Pointed-Bottom Pottery of the Quynh Van Culture: A Comparative Analysis and Theoretical Approaches to Cultural Diffusion and Convergence.

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Abstract:

This article systematizes and compares the characteristics of pointed-bottom pottery from the Quynh Van culture (North Central Vietnam) with those from early pottery centers in Northeast Asia and the Russian Far East - Siberia. Pointed-bottom pottery is a representative ceramic type in hunter-gatherer cultures dating to the Late Pleistocene and Holocene, and it is widely distributed across regions such as southern China, Japan, the Korean Peninsula, and the Russian Far East - Siberia. The study focuses on the analysis of the shape, materials, manufacturing techniques, decorative patterns, and ecological contexts of pointed-bottom pottery from the Quynh Van culture. These are compared with international archaeological data in order to identify both similarities and differences. The findings indicate that Quynh Van pottery shares numerous functional and technological traits with pottery traditions from Northeast Asia and Siberia, although it appears later in the archaeological record. Based on this, the paper proposes two main hypotheses: the first posits independent technological convergence shaped by similar environmental conditions, and the second considers the possibility of technological diffusion through coastal migration networks. The study contributes to a better understanding of the role of the Quynh Van culture within the broader Asian archaeological context and provides a new perspective for interregional research on prehistoric ceramics.

Keywords: *Pointed-bottom pottery, Neolithic Vietnam, East Asian archaeology, Russian Far East and Siberian archaeology, Quynh Van culture*

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Introduction

Early ceramics constitute one of the key criteria for defining and interpreting prehistoric cultural traditions. Among the ceramic forms that emerged between the end of the Pleistocene and the beginning of the Holocene, pointed-bottom pottery is particularly significant. This vessel type has been documented across large parts of Northeast Asia and the Russian Far East and Siberia, including Japan, the Korean Peninsula, southern China, and the Lake Baikal region. It is closely associated with hunter-gatherer lifeways and is typically found at coastal, riverine, or cave sites, generally dating to approximately 14,000–10,000 BP. Numerous studies have demonstrated that pointed-bottom pottery functioned not only as a practical cooking vessel but also as a distinctive technological and cultural marker in the pre-agricultural societies of East Asia.

In Vietnam, archaeological investigations conducted since the 1960s have identified a dense concentration of coastal sites in the North Central region, particularly in Nghe An and Ha Tinh provinces, which are associated with the Quynh Van culture. These sites, dated approximately to 6,000–3,500 BP, contain a remarkably high frequency of pointed-bottom pottery, making this vessel form one of the most diagnostic features of the Quynh Van assemblage.

Although Quynh Van pointed-bottom pottery shares a number of morphological and technological similarities with much earlier ceramics from Northeast Asia and the Russian Far East and Siberia, it appears significantly later in the archaeological record. This chronological gap gives rise to two principal explanatory hypotheses. The first suggests that pointed-bottom pottery in the Quynh Van culture may have been introduced through technological diffusion from northern ceramic centers, possibly via coastal migration routes or long-distance cultural exchanges. The second hypothesis proposes that this vessel form represents a case of technological convergence, in which communities living in similar ecological conditions independently developed comparable ceramic solutions to meet analogous functional needs.

This article argues that pointed-bottom pottery constitutes a key phenomenon in the cultural development of Vietnam's North Central region during prehistory. Accordingly, the study aims to systematize and analyze the main characteristics of Quynh Van pointed-bottom pottery, including its shape, material composition, production techniques, surface treatment, function, and chronology. These characteristics are then compared with those from early ceramic centers in Northeast Asia and the Russian Far East and Siberia. Through this comparative approach, the paper seeks to clarify both shared traits and regional divergences, and to evaluate the respective explanatory value of the diffusionist and convergence-based models.

Although similarities between these traditions have been previously acknowledged, the underlying mechanism has remained unresolved. The chronological gap of more than 4,000 years between Quynh Van assemblages and those from Northeast Asia raises a fundamental question: did the Quynh Van communities adopt this ceramic tradition through long-distance interaction networks, or did they independently develop the pointed-bottom form as an adaptive solution to their local environmental conditions? By systematically comparing technological and ecological variables, this study aims to contribute new insights to this long-standing debate.

