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### The Imperial Mode of Sinitic Poetry: Literacy and Authority in Early Heian Japan

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### 1. Introduction: The Rise of Sinitic Poetry in Japan

The beginning of the Heian period (794–1185) in Japan ushered in an era of renovation and expansion in the ceremonial life of the imperial court. The construction of the Nagaoka 長岡 capital, first, and of the Heian capital later, made new ritual structures available for accommodating the ceremonies performed on the occasion of the annual state festivities.¹ Thus, the ritual manual Dairishiki 内裏式 (Ritual Ceremonies of the Imperial Court), completed in 821 (Kōnin 弘仁 12), prescribes that the newly built Burakuden 豊楽殿 (Hall of Abundant Pleasures) at the Heian court, situated to the west of the central Chōdōin 朝堂院 (State Halls Compound), host such ceremonies as the banquet customarily held on the seventh day of the first month, which later developed into the so-called Horse-Watching Ceremony (aouma no sechie 青馬節会), the "stomping song" (tōka 踏歌) ritual on the sixteenth day of the first month, and the archery shooting ritual (jarai 射礼) on the seventeenth day of the first month.²

Another significant architectural and urbanistic feature of the new capitals was a large imperial garden, adjacent to the imperial court and extending south of it, that soon came to be associated primarily with imperially sponsored poetry composition. During the ten years the court spent at the Nagaoka capital (784–794), the park is referred to as the Southern Garden (nan'en 南園) in historiographical works; in the Heian capital, it was instead called the Shinsen'en 神泉苑 (Park of the Divine Spring).³ In both cases, the imperial gardens gradually became the

<sup>&</sup>lt;sup>1</sup> Yamanaka, Heianchō no nenjū gyōji, pp. 38–54.

<sup>&</sup>lt;sup>2</sup> Following academic conventions, dates are given according to the lunar calendar, with years given according to the Western calendar and with reference to the era name (nengō 年号).

<sup>&</sup>lt;sup>3</sup> The Southern Garden in the Nagaoka capital was possibly built as a sort of detached imperial palace within the residence compound of the recently deceased Crown Prince Sawara 早良 (750?–785). The planning and construction of the Nagaoka capital is detailed in Van Goethem, *Nagaoka*. The project for the new Heian capital's Shinsen'en park followed and expanded the model of the Southern Garden. See Yoshino, "Shinsen'en no tanjō."

regular sites for official poetry banquets on the calendrically auspicious days of the Double Third (third day of the third month), the Double Seventh (seventh day of the seventh month; also known as *tanabata* 七夕), and the Double Ninth (ninth day of the ninth month; also known as the Chrysanthemum Festival). As a matter of fact, from the late eighth century, the literary genre of Sinitic poetry (*shi* 壽) acquired an increasingly important position at the imperial court as imperially sponsored annual poetry banquets became more and more frequent and regulated.

In particular, the Southern Garden at the Nagaoka capital became the preferred venue for the Winding Stream Banquet (Kyokusui no En 曲水宴). This banquet was held sporadically during Emperor Shōmu's 聖武 (r. 724–749) reign but became increasingly prominent in the last decade of the Nara period (710–784) during the reign of Emperor Kōnin 光仁 (r. 770–781). Possibly owing to prolonged construction at the Shinsen'en site, the Winding Stream Banquet appears only sparsely in historiographical entries in the years after the capital was moved to Heian by Emperor Kanmu 桓武 (r. 781–806); and with no clear connection to the imperial park, the banquet was discontinued because of its proximity to the dates of Emperor Kanmu's and his imperial consort's passing.

It is with Kanmu's son Saga 嵯峨 (r. 809–823), who ascended the throne after the brief reign of his elder brother Heizei 平城 (r. 806–809), that poetry banquets become a conspicuous part of early Heian ceremonial activity. From very early on after the Double Third Banquet was discontinued, the Double Ninth date, traditionally associated with continental lore of longevity, achieved through ingestion of chrysanthemum wine, became the most prominent date for court-sponsored poetic composition. In fact, the *Dairishiki* presents instructions only for the Double Ninth Banquet to be performed at the Shinsen'en park, implying that similar events sponsored by the court should be modeled after it. In addition to the Double Ninth Banquet, Saga also held for some time the Blossom-Viewing Banquet (Hana no En 花宴) without a fixed date during the second lunar month. These official imperial banquets all appear in the imperial history *Nihon kōki* 日本後紀 (Later Chronicles of Japan, 840) invariably in connection

<sup>&</sup>lt;sup>4</sup>For an overview of the evolution of imperial poetry banquets in the early ninth century, see Takigawa, *Tennō to bundan*, pp. 31–42.

<sup>&</sup>lt;sup>5</sup>The Double Third date was originally strongly associated with a number of continental rites that had also taken root in Japan, among which the most prominent was arguably the ritual purification of the sovereign by ablution (*misogi harae* 禊祓). Although the poetry composed at the Winding Stream Banquet in Japan as early as Emperor Shōmu's reign in the Nara period shows imagery connected to the ablution rite, the core component of the banquet was wine drinking and poetry composition by the participants, who were seated along a water stream. For a detailed account on the evolution of the Double Third date and the significance of poetry therein in medieval China, see Duffy, "The Third Day"; for an overview of the Winding Stream Banquet in Japan, see Yamanaka, *Heianchō no nenjū gyōji*, pp. 173–190.

<sup>&</sup>lt;sup>6</sup> Takigawa, Tennō to bundan, pp. 31–32.

<sup>&</sup>lt;sup>7</sup> On the origin and development of the Double Ninth Banquet in early Heian Japan, see ibid., pp. 198–242.

with the Shinsen'en.<sup>8</sup> Featuring the same architectural elements as other public buildings within the court compound such as the Burakuden, the Shinsen'en thus constituted an extension of the imperial court and ensured that the poetry banquets performed therein were an integral part of the annual ceremonial calendar.<sup>9</sup> A preface to the first Blossom-Viewing Banquet held on 812 (Kōnin 3) drafted by the Confucian scholar Sugawara no Kiyotomo 菅原清公 (770–842), which survives only as a fragment, links the inauguration of the mid-spring flower banquet with the founding of the park by Emperor Saga and celebrates the Shinsen'en as a dwelling of immortals (sennin 仙人) and therefore as a site strongly connected with imperial power:

若夫蓬山沼遰、奏皇懐而不遑。崑嶺嵯峨、周王遊以忘倦。豈如我聖朝。京城之内、探勝地而作園。魏闕之前、道神泉以為流。

Dreaming from afar of Mount Peng, the Emperor of Qin incessantly pursued his quest; resting on the steep Kun Peak, the Duke of Zhou let go of his worries. Yet how could they match the wisdom of our sovereign? Within the borders of the capital, he finds a superb terrain and transforms it into a park; before the imperial gates, he traces the path of the sacred spring and generates a stream.<sup>10</sup>

<sup>\*\*</sup>Son the entry for the seventh day of the seventh month in Daidō 3 (808), for example, the Nihon kōki has the following: "The sovereign progressed to the Park of the Divine Spring. He watched the sumai performance and had the monnin literati compose poems on tanabata (幸神泉苑。觀相撲。令文人賦七夕詩。); Nihon kōki, Daidō 3 (808).7.7 (pp. 98–99). On the twelfth day of the second month of Kōnin 3 (812), it has: "The sovereign progressed to the Park of the Divine Spring, where he admired the flowering trees. He commanded the monnin literati to compose poems and bestowed upon them silk floss each according to their rank. The festivity of the Blossom-Viewing Banquet begins from here" (幸神泉苑、覽花樹。命文人賦詩、賜綿有差。花宴之節、始於此矣。); Nihon kōki, Kōnin 3 (812).2.12 (p. 148). On the ninth day of the ninth month of the same year, it reads: "The sovereign progressed to the Park of the Divine Spring, where he held a banquet for those with the status of personal attendants and above. Music was provided by the Office of Female Performers. The sovereign commanded the monnin literati to compose poems, and bestowed emoluments upon them and upon those above the fifth rank, each according to their rank" (幸神泉苑、宴侍從已上。奏妓樂。命文人賦詩。五位已上及文人、賜祿有差。); Nihon kōki, Kōnin 3 (812).9.9 (p. 157).

<sup>&</sup>lt;sup>9</sup> Yoshino, Shinsen'en no tanjō.

<sup>10</sup> All translations are by the author unless otherwise noted. The quoted text is from Makino, ""(Honchō) bunshū' hensan shiryō." The excerpt belongs to a fragmentary anonymous collection of forty-some banquet prefaces now referred to as *Heianchō itsumei shijoshū bassui* 平安朝佚名 詩序集抜萃 (Refined Excerpts from an Anonymous Banquet Preface Collection of the Heian Court). The text exists in two manuscripts. Banquet prefaces (jo 序) are texts written in literary Sinitic following a parallel prose format in which the author begins by describing the banquet's venue, host, and participants, then expands on the topic chosen for poetic composition, finally concluding with a personal statement. By the mid-Heian period (the late tenth and early eleventh centuries), prefaces developed as the most prestigious literary genre for Confucian scholars; see Satō, "Heianchō no shijo." For an overview of the formal structure of prefaces and its evolution during the Heian period, see Kido, "Heian shijo no keishiki."

Until 831 (Tenchō 天長 8), when the Double Ninth Banquet was moved to the Shishinden 紫宸殿 (Purple Imperial Hall), the hall for public events and ceremonies within the imperial palace, the Shinsen'en continued to host imperially sponsored poetry banquets in the fashion of official state rituals. The Heian capital, thus, was designed from the start to offer new ways of representing and legitimizing the imperial court and the imperial clan through ritual and spectacle. Insofar as annual ceremonies were a powerful tool to generate, claim, and maintain authority, Sinitic poetry, too, rapidly became a valuable form of cultural capital for the early Heian sovereigns and the imperial clan.

In this period, namely between the late eighth century and the third decade of the ninth century, the place of Sinitic poetry within the imperial court and its educational infrastructure underwent significant changes, of which imperially sponsored poetry banquets were the most noticeable results. Perhaps to support the increasing regularity with which the Double Third Banquet was held starting from the late eighth century, the composition of Tang-style regulated Sinitic poetry (lüshi 律詩) on a given topic was incorporated as a test subject for the recruitment of regular literature students (monjōshō 文章生) in the kidendō 紀伝道 ("way of annals and biographies") curriculum at the Bureau of High Education (Daigakuryō 大学寮).11 Originally named monjōdō 文章道 ("way of patterned writing"), the curriculum focused on the study of continental dictionaries and lexicographical works and of the literary collection Wenxuan 文選 (Collection of Ornate Writings, mid-sixth century), and supported the formation of a class of literate individuals with writing proficiency to be incorporated within the bureaucracy of the state. Later, it was merged with the short-lived kidendō curriculum, which focused on the study of continental histories, but it retained the centrality of writing proficiency. 12 By becoming the entry-level examination to earn a place as a regular student in the kidendō curriculum on the way toward the status of Confucian scholar (jusha 儒者), Sinitic poetry was made into a key form of writing proficiency that any kidendō graduate was supposed to master. As a matter of fact, from the early ninth century onward, students and graduates of the kidendo curriculum became more and more sought-after by the court to provide Sinitic poetry at imperially sponsored banquets, so much so that the selection procedure was eventually codified in the ceremonial manual Kōninshiki 弘仁式 (Procedures of

<sup>12</sup> Momo, Jōdai gakusei, pp. 132–152.

<sup>&</sup>quot;Regulated poetry differed from the "ancient style" primarily because it required adherence to complex prosodical patterns within each verse. The exact date when poetry was introduced as a test subject is not known, but the first indication of the monjōshō 文章生 examination is found in the biography of the kidendō 紀伝道 graduate Sugawara no Kiyotomo 菅原清公 (770–842), who seems to have passed the selection in 789 (Enryaku 延曆 8). The entry is in Shoku Nihon kōki 続日本後紀 (Later Annals of Japan Continued, 869) on Jōwa 承和 9 (842).10.17 (pp. 368–369). See also Momo, Jōdai gakusei, pp. 86–87. In China, regulated poetry became a test subject for the jinshi 進士 (presented scholar) examination during the early eighth century. An overview of poetry composition in the Tang civil service examination is in Vedal, "Never Taking a Shortcut."

the Kōnin Era, 820). <sup>13</sup> In turn, imperial banquets gradually became the most prestigious outlet for poetic composition by *kidendō* graduates and Confucian scholars.

At the same time that Sinitic poetry within institutional education was being systematized in the early ninth century, the imperial household sought to secure its political and cultural authority by claiming this literary genre as a specific form of legitimizing cultural capital. In 820 (Kōnin 11), the kidendō track was reconfigured: a specific path for individuals from the imperial household and high nobility was created requiring selection by way of poetry composition. It has been argued that this reorganization, which was dismantled just a few years later in 827 (Tenchō 4), served the interests of the imperial family and the aristocracy in that it helped them maintain a particular privileged professional path for the scions of their clans, one that was primarily based on poetic proficiency.<sup>14</sup> The fact that the reorganization of the kidendō curriculum was halted in 827 following a petition from the poetry-inclined Confucian scholar Kuwahara no Haraka 桑原腹赤 (789–825) suggests that multiple parties, namely the imperial household and the kidendō elite, were negotiating and competing for control over poetic erudition. In other words, the generation and perpetuation of cultural and political authority through the continued ritual performance of Sinitic poetry constituted a source of legitimation for both the imperial clan and the kidendo elite. The two anthologies of Sinitic poetry compiled in rapid succession during Emperor Saga's reign, the Ryōunshū 凌雲集 (Collection Soaring above the Clouds, 814) and the Bunka shūreishū 文華秀麗集 (Collection of Masterpieces of Literary Talent, 818), testify to the complex interplay and interconnections between members of the imperial household and members of the kidendo graduate elite, as they consist of virtually only poems by the two social groups. 15

This article explores the interconnections between the sovereign and the poets in further detail by analyzing how both groups sought to claim authority through the acquisition of poetic literacy and, therefore, cultural authority. Although performative sites such as official poetry banquets were designed to represent the sovereign as the ultimate superintendent of poetic erudition and practice, and therefore the unchallenged source of cultural orthodoxy and legitimacy, early ninth-century sources reveal the poetic legitimacy of the sovereign and the imperial clan at large to be the product of a complex and nuanced interaction and

<sup>13</sup> The entry for the Chrysanthemum Flower Banquet on the Double Ninth date dictates that literary experts (monnin 文人) be selected one day prior to the banquet by the Ministry of Ceremonial Affairs (Shikibushō 式部省) from a pool of prospective students (gakushō 学生) and literature students (monjōshō) in the kidendō curriculum, as well as from among individuals in service at various offices of the court who were particularly versed in poetry composition; see Kōninshiki, p. 2.

<sup>&</sup>lt;sup>14</sup> Kotō, "Saga-chō jidai no monjōshō shusshin kanjin."

<sup>15</sup> I do not consider here the third monumental collection *Keikokushū* 経国集 (Collection for Binding the Realm, 827), compiled during the reign of Emperor Junna 淳和 (r. 823–833), primarily because I consider this work a site for the negotiation of poetry's position within the *kidendū* curriculum; see Minguzzi, "Keikokushū' Reconsidered."

interconnection with the literary authority of institutionally trained  $kidend\bar{o}$  graduates, so much so that the former could never exist independently of the latter. During the early Heian period, the significance of Sinitic poetry grew to the extent that by the end of the tenth century it had arguably become one of the most prestigious literary genres. I argue, thus, that the rise of Sinitic poetry in the Heian period was a process informed by the relationship between the imperial household and the  $kidend\bar{o}$  elite, whose mutual dependency consistently maintained its strategic value as a form of legitimizing cultural capital through continued education, training, and performance.

### 2. Kidendō Education and Imperial Poetic Training

The reign of Emperor Saga was particularly rich in the imperial sponsorship of poetic activity, and it is the moment when the poetry banquet culture that became the staple of early Heian literary culture began to take shape. Saga himself is traditionally known as a tremendously prolific poet. As a matter of fact, Saga is the best-represented poet in both the *Ryōunshū* and *Bunka shūreishū* collections (with twenty-two and thirty-four poems transmitted, respectively), which were compiled during his reign and ostensibly under his supervision. It is undeniable that Saga understood poetic literacy and practice as a valuable tool for crafting and maintaining a strategic representation of himself as a cultured and literarily skilled monarch. Through his active participation in, and control of, the poetic practice of his court, Saga undoubtedly redefined the parameters of sovereignty.<sup>16</sup>

One overlooked and yet significant aspect of the poetic activity of the early ninth century, however, is the role of *kidendō* graduates as imperial tutors or generally position holders within the Eastern Palace Chambers (Tōgūbō 東宮坊), the office in charge of administering the residence and upbringing of the designated crown prince. As a matter of fact, imperial tutors, usually scholars trained in the Bureau of High Education who were charged with the crown prince's education and appointed "tutors of the Eastern Palace" (Tōgū no fu 東宮傅) or "scholars of the Eastern Palace" (Tōgū gakushi 東宮学士), feature prominently in the Ryōunshū collection. To Specifically, many of the twenty-three poets included in the collection were active as imperial tutors when Prince Kamino 賀美能 (later Emperor Saga) was appointed crown prince in 806 (role held until 809) or had served as imperial tutors before. For example, Sugano no Mamichi 菅野真道

<sup>&</sup>lt;sup>16</sup> For an extensive discussion on Saga's politics of writing and his diverse poetic activity, see Reeves, "Of Poetry, Patronage, and Politics." Jason Webb describes what he calls Saga's "orthodoxy of reception," namely the active control of reading imported continental texts and quoting them in local compositions, a control that extended to the compositions of attending poets who performed at his request; see Webb, "In Good Order," pp. 216–229.

<sup>17</sup> This aspect was noted early on by the renowned scholar Kojima Noriyuki 小島憲之 (1913–1998) in the introduction to his critical edition and translation of *Ryōunshū*. See Kojima, *Kokufū ankoku jidai*, vol. 2 (chū), book 2 (chū), pp. 1242–1245.

