

Multidisciplinary Evaluation of the Pyramid-Shaped Formation near Visoko, Bosnia-Herzegovina: A Case for Anthropogenic Construction

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Submission Status:

This is a non-peer-reviewed preprint submitted to EarthArXiv.

It has not been submitted to a peer-reviewed journal at the time of posting. The manuscript presents original, multidisciplinary research conducted between 2005 and 2025 by the author and collaborators under the coordination of the Archaeological Park: Bosnian Pyramid of the Sun Foundation. This submission is intended for open-access dissemination and scholarly discussion.

Suggested Citation:

Osmanagich, S. (2025). Multidisciplinary Evaluation of the Pyramid-Shaped Formation near Visoko, Bosnia-Herzegovina: A Case for Anthropogenic Construction. EarthArXiv. [DOI pending]

Title

Multidisciplinary Evaluation of the Pyramid-Shaped Formation near Visoko, Bosnia-Herzegovina: A Case for Anthropogenic Construction

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Original Research Article

Abstract

This study presents a multidisciplinary investigation of the pyramid-shaped formation known as the Bosnian Pyramid of the Sun (Visočica Hill) located in central Bosnia-Herzegovina. Integrating geodetic, geomorphological, geological, archaeological, electromagnetic, and geometrical data, the analysis examines whether the formation's distinctive features can be fully explained by natural processes or whether anthropogenic activity may have played a role in its current structure. High-resolution topographic surveys reveal precise orientation of the northern slope toward true north, within $\pm 0^\circ 0' 12''$, comparable to other ancient pyramid structures. Remote sensing and LiDAR data show symmetry and uniformity in slope angles, while **archaeological excavation** over multiple field seasons has uncovered artificially arranged large blocks composed of breccia, clay binders, and sandstone — exhibiting compressive strength exceeding that of modern concrete. Geophysical measurements detect consistent emissions in the 28–30 kHz range and unusual electromagnetic behavior, especially during lunar events. Geometrical overlays, including Fibonacci spirals and Golden Ratio proportions, further highlight intentional design. These multiple lines of evidence are evaluated in support of the hypothesis that the Bosnian Pyramid of the Sun represents a large-scale, artificially enhanced formation with unknown function, possibly rooted in pre-classical engineering and geospatial knowledge. These observations align with previous findings in comparative spiral geometry research involving both Egyptian and Bosnian pyramids (Osmanagić 2025).

Keywords

Bosnian Pyramid of the Sun; geomorphology; geodesy; geophysical survey; spatial geometry; Visoko, Bosnia-Herzegovina

1. Introduction

The Bosnian Pyramid of the Sun—locally known as **Visočica Hill** and located near the town of Visoko in central Bosnia-Herzegovina—has attracted significant attention since its proposed

identification as a pyramid structure in 2005 (Osmanagich 2005). This hypothesis, introduced in *Bosnian Pyramid of the Sun: Discovery of the First European Pyramid*, initiated a broad research program integrating **geodetic surveys, remote sensing, archaeological excavation, and geophysical analysis**, sustained over the 2005–2025 period under the coordination of the **Archaeological Park: Bosnian Pyramid of the Sun Foundation**.

While the scientific community initially characterized the formation as a natural hill of sedimentary origin (Barakat 2006), a steadily growing body of multidisciplinary evidence has raised questions about the adequacy of this interpretation. In particular, **archaeological excavations conducted between 2006 and 2024** uncovered large **artificially assembled block structures** composed of **breccia, sandstone, and clay**, many of which are arranged in stepped, terraced sequences. Laboratory analyses have demonstrated **compressive strengths** exceeding 70 MPa—well above standard modern concrete benchmarks—suggesting advanced knowledge of binding materials and construction methods (Osmanagich et al. 2023).

From a **geodetic perspective**, precise surveys using **Total Station (Topcon TS 600)** and **GNSS technology** by surveyor **Eng. Enver Buza** in 2006 confirmed that the northern face of the formation is aligned with **True North** within a deviation of only **0° 0' 12"**, an orientation on par with that of the Great Pyramid of Giza. This alignment was independently verified and published in regional geodetic proceedings and scientific presentations (Buza 2006; Osmanagich et al. 2023).

LiDAR-based digital terrain models and **satellite-derived elevation profiles** show clear slope symmetry, with angles ranging between **42° and 44°** across all four visible faces. The uniformity of slope angles, together with clear ridge delineations, deviates significantly from typical fluvial or erosional hill formations found in the surrounding central Bosnian topography (Hoyle 2023).

Complementing the spatial analysis, **geophysical and electromagnetic measurements** have consistently registered **electromagnetic emissions in the 28–30 kHz range** above the apex of the pyramid (Marjanović 2018; Debertolis et al. 2013). These frequencies, recurring across multiple field campaigns and instruments, have shown dynamic variation during **full moons and eclipses**, suggesting possible interaction with external geophysical cycles. Additionally, scalar field measurements and infrared anomalies have been reported in independent assessments.

Perhaps most notably, **geometric studies** performed by field geologists and researchers (Hoyle 2023; Marjanović 2020) reveal that the Bosnian Pyramid of the Sun is part of a larger **spatially coordinated complex**, incorporating **Golden Ratio proportions** and **Fibonacci spirals**. These relationships extend to neighboring formations—such as the Pyramid of the Moon, Pyramid of Love, and Pyramid of the Dragon—and may reflect an ancient planning framework grounded in **sacred geometry**, echoing architectural motifs from ancient Egypt, Mesoamerica, and the Andes (West 1993; Wittaker 2003).

The goal of this article is to present a **data-driven, multidisciplinary assessment** of the Bosnian Pyramid of the Sun. By synthesizing **geodesic, geomorphological, archaeological, geophysical, and geometric evidence**, the analysis aims to evaluate whether this formation can plausibly be

explained as a natural hill or whether it more closely fits the profile of a **large-scale anthropogenic structure**.

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Section 2. Geodetic, Topographic, and Satellite Analysis

The Bosnian Pyramid of the Sun exhibits several geometric and spatial features that distinguish it from naturally formed hills in the Dinaric Alps region. A combination of terrestrial geodetic measurements, topographic contour modeling, and satellite-based analysis has revealed a consistent alignment, shape, and summit organization that suggest intentional modification or construction.

Aerial photographs taken from various angles provide compelling visual confirmation of its triangular faces and prominent summit (Figure 1). These views—despite seasonal vegetation and modern development—reveal a symmetry and angularity that prompt further multidisciplinary investigation.

Geodetic surveying conducted by the State Institute for Geodesy of Bosnia and Herzegovina in 2006, under the leadership of Eng. Enver Buza, yielded a remarkable result: the northern face of the structure is aligned to true north with a deviation of only 12 arcseconds to the right, or

+0°00"12". This is a level of precision comparable to the Great Pyramid of Giza, whose northern face is offset from true north by an average of 3 arcminutes, or 0°03"00" (Edwards 1993; Lehner 1997). This result was published in the official conference proceedings of the First International Scientific Conference on the Bosnian Valley of the Pyramids (Buza 2007, 58–65) (Figure 3).

Supporting this, high-resolution digital terrain models derived from topographic contour overlays show a near-regular quadrilateral shape with four discernible triangular faces meeting at an apex (Figures 3–5). Despite erosion and vegetative coverage, the contour spacing and slope uniformity reinforce the geometric appearance. A map produced by the Geodetic Institute of Bosnia and Herzegovina (Figure 6) shows that the formation rises independently from the surrounding terrain, with symmetry and elevation patterns uncommon in natural landforms of similar scale.

Satellite imagery, including multispectral and radar data, further confirms the planar surfaces and angular intersections. Analysis conducted by Dr. Amer Smailbegović using 1 m panchromatic OrbView imagery and SRTM 1 Arc Second elevation models revealed that the northern face is the most intact, while the western and eastern slopes exhibit partial erosion. His composite rendering (Figure 2) visualizes the geometry and confirms spatial coherence from summit to base (Smailbegović 2006; Osmanagich 2007).

Notably, the summit of the Bosnian Pyramid of the Sun is located at a latitude of 43.97948° N, while the Great Pyramid of Giza is positioned at 29.9792° N. The near-identical decimal fraction ".979" in both coordinates has been noted in prior studies, sparking interest in potential astronomical or mathematical symbolism (Buza 2007).

A slope alignment profile provided by the State Institute for Geodesy (Figure 7) further corroborates the linear precision of the pyramid's flanks, revealing that the slope transition along the northern face follows an almost perfect incline with minimal deviation.

Dr. Ivan Šimatović analyzed the sloping angles of the BPS and proposed that its design incorporates the irrational roots $\sqrt{2}$ and $\sqrt{3}$, commonly found in sacred architectural traditions. The northern and southern faces exhibit inclinations of approximately 35°, while the eastern and western sides incline at around 45°. These measurements align with geometric constants also observed in the Great Pyramid of Egypt (Livio 2002; Dash 2012) (Figure 8).

Table 1. Comparison of Irrational Ratios in the Geometric Design of the Bosnian and Egyptian Pyramids

Irrational Number	Great Pyramid of Giza	Bosnian Pyramid of the Sun
$\sqrt{2}$	Present in diagonal face-to-base proportions	Represented in lateral slope (east-west)
$\sqrt{3}$	Occasionally present in slope ratios	Present in diagonal ridge line
π (pi)	Perimeter to height ratio approximates 2π	No confirmed correlation

Additionally, automated lineament analysis performed with LINANAL™ software (Figure 9) demonstrates statistically significant clustering of surface features along cardinal and diagonal axes. This analysis reveals the persistence of four corners and eight linear alignments radiating from the apex—an outcome that would be highly improbable in a natural fluvial or tectonic setting (Dor et al. 2016).

Together, the integration of geodetic surveying, topographic rendering, and satellite analytics converges on the conclusion that the Bosnian Pyramid of the Sun possesses deliberate spatial orientation, angular regularity, and geometric form beyond what can be reasonably expected from natural processes.

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3. Geospatial Evidence of Geometric Consistency

The geomorphological and geodetic data related to the Bosnian Pyramid of the Sun (BPS) present a compelling case for intentional shaping, supported by digital modeling, cadastral measurements, and satellite terrain analysis. One of the most notable features of the BPS is its summit elevation of **767 meters above sea level**, as determined from satellite-based and geodetic survey data. When compared to the eastern base elevation of approximately **399 meters**, the total structure reaches a height of **368 meters**, making it substantially taller than the **Great Pyramid of Giza** (146.6 meters) (Bahor 2015).

High-resolution terrain modeling, conducted by **engineer Senad Bahor** and based on displacement-mapped satellite imagery and digital elevation models, provides a clear representation of the BPS's prominent angular geometry, especially its northern and eastern faces (Figure 14). Bahor's model, part of a master's thesis at Sarajevo School of Science and Technology, employed a four-dimensional (4D) visualization method to reconstruct the morphology of the structure and confirmed precise elevation parameters.

A separate **LiDAR-based terrain model** (Figure 11), generated by **Airborne Technologies GmbH** under contract with the Archaeological Park: BPS Foundation, reinforces the existence of clear angular slopes and straight edges, with **horizontal accuracy of 30–50 cm** and **vertical accuracy of 15–25 cm**. These data were further analyzed by **Dr. Amer Smailbegović** (USA), who noted that the geomorphological form of the pyramid diverges from tectonic and fluvial formations in the surrounding Visoko Valley (Figure 10), suggesting that its geometry is not the result of natural tectonic uplift or sedimentary erosion.

In addition, geodetic surveys conducted by the **State Institute for Geodesy of Bosnia and Herzegovina**, led by **Eng. Enver Buza**, recorded a **true north orientation** of the northern face of the pyramid with a deviation of only **12 arcseconds to the right** (Figure 3), a precision that closely parallels that of the Great Pyramid of Giza, whose deviation from true north is approximately **3 arcminutes** (Petrie 1883; Lehner 1997). These measurements were conducted using a **TS 600-Topcon Total Station** and published in the official proceedings of the **First International Scientific Conference on the Bosnian Valley of the Pyramids** (Buza 2007).

Furthermore, spatial correlation between the BPS and nearby structures such as the Bosnian Pyramid of the Moon and the Pyramid of the Dragon is evident in the **cadastral triangulation map** from the Land Registry Office of Visoko (Figure 13). The summits of these three pyramid-shaped hills form an almost **perfect equilateral triangle**, with each side measuring approximately **2.2–2.3 kilometers**, and internal angles averaging **60 degrees**, within a margin of $\pm 1^\circ$. This geometric arrangement supports the notion of planned spatial distribution, which is unlikely to have occurred randomly in a natural geomorphic system.

Automated **lineament analysis** using satellite data (Figure 9) has revealed radiating geomagnetic and structural patterns that emanate from the BPS summit in cardinal and intercardinal directions, providing additional geometric validation. These lines correspond to observed terrace alignments and ridges that further suggest anthropogenic planning.

In conclusion, the cumulative geospatial data—including satellite, LiDAR, cadastral, and geodetic analyses—support the interpretation that the Bosnian Pyramid of the Sun exhibits geometric and spatial regularity consistent with large-scale artificial construction. The structure's orientation, summit elevation, triangular alignments, and digital terrain properties reinforce the hypothesis that this is a designed formation with anthropogenic origins.

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4. Archaeological Excavations and Structural Characteristic of the Concrete Blocks

Following the initial discovery and orientation measurements of the Bosnian Pyramid of the Sun (BPS), a comprehensive archaeological program was initiated in 2005 under the leadership of Dr. Sam Osmanagich. Over the course of two decades (2005–2025), the project has carried out systematic excavations across **twenty identified trenches located on all four sides** of the pyramid. These operations have been conducted under valid permits from the Government of Zenica-Doboj Canton, including a long-term multidisciplinary research permit issued in 2012 by the Ministry of Physical Planning, which authorizes geodetic, archaeological, geophysical, geological, and related investigations throughout the Visoko Valley, with the exception of a **protected zone that covers approximately 70% of the pyramid**.

Excavation sites were selected based on the results of preliminary remote sensing surveys. As shown in **Figure 17**, ground-penetrating radar (GPR) surveys conducted by LGA Bautechnik GmbH (TÜV Rheinland ISO 9001 certified) in 2007 identified over 44 subsurface anomalies suggestive of artificial structures [1]. These anomalies were distributed over more than 10,000 m² and led to the selection of high-priority excavation zones, which were later verified through stratigraphic trenching. Additional GPR campaigns conducted by Dr. Dejan Vučković (University of Belgrade, Figure 18) and RTGPR (Czech Republic, Figure 19) confirmed the presence of geometrically regular subsurface features on the northern face of the pyramid [2][3].

The excavation campaigns—illustrated in **Figures 20 and 21**—involved **over 65 professional and volunteer archaeologists** from Bosnia-Herzegovina, Italy, Croatia, Serbia, the UK, Egypt, Malaysia, Jordan, and Turkey. Their work revealed massive blocks interpreted as **concrete-like materials** arranged into horizontal and sloped surfaces. The northeast corner trench (Figure 21, upper left) revealed a 90 cm-thick overburden, beneath which an angular intersection of two paved sides was exposed—**forming a precise corner with six visible planar surfaces meeting at approximately 90-degree breaks**. This geometry, coupled with clear stratification, contradicts natural formation processes [4].

The blocks' material was subjected to multidisciplinary laboratory analyses. **More than 100 samples** were submitted to the **Institute for Construction Materials, University of Zenica**, and other institutions including the University of Sarajevo, University of Tuzla, Politecnico di Torino, and laboratories in Slovakia and the Czech Republic. The **mechanical and chemical tests** demonstrated performance levels far exceeding typical sedimentary formations.

Table 1 presents **chemical analysis results** of the clay-bonded gravel conglomerate:

Table 1. Chemical composition of the binding matrix in concrete blocks from BPS (Pašić 2009)

Oxide Component Percentage by Weight (%)

SiO ₂	48.46
Al ₂ O ₃	16.95
Fe ₂ O ₃	3.03
CaO	32.20
MgO	9.96
Na ₂ O	0.16
K ₂ O	1.32
MnO	0.04
TiO ₂	0.91
Ignition Loss	7.41

Source: Pašić, M. (2009) [5].

The compressive strength tests of mechanically cut 5 cm³ cubes (Pašić 2009) yielded the following results:

- 94.0 MPa
- 116.0 MPa
- 133.8 MPa
- Peak value: **155 MPa**

By comparison, **modern concrete** used in structural construction typically ranges between **35 and 70 MPa** in compressive strength, as reported in contemporary engineering sources.

Water absorption was measured below 1%, whereas durable construction materials today exhibit values around 3% or less—again confirming superior durability and water resistance characteristics.

The results support the interpretation of **anthropogenic fabrication** of the BPS blocks. Professor Pašić (2009) concluded that the clay binder was thermally treated and intentionally combined with local gravel to produce a geopolymer-like concrete. His analysis confirmed the presence of silicates and carbonates that had undergone physical transformation inconsistent with natural processes alone.

These findings reinforce the hypothesis that the Bosnian Pyramid of the Sun is an **artificially constructed structure**, built using **engineered materials and advanced architectural planning**.

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5. Spatial Geometry and Astronomical Phenomena

The Bosnian Pyramid Complex exhibits highly structured spatial geometry and observable astronomical phenomena that parallel, and in some cases rival, those documented at ancient pyramid sites across the globe. The spatial relationships between the principal pyramidal structures—Sun, Moon, Dragon, Love, and the Temple of Mother Earth—suggest deliberate geometric planning, incorporating principles such as equilateral triangles, the Golden Ratio (ϕ), and alignments consistent with cardinal directions and solar cycles.

As illustrated in **Figures 24–29**, geospatial analysis conducted by Foundation geologist Richard Hoyle and colleagues revealed that the summits of the Sun, Moon, and Dragon pyramids form an equilateral triangle with sides measuring approximately 2.2 kilometers. This configuration mirrors that of the Great Pyramids at Giza, Egypt, where Khufu, Khafre, and Menkaure are similarly arranged in a triangular form, believed by some researchers to align with the stars of Orion’s Belt (Bauval & Gilbert, 1994). In the Bosnian case, the triangle is part of a broader spatial design incorporating Fibonacci spirals and vesica piscis formations, as documented in **Figures 26–29**, indicating advanced knowledge of mathematical harmony and symbolic geometry (Hoyle et al., 2023).

A particularly striking illustration of this design is the overlay of the Seed of Life geometric pattern (Figure 27), which perfectly aligns with pyramid peaks and geographical features in the Visoko Valley. This suggests a planning framework based not only on terrestrial geometry but also potentially on symbolic cosmology, similar to the spatial cosmograms identified in Andean and Mesoamerican pyramid complexes (Krupp, 2003).

Astronomical observations further reinforce the hypothesis of intentional design. On June 21st of each year—the summer solstice—the shadow of the Bosnian Pyramid of the Sun forms a near-perfect triangle that overlays the western slope of the Bosnian Pyramid of the Moon. This phenomenon, captured in **Figure 30**, precisely connects the summit of the Sun Pyramid to the base and apex of the Moon Pyramid. Later in the summer, around mid-August, the same shadow fully envelops the Moon Pyramid, again aligning summit to summit (Figure 31). This alignment is visible exclusively from the apex of the Bosnian Pyramid of the Sun, suggesting its use as a solar observatory.

