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On the influence of Japanese archaeological heritage on *The Legend of Zelda: Breath of the Wild*

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A THICK LAYER OF TIME

In the realm of Nintendo's *Zelda* franchise, time is more than a narrative tool: it shapes the player's experience and connection to its expansive worlds. In *Ocarina of Time* (1998), time is an effective gameplay element, and the player can travel through two different timelines, separated by seven years during which crucial events occur, but out of the player's sight. As a result, the player alternates between embodying young Link and adult Link, each with a distinct perspective. The world of Hyrule mirrors this transformation: lush and innocent for the young, grim and desolate for the adult. In *Majora's Mask* (2000), time travel is restricted to three critical days, which you can relive as many times as necessary to prevent the moon from crashing into the Earth at the end of the third day.

In *Breath of the Wild* (2017), time no longer plays a central role in gameplay mechanics, except for brief interruptions like the Stasis rune. Instead, it serves as a backdrop, with constant references to events from the distant past, from the very beginning of the game when you wake up from a hundred-year artificial sleep, with little information about what happened during this gap. This century-long time span focuses on personal memories and political events: Link can't remember what happened before his sleep, creating a tension between personal memory and collective history, pushing the player to explore the remnants of a world that has moved on without them. Fragments of the past are in fact materially dispersed in Hyrule, and the player seeks to find them to understand both Link's and Hyrule's fate. Fortunately, Impa the old Sheikah lady of the Kakarico village witnessed the disastrous events and will help him to recover memories from that time.

If most of us are able to understand what a hundred years ellipse means, there is another timescale in the game, and once again it is Impa who tells the player the tale of what happened 10,000 years ago, the epic struggle between the forces of good and evil, and the constitution of modern-day cosmogony ("with the passage of time, each conflict with Ganon faded into legend"). The recurrence of this type of conflict is a commonplace of fantasy worlds, and a convenient way to turn the lore of these games into repeated iterations of commercial successes (Sangster, 2023), developing a stereotypical "stock of characters and devices […] into a predictable plot in which the perennially understaffed forces of good triumph over a monolithic evil" (Attebery, 1992). This definition fits perfectly to the *Zelda* series, as each opus is a reinvention of the Link/Zelda/Ganon trio. Here the game somewhat breaks the fourth wall, as Impa describes a previous battle between the protagonists, suggesting the existence the other

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episodes of the series in a delightful *mise en abyme*, even for those who are not accounted with the intricated official timeline, a curious mixing of both linear and circular times (Aonuma, 2020).

But 10,000 years — one hundred centuries, a timespan longer than most human civilizations — is harder to grasp for the public. Here, the game enters the realm of geological time. Our current geological epoch, the Holocene, started 12,000 years ago, and even if the modern human species is far older, it is during the Holocene that humans developed agriculture, settled communities, and advanced technologies, multiplying the global population by about 8,000, from one million to eight billion. An opposite trajectory is portrayed in *Breath of the Wild*, Hyrule being a world in decline, echoing a distant golden age marked by Sheikah technological marvels.

This duration of ten millennia therefore constitutes a specific timespan: longer than any human oral tradition or heritage, but short enough to stay in a familiar world, with biogeographic contextual changes rather than evolutionary ones, which are perceived as immutable and essentialist by most individuals.

This evocation of a deep past thus inevitably evokes prehistoric periods, and 10,000 BCE (Before Common Era) constitutes the beginning of a crucial transition between the two main prehistoric economies and lifestyle (in the Fertile Crescent at least), from the Palaeolithic (small, mobile hunter-gatherer groups) to the Mesolithic and finally Neolithic (large sedentary farmer groups). This simplistic and finalistic vision of a glorious march of humanity from short-lived and miserable cavemen toward thriving villages of politically-organised and socially complex communities of farmers and craftsmen is completely outdated from an academic point of view (Sahlins, 1976; Graeber & Wengrow, 2021), but it is still commonplace among the public, as exemplified by the famous illustration "Road to *Homo sapiens*" presenting modern-day humans as the pinnacle of evolution.

THE JŌMON PERIOD IN *BREATH OF THE WILD*: A LINK TO THE PAST?

