

Original Research

The original Japanese expressions (*Yamato-kotoba*) of human body (the upper extremity)

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Abstract

Japanese culture has been under the continental (Chinese and Korean) cultures from the time when ancient Japanese started to adopt Chinese letters into Japanese language. Japanese people got the way of expressing the original Japanese names of human body with the similar sounds of Chinese letters; *Man'you-gana*, and, they also imported Chinese way of expression about those, because they need to import the current Chinese medical system at that time. Although at least two types of names (original Japanese and Chinese) have been existed, Japanese original vocabulary of human body might decrease gradually as Chinese medicine became prevalent in Japan. As Chinese medicine has been only reliable medicine up to the Edo period, almost all the anatomical terminology of the Western medicine was translated with Chinese words when the Western Medicine was imported into Japan. In the result, it is assumed that the original names of body by the original Japanese (*Yamato-Kotoba*) have considerably lost except the basic expressions. In this paper, the author prefers to use "*Yamato-Kotoba*" as the original Japanese words, because this word is well-known expression of traditional Japanese words.

Present study is aimed to collect the ancient Japanese words related to human body from the Japanese classical documents, and to understand their exact areas of the body from the present anatomical point of view. In this paper, various names of the upper extremities (from the shoulder to the fingers) are collected from the Japanese classical documents, especially from the *Wamyōruijūshō*, a lexicon compiled by *Shitagou Minamoto* in the *Heian* period. Through investigating their usages of these names, we could find 26 original Japanese expressions about the upper extremity. Moreover, in order to show exact areas where these words indicate, they were expressed on the body map.

Key words: *Yamato-Kotoba*, Anatomy, upper extremities

Introduction

When the ancient Japanese began to write the names of human body with Chinese letters, they had to learn how had Chinese people expressed human body with Chinese letters, and also which Chinese letters would be suitable for this or that parts of human body. Although the ancient Japanese must have their own vocabulary about human body, they necessarily had to learn Chinese medical vocabulary of human body. Because they imported the Chinese medicine

including Chinese anatomy. After adopting Chinese Medicine, Chinese names of body parts became popular and many original Japanese body names by *Yamato-Kotoba* must diminish. The author prefers to use the word, *Yamato-Kotoba* as the original Japanese words in this paper. The original Japanese includes *Man'you-gana* appeared in *Kojiki*, *Nihonshoki* and *Man'yōshū*. Moreover, it also includes Japanese translation (*Wamyō*) appeared in *Wamyōruijūshō* and *Shinsenjikyō* and guiding *Kana* along the *Kanji* letters added on the many classical documents.

When the Western Medicine was imported in the late 19th century, most Latin names were translated into Japanese with the terminology of the traditional Chinese medicine. Therefore, the ancient and original Japanese expressions of body parts are assumed to be lost except the essential words.

In general, the basic vocabulary like the names of human body parts will not change in long period of time. For example, the present Japanese words, “*Te* (meaning of hand)” and “*Ashi* (meaning of foot)” can be found in the classical documents written in 8th century. But such basic words tended to create the derivative words with the passage of time, or the indicating portion of the words might change. By using the attributive particle “*no*”, more precise areas of body can be expressed. For example, by expression of “*A-no-B*”, we are able to understand that the portion B is a whole part of A. The explanatory expression like, “*Te (A)-no-hira (B)*” means the flat portion (B) of whole hand (A); namely, palm. The similar expression like, “*Ashi (A)-no-ura (B)*” means, the undersurface (B) of foot (A). However, these ways of expression tended to create rather long words. It would be very likely that these derivative words might give rise to inconveniences in the linguistics. Another extraordinary example is found in numeral words in *Nihonshoki*, written in 720 A. D.; the number of 1792470 was appeared to be read in the ancient manner as, *Momoyorozutose-amari, nanayorodutose-amari, kokonoyorodutose-amari, hutachitose-amari, yohotose-amari nanasotose-amari* (*Nihonshoki* 1994a). Comparing to the modern Japanese *On-yomi*-reading (*hyakunanaju-kyuman nisen yonhyaku nanaju*), this classical way of numeral reading is clearly unpractical. These inconveniences would partly be solved by adopting the *On-yomi* (the way of reading based on the Chinese pronunciation of the letters). These grammatical characteristics in the ancient Japanese might be one of the reasons for the ancient Japanese not to use the traditional Japanese body names.

