

# Ceramic Evidence for Multi-period Occupation in the Visoko Region (Bosnia and Herzegovina): A Synthesis of Archaeological Investigations, 2010-2025

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Archaeological work carried out in the Visoko region between 2010 and 2025 has produced a large and consistent body of ceramic material across multiple investigated locations, including subterranean contexts, surface excavations, and stratified sondes. Ceramic fragments represent the most common class of finds and occur in association with architectural features, organic material, and anthropogenic layers. The assemblage spans several chronological periods. Based on typology and context, the material includes ceramics from the Neolithic, Roman, and early medieval phases. These finds are documented across different sites within the region, including the Ravne tunnel system, the Bosnian Pyramid of the Moon, Vratnica, and associated locations. In a number of excavation units, ceramic fragments are recovered from clearly defined stratigraphic layers, providing evidence for repeated use of the same locations over extended periods. In contrast, other finds derive from mixed and redeposited contexts, reflecting later processes such as collapse, backfilling, and surface disturbance. Taken together, the evidence does not indicate a single phase of occupation. Instead, it points to long-term continuity of human activity across the Visoko region. The ceramic record provides the most consistent line of evidence for this sustained presence and for the repeated reuse of the landscape through time.

*Keywords:* archaeology, ceramic assemblage, multi-period occupation, stratigraphy, subterranean contexts, Visoko region, Ravne tunnel system, Bosnia and Herzegovina, landscape archaeology, material culture, site reuse

## Introduction

Archaeological research in the Visoko region of central Bosnia and Herzegovina has been conducted continuously since 2005, with systematic excavations across multiple locations between 2010 and 2025. These investigations, coordinated by the Archaeological Park: Bosnian Pyramid of the Sun Foundation, have focused primarily on large-scale landscape features and subsurface structures. At the same time, fieldwork has consistently produced a substantial quantity of material culture, among which ceramic artifacts are the most numerous and widely distributed.

The Visoko region is situated in central Bosnia and Herzegovina, within a geomorphologically diverse landscape that includes river valleys, elevated plateaus, and prominent conical hills (Figure 1). Archaeological activity has been carried out at several locations within this area, including the Bosnian Pyramid of the Moon,

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the Ravne underground complex, Vratnica, the Temple of Mother Earth, and the Vis site. Excavations on the western slopes of the Pyramid of the Moon (Figure 2) and within surface trenches such as Sonda JUG (Figure 3) demonstrate that archaeological contexts are not confined to a single location, but occur across multiple sectors of the valley.

Surface investigations have been conducted using standard archaeological methods, including grid-based excavation and controlled removal of sediment layers, as shown at the Vratnica tumulus (Figure 4). In parallel, subsurface research within the Ravne tunnel system has provided a different type of archaeological context, where excavation takes place within enclosed sediment-filled passages (Figure 5). Controlled excavation within these tunnels (Figure 6) has yielded stratified material, including ceramics, organic remains, and architectural features.

A key element in the interpretation of these finds is the presence of clearly defined stratigraphic sequences. The vertical profile documented in trench A302 (Figure 7) shows multiple sedimentary layers with distinguishable units, providing a framework for understanding the relative chronology of deposited material. Stratigraphy remains one of the fundamental principles of archaeological interpretation, allowing artifacts to be associated with specific depositional phases and contexts (Harris, 1989; Renfrew & Bahn, 2016).