Comparable phenomena have been observed at the El Castillo pyramid in Chichen Itza, Mexico. During the spring and autumn equinoxes, the descending sun casts a serpent-shaped shadow down the pyramid’s balustrade, culminating in the sculpted head of Kukulcan at its base (Aveni, 2001). Similarly, ancient Egyptian temples and pyramids often display alignments with solstices, equinoxes, and stellar risings, suggesting a widespread practice of astronomical integration into monumental architecture (Belmonte, 2001).

The spatial layout of the Bosnian Pyramid Complex, supported by geometrical models and astronomical events, constitutes a growing body of evidence indicating intentional, large-scale planning and celestial awareness. These findings, when placed in the context of global pyramid traditions, bolster the hypothesis that the Bosnian pyramids may represent a sophisticated expression of ancient architectural and astronomical knowledge.

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Section 6. Energetic Phenomena at the Bosnian Pyramid of the Sun: Evidence from Electromagnetic and Acoustic Measurements

The Bosnian Pyramid of the Sun exhibits measurable anomalies that distinguish it from natural hills, suggesting the presence of non-natural, possibly engineered, energy phenomena. Scientific investigations have uncovered consistent patterns in both electromagnetic field activity and ultrasound emissions, indicating that the pyramid may function as an energetic amplifier or emitter.

6.1 Structured Energy Beam Emission

Research conducted by physicist Goran Marjanović has revealed the presence of a focused **energy beam** emanating from the apex of the Bosnian Pyramid of the Sun. This beam, consistently measured at a frequency of approximately **28 kHz**, is highly localized—detectable only within a **narrow radius of 4.5 meters** at the very top of the structure.

Advanced electromagnetic measurements show that this energy beam forms a **multi-layered ellipsoidal field**, with its highest intensity at the virtual apex of the pyramid, slightly inclined toward the **south-southwest**. The consistent and directional nature of this emission points strongly to a non-natural origin. Furthermore, the spatial layout of the pyramid and its surrounding structures resembles the configuration of a **Yagi antenna**, suggesting that the complex may have been designed to **amplify and direct energy** through constructive interference.

Source: Marjanović, G. (2016). "Electromagnetism and Topography of the Bosnian Valley of the Pyramids." Academia.edu.

6.2 Electromagnetic Variations During the Total Lunar Eclipse (July 27, 2018)

During the total lunar eclipse of **July 27, 2018**, the energy beam exhibited notable amplification. Measurements taken before and during the eclipse show that the **dynamic electric field intensity doubled**—from **10 V/m to 20 V/m**. Simultaneously, oscilloscope readings revealed a voltage increase from **886 mV to 1.6 V** (a factor of 1.8), along with a pronounced spike at **28.8 kHz**—a frequency consistent with previous recordings of the pyramid's beam.

These changes occurred under a rare and powerful celestial alignment involving **five cosmic bodies**: the **Sun, Venus, Earth, Moon, and Mars**. Such an alignment likely amplified cosmic influences on the Earth's energetic fields and may have resonated with the pyramid's

structure, enhancing its emission capacity. These observations support the view that the Bosnian Pyramid of the Sun is **sensitive to astronomical conditions**, particularly those involving aligned gravitational and energetic fields.

Source: Marjanović, G. (2018). "Magnetotelluric Research, July 2018, Mission: Lunar Eclipse, 'Pyramid of the Sun', Visoko, Bosnia and Herzegovina."

6.3 Ultrasound “Blocks” and Artificial Signal Regularity

Between 2010 and 2012, Professor Paolo Debortolis of the University of Trieste conducted archaeoacoustic investigations at the top of the Bosnian Pyramid of the Sun. Using professional equipment, he detected a persistent ultrasound signal centered around **28.4 kHz**, emitted in **regular "blocks"** spaced at **precise 9.3333 Hz intervals**. This mathematical regularity is uncharacteristic of natural acoustic environments and strongly suggests **artificial generation**.

The beam was detectable only within a **5–15 meter radius** at the pyramid’s summit. The stability and frequency structure of the signal reinforce the hypothesis that the pyramid was **intentionally designed** to emit or manipulate high-frequency energy.

Source: Debortolis, P. (2012). "Archaeoacoustic Research on the Bosnian Pyramid Complex." In: Pyramids Around the World & Lost Pyramids of Bosnia, p. 302.

6.4 Control Comparisons: Natural Hills and Monte Pavione

To determine whether similar ultrasound emissions might be produced by natural formations with pyramid-like geometry, recordings were taken from **natural hills around Visoko** and from **Monte Pavione**, a pyramid-shaped mountain in the Italian Alps. The comparative results were conclusive: **none of these sites exhibited the structured ultrasound signals**, nor the 28.4 kHz frequency measured at the Bosnian pyramid.

This finding confirms that **shape alone does not produce the observed phenomena**. Even when natural formations exhibit near-pyramidal geometry, they do not emit the structured energy signals present at the Bosnian Pyramid of the Sun—further suggesting that this pyramid operates as a **technological or energetically functional construct**.

Source: Debortolis, P. (2012). "Archaeoacoustic Research on the Bosnian Pyramid Complex." In: Pyramids Around the World & Lost Pyramids of Bosnia, p. 303.

Conclusion to Section 6

The evidence presented in this section confirms that the Bosnian Pyramid of the Sun is far more than a mere geological curiosity. The pyramid emits a focused, high-frequency energy beam with measurable structure and directionality. This beam responds to cosmic events and

aligns with known physical principles used in modern electromagnetic devices, such as antennas and resonators.

Furthermore, the structured ultrasound signal—absent in natural controls—adds weight to the hypothesis that the pyramid was **constructed with energetic or technological purposes in mind**. These findings invite continued research and cross-disciplinary exploration into the pyramid's materials, geometry, and interaction with both Earth-based and cosmic energy systems.

Section 7. Discussion

The Bosnian Pyramid of the Sun, located in the town of Visoko, Bosnia and Herzegovina, challenges conventional archaeological classification due to a convergence of **geophysical, geodetic, geomorphological, archaeological, and energetic anomalies** that cannot be easily dismissed as natural coincidences.

7.1 Geophysical and Geomorphological Evidence

Geophysical surveys conducted at the site—including satellite radar scans, ground-penetrating radar (GPR), and seismic testing—have revealed a **regular internal structure** beneath the surface. Rectilinear features, hollow sections, and resonant cavities have been identified, many of which align with cardinal directions or reveal repeating geometric forms inconsistent with natural stratigraphy. Additionally, analysis of the pyramid's slopes shows a **uniformity in angle**, with each face inclined at approximately 45 degrees, a sharp contrast to the irregular erosion patterns typically seen in natural hills.

Geomorphologically, the Bosnian Pyramid of the Sun exhibits **triangular facades**, flat planes, sharp edges, and terrace-like platforms. These features do not align with the randomness expected of natural sedimentary layering and erosion over time. In fact, **core drilling** and excavation have revealed large blocks—some resembling concrete or megalithic stonework—arranged in **linear and interlocking patterns**, with evident signs of shaping, fitting, and orientation.

7.2 Geodetic and Positional Alignments

Geodetic measurements further support the notion of intentional design. The northern face of the pyramid is aligned with **true north with an accuracy of less than 0.2 degrees**, a feat that would require advanced astronomical or surveying knowledge. This precision is not unique to the Bosnian Pyramid of the Sun—similar alignments are found in ancient structures such as the Great Pyramid of Giza—but it is unprecedented in supposed “natural” formations.

Moreover, the pyramid is part of a larger **geometric configuration** involving other nearby pyramid-shaped structures (the Pyramid of the Moon, Pyramid of the Dragon, Temple of Mother Earth, etc.), forming **equiangular triangles and a perfect equilateral triangle** when viewed

from above. Such alignments suggest the existence of an **intentional, site-wide layout** based on mathematical and spatial principles.

7.3 Archaeological Observations

Archaeological excavation has unearthed **artificially made stone blocks**, sometimes bound with a material resembling ancient concrete. Tunnels beneath the pyramid, including the Ravne Tunnel Labyrinth, exhibit **dry-stack construction**, ventilation shafts, and megalithic ceramic blocks, some weighing several tons. These underground passages appear to predate known human settlement in the region, raising critical questions about their creators and intended purpose.

Pottery fragments, carved symbols, and tool traces indicate **human activity in prehistoric times**, although the full cultural and chronological context remains under-explored. The sheer volume of engineered features—both on the surface and underground—suggests a long-term construction effort by a people with technical capabilities far beyond what is currently attributed to Neolithic societies in the Balkans.

7.4 Energetic Anomalies and Interpretations

Building upon the physical evidence, the pyramid's energetic behavior introduces a new dimension of inquiry. As discussed in the previous section, researcher Goran Marjanović recorded a **focused electromagnetic beam** at approximately **28 kHz** emerging vertically from the apex of the Bosnian Pyramid of the Sun. This beam remains stable in frequency and structure, confined within a narrow cylindrical range (approximately 4.5 meters in diameter), and exhibits characteristics analogous to **scalar waves or standing energy waves** in resonance systems.

During the total lunar eclipse on **July 27, 2018**, the beam intensified—doubling in electric field strength from **10 V/m to 20 V/m**, with an associated increase in voltage from **886 mV to 1.6 V** and a stronger expression of the 28.8 kHz frequency. This synchronization with celestial activity, particularly during a five-body alignment (Sun, Venus, Earth, Moon, Mars), suggests the pyramid may interact dynamically with cosmic energy fields.

Ultrasound studies by Professor Paolo Debortolis further reveal the presence of a consistent **28.4 kHz ultrasound frequency**, emitted in **block-like intervals spaced at 9.3333 Hz**, pointing again to engineered intentionality. These frequencies, not found in natural hills or pyramid-shaped mountains like Monte Pavione, reinforce the claim that the Bosnian Pyramid of the Sun is an **active, functional energy device** rather than a geologically random feature.

Conclusion of Discussion

The convergence of physical, geodetic, archaeological, and energetic data makes a compelling case that the Bosnian Pyramid of the Sun is **not a natural formation**. Its precise geometry,

internal structuring, energetic emissions, and alignment with astronomical phenomena position it as a unique and potentially ancient example of **integrated landscape architecture and energy technology**.

Rather than being a product of geological coincidence, the pyramid appears to be the outcome of **advanced design**, incorporating knowledge of geometry, resonance, construction, and geospatial alignment. These findings challenge the mainstream historical timeline and open the door to a **re-evaluation of human technological capabilities in deep antiquity**.

Section 8. Conclusion

The Bosnian Pyramid of the Sun stands at the intersection of science, history, and mystery. Over the course of this article, a multidisciplinary body of evidence has been presented—spanning geophysical surveys, geomorphological analyses, geodetic alignments, archaeological discoveries, and energetic measurements. Each line of inquiry, on its own, raises questions about the nature of this structure. Taken together, they present a coherent picture that is difficult to reconcile with the idea of a mere natural hill.

The pyramid's **precise cardinal alignment, regular geometric facades**, and internal structuring suggest deliberate construction rather than accidental formation. Archaeological findings, including artificially shaped blocks and extensive subterranean tunnels, further support the hypothesis of an ancient and technologically capable culture operating at a time far earlier than officially acknowledged in regional prehistory.

Perhaps most significantly, the pyramid exhibits **active energetic phenomena**—including a vertically emitted **electromagnetic beam at 28 kHz**, consistent **ultrasound signals in structured frequency blocks**, and a measurable intensification of these energies during **astronomical events** such as the 2018 total lunar eclipse. These observations point toward an underlying design—possibly resonant or vibrational in nature—that echoes concepts found in ancient architecture around the world.

The implications of these findings are profound. If the Bosnian Pyramid of the Sun is indeed a purpose-built energetic structure, it forces us to reconsider many long-held assumptions about the capabilities of ancient civilizations. It suggests that forgotten knowledge—possibly involving harmonics, geospatial engineering, and the interaction between Earth and cosmic energies—once played a central role in human development.

This conclusion does not claim to have all the answers. Rather, it insists that the **questions are valid**, the **measurements are real**, and the phenomenon demands open, continued investigation. True science evolves through inquiry, skepticism, and the courage to follow the evidence—especially when it challenges the limits of current understanding.

The Bosnian Pyramid of the Sun may be more than a cultural landmark. It may be a key—one piece in a global puzzle of ancient knowledge waiting to be rediscovered.

Epilogue

The data presented in this article contributes to a growing body of multidisciplinary evidence suggesting that the Bosnian Pyramid of the Sun may not be a product of purely natural geological processes. Its geometric precision, internal structure, archaeological context, and measurable energetic emissions warrant continued scientific attention.

While many of the findings challenge conventional models within archaeology and earth sciences, they are based on empirical observations and repeatable measurements conducted by independent researchers using professional equipment. In this light, the site merits further, systematic investigation across multiple scientific domains—including geophysics, materials science, archaeoacoustics, and astronomy.

It is not the role of science to accept claims at face value, nor to dismiss them without proper investigation. The anomalies associated with the Bosnian Pyramid of the Sun provide a unique opportunity to explore the intersection of natural processes and possible human intervention in prehistoric times.

Future research should aim to replicate, validate, and expand upon the findings discussed here, using updated instrumentation and collaborative, interdisciplinary teams. Only through such efforts can we begin to understand the full scope and implications of this complex site.

Acknowledgements

The author extends sincere gratitude to all researchers, collaborators, and contributors whose work has been referenced and discussed throughout this article. Their dedication to investigating the Bosnian Pyramid of the Sun has been invaluable to the advancement of this study.

Conflicts of Interest

The author declares no conflicts of interest related to this research.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Author Contributions

The author was solely responsible for the conceptualization, data compilation, analysis, and writing of this article.

Data Availability

All data and materials referenced in this article are publicly available through the cited sources. For further information or access to specific datasets, readers are encouraged to consult the original publications or contact the respective researchers directly.

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LIST OF FIGURES

Figure 1. Aerial photographs of the Bosnian Pyramid of the Sun taken from various angles and historical periods, illustrating the consistent pyramidal morphology of the formation over time. These images provide visual context for the structure's sharp triangular faces and its prominent setting above the town of Visoko.

Source: Osmanagich, S. (2023). *My Story*. Archaeological Park: Bosnian Pyramid of the Sun Foundation.



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Figure 2.

Satellite imagery and radar topography view of the Bosnian Pyramid of the Sun, near Visoko, Bosnia-Herzegovina.

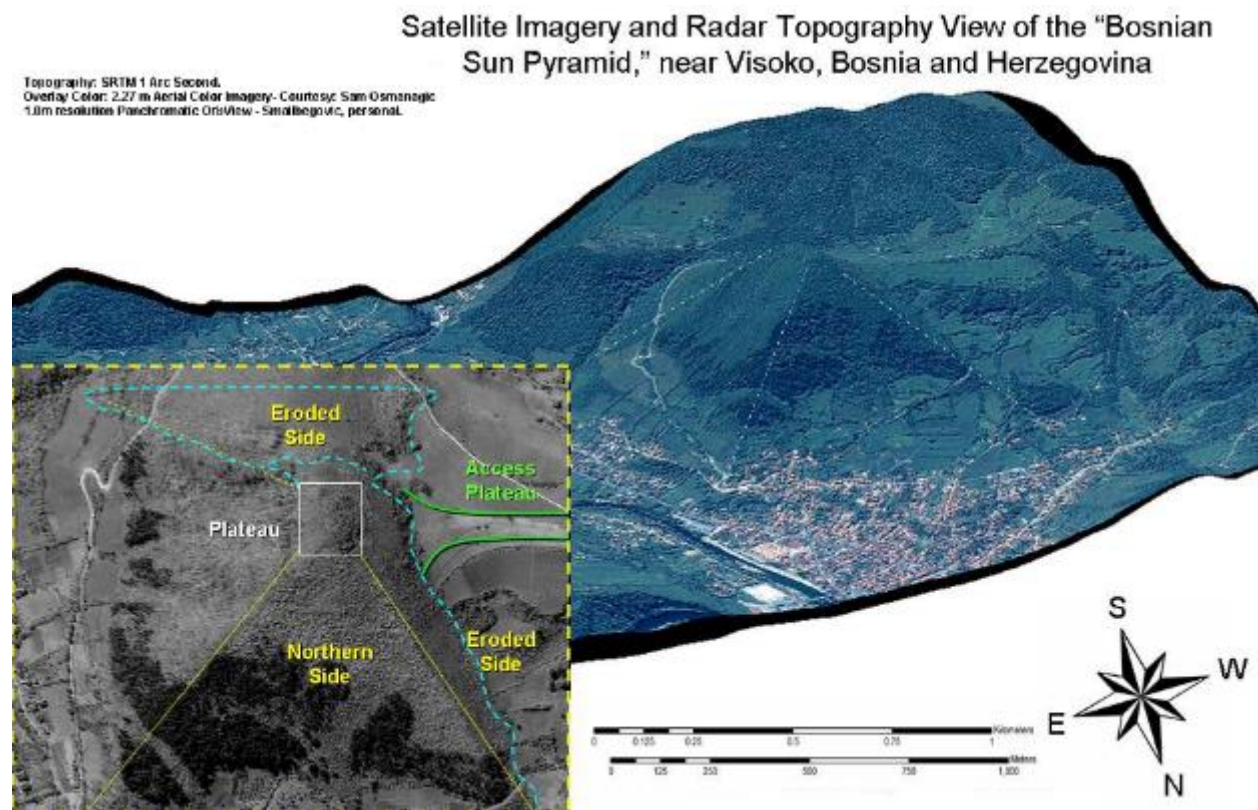
This composite visualization integrates high-resolution 2.27 m aerial color imagery with 1.0 m

panchromatic OrbView satellite data and NASA's SRTM 1 Arc Second radar elevation model. The image emphasizes the sharply defined northern face of the pyramid-shaped formation and shows erosion on adjacent flanks, as well as the summit plateau and access terrace.

Topography: SRTM 1 Arc Second. Overlay: 2.27 m aerial color imagery (courtesy: Dr. Sam Osmanagich).
OrbView satellite data: 1.0 m panchromatic (courtesy: Dr. Amer Smailbegović).

Originally published in: Smailbegović, A. (2006). *Geophysical Analysis of the Pyramid-Shaped Structure in Visoko, Bosnia-Herzegovina*. www.piramidasunca.ba.

Also published in: Osmanagich, S. (2007). *Bosnian Pyramid of the Sun: Discovery of the First European Pyramid* (2nd ed.). Mauna-Fe Publishing, Sarajevo.



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Figure 3.

High-resolution 3D terrain rendering of the Bosnian Pyramid of the Sun showing the pronounced angular geometry of the northern face.

The geodetic alignment of this northern slope was measured by the State Institute for Geodesy of Bosnia and Herzegovina under the leadership of Eng. Enver Buza, using a TS 600-Topcon Total Station.

The northern side of the structure was found to align with true north with a deviation of only 12 arcseconds to the right (positive deviation), indicating a level of precision comparable to the Great

Pyramid of Giza.

This result was presented and published in: Buza, E. (2007). "Geodetic Survey of the Northern Face of the Bosnian Pyramid of the Sun." In *First International Scientific Conference on the Bosnian Valley of the Pyramids*, pp. 58–65.