At first glance, the 10,000-year time interval in *Breath of the Wild* might seem like a narrative device to add epic grandeur to the tale Impa is telling Link, without deeper significance. But it happens that the art director of *Breath of the Wild*, Satoru Takizawa, specifically mentioned the use of Japanese historical and archaeological heritage for the design of the game, namely the Jōmon period, as an inspiration for most of the ancient ruins and artifacts of the game (Nintendo of America, 2017).

Figure 1. A Jōmon *kaen doki* (flame pot). Source: The Metropolitan Museum of Art, New York (public domain).

The Jōmon period (縄文時代, Jōmon jidai), is a pre- and protohistoric period specific to Japan, and even if it is a well-known period for Japanese, it remained until recently poorly known outside the archipelago. This culture goes from 14,000 BCE to 400 BCE (Habu, 2004), so a little more than the 10,000 years represented in Breath of the Wild. The term Jōmon means "cord-marked", as the pottery from this period

Figure 2. *Breath of the Wild* sanctuaries are inspired by Jōmon pottery. Screenshot from the game.

shows specific ornaments made by imprinting different objects on the clay, including ropes but also marine shells, nails, etc. This kind of decorations are not unique in prehistory, and Europe also has a neolithic culture called "Corded ware" (Beckerman, 2015), but the Jōmon pottery reached a peak of intricated and exuberant ornamentations during the Middle Jōmon period (3,500–2,000 BCE; Ghobadi, 2015). These specific and heavily decorated pots are called '*kaen doki*', or 'flame pots' (Fig. 1).

Even if they represent only a fraction of the diversity of Jōmon pottery, these *kaen doki* are unique and easily recognisable items, making them a typical representation of the Jōmon culture. They are so iconic that the design of several of the Jōmon-inspired elements in *Breath of the Wild* are directly coming from the design of these pots. Sanctuaries and guardians of the ancient Sheikah culture are the most striking examples, as they are essentially upside down *kaen doki* (Fig. 2).

The second most evident example of Jōmon artifact in the game is the presence of Cherry in the Akala Ancient Tech Lab (Fig. 3). This robot (also called 'Ancient Oven') displays several characteristics of the *dogū* figurines (土偶, literally 'earthen figures'), which appear during the Middle Jōmon and persist through Late and Final Jōmon (from 3,000 BCE to 400BCE; Kaner & Bailer, 2009).

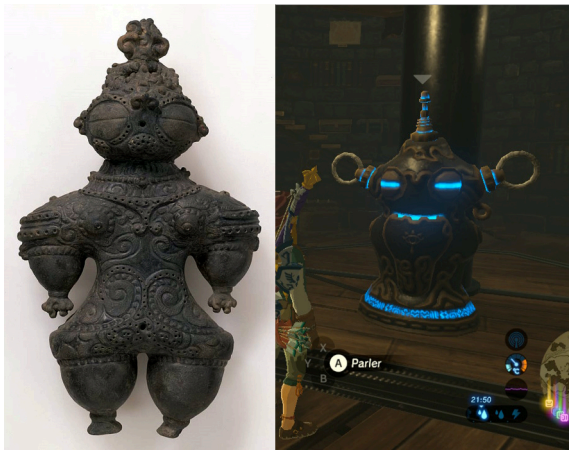

Figure 3. Left: Dogū from Tajirikabukuri, Ebisuda, Miyagi Prefecture (1,000–400 BCE). Source: Tokyo National Museum, Digital Research Archives (item J-38304). Right: Cherry the robot in *Breath of the Wild*. Screenshot from the game.

More than 20,000 dogū have been uncovered, and even if they show a wide range of styles, shapes, and decorations, the typical figurine has a "goddess" shape and large prominent eyes (frog-type or snow-goggles-type). In game, Cherry will craft Sheikah items for the player in exchange for materials collected on Sheikah ruins, therefore maintaining a link with the past. It is not the first time that dogū appears in a *Zelda* game though; the ancient robot of the Lanyaru desert in *Skyward Sword* (2011) can also be seen as reinterpretation of dogū. The explicit reference to Jōmon artifacts within the design of *Breath of the Wild* not only enriches the game's cultural depth but also aligns with broader trends in Japanese media to reinterpret historical and archaeological heritage in a positive way (Tamaki, 2019).