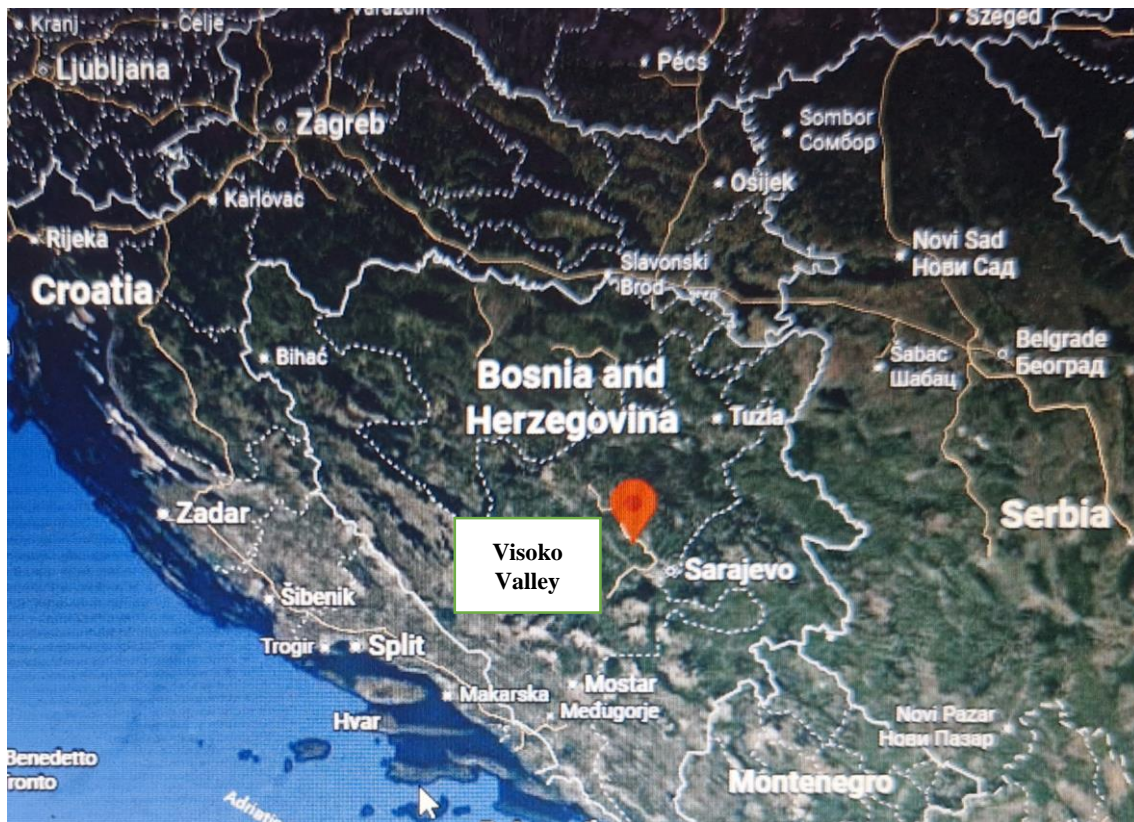


Figure 1. Location of the Visoko region in central Bosnia and Herzegovina.



Figure 2. Bosnian Pyramid of the Moon, western slope. Excavation areas including Trench 20 and archaeological fieldwork in progress.



Figure 3. Sonda JUG (Bosnian Pyramid of the Moon): excavation sequence showing the site before clearing, initial excavation phase, artifact recovery, and final exposed surface.



Figure 4. Excavation grid at the Vratnica tumulus showing coordinate system and controlled surface excavation.