On the other hand, the original Japanese words (*Yamato-Kotoba*) also contain simplicity and gentle expression, and are very precious cultural heritage. It would be very significant to collect these original names of the human body and to show the exact portions of what these words express. The results of this study would help to understand deeply the ancient Japanese people.

Methods

Most original Japanese names of the body parts can be found in the *Wamyōruijūshō* (Minamoto 1978a), a lexicon compiled by *Shitagou Minamoto* in the *Heian* period (10th century), of which each item is written in Chinese letter with the corresponding Japanese names written in *Man’yō-gana*. *Man’yō-gana* was the only way of writing Japanese words in 7-8th century, expressing Japanese pronunciation identifying to each Chinese letter. Although each Chinese letter originally has its meaning, the series of Chinese letters in *Man’yō-gana* mostly did not make sense, but express the sounds or reading. By reading these *Man’yō-gana*, we are able to know the original Japanese names of body part used in the 8-9th century.

Besides *Wamyōruijūshō*, the author also picked up other expressions of upper extremities, in *Kojiki* (written in 712 A. D.), *Nihonshoki* (written in 720 A. D.), *Man’yōshū* (compiled in 8th century) and other classical documents.

Numbered English names of body parts are listed first, then follows the identical *Yamato-kotoba* of that part in italic font. In some cases, the actual usages of the words are shown by quoting the sentences from the classical documents, as far as the English translations of the documents are available. In such cases, first, the original Japanese phrases of the documents are shown in Roman alphabet in italic font, then the English translations of the identical portion follow.

Results

The expressions by *Yamato-Kotoba* of the upper extremity are listed here, taken from various documents; *Kojiki*, *Nihonshoki*, *Man’yōshū*, *Wamyōruijūshō* and other literatures. The words taken from *Wamyōruijūshō*, are marked by asterisk (*) for distinguishing from the words from other documents. The description follows according to the order of anatomical description from shoulder girdle to the digits, the original Japanese names are shown as corresponding English anatomical terminology. Concerning compound words, especially with “*no*”, the words are divided into group of basic words for comprehensive explanation of the whole word, as follows;

[Japanese word (English) + attributive particle + another Japanese word (English) = compound English in word-for-word → English word of identical body part. For example, the word of old

Japanese word, “*tanasoko*” is explained as follows.

[*ta* (hand) + *na* (of) + *soko* (bottom) = bottom of hands → palm]

By this explanatory analyzation of *Yamato-Kotoba*, the way of grasping toward human body parts by ancient Japanese would be more comprehensive.

1. Upper and lower extremities : *Eta**, *Eda** (branches)

The example of “*eda*” expressing as the upper and lower extremities appears in *Kojiki*, Book2,

“*Asake ni kahaya ni irishitoki, machi torahe tukami hishigite, sono eda wo hikikaki, komo ni tutumi nage sutetsu.*” to *mawoshiki*. (Kojiki 1963e).

The English translation is as follows ;

“Early in the morning when he went into the privy, I waited and captured him, grasped him and crushed him, then pulled off his limbs (*Eda*), and wrapping them in a straw mat, threw them away” (Philippi 1968c 232).

2. Clavicle : *Katanohone** [*Kata* (shoulder) + *no* (of) + *hone* (bone) = bones of shoulders]

In *Wamyōruijūshō*, the explanation of this word quoted *Ketsubonkotsu* appeared in the text of acupuncture and moxibustion (*Shinkyūkyō*) (Minamoto, 1978a). The similar word “*Katabone*” is listed in “*Shintaiwamyōshū*” (Katsu 1861) as *Ketsubonkotsu*. In both cases, they are assumed to be clavicle.