JŌMON CONNECTION

While many Western players may have overlooked the connection between the Jōmon period and Breath of the Wild, it holds different significance for Japanese audiences. The Jōmon period is an integral part of Japan's national history and cultural heritage that percolated into the arts and popular culture of Japan long before this 2017 Nintendo game.

A pivotal moment in postwar Japan's awareness of the Jōmon period was the publication of the article "On Jōmon Pottery", by artist Okamoto Tarō, in the magazine *Mizue* (Okamoto, 1952, translation by Reynolds, 2009). In this strange but influential piece, Okamoto discusses the apparent discord between the complexity, irregularity, and alien beauty of the Jōmon style and the "harmony and refined elegance associated with Japanese tradition" (Reynolds, 2009). Having studied oil painting at the Tokyo School of Fine Arts, he stayed in Paris for several years, where he studied literature, philosophy, ethnology and anthropology, under the supervision of Marcel Mauss. These different approaches, and the sharp analysis of the Japanese culture he engaged when he came back to Japan after the war certainly helped in his fascination for the Jōmon: "The powerful movement and the tenacious sense of equilibrium manifested on these ceramics cannot possibly be gasped by traditional aesthetics. I believe that it should be our great task to study this cold asymmetry and bold, inharmonious balance through Jōmon ceramics" (Reynolds, 2009). His famous *Tower of the Sun*, created for the Japan World Exposition in 1970 (Fig. 4), is a synthesis of two ancient Japanese artistic traditions: the dogū figurines with round faces and large eyes, and the bottle-like bodies and outstretched arms of the *haniwa* figurines from the later Kofun period (which we will revisit shortly).

Figure 4. Okamoto Tarō's *Tower of the Sun* in Osaka. Source: Entire Landscapes (https://entirelandscapes.space/Tower-of-the-Sun/).

Another characteristic feature of Okamoto's work is the large, stylised eye, incarnated by his "*alien named PAIRA*" of 1956, which inspired the eye on the Sheikah slate, the player's tool for altering the environment and interacting with gameplay elements (Fig. 5).

Okamoto influenced the Japanese pop culture long before *Breath of the Wild* though. One of the most direct examples is the character of Deidara, in Masashi Kishimoto's manga *Naruto* (1999–2014). Deidara uses explosive clay figurines to fight against one of the main characters and repeats Okamoto's famous mantra: "art is an explosion!" (Winther-Tamaki, 2011). Even if it

Figure 5. Left: Okamoto Tarō's *alien named PAIRA*. Source: WikiArt (https://www.wikiart.org/en/taro-okamoto/alien-named-paira-1956). Right: Sheikah slate. Screenshot from the game.

might not come directly to the western public's mind, the use of the specific Jōmon aesthetic is relatively common in Japanese popular video games. Representations of dogū figurines can be found in games like *Atomic Runner Chelnov* (Data East, 1988), *Pokémon* (Baltoy/Claydol; Game Freak, 2002) and *Digimon* (Shakkoumon; Bandai, 2000), or the *Shin Megami Tensei* and *Persona* series (Fig. 6).

Beyond the Jōmon period, other periods of Japan's pre-historic past have influenced video game aesthetics. Centuries after the end of the Jōmon, during the Kofun period, people crafted specific funerary figures known as haniwa (Fig. 7), which are also commonly featured in modern games. These haniwa inspired the gyroids in the *Animal Crossing* series, where players unearth them from the ground suggesting, given their archaeological origins, that the

Figure 6. Left: Aharabaki from *Shin Megami Tensei III: Nocturne* (Atlus, 2003; remastered version 2020). Source: (https://megamitensei.fandom.com/wiki/Arahabaki). Right: *Atomic Runner Chelnov*. Source: Atomic Runner (https://playatomicrunner.com/).

game is set on an ancient necropolis. Similarly, haniwa figures have influenced the design of the Earthenwarrior in the *Dragon Quest* series, the Cactuar in the *Final Fantasy* series, and the Haniwa Nobbu in *Fate/Grand Order* (Delightworks, 2015).

