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The Origins of Violence and Warfare in the Japanese Islands

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This chapter examines the origins and early history of violence in the Japanese islands, focusing on the Jōmon (c. 14,500–900 BCE) and Yayoi (c. 900 BCE–250 CE) periods.[1] Although the rise of *bushi* (samurai) warriors has been widely studied in comparative perspective, early trends in violence and warfare in Japan have received less attention outside specialist circles.[2] For several reasons, however, the Japanese archipelago is a good place to think about the links between violence and historical change. One such reason is that it possesses a long sequence of hunter-gatherer settlement that can contribute to ongoing debates over violence and agriculture.[3] Full-scale farming societies did not reach western Japan until the first millennium BCE and in Hokkaido in the north, hunting-gathering continued until the early twentieth century.[4] Secondly, hunter-gatherers in the Japanese islands display great diversity due to both ecological and historical factors. Ecologically, there was a wide range of foraging habitats from sub-tropical islands in the south to sub-arctic tundra in the north. Social organisation ranged from the relatively simple to some of the most complex hunter-gatherers known from the archaeological record.[5] The fact that many hunter-gatherers in prehistoric Japan were engaged in some sort

1 The research leading to these results has received funding from the European Research Council under the European Union's Horizon 2020 research and innovation programme (grant agreement no. 646612) granted to Martine Robbeets.

2 For a recent series of papers on the origins of the *bushi*, see the special issue of *Asian Studies/Azijske študije* 6.2 (2018), edited by Luka Culiberg.

3 See e.g. M. Allen and T. Jones (eds.), *Violence and Warfare among Hunter-Gatherers* (Walnut Creek, CA: Left Coast Press, 2014), and D. P. Fry and P. Söderberg, 'Lethal Aggression in Mobile Forager Bands and Implications for the Origins of War', *Science* 341 (2013), 270–3.

4 M. J. Hudson, 'The Historical Ecology of Colonialism and Violence in Hokkaido, Sakhalin and the Kuril Islands, AD 1200–1900', in J. Habu, P. Lape and J. Olsen (eds.), *Handbook of East and Southeast Asian Archaeology* (New York: Springer, 2018), pp. 695–706.

5 For a suggestion that slaves may have existed in the Jōmon period, see Tatsuo Kobayashi with S. Kaner and O. Nakamura, *Jomon Reflections: Forager Life and Culture in the Prehistoric Japanese Archipelago* (Oxford: Oxbow Books, 2004), pp. 133–4.

of plant cultivation leads us to a third factor: if (as widely assumed) agriculture was an important stimulus behind organised warfare, then at what point along the continuum between forager cultivation and full-scale farming did violence take on that new mantle? Finally, the position of Japan at the periphery of the East Asian world system offers the opportunity to investigate the role of 'tribal zone' and similar colonial processes in contexts very different from those theorised in the existing literature.[6] In what follows, after a brief discussion of historiographic trends, we summarise the archaeological and related evidence for violence in the Jōmon and Yayoi before presenting a concluding discussion on the links between agriculture and violence in early Japan.

Research Trends

As in other parts of the world, questions relating to violence and warfare received little attention in Japanese archaeology until quite recently. Stone arrowheads and bronze weapons were not infrequently discovered in premodern times, but such objects were given a range of sometimes fanciful interpretations.[7] Scientific archaeology began in Japan in 1877 with excavations by the American zoologist Edward Morse at the Ōmori shell midden in Tokyo. Morse's suggestion that human bones excavated from Ōmori bore traces of cannibalism was not confirmed by later research, but he influenced the development of archaeology and anthropology in Japan through his emphasis on histories of 'racial' mixing. The Victorian idea that certain races or ethnic groups were naturally more powerful than others precluded the need for a specific concern with violence as a historical process in need of analysis or explanation. The role of censorship also needs to be considered at a time when Japan had launched upon a project of modernisation which involved frequent wars and colonial conflicts. Anthropologist Shōgorō Tsuboi, for instance, was a clear supporter of the Russo-Japanese War (1904–5).[8] At the height of this conflict he wrote one of the first essays on anthropology and war published in Japan, yet this text uses ethnographic examples from Africa and the Americas to naturalise the role of warfare in

6 R. Brian Ferguson and N. L. Whitehead (eds.), *War in the Tribal Zone: Expanding States and Indigenous Warfare* (Santa Fe, CA: School of American Research Press, 1992).

7 Peter Bleed, 'Almost Archaeology: Early Archaeological Interest in Japan', in R. J. Pearson (ed.), *Windows on the Japanese Past: Studies in Archaeology and Prehistory* (Ann Arbor: Center for Japanese Studies, University of Michigan, 1986), pp. 57–67.

8 Eiji Oguma, *A Genealogy of 'Japanese' Self-images* (Melbourne: TransPacific Press, 2002), pp. 57–8.

human history and studiously avoids any mention of violence in the Japanese past.[9] From the 1930s, censorship became more overt and widespread and profoundly influenced the practice of archaeology, anthropology and history in Japan until 1945.[10]