(741–814), represented in *Ryōunshū* by one poem composed at imperial command at the Shinsen'en, was appointed scholar of the Eastern Palace in 785 (Enryaku 4) when Prince Ate 安殿 (later Emperor Heizei) was selected as crown prince. Hayashi no Saba 林娑婆 (?—?), represented in the collection by two poems lamenting the loss of his academic status, served in the capacity of scholar of the Eastern Palace for Crown Prince Kamino. Some of the poets included in *Ryōunshū* would later rise to the position of imperial tutor after the compilation of the anthology. Kamitsukeno no Ehito 上毛野穎人 (766–821), represented by one poem purportedly attached to a petition in which he lamented his lack of social recognition, became scholar of the Eastern Palace in 817 (Kōnin 8). In other words, the pool of *Ryōunshū* poets was populated by *kidendō*-trained scholars with close connections with the imperial household.

The status of the collection's compilers, furthermore, offers an important window into the social dynamics that informed and supported the cultural system of Sinitic poetry at the early Heian court. The main compiler of Ryōunshū and the author of its preface, kidendō graduate Ono no Minemori 小野岑守 (778-830), held the office of assistant executive secretary of the Eastern Palace (Tōgū no shōshin 東宮少進) when Saga was crown prince, and later rose to the position of assistant director of the Eastern Palace Chambers (Tōgū no suke 東宮亮).<sup>20</sup> Admittedly, these two positions were not directly associated with tutoring; however, there is indirect evidence that Minemori took part in the education of Emperor Saga when he was crown prince.<sup>21</sup> The other individuals explicitly mentioned in the Ryōunshū preface also had links to both the kidendō and the court: Sugawara no Kivotomo was a renowned kidendō scholar and poet who had also held the position of director of the Bureau of High Education (Daigaku no kami 大学頭), and Isayama no Fumitsugu 勇山文継 (773-828) was the assistant director of the Bureau of High Education (*Daigaku no suke* 大学助) who had also served as professor in charge of the kidendō curriculum (kiden hakase 紀伝博士).22 Bringing together poetry, imperial tutoring, and institutional academic offices, the social and bureaucratic identities of the Ryōunshū compilers invite a reconsideration of early Heian poetic practice in terms of the interconnection between the poetic

<sup>&</sup>lt;sup>18</sup>The appointment is recorded in *Shoku Nihongi*, Enryaku 4 (785).11.25 (pp. 776–777).

<sup>&</sup>lt;sup>19</sup> The appointment of Saba as scholar of the Eastern Palace in documented in *Nihon kōki* in 806 upon the selection of Prince Kamino as crown prince. *Nihon kōki*, Daidō 1 (806).5.19 (p. 81).

<sup>&</sup>lt;sup>20</sup> Biographies of Ono no Minemori can be found in Kinpara, *Heianchō kanshibun*, pp. 74–96; and Gotō, *Heianchō kanbungaku*, pp. 54–63.

<sup>&</sup>lt;sup>21</sup> The biography of Minabuchi no Nagakawa 南淵永河 (777–857), preserved in *Nihon Montoku jitsuroku* 日本文徳実録 (Ten'an 天安 1 [857].10.13), contains a passage that reads: "In the past, when retired Emperor Saga was crown prince, he assisted him in his reading practice together with Asano no Katori, Ono no Minemori, and Sugawara no Kiyohito" 昔者嵯峨太上天皇在藩之時、與朝野鹿取、小野岑守、菅原清人等、共侍讀書 (*Nihon Montoku jitsuroku*, pp. 627–628).

<sup>&</sup>lt;sup>22</sup> Kojima suggests that Fumitsugu was probably selected as a compiler by virtue of his office at the Bureau of High Education since there is no direct evidence of his being particularly active as a poet; see Kojima, *Kokufū ankoku jidai*, vol. 2 (*chū*), book 2 (*chū*), p. 1242.

training of the imperial clan and the institutional infrastructure of poetic education in the *kidendō* curriculum.

In what follows, I offer an analysis of a poetic exchange between Emperor Saga and the *kidendō* graduate Ono no Minemori, preserved in the *Bunka shūreishū* collection of 818, which offers a precious window into the poetic training of the early Heian sovereign. The two poems by Emperor Saga and Ono no Minemori are also connected to another set of four poems composed on the same topic, which is preserved in the *Keikokushū* collection of 827. Because these four poems were composed by candidates for the status of *monjōshō* at the examination of 822, an integrated reading of these two sets of poems reveals the complex relationship between sovereign-centered poetic activity and the poetic literacy of the *kidendō* graduates.

The two poems by Emperor Saga and Ono no Minemori are titled, respectively, "Composing on a topic, obtaining 'The autumn moon shines bright above Mount Long'" (賦得隴頭秋月明) (Bunka shūreishū 134) and "Respectfully offering a poem harmonizing with the topic 'The autumn moon shines bright above Mount Long'" (奉和隴頭秋月明) (Bunka shūreishū 135).<sup>23</sup> Minemori's poem falls in the category of "harmonizing" poems (washi 和詩), that is, poems composed in response to a previous poem by a peer or, as in this case, by a social superior (in which case the character 奉 is added to make the hierarchical gap explicit).<sup>24</sup>

This exchange is significant for a number of reasons. First, the poems are composed on a topic that consists of a line extrapolated from an existing continental poem. This referentiality anticipates the practice of so-called topic-line poetry (kudaishi 句題詩) that gradually came to dominate the landscape of banquet poetry in the mid- and late Heian period. Second, Saga's poem is marked by the characters meaning "composing on a topic" (fu 賦) and "obtaining" (de 得), which marked the fact that the poem was composed on an assigned topic. In medieval China, particularly from the late Six Dynasties period (third to sixth centuries), fude 賦得 poetry rapidly gained traction as a preferred modality for poetic composition at imperial banquets. By the early part of the Tang 唐 period (618–907), this expression had also come to signal those poems composed for the prestigious jinshi 進士 degree examination, or in preparation thereof. In the literary landscape of early Heian Japan, fude poetry appears in the same contexts, namely banquet poetry

<sup>&</sup>lt;sup>23</sup> Bunka shūreishū poem numbers follow those in the critical edition of Bunka shūreishū by Kojima Noriyuki, in NKBT 69.

<sup>&</sup>lt;sup>24</sup>The character 和 can be variously translated as "responding," "replying," or "matching." However, I support the English rendering "harmonizing" as it underscores the role of these kinds of poetry exchanges to reflect and reinforce existing sociopolitical hierarchies.

<sup>25</sup> By the mid-tenth century, topic-line poetry had developed into a rigorously codified genre, in which every couplet of a seven-character, eight-line regulated verse (*liishi* 律詩) had to show different techniques for exposition of elements featured in the topic line. The unquestionable authority on *kudaishi* scholarship is Satō Michio 佐藤道生; see in particular Satō, *Kudaishi ronkō*. Wiebke Denecke provides an overview of the cultural background for the rise of this specific genre as well as an analysis of early examples of topic-line poems; see Denecke, "Topic Poetry."

and examination poetry. As a matter of fact, many of the *monjōshō* examination poems included in the surviving volumes of the *Keikokushū* are marked by this expression. *Fude* also appears in later examples of examination poems as well as in poems composed in preparation by late ninth-century *kidendō* scholars such as Shimada no Tadaomi 島田忠臣 (828–891) and Sugawara no Michizane 菅原道真 (845–903); these poems are found in their personal collections, the three-volume *Denshi kashū* 田氏家集 (House Collection of the Shimada Clan, date of compilation unknown) and the twelve-volume *Kanke bunsō* 菅家文草 (Literary Drafts of the Sugawara House, 900), respectively. The poem in question by Emperor Saga, in sum, was composed in contiguity with banquet poetry, on the one hand, and examination poetry, on the other, where the former constitutes an ideal extension of the latter.

The topic line of the poetry exchange between Saga and Minemori is also particularly significant in relation to its connection with continental poetic culture and the local configuration thereof in early ninth-century Japan. The topic was extrapolated from the first line of a continental poem by the early Tang poet Yang Shidao 楊師道 (?–647). Yang Shidao was a member of Emperor Taizong's 太宗 (r. 626–649) poetic coterie. His poems appear, for example, in the remaining fascicle of the early Tang collection *Hanlin xueshi ji* 翰林學士集 (Literary Collection of the Hanlin Academicians). Yang Shidao's poem, titled "The Waters of Mount Long" (隴頭水), reads as follows:

	隴頭秋月明	The autumn moon shines bright above Mount Long;
	隴水帶關城	The Long River encloses the fortress by the pass.
	笳添離別曲	The flutes play a melody of parting,
	風送斷腸聲	The wind brings a gut-piercing sound.
	映雪峯猶暗	The mountain peak looks dark on reflecting snow,
	乘冰馬屢驚	The horses become nervous as they cross the ice.
	霧中寒雁至	Amidst the fog, the cold cry of geese arrives;
	沙上轉蓬輕	Upon the desert, mugwort leaves fall softly.
	天山傳羽檄	As feathered letters are dispatched from the Heavenly Mountain,
	漢地急徵兵	Troops are summoned hastily in the Han territories.
	陣開都護道	Lines of soldiers open the road toward the protectorate;
	劍聚伏波營	Swords assemble in the camp that calms the waves. <sup>27</sup>
	於茲覺無度	By this time, they are resolute beyond measure:
	方共濯胡纓	Together they shall rinse the strings of their nomad hats. <sup>28</sup>
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<sup>&</sup>lt;sup>26</sup> For a translation of surviving poems in the *Hanlin* collection, see Chen, *The Poetics of Sover-eignty*, pp. 237–266.

<sup>&</sup>lt;sup>27</sup> Starting from the Han 漢 dynasty (206 BCE-220 CE), *fubo* 伏波 (literally "subduer of waves") was a title assigned to military generals upon illustrious military feats.

<sup>28</sup> Quan Tang shi, p. 181. The meaning of the last line is somewhat unclear. The expression "to rinse one's hat strings" (zhunying 濯纓) appears to derive from a song verse that occurs with very little variation in a poem from the Chu ci 楚辭 (Lyrics from Chu, third century BCE) and in an episode of the Mengzi 孟子: "When the Canglang waters are clear, I rinse my hat strings; when the Canglang waters are muddy, I rinse my feet" 滄浪之水清兮、可以濯吾翠。 滄浪之水濁兮、可以濯吾足 (Mengzi, p. 135). It is probably an indirect reference to the clearness of the Mount Long waters in the topic.

The poems belongs to the genre of "frontier poetry" (hensaishi 辺塞詩). Frontier poetry was often associated with the representation of soldiers stationing in or traveling to the northern desert to fight the barbaric tribes at the periphery of the Chinese empire, and it included expressions of longing and parting as well as representations of the desolate landscape of the northern lands. The topic of Yang Shidao's poem, in addition, was traditionally associated with the so-called yuefu 楽府 (Jp. gafu, Music Bureau) genre. Although historically the Music Bureau office was established in China during the Han period to collect folk songs, by the Tang dynasty, the same term simply designated traditional topics upon which poetry had to be composed on a set of conventional themes.<sup>29</sup> Jack Chen describes *yuefu* poetry as typological in nature, being neither historical, occasional, nor personal and being defined by clear generic constraints.<sup>30</sup> In this sense, yuefu poetry exhibited some affinity with the genre of "poems on things," or yongwu 詠物 (Jp. eibutsu) poetry. Both genres were particularly productive in early Heian Japan; and significantly, both were associated with poetic training. The codification of the vocabulary and imagery associated with a particular theme in the case of yuefu poetry, and the limitations imposed by the specificity of the poetic object in the case of yongwu poetry, arguably made these configurations of poetic composition particularly suited to the acquisition of poetic vocabulary and to learning how to read and quote appropriate sources.<sup>31</sup> It is hardly a coincidence that topics strongly associated with learning and training appear conspicuously precisely at a time when Sinitic poetry was emerging as a genre to be mastered by the imperial clan and the kidendo scholarly elite alike.

The poem composed by Emperor Saga on the topic extrapolated from Yang Shidao's verse, as a matter of fact, strongly appears to be an exercise in the acquisition and repurposing of vocabulary and imagery, which unfolds within a protected textual environment modeled after a *yuefu* frontier topic. Saga's poem reads as follows:

關城秋夜淨 孤月隴頭團 水咽人膓絕 蓬飛沙塞寒
At the fortress by the pass, the autumn night is clear; The solitary moon over Mount Long is round. The muffled sound of the water pierces my gut; The mugwort flies over the cold frontier desert.

<sup>&</sup>lt;sup>29</sup> It has been argued that *yuefu* poetry as a written literary genre was in fact codified later (between the fourth and the sixth centuries) and that the folk songs from the historical Music Bureau were retroactively included within the same tradition to equip the newly established genre with a sort of literary genealogy; see Allen, *In the Voice of Others*, pp. 37–68.

<sup>30</sup> Chen, "The Writing of Imperial Poetry."

<sup>31</sup> Probably the most famous example of *yongwu* poetry connected with imperial poetic tutoring is the set of seventeen poems (originally twenty) composed on various "things" by the early Heian scholar and poet Sugawara no Michizane for Crown Prince Atsugimi 敦仁 (later Emperor Daigo 醍醐, r. 897–930) in 895 (Kanpyō 寛平 7). The poems are included in the fifth volume of Michizane's personal collection, *Kanke bunsō*. For an analysis of the poetic set, see Taniguchi, *Sugawara no Michizane*, pp. 91–101.

離笳驚山上 Flutes playing parting [melodies] surprise me up in the hills;

旅雁聽雲端 Traveling geese I hear far away in the clouds. 征戎鄉思切 On frontier duty, thoughts of home are acute:

聞猿愁不寬 Hearing the cries of the apes, my sorrow never subsides. 32

As is evident, Saga's poem is devoted to achieving a representation of the Chinese frontier landscape by borrowing vocabulary and imagery directly from Yang Shidao's original poem. Imagery such as the fortress by the pass, the gut-piercing sound, mugwort leaves flying over the desert, flutes playing parting melodies, and traveling geese are all shared between Yang Shidao's source poem and Saga's composition, making the latter a clear example of early Heian imperial poetic training.

In contrast to Saga's poem, which makes virtually no reference to Han military activity, the harmonizing poem by the *kidendō* graduate Ono no Minemori appears entirely adherent to the second half of Yang Shidao's source poem, leaning heavily on the depiction of military activity at the frontier and avoiding almost entirely the description of frontier landscape:

反覆天驕性
元戎馭未安
As the nature of the haughty son of Heaven is unstable, 33
Even controlling a grand army [the nomad people at the frontier] are not yet pacified.

我行都護道
經陟隴頭難
水添鞞皷咽
月濕鑯衣寒
The cold light of the moon soaks the suits of armor.

獨提敕賜劍 I shall wield only the sword bestowed by the sovereign, 怒髮屢衝冠 Again and again wearing as crown the hair straightened by rage.<sup>34</sup>

In Minemori's poem, the solitary frontier landscape gives way to an imminent sense of warfare between the Han soldiers and the northern barbarians. In contrast to Saga's poem, Minemori's adoption of vocabulary from the second part of Yang Shidao's poem hardly substantiates his adherence to that section, as only the expression about the "road toward the protectorate" appears as a clear direct borrowing. In other words, Minemori shows a significant degree of independence from the source poem, a sort of literary dexterity and creativity that would be expected from an institutionally trained poetry expert; and this demonstrated skill thereby counterbalances the sociopolitical gap inscribed in the act of harmonization with a higher degree of literary expertise.

<sup>32</sup> Translation slightly adapted from Rabinovitch and Bradstock, *No Moonlight in My Cup*, p. 179. 33 The "haughty son of Heaven" is meant as a derogatory term to indicate the leader of the Xiongnu 匈奴 confederation.

³⁴ Minemori's locus classicus here is a passage in the exemplary biography (*retsuden* 列伝) of Lin Xiangru 藺相如 (?—?) included in the *Shiji* 史記 (Records of the Grand Historian, c. 91 BCE). See Kojima, *Kokufū ankoku jidai*, vol. 2 (*chū*), book 3 (*ge*), part 2 (II), p. 3563.

The exchange between Saga and Minemori is thus particularly revealing in that it shows how the literary training of the Heian sovereign was carefully organized as a textual choreography. By expanding on the contents of the second half of the source poem, which is virtually untouched by Saga, Minemori complements, integrates, and expands the sovereign's poetic utterance. Moreover, the exchange also shows the tension between the two hierarchies at play: on the one hand, the "harmonization" framework ensures that the sovereign initiates the exchange and is formally in charge of the poetic discourse; on the other hand, the gap in poetic expertise makes the  $kidend\bar{o}$  scholar the true superintendent of imperial poetry.

As mentioned, the poetic exchange of Emperor Saga and Ono no Minemori is also in connection with a set of four poems preserved in the thirteenth volume of the *Keikokushū* collection, one of the six surviving volumes from the original twenty. The poems in this set are examination poems composed on the same topic line from Yang Shidao's poem. Since Minemori's son, Ono no Takamura 小野篁 (802–852), took part in the examination and the year he obtained *monjōshō* status is recorded in his biography, this particular examination must have taken place in 822 (Kōnin 13). This was at least a few years after the didactic exchange between Saga and Minemori, which must necessarily date prior to 818. The successful *monjōshō* examinees in 822 were Prince Toyosaki (Toyosaki Ō 豊前王, 805–865), Ono no Takamura, Fujiwara no Yoshio 藤原令緒 (?—?), and Tajihi no Enaga 多治比頴長 (?—?). The fact that the examination topic that year was the same as the Saga and Minemori exchange reinforces the latter's connection with poetic training.

However, it further suggests deeper interconnections between imperial tutoring, household traditions, and *kidendō* institutional education. Although it is unclear whether Minemori could have had any role in selecting the examination topic, it is presumable that the topic line from Yang Shidao's *yuefu* poem must have been chosen precisely because Minemori's son Takamura was sitting for the examination. As a matter of fact, Takamura's poem exploits aptly the connection between his examination topic and the poem composed by his father as a form of imperial poetic tutoring. Perhaps unsurprisingly, Takamura's examination poem opens with an almost *verbatim* quotation of the opening line of his father's poem on the same topic:

反覆單于性 邊城未解兵 成夫朝蓐食 式馬曉寒鳴 As the nature of the nomads' king (chanyu) is unstable,<sup>36</sup> In the fortress at the frontier the army is not yet dismantled. In the morning the soldiers eat their meal on their mats; At dawn the war horses cry coldly.

