo 山本真吾. 2006. *Zukai Nihongo* 図解日本語 [Japanese – Pictorial Guide]. Tokyo: Sanseido 三省堂.

Okimori, Takuya 沖森卓也, Kimura Hajime 木村一, Kimura Yoshiyuki 木村義 之, Chen Liwei 陳力衛 [チンリキエイ] and Yamamoto Shingo 山本真 吾. 2008. *Zusetsu Nihon no jisho* 図説日本の辞書 [Japanese Dictionaries – Pictorial Guide]. Tokyo: Ohfu おうふう.

―――. 2017. *Zusetsu Kindai Nihon no jisho* 図説近代日本の辞書 [Japanese Modern Dictionaries – Pictorial Guide]. Tokyo: Ohfu おうふう社.

Petrovčič, Mateja. 2024. "Conceptual Development of the Approaches to Writing Systems of the Five East Asian Regions from the Perspective of Information Technologies" In *Foundations and Futures: East Asian Intellectual, Political and Linguistic Landscapes*, translated and edited by Marko Ogrizek, ppg. 189–213. Ljubljana: Znanstvena založba Filozofske fakultete Univerze v Ljubljani.

Saje, Mitja. 1998. "Razvoj grafičnih oblik kitajske pisave." [Development of the Graphic Forms of Chinese Script] *Azijske in afriške študije / Asian and African Studies* 2 (1): 1–9.

Sakakura, Atsuyoshi 阪倉篤義. 1950. "Jisho to bunrui: Shinsen jikyō ni tsuite" 辞書と分類・新撰字鏡について [Dictionaries and their Macrostructure: the *Shinsen jikyō*]. *Kokugokokubun* 国語国文 19 (2): 46–59.

Sasaki, Isamu 佐々木勇. 2005. "Kojisho ni okeru hansetsu - dōonjichū e no seitenkaten ni tsuite" 古字書における反切・同音字注への声点加点について [Fǎnqiè in Old Dictionaries - On Accent Markings in the Notes to Homophones]. *Kuntengo to kunten shiryō* 訓点語と訓点資料115: 48–62. http://ir.lib.hiroshima-u.ac.jp/00014743.

Satō, Kiyoji 佐藤喜代治. 1981. *Kōza Nihongo no goi* 講座日本語の語彙 [Japanese Vocabulary - An Overview]. Tokyo: Meiji shoin 明治書院.

Satō, Takahiro 佐藤貴裕. 2002. "Kodomo to setsuyōshū" 子供と節用集 [Children and the Setsuyōshū]. In *Kokugo goishi no kenkyū 21* 国語語彙史の研究 *21*, edited by the Kokugo goishi kenkyūkai Society 国語語彙史研究会, 217–235. Tokyo: Izumi shoin 和泉書院.

Seeley, Christopher. 1991/2000. *A History of Writing in Japan*. Honolulu: University of Hawai'i Press [reprint 2000, first edition Leiden: Brill, 1991].

Sekiba, Takeshi 関場武. 1993. "Kodomo setsuyō, Terako setsuyōshū" 子供節用・寺子節用集 [Kodomo Setsuyō and Terako Setsuyōshū — Dictionaries for Children in Edo Era]. *Keiō gijuku daigaku Hiyoshi kiyō - Jinbun kagaku* 慶應義塾大学日吉紀要・人文科学 [The Hiyoshi review of the humanities] 8: 164 (1)-146(19).

Shcherba, Lev V. 1995. "Towards a General Theory of Lexicography", translation of "Opyt obshchei teorii leksikografii." *Izvestija Nauk* SSSR (1941) 3: 89-117, translated by Donna M. T. Cr. Farina), *International Journal of Lexicography* 8 (4): 314–350. doi: 10.1093/ijl/8.4.314.

Tarp, Sven. 2012. "Do we need a (new) theory of lexicography?" *Lexikos* 22: 321–332. doi: 10.5788/22-1-1010.

Taylor, Insup and M. Martin Taylor. 2014. *Writing and Literacy in Chinese, Korean and Japanese*. Amsterdam / Philadelphia: Benjamins.

Tono, Yukio. 2016. "Japanese Lexicography." In *Encyclopedia of Language & Linguistics: Second edition*, edited by Keith Brown, 105–109. Amsterdam: Elsevier.

Ueda, Kazutoshi 上田萬年(万年) and Hashimoto, Shinkichi 橋本進吉. 1916 (1968). *Kohon Setsuyōshū no kenkyū* 古本節用集の研究 [Research on Old Copies of the Setsuyōshū Dictionary]. Tokyo: Tōkyō Teikoku Daigaku Hakkō 東京帝国大学発行 (Bensei Shuppan Facsimile 勉誠出版 1968).

Yada, Tsutomu 矢田勉. 2005. "*Yamato katakana hansetsu gige* no seiritsu nendai ni tsuite" 『倭片仮字反切義解』の成立年代について [The Formation Age of Yamato-katakana-Hansetsu-Gige]. *Kōbe daigaku bungakubu kiyō* 神戸大学文学部紀要 32: 37–56.

Yamada, Yoshio 山田孝雄. 1943. *Kokugogakushi* 国語学史. Tokyo: Hōbunkan 寶文館.

Yamada, Kenzō 山田健三. 1995. "Nara - Heian jidai no jisho" 奈良・平安時代の辞書 [Dictionaries of the Nara and Heian Periods]. In *Nihon kojisho o manabu hito no tame ni* 日本古辞書を学ぶ人のために, edited by Nishizaki Tooru 西崎亨, Tokyo: Sekaishisōsha 世界思想社.

Yamada, Toshio 山田俊雄. 2003. *Nihon no kotoba to kojisho* 日本のことばと古辞書 [Languages of Japan and Ancient Dictionaries]. Tokyo: Sanseido 三省堂.

Yamaguchi, Akiho 山口明穂, Takebayashi Shigeru 竹林滋, Kindaichi Haruhiko 金田一春彦, Atsuji Tetsuji 阿辻哲次 and Kida Jun'ichirō 紀田順一郎. 1996. *Nihon no jisho no ayumi* 日本の辞書の歩み [The Evolutionary Path of Japanese Dictionaries]. Tokyo: Jiten Kyōkai 辞典協会.

Yong, Heming and Peng Jing. 2008. *Chinese Lexicography. A History from 1046 BC to AD 1911*. Oxford: Oxford University Press.

Yoshida, Kanehiko 吉田金彦. 1971. "Jisho no rekishi" 辞書の歴史 [The History of Japanese Dictionaries]. In *Kōza Kokugoshi 3 - Goishi* 講座国語史 3 -語彙史. Tokyo: Taishukan 大修館書店.

Yuasa, Shigeo 湯浅茂雄. 1995. „Edojidai no jisho 江戸時代の辞書." In *Nihon kojisho o manabu hito no tame ni* 日本古辞書を学ぶ人のために, edited by Nishizaki, Tooru 西崎亨. Tokyo: Sekaishisōsha 世界思想社.

Wan, Xianchu 万献初 and Liu, Huilong 刘会龙. 2019. *Shuowen-jiezi shi'er jiang* 说文解字十二讲 [12 Lectures on Shuowen-jiezi]. Beijing: Zhonghua shuju 中华书局.

Weijers, Olga. 1989. „Lexicography in the Middle Ages", *Viator* 20: 139—154. doi: 10.1484/J.VIATOR.2.301351.