Japan's defeat in World War II made it possible for archaeologists to contribute to a new 'democratic' history of Japan that explained and critiqued the role of the emperor. If the imperial system was responsible for the rise of despotic power in Japan, then it followed that earlier periods in Japanese prehistory had been characterised by more peaceful, egalitarian communities. In the late 1940s excavations at the Yayoi period Toro site in Shizuoka seemed to provide the perfect example of such a community.[11] One exception to the post-war emphasis on the peaceful roots of ancient Japan was Egami's 'Horse rider' invasion theory, but this was widely criticised in both Japanese and English.[12] By the 1960s, however, Japan was confronted with the growing consequences of industrial pollution and with the international tensions of the cold war, socio-political trends which became coupled to a new interest in conflict in Japanese history.[13] In particular, an expanding archaeological record made it clear that the Yayoi was characterised by extensive evidence for violence, especially in western Japan. This changing interpretation was crystallised by excavations at the Yoshinogari site in Saga, a large settlement enclosed by multiple ditches and palisades with watchtowers (Figure 7.1).[14] The fiftieth anniversary of the end of World War II further stimulated research and by the turn of the twenty-first century a new consensus had been established on the evolution of violence and warfare in prehistoric Japan.[15] Although the possibility of

9 Shōgorō Tsuboi, 'Sensō no jinruigakuteki kansatsu', *Tōkyō Jinruigaku Zasshi* 19.217 (1904), 249–59.

10 Arnaud Nanta, 'Savoirs et colonies: l'archéologie et l'anthropologie japonaises en Corée', in J.-J. Tschudin and C. Hamon (eds.), *La Société japonaise devant la montée du militarisme* (Paris: Philippe Piquier, 2007), pp. 21–31.

11 Walter Edwards, 'Buried Discourse: The Toro Archaeological Site and Japanese National Identity in the Early Postwar Period', *Journal of Japanese Studies* 17 (1991), 1–23.

12 Namio Egami, 'The Formation of the People and the Origin of the State in Japan', *Memoirs of the Tōyō Bunko* 23 (1964), 35–70. For a critique of this theory, see Walter Edwards, 'Event and Process in the Founding of Japan: The Horserider Theory in Archaeological Perspective', *Journal of Japanese Studies* 9 (1983), 265–95.

13 Kōji Mizoguchi, *The Archaeology of Japan: From the Earliest Rice Farming Villages to the Rise of the State* (Cambridge: Cambridge University Press, 2013), pp. 10, 19–20.

14 M. J. Hudson and Gina L. Barnes, 'Yoshinogari: A Yayoi Settlement in Northern Kyushu', *Monumenta Nipponica* 46 (1991), 211–35.

15 Makoto Sahara, 'Rice Cultivation and the Japanese', *Acta Asiatica* 63 (1992), 40–63; Takehiko Matsugi, *Hito wa naze tatakau no ka: Kōkogaku kara mita sensō* (Tokyo: Kōdansha, 2001).

Figure 7.1 Reconstructed defensive structures at the Yoshinogari site.

some small-scale raiding in the Jōmon period was not denied, it was widely concluded that organised warfare began with agriculture in the Yayoi. Japanese research has thus concentrated on developments related to violence *after* the beginning of agriculture and has continued to downplay conflict among preceding hunter-gatherers.

Violence and the Archaeological Record

Archaeological signatures of violence are discussed by various authors in this volume and Table 7.1 presents some widely agreed criteria. As discussed below, with the exception of scalping and cannibalism, evidence for almost all of the criteria is found in Japan from the Yayoi period onwards.

Skeletal Trauma

Individual finds of arrowheads embedded in human bones and other similar, clear-cut traces of violence have long been known in Japan as elsewhere. However, since physical anthropologists have historically been most interested in addressing questions of population affinity, they have often underestimated the evidence for skeletal trauma. Where research has specifically focused on traumatic injuries in prehistoric material, many additional

Table 7.1 Widely found archaeological signatures of violence

Skeletal trauma	Weapon trauma, parry fractures, scalping, cannibalism
Weapons/military equipment	Specialised homicidal tools, shields, armour
Settlement	Fortifications, inaccessible village locations, refuge sites
Burials	Mass graves with trauma, 'warrior' graves
Artistic depictions	Depictions of weaponry and/or actual conflict
Ritual treatment of weapons	Special depositions, hoards, etc.

examples are often found, leading to a significantly increased prevalence of interpersonal violence in many regions.[16]

In Japan, the oldest example of skeletal violence is a probable perimortem injury to the young adult female skull 4 at Minatogawa, a late Pleistocene site on Okinawa dating to 20,000 to 16,000 years ago. The report on this skull concluded that 'the perforation is considered to be the result of some violent outside force, such as an arrow point shot from a high place to the forehead'.[17] Another well-known example comes from the Final Jōmon shell midden site of Hobi on the Astumi Peninsula, where an elderly male was found with numerous blunt force injuries to the cranium. Hisashi Suzuki suggested that at least two or three attackers were involved, with a number of blows being struck from behind.[18] While only a single case, this is interesting because of the extreme violence employed. Nevertheless, it is still not possible to determine whether this was 'in-group' or 'out-group' conflict, the latter being one of the criteria for 'warfare'. A recent review of the Jōmon period by Nakao and colleagues lists twenty-three individuals with apparent

16 Rick J. Schulting and Linda Fibiger, 'Skeletal Evidence for Interpersonal Violence in Neolithic Europe: An Introduction', in R. J. Schulting and L. Fibiger (eds.), *Sticks, Stones and Broken Bones: Neolithic Violence in a European Perspective* (Oxford: Oxford University Press, 2012), pp. 1–15. A demonstration of the resistance to recognising violence in the Jōmon is the suggestion that three cases of embedded projectile points from eastern Japan with signs of healing, all involving adult males, could represent accidents rather than conflict: see Nelly Naumann, *Japanese Prehistory: The Material and Spiritual Culture of the Jōmon Period* (Wiesbaden: Harrassowitz, 2000), pp. 61–2.