<sup>&</sup>lt;sup>35</sup>Ono no Takamura's biography is found in *Nihon Montoku jitsuroku*, Ninju 仁寿 2 (852).12.22 (pp. 554–556).

<sup>&</sup>lt;sup>36</sup> Chanyu was the title traditionally used by the supreme leaders of the Xiongnu tribal confederation.

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帶水城門冷
               Enclosed by the water, the fortress gates are chilled;
添風角韻清
               Brought by the wind, the sound of the horn is clear.
隴頭一孤月
               On Mount Long hangs the solitary moon;
萬物影云生
               It casts the shadows of ten thousand things.
               Its color fills the road to the protectorate;
色滿都護道
               Its light shines upon the camp of the "apt and volant." 37
光流饮飛營
邊機候侵寇
               On the lookout to scout the frontier for signs of an enemy attack,
應驚此夜明
               The soldiers will be startled by the brightness of this night.<sup>38</sup>
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Both Takamura's and Minemori's poems open with the same two characters, which Takamura follows with "chanyu" in place of the expression "haughty son of Heaven." In addition, Takamura makes sure to use in his poem the only expression that his father borrowed from Yang Shidao's source poem, namely the "road to the protectorate." All in all, Takamura's poem exhibits few but unquestionable connections with his father's poem on the same topic and furthermore prominently features the description of the frontier army, as did Minemori, instead of expanding the description of the autumn moon in the fashion of a yongwu poem, as his fellow examinees do in their own poems.

Significantly, topics chosen for the *monjōshō* examination were de facto treated as *yongwu* topics, with one element from the topic singled out and used for poetic exposition. Consider, by way of example, the first half of Prince Toyosaki's examination poem on Yang Shidao's topic line "The autumn moon shines bright above Mount Long:"

桂氣三秋晚	The scent of the cassia tree spreads in the autumn night;
蓂陰一點輕	The shadow of the <i>ming</i> grass casts a faint dot.
傍弓形始望	We begin to gaze at the shape resembling a bow;
圓鏡暈今傾	Now we lean towards the halo of the round mirror.
漏盡姮娥落	As the water clock ceases, the beautiful lady falls;
更深顧兔驚	As the night deepens, the rabbit is startled. <sup>39</sup>

In Prince Toyosaki's poem, virtually all verses are employed to describe the moon, either directly by means of descriptive imagery or indirectly by recourse to continental sources of erudition. The first couplet, for example, deploys the parallel between the cassia tree and the *ming* grass that appears, most notably, in the "Heaven" (tian 天) section of the early Tang encyclopedic compendium Chuxueji 初学記 (Notes to First Learning, c. 728): "looking at the *ming* grass, watching the cassia tree" (觀蓂視桂). In the Chuxueji, this parallel passage is followed by two anecdotes about this grass and this tree, respectively, which explain their relationship with the moon.<sup>40</sup> The parallel between these two plants is also

 $<sup>^{37}</sup>$  "Apt and volant" (*cifei*) was the name given to a particular group of imperial archers in the Han period.

<sup>&</sup>lt;sup>38</sup> Keikokushū 161.

<sup>&</sup>lt;sup>39</sup> Keikokushū 160.

<sup>&</sup>lt;sup>40</sup> Kojima, *Kokufū ankoku jidai*, vol. 2 (*chū*), book 3 (*ge*), part 2 (II), pp. 3559–3560.

featured in a couplet of a poem on the topic of "moon" by the early Tang poet Li Jiao 李嶠 (?—?), part of a collection of 120 yongwu poems transmitted to Japan at least by the early ninth century. In the third couplet, on the other hand, the moon is suggested obliquely by references to two anecdotes related to it. The lady Heng'e 姮娥 appears in the Huainanzi 淮南子 (The Masters of Huainan, second century BCE), where she is described as stealing an immortality elixir and ascending to the palace in the moon. The anecdote is quoted in the categorically arranged Tang encyclopedia Yiwen leiju 藝文類聚 (Categorized Collection of Arts and Letters, early seventh century), in the "Heaven" section, under the category of "moon." The "looking rabbit" (gutu 顧兔), which lives on the moon and looks down at the world below, appears in the Chu ci, in the "Heavenly Questions" (tianwen 天問) category. In sum, Prince Toyosaki mostly ignores the original context of the topic line and demonstrates his skills in navigating appropriate sources to excavate quotations associated with the poetic object of the moon.

By contrast, Takamura distances his poem from the standard modality of examination topic poetry to instead capitalize on the immediate association with the poem on the same topic that his father offered in harmonization with one by Emperor Saga. In this way, Takamura defies the conventions of examination poetry and situates his poem firmly at the intersection of his family's poetic erudition and material transmission and the opportunity to actively use such erudition for imperial poetic tutoring. In other words, his examination poem reveals the complex interactions and interconnections between institutional poetic education, imperial training, and the household traditions of *kidendō* scholars.

### 3. The Imperial Mode of Early Heian Sinitic Poetry

The institutionalized poetry banquets incorporated in the imperial court's annual ceremonial calendar from the beginning of the Heian period undoubtedly constitute a privileged site in which and through which the sovereign's sociopolitical, cultural, and discursive authority is claimed, supported, and maintained. Imperially sponsored poetry banquets were sociopolitically significant as state ritual meant to symbolically reaffirm power relationships centered on the sovereign and to cosmologically represent the structure of the court, features that have been adequately discussed in existing scholarship.<sup>45</sup> In the early ninth cen-

<sup>&</sup>lt;sup>41</sup> On the role of Li Jiao's collection in the literary landscape of Heian Japan, see Steininger, "Li Jiao's Songs."

<sup>&</sup>lt;sup>42</sup> *Huainanzi* is a collection of philosophical treatises compiled under the patronage of Liu An 劉安 (179–122), Prince of Huainan 淮南.

<sup>&</sup>lt;sup>43</sup> Ouyang, Yiwen leiju, p. 7.

<sup>44</sup> Chu ci, p. 4.

<sup>&</sup>lt;sup>45</sup> See Webb, "In Good Order," pp. 77–92; Heldt, *The Pursuit of Harmony*, pp. 51–59; Steininger, *Chinese Literary Forms*, pp. 48–50.

tury, banquet organization went to great lengths to affirm the sovereign's authority. Normally, the summoned poets would compose poems upon imperial command (ōsei 応製) on a topic that had been formally selected and bestowed by the sovereign. There is evidence that during the early ninth century, before the official imperial banquets were moved within the imperial palace, the sovereign would compose his poem first, and the attending poets would then use it as a model, incorporating the sovereign's words and expressions in their own compositions. 46 As a privileged tool to manifest and support imperial cultural authority, banquet poetry was therefore placed at the top of a hierarchy of compositional settings. The Ryōunshū collection, for example, makes this apparent by organizing the poems of every represented author such that banquet poetry appears first, followed by harmonizing poetry, and down to less social and more private and solitary contexts.<sup>47</sup> At the same time as they proclaim the cultural authority of the Heian sovereign, imperial banquets also betray the fact that imperial poetry was inherently a collective endeavor, and the very presence at banquets of poetry experts from the pool of kidendō-trained students and scholars is a clear indication that imperial poetry could never support itself independently.

Harmonizing poetry, in particular, shows this "collective" modality of imperial poetry more clearly. In contrast to imperial banquets, in which the sovereignpoet relationship was formalized within a quasi-bureaucratic framework—poets were summoned as *monnin* 文人 in a fixed quota and received a one-time stipend for their poetic contributions—harmonizing poetry was a more versatile tool that allowed for the configuration of a variety of social relationships. In the Ryōunshū collection, for example, Emperor Saga initiates harmonizing exchanges and actively harmonizes almost exclusively with four individuals: Fujiwara no Fuyutsugu 藤原冬嗣 (775–826), Asano no Katori 朝野鹿取 (774–843), Ono no Minemori, and Sugawara no Kiyotomo. The first three served as Saga's tutors, but interestingly, there is no evidence that Kiyotomo ever acted as tutor to Saga. However, Kiyotomo's brother Kiyohito 清人 (?-?), although not particularly known as a poet, is listed as an imperial tutor in the aforementioned biography of Minabuchi no Nagakawa. Thus, the *Ryōunshū* suggests that the poetically skilled Kiyotomo might have functioned as a placeholder for his presumably less gifted brother Kiyohito, thus securing sociopolitical significance for the Sugawara clan through ties with the imperial household and with imperial tutoring.

The poems that Emperor Saga actively composed in harmonization with existing poems by *kidendō* graduates are particularly interesting and reveal the conditional nature of imperial poetry. One poem by Saga in *Ryōunshū*, a quatrain that he composed in harmonization with a poem by the *kidendō* literature student (also called *shinshi* 進士, or presented scholar) Shigeno no Sadanushi 滋野貞主 (785–852), attempts to actively position the sovereign within a network of

<sup>&</sup>lt;sup>46</sup> Takigawa, Tennō to bundan, pp. 54-55.

<sup>&</sup>lt;sup>47</sup> Ibid., pp. 42–48.

*kidendō* scholars versed in poetic composition who interacted with each other through poetic exchanges:

Harmonizing with the poem by the presented scholar Sadanushi, "Early spring, passing by the residence of the Master of Libations Sugawara, feeling frustration and sorrow I send [a poem] to the three flourishing talents Furu [no Takaniwa?], Kose no Shikihito, and Fujiwara [no Koreo?]" (和進士貞主初春過菅祭酒宅、悵然傷懷簡布臣藤三秀才作)

書閣閉來冬變春
Since the book pavilion was dismantled, winter has given way to spring;
梅花獨笑向啼人
雖知世上必然理
Although I am aware of the inevitable principle governing this world,
All the same I lament that the old guests no longer stop by the gate. 48

The *Ryōunshū* also includes the response sent by the Confucian scholar Kose no Shikihito to the original poem by Shigeno no Sadanushi:

Based on the shared elements of the two poems, the original composition by Shigeno no Sadanushi, by which the exchange was initiated, might have contained a reference to the arrival of spring, the sorry state of the garden, and the disappearance of a community of *kidendō*-trained literati and possibly of a poetic circle. Whereas Kose no Shikihito's response emphasizes this latter aspect by positing a sort of seasonal and affective mismatch between the abandoned locale and the poet, Saga's contribution is more oriented toward the loss of a social and material hub.<sup>50</sup> In Saga's headnote, the Sugawara in question is most likely Sugawara no Kiyotomo, whose short tenure (812–813 [Kōnin 3–4]) as director of the Bureau of High Education (Master of Libations is the Tang equivalent) took place just before the *Ryōunshū* was compiled in 814. One possible reason

<sup>&</sup>lt;sup>48</sup> Ryōunshū 19.

<sup>&</sup>lt;sup>49</sup> Ryōunshū 91.

<sup>&</sup>lt;sup>50</sup> Although not necessarily codified as such in the early ninth century, the meaning of the expression "wind and moon" (figetsu 風月) would eventually narrow to explicitly indicate "poetry" (originally intended as the poetic response to the natural environment). On the gradual codification of the meaning of figetsu and its connection with institutionalized poetry banquets, see Takigawa, Tennō to bundan, pp. 145–161.

for the poems' emphasis on feelings of sadness and loss could be identified in Kiyotomo's loss of formal academic status at the Bureau of High Education, due to his transferring to a different bureaucratic position, and his concurrent physical move to a new residence, which might have shaken the balance of a social group formed around him and his place.

The topic of composition, namely the visit to the old mansion of a deceased individual or an old acquaintance who no longer lives there, is frequent enough in Japanese sources to allow a conceptualization of it as a thematic subgenre usually used by poets to signal an important change in their sociopolitical environment.<sup>51</sup> In any case, the poetic exchange took place within a social network of kidendō-trained scholars and was originally independent from the sovereign and the imperial court. At some point, however, Shigeno no Sadanushi's original poem was presented to Emperor Saga, who used it as the basis for a new verse. Saga composed this as though he was also part of the exchange, thereby positioning himself within a web of social and textual relationships centered on members of the *kidendō*-trained elite. Moreover, it is plausible that a system was in place in the early ninth century by which Sinitic poetry composed in external settings was actively sought-after and collected by the imperial court. By inserting himself within the kidendō scholars' poetic exchange and imagining himself as part of that particular social network, Saga was able to bring external poetic activity within imperial purview; on the other hand, his reliance on an independent network of poets strongly suggests that imperial poetry could never exist in isolation.

One significant venue where the tensions and contradictions in the sociopolitical distribution of early Heian poetic literacy and authority are most visible is the category of "Love" (enjō 艶情) in the second volume of the Bunka shūreishū. The eleven-poem sequence is as follows (here only the titles are presented; the actual poems are omitted):

- (51) 奉和春閨怨。 菅原清公 Respectfully offering a poem harmonizing with [the topic] "Lament of the spring bedchamber" (Sugawara no Kiyotomo)
- (52) 奉和春閨怨。 朝野鹿取 Respectfully offering a poem harmonizing with [the topic] "Lament of the spring bedchamber" (Asano no Katori)

<sup>51</sup> One significant example is a poem by Sugawara no Michizane on the old residence of the deceased former Minister of the Right (*udaijin* 右大臣) Minamoto no Masaru 源多 (831–888). Significantly, Michizane places this poem at the beginning of a sequence of poems composed after returning to the Heian capital from his governorship period (886–890) in Sanuki 讃岐 Province in modern Shikoku. The poem, titled "Spring day, feeling emotion by the old residence of the former minister of the right" (春日感故右丞相舊宅) is no. 323 in the critical edition of Michizane's *Kanke bunsō* by Kawaguchi Hisao 川口久雄 (1910–1993), in NKBT 72.

- (53) 奉和春閨怨。巨勢識人 Respectfully offering a poem harmonizing with [the topic] "Lament of the spring bedchamber" (Kose no Shikihito)
- (54) 奉和春情。 巨勢識人 Respectfully offering a poem harmonizing with [the topic] "Spring feelings" (Kose no Shikihito)
- (55) 和伴姬秋夜閨情。 巨勢識人 Harmonizing with Lady [Ō]tomo's poem "Autumn night, bedchamber feeling" (Kose no Shikihito)
- (56) 長門怨。御製 Lament at the Changmen Palace (imperial composition)
- (57) 奉和長門怨。巨勢識人 Respectfully offering a poem harmonizing with [the topic] "Lament at the Changmen Palace" (Kose no Shikihito)
- (58) 婕妤怨。 御製 Lament of the imperial concubine (imperial composition)
- (59) 奉和婕妤怨。巨勢識人 Respectfully offering a poem harmonizing with [the topic] "Lament of the imperial concubine" (Kose no Shikihito)
- (60) 奉和婕妤怨。桑原腹赤 Respectfully offering a poem harmonizing with [the topic] "Lament of the imperial concubine" (Kuwahara no Haraka)
- (61) 奉和聽擣衣。 桑原腹赤 Respectfully offering a poem harmonizing with [the topic] "Hearing the sound of beating clothes" (Kuwahara no Haraka)

As is evident, the "Love" section in *Bunka shūreishū* is made up exclusively of sets of harmonizing poems. With the exclusion of no. 55, which testifies to a poetic exchange between the Confucian scholar Kose no Shikihito and a woman of the Ōtomo clan, all the poems in the sequence are by Emperor Saga and by poets who offer a poem in harmonization. However, there is an important difference between the sets within the sequence. Kose no Shikihito's no. 57 harmonizes with Saga's no. 56, and the poems by Kose no Shikihito and Kuwahara no Haraka (nos. 59 and 60) harmonize with Saga's no. 58. On the other hand, the remaining poems (nos. 51–53, 54, and 61) originally harmonized with poems by Saga not included in the collection, either because the compilers actively excluded them or because they no longer had access to them. The fact that the original imperial poems with which *kidendō* poets harmonized are not necessarily recorded suggests that, in *Bunka shūreishū*, the principle of inclusion for harmonizing poems was not centered around the authority of the sovereign's poetic

literacy. In fact, I would argue that the baseline that informs the structure of the "Love" sequence in the *Bunka shūreishū* is represented not by the imperial poems, but rather by the harmonizing poems produced by the *kidendō* poets.

As a matter of fact, this is true for other places in the *Bunka shūreishū*. The third volume, for example, includes several harmonizing poems by *kidendō* graduates that are no longer matched with the original imperial poem. Clearly, the absence of the sovereign's original poem did not prevent the compilers from including the surviving poems composed in harmonization with it. The contrary, however, can never be observed in the poetic collections of the early ninth century, substantiating the fact that imperial poetry was never represented independently of the poetic authority of kidendō-trained scholars. In sum, the early ninth-century practice of poetic harmonization—and the anthologizing strategies thereof represents a site of investigation that allows us to complicate the relationship between the Heian sovereign and the literary service provided by the semiprofessional class of institutionally trained poets. The Bunka shūreishū collection, for example, appears to have been in part conceived by its compilers as an opportunity to underscore the vital role of the poetic expertise of kidendō graduates to support, integrate, and legitimize the cultural authority of the imperial household, and to represent imperial poetic literacy as a by-product of the poetic expertise of kidendō scholars, insofar as the former could never exist independently of the latter.

### 4. Conclusions: Sinitic Poetry and Authority in Early Heian Japan

In this article, I explored the nuanced relationship between the imperial household and the institutionally trained elite of literary experts in early Heian Japan. Although official and public texts such as imperial histories, banquet prefaces, and prefaces to poetry collections invariably subordinated the activity and the sociopolitical identity of expert poets to the imperial court's political and cultural authority, a counter-discourse existed that in turn sought to emphasize the power of kidendō scholars to support and legitimize the cultural claims of the Heian sovereign. Thus, the ideal imagination of a literary field controlled and guaranteed not only by the political power and economic resources of the imperial household but also by its authoritative poetic literacy needed to be necessarily negotiated with the historical reality of imperial education, wherein sovereigns and imperial princes were trained by members of the literate elite and thereby gained enough cultural capital to sustain the political legitimacy of the imperial lineage. Perhaps the tension in the distribution of sociopolitical and cultural capital is most visible in the Bunka shūreishū, which tends to emphasize the representation of low-ranking kidendo graduates. These individuals sought to capitalize on Sinitic poetry as their primary form of cultural capital, as seen in the case of members of the Shigeno 滋野 and the Kuwahara 桑原 clans who lacked institutional affiliation with the imperial household (for example in the capacity of imperial

tutors), and their poetic activity was often predicated on extra-institutional and private forms of social obligations and reciprocity with the sovereign.