3. Shoulder (including scapula) : *Kata**

The example of “*Kata*” expressing as the bone of shoulders appeared in *Kojiki* ;

Amenokoyanenomikoto, Futotamanomikoto wo yobite, Amenokaguyama no mawoshika no kata wo uchinuki ni nukite, Amenokaguyama no amenohahaka wo torite, uranahi makanahashimete, amenokaguyama no iwatumasakaki wo nekoji ni kojite... (Kojiki 1963a).

The English translation is as follows ;

They summoned *Amē-nō-ko-yane-nō-mikoto* and *Putotama-nō-mikōtō* to remove the whole shoulder-bone (*Kata*) of a male deer of the mountain *Amē-nō-kagu-yama*, and take heavenly *Papaka* wood from the mountain *Amē-nō-kagu-yama*, and perform a divination (Philippi 1968a). It is very clear here that “*Kata*” indicates deer’s scapula in this case, because this bone has been known to be used for fortune-telling.

4. Arm : *Kahina*

This word includes both edges of arm ; shoulder, elbow. The word of “*Kahina*” is not

found in *Wamyōruijūshō*, but appeared as meanings of shoulder in *Man’yōshū*.

Takadama wo ma naku nukitare, yufutasuki, kahina ni kakete, ama naru sasara no wono no Nanafusuge (Man’yōshū 2013a),

The English translation is as follows ;

“... and strung bamboo heads down a trailing cord, leaving not a gap. and hung strands of mulberry on my arms*. If only I had picked the seven-jointed sedge from the fields of *Sasara* in Heaven ... (Levy, 1981a)

*The English translation of this part is not correct. *Kahina* means “shoulder” here, not “arms”. Normally *tasuki* (*dasuki*) should be entwined around the both shoulders, not arms. However, the word of *Kahina* also has other usages expressing elbow and forearm, too.

5. Elbow : *Hichi**, *Hiji**

6. Forearm : *Tatamuki**, *Tadamuki**

[*ta* (arm) + *ta* (arm) + *muki* (facing) = both arms facing each other → forearm]

The example of “*Tadamuki*” expressing as the forearm appeared in *Kojiki*,

Ayakaki no fuhaya ga shita ni mushibusuma nikoya ga shitani takubusuma sayagu ga shitani awayuki no wakayaru mune wo takuzuno no shiroki tadamuki sodataki managari matamade tamade sashimaki (Kojiki 1963b).

The English translation is as follows ;

“Under silken curtains, the fluffy ones, under covers of *Musi* fibers, the soft ones, under covers of *Taku* fibers, the rustling ones, my breast, alive with youth, soft as the light snow, you will embrace with your arms white as rope of *Taku* fibers ...” (Philippi 1968b).

In ancient time, it seems that the white arm of female would be one of attracting points for male. There is a similar poem admiring white arm of the empress by the emperor *Nintoku* in *Kojiki* (Kojiki 1963f). According to “*Daigennkai*” (Ōtsuki, 1982) the first extensive Japanese dictionary, the word of “*Tadamuki*” is interpreted as “hands directing each other (*ta + ta + muki*)”, because both forearms are able to touch in parallel.

7. Forearm : *Ute**, *Ude**

According to *Wamyōruijūshō*, *Ute*, *Ude* is written as another name of *Tadamuki*.

8. Forearm : *Takufura*

[*ta* (hand) + *kufura* (= *komura*) (calf) = the portion like calf in arm → forearm]

The word of “*Komura*” is often pronounced as “*Kobura*”. The word of “*Kufura*” might

give rise to the words of “*Kobura*” and “*Komura*”. The expression of “*Takufura*” appears in *Nihongi*, Book14, *Yūryaku* ;
Wa ga tataseba, takuhura ni amu kakitsuki sono amu wo akizu haya kuhi hafu mushi mo ohokimi ni matsurahu. (Nihonshoki 1994d)

The English translation is as follows ;
 Whilst I was standing, my arm in the fleshy part, was stung by a gad-fly : but soon a dragon-fly that gad-fly did bite (Aston 1972c).