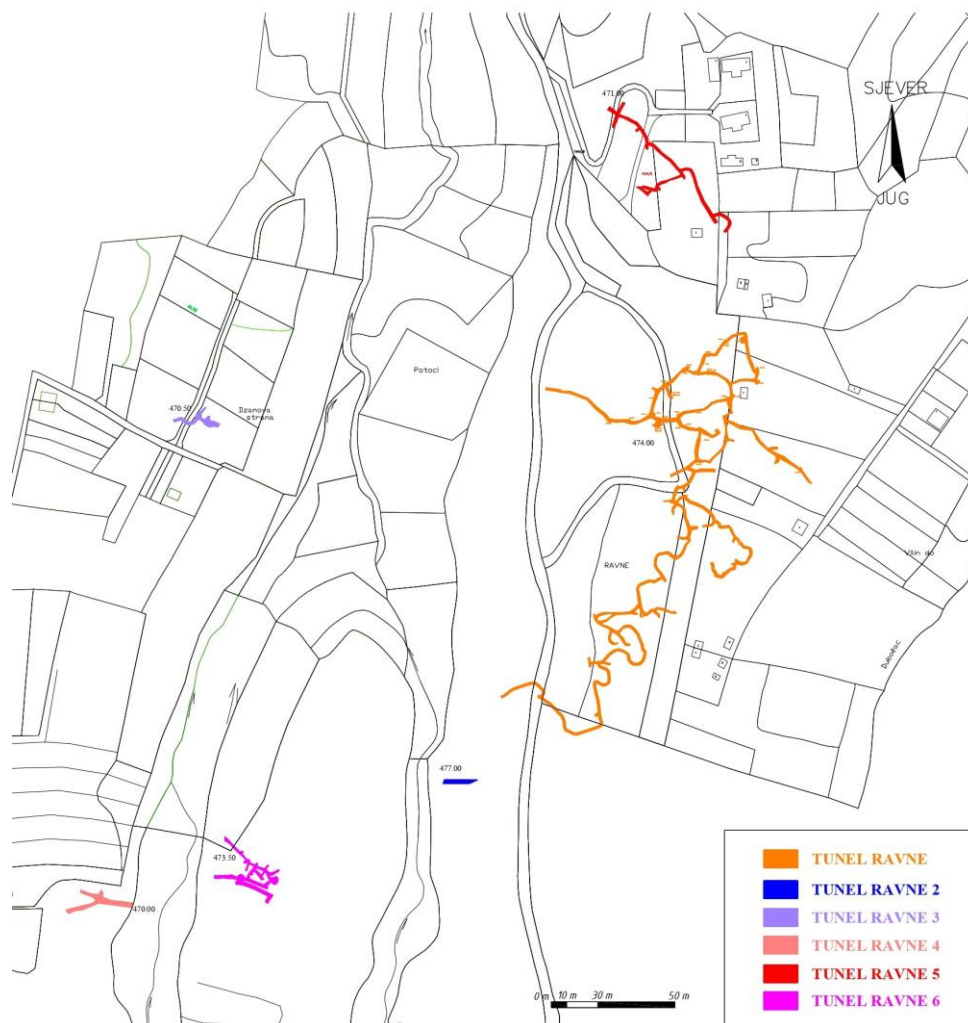
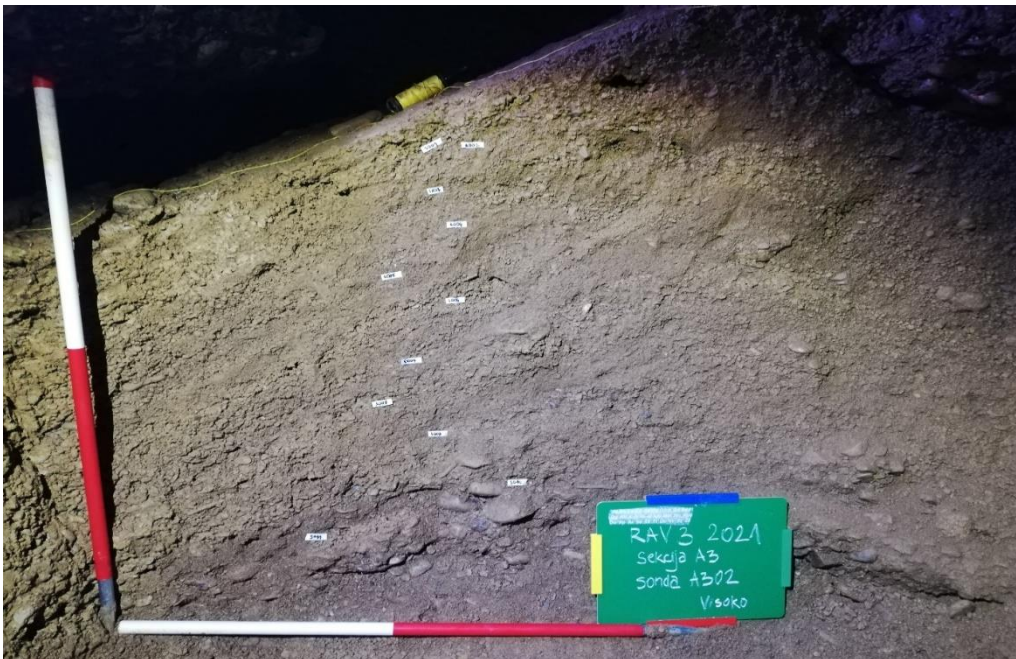


Figure 5. Plan view of the Ravne underground tunnel system with mapped passages and excavation sectors.