Theoretical framework and research methods

In archaeology and anthropology, there are two commonly applied concepts used to explain how cultures that are geographically distant or separated in time can nonetheless share similar characteristics. The first is the concept of "convergence" (or convergent evolution), which is typically associated with shared needs and environmental conditions. The second is "diffusion", which emphasizes the role of contact, migration, or cultural exchange in the spread of ideas.

The concept of convergence is borrowed from evolutionary biology. It refers to the phenomenon in which organisms or communities with no common origin develop similar features due to being subjected to comparable environmental pressures. When applied to archaeology, this concept suggests that if a particular artifact type, such as pointed-bottom pottery, served the same function (for example, food preparation) in similar ecological contexts (such as coastal areas, sandy surfaces, or shell-rich ground), then it is quite likely that similar designs were independently developed in multiple locations. Rice (1987) pointed out that a pointed base helps a pot remain stable on uneven surfaces and supports the cooking process. For this reason, such a design could naturally appear in different places without direct influence from one another.

By contrast, the diffusionist perspective explains the similarities between cultures in terms of contact, trade, or short- and long-distance migration. According to this view, technical ideas or stylistic traditions can move from one area to another. Within this framework, Renfrew (1975) emphasized the concept of "trade as action at a distance", which can account for the spread of ceramic production methods, decorative styles, or even architectural techniques across long distances.

When applied to the case of pointed-bottom pottery, one might reason that if this pottery type appeared significantly earlier in Northeast Asia and the Russian Far East than in Quynh Van, then the communities of Quynh Van may have borrowed or adopted ideas from external sources, especially through coastal routes. On the other hand, if there

is a lack of evidence for intermediate sites or cultural links, and if there are substantial differences in style or context, it may be more appropriate to interpret the phenomenon as one of convergence. In this scenario, the Quynh Van community would have developed the pointed-bottom design independently in response to specific local conditions.

For this reason, the present article adopts a mixed theoretical framework. It seeks to identify signs that may reflect the diffusion of ceramic ideas, while at the same time evaluating the possibility that similar ecological conditions in coastal Quynh Van encouraged independent innovation. The selection of one hypothesis over the other ultimately depends on the specific archaeological evidence at hand. This article simultaneously employs both explanatory approaches in order to contribute to the broader discussion on the origin of pointed-bottom pottery in the Quynh Van culture.

In terms of methodology, this study applies comparative archaeological analysis as the main approach. It incorporates both published scientific literature and excavation reports. The comparative analysis focuses on a set of criteria including chronology, typology (such as rim, body, and base shapes), decorative techniques (including combing, incision, and stamping), production methods (such as coiling, rim perforation, and temper composition), and stratigraphic context (including shell middens, caves, riverbanks, and snowy terrain).

Regarding data sources, the research draws from both domestic and international materials. For Vietnamese sources, we rely on widely cited works on the Quynh Van culture and pointed-bottom pottery, such as the early studies by Colani (1930) and Борисковский П.И (1966). *Vietnamese Archaeology*, Volume I: "The Stone Age" (Ha Van Tan, 1998), *Quynh Van Culture* (Nguyen Trung Chien, 1998), and excavation reports on Quynh Van sites in Quynh Luu (Nghe An) and Ha Tinh (Hoang Xuan Chinh, 1966. Nguyen Van Hao, 1979. Bui Vinh & Nguyen Trung Chien, 1981. Lam Thi My Dung et al., 2021. 2024). In addition, we consider findings from sites associated with the Thach Lac type (also referred to as the Thach Lac culture), which also feature pointed-bottom pottery (Pham Thi Ninh, 2000. Lam Thi My Dung et al., 2020. Lam Thi My Dung et al., 2021).

For international sources, we refer to research on early pottery centers and pointed-bottom pottery from Northeast Asia and the Russian Far East - Siberia, including works by scholars such as Kuzmin (2002, 2015, 2017), Yanshina (2017), Cohen (2013), Lu (2010), Zhang (1999, 2002), Sook-Chung Shin et al. (2012), Boaretto (2009) and Kim Jae-yoon (2020).