9. Forearm : *Takomura*

[*ta* (arm) + *komura* (calf) = the portion like calf in arm → forearm]

The same story above (No.16) was also described in *Kojiki*, Book1 Sovereign *Yūryaku*, but the word describing arm was different Japanese word, “*Takomura*”.
Shirotahe no sote kisonafu takomura ni amu kakitsuki sono amu wo akizu haya kuhi (Kojiki 1963g).

The English translation is as follows ;
 Of bleached white hemp were those sleeves arrayed on arms whose plump parts drew a biting horsefly, a horsefly that was then gobbled up by a dragonfly. (Heldt 2014c)

10. Wrist : *Tafushi, Tabushi*

[*ta* (hand) + *fushi* (joint) = joint of hand → wrist]

The expression of “*Tafushi*” as the wrist appeared in *Man'yōshū*.

Kushiro tsuku Tafushi no saki ni kefu mokamo ohomiyabito no tamamo karuram (Man'yōshū 2013a).

The English translation is as follows ;
 “On Cape *Tafushi*, hung with shell bracelets, today also do the courtiers cut the sleek seaweed?” (Levy, 1981a).

11. Hand : *Tafusa, Tabusa*

[*ta* (hand) + *fusa* (tassel) = tassel of hand → hand]

The expression of “*Tabusa*” as the hand appeared in *Yamato Monogatari*,
Oritsureba tabusa ni kegaru, tatenagara miyo no hotoke ni hana tatematsuru (Yamato Monogatari, 2006)

The English translation is as follows ;
 “If you pick the flower, it will stain your wrist, Let us offer it then, just as it grows, to the Buddha of Three Worlds” (Tahara, 1980)

This translation of the first 2 paragraphs is not correct. It would be better to translate that “If I pick the flower, my finger (hand) might put my dirt on it”.

12. Hand, (fore)arm, upper extremity : *Te*

13. Palm : *Tanakokoro**, *Tanagokoro**

[*ta* (hand) + *na* (of) + *kokoro* (heart) = heart of hands → palm]

The example of “*Tanakokoro*” expressing as palm appeared in “Essays in Idleness” (*Tsurezuregusa*), Column 194,

Mashite akirakanaram hito no madoheru warera wo min koto tanagokoro no ueno mono wo mingagotoshi (Yoshida 1965).

The English translation is as follows ;
 …while a man of real wisdom can observe us bewildered fools as clearly as if we sat in the palm of his hand (McKinney 2013).

14. Palm : *Tanasoko**

[*ta* (hand) + *na* (of) + *soko* (bottom) = bottom of hands → palm]

“*Tanasoko*” is listed as another expression of “*Tanakokoro*” in *Wamyōruijūshō*.

The expression of “*Tanasoko*” appears in *Nihongi*, Book15, *Kenzō* ;

Umasake Eka no ichi ni atahi mote kahanu tanasoko mo yarara ni uchiage tamahitu waga tokoyo tachi (Nihonshoki 1994c).

The English translation is as follows ;
 Sweet sake from *Yega* market-town, Not buying with a price, to the clear ring of hand-palms (*Tanasoko*), Ye will revel, Oh! my immortal ones! (Aston 1972d).

15. Fist : *Kofushi**, *Kobushi**

[*ko* (small) + *fushi* (knucle) = small knuckles → fist]

16. Lines on the hands (finger print) : *Tenoaya**

[*te* (hand) + *no* (of) + *aya* (twill) = twill of hands → lines on the hands (finger print)]

17. Crotch of fingers, interdigital space : *Oyohinomata**, *Oyobinomata**

18. Crotch of fingers, interdigital space : *Tanamata*

[*ta* (hand) + *na* (of) + *mata* (crotch) = crotches of hands → interdigital space]

The example of “*Tanamata*” expressing as crotch of hands appeared in *Kojiki*,

“Ko ha makoto ni wa ga ko zo. Ko no naka ni, waga tanamata yori kukishi ko zo. Kare imashi Ashiharashikoo to anioto to narite, sono kuni wo tsukuri katameyo” to nori-tamahiki (Kojiki 1963c).