*Figure 6.* Archaeological excavation within Ravne 3 tunnel (2019), showing controlled removal of sediment and artifact recovery.



*Figure 7.* Stratigraphic profile of trench A302 (Ravne 3 tunnel, 2021), showing multiple sedimentary layers and clearly defined stratigraphic units. The sequence illustrates depth-controlled deposition and provides context for associated ceramic fragments and organic material recovered during excavation.

Although ceramic artifacts were not the primary focus of these investigations, they appear consistently across all excavated locations. Their presence spans both surface and subsurface contexts, including stratified layers, architectural settings, and mixed deposits. In archaeology, ceramics are among the most reliable indicators of human activity due to their durability, typological variability, and chronological sensitivity (Rice, 1987; Orton, Tyers, & Vince, 1993). Even when recovered in secondary contexts, ceramic fragments provide valuable information about past human presence and site reuse.

The material presented in this paper draws on a series of excavation campaigns and previously published analyses (Osmanagich, 2025a; 2025b; 2025c; 2026a; 2026b, Osmanagich & Sabanija-Softić, 2026), with the aim of synthesizing ceramic evidence across multiple sites in the Visoko region. The intention is not to address broader interpretative questions related to large-scale structures, but to examine the ceramic record as an independent line of evidence. By focusing on distribution, context, and typology, this study seeks to determine whether the available data support a pattern of single-phase occupation or, alternatively, indicate repeated human activity over a longer period.

The working hypothesis is that the Visoko region represents a landscape of sustained and recurrent human use. Ceramic assemblages, when considered together with their stratigraphic and spatial contexts, provide a consistent dataset through which this hypothesis can be tested.

### **Materials and Methods**

Archaeological data presented in this study derive from a series of excavation campaigns conducted between 2010 and 2025 in the Visoko region. Fieldwork was carried out at multiple locations, including the Bosnian Pyramid of the Moon, the Ravne underground complex, Vratnica, the Temple of Mother Earth, and the Vis site. These investigations combined surface excavation with subsurface exploration, producing a dataset that includes both stratified and redeposited material.

Excavation methods followed standard archaeological practice. Surface sites were investigated using grid-based systems, with trenches divided into measured units and excavated in controlled layers. Sediment was removed manually using hand tools, and all material was subjected to visual inspection and, where appropriate, sieving. The grid system applied at locations such as Vratnica (Figure 4) ensured spatial control and allowed for consistent recording of artifact distribution.

At the Bosnian Pyramid of the Moon, trenches such as Sonda JUG (Figure 3) were opened to examine surface deposits and underlying structures. Excavation proceeded by removing overburden and documenting exposed features, including stone alignments, compacted surfaces, and artifact concentrations. Particular attention was given to the depth and position of ceramic finds, even in cases where stratigraphic integrity was partially disturbed.

Subsurface investigations were conducted within the Ravne tunnel system (Figure 5), where excavation involved the removal of sediment infill from existing passages. Work in these contexts required a different approach due to confined conditions and the presence of accumulated material of varying composition. Sediment was removed in controlled sections, with careful documentation of depth, composition, and inclusions. Excavation within Ravne 3 (Figure 6) illustrates this process, where layers of fine sediment, compacted material, and larger inclusions were systematically cleared.

Stratigraphic recording was a central component of the methodology. Vertical profiles, such as the section documented in trench A302 (Figure 7), were cleaned and recorded to identify distinct sedimentary units.

Differences in color, texture, compaction, and inclusions were used to define stratigraphic layers. These observations allowed for the relative sequencing of deposits and the association of ceramic material with specific contexts.

Ceramic artifacts were collected from all excavation areas and documented according to basic typological and morphological criteria. Recording included fragment size, thickness, surface treatment, and, where preserved, rim or base characteristics. Diagnostic features, such as decoration, glazing, or manufacturing technique, were noted. No destructive analysis was carried out; identification was based on visual comparison with established typologies, particularly for Neolithic, Roman, and medieval ceramics.