Results and discussion

Based on the theoretical framework and research methods presented above, this section focuses on analyzing and systematizing the principal characteristics of pointed-bottom pottery within the Quynh Van culture, in comparison with examples from early

ceramic centers in Northeast Asia and the Russian Far East - Siberia. The clarification of morphological features, production techniques, decorative elements, and environmental contexts will serve to assess both similarities and differences. This, in turn, enables a discussion on the potential cultural relationships, as well as the developmental processes associated with this pottery type.

Characteristics of Pointed-Bottom Pottery in the Quynh Van Culture

The Quynh Van culture is considered one of the most important Neolithic components in North Central Vietnam, with sites dating from approximately 6,000 to 3,500 years before present. Since its initial identification following the excavation of Bai Phoi Phoi in Ha Tinh Province, pointed-bottom pottery has been recognized as a defining feature of this cultural complex. This vessel form occurs in particularly high frequency at coastal sites, indicating both technological preference and functional importance within Quynh Van communities.

Excavations at other key sites, such as Go Lap Bac, Con Dat, and Phai Nam, have revealed thick cultural layers composed mainly of shell midden deposits containing abundant pointed-bottom pottery sherds. Many of these sherds bear soot marks, which strongly suggests their use in cooking activities. As a result, pointed-bottom pottery has become one of the primary criteria used by archaeologists to identify the Quynh Van culture within the broader network of Neolithic traditions in Vietnam, alongside cultures such as Cai Beo, Da But, and Bau Du.

Researchers generally agree that Quynh Van pointed-bottom vessels functioned primarily as cooking pots. Morphologically, they are characterized by wide rims, typically measuring between 30 and 50 cm in diameter, along with thick vessel walls ranging from 0.7 to 1.2 cm, and occasionally reaching up to 1.5 cm. The overall form is an elongated, inverted conical body that narrows toward a small, pointed tip at the base, usually 1–2 cm in diameter. Vessel height generally ranges from 30 to 50 cm, depending on the excavation context and degree of preservation.

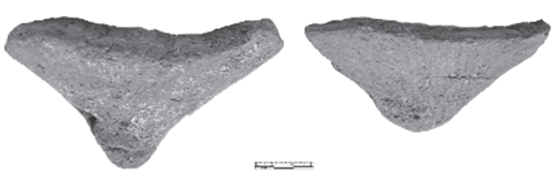

Figure 1. Pointed-bottom pottery of the Quynh Van culture.
Source: Author.

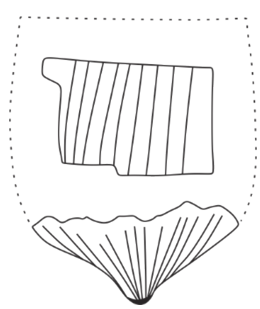

Figure 2. Reconstruction drawing of a pointed-bottom vessel.
Source: Redrawn by author based on Nguyen Trung Chien (1986).

The ceramic fabric of Quynh Van pointed-bottom pottery is characterized by a high proportion of coarse quartz inclusions, accounting for approximately 40–50% of the paste, often accompanied by small crushed shell fragments (Pham Ly Huong, 1981. Nguyen Trung Chien, 1998). In some cases, the surface displays a reddish coloration, suggesting a slightly better refinement or firing condition. The dominant construction technique was the coiling method, whereby strips of clay were stacked to build up the vessel walls. These coils were subsequently consolidated through the use of paddles and anvils in order to strengthen and smooth the surface. The pointed base could either be shaped as an integral part of the lower body or formed separately and then attached. In several cases, fragments indicate that the base may have detached during firing, use, or post-depositional processes.

One of the most distinctive technological features of Quynh Van pottery is the presence of combing marks on both the interior and exterior surfaces. These marks extend from the rim downward toward the base and appear to have served primarily a functional purpose, helping to bind the clay coils and increase surface grip, rather than acting as purely decorative elements. Many sherds exhibit overlapping combed lines, produced with two- or three-toothed implements. In addition, a number of vessels display small perforations near the rim, approximately 1 cm in diameter, which were most likely used for threading cords in order to suspend or transport the pot.