Figure 7. Haniwa figures excavated from the Nohara Tumulus, Kumagaya-shi, Saitama, Kofun period, 6th century CE, ceramic. Source: Tokyo National Museum (https://webarchives.tnm.jp/).

BEYOND THE AESTHETIC: WHAT COULD POSSIBLY HAPPEN IN 10,000 YEARS?

In the lore of *Breath of the Wild*, we learn how the Sheikahs, a technologically advanced culture, sought to mitigate the threat posed by Ganon: constructing gigantic "divine" creatures, powerful guardians, and meshing the territory with observation towers. The political stability of the region was thus maintained by materialistic features, but the use of these technologies slowly faded. So, when the prophecy announced that Ganon was about to come back, King Rhoam, father of Princess Zelda, seeks solution in the past, literally using archaeology to save the world against evil: "We decided to heed the prophecy and began excavating large areas of land. It wasn't long before we discovered several ancient relics made by the hands of our distant ancestors. These relics, the Divine Beasts, were giant machines piloted by warriors" (*Breath of the Wild*: end of the Great Plateau cutscene). Thus, towers, shrines, and mechanical creatures had remained untouched, merely waiting for the Sheikah slate's activation, suggesting an almost unnatural stasis.

While the Jōmon people were not technologically advanced in the way the Sheikah were, their 10,000-year period allows for interesting parallels, especially in terms of societal and environmental change. The Holocene is a period of dramatic climatic and geographic shifts (Ryu et al., 2005): the Earth gradually switched from the dry and cold climate of the Younger Dryas (12,850–11,650 BP, Before Present), the last cold spell of the Ice Age, to the warmer and wetter climate of the Holocene Climatic Maximum (9,000–5,000 BP, the famous "green Sahara" period), to finally stabilize near modern-day climates. During this period, the huge amounts of melted ice provoked a 40 m sea level rise along the Japanese coasts, an episode known as the Holocene marine transgression (Umitsu, 1991).

With these more clement climatic conditions, agriculture could develop gradually and independently in several regions of the world: the Middle East, south-east Asia, South America, and Africa (Gupta et al., 2004), ultimately leading neolithization, sedentary lifestyle, the appearance of cities, states, etc. These periods are rich in events, with complete civilisations gradually thriving and declining over the millennia. However, Jōmon people followed their own path, and did not develop agriculture but instead relied on a very specific lifestyle, based on the exceptionally rich ecosystems of the archipelago (Matsumoto et al., 2017). There are endless typologies of Jōmon ceramics that testify the temporal and re-

gional evolution of the different populations in the Japanese archipelago, and it is possible to distinguish different adaptations to changing environments. For example, littoral groups were "maritime foragers", and maximised their use of marine resources, building large shell middens (domestic wastes mainly composed of marine molluscs), while other hinterland groups stored mainly acorn and chestnuts. However, the core of their societies kept its Mesolithic features, at a time when most of the world was marching toward neolithization (or to be precise, Neolithic people were marching to conquer the world, see for example Brace et al., 2019).

This "garden of Eden" theory was initially developed upon North American societies that rely on intensive hunting, fishing and foraging strategies, but which also developed sedentism, "complex" cultural traits and high population density (Cannon & Yang, 2006). These populations notably stored seasonal resources like salmon, a trait which is also present among certain Jōmon groups (Okada, 1998), hence the importance of ceramics to preserve food through the periods of scarcity. Even if the Jōmon population fluctuated steadily over the millennia, it may have reached a peak of 260,000 people during the Middle Jōmon (Habbu, 2004). Likewise, we might wonder how Hyrule's societies evolved — or perhaps failed to evolve — during its own long stretch of history, with technological remnants persisting despite evident population changes. Link, as most of other Hyrule inhabitants, is an Hylian, not a Sheikah, suggesting a form of population replacement. Hylians' white skin and artifacts evoke European medieval periods and are depicted as positive imperial forces, while the Gerudos are portrayed as stereotypical easterners dwelling in the desert, in an idealistic colonial scheme (Kimball, 2018).