17 H. Hisashi Suzuki, 'Skulls of the Minatogawa Man', in H. Suzuki and K. Hanihara (eds.), *The Minatogawa Man. The Upper Pleistocene Man from the Island of Okinawa*, UMUT Bulletin 19 (Tokyo: University Museum, University of Tokyo Press, 1982); on the dating of Minatogawa, see R. Nakagawa et al., 'Pleistocene Human Remains from Shiraho-Saonetabaru Cave on Ishigaki Island, Okinawa, Japan, and Their Radiocarbon Dating', *Anthropological Science* 118 (2010), 173–83.

18 H. Suzuki, 'On the Three Cases with Injuries by Conflicts', *Journal of the Anthropological Society of Nippon* 83(1975), 269–79.

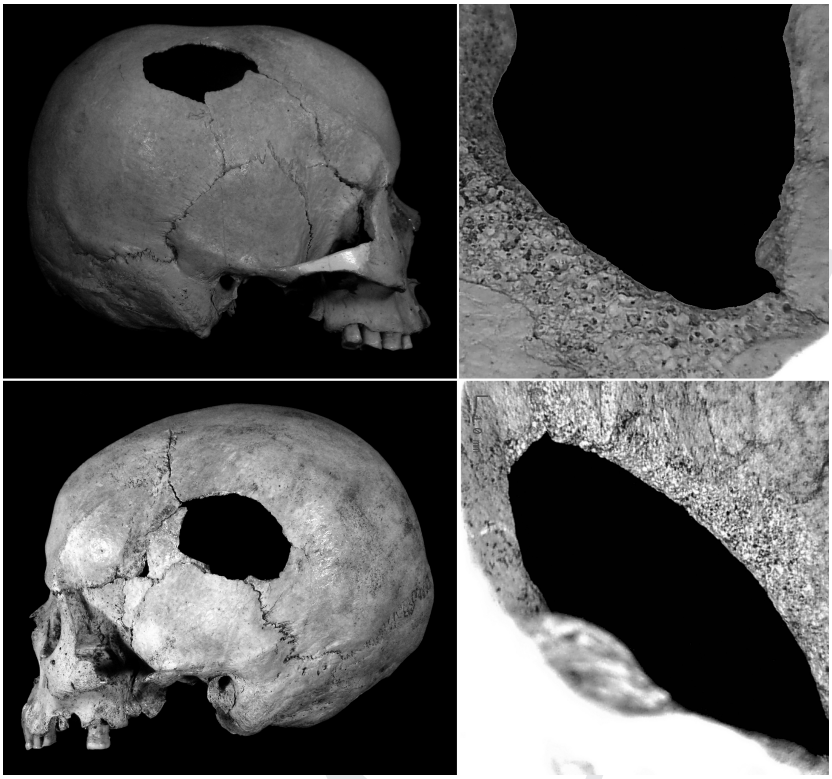

Figure 7.2 Perimortem blunt force injury on the right parietal of an adult probable female from the Late Jōmon site of Sakaeiso, Shimamaki (top) and adult female skull of the Epi-Jōmon found at Minami-Usu 6 (bottom).

evidence for lethal injury – in the form of blunt force injuries to the cranium and embedded stone and bone projectile points in the post-crania with no signs of healing – providing a prevalence of 1.8 per cent of adults dying violently.[19] The authors of this study conclude that this is a low prevalence, but such literature-based reviews are problematic and further research would certainly increase this figure. As one example of this problem, we offer the case of a large perimortem blunt force injury on the right parietal of an adult probable female from the Late Jōmon site of Sakaeiso, Shimamaki, southern Hokkaido (an island not represented by any injuries in Nakao and colleagues' overview) (Figure 7.2). Another example involves an adult female skull of the

19 Hisashi Nakao et al., 'Violence in the Prehistoric Period of Japan: The Spatio-temporal Pattern of Skeletal Evidence for Violence in the Jomon Period', *Biology Letters* 12 (2016), 20160028.

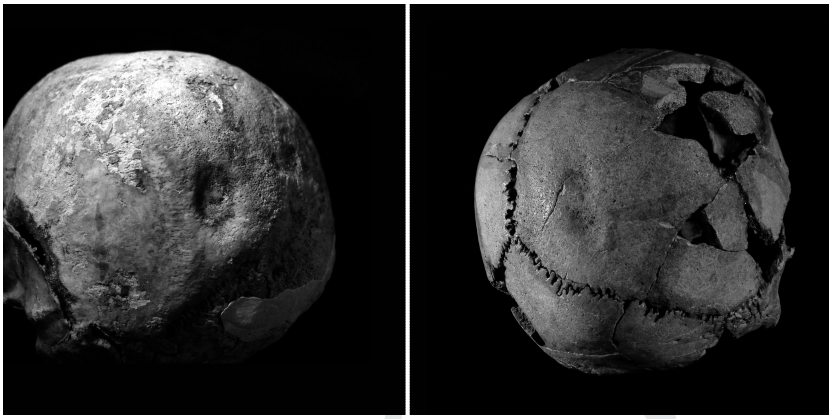

Figure 7.3 Blunt force cranial injuries from Kitakogane (left) and Takasago (right).

Epi-Jōmon (a period excluded from Nakao and colleagues' study) found at the Minami-Usu 6 site, in southern Hokkaido. The published account of this skull focused on craniometrics to show a close affinity with Ainu skulls, but also mentioned as an aside the presence on the left parietal of 'an egg-sized bony defect . . . presumably due to an artificial injury'.[20] This cranium was recently re-examined by Rick Schulting, who confirmed it as a case of perimortem injury (Figure 7.2). Blunt force cranial injuries with evidence of healing also occur in Hokkaido and the other islands, affecting both females and males (Figure 7.3). These cases are in the process of being systematically compiled.