The English translation is as follows ;
 “This indeed is my child, a child of mine so small that he slipped through my fingers (*Tanamata*). Therefore, I beseech you, o mighty one Grim Man of the Reed Plains, become his brother and together make firm the land and fashion it in its final form” (Heldt 2014a).

19. Finger : *Yuhi**, *Yubi**, *Oyohi**, *Oyobi**

Table 1 List of the part names in the text

| | <i>Yamato-Kotoba</i> 1 (unvoiced consonant) | <i>Yamato-Kotoba</i> 2 (voiced consonant) | corresponding English word | alternative meanings | references cited |
|----|--|--|-------------------------------|-------------------------|---|
| 1 | <i>Eta</i> * | <i>Eda</i> * | limb | | Kojiki 1963e, Philippi 1968c |
| 2 | <i>Katanohone</i> * | <i>Katabone</i> | clavicle | | Katsu 1861 |
| 3 | <i>Kata</i> * | | scapula | | Kojiki 1963a, Philippi 1968a |
| 4 | <i>Kahina</i> | | shoulder | arm, elbow, forearm | Man'yōshū 2013b, Levy 1981b |
| 5 | <i>Hichi</i> * | <i>Hiji</i> * | elbow | | |
| | <i>Tenoyohoro</i> | | cubital fossa | | Tamba 1977 |
| 6 | <i>Tatamuki</i> * | <i>Tadamuki</i> * | forearm | | Kojiki 1963b, Philippi 1968b, Ōtsuki 1982 |
| 7 | <i>Ute</i> * | <i>Ude</i> * | forearm | | |
| 8 | <i>Takufura</i> | <i>Takobura</i> | forearm | | Nihonshoki 1994d, Aston 1972c |
| 9 | <i>Takomura</i> | <i>Takobura</i> | forearm | | Kojiki 1963g, Heldt 2014c |
| 10 | <i>Tafushi</i> | <i>Tabushi</i> | hand | | Man'yōshū 2013a, Levy 1981a |
| 11 | <i>Tafusa</i> | <i>Tabusa</i> | hand | | Yamato Monogatari 2006, Tahara1980 |
| 12 | <i>Te</i> | | hand | upper extremity | Nihonshoki 1994a, Aston 1972a |
| 13 | <i>Tanakokoro</i> * | <i>Tanagokoro</i> * | palm | | Yoshida 1965, McKinney 2013 |
| 14 | <i>Tanasoko</i> * | <i>Tanazoko</i> * | palm | | Nihonshoki 1994c, Aston 1972d |
| 15 | <i>Kofushi</i> * | <i>Kobushi</i> * | fist | | |
| 16 | <i>Tenoaya</i> * | | lines on the hand | finger print | |
| 17 | <i>Oyohinomata</i> * | <i>Oyobinomata</i> * | interdigital space | | |
| 18 | <i>Tanamata</i> | | interdigital space | | Kojiki 1963c, Heldt 2014a |
| 19 | <i>Yuhi</i> * | <i>Yubi</i> * | finger, digit | | |
| | <i>Oyohi</i> * | <i>Oyobi</i> * | finger, digit | | |
| 20 | <i>Oho-oyohi</i> * | <i>Oho-oyobi</i> * | thumb | 1st digit | Maeda 1985 |
| 21 | <i>Hitosashinooyohi</i> * | <i>Hitosashinooyobi</i> * | index finger | 2nd digit | Maeda 1985 |
| 22 | <i>Nakanooyohi</i> * | <i>Nakanooyobi</i> * | middle finger | 3rd digit | Maeda 1985 |
| 23 | <i>Nanashinooyohi</i> * | <i>Nanashinooyobi</i> * | ring finger | 4th digit | Maeda 1985 |
| 24 | <i>Ko-oyohi</i> * | <i>Ko-oyobi</i> * | little finger | 5th digit | Maeda 1985 |
| 25 | <i>Tanasuwe</i> * | | fingertips | nails | Kojiki 1963d, Heldt, 2014b |
| 26 | <i>Tsume</i> * | | nails | finger | Man'yōshū 2013c, Levy 1981c |
| | <i>Tsumenokohu</i> * | | nails | | |