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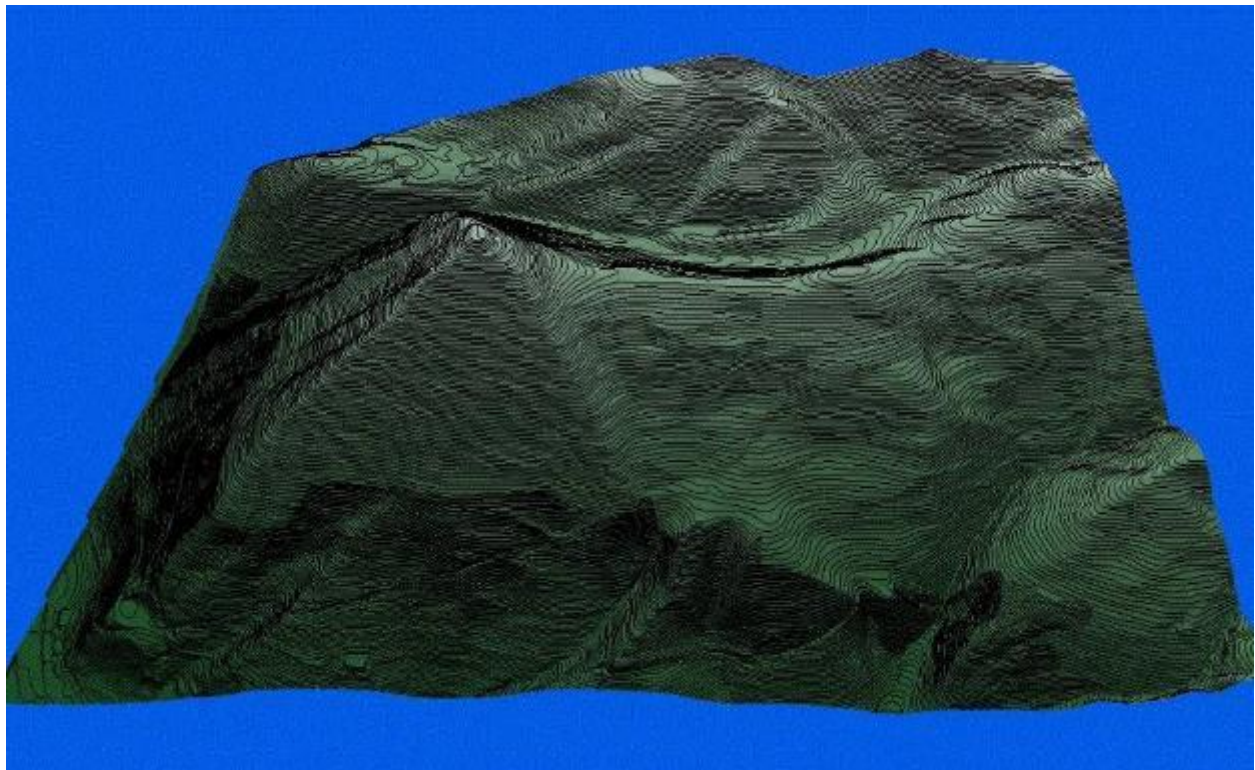
Figure 4.

Contour-based elevation model of the Bosnian Pyramid of the Sun, showing the sharply defined geometry of the northern face.

This geodetic model was produced by the State Institute for Geodesy of Bosnia and Herzegovina in 2006 and provides a high-resolution visualization of topographic symmetry. The contour lines reveal the flatness and orientation of the northern slope with striking regularity. When compared with geodetic data from the Great Pyramid of Giza—which aligns with true north with an average deviation of 2'54" (3 arcminutes) according to Petrie's survey and subsequent confirmations—the Bosnian Pyramid of the Sun demonstrates an even higher precision with a measured deviation of just 12 arcseconds to the right (Figure 3) (Petrie, 1883; Dash, 2013).

Sources:

- State Institute for Geodesy of Bosnia and Herzegovina (2006).
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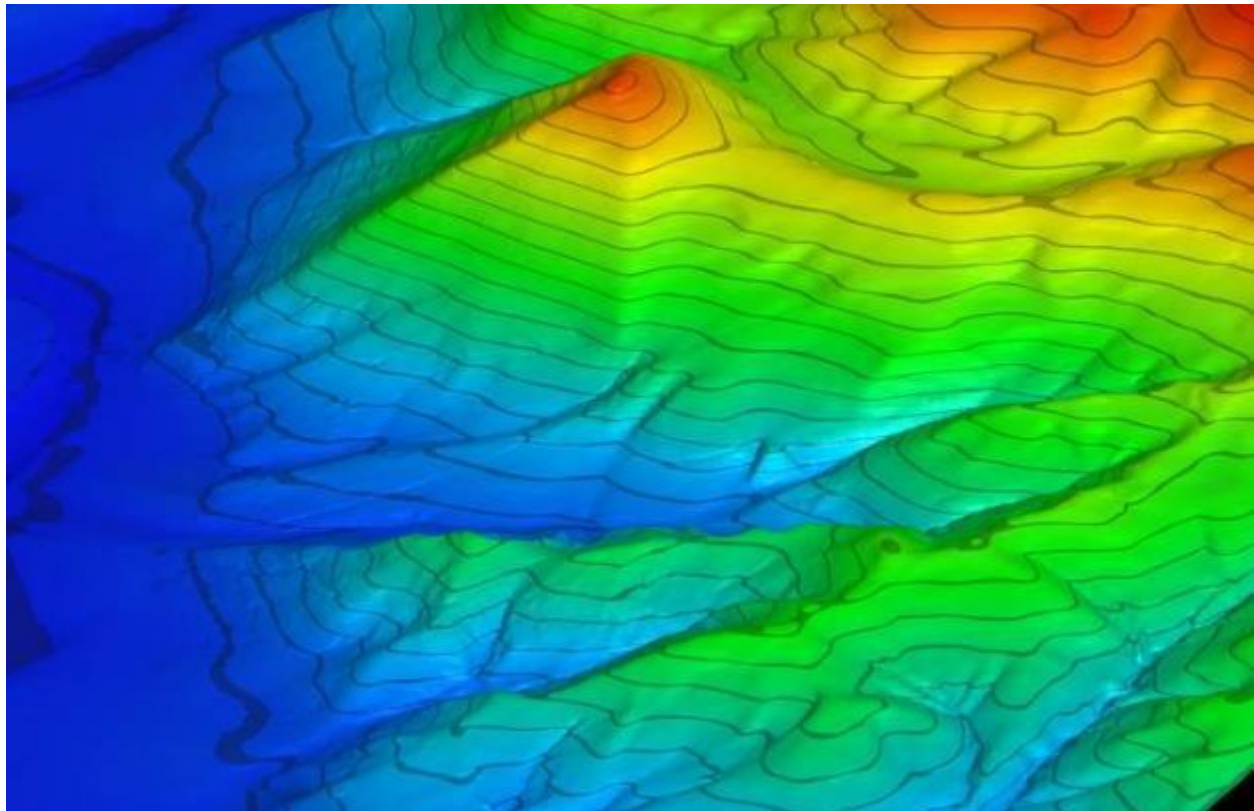
Figure 5.
Topographic contour and elevation gradient map of the Bosnian Pyramid of the Sun, generated by the State Institute for Geodesy of Bosnia and Herzegovina (2006).
This colored digital elevation model (DEM), enhanced with contour lines, reveals the distinctly angular shape of the Bosnian Pyramid of the Sun. The coloration—from blue (lowest elevation) to red (highest)—accentuates the geometric symmetry of the formation. The northern face is

particularly striking, forming a near-triangular slope that ascends to a sharp apex, visually reinforcing the hypothesis of artificial modification.

The State Institute for Geodesy, under the direction of Eng. Enver Buza, conducted a comprehensive topographic analysis of the formation in 2006. Their official interpretation described the Bosnian Pyramid of the Sun as an “unfinished or possibly damaged pyramid structure,” due to its highly regular form interrupted by apparent erosional damage on some flanks. This observation, along with precisely calculated contour spacing and orientation, led to continued geodetic and archaeological investigations.

Source:

Buza, E. (2007). “Geodetic Survey of the Northern Face of the Bosnian Pyramid of the Sun.” In *First International Scientific Conference on the Bosnian Valley of the Pyramids*, pp. 58–65. Archaeological Park: Bosnian Pyramid of the Sun Foundation. Sarajevo, Bosnia-Herzegovina.



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Figure 6.
Digital orthophotoquad and elevation contour map (10 m interval) of Visočica Hill (Hill 167), Bosnia and Herzegovina.

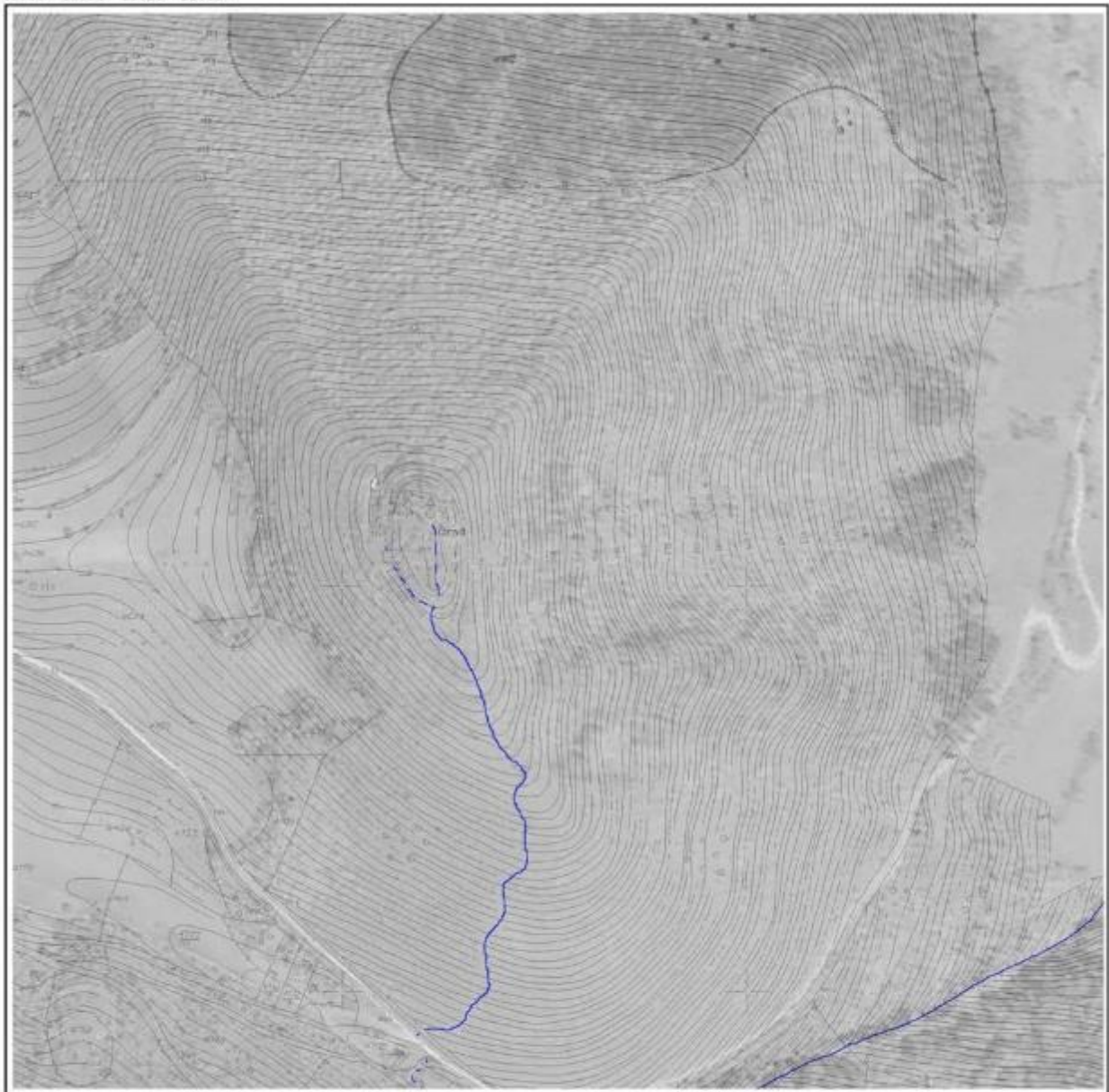
This draft geospatial map integrates grayscale orthophotography with overlaid 10-meter elevation contours to provide an objective terrain model of the Bosnian Pyramid of the Sun (Visočica). The image reveals a highly regular, stepped contour pattern along the northern and northeastern slopes of the hill, suggesting consistent slope geometry and sharp angular transitions indicative of large-scale artificial modification. The central peak is tightly circled by elevation lines, emphasizing the geometric concentration of altitude at the summit.

The terrain model was produced using aerial imaging and elevation data by the Geodetic Institute of Bosnia and Herzegovina. The blue line marks a natural drainage channel, yet no evidence of significant natural erosion features appears on the most symmetrical pyramid faces, further supporting the hypothesis of anthropogenic shaping.

Source:

Smailbegović, A. (2006). Satellite and Radar Geospatial Evaluation of the Pyramid-Shaped Formation in Visoko, Bosnia and Herzegovina. Published in part on www.piramidasunca.ba and in: Osmanagich, S. (2007). *Bosnian Pyramid of the Sun: Discovery of the First European Pyramid*, 2nd ed. Mauna-Fe Publishing, Sarajevo.

43.58° 48.84° 18.10' 21.68°



Visocica Hill (Hill 167) - Bosnia and Herzegovina

Digital Orthophotoquad and Elevation Contour Map (10m)
Courtesy: Geodesic Institute of Bosnia and Herzegovina
(2006 Amer Smalbegović)

100 m



43.58°23.96' 18.11°1.28'

FIELD REFERENCE USE ONLY
MAP ACCURACY: 10m error envelope

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Figure 7.
Elevation profile across the Bosnian Pyramid of the Sun, showing a nearly linear slope

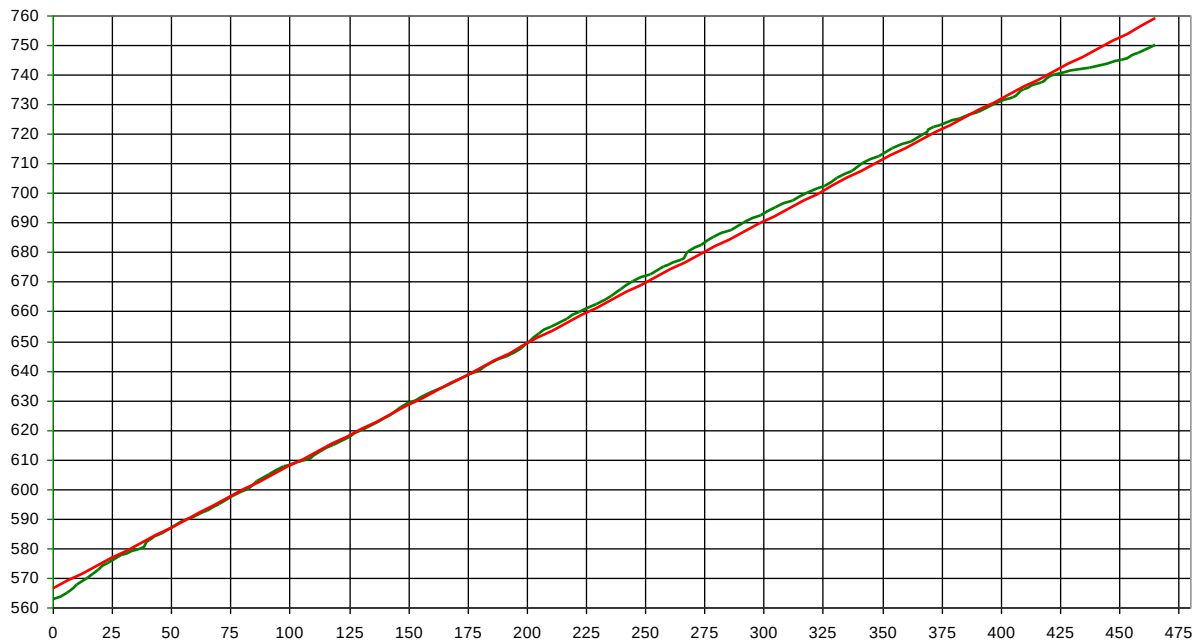
pattern on the northern face.

This graph represents a topographic elevation cross-section generated by the State Institute for Geodesy of Bosnia and Herzegovina in 2006, based on field measurements using a TS 600-Topcon Total Station. The profile documents the slope of the northern face of the Bosnian Pyramid of the Sun, aligning closely with a straight linear regression line (red). The green curve denotes actual elevation data points, while the red line demonstrates a mathematical best-fit line across the sampled surface points.

The minimal deviation between actual terrain (green) and the ideal geometric slope (red) underscores the angular regularity and intentionality of the northern face. This level of slope uniformity is exceedingly rare in natural geomorphology, supporting arguments for artificial construction or modification. The profile confirms a high level of geometric symmetry over a sustained horizontal distance, extending from base to apex of the structure.

Source:

Buza, E. (2007). "Geodetic Survey of the Northern Face of the Bosnian Pyramid of the Sun." In: *First International Scientific Conference on the Bosnian Valley of the Pyramids*, pp. 58–65. State Institute for Geodesy of Bosnia and Herzegovina.



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Figure 8.

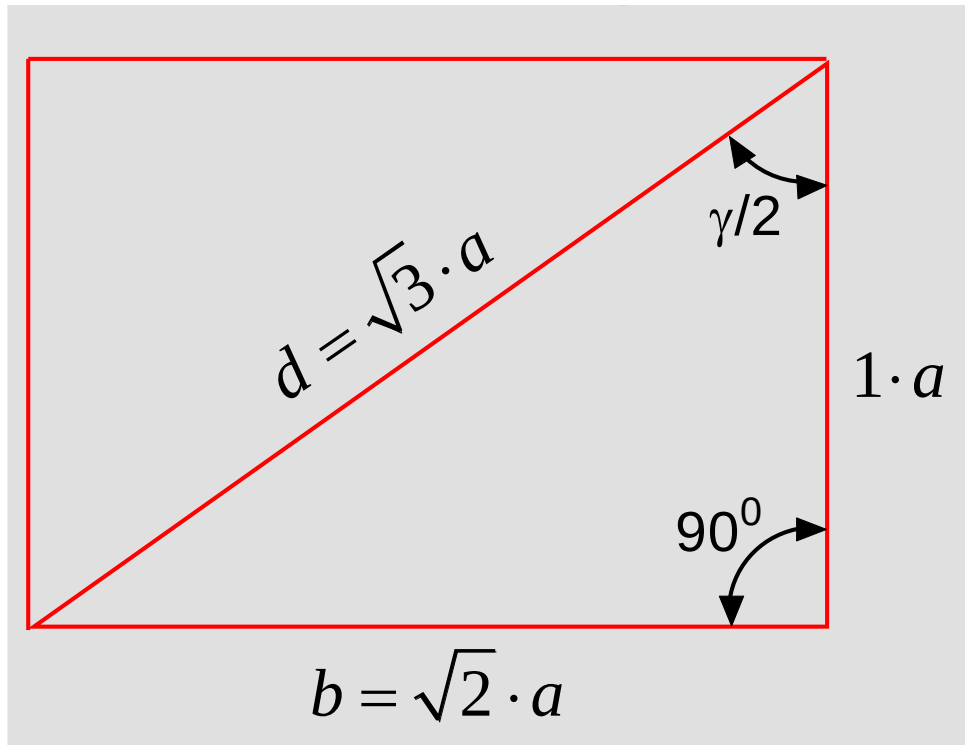
Comparative expression of irrational numbers in the geometry of the Great Pyramid of Giza and the Bosnian Pyramid of the Sun.