Reports of violence for the Yayoi period can be found in Chinese chronicles such as the *Wei zhi*, which describe a state of warfare in western Japan in the third century CE. Without more texts, however, only archaeology is able to offer some traces of violence and warfare for the preceding centuries. In his reviews of warfare during the Yayoi, Hashiguchi collected data for western Japan on up to 262 cases of violence at 118 sites (either traces of violence on bones or weapon tips excavated from tombs that were assumed to have been originally lodged inside victims).[21] Cases from northern Kyushu alone represented 228 examples from 97 sites. Among all these cases, 21.2 per cent date

20 Yukio Dodo, 'A Human Skull from the Epi-Jomon Period from the Minami-Usu Six Site, Date, Hokkaido', *Journal of the Anthropological Society of Nippon* 91(1983), 169–86.

21 Tatsuya Hashiguchi, 'Yayoi jidai no tatakai', *Kōkogaku Kenkyū* 42(1995), 54–77, and *Yayoi jidai no tatakai: tatakai no jittai to kenryoku kikō no seisei* (Tokyo: Yūzankaku, 2007). See also S. Fujiwara, 'Tactics in Fighting during the Yayoi Period', *Nihon Kōkogaku* 18 (2004), 37–52 (in Japanese).

from the Initial and Early Yayoi, 64.3 per cent from the Middle Yayoi, and 6.8 per cent from the Late Yayoi, leaving 7.7 per cent not related to any specific phase. The over-representation of northern Kyushu and the Middle Yayoi is a preservation bias due to the tradition of burying the dead in huge jar coffins during that phase. However, the detailed data for the Middle Yayoi show that the first third of that phase appears to be far more violent (34.8 per cent of all cases) than the second (18.6 per cent) and final thirds (10.9 per cent).

Among the cases identified by Hashiguchi, forty-two are clear traces of wounds on bones, either cuts, missing heads or halberd/sword/arrowhead tips stuck into bones. The earliest individuals showing traces of violence known for this period date to the transition between the Final Jōmon and the beginning of the Yayoi. Two individuals from the Nagano Miya-no-mae site (Fukuoka) are thought to have suffered a violent death. In tomb 12 the bones have not been preserved but the body location is indicated by black pigment that originally covered the corpse. Two stone arrowheads of Korean style have been found in the chest area, both missing their tips and stems, a fact which led archaeologists to exclude them being burial goods. In tomb 5 at the same site, a stone arrowhead with a missing tip was found in the body area and interpreted in the same way. The first certain traces of violence from weapons left on bones is at the Shinmachi site (Fukuoka), dating from the transition between the Initial and Early Yayoi. This is a male individual from the stone-lined wooden coffin tomb 24–1, who has the tip of a stone polished arrowhead of Korean willow-leaf type stuck in the head of his left femoral head. Two other fragments of this arrowhead have been found around the femur and the position of these finds suggest that this individual was stuck from above and behind. No traces of healing have been observed on the femur, so it was concluded that this wound – or others received at the same time – had caused this individual's death.

These traces of violence on individuals from the beginning of the Yayoi are all related to settlements of the first rice farmers who came from the Asian continent during the period. Until the middle of the Early Yayoi phase, all these finds are situated in the northern coastal areas of Kyushu. Following this, during the second half of the Early Yayoi and the first half of Middle Yayoi, traces of violence extend to the interior of Kyushu in the Saga, Chikugo and Nakatsu plains, and then to the Kumamoto plain and Iki and Hirado in Nagasaki. This period corresponds with the time when the first bronze weapons appear in tombs in northern Kyushu. Then, from the middle of the Middle Yayoi phase onwards, traces of skeletal violence seem to disappear from northern coastal Kyushu and increase rapidly in the Saga

and Chikugo plains. We know, for example, of an adult male who bears traces of a blow from a blunt object on his forehead at the Kuma Nishioda site (Fukuoka), two examples of heads buried alone at Kuma Nishioda and Fujisaki (Fukuoka), and two examples of beheading at Yokokuma Kitsunetsuka (Fukuoka) and Yoshinogari (Saga). Moreover, at the Nagaoka site (Fukuoka prefecture), six individuals show multiple wounds, as do several others at Kuma Nishioda. At the same time, the first traces of violence on human skeletons begin to be found in the Inland Sea and Osaka Bay areas, including sword injuries at Minamikata (Okayama) and Tamatsu Tanaka (Hyōgō).[22]

Burials

The Jōmon period lacks so-called warrior graves. Graves with multiple individuals are known from several Jōmon sites, often representing secondary burials of disarticulated and rearranged remains, but no direct evidence of skeletal violence has so far been reported from these. By contrast, 'warrior graves' containing elaborate weaponry have been found from the Middle/Late Yayoi onwards.[23] The first set of bronze weapons of Korean origin is found in the M3 wooden coffin tomb in the Yoshitake Takagi site (Fukuoka prefecture) at the beginning of the Middle Yayoi phase. Two bronze swords, a bronze spearhead and a bronze halberd were deposited along with a Korean-style bronze mirror, beads and a small pottery jar. These (sword, spear and halberd) are the three main bronze weapons for the Middle Yayoi period. Seven other tombs on the same site contain one bronze sword each. For the Middle Yayoi, this kind of tomb is limited to the northern Kyushu-Yamaguchi area; tombs with weapons begin to appear outside this area from the Late Yayoi onwards. According to Terasawa's database of Yayoi tombs in western Japan, tombs containing bronze or iron weapons represent 63.2 per cent of the tombs containing burial goods.[24] Tombs containing weapons are