In many ways, however, the gradual rise of Sinitic poetry as a source of political and cultural legitimation for both the imperial clan and kidendo scholars from the beginning of the Heian period set in motion a mutually beneficial and symbiotic system, one that would go on to last for at least two centuries. As a matter of fact, until the late tenth century, the imperial household was the institution that supported the continuous generation of cultural and political legitimation for itself and for the kidendo scholars who gravitated around it. Significantly, the first two centuries of the Heian period also constitute the temporal arc when the institution of official annual imperial poetry banquets was firmly in place. Only with the gradual reconfiguration of political authority at the imperial court, beginning from the tenth century, did institutionalized poetry banquets as state-run rituals start to decline, disappearing almost completely by the second half of the tenth century.<sup>52</sup> During its zenith, however, the cultural system generated by the relationship between the imperial household and the kidendo elite was so strong that when the Northern branch of the Fujiwara 藤原 clan emerged from the second half of the ninth century as a new form of political power that complemented and paralleled the imperial household, it sought to mimic and reproduce the cultural strategies of the imperial clan for their own benefit. Thus, as the renowned statesman Fujiwara no Mototsune 藤原基経 (836–891) gained enough power to configure his mansion as an alternative site of political and cultural authority, Sinitic poetry began to play a significant part in the clan's social and cultural practices, from hosting imperial-style poetry banquets to establishing the patronage of *kidendō* scholars and securing poetic training for him and members of his household.<sup>53</sup> For example, Mototsune employed kidendō graduates as personal retainers, among whom were the Shimada brothers Yoshiomi 良臣 (832–882) and the already mentioned Tadaomi, the latter of whom was active primarily as a poet and as a provider of poetic education and training.<sup>54</sup> Moreover, Sugawara no Michizane himself seems to have acted as a poetry tutor for Mototsune's son Tokihira 時平 (871-909): a number of poetic exchanges recorded in Michizane's personal collections point to Tokihira's reliance on Michizane's poetic expertise.<sup>55</sup> In sum, the rise to power of the so-called "early Fujiwara regency" was also partly the product of Mototsune's ability to claim Sinitic poetry as a constituent form of cultural capital and to establish a system of cultural production that paralleled that of the imperial palace and could attract and provide legitimation for kidendo poets.

<sup>&</sup>lt;sup>52</sup> Takigawa, *Tennō to bundan*, pp. 23–44.

<sup>&</sup>lt;sup>53</sup> Takigawa, "Fujiwara no Mototsune."

<sup>&</sup>lt;sup>54</sup> Tadaomi appears to have been consistently valued by the court more for his poetic skills than for his bureaucratic potential. As a matter of fact, he held only few official positions and many years apart, and his main source of income presumably derived from his poetic services to Fujiwara no Mototsune's household; see Takigawa, "Shimada no Tadaomi no ichi."

<sup>55</sup> Takigawa, "Tokihira to Michizane."

As already mentioned, the ways in which poetry was strategically used to represent, perform, and naturalize hierarchical relationships of power at the Heian imperial court has been thoroughly investigated. Jason Webb and Gustav Heldt, in particular, have provided important insights on the significant roles of Sinitic and Japanese (waka 和歌) poetry, respectively, in affirming the cultural and political authority of the early Heian sovereign and imperial clan. <sup>56</sup> Thomas Lamarre, however, has urged us to complicate the notion that the infrastructure of imperial power should be seen as the primary force generating and controlling cultural production, or as the ultimate and ideal result of such production.<sup>57</sup> Accordingly, I have provided a reading of early Heian Sinitic poetry that attempts to displace imperial authority as the unquestioned cause and effect of poetic activity. In other words, I suggest that the practice of Sinitic poetry in early Heian Japan, such as poetic performance at court or the compilation of a poetry collection, should be best understood as a complex act of negotiation, whereby institutionally trained poets who supplied the necessary cultural capital actively sought to manipulate and reconfigure not only the result of their imperially sponsored poetic performance but the performance itself.<sup>58</sup> The reign of Emperor Saga and the first three decades of the ninth century were arguably an exceptional moment in the literary history of Heian Japan. In part, the rapid compilation of three literary anthologies and the amount of literary evidence they provide can be thought of as the product of a transitional period, during which Sinitic poetry was emerging as a powerful cultural force yet still was not completely integrated within the established political and educational system. The complex and at times contradictory relationship between the imperial household and the kidendo-trained poetry experts, who sought to manipulate the representation of cultural authority both to generate and to support their own sociopolitical identity and legitimacy, was eventually normalized during the latter half of the ninth century. The transition from the late Nara to the early Heian period, however, remains a critical historical juncture that laid the foundations for the steady rise of Sinitic poetry as one of the most prestigious and productive literary genres of the Heian period.

<sup>56</sup> The significance of poetry in regulating power relationships and hierarchies at court is not necessarily a Heian phenomenon. Torquil Duthie's study of the *Man'yōshū* 万葉集 (Collection of Ten Thousand Leaves) and the role of vernacular poetry (*uta* 歌) in the late seventh and early eighth centuries clearly reveals that poetic literacy and poetic activity were important components in the formation of the imperial lineage's authority and legitimacy; see Duthie, "*Man'yōshū*" and the Imperial Imagination.

<sup>&</sup>lt;sup>57</sup> Lamarre, review of *The Pursuit of Harmony*.

<sup>58</sup> Danica Truscott's recent study of the strategies of the Ōtomo clan to carve out their own space within the overarching imperial imagination of the *Man'yōshū* 万葉集 (Collection of Ten Thousand Leaves) collection also brings to light such complexities in the field of vernacular poetry during the Nara period; see Truscott, "Assembling the *Man'yō* Woman."

### References

- Allen, Joseph R. *In the Voice of Others: Chinese Music Bureau Poetry*. University of Michigan, Center for Chinese Studies, 1992.
- Bunka shūreishū 文華秀麗集. Ed. Kojima Noriyuki 小島憲之. In NKBT 69.
- Chen, Jack W. *The Poetics of Sovereignty: On Emperor Taizong of the Tang Dynasty.* Harvard University Asia Center, 2010.
- Chen, Jack W. "The Writing of Imperial Poetry in Medieval China." *Harvard Journal of Asiatic Studies* 65 (2005), pp. 57–98.
- Chu ci 楚辭. Ed. Shen Hong 沈洪. Taiwan Shangwu Yinshuguan, 1964.
- Denecke, Wiebke. "Topic Poetry Is All Ours': Poetic Composition on Chinese Lines in Early Heian Japan." *Harvard Journal of Asiatic Studies* 67:1 (2007), pp. 1–49.
- Duffy, Kay. "The Third Day of the Third Month in Early Medieval Chinese Texts: Literary Composition as Ritualized Practice." PhD dissertation, Princeton University, 2019.
- Duthie, Torquil. "Man'yōshū" and the Imperial Imagination in Early Japan. Brill, 2014.
- Gotō Akio 後藤昭雄. Heianchō kanbungaku ronkō 平安朝漢文学論考. Ōfūsha, 1981.
- Heldt, Gustav. The Pursuit of Harmony: Poetry and Power in Early Heian Japan. Cornell University East Asia Program, 2008.
- Keikokushū 経国集. In Gunsho ruijū 群書類從 8. Zoku Gunsho Ruijū Kanseikai, 1928.
- Kido Yūko 木戸裕子. "Heian shijo no keishiki: Jikenku no kakuritsu o chūshin to shite" 平安詩序の形式: 自謙句の確立を中心として. Gobun kenkyū 語文研究 69 (1990), pp. 12–24.
- Kinpara Tadashi 金原理. Heianchō kanshibun no kenkyū 平安朝漢詩文の研究. Kyūshū Daigaku Shuppankai, 1981.
- Kojima Noriyuki 小島憲之. Kokufū ankoku jidai no bungaku, chū-chū 国風暗黒時代の文学 中 中. Hanawa Shobō, 1979.
- Kojima Noriyuki. *Kokufū ankoku jidai no bungaku, chū-ge* II 国風暗黒時代の文学中 下II. Hanawa Shobō, 1995.
- Kōninshiki 弘仁式. In KST 26.
- Kotō Shinpei 古藤真平. "Saga-chō jidai no monjōshō shusshin kanjin" 嵯峨朝時代の文章生出身官人. In Nihon kodai no "kan" to "wa": Saga-chō no bungaku kara kangaeru 日本古代の「漢」と「和」 嵯峨朝の文学から考える, ed. Kitayama Mitsumasa 北山円正 et al., Ajia yūgaku アジア遊学 188, pp. 86–100. Bensei Shuppan, 2015.
- Lamarre, Thomas. Review of *The Pursuit of Harmony: Poetry and Power in Early Heian Japan*, by Gustav Heldt. *Japanese Language and Literature* 47:2 (2013), pp. 278–286.

Makino Kazuo 牧野和夫. "'(Honchō) bunshū' hensan shiryō ni tsuite no ichikōsatsu: 12 kanbon "Hyōbyakushū,' 'Gan'ei shishū' nado" 『〔本朝〕文集』編纂資料についての一考察: 十二巻本『表白集』・『含英私集』など. Jissen kokubungaku 実践国文学 36 (1989), pp. 11–29.

Mengzi 孟子. Ed. Fang Yong 方勇. Zhonghua Shuju, 2010.

Minguzzi, Dario. "Keikokushū' Reconsidered: The Negotiation of *Kidendō* Literary Culture in Early Heian Japan." In *Percorsi in Civiltà dell'Asia e dell'Africa: Quaderni di studi dottorali alla Sapienza*, ed. Frederica Casalin and Marina Miranda, pp. 101–117. Sapienza Università Editrice, 2021.

Momo Hiroyuki 桃裕行. *Jōdai gakusei no kenkyū* 上代学制の研究. Meguro Shoten, 1947.

Nihon kōki 日本後紀. In KST 3.

Nihon Montoku tennō jitsuroku 日本文徳天皇実録. In KST 3.

Ouyang Xun 歐陽詢. Yiwen leiju 藝文類聚. Zhonghua Shuju, 1965.

Quan Tang shi 全唐詩. Ed. Peng Dingqiu 彭定求 et al. Zhonghua Shuju, 1960.

Rabinovitch, Judith N., and Timothy R. Bradstock. No Moonlight in My Cup: Sinitic Poetry (Kanshi) from the Japanese Court, Eighth to the Twelfth Centuries. East Asian Comparative Literature and Culture 10. Brill, 2019.

Reeves, Kristopher. "Of Poetry, Patronage, and Politics: From Saga to Michizane, Sinitic Poetry in the Early Heian Court." PhD dissertation, Columbia University, 2018.

Satō Michio 佐藤道生. "Heianchō no shijo ni kan suru oboegaki" 平安朝の詩序に関する覚書. In *Heian bungakushi ronkō* 平安文学史論考, ed. Akiyama Ken 秋山虔, pp. 657–679. Musashino Shoin, 2009.

Satō Michio. Kudaishi ronkō: Ōchō kanshi to wa nanzo ya 句題詩論考: 王朝漢詩とは何ぞや. Bensei Shuppan, 2016.

Shoku Nihongi 続日本紀. In KST 2.

Shoku Nihon kōki 続日本後紀. In KST 3.

Steininger, Brian. Chinese Literary Forms in Heian Japan: Poetics and Practice. Harvard University Asia Center, 2017.

Steininger, Brian. "Li Jiao's Songs: Commentary-Based Reading and the Reception of Tang Poetry in Heian Japan." *East Asian Publishing and Society* 6:2 (2016), pp. 103–129.

Sugawara no Michizane 菅原道真. *Kanke bunsō* 菅家文草. Ed. Kawaguchi Hisao 川口久雄. NKBT 72.

Takigawa Kōji 滝川幸司. "Fujiwara no Mototsune to shijin tachi" 藤原基経と 詩人たち. *Gobun* 語文 84–85 (2006), pp. 25–38.

Takigawa Kōji. *Tennō to bundan: Heian zenki no kōteki bungaku* 天皇と文壇: 平安前期の公的文学. Izumi Shoin, 2007.

- Takigawa Kōji. "Tokihira to Michizane: 'Kanke bunsō' shoshū zōtōshi o megutte" 時平と道真: 『菅家文草』所収贈答詩をめぐって. Kokugo kokubun 国語国文 77:7 (2008), pp. 35–54.
- Takigawa Kōji. "Shimada no Tadaomi no ichi" 島田忠臣の位置. *Chūko bungaku* 中古文学 89 (2012), pp. 1–16.
- Taniguchi Kōsuke 谷口孝介. Sugawara no Michizane no shi to gakumon 菅原道真の 詩と学問. Hanawa Shobō, 2006.
- Truscott, Danica. "Assembling the *Man'yō* Woman: Paratext and Persona in the Poetry of Ōtomo no Sakanoue." PhD dissertation, University of California, Los Angeles, 2022.
- Van Goethem, Ellen. Nagaoka: Japan's Forgotten Capital. Brill, 2008.
- Vedal, Nathan. "Never Taking a Shortcut: Examination Poetry of the Tang Dynasty." *Tang Studies* 33 (2015), pp. 38–61.
- Webb, Jason P. "In Good Order: Poetry, Reception, and Authority in the Nara and Early Heian Courts." PhD dissertation, Princeton University, 2005.
- Yamanaka Yutaka 山中裕. Heianchō no nenjū gyōji 平安朝の年中行事. Hanawa Shobō, 1972.
- Yoshino Shūji 吉野秋二. "Shinsen'en no tanjō" 神泉苑の誕生. *Shirin* 史林 88:6 (2005), pp. 1–33.

### Congenital Anomalies in Ancient Japan as Deciphered in the *Nihon shoki* (Chronicles of Japan)

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### Introduction

Congenital anomalies are structural or functional abnormalities that occur during prenatal development. According to the World Health Organization (WHO), an estimated 6 percent of newborns have some congenital abnormality, resulting in hundreds of thousands of related deaths. Systematic studies of human congenital anomalies started in the 1960s, triggered by the thalidomide cases. At that time, as many as 10,000 cases were reported worldwide, and the risk of congenital morphological abnormalities stemming from drugs taken by the mother during pregnancy became known. This led to research on cases of congenital anomalies and their factors. In recent years, with the progress of developmental biology, molecular biology, and genome analysis techniques, a host of both environmental and genetic factors have now been identified that can cause various congenital abnormalities.

Before congenital anomalies were systematically studied, the epidemiological status of human congenital anomalies (the kinds of cases and the extent to which these occurred across a population) could be ascertained only by collecting case reports published in medical journals. For example, the earliest case of the human tail—a congenital anomaly in which a newborn possesses an excess of tail-like structures—was reported in 1884 in the *New England Journal of Medicine*.<sup>2</sup> Similarly, other malformations either characterized by a striking appearance or

<sup>&</sup>lt;sup>1</sup> See the WHO website: <a href="https://www.who.int/health-topics/congenital-anomalies">https://www.who.int/health-topics/congenital-anomalies</a>.

<sup>&</sup>lt;sup>2</sup>Tojima and Yamada, "Classification of the 'Human Tail."

associated with fatality have also been reported in medical journals. However, the number of cases caused by postnatal disease or by accidents is generally much larger than those possibly caused by the prenatal situation. Thus, it was difficult to grasp the epidemiological status of congenital anomalies even after the 1800s. For this reason, it has been challenging to elucidate the actual situation of congenital anomalies before the spread of modern medical science. This study, however, demonstrates the potential of historical documents to help us in understanding the epidemiology of congenital anomalies in ancient times, using Japan as an example.

As in other countries, systematic study of human congenital anomalies in Japan started in the 1960s, and modern medical journals began to be published only in the late 1870s. Consequently, it was challenging to grasp the degree of incidence or the kinds of congenital abnormalities in pre-modern Japan.

However, numerous ancient historical documents are preserved in Japan. Careful reading of these historical sources reveals several descriptions suggesting congenital morphological or functional abnormalities. The oldest official historical chronicle that survives in Japan is the *Nihon shoki* 日本書紀, which is said to have been completed in 720. It is a chronological text whose compilation was ordered by the emperor (tennō 天皇)—the world's longest-running imperial family. The Nihon shoki consists of a mythological part as well as a record of the genealogy and achievements of forty-one generations of emperors, from the first emperor, Jinmu 神武, to Emperor Jitō 持統. It is written in Literary Sinitic and in annalistic style, with years and dates during each emperor's reign being recorded according to the Chinese sexagenary calendrical cycle.

The *Nihon shoki* is considered to contain more legendary elements than the five subsequent official national histories. In particular, post-World War II historiography tended to reject pre-war studies and thought, and several historians proposed theories questioning the historicity of all accounts in the *Nihon shoki*. However, recent archaeological excavations of the ancient capital and research on wooden documents called *mokkan* 本簡 have shown that the descriptions in the *Nihon shoki* (not the entirety but a part of its descriptions at least) accurately reflect what actually happened.<sup>3</sup> The existence of the emperors mentioned in this document has been proven by the archaeological record as well. An inscription on an iron sword excavated from the Inariyama 稲荷山 burial mound in 1968, for example, proves the existence of the twenty-first emperor, Yūryaku 雌略,<sup>4</sup> which means that the *Nihon shoki* is not a work of fiction but a chronicle of actual events. Many descriptions in this document, especially those recounting events after the seventh century, have been verified by the findings of such archaeological excavations.

<sup>&</sup>lt;sup>3</sup> Endō, Rikkokushi.

<sup>&</sup>lt;sup>4</sup> Hayakawa et al., "Saitama Inariyama kofun."