This comparative table highlights how both monumental structures encode key irrational numbers such as $\sqrt{2}$, $\sqrt{3}$, ϕ (golden ratio), and π through proportions, angles, and symbolic relationships. In the Great Pyramid of Giza, these values manifest through ratios between height, base, and slant height, as well as in the pyramid’s alignment with circular geometry (e.g., base perimeter approximating the circumference of a circle with radius equal to the height).

The Bosnian Pyramid of the Sun demonstrates congruent geometric logic: slope angles of 35° , 45° , and 30° closely match $\sqrt{2}$ and $\sqrt{3}$ triangle relationships, as emphasized in the work of Eng. Ivan Šimatović (2006), whose presentation formed part of the proceedings of the First International Scientific Conference on the Bosnian Valley of the Pyramids (ICBP, 2007).

While the golden ratio (ϕ) and π are not yet firmly established within the Visoko site, they present promising directions for future inquiry.

Irrational Number	Great Pyramid of Giza	Bosnian Pyramid of the Sun
$\sqrt{2} \approx 1.414$	Slant height to half base ratio (diagonal of square)	Evident in slope calculations of base–face–height triangle
$\sqrt{3} \approx 1.732$	Height to half base diagonal (3D triangle proportion)	Embedded in elevation diagrams and plane angles (Šimatović)
$\phi \approx 1.618$	Slant height to half base encodes Golden Ratio	Possible correlation in multiple slope facets (under review)
$\pi \approx 3.1416$	Base perimeter to height $\approx 2\pi$ (circle-square equivalence)	Not emphasized yet in Bosnian Pyramid but a future comparison
Angle Geometry	Inclination of faces: $\sim 51.84^\circ$ ($4\pi/5$ radians)	35° , 45° , and 30° angles encoded (Šimatović, 2006)



Bosnian Pyramid of the Sun, N-S direction

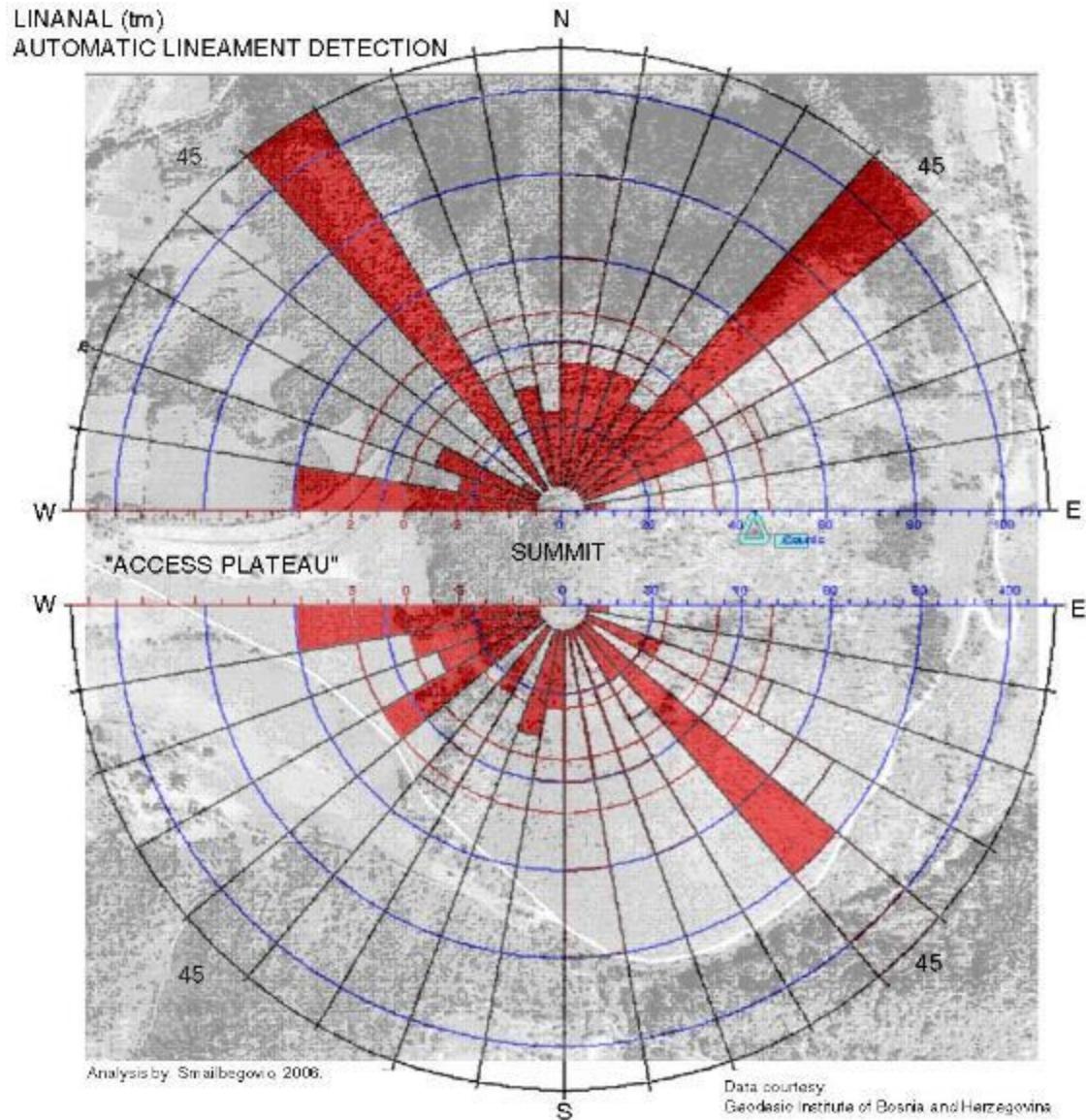
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Figure 9. Lineament and corner orientation analysis of the Bosnian Pyramid of the Sun based on automated linear feature detection.

This radial map was generated through the LINANAL (tm) software algorithm, using high-resolution topographic and satellite data provided by the Geodetic Institute of Bosnia and Herzegovina. The analysis, conducted by Dr. Amer Smailbegović in 2006, confirms the geometric regularity of the structure's four lateral faces despite partial erosion.

The concentration of detected lineaments in cardinal and diagonal alignments (notably at 0°, 90°, 180°, and 270°) reinforces the presence of a near-perfect quadrilateral pyramid layout. Clear apex-centered linear zones indicate preserved corners and edge continuity, which provide key support for hypotheses of intentional geometric construction.

Source: Smailbegović, A. (2006). Analysis based on data from the Geodetic Institute of Bosnia and Herzegovina. Published at www.piramidasunca.ba and included in Osmanagich, S. (2007). *Bosnian Pyramid of the Sun – Discovery of the First European Pyramid* (2nd ed.). Mauna-Fe Publishing, Sarajevo.

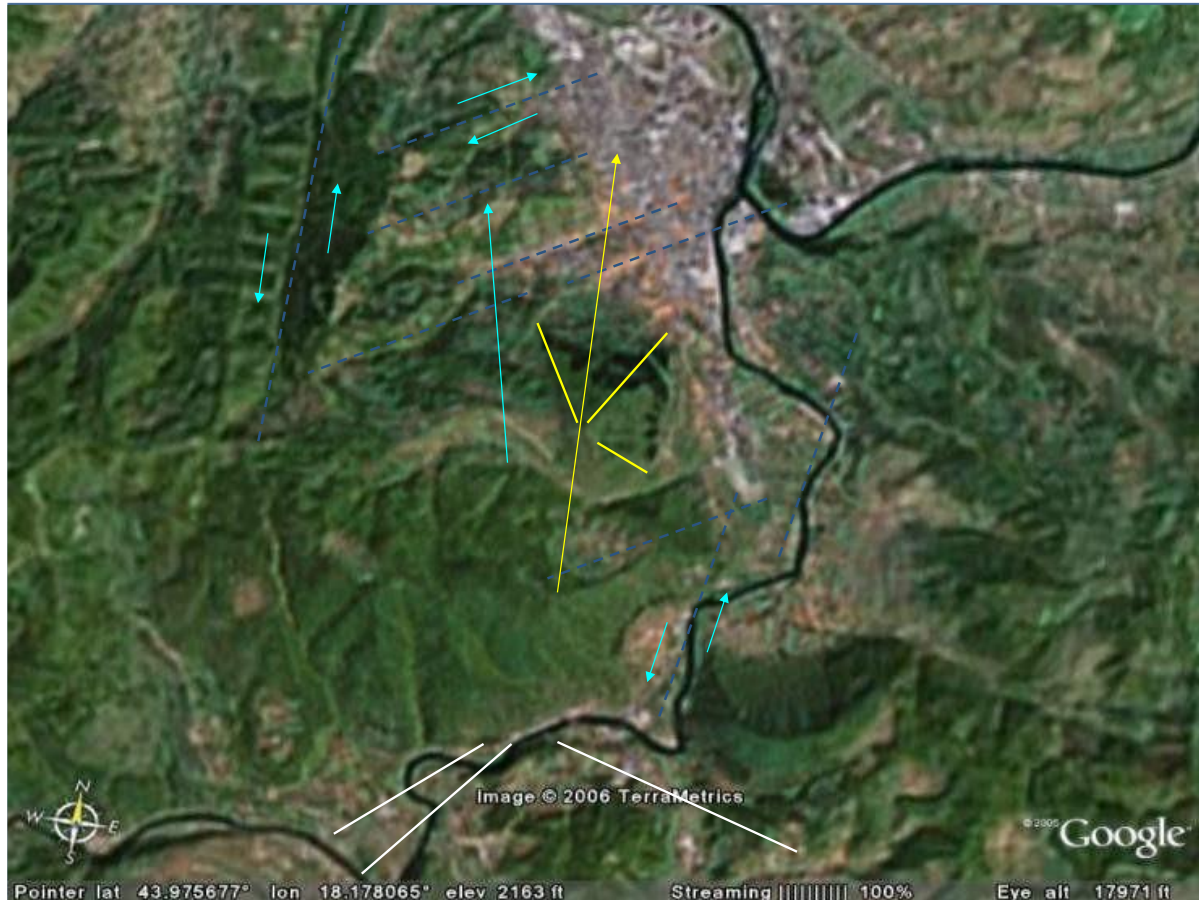


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Figure 10. Satellite imagery of the Visoko Valley overlaid with regional tectonic lineaments and vector fields showing geological stress orientations. The linear morphology and angular geometry of the Bosnian Pyramid of the Sun (center) are not aligned with dominant tectonic directions identified in the broader region. According to geophysicist Dr. Amer Smailbegović, this mismatch suggests that the geomorphological formation of the pyramid is not a product of regional tectonic deformation, but instead reflects a non-natural, potentially anthropogenic origin.

Source: Smailbegović, A. (2006). *Geophysical Analysis of the Bosnian Pyramid of the Sun*

[Internal report]. Archaeological Park: Bosnian Pyramid of the Sun Foundation. Satellite base image: TerraMetrics / Google Earth (2006).



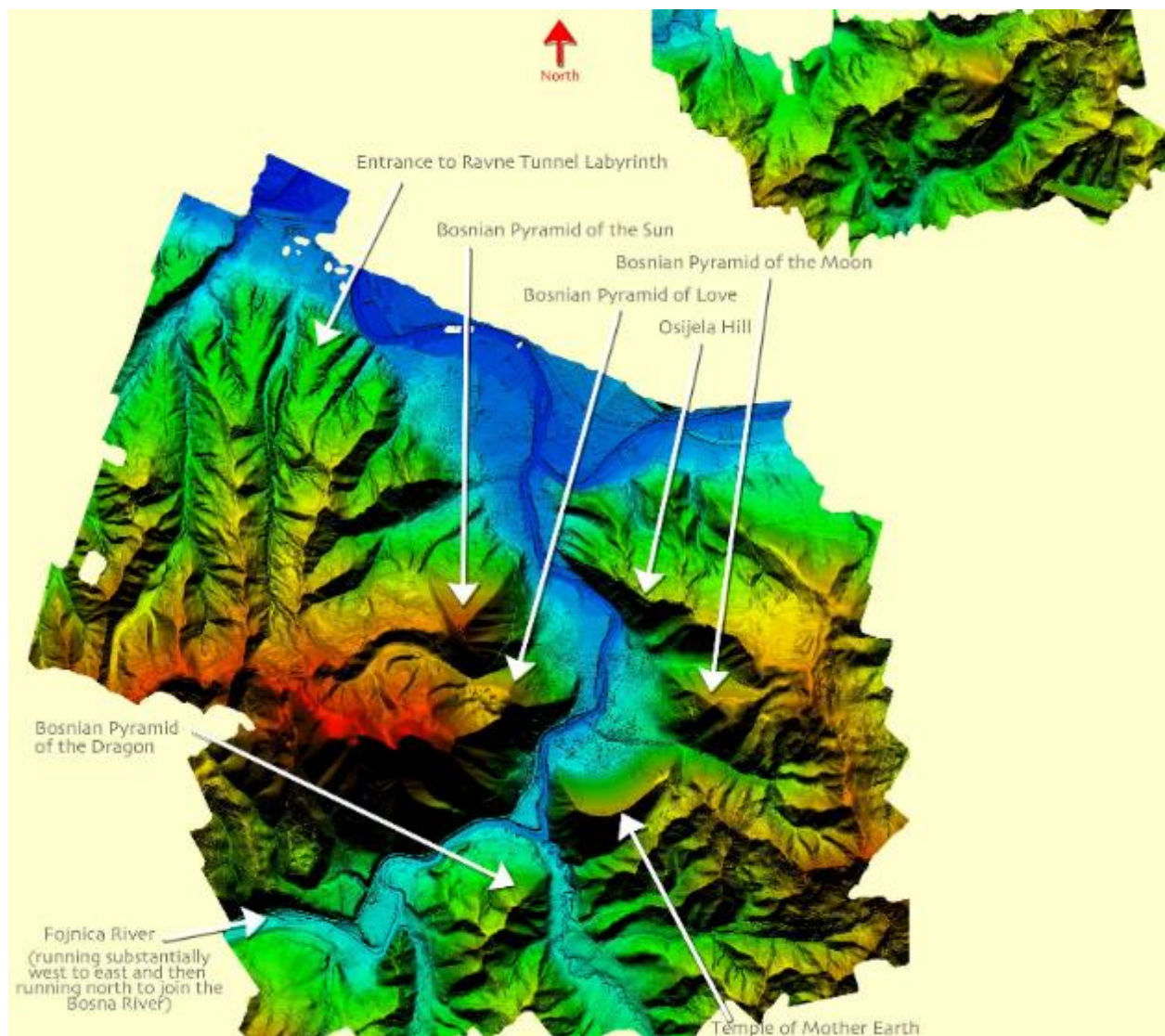
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Figure 11.

LiDAR-derived digital elevation model of the Visoko Valley, central Bosnia-Herzegovina, showing the precise spatial arrangement of several pyramid-shaped hills and associated geomorphological features. At the center of the image is the **Bosnian Pyramid of the Sun**, the tallest and most dominant structure in the complex, with its clearly defined northern slope rising sharply and symmetrically in a triangular form. The pyramid's summit and edges are prominently demarcated by contour lines and a distinct color gradient transitioning from green to red, indicating a steep elevation increase toward the peak. To its immediate east and southeast are the **Pyramid of the Moon**, **Pyramid of Love**, and **Osijela Hill**, while the **Pyramid of the Dragon** is positioned southwest. The alignment of these formations appears deliberate, forming geometric and astronomical relationships discussed in later sections.

The **Ravne Tunnel Labyrinth**, which extends underground toward the Bosnian Pyramid of the Sun, is marked near the upper left of the image. The **Fojnica River** can be seen curving around the southern perimeter of the valley before joining the **Bosna River** to the northeast. This detailed visualization was generated through airborne LiDAR scanning conducted by **Airborne Technologies GmbH (Austria)** under contract to the **Archaeological Park: BPS Foundation** (2015), enabling high-resolution modeling of topographic structures and potential anthropogenic features.

Source: Adapted from Osmanagich, S., Hoyle, R., Agić, A., & Delibašić, H. (2023). *Ravne 3 Tunnels* (1st ed.). Visoko: Archaeological Park: BPS Foundation. Figure prepared by Richard Hoyle using LIDAR data under license by the Foundation.



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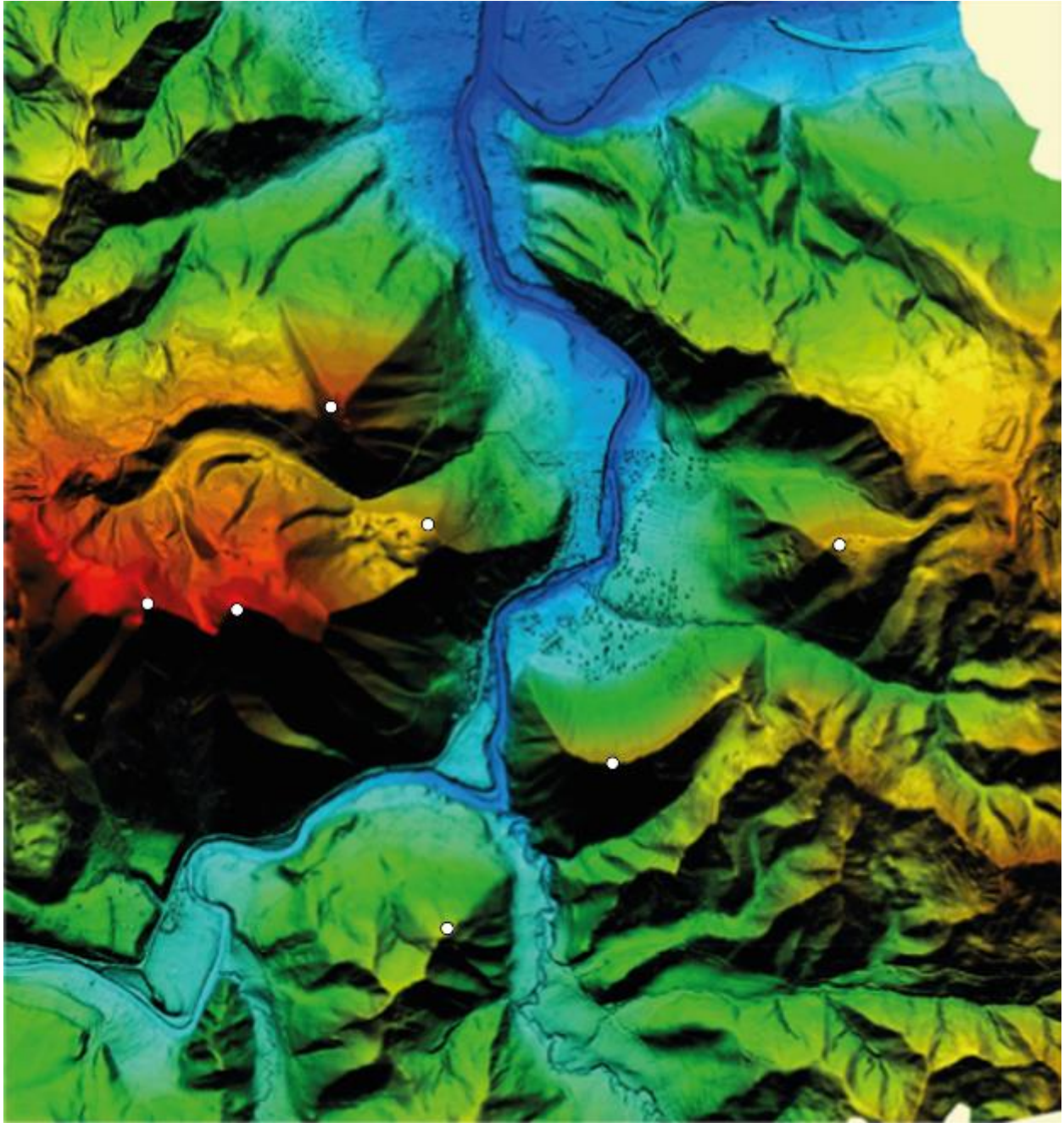
Figure 12.