From a functional perspective, Quynh Van pointed-bottom pottery is widely interpreted as a type of cooking vessel. The frequent presence of soot on exterior surfaces strongly indicates direct exposure to fire. The pointed base allowed the vessel to be partially embedded in soft, sandy, or shell-rich substrates, thereby improving stability during use. The thick body and tapered form also helped to lower the center of gravity, reducing the risk of tipping. At the same time, perforations near the rim made it possible to suspend the vessel above a hearth or drying area. These features are consistent with the subsistence practices of coastal communities, which relied heavily on the processing of mollusks, fish, and other marine resources.

It is also possible that such vessels were suitable for activities such as the evaporation of seawater or the soaking and heating of marine products, although this interpretation requires further verification through residue or microbotanical analyses. In this sense, the pointed-bottom form should be understood not as a stylistic choice, but as a specialized technological solution that was optimized for both thermal efficiency and the specific ground conditions of the Quynh Van coastal environment.

It should be noted that round-bottom vessels with cord-marked decoration have also been identified at Quynh Van sites, although they occur in much smaller quantities. Stratigraphic evidence suggests that pointed-bottom pottery dominates the earlier layers, while in later phases it is gradually replaced by round-bottom or flat-bottom forms.

This shift has been interpreted by Nguyen Trung Chien (1998) and Ha Van Tan (1998) as an indicator of broader socio-economic and technological changes, possibly linked to transformations in cooking practices, settlement patterns, or vessel function.

In several early layers associated with the Thach Lac type, which dates to approximately 5,000–3,500 BP, a limited number of pointed-bottom pottery sherds has been identified. These finds have been interpreted as evidence of cultural inheritance or residual technological memory rather than as a continuation of a dominant tradition (Nguyen Trung Chien, 2015, p. 269). At Ru Ta, only a single pointed-bottom sherd was recorded (Hoang Van Khoan, 1999). In the 2015 excavation at Thach Lac, just two pointed-bottom sherds were identified among 493 ceramic fragments (Lam Thi My Dung et al., 2021, p. 30), while three such fragments were recovered from early layers at the Ru Diep site (Lam Thi My Dung et al., 2020). The extremely limited quantity of these finds suggests cultural remembrance rather than active technological continuity. In subsequent phases, pointed-bottom pottery disappears entirely, giving way to round-based, flat-based, or pedestal-supported vessels decorated with more elaborate patterns. This transformation reflects a broader process of technological and social reorganization in the late Neolithic of North Central Vietnam.

Fig 3. Pointed-bottom pottery base from the Thach Lac site.

Source: Nguyen Thi Thuy

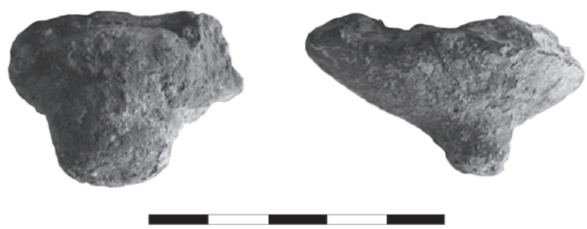

Fig 4. Pointed-bottom pottery base from the Ru Diep site.

Source: Lam Thi My Dung et al., 2020, 7.

Pointed-Bottom Pottery in Northeast Asia and the Russian Far East - Siberia

In order to evaluate the cultural and technological position of Quynh Van pottery, it is necessary to consider it within the broader framework of early ceramic traditions in Northeast Asia and the Russian Far East and Siberia. This vast region is widely regarded as one of the earliest centers of pottery production in the world. Numerous archaeological sites dating from the Late Pleistocene to the Early Holocene have yielded substantial ceramic assemblages, among which pointed-bottom or parabolic-bottom vessels represent a particularly significant form.

Fig 5. Map of early pottery centers in Northeast Asia and the Russian Far East and Siberia.

Source: Kuzmin, 2015, 8.