The *Nihon shoki* is an important historical document that plays a central role in understanding Japanese history; and it is also highly valuable from the perspective of East Asian history. Therefore, it has been a subject of study mainly in history fields. Noteworthily, it contains many descriptions of natural phenomena, including records of disasters (such as earthquakes, heavy rain, drought, and storms) and accounts of astronomical events (such as meteors, planetary motions, and solar or lunar eclipses). Recently, some of its astronomical records have been corroborated by modern science,<sup>5</sup> suggesting that these details were not incorporated as fictional creations but were duly recorded as important matters related to the functioning of the nation. The *Nihon shoki* also contains numerous descriptions of humans: not only of members of the imperial family and people subordinate to them, but even of the people opposed to the emperor. Some of these descriptions possibly refer to congenital anomalies.

While the *Nihon shoki* contains medically valuable descriptions as noted above, it cannot be treated in the same way as ordinary medical records. This is because it is a historical document based on the social background at that time, and its contents must be handled with a strict critical awareness. The historical background and intentions of the period in which the text was composed, along with the degree of truth and exaggeration in its descriptions, must always be considered, instead of simply understanding those descriptions as facts.

Thus, this study attempted to elucidate the epidemiology of congenital anomalies in ancient Japan—which to date has remained largely unexplored—through a cross-disciplinary approach combining medical and historical perspectives.

### Materials and Methods

### The Nihon shoki Used in This Study

No original copy of the *Nihon shoki* has survived to the present. Nonetheless, since it has been considered an important record of national history since its completion, its contents have been repeatedly hand-copied at the imperial court, and over the years many manuscript copies have been produced; most of these are designated as National Treasures or Important Cultural Properties of Japan.

In this study, we used the edition of the *Nihon koten bungaku taikei* 日本古典 文学大系 series as the main source text for our reading and data collection. Additionally, taking into account the possibility that some characters may have been transcribed incorrectly in the process of hand-copying or been damaged with age (through deterioration or by insect bite), we have referred also to as many major extant manuscript copies as possible, to confirm the text of those descriptions we identified as potentially representing congenital anomalies (for a list of the manuscript copies of the *Nihon shoki* referenced in this study, see **Table 1**).

<sup>&</sup>lt;sup>5</sup> Tanikawa, Sōma, and Qu, "Short-Term Variations."

<sup>&</sup>lt;sup>6</sup> Sakamoto et al., Nihon shoki, vols. 1–2.

Table 1. Copies of the Nihon shoki Referenced in This Study

	日本古典文学大系 (底本:卜部兼方本)	岩崎本	前田家本	図書寮本	熱田本	北野本
	Nihon Koten Bungaku Taikei (based on Urabe Kanekata's copy)	Iwasaki bon	Maeda-ke bon	Zushoryō bon	Atsuta bon	Kitano bon
	13c	10–11c	11c	12c	14c	14–16c?
Jinmu 神武 (1st)	0				0	0
Suinin 垂仁 (11th)	$\circ$				$\bigcirc$	$\bigcirc$
Keikō 景行 (12th)	$\circ$				$\bigcirc$	$\bigcirc$
Chūai 仲哀 (14th)	$\bigcirc$				$\bigcirc$	$\bigcirc$
Empress Jingū 神功皇后 (14.5th)	0				$\circ$	$\circ$
Ōjin 応神 (15th)	$\circ$			$\bigcirc$	$\bigcirc$	$\bigcirc$
Nintoku 仁徳 (16th)	$\bigcirc$		$\bigcirc$			$\bigcirc$
Hanzei 反正 (18th)	$\bigcirc$			$\bigcirc$	$\bigcirc$	$\bigcirc$
Yūryaku 雄略 (21st)	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$	
Seinei 清寧 (22nd)	$\bigcirc$			$\bigcirc$	$\bigcirc$	$\bigcirc$
Buretsu 武烈 (25th)	$\bigcirc$			$\bigcirc$		$\bigcirc$
Kinmei 欽明 (29th)	$\bigcirc$					0
Bidatsu 敏達 (30th)	$\bigcirc$		$\bigcirc$			$\bigcirc$
Suiko 推古 (33rd)	$\circ$	$\bigcirc$		$\bigcirc$		$\bigcirc$
Kōgyoku 皇極 (35th)	$\circ$	$\bigcirc$		$\bigcirc$		$\bigcirc$
Seimei 斉明 (37th)	$\circ$					$\bigcirc$
Tenji 天智 (38th)	$\circ$					$\bigcirc$
Tenmu 天武 (40th)	$\circ$					$\circ$
Jitō 持統 (41st)	$\circ$					$\circ$

Note: For bibliographic information on each of the referenced manuscripts, see the reference list.

Quotations of the *Nihon shoki* below have been excerpted from the main source text. In cases where the quoted passage included Chinese characters in traditional form, we have changed these to their modern equivalents for convenience. This article contains many emperors' names as well as other Japanese names and terms. For these, the original characters have been supplied, and their readings given as well, for example, Emperor Jinmu 神武. Additionally, in this article, we use the term "Emperor" for any person who is described as having ascended to the throne as *tennō*, regardless of his or her biological sex. At the same time, the term "Empress" is not used to refer to a female emperor, but rather to a woman who is described as the legitimate wife of a male emperor.

#### Data Collection from the Nihon shoki

As for the existence of the emperors mentioned in the *Nihon shoki*, there are several theories and it is particularly difficult to verify the existence of the emperors preceding the twenty-first emperor, Yūryaku, from an archaeological perspective. It is therefore also challenging to positively confirm or deny, at this point, the historical veracity of the *Nihon shoki'*s descriptions, and discussions of the question fall outside the scope of this article. Since the purpose of this study was to analyze descriptions of human congenital anomalies, the mythological section of the work was excluded. The analysis in this study covered the period from the first emperor, Jinmu, to the 41st emperor, Jitō, an era whose emperors are clearly identified as being humans rather than gods in the *Nihon shoki*.

We collected descriptions of humans possessing abnormal physical and mental characteristics. Cases clearly describing postnatally-acquired diseases (e.g., the cases described as 病, meaning "illness") were excluded from this analysis. Based on the information available in each case, the possibility of congenital anomalies was examined, and a diagnosis of the disease was attempted to the extent possible.

#### Case Diagnoses: From Medical and Historical Points of View

The *Nihon shoki* is not a medical text but a historical document recording the national history of Japan. As background to the compilation of the *Nihon shoki*, the threat of the Chinese empire, which at the time exercised a powerful hegemony in the East Asian region, needs to be underlined. In the second year of the reign of the thirty-eighth emperor, Tenji (Tenchi) 天智, Japan suffered a major defeat in a battle against the combined forces of Tang and Silla in the Korean peninsula (i.e., the battle of Baekgang 白江, Jp. Hakusukinoe 白村江, 663). The changing balance of power, both on the continent and in the Korean peninsula, significantly impacted the formation of the *Nihon shoki*. All the statements it contains, in other words, must be carefully examined to assess whether they offer us fact, exaggeration, or metaphor. Accordingly, this study (a) conducted a medical analysis, to the extent possible, to determine what the names and etiologies of the diseases would be if the statements represented actual symptoms and (b) also undertook a consideration of the historical record to determine whether these various diseases could, in fact, have actually occurred.

### Records of Phenomena Possibly Related to Maternal Nutritional Status

Regarding the relationship between maternal nutritional status and congenital anomalies, a deficiency in folic acid is well-known to be directly related to neural tube defects.<sup>7</sup> However, most studies to date have focused on the relationship between individual nutrients and disease, and not much research has been focused

<sup>&</sup>lt;sup>7</sup>Smithells, Sheppard, and Schorah, "Vitamin Deficiencies"; Smithells et al., "Apparent Prevention of Neural Tube Defects."

on multiple nutrients, energy levels, and birth defects.<sup>8</sup> In the longer term (not in terms of birth defects immediately after birth, but in terms of fetal growth retardation [FGR]), "Barker's Hypothesis," stating that maternal undernutrition during pregnancy increases the incidence of future adult diseases in the child, is a plausible effect of undernutrition.<sup>9</sup>

In ancient societies, epidemics, crop failures, and famines due to climatic irregularities and disasters were considered to be situations directly related to the deterioration of maternal nutritional status. Since these events were emergencies in the management of the nation, several clear descriptions of them are given in the *Nihon shoki*. Therefore, we examined the possibility of a chronological correlation between the timing of these events and various descriptions of what might be thought to be congenital anomalies. We also collected and summarized data on the occurrence of disasters such as climatic irregularities (extreme temperatures [cold summers, warm winters, hail, etc.], abnormal rainfall [drought, long rains], typhoons, and earthquakes) as possible causes of the deterioration of nutritional status, even if the character \$\mathbb{I}\$ (meaning "starved") is not explicitly mentioned.

#### Results

Among the records for forty-one generations of emperors, a total of thirty-three cases of human abnormalities were found (**Table 2**). Except during the period stretching from the reign of the second emperor, Suizei 綏靖, to the that of the ninth emperor, Kaika 開化—known as the "generations without history" for their lack of detailed descriptions—descriptions regarding abnormalities were found almost universally, and there was no significant chronological bias in their distribution. These thirty-three cases, the subject of this study, included descriptions of the emperors themselves, of members of their families, and also of non-imperial people. These cases can be classified into the following five types.

## Type 1: Abnormal Height

This type appeared most frequently in the *Nihon shoki*. It could be divided into two patterns: unusually tall and unusually short statures. Descriptions of unusually tall stature were seen only for members of the imperial family (four out of ten cases). In two of these cases, there were specific descriptions of the person's stature. Yamato Takeru no Mikoto日本武尊, who was a son of the twelfth emperor, Keikō 景行, is described as being about 3 meters (1 jō 丈) tall.¹⁰ His son, the fourteenth emperor, Chūai 仲哀, is also described as a tall person, 3 meters (10 shaku 尺) in height.¹¹ An indirect description indicates that Emperor Yūryaku

<sup>&</sup>lt;sup>8</sup> Abu-Saad and Fraser, "Maternal Nutrition and Birth Outcomes."

<sup>&</sup>lt;sup>9</sup> Barker, "Fetal Origins of Cardiovascular Disease."

<sup>&</sup>lt;sup>10</sup> Sakamoto et al., Nihon shoki, vol. 1, pp. 282–283.

<sup>&</sup>lt;sup>11</sup> Ibid., pp. 320-321.

	Number of Cases				
	Imperial	Non-imperial	Total		
Type 1: Abnormal height	4	6	10		
-Abnormally tall	4	0	4		
-Abnormally short	0	6	6		
Type 2: Excess tissue or organ formation	1	5	6		
Type 3: Speech or behavioral abnormality	4	2	6		
Type 4: Different facial or body feature	0	6	6		
Type 5: Pigment anomaly	2	1	3		
Other	0	2	2		

Table 2. Possible Cases of Congenital Anomalies in the Nihon shoki

was also tall. In the scene where this emperor encounters a deity named Katsuragi no Hitokotonushi 葛城一言主, the height of the deity is described as being tall in a manner similar to that of the emperor.<sup>12</sup>

Meanwhile, descriptions of unusually short stature were found only in the non-imperial peoples (six out of ten cases). The earliest description of short stature is about the people called Tsuchigumo 土蜘蛛, in the chronicle of Emperor Jinmu's reign. According to this description, the Tsuchigumo had short bodies and long limbs similar to the Hikihito 侏儒.<sup>13</sup> The term Hikihito refers not to specific individuals but rather to a so-called "dwarf" people. In the six descriptions of short stature, four cases related to them. The term 侏儒 also appears in the Chinese historical work Records of the Three Kingdoms (Ch. Sanguozhi 三国志; in the "Book of Wei" (魏書), within the chapter "Encountering the Dongyi" (烏丸鮮卑東夷伝), "Section on the Wa 倭 people," commonly known in Japanese as "Gishi wajinden" 魏志倭人伝), to which the original editors of the Nihon shoki themselves referred. 4 According to this Chinese work, the Hikihito people were about 90-120 centimeters (3-4 shaku) tall. Their occupation can also be inferred from the descriptions in the Nihon shoki. In the chronicles of the twenty-fifth emperor, Buretsu 武烈, and the fortieth emperor, Tenmu 天武, onward, the Hikihito people are described as participating in a number of recreation activities held by the emperors. 15

There was also a description of a such a "dwarf" person not of the Hikihito people. During the reign of Emperor Tenji, the chronicle mentions Nakatomibe no Wakako 中臣部若子 of Hitachi 常陸 Province (present-day Ibaraki Prefecture), who is said to have been only about 48 centimeters (1 *shaku* and 6 *sun*) tall at the

<sup>&</sup>lt;sup>12</sup> Sakamoto et al., Nihon shoki, vol. 1, pp. 466–467.

<sup>&</sup>lt;sup>13</sup> Ibid., pp. 210–211.

<sup>&</sup>lt;sup>14</sup>Chen and Pei, Sangokushi, vol. 30; Sakamoto et al., Nihon shoki, vol. 1, pp. 350–353.

<sup>&</sup>lt;sup>15</sup> Sakamoto et al., *Nihon shoki*, vol. 2, pp. 16–17, 416–417, 460–461.

age of sixteen and who was presented to the emperor, perhaps because of his or her unusual stature.<sup>16</sup>

## Type 2: Excess Tissue or Organ Formation

Among the descriptions of excess tissue or organ formation, only one case related to the emperor himself. This is the fifteenth emperor, Ōjin 応神, who is described as congenitally having excess tissue as follows: at birth, he had raised flesh on his arms, shaped like a *tomo* 鞆—a device worn on the left forearm when using a bow and arrow (**Figure 1**).<sup>17</sup> The *Nihon shoki* also notes that Emperor Ōjin had a long reign and a long life<sup>18</sup>, and these descriptions strongly suggested a lack of other severe morphological or functional abnormalities.

Other than the one imperial case, there were five descriptions of non-imperial individuals with various kinds of excess tissue or organs. The earliest such records appeared in the chronicle of Emperor Jinmu's reign. The emperor is said to have encountered two people with tails in the Yoshino 吉野 region (in present-day Nara Prefecture). The first of these was named Ihika 井光 and is described as the founder of a tribe living in the region. This person is also described as having emerged from a well (*i* 井) and as possessing a body that glowed. The second person with a tail introduced himself to the emperor as Ishioshiwaku no Ko 磐排別之子 and appeared in front of the emperor after pushing his way through a huge rock. This tailed person is also described as the founder of a local tribe in the Kuzu 国栖 district of the Yoshino region.

In the reign of the eleventh emperor, Suinin 垂仁, there is a description of a man with a horn (or horns) on his forehead, Tsunuga Arashito 都怒我阿羅斯等.<sup>20</sup> He was the son of the king of the Kara 韓 kingdom on the Korean peninsula, and is said to have come to Japan by ship during the reign of the tenth emperor, Sujin 崇神, eventually serving two emperors.

While the people in the three cases above were friendly to the court and the emperor, the following two cases describe forces opposed to the imperial court. In the first year of Empress Jingū's 神功皇后 regency (after the death of her husband, Emperor Chūai 仲哀), there was a man named Hashirokumawashi 羽白熊鷲 in present-day Kyushu.<sup>21</sup> He was robust, had wings, and could fly high. The imperial court had him subdued because he was a violent robber and disobeyed imperial orders. A similar case is recorded in the sixty-third year of the reign of the sixteenth emperor, Nintoku 仁徳—the court subdued a person named Sukuna 宿儺 in present-day Gifu Prefecture for similarly disobeying imperial commands.

<sup>&</sup>lt;sup>16</sup> Sakamoto et al., Nihon shoki, vol. 2, pp. 376–377.

<sup>&</sup>lt;sup>17</sup> Ibid., vol. 1, pp. 362–363.

<sup>&</sup>lt;sup>18</sup> Ibid., pp. 380–381.

<sup>&</sup>lt;sup>19</sup> Ibid., pp. 198–199.

<sup>&</sup>lt;sup>20</sup> Ibid., pp. 258-259.

<sup>&</sup>lt;sup>21</sup> Ibid., pp. 332–333.

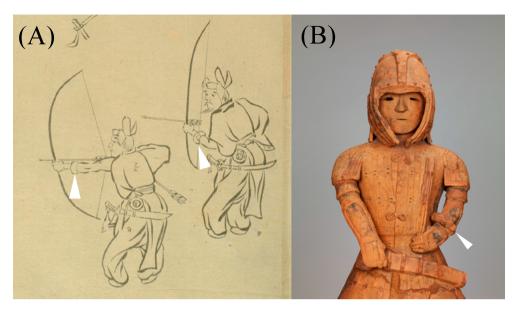


Figure 1. Depictions of tomo 鞆 (indicated by white arrowheads) worn on the left forearm. (A) Nenjū gyōji emaki 年中行事絵巻, by Fujiwara no Mitsunaga 藤原光長, copied by Tani Bunchō 谷文晃. National Diet Library Digital Collection. <a href="https://doi.org/10.11501/2591106">https://doi.org/10.11501/2591106</a> (image 14). (B) Haniwa Keikō no bujin 埴輪 挂甲の武人 (terracotta tomb figure of an armored man). Tokyo National Museum. e-Museum: National Treasures & Important Cultural Properties of National Institutes for Cultural Heritage, Japan. <a href="https://emuseum.nich.go.jp/detail?langId=&content\_base\_id=100200&content\_part\_id=001&content\_pict\_id=033">https://emuseum.nich.go.jp/detail?langId=&content\_base\_id=100200&content\_part\_id=001&content\_pict\_id=033</a>.

Sukuna is described as possessing one body but two faces dorsoventrally. The top of the head was fused and he had no nape, and there were eight limbs (the number of the limbs was enough for two people); he had knees but no popliteal fossa.<sup>22</sup>

## Type 3: Speech or Behavioral Abnormality

This type was found in six cases: four were about members of the imperial family, and two were about non-imperials. All involve functional abnormalities, but the cases can be divided into those of speech impairment and those of behavioral disability.

Two cases of speech impairment were found in the imperial family. Homutsuwake no Miko 營津別王 (命, 皇子) the son of Emperor Suinin, is said to have cried like a baby and been unable to speak even though he was thirty years old with a long beard. Later, however, he apparently developed the ability to speak when he became interested in a swan.<sup>23</sup> Something similar was seen in the case of Takeru no

<sup>&</sup>lt;sup>22</sup> Sakamoto et al., Nihon shoki, vol. 1, pp. 414–415.

<sup>&</sup>lt;sup>23</sup> Ibid., pp. 256–257, 267–269.