22 Kaoru Terasawa, *Ōken tanjō* (Tokyo: Kōdansha, 2000), pp. 128–30.

23 Itoshima Shiritsu Itokoku Rekishi Hakubutsukan (eds.), *Wakoku sōsei: Ken ni miserareta Yayoijin* (Fukuoka: Itokoku Rekishi Hakubutsukan, 2013); L. Gilaizeau, 'Diplomacy from the Grave: Interactions between Western Japan and the East Asian Continent from a Burial Point of View', *Crossroads* 9 (2014), 45–62; L. Gilaizeau and M. Guillon, 'La Perception de la sépulture aux périodes Yayoi et Kofun au Japon. Résultats et réflexions sur les investissements de ces sociétés dans leurs tombes et leurs nécropoles', in M. Lauwers and A. Zemmour (eds.), *Qu'est-ce qu'une sépulture? Humanité et systèmes funéraires de la Préhistoire à nos jours* (Antibes: Éditions APDCA, 2016), pp. 293–310; Mizoguchi, *Archaeology of Japan*, pp. 143–62.

24 K. Terasawa, 'Yayoi jidai oyobi Kofun jidai shoki shuchō bosei sōhin ichiran', in K. Terasawa (ed.), *Kōkoshiryō daikan daijūsei: Yayoi-Kofun jidai iseki-ibutsu* (Tokyo: Shogakukan, 2004), pp. 372–83.

more frequent during the Middle Yayoi (79.9 per cent of all tombs with burial goods for this phase) than during the Late Yayoi (54 per cent). Unfortunately, as Terasawa does not mention the overall total of tombs, it is impossible to estimate the importance of tombs containing weapons among the total of tombs known for the Yayoi period (the scale is 438 tombs with burial goods against several thousand tombs without any). The number of tombs containing weapons varies from site to site, generally concentrated in areas reserved for the elites, as in Yoshitake Takagi, Yoshitake Ōishi, Yoshitake Hiwatari, Tateiwa (Fukuoka), Ukikunden, the Yoshinogari *funkyūbo* tumulus, Karakodai (Ehime) or Miyauchi *funkyūbo* (Tottori). Most of the tombs contain only one weapon (81.9 per cent of the tombs of the northern Kyushu Middle Yayoi and 66.7 per cent of the tombs of the Late Yayoi), generally a bronze or iron sword, sometimes a bronze halberd.

Weapons and Artefacts of Violence

One of the problems with discussing Jōmon conflict is the apparent absence of specialised weaponry. But the lack of formal weapons is not uncommon in hunter-gatherers and simple horticulturalists worldwide. Instead, everyday implements such as stone-headed axes, clubs, spears and the bow and arrow are brought to bear as and when required. The lack of any elaboration of weaponry may relate more to the absence of a specialised class of warriors who seek to differentiate themselves within their community through material culture.[25] A further issue is that, given the inclination to downplay violence, objects that could have been used for this purpose tend to be interpreted as something else. The stone 'rods' (*sekibō*) that are a feature of the Jōmon period, for example, have usually been interpreted as ritual phalli, though Yasushi Kosugi has argued for their use as clubs in conflict,[26] and they indeed could have been responsible for the kinds of blunt force cranial injuries noted above. Late and Final Jōmon examples sometimes have a flatter shape possibly influenced by bronze knives from northern China, leading them to be termed stone 'swords' (*sekken* or *sekitō*).

The first weapons clearly not for hunting (unlike arrowheads, which can be used to hunt game or people) known for the Yayoi period are polished

25 R. J. Schulting, 'War without Warriors? The Nature of Interpersonal Conflict before the Emergence of Formalised Warrior Elites', in S. Ralph (ed.), *The Archaeology of Violence: Interdisciplinary Approaches* (Albany, NY: SUNY Press, 2013), pp. 19–36.

26 Yasushi Kosugi, 'Jōmon bunka ni sensō wa sonzai shita no ka: sekibō o motsu shakai', in Kōkogaku Kenkyūkai (ed.), *Bunka no tayōsei to hikaku kōkogaku* (Okayama: Kōkogaku Kenkyūkai, 2004), pp. 215–24 (in Japanese with English summary).

stone daggers of the Initial and Early Yayoi phases. These items are mainly found in tombs that show a special status (such as the *shisekibo* tombs with large capstones that are termed 'dolmens' in the West) and are clearly associated with individuals with an important social – and probably political – status. They originated on the Korean peninsula and were one of the numerous elements that were imported into northern Kyushu by immigrant farmers. When deposited complete in tombs, they are no doubt markers of status. Yet the tips of such daggers have also been found in tombs, such as burial jar 3 at the Sudare site (Fukuoka), where the tip was stuck between the second rib and second vertebrae of the buried individual.

Bronze weapons appear from the beginning of the Middle Yayoi in northern Kyushu and the Yoshitake Takagi cemetery (Fukuoka) is reputed as the first site to hold them. These weapons (bronze swords, halberds and spearheads) are mainly found in tombs and are sometimes associated with Korean and then Chinese bronze mirrors for the richest burials.