In southern China, sites such as Yuchanyan Cave (Hunan), Xianrendong (Jiangxi), and Zengpiyan (Guangxi) have produced some of the earliest pottery known to date, with radiocarbon ages ranging from approximately 18,000 to 10,000 BP. Many reconstructed vessels from these contexts exhibit parabolic or near-pointed bases and thick walls, often around 2 cm in thickness. The ceramic paste frequently contains coarse sand, gravel, and plant ash as temper, and the vessels were generally fired at low temperatures, estimated between 400 and 500°C. These assemblages are commonly associated with cave-dwelling hunter-gatherer groups, and decorative treatment tends to be minimal, consisting mainly of simple combing or cord impressions.

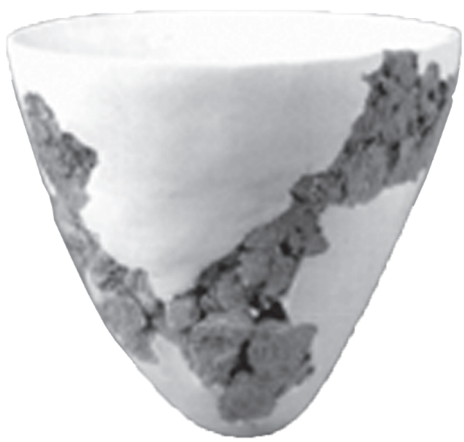

Fig 6. Pottery from the Yuchanyan Cave site.

Source: Zhang, 2002, 33.

In the Japanese archipelago, particularly on the islands of Hokkaido and Honshu, Pre-Jomon sites dating to around 16,000–14,000 BP, such as Taisho 3 and Natsushima, have yielded large quantities of pointed-bottom pottery. Many of these vessels display blackened outer surfaces, indicating use in cooking. Lipid residue analyses have revealed traces of aquatic resources, which supports the interpretation that they were used primarily in the processing of seafood and other marine products. Although there is some variation in size and profile, these vessels generally exhibit a similar pointed-base morphology.

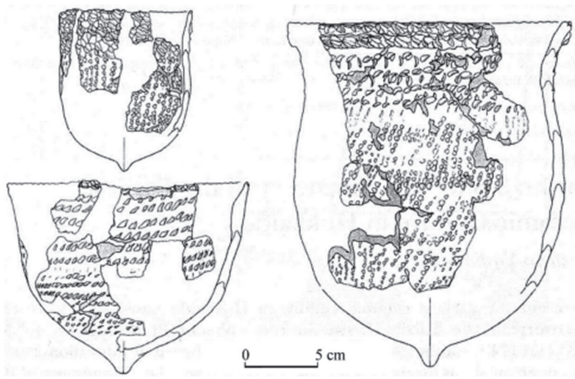

Fig 7. Pottery from the Taisho 3 site.

Source: Kuzmin, 2015, 5.

Fig 8. Pottery from the Omotedate site.

Source: Kuzmin, 2015, 4.

On the Korean Peninsula, pointed-bottom pottery is commonly associated with the Chulmun culture, dated roughly to 6,000–4,500 BP. Compared to Quynh Van ceramics, Chulmun pottery often shows more elaborate surface decoration, including geometric and incised motifs. Some scholars have suggested possible links between Chulmun assemblages and pottery traditions in the Baikal region and Inner Mongolia, based on similarities in both form and decorative patterns.

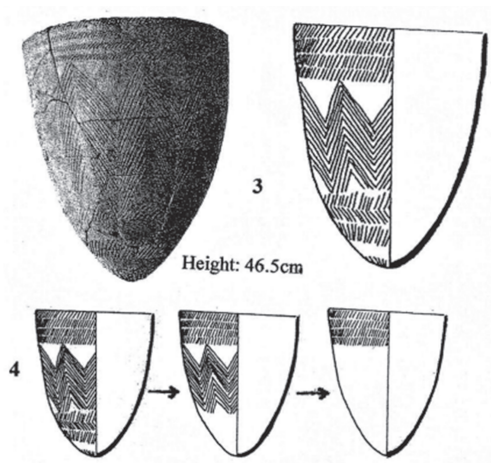

Fig 9. Chulmun pottery with geometric motifs.

Source: Sook-Chung Shin et al., 2012, p. 73.