The dataset includes material from both primary and secondary contexts. Primary contexts refer to stratified layers where artifacts are found in situ within defined depositional units. Secondary contexts include mixed deposits resulting from later disturbance, such as collapse, backfilling, or sediment movement. Distinguishing between these contexts is important for interpretation, as it affects the degree to which chronological associations can be considered reliable.

This study does not attempt to provide absolute dating for all recovered material. Where available, chronological attribution is based on typological comparison and previously published analyses. The focus remains on the distribution and recurrence of ceramic material across different sites and contexts, rather than on precise chronological resolution.

## Results

### Distribution of Ceramic Material Across Sites

Ceramic material was recovered from all investigated locations within the Visoko region. These include surface excavation areas such as the Bosnian Pyramid of the Moon, Vratnica, the Temple of Mother Earth, and the Vis site, as well as subsurface contexts within the Ravne tunnel system. The distribution of finds across these locations indicates that ceramic artifacts are not confined to a single site or context, but occur throughout the broader landscape.

At the Bosnian Pyramid of the Moon, ceramic fragments were documented within Sonda JUG (Figure 3), where excavation revealed both surface and subsurface deposits. Neolithic material is represented by a series of fragments recovered from this trench (Figure 8), as well as a broader assemblage attributed to the Butmir cultural horizon (Figure 9). These finds are consistent with early habitation phases in the region and appear within shallow but defined depositional contexts.

Additional Neolithic material was identified at the Temple of Mother Earth (Figure 10), where a pottery fragment was recovered from Sonda M2A. Similar material from the Vis site (Figure 11) includes darker, thicker fragments associated with Butmir-type ceramics. Although these finds come from different locations, they share comparable typological characteristics, suggesting a broader distribution of early ceramic traditions within the region.

### Ceramic Material From Subsurface Contexts

Within the Ravne tunnel system, ceramic finds were recovered during excavation of sediment infill. Material from Ravne 3 includes Roman-period artifacts, such as tegula fragments (Figure 14) and a partially reconstructed Terra Sigillata vessel (Figure 15). These finds represent a later chronological phase and differ significantly in fabric, finish, and manufacturing technique from the earlier Neolithic material.



Figure 8. Neolithic ceramic fragments recovered from Sonda JUG, Bosnian Pyramid of the Moon.



Figure 9. Ceramic assemblage attributed to the Butmir culture (Neolithic), Bosnian Pyramid of the Moon.



Figure 10. Neolithic pottery fragment from Temple of Mother Earth, Sonda M2A.



Figure 11. Butmir-type black pottery fragments from the Vis site, associated with bronze ornaments.



Figure 12. Dry-stone wall (suhozid) structure documented within Ravne 3 tunnel.



Figure 13. Ravne 6 tunnel section (28 m): condition before and after excavation, showing removal of sediment infill.



Figure 14. Roman tegula (roof tile) fragments recovered from Ravne 3 tunnel (2019).



*Figure 15.* Partially reconstructed Roman Terra Sigillata vessel (diameter approx. 11 cm) from Ravne 3.

Early medieval ceramics are also present within the assemblage. A fragment bearing a swastika motif (Figure 16), dated to approximately the 8th-9th century CE, provides a diagnostic indicator of this period. Additional ceramic vessel fragments recovered during the 2019 excavation campaign (Figure 17) further illustrate the diversity of material present within the tunnel contexts.

Later phases are represented by fragments of medieval ceramics (Figure 18) and glazed ceramics (Figure 19), indicating continued production and use of ceramic vessels in subsequent periods. An assemblage of medieval fragments from Ravne 3 (Figure 20) shows variation in form, thickness, and surface treatment, reflecting changes in ceramic technology and use over time.



*Figure 16.* Ceramic fragment with swastika motif, dated to approximately 8th-9th century CE.



*Figure 17.* Ceramic vessel fragments recovered during the 2019 excavation campaign.



*Figure 18.* Fragments of medieval ceramics from Ravne 3.



*Figure 19.* Fragments of glazed ceramics, indicating later technological phases of ceramic production.

### **Stratigraphic Context**

Stratigraphic observations provide important context for the interpretation of ceramic material. The vertical profile documented in trench A302 (Figure 7) shows multiple sedimentary layers, each with distinct characteristics. Ceramic fragments and organic material were recovered from within these layers, indicating that at least part of the assemblage derives from stratified contexts.