Iron weapons appear in tombs in northern Kyushu at the end of the Middle Yayoi and replaced almost all bronze weapons and stone arrowheads during the Late Yayoi phase. Iron swords and arrowheads predominate, with some spearheads and halberds. In the Middle Yayoi iron weapons are associated with Chinese bronze mirrors and glass beads in the richest tombs of northern Kyushu. They also begin to appear in tombs outside Kyushu at the end of the Late Yayoi. All these weapons, in bronze or iron, are first imported from the continent, mostly from the Korean peninsula but several Chinese weapons are known too, such as the bronze sword from the Yoshinogari mounded tomb. Weapons of Korean style are produced locally in regional centres, while the Chinese ones are seldom imitated.

The most numerous weapons during the Yayoi period are sling stones (mainly found in settlements ditches) and arrowheads. Arrowheads are first made of stone, then of bronze (Middle Yayoi) and finally iron (Late Yayoi). Yayoi arrowheads were mainly used to hunt, but we can be sure they were also used as weapons as many examples have been found embedded in human skeletons, such as individual 124 at the Doigahama site (Yamaguchi), who had thirteen such embedded stone arrowheads. Some wooden weapons are also known, such as clubs, daggers or swords, halberds, arrowheads and bows. Wooden breastplates have been found at several sites including Minamikata (Okayama) and Sasai (Fukuoka). At Sasai, a breastplate was found with two fragments of a wooden lacquered shield, both dating from the Late Yayoi. The breastplate is decorated with incised strips of triangles and braided patterns and the shield is lacquered red on one side

and black on the other. This is not only specialised armour but also suggests that, at least for some, war was a high-status activity. The wooden daggers and swords could suggest formal training in combat.

Settlements

The apparent absence of any fortifications or refuge sites throughout the entire Jōmon – more than 10,000 years – is striking and suggests the absence of organised warfare, that is, large-scale armed conflict between polities/communities. The only Jōmon site with a surrounding ditch is Shizukawa in southern Hokkaido, but the fact that only two pit buildings were found inside the ditch may suggest a function unrelated to violence. What is assumed to be a large, raised-floor ceremonial structure at the Sannai Maruyama site (Aomori) may have been a watchtower.[27] While perhaps not unique, this apparent lack of fortifications does seem unusual. A comparison is the complex hunter-fisher-gatherers of North America.[28]

In the Yayoi, settlements with ditches appear during the Initial phase at the Naka and Etsuji sites (Fukuoka). Inside the ditch of the latter, houses of Korean (Songgukri) type have been found. Ditched settlements continue to be built during the Early Yayoi, for example at Itazuke, Ishizaki Magarita and Nabatake in Fukuoka and Saga prefectures. At Itazuke, the V-shaped ditch is fully preserved and totally enclosed the village in an oval measuring 110 metres from north to south and 81 metres from east to west. The ditch's width varies between 1.5 metres and 4.5 metres and its depth ranges between 0.7 metres and 2.3 metres. Each side of the ditch was bordered with an earthen bank. There is only one interruption (4 m wide) in the south-west to allow passage. An inner ditch delimitates a small area in the north-west part of the village containing storage pits. The ditch was no longer used during the Middle Yayoi occupation of the site.

In his study of Japanese enclosed settlements of the Yayoi and Early Kofun periods, Arbousse-Bastide found that 18 per cent of the sites in his database (600 sites) date from the Initial and Early Yayoi, about 35 per cent from the Middle Yayoi, 44 per cent from the Late Yayoi and only 3 per cent from the Early Kofun.[29] The majority (70.5 per cent) of the sites

27 Kobayashi, *Jomon Reflections*, pp. 124–6, 186–7.
28 Cf. Allen and Jones, *Violence and Warfare*.
29 T. Arbousse-Bastide, *Les Structures d'habitat enclose de la Protohistoire du Japon (période Yayoi 350BC–300AD)*, BAR International Series 1345 (Oxford: Archaeopress, 2005).

are situated at relatively elevated altitudes on plateaus, hills or river terraces. The ditches, which can be simple or multiple, are mainly curvilinear with V-shaped or trapezoidal profiles. Their dimensions range from 10 metres to several kilometres of circumference (depending on site preservation and extent of excavation), 3 metres to 5 metres in width and 1 metre to 3 metres in depth. While banks are rarely preserved more than 5 centimetres to a metre in height, they are clearly evidenced. They are situated outside or inside the ditch, the latter especially on multiple ditched sites. It is inferred that most of the sites had wooden fences atop the banks' summits, there being numerous examples of defensive stakes planted on the trapezoidal ditch's side, such as at Yoshinogari. In sites on the plains, the ditches could be seasonally flooded, such as at Karako-Kagi (Nara). The entrance gates were generally simple, comprising an interruption in the ditch and the bank flanked with two large postholes for a wooden door. Sometimes the ditch is not interrupted and a wooden footbridge allows passage. Some chicanes are known, as in the north entrance of Yoshinogari, and consisted of an additional L-shaped ditch. Watchtowers are attested to at Yoshinogari, where they are clearly built over bastions protecting the Late Yayoi settlement. Twelve *éperon barré* (promontory forts) are known, especially in the Inland Sea area (Yamaguchi and Ehime prefectures), dating from the Middle and Late Yayoi. These forts were clearly built to watch and defend important trading routes between Kyushu and the Osaka and Nara plains.

Construction of the Warrior's Image and the Symbolism of Weapons

From an iconographic point of view, the Yayoi people have left us few traces of their artistic production. The few human representations we have are of hunting scenes or representations of individuals wearing costumes that have been interpreted as 'shamans' performing 'rituals'. There are a few representations of armed individuals on some bronze bells (*dōtaku*) and pottery. For example, a jar from the Shimizukaze site (Nara) has an incised scene on the shoulder depicting two human figures each holding a shield and a halberd and wearing a possible feathered cap associated with images of a raised-floor building, a wounded deer and four fish. However, images of warriors are rare among Yayoi human representations. This contrasts with many societies where the importance of warfare or of violence in the elites' system

of domination is often expressed by war-like images in different media.[30] In the Yayoi, such representations of warriors can mostly be seen in tombs.