In the Russian Far East and southern Siberia, particularly within the Lake Baikal basin and the Amur River region, several important archaeological complexes, such as Ust-Karenga, Gromatukha, and Studenoe 1, have yielded pointed-bottom or parabolic-base vessels dating to approximately 14,000–10,000 BP. These assemblages are often associated with cold-climate environments. It has been suggested that the pointed base allowed vessels to be anchored in snow, soft soil, or unconsolidated sediment, thereby improving stability during use. In some instances, the vessels display perforations near the rim, simple combed or incised surface treatment, and tempers composed of vegetal fibres or coarse mineral inclusions.

Fig 10. Parabolic-bottom pottery from the Gromatukha site.
Source: Kuzmin, 2015, 7.

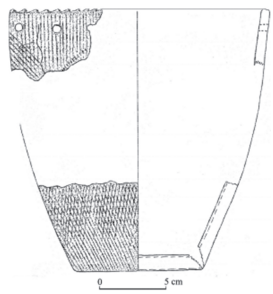

Fig 11. Flat-bottomed perforated pottery from the Gromatukha site (approx. 12,380 BP).
Source: Kuzmin, 2015, 7.

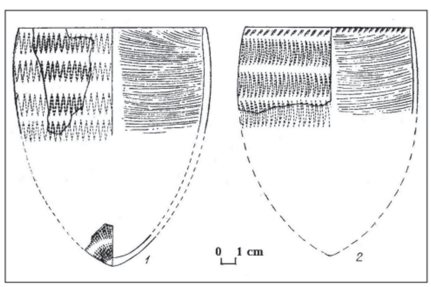

Fig 12. Ceramic pot from the Ust-Karenga site.
Source: Kuzmin, 2002, 42.

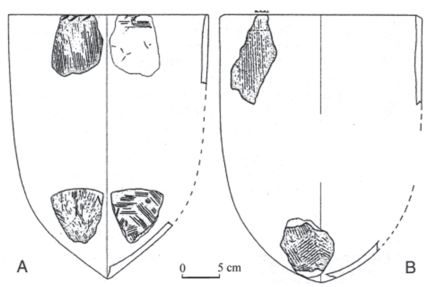

Fig 13. Pottery from the Studenoe 1 site.
Source: Kuzmin, 2015, 8.

Although decorative styles, temper composition, and specific manufacturing techniques vary across regions, the repeated appearance of pointed-bottom pottery in similar subsistence and ecological contexts clearly indicates that this form represented an efficient and widely applicable technological solution for early hunter-gatherer groups living in challenging environments.

A Comparative Analysis

From an early stage, Vietnamese archaeologists recognized that Quynh Van pointed-bottom pottery shared certain similarities with other prehistoric ceramic traditions in Asia. Initial comparisons were made with materials from Central Asia and the Black Sea region. however, subsequent studies have increasingly emphasized closer parallels with early pottery from southern China, Japan, the Korean Peninsula, and Siberia. This section presents a comparative analysis based on five main criteria: chronological framework, vessel morphology, raw materials and production techniques, decorative and functional characteristics, and ecological context.

Chronologically, Quynh Van pointed-bottom pottery dates to approximately 6,000–3,500 BP, making it significantly younger than most comparable assemblages in Northeast Asia and the Russian Far East and Siberia, where the earliest examples appear between 18,000 and 10,000 BP. Among the regions under comparison, only the Chulmun culture of the Korean Peninsula overlaps to some extent with the Quynh Van timeframe. This marked temporal discrepancy implies that, if diffusion did occur, it would either have involved a long period of cultural transmission or the reintroduction of an older ceramic concept in a later context. The absence of clearly defined intermediary sites between these regions and North Central Vietnam, however, presents a major challenge to a straightforward diffusionist explanation.

In terms of form and size, Quynh Van vessels are characterized by wide mouths, thick walls, and elongated bodies that taper toward a narrow-pointed base. A broadly comparable morphology is observable in Pre-Jomon pottery from Japan, although Japanese vessels sometimes display more pronounced shoulders or slightly flaring rims. Similarly, certain examples of Chulmun pottery from Korea exhibit comparable proportions in terms of height and base shape. While early ceramics from southern China and Siberia tend to be smaller in overall size, they nevertheless display the same fundamental concept of a tapered or parabolic base.