Miko 建皇子, the son of Emperor Tenji, of whom it is clearly stated that "he could not speak and was dumb [sic]". He died prematurely at the age of eight.<sup>24</sup>

Descriptions of behavioral abnormality referred specifically to the tendency to become easily incensed and use violence. Emperor Yūryaku is described as often killing people based on misunderstandings, and as having once been condemned as "a very bad emperor" by the people. However, he improved his behavior after being admonished by the empress. In the chronicle of Emperor Buretsu, a grandson of Yūryaku, there are more descriptions of violent tendences, and those were not for the execution of criminals but rather for pleasure: incidents such as ripping open the belly of a pregnant woman to see her fetus, or making people climb trees and then shooting them down. Although this emperor had an empress, he had no sons or daughters. There is no clear statement in the Nihon shoki about Buretsu's age at his death, and there are various theories based on descriptions in later history books. The Fusō ryakki 扶桑略記 and the Mizukagami 水鏡 from the eleventh to twelfth century state that he died at the age of eighteen, the number of the property of the p

Another such description related to an individual who was a royal but not a member of the Japanese imperial family: King Mata 末多 of Paekche on the Korean peninsula, who was recommended by the aforementioned Emperor Yūryaku to become a king, is also described as a tyrant who mistreated his people.<sup>30</sup>

Among this type, only one case was about a non-imperial person. In the fourth year of the reign of Emperor Tenmu, a certain man is said to have climbed up a hill, uttered something mysterious and thereupon died after beheading himself.<sup>31</sup>

#### Type 4: Different Facial or Body Features

Of the thirty-three total cases, six were of type 4. These all concerned non-imperial people living either in remote areas controlled by the imperial court at the time or even further beyond, whose facial features appeared to be "different." This type of description first appears in records of the reign of Emperor Keikō. There it is described how he launched a large-scale expedition to the Kyushu area because several tribes there called Kumaso 熊襲 or Tsuchigumo had not paid tribute. During the expedition, the emperor is said to have killed two Kumaso

<sup>&</sup>lt;sup>24</sup> Sakamoto et al., *Nihon shoki*, vol. 2, pp. 331, 368–369.

<sup>&</sup>lt;sup>25</sup> Ibid., vol. 1, pp. 464–465.

<sup>&</sup>lt;sup>26</sup> Ibid., vol. 2, pp. 14–17.

<sup>&</sup>lt;sup>27</sup> Higo et al., "Kunchū Fusō ryakki 3."

<sup>&</sup>lt;sup>28</sup> Kuroita, Fusō ryakki, Teiō hennenki; Kuroita, Mizukagami, Ōkagami.

<sup>&</sup>lt;sup>29</sup> Kuroita, Fusō ryakki, Teiō hennenki; Hanawa, Gunsho ruijū 3.

<sup>&</sup>lt;sup>30</sup> Sakamoto et al., *Nihon shoki*, vol. 1, pp. 497–499, vol. 2, pp. 14–15.

<sup>&</sup>lt;sup>31</sup> Ibid., vol. 2, pp. 420–421.

leaders named Hanatari 鼻垂 and Mimitari 耳垂 and a Tsuchigumo leader named Tsutsura 津頬.<sup>32</sup> These were all personal names but also describe physical characteristics: Hanatari and Mimitari respectively mean "large, drooping nose" and "large, drooping ears," while Tsutsura means "spiky face."

During the reign of the twenty-ninth emperor, Kinmei 欽明, there is a description of the people from the Mishihase 粛慎 region, an area to the north of ancient Japan's (i.e., the imperial court's) sphere of influence at that time, as "demons (oni 鬼魅), not people (hito ni arazu 非人)."<sup>33</sup> The following thirtieth emperor, Bidatsu 敏達, summoned a person named Ayakasu 綾柏. The leader of the Emishi 蝦夷 people, a tribe inhabiting the region to the north of the area controlled by the court, he had been brought to court because thousands of Emishi were ravaging the frontier. Ayakasu is described as an ōemishi 大毛人, the Chinese characters for which mean "hairy person."<sup>34</sup> The more definitive description of Emishi as having a face or appearance different from that of the people at court can be found in the chronicle of the thirty-seventh emperor, Saimei 斉明. In the fifth year of this emperor's reign, Japanese envoys sent to the Tang dynasty in China presented two Emishi people (a man and a woman) to the Emperor Gaozong 高宗. The Tang emperor is to have commented that he found the faces and bodies of the Emishi very strange.<sup>35</sup>

## Type 5: Pigment Anomaly

There were three descriptions of what appear clearly to be pigmentary anomalies. Two of the three cases related to the imperial family. The most obvious case was that of the twenty-second emperor, Seinei 清寧. It is clearly stated that the emperor was born with silver hair.<sup>36</sup> He seems not to have an empress or children.

Indirect description of hair streaked with gray was found regarding Yamashiro no Ōe no Miko 山背大兄王 during the reign of the thirty-fifth emperor, Kōgyoku 皇極. He was the son of a great regent named Umayato no Toyotomimi no Miko 厩戸豊聡耳皇子 and a grandson of the thirty-first emperor, Yōmei 用明. He was eventually attacked by a minister named Soga no Iruka 蘇我入鹿 in a dispute over the succession to the throne, and this attack led him to suicide. A satirical rhyme recorded in the *Nihon shoki* uses the term *kamashishi* 山羊 to refer to the prince.<sup>37</sup> The word is thought to refer to the Japanese serow, whose fur is streaked with gray.

Another description of a supposed pigmentary abnormality of non-imperial

<sup>&</sup>lt;sup>32</sup> Sakamoto et al., *Nihon shoki*, vol. 1, pp. 288–289, 294–295.

<sup>&</sup>lt;sup>33</sup> Ibid., vol. 2, pp. 91–93.

<sup>&</sup>lt;sup>34</sup> Ibid., p. 141.

<sup>&</sup>lt;sup>35</sup> Ibid., pp. 340–341.

<sup>&</sup>lt;sup>36</sup> Ibid., vol. 1, pp. 502–503.

<sup>&</sup>lt;sup>37</sup> Ibid., vol. 2, pp. 252–253.

people was found in the twentieth year of the reign of the thirty-third emperor, Suiko 推古. People who had come to Japan from Paekche were said to have had vitiligo on their faces and bodies. They were almost marooned on an island in the sea because of their appearance, but they were allowed to come to Japan after they appealed, citing their special skills in building landscapes.<sup>38</sup>

Other: Descriptions of Disability Possibly Including Cases of Congenital Anomalies
The expression atsuehito 篤癃 appears twice in the chronicle of Emperor Jitō.<sup>39</sup>
This term corresponds to tokushitsu 篤疾, a category of disabled people in the ritsuryō 律令 code, a set of laws enacted around the time the Nihon shoki itself was compiled (ritsu 律 refers to criminal law, ryō 令 to administrative law). Generally, the term ritsuryō contains both the Taihō 大宝 Ritsuryō enacted in 701–702 and the Yōrō 養老 Ritsuryō (a revision of the former Taihō Ritsuryō) enacted in 757. In the ritsuryō system, there were three categories of disability, based on severity: zanshichi 残疾, haishichi 癈疾, and tokushitsu 篤疾. Tokushitsu referred to people with critical illnesses such as leprosy, epilepsy, disability in two of four limbs, or blindness in both eyes, and such people were exempted from all duties and given one attendant to care for them. 40 Although it is impossible to determine the specific symptoms and cause of disease from a description of atsuehito alone, some conditions so categorized may have been due to congenital abnormalities.

#### Discussion

In the *Nihon shoki*, we found numerous descriptions that might be attributed to congenital anomalies. For each of the abovementioned types 1–5, we examined whether the cases surveyed could have been caused by a congenital abnormality and tried to diagnose the disease.

## Type 1: Abnormal Height

In the *Nihon shoki*, three emperors were mentioned as being tall. Similarly, in the *Kojiki* 古事記, a historical text compiled around the same time as the *Nihon shoki*, there are additional descriptions of two further tall emperors: Emperor Keikō (about 3.6 meters) and Emperor Hanzei 反正, the eighteenth emperor. Combining the descriptions in both texts, we might conclude that Emperor Keikō, Yamato Takeru no Mikoto, and Emperor Chūai represented three generations of tall height, and that such height was thus likely a genetic trait. However, the heights given for these emperors are too high to be factual. Since the specific figures themselves are unlikely to be accurate, it is more realistic to consider

<sup>&</sup>lt;sup>38</sup> Sakamoto et al., Nihon shoki, vol. 2, pp. 197–199.

<sup>&</sup>lt;sup>39</sup> Ibid., pp. 500–501, 532–533.

<sup>&</sup>lt;sup>40</sup> Kishi, Ryō no shūge.

<sup>&</sup>lt;sup>41</sup> Kurano and Takeda, *Kojiki, Norito*, pp. 188–189, 288–289.

them as exaggerations of the actual height. It is worth noting that descriptions of the height of an emperor are usually accompanied by expressions praising their appearance. Furthermore, since the emperors do not appear with the depictions of short stature described below, focus upon their tall stature may be a way of expressing prestige, fighting prowess, or esteem. It is also possible that the descriptions represent a combination of actual tall stature and exaggeration.

Medically, unusual tallness is sometimes caused by congenital anomalies. For example, Klinefelter syndrome, a sex chromosome abnormality, is one possible cause. <sup>42</sup> In the emperors' cases, however, all the tall emperors are described as having multiple children. Thus, it is highly likely that their tall height resulted not from a congenital abnormality but rather from a genetic trait. The only exception would be Emperor Chūai, who is said to have died suddenly at the age of fifty-two.

Such an association of tall stature and sudden death reminded us of another causative congenital anomaly: Marfan syndrome. 43 This is a genetic disease, and tallness is its characteristic symptom. Additionally, in affected adults, cardiovascular complications and sudden death are highly likely due to aortic dissection.<sup>44</sup> Furthermore, this anomaly is also associated with poor eyesight due to myopia and lens deviation. 45 In the chronicle of Emperor Chūai, one account states that the emperor could not see and did not recognize the existence of a certain "country on the sea" that a deity wanted to show him. 46 The emperor died shortly after this event, with the chronicle indeed attributing his early death to his failure to heed the deity's words. Of course, it is evident that such a narration contains mythical elements; and it would be practically difficult to see the Korean peninsula with the naked eye from atop a high hill near Kashii no Miya 橿日宮 Palace (in present-day Fukuoka Prefecture), where the emperor is said to have been at the time. However, that another country existed beyond the sea was, setting aside the deity, probably a fact known to the people of that time. It is highly likely that there were already political, economic, and cultural exchanges between Japan and the southern Korean peninsula in the third century, when Emperor Chūai is believed to have reigned. To take one indicative example, a series of excavations since the 1990s<sup>47</sup> have uncovered a group of ancient "keyhole-shaped" burial mounds (zenpō-kōen-fun 前方後円墳) in the southern part of the Korean peninsula. Burial mounds of such shape were characteristic of ancient Japan at

<sup>&</sup>lt;sup>42</sup> Klinefelter, Reifenstein, and Albright, "Syndrome Characterized by Gynecomastia"; Ford et al., "The Chromosomes in a Patient"; Jacobs and Strong, "A Case of Human Intersexuality."

<sup>&</sup>lt;sup>43</sup> Marfan, "Un cas de déformation congénitale."

<sup>&</sup>lt;sup>44</sup> de Beaufort et al., "Aortic Dissection in Patients"; Flynn et al., "Systematic Review and Meta-Analysis"; Pyeritz, "Etiology and Pathogenesis."

<sup>&</sup>lt;sup>45</sup> Jones, Rodriguez, and Bassnett, "Targeted Deletion of Fibrillin-1."

<sup>&</sup>lt;sup>46</sup> Sakamoto et al., Nihon shoki, vol. 1, pp. 326–327.

<sup>&</sup>lt;sup>47</sup>Choi, "Kanhantō no Eisankō-ryūiki."

the time. In any case, even if the statement that the emperor "could not see" really was an expression of his weak eyesight, it would be consistent with the symptoms of Marfan syndrome.

Meanwhile, a typical case of short stature was the Hikihito people. Based on the description of the Tsuchigumo people, who they are said to have resembled, the Hikihito would seem to have possessed long limbs compared to their trunk. Two main possible causes of genetic short stature are chondrodysplasia<sup>48</sup> and growth hormone deficiency.<sup>49</sup> However, since the trait of long limbs cannot occur in the case of chondrodysplasia, if there is any truth in such a representation, the Hikihito possibly suffered from growth hormone deficiency and genetic short stature.

#### Type 2: Excess Tissue or Organ Formation

At birth, Emperor Ōjin 応神 is described as having a soft, fleshy mass on his forearm. Since the emperor had a long life according to the chronicle, we ruled out the possibility that this node of his was malignant. The most likely cause, then, would be vascular malformation.<sup>50</sup> Such anomalies often occur in the extremities and are not fatal diseases.<sup>51</sup> Vascular malformation can be venous, lymphatic, and a mixture of the two, and it has been reported that venous malformation in the limbs mostly causes pain in the muscles, tendons, and bones.<sup>52</sup> According to the *Nihon shoki* description, however, this emperor enjoyed hunting several times, and these statements suggested that he did not feel much pain in the arm with the mass.<sup>53</sup> Thus, the mass would more likely be a lymphatic rather than a venous malformation.

While the descriptions about Emperor Ōjin are highly likely to be caused by a congenital anomaly, the other cases found are not likely to have been factual. The tailed people recorded during Emperor Jinmu's reign may have had a congenital anomaly known as a human tail.<sup>54</sup> Even if they had this anomaly, it would be difficult to confirm in an individual wearing clothing unless the tail-like structure itself were exposed. Thus, regarding these tailed people, the descriptions are highly likely to be metaphors for other facts (e.g. symbols of power, specific forms of clothing or other local customs) rather than representing the symptoms of some congenital anomaly.

In another case, there is a description of a Korean man named Tsunuga Arashito with a horn on his forehead. The *Nihon shoki* notes that he was a member

<sup>&</sup>lt;sup>48</sup> Horton, Hall, and Hecht, "Achondroplasia."

<sup>&</sup>lt;sup>49</sup> Şıklar and Berberoğlu, "Syndromic Disorders with Short Stature."

<sup>&</sup>lt;sup>50</sup> Legiehn and Herans, "Venous Malformations."

<sup>&</sup>lt;sup>51</sup> Maftei et al., "The Surgical Management"; Merouane et al., "Cystic Lymphangioma of the Elbow."

<sup>&</sup>lt;sup>52</sup> Rikihisa et al., "Evaluation of Pain Incidence."

<sup>&</sup>lt;sup>53</sup> Sakamoto et al., *Nihon shoki*, vol. 1, pp. 370–371, 374–375.

<sup>&</sup>lt;sup>54</sup> Tojima and Yamada, "Classification of the 'Human Tail"; Tojima, "A Tale of the Tail."

of the royal family on the Korean peninsula and that he had made a voyage from there to Japan.<sup>55</sup> In such a situation, his health condition must have been strong enough to survive both what would have been an arduous journey during ancient times, as well as a long stay in Japan. As such, one would not expect him to have had headaches or other problems in association with the "horn." Interpreting this description as a case of hard, palpable tissue formation in the frontal region of the head, the most likely cause would then be a benign skull or subcutaneous tumor, such as an osteoma or calcifying epithelioma.<sup>56</sup> Other anomalies, such as intraosseous meningioma, which causes a mass in the frontal part of the skull, might also be possible.<sup>57</sup> In this particular case, however, several Japanese historical studies have hypothesized that this does not represent an actual physical description.<sup>58</sup>

Hashirokumawashi, who revolted against Empress Jingū, is described as having had wings on his body. The closest available realistic interpretation of a "wing-like" structure on the trunk would be a winged scapula.<sup>59</sup> This is an anomaly in which the medial border of the scapula rises when the arm is raised, giving the appearance of angel wings or folded bird wings. However, this condition does not match the *Nihon shoki's* clear depiction of Hashirokumawashi's high mobility, such as in his "flying high." Winged scapula can be caused by paralysis of the serratus anterior muscle due to palsy of the long thoracic nerve, or by paralysis of the trapezius muscle due to paranodal nerve injury. In other words, when a winged scapula occurs, flexion of the shoulder joint to raise the arm forward is restricted, and athletic ability rather reduced.

As for Sukuna, who fought Emperor Nintoku, there are many morphological descriptions, but just as with Hashirokumawashi, comparable cases hardly even exist. First, the characteristic of having one body, two faces, four arms, and four legs in the literal sense can only realistically be true of conjoined twins (craniopagus twins). In the case as described, however, facial orientation of the dorsum seems to be present, which is rare. The descriptions about fused parietals and being without any nape suggest that the head also would be fused to a significant degree. Moreover, the phrase "possessing knees but no popliteal fossa" is challenging to interpret. Additionally, if Sukuna were so severely deformed, it would be difficult to even survive to adulthood, let alone fight with a sword or bow and arrow. Therefore, it is more likely that this Sukuna, as well as the abovementioned Hashirokumawashi, did not actually have any such deformity, and that the descriptions thereof are rather merely metaphorical expressions.

<sup>&</sup>lt;sup>55</sup> Sakamoto et al., Nihon shoki, vol. 1, pp. 258–259.

<sup>&</sup>lt;sup>56</sup> Farah et al., "Giant Frontal Sinus Osteoma."

<sup>&</sup>lt;sup>57</sup> Agrawal et al., "Intraosseous Intracranial Meningioma"; Kim et al., "Two Cases of Primary Osteolytic Intraosseous Meningioma."

<sup>&</sup>lt;sup>58</sup> Sakamoto et al., Nihon shoki, vol. 1, p. 589.

<sup>&</sup>lt;sup>59</sup> Fiddian and King,"The Winged Scapula"; Kitamura et al., "Tōka ni okeru yokujō kenkō shōrei no kentō."

<sup>60</sup> Walker and Browd, "Craniopagus Twins."

The descriptions of excess tissue or organ formation in non-imperial individuals share several commonalities. First, all five examples were about leaders of local or frontier-region communities. Furthermore, the formation of organs such as tails, horns, and wings, which humans do not typically possess, and the two examples of Hashirokumawashi and Sukuna, who revolted against the imperial court, are accompanied by descriptions suggesting superhuman physical abilities, such as flight and immense power and agility. These may be expressions of contempt for the frontier-region people who defied the imperial court, disparaging them as barbarians even while granting the strength of their power.