Jōmon people presents here different characteristics that interrogate classical concept of anthropology, like the opposition between Palaeolithic hunter-gatherers and Neolithic farmers, in the exact same way Alain Testart did in his article "Of hunter-gatherers or on the origins of social inequality" (Testart, 1982). The sedentism and the use of ceramics to store food are generally considered neolithic features, but they are present here in Jōmon societies. Testart was also a convinced cultural evolutionist, for whom the concept of state was already present in early societies (Testart, 2004). Despite the length and the relative stability of the Jōmon period, there is no evidence of the formation of any centralised authority. In his famous essay "*La société contre l'État*" ("Society against the State"), Pierre Clastres (1974) argues that the societies without centralised authorities are not primitives, quite the contrary: they have succeeded in inventing a politics which is not obliged to resort to coercion. Could the Jōmon have invented a "society against the Neolithic"?

Despite the geographic and climatic fluctuations of the Holocene, the Jōmon culture is a remarkably stable one, achieving a sustainable lifestyle over 10,000 years (Watanabe, 2004), once again echoing the artificial immutability of Hyrule. This is particularly true compared to other regions of the world: over the same Holocene period, the Middle East saw the appearance and spreading of Neolithic cultures, invention of irrigation and it corollary the environmental collapse and desertification of the Tigre and Euphrates River system, the rise and fall of Mesopotamian, Assyrian, and Egyptian empires. Under this aspect, the Jōmon appears as a steady example of long-term, harmonious relationship of a relatively dense human population with its environment.

Conclusion

The game developing team's careful integration of Japanese archaeological and historical heritage, especially from the Jōmon period, into *Breath of the Wild*, reflects the enduring influence of the Japan's ancient past on contemporary culture. The incorporation of 10,000-year-old narratives in the game, rooted in Japan's prehistory, not only adds a layer of immersive lore but also

reflects Japan's societal connection to ancient times. By drawing from the Jōmon period's artifacts' unique aesthetic, such as the *kaen doki* flame pots and dogū figurines, the game goes beyond pure entertainment, inviting players —particularly those familiar with Japanese history — into a dialogue between the past and present. The main protagonist's name is Link, after all (Audureau, 2012).

This connection between archaeology and national heritage is not unique to *Breath of the Wild*. However, this title marks a departure from the *Mukokuseki* (無国籍) — the "stateless" or "ethnically neutral" characters of its predecessors — aligning instead with the "Cool Japan" policies promoted by the Japanese government, which emphasizes cultural exportation and soft power. Some authors go even further in the nationalist intentions of the game designers and interpret the Sheikahs as a wise and ancient Japanese race from which Link, the western medieval Hylian, seeks advanced technologies (Herfs, 2020). In this perspective, *Breath of the Wild* represents the first episode of a new conception of Zelda games, using different world regions and cultures as a support to explore new gameplay experiences, in a similar approach as Ubisoft has made with the *Assassin's Creed* series. The following opus, *Tears of the Kingdom* (2023), jumped from prehistoric Japan to the pre-Columbian world, reinterpreting the Nazca's geoglyphs of Chala's region in Peru (Verdier, 2023).

In this context, the developing team's thoughtful design goes beyond gameplay, offering players a profound exploration of Japan's historical consciousness — an intricate tapestry of time, memory, and artifacts. *Breath of the Wild* becomes an interactive journey through both Hyrule and the deep layers of Japanese identity and national heritage.

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About the author

Dr Jean-François Cudennec is a postdoctoral researcher with a background in marine biology, a PhD in archaeology of shell middens (hence the passion for the Jōmon), and is now working as a palaeontologist, using marine molluscs' shells to investigate past climates and environments at the University of Derby (UK). The interdisciplinary aspect of his research probably twisted his mind enough to push him to dig in this very specific rabbit hole. He grew up with *Zelda* games, from *Link's Awakening* on the venerable Game Boy to the most recent opus on Switch, and struggle every day to maintain a balanced relationship with the virtual world.