Regarding materials and production techniques, the use of coarse mineral temper, coiling construction, and surface treatment through combing or cord-marking is common across many of the regions examined. Quynh Van pottery is notable for its particularly high proportion of coarse quartz inclusions, sometimes mixed with crushed shell, as well as for the consistent presence of vertical or diagonal combing marks. Rim perforations are another shared feature between Quynh Van vessels and a number of Siberian and Korean examples, suggesting a broadly similar functional concern with suspension or handling. These technological similarities, while not identical in execution, reflect comparable responses to common functional and environmental constraints.

In terms of decorative treatment, however, a clear difference is observable. Quynh Van pottery is generally plain and utilitarian, with surface treatment serving primarily structural or functional purposes. In contrast, Chulmun pottery frequently exhibits complex geometric and incised motifs, while certain pottery traditions in southern China and Siberia also present more varied surface decoration. This contrast suggests that Quynh Van ceramics were produced with a strong emphasis on practicality rather than on symbolic or aesthetic expression.

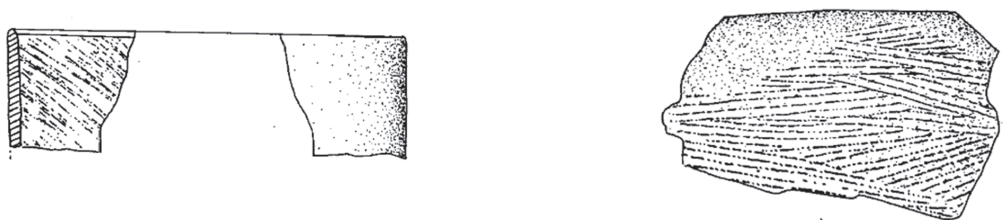

Fig 14, 15. Combed decoration on pointed-bottom pottery of the Quynh Van culture. *Source: Nguyễn Trung Chiến, 2005.*

Fig 16. Sherd with combed pattern and rim perforation from the Gromatukha site. *Source: Kuzmin, 2002, 41.*

Finally, with regard to ecological context, Quynh Van sites are located predominantly along the North Central Vietnamese coastline and are closely associated with shell middens and sandy dune environments. Comparable environmental conditions can be identified at many early pottery sites in China, Japan, Korea, and Siberia, including coastal zones, riverbanks, caves, and areas with unconsolidated sediments or seasonal snow cover. Although climate regimes differed, these environments share the common characteristic of unstable surfaces, for which the pointed-bottom design offered an effective solution. The consistent association of such vessel forms with these types of environments strongly reinforces the interpretation that functional adaptation played a decisive role in shaping this ceramic tradition.

In summary, despite notable differences in chronology, size range, and decorative complexity, the fundamental similarities in form, production technique, and ecological function indicate that pointed-bottom pottery represents a widespread and versatile technological response to similar subsistence conditions. The Quynh Van tradition, although chronologically later, clearly belongs to this broader pattern and therefore merits further attention within regional and interregional perspectives on early ceramic development.

Discussion on Cultural Relationships

The observed similarities between pointed-bottom pottery of the Quynh Van culture and early ceramic traditions in Northeast Asia and the Russian Far East and Siberia have generally been interpreted through two main explanatory frameworks: diffusion and convergence.

The diffusion hypothesis proposes that the pointed-bottom form first emerged in early ceramic centers of Northeast Asia and was subsequently transmitted southward to Vietnam through processes such as coastal migration, cultural exchange, or long-distance maritime interaction. This interpretation is supported by the fact that pointed-bottom pottery appeared in regions such as China, Japan, Korea, and Siberia several millennia earlier than it did in the Quynh Van area. Furthermore, increasing archaeological evidence for long-distance population movements and interaction networks among prehistoric coastal communities in East and Southeast Asia lends some plausibility to this scenario. From this perspective, it is conceivable that ceramic knowledge, vessel forms, or technological concepts were gradually transferred along these routes and eventually adopted by Quynh Van populations.