### Type 3: Speech or Behavioral Abnormality

Of the two cases suggesting speech impairment, the cause of the problem seems to be different in the cases of Homutsuwake, the son of Emperor Suinin, and Takeru no Miko, the son of Emperor Tenji. The major differences between the two lie in whether they were adults or infants, and in whether they eventually became able to speak.

Regarding Homutsuwake, the expression "he cries like a baby all the time" suggests that he had a speech impediment, not a problem with vocalization. Additionally, description of his age (thirty years old), and of his having a long beard, indicates that he was an adult physically. He also eventually became able to speak, after he became interested in swans, which he also enjoyed playing with. Cumulatively, these descriptions suggested that his symptoms were likely caused by autism. <sup>62</sup> If so, this would explain his survival to adulthood, both his dysphasia as well as his ultimate ability to speak, and even his strong attachment to a particular object, in this case the swan.

Conversely, in the case of Takeru no Miko, there is only the statement that he was unable to speak, leaving it unclear whether he had a problem with speech or with articulation. The major difference between him and Homutsuwake is that Takeru no Miko died at the age of eight, before he learned to speak. The cause of his death is not mentioned, and it is not difficult to imagine that the infant mortality rate was higher in ancient times than today. Yet while it is also unclear whether there was a connection between his speech impediment and his premature death, if there was a connection, Takeru may have had some severe intellectual disability (mental retardation). It is known that many childhood diseases can cause both mental disability and premature death. Arima syndrome, which causes renal failure, is one such example.

Next, we discuss examples of impulsive murder and the tendency to become enraged. Emperor Yūryaku was described as one who summarily executed his

<sup>&</sup>lt;sup>61</sup> For example, on the Kuzu district, see Haraguchi, "Kuzu no utabue sōjō."

<sup>&</sup>lt;sup>62</sup> Mody and Belliveau, "Speech and Language Impairments."

<sup>63</sup> Katō, "Seishin chitaijisha no hassei yōin."

<sup>&</sup>lt;sup>64</sup> Arima et al., "Nō keisei ijō"; Kumada et al., "Renal Disease in Arima Syndrome."

subjects whenever their words or actions deviated from what he expected. Given the disproportion between the triggering events and the violence expressed by the emperor on such occasions (quite extreme in degree), together with the frequent occurrence of such descriptions, he might have had an intermittent explosive disorder, a type of impulse control disorder.<sup>65</sup>

The chronicle of Emperor Buretsu, the grandson of Emperor Yūryaku, also has many descriptions of abuses against his subjects, but his abuses differ in nature. In contrast to Emperor Yūryaku, who responded to the actions of his subjects with violence, many of Emperor Buretsu's abuses can only be understood as having been conducted for his own interest or pleasure, without any apparent fault on the part of the victim. However, several hypotheses have been proposed to date by Japanese historians suggesting that descriptions of Emperor Buretsu as a tyrant are not accurate. Tsuda's study in 1947 noted that Emperor Buretsu's death without a successor severed the male lineage that had existed since the reign of Emperor Nintoku. 66 Furthermore, he believed that the Nihon shoki's editors, based on Confucian ideology, considered Buretsu evil—precisely because he had severed this lineage—and fabricated such an account accordingly. Another theory suggests that the editors of the Nihon shoki fabricated the story of Buretsu's tyranny in order to legitimize the accession of Emperor Keitai 継体 as his successor.<sup>67</sup> Although the authenticity of the descriptions in the Nihon shoki remains uncertain, from a medical point of view, since impulse control disorders can be inherited, it is possible to decipher the presence of genetic influences in these successive descriptions of tyranny from both Emperors Yūryaku and Buretsu, respectively grandfather and grandson.

Finally, regarding the person who committed suicide after uttering something mysterious during the reign of Emperor Tenmu, from a medical point of view, the possibility of schizophrenia might be raised.<sup>68</sup>

## Type 4: Different Facial or Body Features

In conclusion, we believe that descriptions of this type are not related to congenital anomalies. We presume that these descriptions result from a combination of both anthropological morphological differences within Japan at that time and feelings of contempt for the barbarians outside the area of imperial dominion. This speculation is based on the statements that the people described as having "different appearances" all lived in areas geographically distant from the Kansai region where the imperial court was located—for example in the present Kyushu and Tōhoku regions.

Regarding the facial morphology of the ancient northeastern people called

<sup>&</sup>lt;sup>65</sup> Schreiber, Odlaug, and Grant, "Impulse Control Disorders."

<sup>66</sup> Tsuda, Nihon jōdai-shi no kenkyū.

<sup>&</sup>lt;sup>67</sup> Inoue, Shinwa kara rekishi e.

<sup>&</sup>lt;sup>68</sup> Hor and Taylor, "Suicide and Schizophrenia"; Sher and Kahn, "Suicide in Schizophrenia."

Emishi, Takigawa's study in 2012 used excavated human skeletal remains and suggested that there may have been a mix of groups in the region, some with strong Jōmon-period characteristics and others who were immigrants from the Kansai region. <sup>69</sup> Several human remains excavated from the Yamoto Tunnel Burials (from the mid-seventh to the early ninth century) <sup>70</sup> and from the Tekiana Cave (from the eighth to the first half of the tenth century) <sup>71</sup>—both located in Miyagi Prefecture—exhibit Jōmon-period facial features, indicating that they were morphologically different from the Kansai-dwelling population at that time. The people who strongly retained these Jōmon-period characteristics were likely the Emishi, who were considered "different in appearance." However, such descriptions may also have been influenced by the dominant viewpoint of the time, centered on the imperial court, which regarded remote areas and areas outside the court's control as barbaric and primitive.

Thus, descriptions of this type combine both differences in physical forms or lifestyles that actually existed, and also more exaggerated representations rooted in the court-centrism of the time.

#### Type 5: Pigment Anomaly

Since this type includes only simple descriptions of pigmentary anomalies without involving any other superhuman characteristics, for such cases congenital anomalies could well be the most reasonable explanation. Particularly, it is clearly stated that the silver hair of Emperor Seinei was congenital, raising the possibly that he had albinism, an anomaly caused by reduced melanin pigment biosynthesis.<sup>72</sup>

In the chronicle of Emperor Kōgyoku, it is suggested that Yamashiro Ōe no Miko had gray-streaked hair, similar to that of a Japanese serow. However, since it is unclear how old he was at the time of this description, and from the fact that he suffered the serious stress of being attacked, it is difficult to determine whether his gray hair was congenital, or acquired due to aging or to stress.

The group of Korean people who came to Japan during the reign of Emperor Suiko was most likely afflicted with vitiligo.<sup>73</sup> Its cause is unclear, but according to the description, they were skilled workers who arrived in Japan together and may have shared some genetic traits. Since there is also a description of them being regarded as peculiar because of white patches, they might have been discriminated against for their appearance also in their original homeland, prompting their move to Japan.

<sup>&</sup>lt;sup>69</sup> Takigawa, Kotsukōkogaku to Emishi, Hayato.

<sup>&</sup>lt;sup>70</sup> Takigawa and Satō, "Hokuhen no yokoanabo kodaijin."

<sup>71</sup> Yamaguchi and Ishida, "Human Skeletal Remains."

<sup>&</sup>lt;sup>72</sup> King, "Albinism"; King and Summers, "Albinism"; Oetting and King, "Molecular Basis of Albinism"

<sup>73</sup> Pande, Suggu, and Bhalla, "Rare Case of Congenital Vitiligo."

## Trends and Factors of Congenital Abnormalities in the Nihon shoki

We found several descriptions of structural or functional abnormalities in the *Nihon shoki* that, from the viewpoint of modern medical science, might appear to result from congenital anomalies. Although there are various causes of such congenital anomalies, systematic studies on congenital anomalies since the 1960s have revealed that they can result from a deteriorated prenatal environment as well as from genetic factors. Therefore, we also examined whether there are any descriptions in the *Nihon shoki* of such possible environmental (i.e., non-genetic) causes of birth defects, as described below.

## Relation to the Occurrence of Epidemics, Famines, and Disasters

The *Nihon shoki* records four instances of pandemic disease: in the fifth and twelfth years of Emperor Sujin's reign<sup>74</sup>, in the thirteenth year of Emperor Kinmei's reign<sup>75</sup>, and in the fourteenth year of Emperor Bidatsu's reign.<sup>76</sup> The last of these pandemics is specifically described as being smallpox.

However, there seemed to be no clear causal relationship between the occurrence of large-scale epidemics and congenital anomalies in Japan. There was no clear description of congenital anomalies in the chronicle of Emperor Sujin (although there is a record in the chronicle of Emperor Sujin's reign). There is also only one case each to be found in the chronicles of Emperors Kinmei and Bidatsu. Furthermore, as both the Kinmei and Bidatsu descriptions relate to the Emishi (type 4), the possibility of a congenital anomaly in either case is low.

Other environmental factors that may lead to the deterioration of maternal nutritional status include the occurrence of famine. Definitive descriptions of severe famine were recorded three times: in the twenty-eighth year of Kinmei's reign (great flood in the country, many people starving, some resorting to cannibalism)<sup>77</sup>; in the thirty-third year of Suiko's reign (prolonged period of rain from the third to the seventh month, with all people starving and particularly many elders, infants, and mothers being said to have starved to death)<sup>78</sup>; and in the eighth year of the reign of the thirty-fourth emperor, Jomei 舒明 (severe drought, the whole country starving).<sup>79</sup> As can be seen in these cases, poor weather significantly impacted grain yields.

From our results, it became clear that descriptions of congenital anomalies did not occur frequently in the *Nihon shoki* at times when plagues and crop failures were recorded (**Table 3**). Therefore, it is difficult to find a clear causal relationship

<sup>&</sup>lt;sup>74</sup> Sakamoto et al., Nihon shoki, vol. 1, pp. 248–249.

<sup>&</sup>lt;sup>75</sup> Ibid., vol. 2, pp. 102–103.

<sup>&</sup>lt;sup>76</sup> Ibid., pp. 148–149.

<sup>&</sup>lt;sup>77</sup> Ibid., pp. 126-127.

<sup>&</sup>lt;sup>78</sup> Ibid., pp. 212–213.

<sup>&</sup>lt;sup>79</sup> Ibid., pp. 230–231.

	Total number of disasters*	Famine or crop failure**	Climate distur- bance***	Earth- quake	Heavy rain or flooding		Storm or strong wind	Ash fall
Sujin 崇神 (10th)	1		1					
Ingyō 允恭 (19th)	2		1	1				
Kinmei 欽明 (29th)	1	1			1			
Sushun 崇峻 (32nd)	1				1			
Suiko 推古 (33rd)	6	2	3		2	1		
Jomei 舒明 (34th)	7	1	1		3	1	3	
Kōgyoku 皇極 (35th)	24		11	3	4	2	5	
Kōtoku 孝徳 (36th)	1				1			
Tenji 天智 (38th)	3			1	1		1	
Tenmu 天武 (40th)	35	2	2	18	2	7	4	2
Jitō 持統 (41st)	12			1	2	9		

<sup>\*</sup>Not counting separately those cases where multiple descriptions were thought to represent one continuous disaster, or where the phenomena described were considered to be secondary manifestations of a larger single disaster.

between the two, and at the very least, the descriptions of congenital anomalies collected in this study can be considered to have occurred independently of plague or famine.

# Differences in Disease Incidence/Description between Emperors and Non-emperors

Not only some congenital anomalies but also other genetic diseases for which the causative genes have been identified are familial, as the genes are inherited from one generation to the next. European royal families are known to historically have many consanguineous marriages, in which case the disease genes of their lineages are assumed to have been passed on at a high rate, causing diseases

<sup>\*\*</sup>Number of records clearly describing famine or crop failure.

<sup>\*\*\*</sup>Includes temperature extremes, excessive snowfall, and hail.

such as hemophilia.<sup>80</sup> Additionally, about half of all congenital anomalies are multifactorial. Even in diseases where the specific causative genes have not been identified (including cleft or palate lip<sup>81</sup> and some congenital heart diseases<sup>82</sup>) there are higher recurrence rates among people with a blood relationship to carriers of such diseases than among the general population. It would therefore be unsurprising if, once found in the Japanese imperial family, such diseases came to appear repeatedly.

In the long history of Japanese emperors, there have been several generations of consanguineous marriages to maintain the lineage. 83 It would thus be expected if the incidence of congenital anomalies and the expression of associated symptoms were more prevalent in the imperial family than among non-imperials. However, no clear trend specific to the imperial families was found. The incidences of congenital anomalies are difficult to estimate accurately in either imperial or non-imperial people. This is largely because the *Nihon shoki* was written to record the emperors' achievements. Given its nature as a national history compiled by the order of the emperor, there are inevitably many descriptions of imperial family members. At the same time, even information about imperial children is not necessarily recorded correctly in the Nihon shoki: Emperor Keikō is said to have had more than eighty children, yet their names are not recorded.84 It is also difficult to estimate the number of non-imperial citizens at that time, especially before the family register system had been introduced. Therefore, for both emperors and non-imperials (whose population size is unknown), the calculation of incidence rates for various congenital anomalies is impossible.

Among descriptions regarding the members of the imperial family, some potential genetic traits were found: the tall stature recorded for Yamato Takeru no Mikoto and Emperor Chūai, and the descriptions of Yūryaku and Buretsu's tyrannical behavior. However, these are only potential genetic traits, and there are no cases where incestuous marriage seems to have been the leading cause.

It is only in the case of Emperor Ōjin that the maternal environment, rather than heredity, could not be ruled out as a possible influence. It is written that Empress Jingū, Emperor Ōjin's mother, went to the Korean peninsula to fight in Silla while pregnant, dressed as a man and leading an army.<sup>85</sup> If hypothetically this were true, it might be imagined that the empress was under severe stress during her pregnancy. As described above, we have speculated that the fleshy mass on the emperor's arm was a lymphatic or vascular malformation. Recent studies have shown that the incidence of infantile hemangioma is higher when

<sup>80</sup> Stevens, "The History of Haemophilia."

<sup>81</sup> Mossey and Modell, "Epidemiology of Oral Clefts 2012."

<sup>82</sup> van der Bom et al., "The Changing Epidemiology."

<sup>83</sup> Sakamoto et al., Nihon shoki, vols. 1, 2.

<sup>84</sup> Ibid., vol. 1, pp. 286–287.

<sup>85</sup> Ibid., pp. 334–335.

the mother has allergic conjunctivitis or hay fever.<sup>86</sup> Thus, we believe that such a high-stress state as in Empress Jingū's case, during a pregnancy, could well have been a factor in producing something like Emperor Ōjin's condition.

#### Conclusion

In this study, we attempted to understand the epidemiology of congenital anomalies in ancient times, which until now have been considered a complete mystery. This study showed that by reading the *Nihon shoki* from both medical and historical perspectives, we were able to catch a glimpse into an aspect of ancient times that until now had remained invisible. In addition to the *Nihon shoki*, many other valuable documentary texts exist in Japan. These include manuscripts and anecdotes related to the history of other regions in East Asia, sometimes even records that no longer survive in their countries of origin. As with the *Nihon shoki*, it is impossible to interpret all the descriptions in such historical documents as fact. However, by expanding in scope the application of a method like ours, we can expect to learn more about ancient congenital anomalies, their pathologies, and the responses of people to the same long before the spread of modern medicine, not only in Japan but also in East Asia as a whole. We believe this study has shown significant results in demonstrating the potential of these new methods for deciphering ancient epidemiology from historical documents.

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<sup>86</sup> Mizawa et al., "Infantile Hemangioma and the Risk Factors."

#### References

- Abu-Saad, K., and Fraser, D. "Maternal Nutrition and Birth Outcomes." *Epidemiologic Reviews* 32 (2010), pp. 5–25. <a href="https://doi.org/10.1093/epirev/mxq001">https://doi.org/10.1093/epirev/mxq001</a>.
- Agrawal, V., N. Ludwig, A. Agrawal, and K. R. Bulsara. "Intraosseous Intracranial Meningioma." *American Journal of Neuroradiology* 28 (2007), pp. 314–315.
- Arima Masataka 有馬正高, Ono Kazuo 小野和郎, Hisada Kazuko 久田和子, and Handa Teruhiko 半田照彦. "Nō keisei ijō, tahatsusei nōhōjin, mōmaku shikiso jōhi ijō, hensokusei ganken kasui o shimesu ichi kazoku-sei shōkōgun 脳形成異常, 多発性嚢胞腎, 網膜色素上皮異常, 片側性眼瞼下垂を示す一家族性症候群. Nō to hattatsu 脳と発達 3, no. 4 (1971), pp. 330—331.
- Barker, David J. P. "Fetal Origins of Cardiovascular Disease." *Annals of Medicine* 31 (1999), pp. 3–6. <a href="https://doi.org/10.1080/07853890.1999.11904392">https://doi.org/10.1080/07853890.1999.11904392</a>.
- Chen Shou 陳寿 and Pei Songzhi 裴松之. Vol. 30 of *Sangokushi* 三国志. Suzuki Yoshimune (publisher), 1885. National Diet Library Digital Collection, <a href="https://dl.ndl.go.jp/ja/pid/899855/1/51">https://dl.ndl.go.jp/ja/pid/899855/1/51</a>.
- Choi Youngjoo 崔榮柱. "Kanhantō no Eisankō-ryūiki ni okeru kofun tenkai to zenpō kōenkei kofun no shutsugen katei" 韓半島の栄山江流域における古墳展開と前方後円形古墳の出現過程. *Ritsumeikan bungaku* 立命館文學, 632 (2013), pp. 163–152.
- de Beaufort, Hector W. L., Santi Trimarchi, Amit Korach, Marco Di Eusanio, Dan Gilon, Daniel G. Montgomery, Arturo Evangelista, Alan C. Braverman, Edward P. Chen, Eric M. Isselbacher, Thomas G. Gleason, Carlo De Vincentiis, Thoralf M. Sundt, Himanshu J. Patel, and Kim A. Eagle. "Aortic Dissection in Patients with Marfan Syndrome Based on the IRAD Data." *Annals of Cardiothoracic Surgery* 6, no. 6 (2017), pp. 633–641. http://dx.doi.org/10.21037/acs. 2017.10.03.
- Endō Keita 遠藤慶太. *Rikkokushi: Nihon shoki ni hajimaru kodai no "seishi*"六国史: 日本書紀に始まる古代の「正史」. Chūōkōron Shinsha, 2021.
- Farah, Riyaq A., Arturo Poletti, Aaron Han, and Ramon Navarro. "Giant Frontal Sinus Osteoma and Its Potential Consequences: Illustrative Case." *Journal of Neurosurgery: Case Lessons* 1, no. 21 (2021): CASE21105. <a href="https://thejns.org/doi/abs/10.3171/CASE21105">https://thejns.org/doi/abs/10.3171/CASE21105</a>.
- Fiddian, N.J., and R. J. King. "The Winged Scapula." *Clinical Orthopaedics & Related Research* 185 (1984), pp. 228–236.
- Flynn, Campbell D., David H Tian, Ashley Wilson-Smith, Tirone David, George Matalanis, Martin Misfeld, Stefano Mastrobuoni, Gebrine El Khoury, and Tristan D. Yan. "Systematic Review and Meta-Analysis of Surgical Outcomes in Marfan Patients Undergoing Aortic Root Surgery by Composite-Valve Graft or Valve Sparing Root Replacement." *Annals of Cardiothoracic Surgery* 6, no. 6 (2017), pp. 570–581.