The exact pronunciations of the words written by *Man'yōgana* are not known. There are several possibilities to be pronounced either with unvoiced sound or with voiced sound in some cases. Therefore, two ways of reading are shown in this table as *Yamato-Kotoba* 1 and *Yamato-Kotoba* 2, respectively. The words taken from *Wamyōruijūshō*, are marked by asterisk (*).

20. Thumb (1st digit): *Oho-oyohi**, *Oho-oyobi**
[*oho* (big) + *oyobi* (finger) = big finger → thumb]
21. Index (2nd digit): *Hitosashi-no-oyohi**, *Hitosashi-no-oyobi**
[*hito* (person) + *sashi* (pointing) + *no* (of) + *oyobi* (finger) = finger of pointing-person → index]
22. Middle finger (3rd digit): *Nakanooyohi**, *Nakanooyobi**
[*naka* (center) + *no* (of) + *oyobi* (finger) = finger of the center → middle finger]
23. Ring finger (4th digit): *Nanashinooyohi**, *Nanashinooyobi**
[*na* (name) + *nashi* (without) + *no* (of) + *oyobi* (finger) = finger of no-name → ring finger]
24. Little finger (5th digit): *Ko-oyohi**, *Ko-oyobi**
[*ko* (small) + *oyobi* (finger) = small finger → little finger]
The fingers names with explanatory attri-

butive particle “*no* (of)” are assumed to appear later than those without “*no*” in the history of Japanese language.

[*oyobi* (fingers) + *no* (of) + *mata* (crotch) → crotches of fingers]

The historical transition of finger names was intensively described by Maeda (Maeda, 1985). He pointed out that the names of each finger described as above appeared to be used until about 1000A. D. and that the words of fingers began to be called shortly as “*Yobi*” or “*Yubi*” rather than “*Oyobi*” later. Moreover, other way of calling each finger also has been increased from that time.

These words of the upper extremity which explained in the text above are summarized in Table 1.

25. Fingertips, nails: *Tanasuwe**
[*ta* (hand) + *na* (of) + *suwe* (end) = end of hands → fingertips, nails]

The example of “*Tanasuwe*” expressing as finger appeared in *Kojiki* ;
Sono Takeminakatanokami, chibiki no iwa wo tanasuwe ni sasagete kite, “Ta zo waga kuni ni kite, shinobi shinobi kaku mono ifu” (Kojiki 1963d).

The English translation is as follows ;
 “As he was saying this, the spirit Brave Southward Smelter came by, carrying by his fingertips (*Tanasuwe*) a boulder that it would take a thousand men to pull, and spoke, saying : “Who is it who comes to our land and peaks so secretly and slyly?” (Heldt, 2014b)

26. Nail, surface of nail : *Tsume**, *Tsumenokohu** [tsume (nail) +no (of) +kohu (hard surface) =surface of nail]

In present Japanese, “*Tsume*” means nail, but in ancient Japanese, “*Tsume*” is assumed to express not only nail, but also finger, or fingertip. The expression of “*Tsumabiku*” as plucking strings with fingertips appeared in *Man’yōshū* ;

Azusayumi tsumabiku yoto no tohoto nimo kimi ga miyuki wo kikakushi yoshimo (Man’yōshū 1981c)

The English translation is as follows ;
 How good to hear of your procession, even the distant eco, the night sound of catalpa bowstrings plucked on fingertips (Levy, 1981c)

In order to pull bowstrings, we have to use fingertips, not nails.

All the *Yamato-Kotoba* words described are listed in the Table 1 and the areas indicated by these words are shown on the illustrated body maps (Figs 1, 2 & 3), with the corresponding numbers.