LiDAR-based digital elevation model (DEM) of the Visoko Valley highlighting the geometric connectivity between pyramid-shaped hills and tumulus structures through white-point markers. This model offers visual insight into the spatial arrangement of the **Bosnian Pyramid of the Sun, Moon, Love, Dragon**, and additional formations including the **Temple of Mother Earth** and **Vratnica Tumulus**. White dots indicate summit points used for geometric analysis including alignments, triangle formations, and spiral distribution models.

The Bosnian Pyramid of the Sun is clearly visible in the upper left quadrant of the model, showing a sharp-edged northern face and prominent slope planes consistent with artificial geometry. These elevation peaks form measurable relationships in distance and angle, which have been subjected to geometric evaluation—including equilateral triangle formations and Fibonacci sequence modeling—presented in subsequent sections.

This figure is adapted from research conducted by **Richard Hoyle** and **Dr. Sam Osmanagich**, first presented in: Osmanagich, S., Hoyle, R., Agić, A., & Delibašić, H. (2023). *Ravne 3 Tunnels* (1st ed.). Archaeological Park: BPS Foundation. The data used was collected during a LiDAR survey performed by **Airborne Technologies GmbH** (Austria) under contract to the Foundation in 2015.

Note on accuracy: The LiDAR dataset used for this DEM has a horizontal positional accuracy of ± 0.3 m and a vertical accuracy of ± 0.15 m under standard conditions which is sufficient for general terrain morphology and elevation modeling.



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Figure 13.

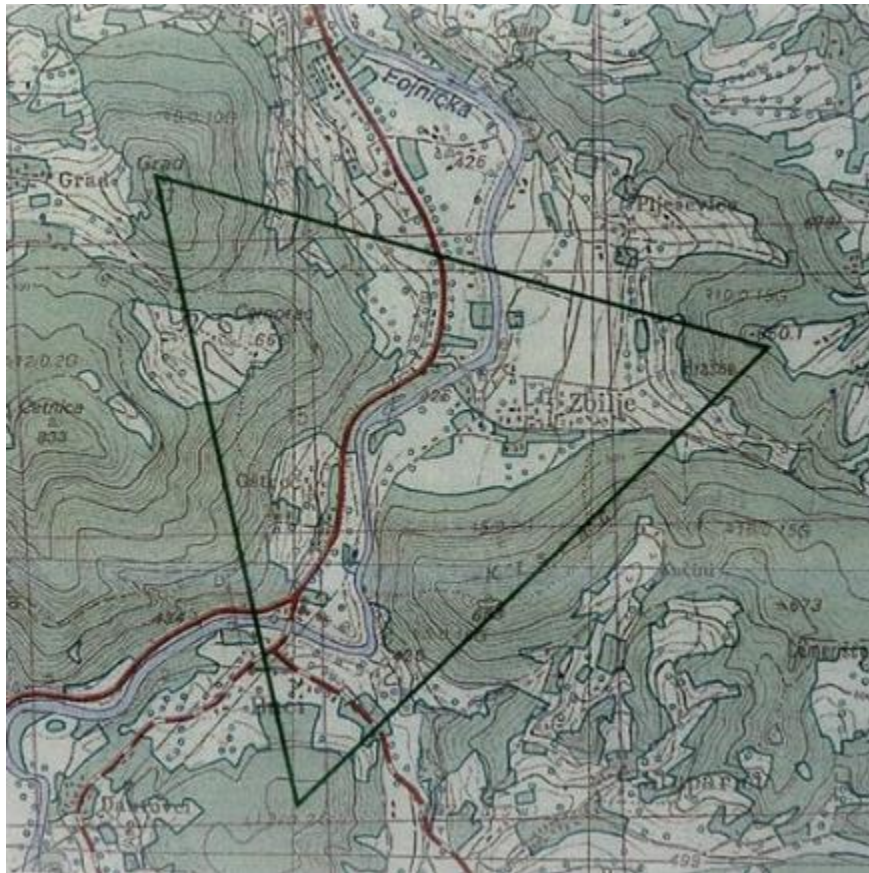
Topographic map of the Visoko municipality showing an equilateral triangle formed by the summit points of the **Bosnian Pyramid of the Sun** (Visočica), **Bosnian Pyramid of the Moon** (Plješevica), and **Bosnian Pyramid of the Dragon** (Škripina). Each side of the triangle measures

approximately 2.18 kilometers, with angular symmetry consistent with $60^\circ \pm 2^\circ$ per vertex, suggesting geometric intentionality in the spatial layout of these three structures.

The base layer is a cadastral topographic map issued by the **Cadastral Office of Visoko**, produced during the Yugoslav period (1:25,000 scale). The triangle was superimposed using summit coordinates obtained through on-site geodetic GPS measurements, verified with LiDAR and total station data collected by the Foundation between 2006 and 2015.

Such geometric consistency has been referenced as part of broader hypotheses regarding sacred geometry, intentional design, and astronomical or energetic function within the Bosnian Pyramid Complex (Osmanagich, 2023; Hoyle et al., 2023). The spatial relationship depicted here also corresponds to geospatial patterns identified by the LiDAR-based terrain renderings shown in Figures 11 and 12.

Source: Adapted from archival material of the **Cadastral Office of Visoko**. Geometric interpretation and overlay prepared by **Dr. Sam Osmanagich** and **Richard Hoyle**, published in *Ravne 3 Tunnels* (Osmanagich et al., 2023), p. 145.

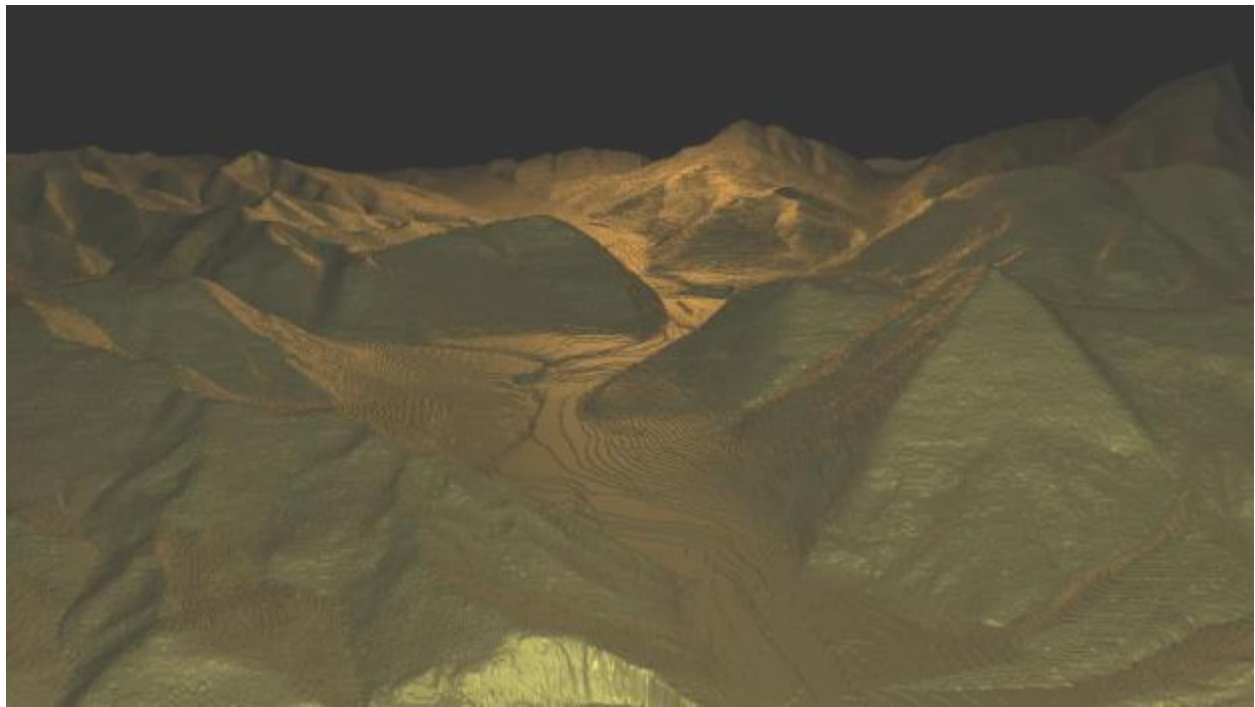


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Figure 14.

3D terrain model of the Bosnian Pyramid of the Sun generated through photogrammetric processing and polygonal reconstruction by engineer **Senad Bahor**, based on satellite imagery and Z-map elevation data. This model, part of his Master's thesis at Sarajevo School of Science and Technology, applied a novel 4D visualization methodology using WebGL and displacement mapping techniques. The reconstruction confirms that the **summit of the Bosnian Pyramid of the Sun reaches an elevation of 767 meters above sea level**, with the eastern base measured at approximately 399 meters, yielding a total **height of around 368 meters**. This makes the Bosnian Pyramid of the Sun notably taller than the Great Pyramid of Giza (146.6 m).

Source: Bahor, S. (2015). *The Four Dimensional Visualization of the Bosnian Valley of the Pyramids – New Methodology for the Reconstruction of the Cultural Heritage Site*, Master's thesis, Sarajevo School of Science and Technology.



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Figure 15.

Three-dimensional topographic model of the Bosnian Pyramid of the Sun, generated by the Geodetic Institute of Bosnia and Herzegovina using Total Station data. The image highlights the pronounced triangular geometry of the northern face and clearly displays the access plateau leading toward the summit of the pyramid. The visualization supports the interpretation of

artificial structuring through regular angles and linear slopes, especially when viewed from an elevated perspective.

Source: Buza, E. (2007). “Geodetic Survey of the Northern Face of the Bosnian Pyramid of the Sun.” In *Proceedings of the First International Scientific Conference on the Bosnian Valley of the Pyramids*, pp. 58–65. Geodetic Institute of Bosnia and Herzegovina, Sarajevo.



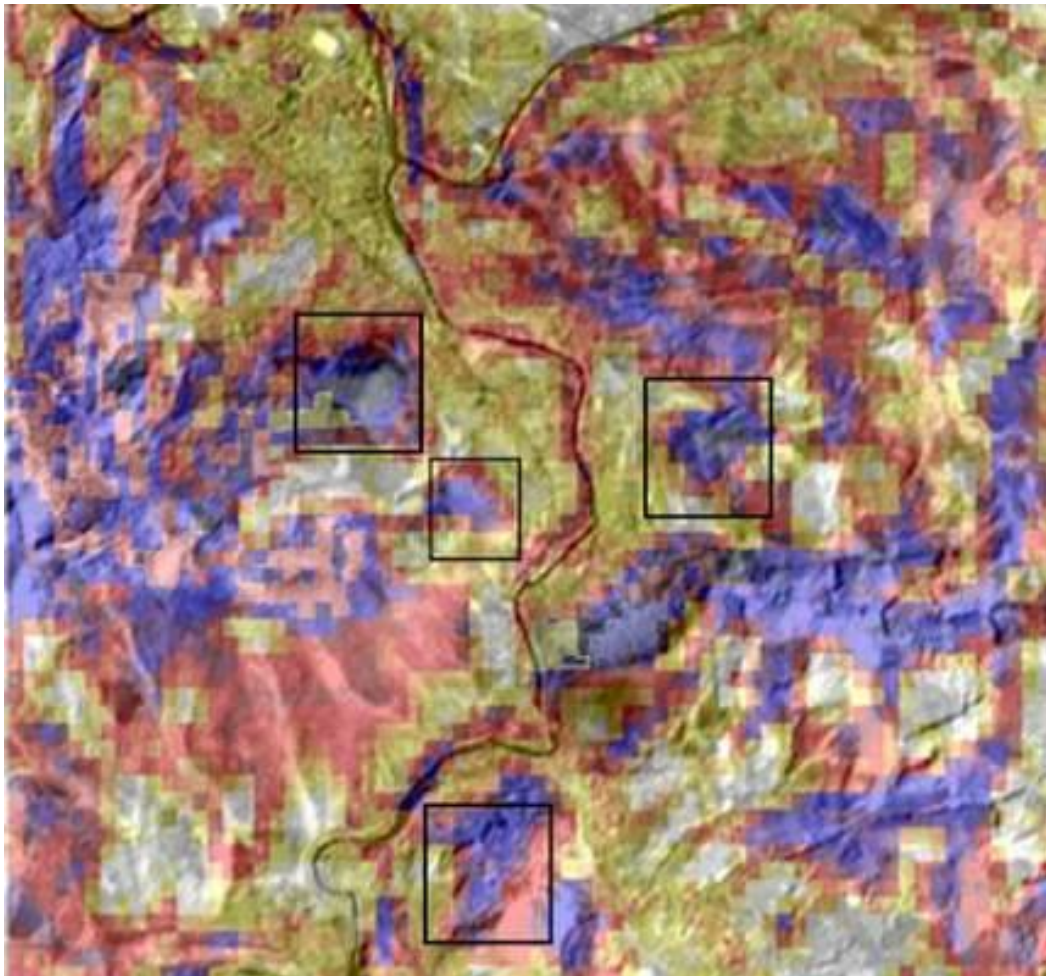
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Figure 16.

Apparent Thermal Inertia (ATI) map of the Visoko region, derived from ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer) imagery collected during day and night satellite passes. The image presents thermal variation data with 60-meter resolution, sharpened by registration to a 15-meter panchromatic band. Isolated low ATI anomalies, interpreted as zones of faster cooling materials, are outlined with black squares. One of the most prominent anomalies corresponds to the Bosnian Pyramid of the Sun.

This thermal analysis was conducted using daytime imagery (1142 GMT pass) and nighttime imagery (2137 GMT pass), enabling the application of the ATI technique despite a relatively large temporal gap between scenes. Digital Terrain Model (DTM) correction and vegetation masking (via VNIR bands) were used to refine interpretation. The results suggest that the Bosnian Pyramid of the Sun and surrounding structures may consist of less consolidated materials compared to nearby hills, producing faster radiative cooling rates.

Source: Smailbegović, A. (2006). *Survey of Remote Sensing Techniques Used for the Anomaly Detection at the Presumed Pyramid Locality near Visoko, Bosnia and Herzegovina*. Revision 1.3. Reno, Nevada, USA.



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Figure 17.

Ground Penetrating Radar (GPR) survey conducted by LGA Bautechnik GmbH (Germany) on the northern slope of the Bosnian Pyramid of the Sun in December 2006 using a dual 200 MHz and 400 MHz antenna system. The investigation, carried out over more than 10,000 m², revealed 44 subsurface anomalies interpreted as potential structural features, many of which lacked any surface indicators. The GPR team, certified under DIN EN ISO 9001/14001 standards, confirmed the presence of significant inhomogeneities, recommending targeted excavations to reduce cost and increase archaeological efficiency.

The final report (BBMT0600183), dated February 7, 2007, concluded that the GPR measurements were successful in delineating areas of interest and encouraged further interdisciplinary study of the marked zones.

Source:

LGA Bautechnik GmbH, *Report BBMT0600183*, February 7, 2007. Courtesy: Archaeological Park: Bosnian Pyramid of the Sun Foundation.

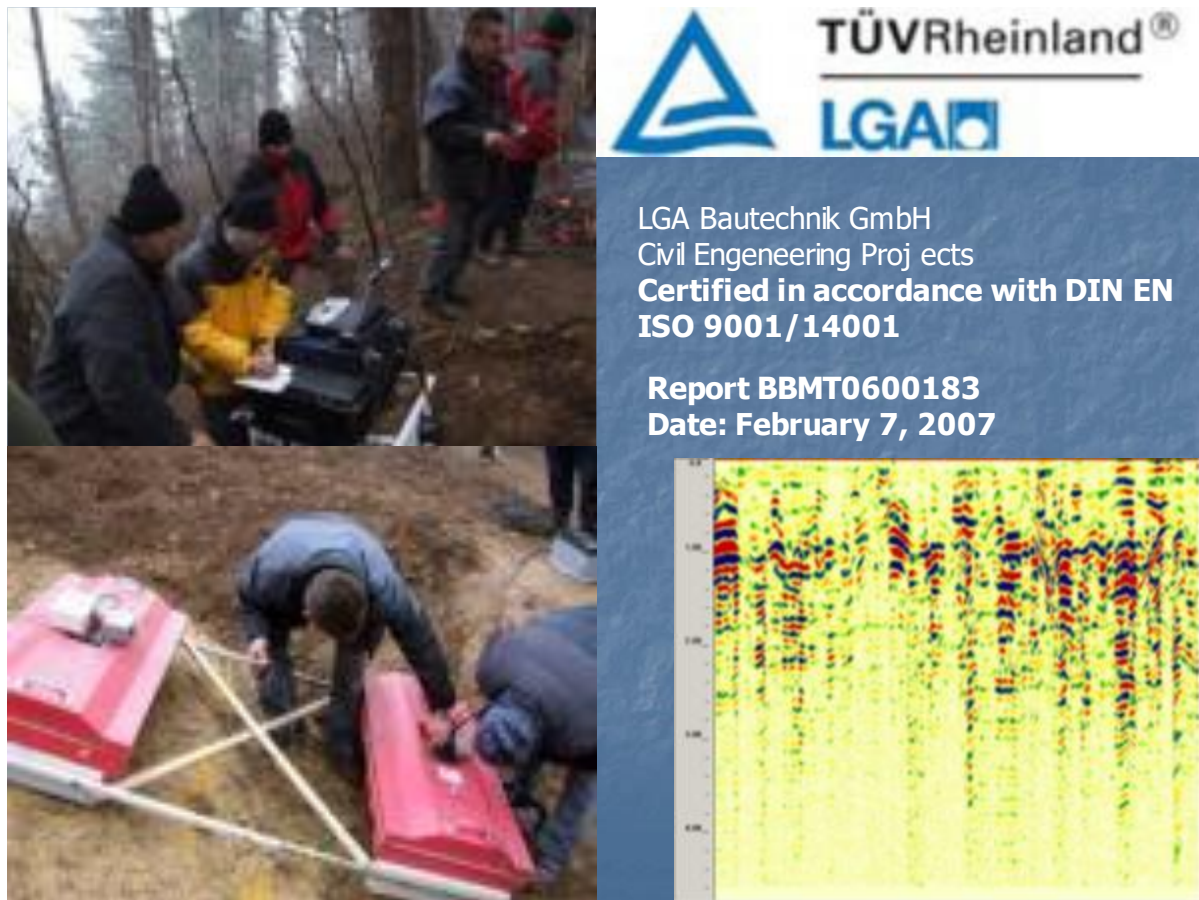
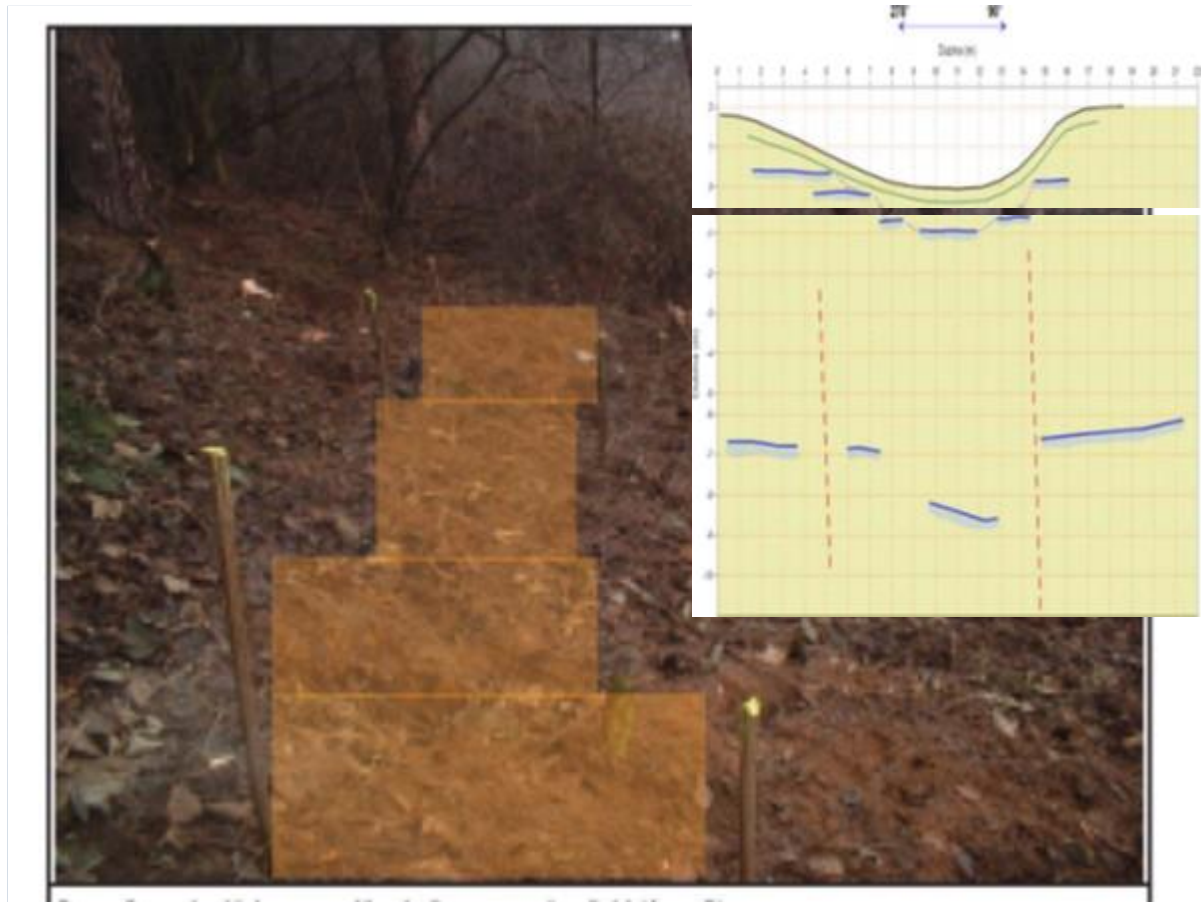