However, the diffusion hypothesis faces a significant archaeological challenge. At present, there is a lack of clearly identified intermediary sites or transitional ceramic assemblages that might serve as cultural or chronological bridges between the early pottery centres of Northeast Asia and the coastal zone of North Central Vietnam. While it is possible that some sites were submerged or destroyed by Holocene sea-level rise, the absence of material evidence linking these regions weakens a strictly diffusion-based explanation. In light of this gap, an interpretation based solely on cultural transmission remains difficult to substantiate with the currently available data.

The alternative and increasingly convincing interpretation is that of technological convergence. According to this model, different communities, confronted with similar ecological constraints and functional requirements, independently developed comparable ceramic solutions. The pointed-bottom design offered several clear practical advantages: it could be embedded in soft or unstable substrates such as sand, shell deposits, or loose soil. it lowered the vessel's center of gravity. and it increased stability during cooking activities.

These advantages would have been equally relevant to hunter-gatherer communities operating in a wide range of environments, from the cold regions of Siberia to the tropical coasts of Vietnam.

In the case of the Quynh Van culture, the environmental setting of coastal dunes and extensive shell midden deposits created conditions in which a pointed-bottom vessel would have been particularly useful. The presence of thick walls, combed surfaces, and rim perforations reflects a functional design optimized for heating, handling, and stabilisation rather than for decorative display. These features are consistent with a model of independent technological innovation shaped primarily by local environmental and subsistence conditions.

It should also be emphasized that diffusion and convergence are not necessarily mutually exclusive processes. It is possible that broad technological ideas were circulating across regions through indirect or poorly documented networks of interaction, while at the same time local communities adapted and modified those ideas in response to specific environmental and cultural circumstances. In this respect, the repeated appearance of pointed-bottom vessels in different parts of Asia may reflect a complex combination of functional adaptation, independent invention, and occasional forms of cultural contact.

An additional pattern to be considered is the eventual disappearance of pointed-bottom pottery in the Quynh Van tradition and its replacement by round-bottom, flat-bottom, or pedestal-supported forms in later periods. Comparable shifts can be observed in other regions, including Korea and parts of Siberia, and may be linked to broader transformations in settlement organization, increasing sedentism, the establishment of more permanent hearths, or changing culinary practices. From this perspective, the decline of pointed-bottom pottery should be understood not as an abrupt cultural break, but as part of a gradual process of technological and social reconfiguration during the late Neolithic.

Conclusion

Through a comparative and contextualized analysis, this study has examined the technological characteristics, functional significance, and cultural implications of pointed-bottom pottery associated with the Quynh Van culture in North Central Vietnam. By focusing on vessel morphology, raw materials, manufacturing techniques, surface treatment, and ecological setting, and by comparing these elements with data from Northeast Asia and the Russian Far East and Siberia, the research places Quynh Van pottery within a broader framework of early ceramic traditions in Asia.

The analysis demonstrates that Quynh Van pointed-bottom pottery shares a range of morphological and functional characteristics with earlier ceramic assemblages from

southern China, Japan, the Korean Peninsula, and Siberia. These include wide rims, thick walls, elongated bodies, pointed or parabolic bases, coiling construction techniques, combed surfaces, and rim perforations. At the same time, the chronological position of the Quynh Van culture is significantly later than that of most other regions under comparison.

On the basis of this evidence, the study has evaluated two principal explanatory models: technological diffusion and independent convergence. While the possibility of long-distance cultural transmission cannot be entirely excluded, the current lack of intermediary archaeological evidence and the pronounced chronological gap tend to weaken a strictly diffusionist interpretation. Instead, the convergence model, which emphasizes independent innovation in response to similar functional and environmental constraints, provides a more convincing explanation for the emergence of pointed-bottom pottery in the Quynh Van context.

The findings of this study contribute to a clearer understanding of the position of the Quynh Van culture within the prehistoric landscape of Asia. They highlight the adaptive and innovative capacities of coastal communities in North Central Vietnam and demonstrate how comparable technological solutions can arise in different regions without direct cultural lineage. At the same time, this research underlines the importance of adopting interdisciplinary approaches, including petrographic, chemical, and residue analyses, in order to further clarify issues of provenance, technological choice, and possible interregional interaction. Such future studies will help to refine our understanding of early ceramic development and the complex web of relationships among prehistoric societies across Asia.

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