In surface trenches such as Sonda JUG (Figure 3), stratigraphic integrity is less clearly defined due to shallow deposits and later disturbance. Nevertheless, the presence of ceramic material within identifiable layers suggests that deposition occurred over time rather than as a single event.

Within the Ravne tunnels, stratigraphic conditions are more complex. Sediment infill consists of a mixture of fine-grained material, larger inclusions, and occasional architectural features, such as dry-stone walls (Figure 12). Excavation of Ravne 6 (Figure 13) demonstrates that these deposits have accumulated over time and have been subject to processes such as collapse and redeposition. As a result, ceramic material from these contexts includes both primary and secondary components.

### **Contextual Associations**

Ceramic fragments are frequently associated with other forms of archaeological material. In both surface and subsurface contexts, ceramics occur alongside stone structures, compacted sediment layers, and organic remains. The dry-stone wall documented in Ravne 3 (Figure 12) represents one example of an architectural feature within which ceramic material is present.

In stratified contexts, ceramic fragments are embedded within sedimentary layers, often together with charcoal or other organic inclusions. In mixed deposits, ceramics appear alongside displaced material, including

stone fragments and compacted fill. These associations indicate that ceramic artifacts are part of broader depositional processes rather than isolated finds.

### **Summary of Observations**

The results show that ceramic material from the Visoko region:

- occurs across multiple sites and excavation areas;
- spans several chronological periods (Neolithic to medieval);
- is present in both stratified and mixed depositional contexts;
- is associated with architectural features and sedimentary layers.

Taken together, these observations demonstrate that ceramic artifacts form a consistent and widespread component of the archaeological record in the region.

## **Discussion**

### **Ceramics as Indicators of Long-Term Human Activity**

The ceramic material presented in this study forms a consistent line of evidence across multiple sites in the Visoko region. Unlike isolated artifact categories, ceramics appear in all investigated locations, both on the surface and within subsurface contexts. Their distribution is not limited to a single trench, structure, or phase of excavation, but extends across the entire area of study.

From an archaeological perspective, ceramics are among the most reliable indicators of human presence. Their durability allows them to survive in a wide range of depositional environments, while their typological variability provides a basis for chronological attribution (Rice, 1987; Orton et al., 1993). In the Visoko region, the presence of ceramic material from different periods—Neolithic, Roman, and medieval—suggests that human activity was not restricted to a single time horizon.

The recurrence of ceramic finds across sites such as the Bosnian Pyramid of the Moon, the Temple of Mother Earth, the Vis site, and the Ravne tunnel system indicates that these locations were part of a broader landscape of human use. While each site has its own characteristics, the ceramic record provides a common thread linking them.

### **Multi-period Occupation and Reuse of Space**

One of the central observations emerging from the results is the chronological range of the ceramic assemblage. Neolithic material, including Butmir-type ceramics (Figures 8-11), represents the earliest identifiable phase. This is followed by Roman-period artifacts (Figures 14-15), and later by early medieval and medieval material (Figures 16-20).

Such a sequence is not unusual in regions with long settlement histories. However, what is notable in this case is the repeated appearance of these materials across different contexts and locations. Rather than being confined to clearly separated stratigraphic units at a single site, ceramics from different periods are distributed across the region.

This pattern is consistent with a model of episodic occupation and reuse, in which the same general area is inhabited or utilized at different times. In this framework, the Visoko region can be understood not as a single archaeological site, but as a landscape that has been repeatedly engaged by human groups over an extended period.



*Figure 20.* Assemblage of medieval ceramic fragments from Ravne 3 tunnel.

### **Stratigraphy and Context: Primary vs. Secondary Deposits**

The interpretation of ceramic material depends in part on its depositional context. In stratified settings, such as the profile documented in trench A302 (Figure 7), ceramic fragments are associated with specific sedimentary layers. These contexts provide the most reliable basis for relative dating and for understanding the sequence of deposition (Harris, 1989).