In northern Kyushu during the Middle and Late Yayoi periods, bronze and iron weapons are associated with elite groups whose tombs were constructed apart from the burials of commoners, which did not contain any such prestige goods. In western Japan outside Kyushu, these weapons are generally not found in tombs until the end of the Late Yayoi, even if bronze was known and used to make large bronze bells and bronze weapons (swords and halberds) that were buried in hoards, sometimes with bells, as at the Kōjindani site in Shimane. These hoards are generally interpreted as 'ritual' deposits, but the standardisation in size of the 358 bronze swords seen at Kōjindani also suggests that they may have been used as a proto-currency in trade and exchange.

During the Late Yayoi period in Kyushu, while bronze weapons disappeared and were replaced by iron weapons, very large bronze spearheads were produced. These spearheads are too soft to have been used as weapons due to the high lead content in the alloy, and are clearly symbolic. The fact that their distribution in the western Inland Sea area is mutually exclusive with that of the bronze bells which were produced in the Kinai (Kyoto-Nara) area and distributed in the eastern Inland Sea area is remarkable and a sign that both were used as political symbols and/or prestige goods.[31]

It is also interesting to note that in the richest tombs of the Yayoi period, the most numerous grave goods are Chinese bronze mirrors. For example, the Mikumo Minami Shōji 1 tomb produced thirty-five mirrors with one bronze sword, two bronze spearheads and one bronze halberd. The Middle Yayoi Suku Okamoto D tomb produced about thirty bronze mirrors, five bronze spearheads, two bronze swords and one bronze halberd. In the Late Yayoi, thirty-nine bronze mirrors and only one iron sword were found from the Hirabaru tomb. The leaders of these communities seem to have had a dual role and image: one more 'spiritual', symbolised by the bronze mirrors, and one more 'warlike', symbolised by the weapons.

30 J. Guilaine and J. Zammit, *Le Sentier de la guerre* (Paris: Éditions du Seuil, 2001), pp. 223–57; B. Midant-Reynes, *Aux origines de l'Égypte. Du néolithique à l'émergence de l'État* (Paris: Fayard, 2003), pp. 326–36.

31 M. J. Hudson, 'Rice, Bronze, and Chieftains: An Archaeology of Yayoi Ritual', *Japanese Journal of Religious Studies* 19 (1992), 139–89.

Agriculture and Violence in the Japanese Islands

Since at least the 1980s it has been widely accepted by Japanese archaeologists that agriculture was the primary cause of the growth in the scale of warfare and violence in the archipelago from the first millennium BCE. This process is usually explained in economic terms: farming saw an increase in population which in turn led to conflicts over imbalances between available resources and mouths to feed.[32] If, however, the Jōmon period also witnessed at least some phases during which resource affluence led to population increases and considerable social complexity, then should not similar conflicts have also occurred during that period? Warfare was certainly common in the affluent foraging societies of the North Pacific that are often compared to the Jōmon.[33] Jōmon villages were also quite sedentary, and the use of cultivated plants appears to have been more common in the Jōmon than in most other North Pacific hunter-gatherer societies.[34] If Jōmon populations were already engaged in early forms of agriculture, then should not warfare have been a significant element in the Jōmon period?

In the first chapter of this volume Steven LeBlanc argues that human populations including hunter-gatherers will always increase until carrying capacity is exceeded and that increased violence and warfare is associated with the ensuing resource conflicts. High mortality from violence has been demonstrated in a Venezuelan hunter-gatherer group but a long-term analysis of hunter-gatherer demography in western North America concluded *contra* LeBlanc that forager populations adjusted to changing climatic conditions.[35] Significant chronological changes in Jōmon population levels are known especially from eastern Japan; the causes of such changes have long been debated but there is currently no evidence that violence was associated with this population pressure.[36]

32 Matsugi, *Hito wa naze tatakau*, pp. 12–17.

33 H. Maschner and K. Reedy-Maschner, 'Raid, Retreat, Defend (Repeat): The Archaeology and Ethnohistory of Warfare on the North Pacific Rim', *Journal of Anthropological Archaeology* 17.1 (1998), 19–51.

34 Gary Crawford, 'Advances in Understanding Early Agriculture in Japan', *Current Anthropology* 52, supplement 4 (2011), 331–45; Hiroo Nasu and Arata Momohara, 'The Beginnings of Rice and Millet Agriculture in Prehistoric Japan', *Quaternary International* 397 (2016), 504–12.

35 Kim Hill, A. M. Hurtado and R. S. Walker, 'High Adult Mortality among Hiwi Hunter-Gatherers: Implications for Human Evolution', *Journal of Human Evolution* 52 (2007), 443–54; Robert L. Kelly et al., 'A Continuous Climatic Impact on Holocene Human Population in the Rocky Mountains', *Proceedings of the National Academy of Sciences* 110 (2013), 443–7.

36 See e.g. Takamune Kawashima, 'Social Change at the End of the Middle Jōmon: A Perspective from Resilience Theory', *Documenta Praehistorica* 40 (2013), 227–32.