Figure 18.

Ground Penetrating Radar (GPR) survey conducted by the Institute of Physics, University of Belgrade, on the Bosnian Pyramid of the Sun between October 11–14, 2006. The team, led by Dr. Dejan Vučković, applied a range of geophysical methods including seismic refraction, reflection, electromagnetic scanning, and radar imaging. The figure shows GPR results from one of the excavated areas, highlighting linear anomalies at regular intervals beneath the surface—suggestive of anthropogenic structuring.

Source: Institute for Physics, University of Belgrade, Geophysical Survey Report (2006), Archaeological Park: Bosnian Pyramid of the Sun Foundation Documentation Archive.



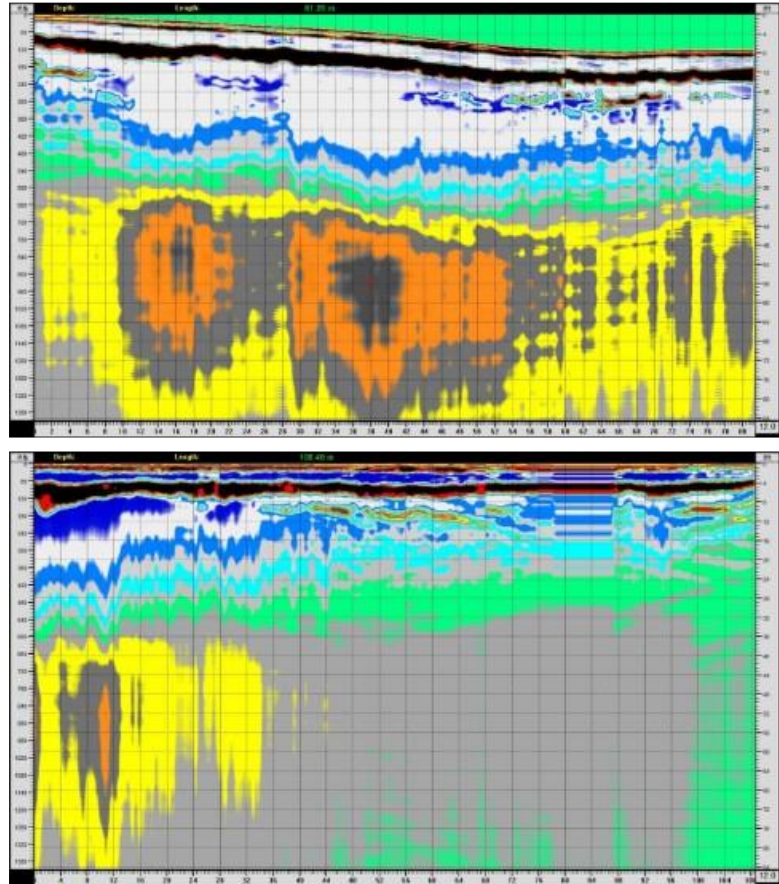
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Figure 19.

Ground Penetrating Radar (GPR) scan results conducted by RTGPR Company (Czech Republic) on the northern slope of the Bosnian Pyramid of the Sun in Visoko, July 2023. The top panel reveals a pronounced rectangular anomaly at a depth of approximately 4–6 meters, suggestive of a potential chamber or artificial cavity, with clearly defined edges and internal contrasts. The bottom scan reveals additional subsurface layering and reflects potential stratification consistent with constructed or modified material. The survey was conducted using high-frequency GPR instruments with real-time

digital processing.

Source: RTGPR Company, Czech Republic. Official documentation, project collaboration with Archaeological Park: Bosnian Pyramid of the Sun Foundation (2023).



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Figure 20.

Archaeological excavation zones on the northern face of the Bosnian Pyramid of the Sun (BPS). The upper-left image shows an annotated aerial view with marked trench locations. From 2005 to 2025, over 20 excavation trenches were opened, following official permission granted by the Zenica-Doboj Canton Government. Initial excavation approvals were issued between 2006 and 2010, and in 2012, the Ministry of Physical Planning of the Zenica-Doboj Canton issued a long-term permit for geodetic, archaeological, geophysical, geological, and other types of scientific investigation across the Visoko Valley, with the exception of the officially protected zone on part of the BPS. More than 65 archaeologists from Italy, Croatia, Serbia, Malaysia, Egypt, Jordan, Bosnia-Herzegovina, the United Kingdom, and Turkey

participated over the years, often working on a voluntary basis. Resident archaeologists were present throughout all active seasons. Excavations revealed large, well-formed slabs composed of concrete-like material arranged in layers, indicative of artificial construction.

Source: Archaeological Park: Bosnian Pyramid of the Sun Foundation, excavation records 2005–2025.



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Figure 21.

Photographic documentation of excavation trenches on the Bosnian Pyramid of the Sun. The **upper left** image shows the northeast corner of the pyramid after **removal of approximately 90 cm of overlying soil**, exposing the junction where **two sides meet at a sharp angular break**. The remaining images display **northern face trenches**, where large, multi-layered concrete-like slabs were unearthed. Several slabs exhibit **angular geometry**, with **six visible faces and orthogonal breaks**, characteristic of artificial construction. The stratified arrangement and structural coherence across layers reinforce the hypothesis of intentional block placement.

Source: Osmanagich, S. (2016). *Pyramids Around the World & Lost Pyramids of Bosnia* (3rd ed.). Archaeological Park: Bosnian Pyramid of the Sun Foundation, Visoko, Bosnia-Herzegovina.



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Figure 22.

Photographic and laboratory documentation of the structural blocks excavated from the northern slope of the Bosnian Pyramid of the Sun (BPS). The images depict rectangular, flat-surfaced plates composed of compacted gravel, river pebbles, and a durable binding matrix. The plates are stacked in multiple layers, with breaks and angles consistently close to 90 degrees, suggesting intentional construction rather than random geological processes.

A total of **over 100 core and plate samples** were extracted from various trenches and sent to multiple institutions for material analysis, including:

- Institute “Kemal Kapetanović”, University of Zenica

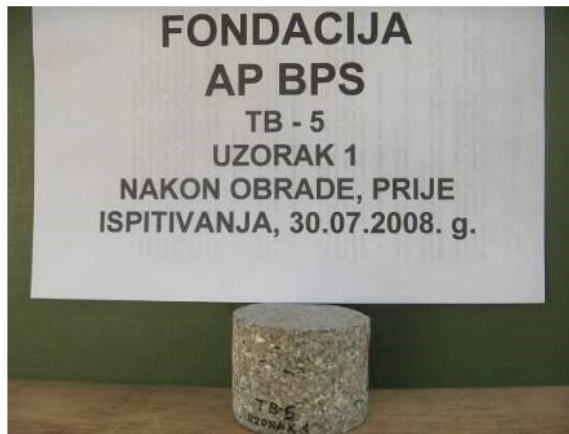
- Institutes for Construction at the Universities of Sarajevo and Tuzla
- Politecnico di Torino (Italy)
- Research institutes in the Czech Republic and Slovakia

The comprehensive results across these institutions revealed:

- **Compressive strength** values ranging from **73.6 MPa to a peak of 155 MPa**, far exceeding modern construction standards (typically 30–60 MPa).
- **Water absorption** as low as **1.07%**, significantly below modern concrete's standard threshold of 3% for high-quality, low-porosity applications.
- **Material composition** included well-sorted quartzite, feldspar, and carbonate aggregates in a high-performance binder matrix rich in calcium carbonate and silica.
- **Porosity and permeability** values indicating near-zero water infiltration and extremely dense compaction.

These results provide strong empirical support for the **anthropogenic origin** of the BPS structure. The compressive strength, low porosity, and the construction-like geometry of the plates suggest that an **ancient concrete or geopolymer technology** was utilized to form durable, highly engineered structural components.

These findings were first presented by **Prof. Muhamed Pašić** in the **ICBP 2009 Proceedings**, and further discussed in Dr. Sam Osmanagich's book:
 Osmanagich, S. (2016). *Pyramids Around the World & Lost Pyramids of Bosnia* (3rd ed.).
 Visoko: Archaeological Park: Bosnian Pyramid of the Sun Foundation.



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Figure 23.

Composite documentation of the artificial construction material from the Bosnian Pyramid of the Sun (BPS), based on laboratory investigations conducted between 2006 and 2009, primarily at the **Institute "Kemal Kapetanović" (University of Zenica)** and corroborated by additional testing at institutions in Sarajevo, Tuzla, Torino, Czechia, and Slovakia.

- **Top left:** Section of a structural plate on the northern slope, showing **exposed aggregate layers** made of crushed pebbles and a compacted **light-brown clay matrix**, interpreted as a **man-made binding agent**.
- **Top right:** Laboratory preparation table with **layout of test cubes** derived from thin-grain conglomerate samples collected from the covering layer. This photo shows the **crushed state of the cubes** after **compressive strength testing**, illustrating internal fragmentation patterns.
- **Bottom:** Chemical analysis results from a **separated sample of the binding material**, indicating a high proportion of **CaO and SiO₂**, along with additional oxides commonly

found in **low-temperature geopolymeric mixtures**. The analysis is titled:
"Chemical analysis of the separated binder of artificial building material of thin grain
gravel conglomerate from Bosnian Pyramid of the Sun—Visoko", conducted in 2008.

The compressive strength values for these samples ranged from **94.0 MPa to 133.8 MPa**, significantly higher than the **modern engineering standard for structural concrete**, which typically averages **30–50 MPa**. In addition, **water absorption was consistently below 1%**, well within modern waterproofing criteria (**standard: <3%**)—further supporting the interpretation of deliberate material engineering.

Source: Institute “Kemal Kapetanović”, University of Zenica; excerpts from *Pašić, M. (2009). A Contribution to the Characterization of Solid Building Material from Gravel Conglomerate from the Bosnian Pyramid of the Sun, Visoko*. In *ICBP Proceedings*; also republished in Osmanagich, S. *Pyramids Around the World & Lost Pyramids of Bosnia*, 3rd edition, Foundation AP BPS, 2016.



Content in %										
g.ž.	SiO ₂	CaO	MgO	Fe ₂ O ₃	MnO	Al ₂ O ₃	TiO ₂	Na ₂ O	K ₂ O	Suma
39,97	13,10	32,20	9,96	1,61	0,03	2,45	0,06	0,09	0,39	99,86

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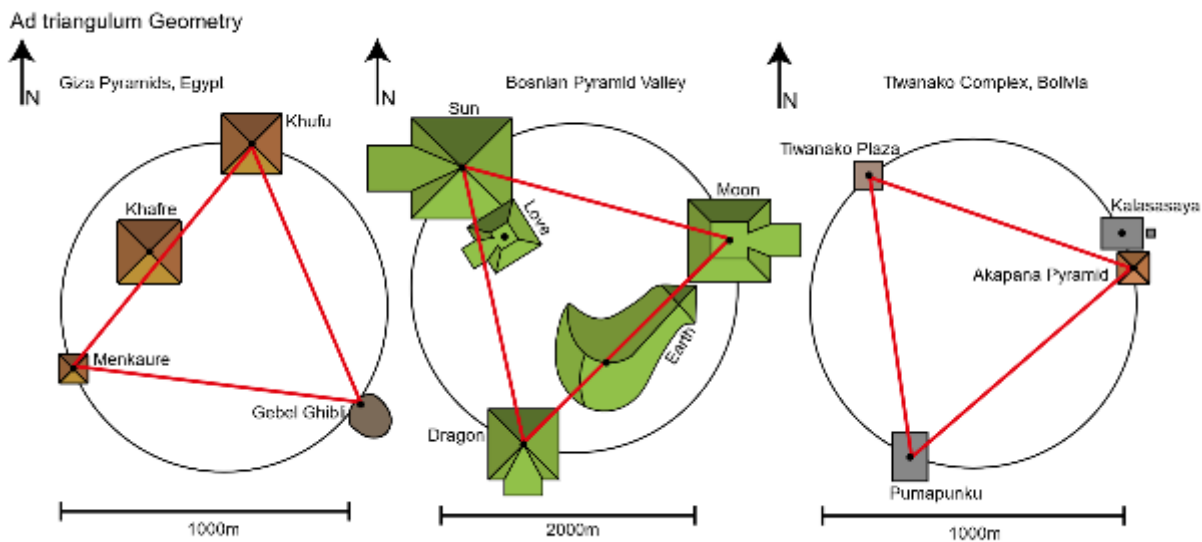
Figure 24.

Illustration of the “Ad Triangulum” geometric layout comparing three ancient pyramid complexes: Giza (Egypt), Visoko (Bosnia-Herzegovina), and Tiwanaku (Bolivia). Each site displays a triangular configuration connecting three principal pyramid structures. In the case of the **Bosnian Pyramid Complex**, the **Pyramid of the Sun**, **Pyramid of the Moon**, and **Pyramid of the Dragon** form a nearly perfect equilateral triangle. The measured distances between their summits are:

- **Sun–Moon:** 2,180 m
- **Moon–Dragon:** 2,170 m
- **Dragon–Sun:** 2,180 m

These values reflect a deviation of less than **1%**, which indicates a deliberate geometric planning principle consistent with other ancient civilizations known for sacred or astronomical spatial design. The concept and visualization were developed by Richard Hoyle and first presented in:

Hoyle, R. in: *Osmanagich, S., Hoyle, R., Agić, A., Delibašić, H. (2023). Ravne 3. Visoko: Archaeological Park: Bosnian Pyramid of the Sun Foundation.*



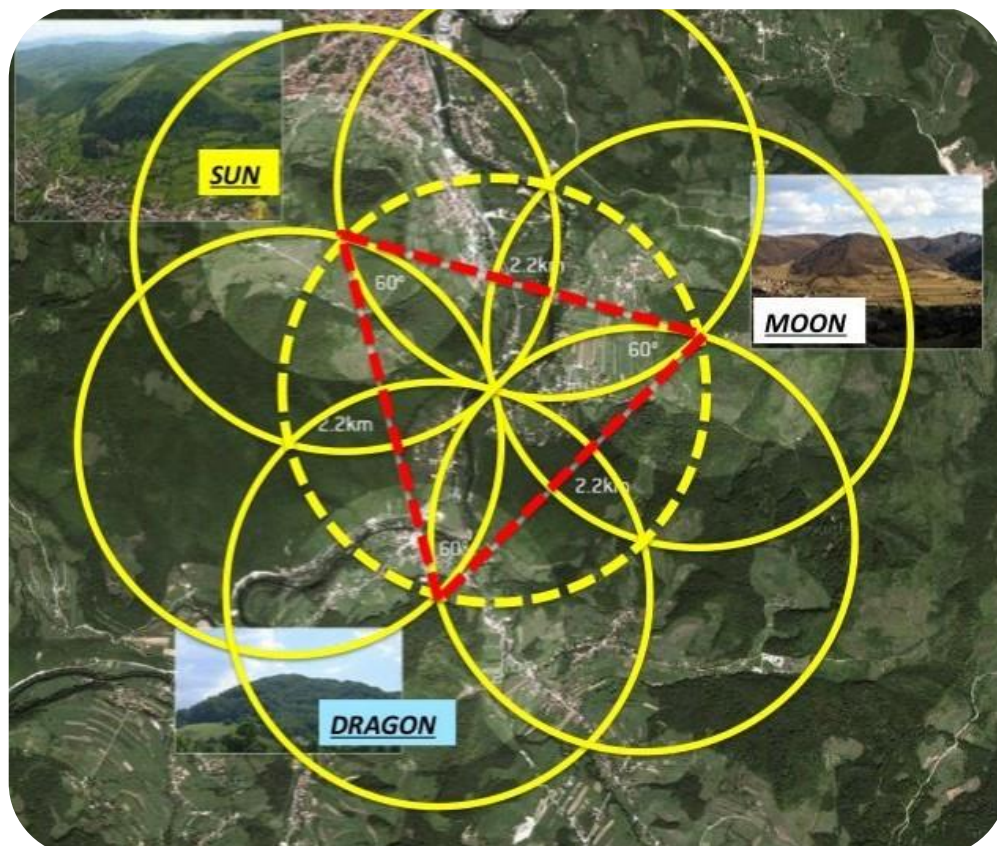
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Figure 25.