At the same time, a significant portion of the material derives from mixed or redeposited contexts. This is particularly evident in the Ravne tunnel system, where sediment infill includes material of different origins and periods. Processes such as collapse, backfilling, and sediment movement have contributed to the mixing of deposits, resulting in the presence of ceramics from different periods within the same context.

This distinction between primary and secondary contexts is important. While mixed deposits cannot be used to establish precise chronological sequences, they still provide evidence for the presence of ceramic material in the area. In this sense, even redeposited ceramics contribute to the overall picture of long-term human activity.

### **Ceramics in Relation to Architectural Features**

The association of ceramic material with architectural elements adds another dimension to the interpretation. The presence of ceramics in proximity to dry-stone structures (Figure 12) suggests that these artifacts are not randomly distributed, but occur within spaces that show evidence of human modification.

In surface contexts, such as Sonda JUG (Figure 3), ceramics are found in association with stone alignments and compacted surfaces. In subsurface contexts, they appear within sediment layers that also contain constructed features. While the exact function and chronology of these structures require further investigation, their association with ceramic material reinforces the interpretation of human activity.

### **Scope and Limitations**

It is important to define the scope of this study. The analysis presented here focuses specifically on ceramic material as an indicator of human presence. It does not attempt to address broader interpretative questions related to the origin, function, or chronology of large-scale structures in the region.

Ceramics represent only one category of archaeological evidence. Their interpretation is subject to limitations, particularly in mixed or disturbed contexts. Typological attribution provides approximate chronological placement, but does not replace absolute dating methods. In addition, the absence of systematic laboratory analysis limits the level of detail that can be achieved.

Nevertheless, the consistency of the ceramic record across multiple sites and contexts provides a robust basis for identifying patterns of human activity.

### **Interpretation**

Taken together, the available evidence supports a model of long-term, multi-period human presence in the Visoko region. The ceramic assemblage does not point to a single phase of occupation, but rather to repeated episodes of use, separated in time and reflected in the diversity of material.

This interpretation does not rely on any single find or location. Instead, it emerges from the cumulative pattern observed across the dataset: the recurrence of ceramic material in different contexts, its chronological range, and its association with both surface and subsurface features.

Within this framework, the Visoko region can be understood as a landscape shaped by successive phases of human activity. Ceramic artifacts, although not the primary focus of the broader research program, provide a clear and consistent line of evidence for this continuity.

## **Conclusion**

The archaeological evidence presented in this study demonstrates that ceramic material is widely distributed across the Visoko region and occurs in a variety of contexts, including surface excavations, stratified sondes, and subsurface deposits. These findings are consistent across multiple sites and excavation campaigns conducted between 2010 and 2025.

The ceramic assemblage spans several chronological periods, from the Neolithic through the Roman and into the medieval era. This temporal range, combined with the spatial distribution of finds, indicates that the

region was not occupied during a single phase, but was instead subject to repeated episodes of human activity. Ceramic artifacts appear both in stratified layers and in redeposited contexts, reflecting a combination of primary deposition and later site transformation.

The presence of ceramics in association with architectural features and sedimentary layers further supports the interpretation of sustained human interaction with the landscape. Although the material derives from contexts of varying integrity, the overall pattern remains consistent: Ceramic artifacts occur across different locations, periods, and depositional environments.

This study has focused on ceramics as an independent line of evidence. While these artifacts were not the primary target of the broader research program, they provide a reliable and widely recognized indicator of human presence. When considered collectively, the ceramic record supports the conclusion that the Visoko region represents a landscape of long-term and multi-period human activity.

### **Acknowledgments**

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#### **Conflict of Interest**

The author declares no conflict of interest.

#### **Data Availability**

The data supporting the findings of this study are derived from fieldwork conducted between 2010 and 2025 in the Visoko region. Documentation, field records, and photographic material are maintained by the Archaeological Park: Bosnian Pyramid of the Sun Foundation and are available from the author upon reasonable request.

#### **Ethical Approval**

All archaeological investigations were conducted in accordance with applicable local regulations and professional standards for archaeological research.

### Author Contributions

The author was responsible for the conception of the study, coordination of fieldwork, analysis of the material, and preparation of the manuscript.

### Permissions

All necessary permissions for excavation and research were obtained from relevant authorities.

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