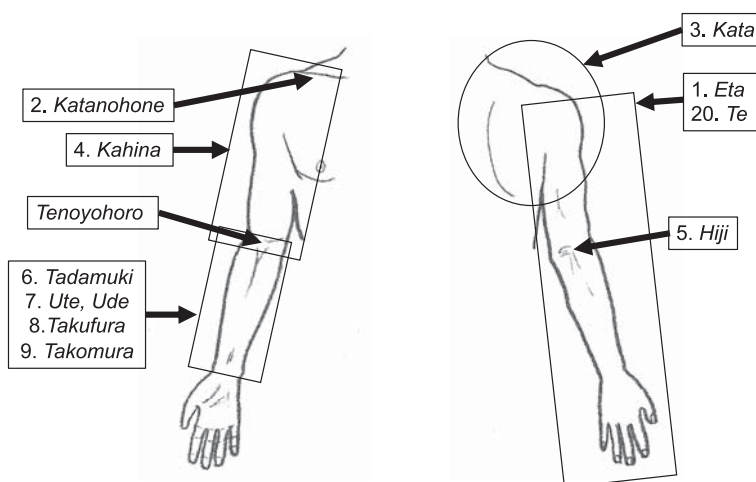
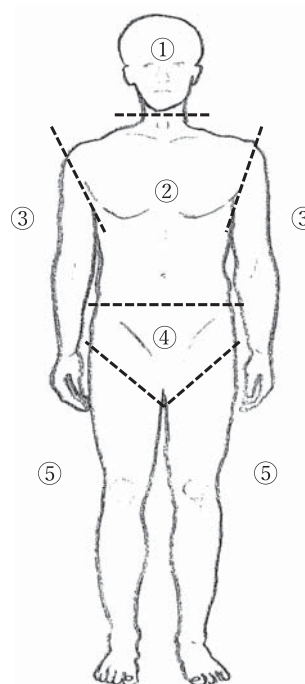


Figure 2 The areas which the names expressed by *Yamato-Kotoba* listed in the text are shown on the maps of the upper extremity. The numbers correspond to those of the text.



- ① head=*Kashira*
- ② trunk=*Mukuro*
- ③ upper extremities=*Te*
- ④ loins=*Koshi*
- ⑤ lower extremities=*Ashi*

Figure 1 The body of *Kagutsuchi* was cut by Izanagi into five parts ; ① “*Kashira*”, ② “*Mukuro*”, ③ “*Te*”, ④ “*Koshi*”, and ⑤ “*Ashi*” (Nihonshoki 1994a). The author traced lines (broken lines) for dividing possible 5 body parts. From this scheme, at least, “*Te*” and “*Ashi*” should be necessarily interpreted as the whole upper and lower extremities, respectively.

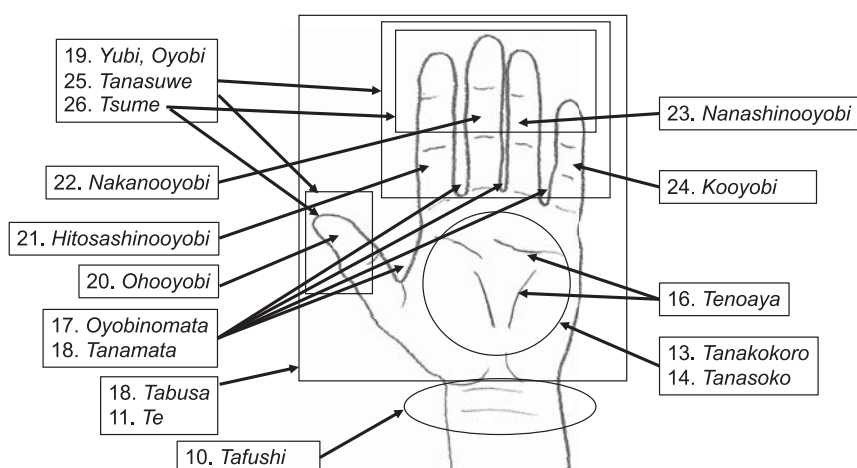


Figure 3 The areas which each word indicates are shown on the hand. The numbers correspond to those of the text.