A geometric overlay illustrating the equilateral triangular configuration formed by the **Bosnian Pyramid of the Sun**, **Pyramid of the Moon**, and **Pyramid of the Dragon**. The dashed red

triangle connecting the summits shows angles of 60° and side lengths of approximately **2.2 km**, confirming the near-perfect **equilateral geometry**. Superimposed **Vesica Piscis** and **Flower of Life** formations, composed of overlapping yellow circles centered on each pyramid, reinforce the **sacred geometric arrangement**. This suggests intentional planning rooted in mathematical principles traditionally associated with symbolic and energetic harmonization in sacred architecture.

This geometric interpretation was introduced by Richard Hoyle and further analyzed in: **Hoyle, R.** in: *Osmanagich, S., Hoyle, R., Agić, A., Delibašić, H. (2023). Ravne 3. Visoko: Archaeological Park: Bosnian Pyramid of the Sun Foundation.*



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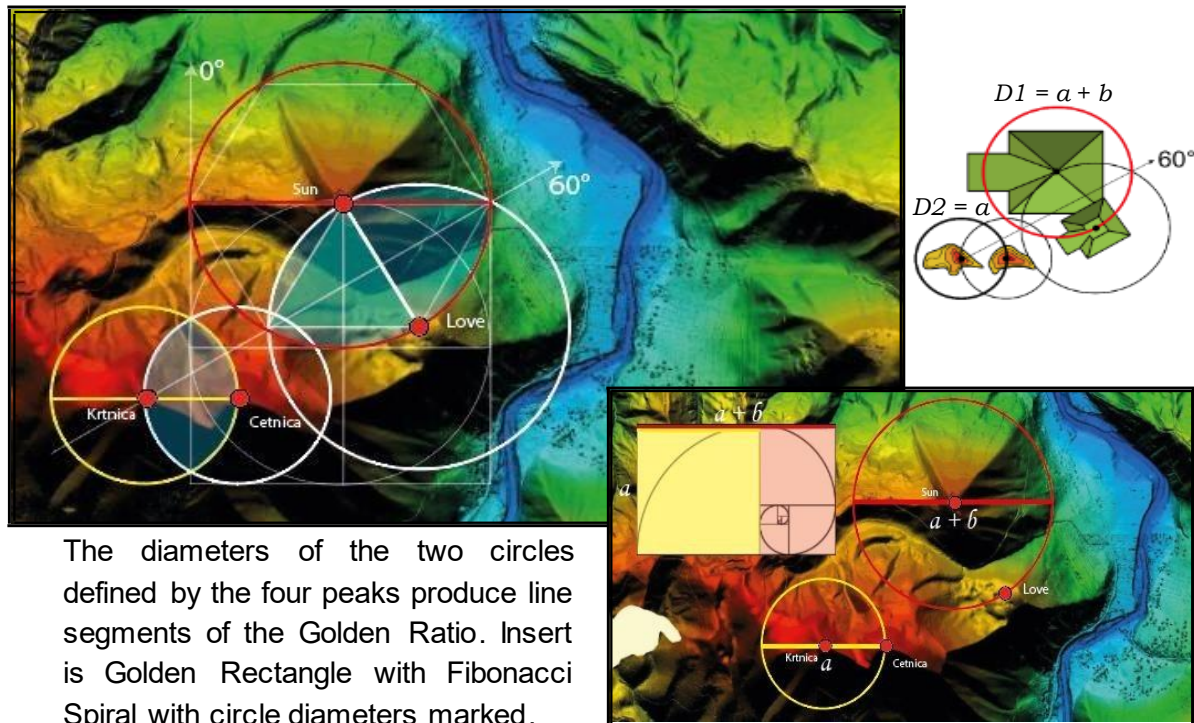
Figure 26.

Spatial configuration of the **Bosnian Pyramid of the Sun, Pyramid of Love**, and nearby peaks **Krtnica** and **Cetnica**, revealing a geometrical layout based on the **Golden Ratio** ($\phi \approx 1.618$). The diameters of two intersecting circles connecting the peaks generate a **division of line segments into the golden mean**, shown as $D1 = a + b$ and $D2 = a$. The overlaid **Golden Rectangle** and **Fibonacci spiral** emphasize the proportional relationship between these natural and architectural features.

The equilateral triangle formed by the Sun and Love pyramid peaks (with a 60° angle) aligns symmetrically with the surrounding terrain, suggesting deliberate spatial planning or, at minimum, a remarkable example of natural geometric coincidence with symbolic resonance.

Source: Hoyle, R., in: *Osmanagich, S., Hoyle, R., Agić, A., Delibašić, H. (2023). Ravne 3. Visoko: Archaeological Park: Bosnian Pyramid of the Sun Foundation.*

The Golden ratio: The spatial arrangement and underlying geometry between the four peaks of the Bosnian Pyramid of Sun & Love, and the highest named hills Krtnica and Cetnica



The diameters of the two circles defined by the four peaks produce line segments of the Golden Ratio. Insert is Golden Rectangle with Fibonacci Spiral with circle diameters marked.

Figure 27.

The "**Seed of Life**" geometric construct, formed from a series of overlapping circles, is superimposed over the **Bosnian Pyramid of the Sun** using **Circle A** (in red) as the central reference. This configuration is oriented to match precise geospatial points in the Bosnian Pyramid Valley. Notable alignments include:

- The **peak of the Bosnian Pyramid of Love**, serving as one of the primary centering points.
- The **southeast tip of the vesica piscis** formed between the Sun and Love pyramids.
- The **eastern and western extents** of the red circle's diameter, with the eastern point aligning to the northeast tip of the Sun-Love vesica piscis.
- The **northwest corner of the Sun Pyramid**, corresponding approximately to a vertex of the inner hexagon inscribed within the seed structure.

This spatial analysis suggests intentional or significant **symbolic geometry** encoded in the layout of the pyramids, echoing ancient sacred geometrical motifs known from Egyptian, Mesopotamian, and early European traditions.

Research and visualization by Richard Hoyle (Foundation's field geologist), 2019.

Source: Hoyle, R. in: *Osmanagich, S., Hoyle, R., Agić, A., Delibašić, H. (2023). Ravne 3. Archaeological Park: Bosnian Pyramid of the Sun Foundation.*



Figure 28.

Topographic map of the Bosnian Pyramid of the Sun (BPS) with a superimposed **golden rectangle** and **Fibonacci spiral**, anchored at the summit of the Pyramid of the Sun (767 m). This geometric overlay reflects the proportions of the **Golden Ratio** ($\phi \approx 1.618$)—a ratio historically associated with harmony and intentional design in ancient monumental architecture.

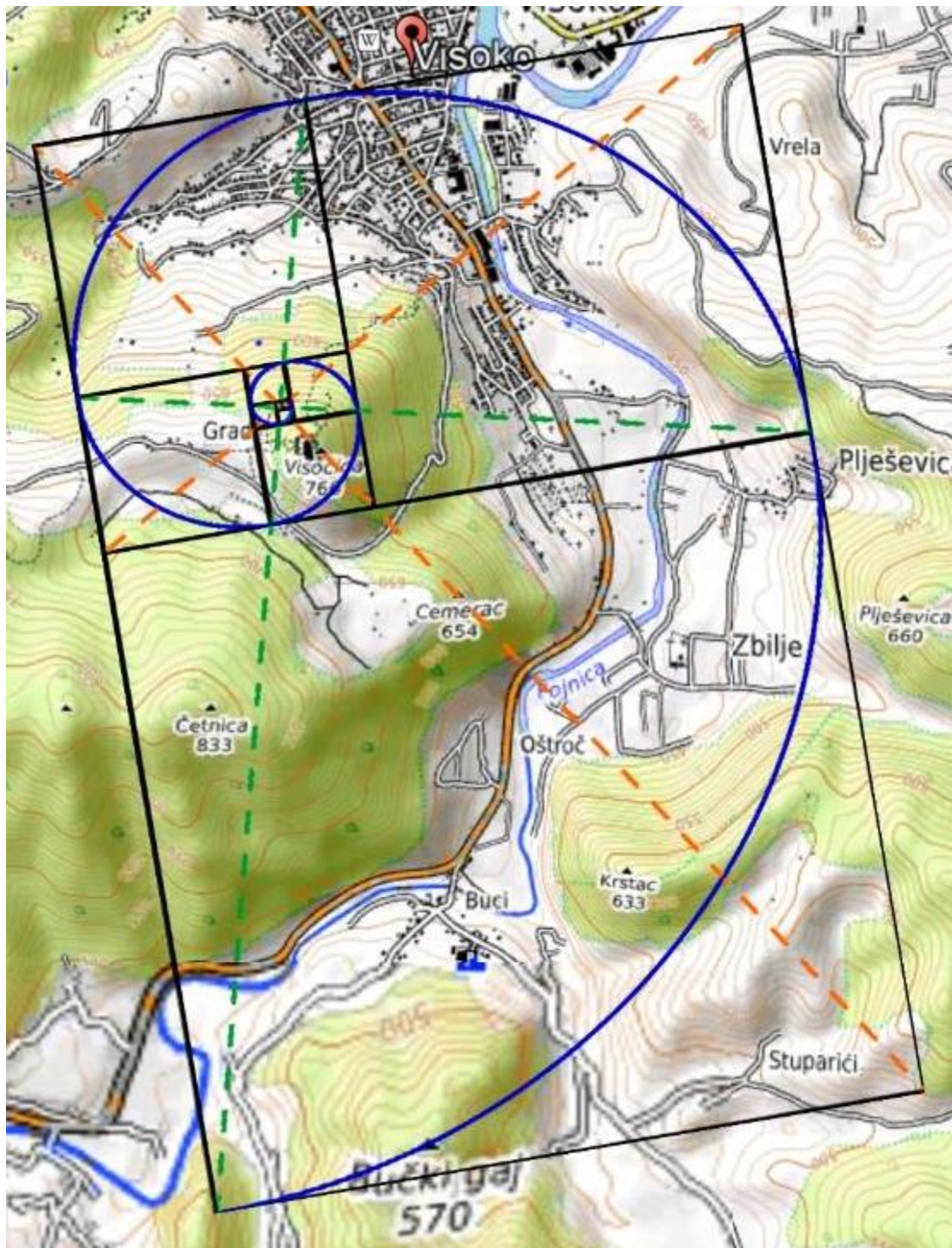
The **Fibonacci spiral** (in blue), emerging from the pyramid summit, expands outward across the Visoko Valley. Notably, it **intersects the summit of the Temple of Mother Earth and the Pyramid of the Dragon**, both key elements of the wider Bosnian Pyramid Complex. This alignment suggests purposeful geometric planning in the spatial arrangement of the monuments.

The **golden rectangle** is carefully oriented along cardinal axes, with its diagonals and edges aligning with major topographic and archaeological landmarks, including Cetnica Hill (833 m) and the Fojnica River corridor. The overlay also matches natural ridge lines and pathways, adding further plausibility to intentional layout.

This analysis originates from research by Richard Hoyle and colleagues, and was published in the volume *Ravne 3* (2023), supporting the hypothesis that the Bosnian pyramid structures were constructed within a larger framework of **sacred geometry and symbolic cosmology**.

Source:

Hoyle, R. in: *Osmanagich, S., Hoyle, R., Agić, A., Delibašić, H.* (2023). *Ravne 3*. Archaeological Park: Bosnian Pyramid of the Sun Foundation, Visoko.



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Figure 29.

Advanced geometric overlay applied to the Bosnian Pyramid Complex reveals a sophisticated level of spatial planning and harmonic proportioning across the Visoko Valley. The model combines **multiple golden rectangles** and **Fibonacci spirals**, nested concentrically and scaled systematically, anchored at the summit of the **Bosnian Pyramid of the Sun (767 m)**.

This spatial framework demonstrates **at least five major intersections** of key geometric elements with pyramid summits and cultural landmarks:

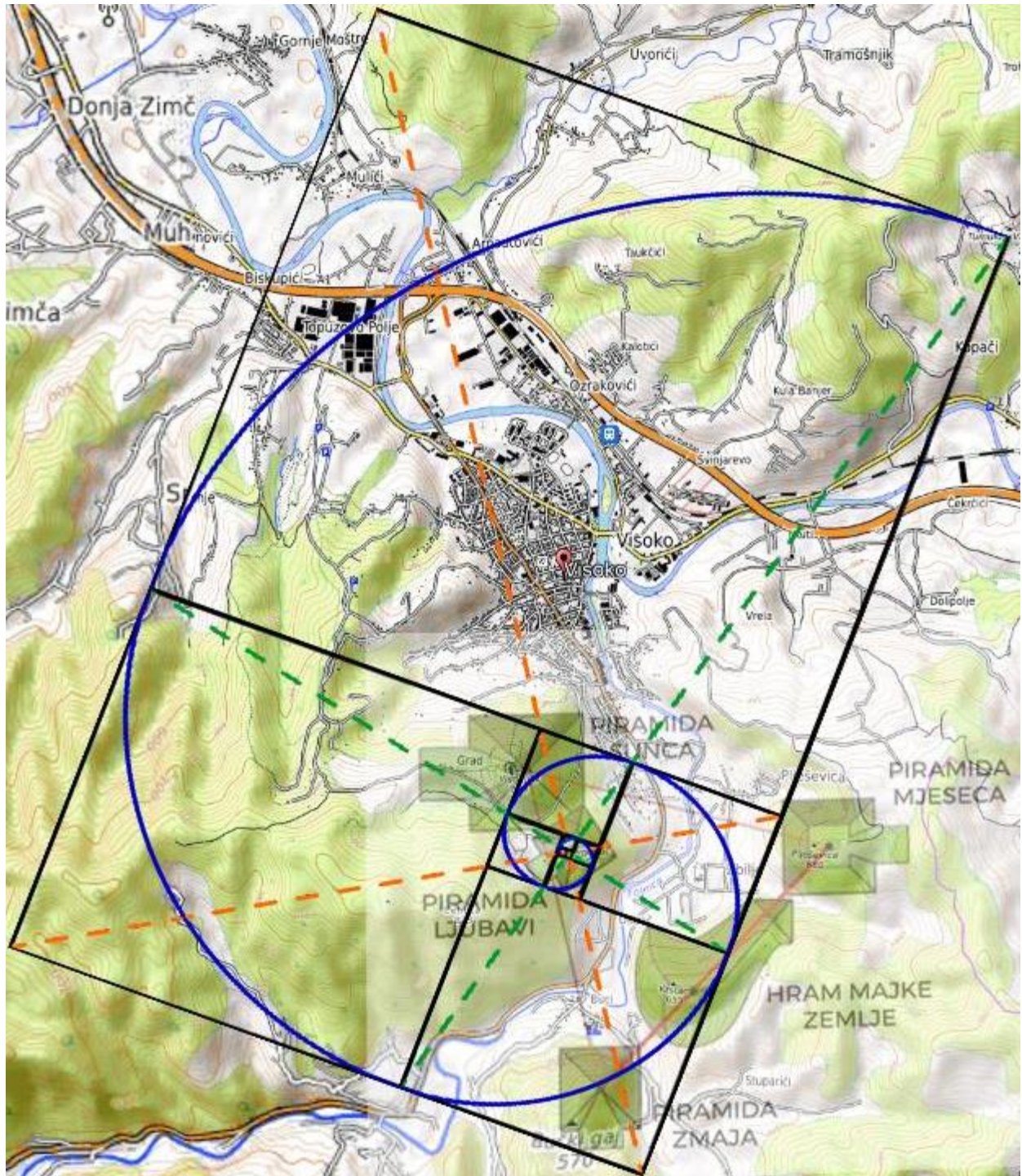
- The **Bosnian Pyramid of Love, Moon, Dragon, and Temple of Mother Earth** all lie on or within the armature of the geometric construction.
- The **Fibonacci arcs** pass through pyramid peaks and sacred topographical features, suggesting deliberate positioning in accordance with **golden ratio alignments** ($\phi \approx 1.618$).
- The **diagonal grid, nested rectangles, and expanding spiral curves** all intersect to highlight the pyramid valley as a single, coherent layout.

The use of **topographic maps and cadastral references**—overlaying the modern infrastructure of Visoko with ancient geometric rules—illustrates that the pyramid network is not randomly distributed but instead follows **ad triangulum** and **ad quadratum** layout principles, known to have been used in ancient and sacred architecture globally.

This configuration has been interpreted by the research team led by Richard Hoyle as a "**genius example of spatial geometry**", consistent with sacred geometry traditions found in Giza, Teotihuacan, and Tiwanaku.

Source:

Hoyle, R. in: *Osmanagich, S., Hoyle, R., Agić, A., Delibašić, H. (2023). Ravne 3. Archaeological Park: Bosnian Pyramid of the Sun Foundation, Visoko.*



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Figure 30.

Photograph taken from the summit of the Bosnian Pyramid of the Sun during the evening of the summer solstice (June 21st). Each year on this date, just before sunset, the shadow of the pyramid projects westward and forms a near-perfect triangular shape that aligns with the western slope of the Bosnian Pyramid of the Moon (BPM). The tip of the shadow aligns with the summit of the BPM, while the base of the shadow reaches its foundation—creating a visually symmetrical and geometrically precise phenomenon. This solstice event suggests the use of the Bosnian Pyramid of the Sun as an ancient astronomical observatory. The shadow's progression from the south emphasizes its seasonal function in marking the start of summer.

Source: Author's archival photographic documentation.



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Figure 31.

A sequence of photographs taken from the summit of the Bosnian Pyramid of the Sun shows the progression of its shadow toward the Bosnian Pyramid of the Moon during the late afternoon in August. As summer progresses, the sun's position shifts slightly compared to the solstice. The left image shows the pyramid's shadow approaching the western slope of the Moon Pyramid. In the right image, captured just before sunset, the shadow completely envelops the western slope, with its apex precisely touching the summit of the Bosnian Pyramid of the Moon. This precise alignment—visible only from the top of the Bosnian Pyramid of the Sun—suggests its intentional use as an astronomical observatory in ancient times.

Source: Author's photographic documentation, August 2018.



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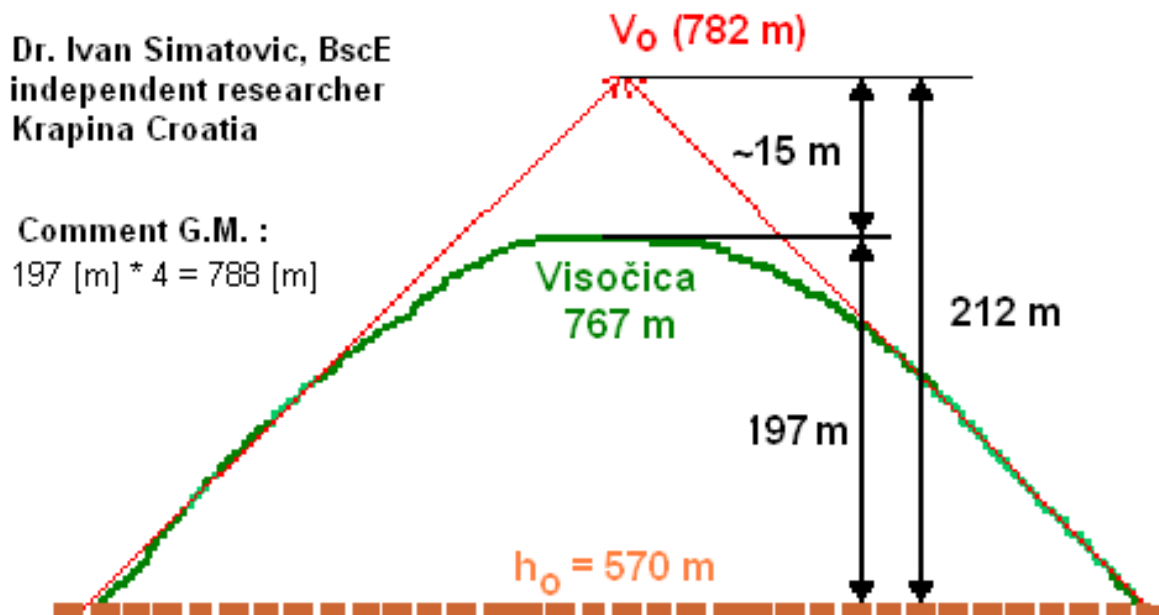
Figure 32.