- Ford, C. E., K. W. Jones, O. J. Miller, U. Mittwoch, L. S. Penrose, M. Ridler, and A. Shapiro. "The Chromosomes in a Patient Showing Both Mongolism and the Klinefelter Syndrome." *The Lancet* 1, no. 7075 (1959), pp. 709–710.
- Hanawa Hokiichi 塙保己一. *Gunsho ruijū* 3: *Teiō-bu, Kōdaiki* 群書類従 第3輯 帝王部 皇代記. Yagi Shoten, 1987.
- Haraguchi Koichirō 原口耕一郎. "Kuzu no utabue sōjō to kore ni kakawaru kanshi ni tsuite" 国栖の歌笛奏上とこれに関わる官司について. *Studies in Humanities and Cultures* 4 (2006), pp. 132–150. <a href="https://ncu.repo.nii.ac.jp/record/147/files/B422-20060110-150.pdf">https://ncu.repo.nii.ac.jp/record/147/files/B422-20060110-150.pdf</a>.
- Hayakawa Yasuhiro 早川泰弘, Miura Sadatoshi 三浦定俊, Ōmori Nobuhiro 大森信宏, Aoki Shigeo 青木繁夫, and Imaizumi Yasuyuki 今泉泰之. "Saitama Inariyama kofun shutsudo kinsakumei tekken no kinzōgan meibun no keikō X-sen bunseki" 埼玉稲荷山古墳出土金錯銘鉄剣の金象嵌銘文の蛍光X線分析. Hogon kagaku 保存科学 42 (2003), pp. 1–18.
- Higo Ryūkai 比護隆界, Usami Masatoshi 宇佐美正利, Kuribayashi Fumiko 栗林史子, Sakurada Kazuko 桜田和子, Takioto Yoshiyuki 瀧音能之, and Yanagimachi Tokisato 柳町時敏. "*Kunchū Fusō ryakki 3*" 訓注 扶桑略記 3. *Bungei kenkyū* 文芸研究 71 (1994), pp. 153–180.
- Hor, K., and M. Taylor. "Suicide and Schizophrenia: A Systematic Review of Rates and Risk Factors." *Journal of Psychopharmacology* 24, supplement 4 (2010), pp. 81–90.
- Horton, William A., Judith G. Hall, and Jacqueline T. Hecht. "Achondroplasia." Lancet 370 (2007), pp. 162–172.
- Inoue Mitsusada 井上光貞. Shinwa kara rekishi e 神話から歴史へ. Vol. 1 of Nihon no rekishi 日本の歴史. Chūō Kōron Shinsha, 2005.
- Jacobs, Patricia A., and J. A. Strong. "A Case of Human Intersexuality Having a Possible XXY Sex Determining Mechanism." *Nature* 183 (1959), pp. 302–303.
- Jones, Wendell, Juan Rodriguez, and Steven Bassnett. "Targeted Deletion of Fibrillin-1 in the Mouse Eye Results in Ectopia Lentis and Other Ocular Phenotypes Associated with Marfan Syndrome." *Disease Models & Mechanics* 12, no. 1 (2019): dmm037283. https://doi.org//10.1242/dmm.037283.
- Katō Hideyo 加藤英世. "Seishin chitaijisha no hassei yōin to shibō no jidai suii ni kansuru kenkyū" 精神遅滞児者の発生要因と死亡の時代推移に関する研究. *Minzoku eisei* 民族衛生 60, no. 3 (1994), pp. 157–168.
- Kim, Hyool, Tae-Young Jung, In-Young Kim, and Jung-Kil Lee. "Two Cases of Primary Osteolytic Intraosseous Meningioma of the Skull Metastasizing to Whole Skull and the Spine." *Journal of Korean Neurosurgical Society* 51, no. 3 (2012), pp. 151–154. <a href="https://doi.org/10.3340/jkns.2012.51.3.151">https://doi.org/10.3340/jkns.2012.51.3.151</a>.
- King, Richard A. "Albinism." In *Neurocutaneous Diseases*, ed. Manuel Rodriguez Gomez, pp. 311–325. Boston: Butterworth-Heinemann, 1987.

- King, Richard A., and C. Gail Summers. "Albinism." Dermatologic Clinics, 6 no. 2 (1988), pp. 217–228.
- Kishi Toshio 岸俊男, ed. *Ryō no shūge* 令集解. In vol. 2 of *Kokushi taikei* 國史大系, pp. 265–267. Yoshikawa Kōbunkan, 1943.
- Kitamura Takahiro 北村貴弘, Miura Hiromasa 三浦裕正, Kubota Hideaki 窪田秀明, and Iwamoto Yukihide 岩本幸英. "Tōka ni okeru yokujō kenkō shōrei no kentō" 当科における翼状肩甲症例の検討. Seikei-geka to saigai-geka 整形外科と災害外科 47, no. 4 (1998), pp. 1147–1149.
- Klinefelter, Harry F., Jr., Edward C. Reifenstein, Jr., and Fuller Albright. "Syndrome Characterized by Gynecomastia, Aspermatogenesis without A-Leidigism and Increased Secretion of Follicle-Stimulating Hormone." *The Journal of Clinical Endocrinology & Metabolism* 2, no. 11 (1942), pp. 615–622.
- Kumada, Satoko, Masaharu Hayashi, Kunimasa Arima, Hiroshi Nakayama, Kenji Sugai, Masayuki Sasaki, Kiyoto Kurata, and Michio Nagata. "Renal Disease in Arima Syndrome Is Nephronophthisis as in Other Joubert-Related Cerebello-Oculo-Renal Syndromes." *American Journal of Medical Genetics* 131, no. 1 (2004), pp. 71–76.
- Kurano Kenji 倉野憲司 and Takeda Yūkichi 武田祐吉. Kojiki, Norito 古事記 祝詞. Vol. 1 of Nihon koten bungaku taikei 日本古典文学大系. Iwanami Shoten, 1958.
- Kuroita Katsumi 黒板勝美. Fusō ryakki, Teiō hennenki 扶桑略記 帝王編年記. Vol. 12 of Kokushi taikei 國史大系. Yoshikawa Kōbunkan, 1999.
- Kuroita Katsumi. *Mizukagami*, Ōkagami 水鏡 大鏡. Vol. 21, part 1 (jō 上) of *Kokushi taikei* 國史大系. Yoshikawa Kōbunkan, 1999.
- Legiehn, Gerald M., and Manraj K. S. Heran. "Venous Malformations: Classification, Development, Diagnosis, and Interventional Radiologic Management." *Radiologic Clinics of North America* 46, no. 3 (2008), pp. 545–597.
- Maftei, N., A. Howard, L. C. Brown, M. P. Gunnig, and N. J. Standfield. "The Surgical Management of 73 Vascular Malformations and Preoperative Predictive Factors of Major Haemorrhage: A Single Centre Experience." *The European Journal of Vascular and Endovascular Surgery* 38 (2009), pp. 488–497. https://doi.org/10.1016/j.ejvs.2009.06.013.
- Marfan, Antonin-Bernard G. "Un cas de déformation congénitale des 4 membres plus prononcée aux extrémités, caractérisée par l'allongement des os avec un certain degré d'amincissement." *Bulletins et mémoires de la Société médicale des hôpitaux de Paris* 13 (1896), pp. 220–226.
- Merouane, N., A. El Bakkaly, R. Nang, Y. Lahraoui, A. Amrani, A. Dendane, Z. F. Alami, and T. El Madhi. "Cystic Lymphangioma of the Elbow in an Infant: A Case Report." *Journal of Pediatric Surgery Case Reports* 32 (2018), pp. 35–38. https://doi.org/10.1016/j.epsc.2018.01.012.

- Mizawa, Megumi, Kenta Matsumura, Kei Hamazaki, Fumina Furukawa, Teruhiko Makino, Tadamichi Shimizu, and Hidekuni Inadera for the Japan Environment and Children's Study Group. "Infantile Hemangioma and the Risk Factors in a Japanese Population: A Nationwide Longitudinal Study—The Japan Environment and Children's Study." *Journal of Investigative Dermatology* 141 (2021), pp. 2745–2748. https://doi.org/10.1016/j.jid.2021.05.011.
- Mody, Maria, and John W. Belliveau. "Speech and Language Impairments in Autism: Insights from Behavior and Neuroimaging." North American Journal of Medicine and Science (Boston) 5, no. 3 (2013), pp. 157–161.
- Mossey, P. A., and B. Modell. "Epidemiology of Oral Clefts 2012: An International Perspective." *Frontiers of Oral Biology* 16 (2012), pp. 1–18. <a href="https://doi.org/10.1159/000337464">https://doi.org/10.1159/000337464</a>.
- Oetting, William S., and Richard A. King. "Molecular Basis of Albinism: Mutations and Polymorphisms of Pigmentation Genes Associated with Albinism." *Human Mutation* 13, no. 2 (1999), pp. 99–115.
- Pande, Purva, Sree Ramu Suggu, and Mala Bhalla. "Rare Case of Congenital Vitiligo in a Neonate." *The Journal of Clinical and Aesthetic Dermatology* 14, no. 6, supplement 1 (2021), pp. S27–S29.
- Pyeritz, Reed E. "Etiology and Pathogenesis of the Marfan Syndrome: Current Understanding." *Annals of Cardiothoracic Surgery* 6, no. 6 (2017), pp. 595–598.
- Rikihisa, Naoaki, Sadanori Akita, Keigo Osuga, Hidefumi Mimura, Shunsuke Yuzuriha, and Satoru Sasaki. "Evaluation of Pain Incidence Due to Venous Malformation Based on Data from 85 Institutions in Japan." *Journal of Vascular Surgery: Venous and Lymphatic Disorders* 8, no. 2 (2020), pp. 244–250. <a href="https://doi.org/10.1016/j.jvsv.2019.03.008">https://doi.org/10.1016/j.jvsv.2019.03.008</a>.
- Sakamoto Tarō 坂本太郎, Ienaga Saburō 家永三郎, Inoue Mitsusada 井上光貞, and Ono Susumu 大野晋. *Nihon shoki* 日本書紀. 2 vols. *Nihon koten bungaku taikei* 日本古典文学大系. Iwanami Shoten, 1981–1982.
- Schreiber, Liana, Brian L. Odlaug, and Jon E. Grant. "Impulse Control Disorders: Updated Review of Clinical Characteristics and Pharmacological Management." Frontiers in Psychiatry 2 (2011). <a href="https://doi.org/10.3389/fpsyt.2011.00001">https://doi.org/10.3389/fpsyt.2011.00001</a>.
- Sher, Leo, and René S. Kahn. "Suicide in Schizophrenia: An Educational Overview." Medicina (Kaunas) 55, no. 7 (2019), p. 361. https://doi.org/10.3390/medicina55070361.
- Şıklar, Zeynep, and Merih Berberoğlu. "Syndromic Disorders with Short Stature." *Journal of Clinical Research in Pediatric Endocrinology* 6, no. 1 (2014), pp. 1–8. https://doi.org/10.4274/Jcrpe.1149.
- Smithells, R. W., S. Sheppard, and C. J. Schorah. "Vitamin Deficiencies and Neural Tube Defects." *Archives of Disease in Childhood* 51 (1976), pp. 944–950. <a href="https://doi.org/10.1136/adc.51.12.944">https://doi.org/10.1136/adc.51.12.944</a>.

- Smithells, R. W., S. Sheppard, C. J. Schorah, M. J. Seller, N. C. Nevin, R. Harris, A. P. Read, and D. W. Fielding. "Apparent Prevention of Neural Tube Defects by Periconceptional Vitamin Supplementation." *Archives of Disease in Childhood* 56 (1981), pp. 911–918. https://doi.org/10.1136/adc.56.12.911.
- Stevens, Richard. "The History of Haemophilia in the Royal Families of Europe," *British Journal of Haematology* 105, no. 1 (1999), pp. 25–32.
- Takigawa Wataru 瀧川渉. Kotsukōkogaku to Emishi, Hayato 骨考古学と蝦夷・隼人. Dōseisha, 2012.
- Takigawa Wataru and Satō Toshiyuki 佐藤敏幸. "Hokuhen no yokoanabo kodaijin: Miyagi-ken Yamoto yokoana bogun shutsudo jinkotsu no keishitsu" 北辺の横穴墓古代人: 宮城県矢本横穴墓群出土人骨の形質. *Anthropological Science* (Japanese Series) 116, no. 1 (2008), pp. 35–51.
- Tanikawa Kiyotaka, Sōma Mitsuru, and Qu Anjing. "Short-Term Variations of ΔT from Yángdì-Eclipse on AD 616 May 21, Suiko Eclipse on AD 628 April 10, and Neighboring Solar Eclipses and Occultations." *Publications of the Astronomical Society of Japan* 74, no. 4 (2002), pp. 665–677. <a href="https://doi.org/10.1093/pasi/psac021">https://doi.org/10.1093/pasi/psac021</a>.
- Tsuda Sōkichi 津田左右吉. *Nihon jōdai-shi no kenkyū* 日本上代史の研究. Iwanami Shoten, 1947.
- Tojima, Sayaka, and Shigehito Yamada. "Classification of the 'Human Tail': Correlation between Position, Associated Anomalies, and Causes." *Clinical Anatomy* 33, no. 6 (2020), pp. 929–942. https://doi.org/10.1002/ca.23609.
- Tojima, Sayaka. "A Tale of the Tail: A Comprehensive Understanding of the 'Human Tail." *Journal of Korean Neurosurgical Society* 64, no. 3 (2021), pp. 340–345. https://doi.org/10.3340/jkns.2021.0017.
- van der Bom, Teun, A. Carla Zomer, Aeilko H. Zwinderman, Folkert J. Meijboom, Berto J. Bouma, and Barbara J. M. Mulder. "The Changing Epidemiology of Congenital Heart Disease." *Nature Reviews Cardiology* 8 (2011), pp. 50–60. <a href="https://doi.org/10.1038/nrcardio.2010.166">https://doi.org/10.1038/nrcardio.2010.166</a>.
- Walker, Marion, and Samuel R. Browd. "Craniopagus Twins: Embryology, Classification, Surgical Anatomy, and Separation." *Child's Nervous System* 20 (2004), pp. 554–566. https://doi.org/10.1007/s00381-004-0991-6.
- Yamaguchi, Bin, and Hajime Ishida. "Human Skeletal Remains of the Heian Period from the Tekiana Cave Site on Tobi-shima, Yamagata Prefecture." *Bulletin of the National Science Museum Series D* 26 (2000), pp. 1–16.

## References for Tables and Figures

Atsuta Jingū 熱田神宮. *Atsuta-bon Nihon shoki* 熱田本日本書紀. 3 vols. Yagi Shoten, 2017.

Ishizuka Harumichi 石塚晴通. Nihon shoki: Zushoryō-bon 日本書紀: 圖書寮本. Miki Shuppansha, 1980.

Kichōtosho Fukuseikai 貴重図書複製会. Nihon shoki: Kokuhō Kitano-hon 日本書紀: 国宝北野本. National Diet Library Digital Collection. Vol. 3, https://dl.ndl.go.jp/pid/1142332; vol. 6, https://dl.ndl.go.jp/pid/1142340; vol. 7, https://dl.ndl.go.jp/pid/1142344; vol. 8, https://dl.ndl.go.jp/pid/1142348; vol. 10, https://dl.ndl.go.jp/pid/1142352; vol. 11, https://dl.ndl.go.jp/pid/1142356; vol. 12, https://dl.ndl.go.jp/pid/1142358; vol. 15, https://dl.ndl.go.jp/pid/1142369; vol. 16, https://dl.ndl.go.jp/pid/1142373; vol. 17, https://dl.ndl.go.jp/pid/1142378; vol. 19, https://dl.ndl.go.jp/pid/1142384; vol. 20, https://dl.ndl.go.jp/pid/1142394; vol. 23, https://dl.ndl.go.jp/pid/1142397; vol. 24, https://dl.ndl.go.jp/pid/1142401; vol. 26, https://dl.ndl.go.jp/pid/1142412; vol. 27, https://dl.ndl.go.jp/pid/1142416; vol. 28, https://dl.ndl.go.jp/pid/1142418; vol. 29, https://dl.ndl.go.jp/pid/1142426.

Kyoto Kokuritsu Hakubutsukan 京都国立博物館. Kokuhō Iwasaki-bon Nihon shoki: Kyōto Kokuritsu Hakubutsukan shozō 国宝 岩崎本日本書紀: 京都国立博物館所蔵. Bensei Shuppan, 2013.

Nihon shoki (Maeda-ke bon) 日本書紀 (前田家本). Kyoto University Rare Materials Digital Archive. <a href="https://rmda.kulib.kyoto-u.ac.jp/item/rb00013274">https://rmda.kulib.kyoto-u.ac.jp/item/rb00013274</a>.

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