The relationship between Jōmon food production and violence is rarely discussed in the literature but is an important problem in the comparative study of the origins of warfare. In attempting to explain the apparent contradiction of Jōmon peaceful affluence, Matsugi proposes ideological factors: just as the Jōmon people knew about but avoided adopting full-scale agriculture, it is suggested they made a cultural decision to defuse resource conflicts by other (unspecified) means and avoided full-scale warfare.[37] The problem with this explanation is the scale – both temporal and spatial – over which it must be applied, and the comparative homogeneity in Jōmon world view and socio-political structure that it implies. Any group that chose a different route, one of conquest and expansion, would be expected to profit immensely, at least initially. Why, then, do we not seem to see evidence of this strategy? Keith Otterbein has argued that raiding and warfare hinder or even prevent plant domestication, a proposal that may be consistent with the Jōmon evidence.[38] In a contrasting approach, however, Robert Rowthorn and Paul Seabright have modelled the transition to farming as a type of prisoner's dilemma wherein the increased costs of defending agricultural resources and facilities led to the rapid spread of that economic system. Note that in this last model, societies develop a greater *potential* for organised violence even if the actual prevalence of warfare does not always increase.[39]

In Japanese archaeology, the appearance of elite individuals is often interpreted within a Marxist framework whereby community work in rice paddies needs considerable labour and organisation to create embankments and irrigation systems and that, as a result, some individuals might have been nominated as 'mediators' between communities to deal with conflicts related to land and surpluses. These individuals would eventually acquire more and more authority and power, developing symbols and manipulating violence and oppression to consolidate that power.[40] As we saw above, obvious traces of Yayoi period conflict are found on skeletons from northern Kyushu to the Kinai area and, considering the importance of an increasing population during the Middle Yayoi and the limited size of the agricultural plains, such conflicts must have been inevitable. At the same time, moated settlements develop, some with very sophisticated defence systems, and the first bronze

37 Matsugi, *Hito wa naze tatakau*, pp. 17–21.
38 Keith Otterbein, *How War Began* (College Station: Texas A&M University Press, 2004).
39 Robert Rowthorn and Paul Seabright, *Property Rights, Warfare and the Neolithic Transition*, working paper 654 (Toulouse: Institut d'Economie Industrielle, 2010).
40 Y. Kondō, *Zenpōkōenfun no jidai* (Tokyo: Iwanami, 1983), pp. 80–140; Terasawa, *Ōken tanjō*, pp. 126–40.

weapons begin to appear in tombs. However, traces of violence in a given area do not necessarily mean that the chiefs of that area established their authority through violence or that they tried to win or extend that authority with violence, nor that there were recurring and organised conflicts or even well-trained armies.

Conclusions

This brief overview demonstrates that violence has always been a feature of human social life in Japan from the very earliest colonisation of the islands. Nakao and colleagues propose a figure of 1.8 per cent mortality from violence in the Jōmon period. This figure is lower than in a number of other prehistoric societies, yet is it certainly not insignificant, particularly as it is very likely to be a minimum estimate. This is both because cases of violent trauma may be underreported, and also because only a subset of individuals dying violently will display skeletal evidence, most notably in the case of projectile injuries. The contexts in which violence – whatever its prevalence – occurred in the Jōmon period remain far from clear. It is noteworthy that the two above-mentioned lethal cranial injuries from Jōmon Hokkaido are found on females rather than males, but then the expectation that it is primarily males who are affected by conflict in small-scale societies is clearly unwarranted.[41] Is this, then, evidence of domestic violence? Alternatively, the targeting of women and children in acts of revenge and retaliation is a recurrent feature of inter-group conflict in small-scale societies. While often cited as an emic motivation for conflict, however, it is debatable how well revenge serves as an ultimate explanation and there may be underlying socio-political/economic motivations even for hunter-gatherers.[42]

Evidence for violence-related trauma in the Jōmon skeletal record is currently being reassessed and will contribute to the ongoing debate concerning conflict in hunter-gatherer societies. The Yayoi period saw a significant transformation in the nature and scale of violence, with something that could be arguably termed 'organised warfare' becoming widespread, at least in western Japan. Unlike in the Jōmon, fortified settlements and new types of specialised weapons become common in the Yayoi. For many Japanese

41 R. J. Schulting and L. Fibiger, 'Violence in Neolithic North-West Europe: A Population Perspective', in A. Whittle and P. Bickle (eds.), *Early Farmers: The View from Archaeology and Science* (London: British Academy, 2014), pp. 281–306.

42 R. B. Ferguson, 'Explaining War', in J. Haas (ed.), *The Anthropology of War* (Cambridge: Cambridge University Press, 1990), pp. 26–55.

archaeologists, resources such as land, water and iron were the main source of conflict in the Yayoi period. Chiefdom-like political units fought each other for influence in a process that became even more violent in the following Kofun period when new military technologies introduced from the Asian continent completely transformed the nature of warfare in Japan.

Bibliographic Essay

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For the Yayoi period, a broader literature exists on warfare and the rise of chiefdoms. Good starting places are J. Edward Kidder's *Himiko and Japan's Elusive Chiefdom of Yamatai: Archaeology, History, and Mythology* (Honolulu: University of Hawai'i Press, 2007) and Koji Mizoguchi, *The Archaeology of Japan: From the Earliest Rice Farming Villages to the Rise of the State* (Cambridge: Cambridge University Press, 2013). A useful summary of Japanese approaches to Yayoi warfare is provided by Makoto Sahara, 'Rice cultivation and the Japanese', *Acta Asiatica* 63 (1992), 40–63. In Japanese, Takehiko Matsugi's *Hito wa naze tatakau no ka: Kōkogaku kara mita sensō* (Tokyo: Kōdansha, 2001) remains an excellent overview.