Real terraced and virtual top of the hill Visočica (Bosnian Pyramid of the Sun), illustrating a remarkable correlation between the virtual height of the pyramid and the wire lengths used in Tesla's Magnifying Transmitter system. As analyzed by Dr. Ivan Šimatović, the virtual apex of the pyramid is calculated at 782 meters above sea level, approximately 15 meters above the current terraced top (767 m). This height corresponds almost exactly to the wire length of Tesla's secondary coil (781 m) and extra coil (778 m), critical for generating and tuning resonance frequencies. This observation has been emphasized by engineer Goran Marjanović, who links these findings to potential resonant electromagnetic behavior of the pyramid as a scalar energy amplifier or transducer.

Sources:

- Šimatović, I. (2009). *ICBP Proceedings*.
- Marjanović, G. (2019). *ELECTROMAGNETISM AND TOPOGRAPHY OF THE BOSNIAN VALLEY OF THE PYRAMIDS*. [Link](#)

Real terraced and virtual top of the hill Visocica



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Figure 33.
Electromagnetic and ultrasound anomalies measured on the Bosnian Pyramid of the Sun and their correlation with Tesla technology

This figure documents the groundbreaking measurements conducted by electrical engineer Goran Marjanović (Serbia), who independently confirmed the existence of a stable electromagnetic frequency of **28.5 kHz** on the **summit of the Bosnian Pyramid of the Sun**, using digital multimeters and calibrated detection equipment. This non-random frequency corresponds directly with the **operating frequency of Nikola Tesla's Wardenclyffe Tower** in New York (constructed between 1901 and 1917), which was also tuned to **28 kHz**. Tesla's tower was intended for wireless energy transmission, trans-Atlantic broadcasting, and telecommunications.

Multiple independent research teams between **2010 and 2011** detected **ultrasound and electromagnetic emissions** ranging from **28–30 kHz** not only at the pyramid summit but also in the underground **Ravne tunnel complex**, suggesting that this frequency is not an isolated anomaly but part of a larger energy phenomenon connected to the pyramid structure.

Marjanović hypothesized that this electromagnetic emission may be evidence of **ancient advanced technologies** utilizing principles analogous to **Tesla's magnifying transmitter**, especially given the virtual height of the pyramid structure (**782 m**) aligning closely with the wire length of Tesla's Extra Coil (**778 m**) and the Tesla transformer's secondary coil (**781 m**) — values crucial to tuning the resonance frequency of the system .

The third panel of the figure shows the **equipment used**, including:

- **Teslameter TM 40, Trifield 100XE**, and **VF-Broadband amplifiers** for field strength and signal detection,
- **OWON VDS1022 oscilloscope** for waveform analysis,
- Experimental Life Meter (Heliognosis LM3) for fine-tuned signal range deviation.

These instruments allowed for precise measurement of **magnetotelluric fields** and **EM resonance effects**, supporting the hypothesis that the pyramid behaves as a **passive energy amplifier or transmitter**, capable of emitting coherent electromagnetic signals — a property that aligns with **ionospheric resonance theory** and **magnetotelluric exploration models** used in geophysical studies.

Source:

Osmanagich, S. (2012). *Pyramids Around the World and Lost Pyramids of Bosnia*. Foundation: Archaeological Park – Bosnian Pyramid of the Sun, Visoko, Bosnia-Herzegovina.

Marjanović, G. (2019). “Zaštita tehničko-tehnološkog naslijeđa Bosne i Hercegovine – Primjer Bosanske doline piramida”, available at:

https://piramidasunca.ba/images/2019/02/za3tehrev_esi.pdf

Šimatović, I. (2009). In: *ICBP Proceedings*, Second International Scientific Conference on the Bosnian Pyramids.

Elec.Eng. Goran Marjanović
(Serbia) independently
confirmed the 28 kHz
frequency



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Figure 34. *Impact of the Total Lunar Eclipse on July 27, 2018, on the Energy Beam at the Bosnian Pyramid of the Sun.*

The total lunar eclipse on July 27, 2018, coincided with a significant enhancement in electromagnetic activity at the Bosnian Pyramid of the Sun. Measurements conducted by Goran Marjanović revealed notable changes in the electric field ("E" field) intensity and frequency characteristics during the eclipse.

Measurement Details:

- **Pre-Eclipse (17:04 h):**
 - Electric Field (E): 10 V/m
 - Magnetic Field at 50 Hz (H50Hz): 5 nT
 - Magnetic Field (H): 0.7 mG
 - Temperature: 22°C
 - Humidity: 55%

- Noise Level: -15 dBrel
- **During Eclipse (21:15 h):**
 - Electric Field (E): 20 V/m
 - Magnetic Field at 50 Hz (H50Hz): 4 nT
 - Magnetic Field (H): 0.6 mG
 - Temperature: 16°C
 - Humidity: 60%
 - Noise Level: 0 dBrel

These measurements indicate that the electric field intensity doubled during the eclipse, rising from 10 V/m to 20 V/m. Additionally, oscilloscope readings showed an increase in signal strength, with voltage amplitudes rising from 886 mV to 1.6 V—a 1.8-fold increase. A pronounced frequency peak at 28.8 kHz was also observed, suggesting a significant alteration in the electromagnetic environment.

The report attributes these changes to the unique celestial alignment during the eclipse, involving the Sun, Venus, Earth, Moon, and Mars. This alignment may have influenced the electromagnetic properties at the pyramid site, enhancing the energy beam's intensity and frequency characteristics.

Source: Goran Marjanović, "Magnetotellerska istraživanja, jul 2018, misija: Mesečeva eklipsa, 'Piramida Sunca', Visoko, BiH" (<https://piramidasunca.ba/images/2018/08/izvestaj-jul2018-ps-meseeklipsa.pdf>)

Let me know if you need further details or assistance with other sections of your article.

Sources

40

You said:

please correct the source, write the title in English (and Bosnian in the brackets)

ChatGPT said:

Absolutely! Here's the revised version of the **Figure 34** description with the corrected and bilingual source citation:

Figure 34. *Impact of the Total Lunar Eclipse on July 27, 2018, on the Energy Beam at the Bosnian Pyramid of the Sun.*

The total lunar eclipse on July 27, 2018, coincided with a significant enhancement in electromagnetic activity at the Bosnian Pyramid of the Sun. Measurements conducted by

researcher Goran Marjanović revealed notable changes in the electric field ("E" field) intensity and frequency characteristics during the eclipse.

Measurement Details:

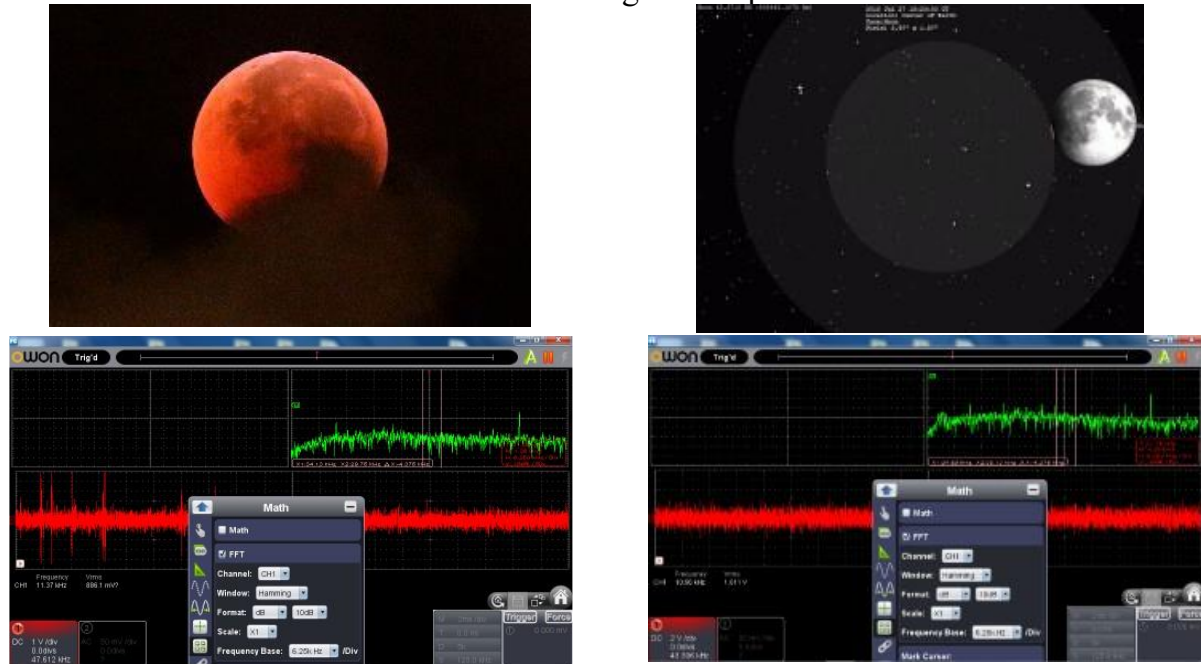
- **Before the Eclipse (17:04 h):**
 - Electric Field (E): 10 V/m
 - Magnetic Field at 50 Hz ($H_{50\text{Hz}}$): 5 nT
 - Magnetic Field (H): 0.7 mG
 - Temperature: 22°C
 - Humidity: 55%
 - Noise Level: -15 dBrel
- **During the Eclipse (21:15 h):**
 - Electric Field (E): 20 V/m
 - Magnetic Field at 50 Hz ($H_{50\text{Hz}}$): 4 nT
 - Magnetic Field (H): 0.6 mG
 - Temperature: 16°C
 - Humidity: 60%
 - Noise Level: 0 dBrel

These results show a doubling of the dynamic electric field during the eclipse, along with an increase in voltage amplitude from 886 mV to 1.6 V (a factor of 1.8). A more pronounced signal was also recorded at the frequency of 28.8 kHz, suggesting a marked energetic shift.

This phenomenon likely correlates with the rare astronomical alignment occurring on the same date—when the Sun, Venus, Earth, Moon, and Mars were positioned in a nearly straight line. This alignment may have amplified electromagnetic interactions at the site, reinforcing the pyramid's role as a focus of energetic anomalies.

Source: Goran Marjanović, “Magnetotelluric Research, July 2018, Mission: Lunar Eclipse, ‘Pyramid of the Sun’, Visoko, Bosnia and Herzegovina” (“Magnetotelurska istraživanja, jul 2018, misija: Mesečeva eklipsa, ‘Piramida Sunca’, Visoko, BiH”), Archaeological Park: Bosnian Pyramid of the Sun Foundation. [PDF Link](#)

Effect of the total Moon Eclipse from July 27, 2018 to the energy beam:
the presence of far greater number of "E" signals and nearly double "stronger" "E"
fields ($886 \text{ mV} / 1.6 \text{ V} = 1.8$) with a more pronounced signal of 28.8 kHz. This is also
supported by the measurement with the equipment which shows that the dynamic
electric field was twice as strong during the Moon's eclipse ("E" = 10 V / m before and
20 V / m during the eclipse



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Figure 35. Regularity in “Blocks” of Ultrasound – Evidence of Artificial Source on the Bosnian Pyramid of the Sun.

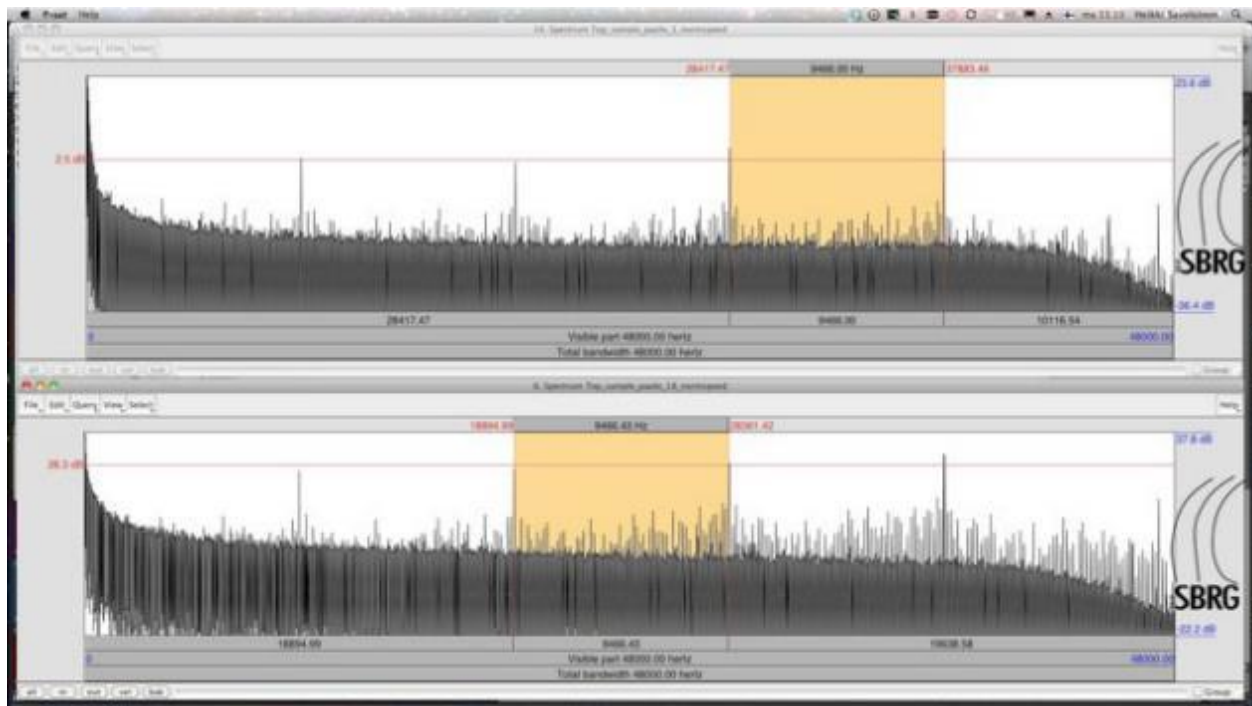
The figure presents a spectral analysis of ultrasound signals recorded in March 2012 at the top of the Bosnian Pyramid of the Sun. Conducted by Professor Paolo Debertolis from the University of Trieste, Italy, this study was part of a broader archaeoacoustic investigation between 2010 and 2012.

Using professional-grade equipment, Professor Debertolis detected a persistent ultrasound signal centered around **28,400 Hz**. More remarkably, the spectral analysis revealed a **regular block structure** within the signal, with components spaced at precise intervals of **9.3333 Hz**. This high degree of regularity and the stable frequency components strongly suggest that the ultrasound emissions are not of natural origin, but are instead generated by an **artificial or engineered source**.

The beam of ultrasound, estimated to have a **radius of 5 to 15 meters**, is consistently detectable only at the **very top of the pyramid**, reinforcing the hypothesis that the Bosnian Pyramid of the Sun functions as a focused emitter of high-frequency energy.

This phenomenon remains one of the key anomalies supporting the notion that the pyramid may be a complex energy machine, rather than a random geological formation.

Source: Professor Paolo Debertolis, University of Trieste – “Archaeoacoustic research on the Bosnian Pyramid Complex,” 2010–2012. See also: “Pyramids Around the World & Lost Pyramids of Bosnia,” p. 302.



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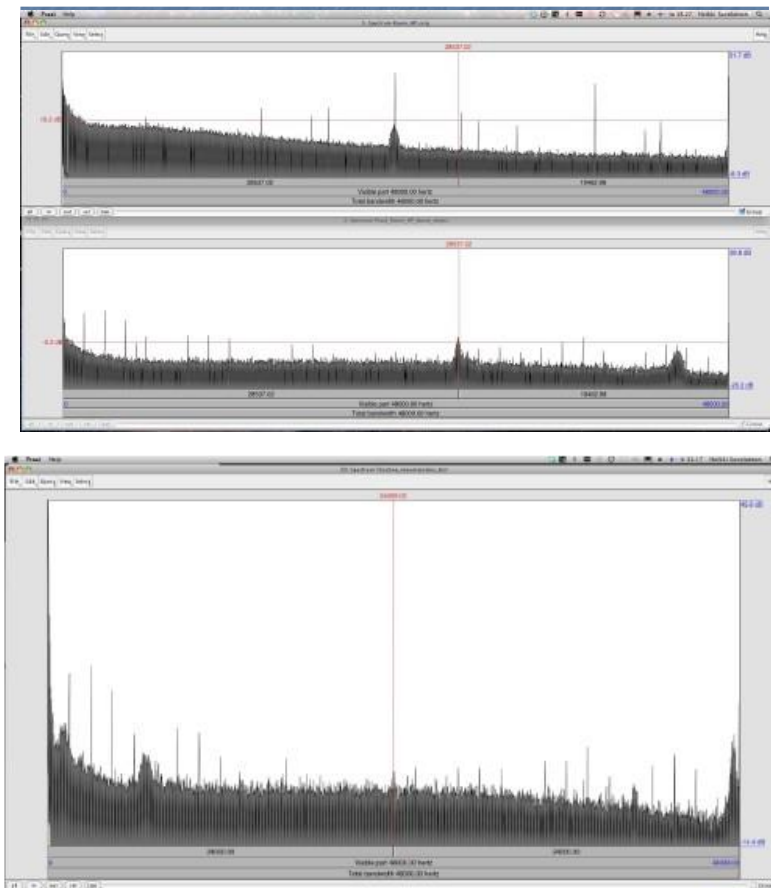
Figure 36. *Comparison of Ultrasound Spectra: Natural Hills vs. the Bosnian Pyramid of the Sun.*

The graphs display spectral analyses of ultrasound recordings from different natural locations. The **top two panels** represent ultrasound measurements taken at **natural hills surrounding Visoko**, Bosnia and Herzegovina. The **bottom panel** shows data from **Monte Pavione**, a prominent pyramid-shaped hill in the Italian Alps.

In all of these natural locations, there is a **notable absence** of the structured "block" patterns—such as the regularly spaced frequency components with **9.3333 Hz intervals**—that characterize the ultrasound emissions from the **Bosnian Pyramid of the Sun** (see Figure 35). Also missing is the persistent **28.4 kHz** frequency that has been measured at the pyramid.

This comparison highlights that **natural formations, regardless of their shape**, do not emit the same organized ultrasonic signal. The distinctive, repeating patterns found only at the Bosnian Pyramid of the Sun suggest the presence of an **artificially generated energy phenomenon**, further supporting hypotheses of technological or intentional design embedded within the pyramid complex.

Source: Professor Paolo Debortolis, University of Trieste, Report on Archaeoacoustic Investigations. In: "Pyramids Around the World & Lost Pyramids of Bosnia," p. 303.



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