Discussion

Whole upper extremity might have been called “Te”.

The description of cutting *Kagutsuchi*'s body into 5 parts in *Nihonshoki* is very helpful for understanding the ancient concept of body parts (Nihonshoki 1994a). The English translation of that part is as follows; “in one writing it is said: *Izanagi no Mikoto* cut *Kagutsuchi no Mikoto* into five pieces, which were each changed, and became the five Mountain-Gods. The first piece, viz., the head, became *Oho-yama-tsu-mi*; the second, viz., the trunk, became *Naka-yama-tsu-mi*; the third, viz., the hands, became *Ha-yama-tsu-mi*; the fourth, viz., the Loins, became *Masa-katsu-yama-tsu-mi*; and fifth, viz. the feet, became *Shiki-yama-tsu-mi*.” (Aston, 1972a).

From this descriptions, 5 parts of English names can be corresponded with original Japanese text (See the Figure 1); namely,

- ① head=*Kashira*
- ② trunk=*Mukuro*
- ③ upper extremity (hands)=*Te*
- ④ loins=*Koshi*
- ⑤ lower extremity (feet)=*Ashi*

Among these, “*Te*” and “*Ashi*” actually mean the upper and lower extremities, respectively, in the ancient Japanese. English translation of hands and feet by Aston is unacceptable, because hands and feet are not suitable parts when whole human body has cut into 5 parts. Therefore “*Te*” and “*Ashi*” in this sentence should be read as upper and lower extremity, respectively. “*Ta*” is a variant form, when word of “*Te*” makes a new compound word. These words with “*Ta*” or “*Te*” as prefix gave rise to many derivative words and

the areas with these words express expanded out of “hand” of present meaning. For example, words having the prefix “*Te*” or “*Ta*”, can be classified according to their indicating areas; (1) hand, (2) forearm, (3) elbow, and (4) upper limb, as shown below.

- (1) hand: *Tabusa*, *Tahushi*, *Tenoaya*,
Tanamata, *Tanasuwe*,
Tanakokoro, *Tanasoko*
- (2) forearm: *Tatamuki*, *Takomura*,
Takufura
- (3) elbow: *Tanahiji*
- (4) upper limb: *Tamakura* (use arm or forearm as pillow)

They appear to express some portions of whole “*Te*”, or some characteristic part of “*Te*”. From these examples, the indicated areas by “*Te*” in the ancient period, are assumed to be larger than present meaning of “*Te*”, namely, hand.

Upper and lower extremities might be regarded as homologous parts.

From those examples shown above, there are several expressions regarding whole upper extremity as whole leg. The words of *Takufura* and *Takomura* both include *Kufura* and *Komura* which both mean calf of lower leg. From this point of view, it is assumed that the ancient Japanese regarded both upper and lower extremity as the homologous structures. In other words, the forearm is analogous to the lower leg. In *Ishincho* written in the *Heian* period (984 A. D.), there is another expression, “*tenoyohoro*”, indicating cubital fossa (Tamba, 1977). This word can be divided into (*te* + *no* + *yohoro*), which means the similar portion of “popliteal fossa (=yohoro)” in the upper extremity (*te*). This description also

supports the recognition of homology between upper and lower extremity conceived by the ancient Japanese people.

Conclusion

In this study, it became clear that there have been considerably many original Japanese expressions (*Yamato-Kotoba*) for indicating many parts of upper extremity. Although *Wamyōruijūshō* was compiled in *Heian* Period, the most words taken in this lexicon also assumed to be used in the previous (*Nara*) period. From the fact that ancient Japanese possessed so many expressions about upper extremity, we have to recognize that they had fine recognition to the body and that gave the names of parts, based on their comprehensive concept; “*Te*”. Increasing and understanding basic vocabulary of the original Japanese (*Yamato-Kotoba*) about human body would be important and necessary to understand the ancient Japanese.

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