



On the possible shock action of the Earth's core

Volodymyr Krasnoholovets

*Department of Theoretical Physics, Institute of Physics, National Academy of Sciences of Ukraine,
46 Nauky St. 03028 Kyiv, Ukraine*

Email: krasnoh@iop.kiev.ua

Abstract: The starting point for this paper is the presence of a large ferromagnetic domain in the center of the Earth's inner solid core, which was theoretically substantiated by C. Teodorescu (2021, 2022) who coined the name 're-entrant ferromagnetism' for this case. This article considers the creation of a powerful shock wave when magnetostriction is triggered in the Earth's ferromagnetic domain, which is a new mechanism for ejecting material from the Earth's surface, in addition to the known volcanic eruptions, the mechanisms of which are activated in the Earth's crust and mantle. The idea of a shock wave originating in the inner solid core is used to explain the tragedy of an ancient, advanced civilization that perished in the Middle East (i.e., a modern transcontinental geopolitical region centered on Western Asia and Egypt in North Africa) about 12 thousand years ago. In addition, this shock wave, having colossal kinetic energy (maximum at the level of 10^{23} Joules), causes not only enormous destruction on the Earth's surface, but is also able to bring lethal doses of high-energy inerton radiation. Thus, the Earth core shock action appears to have been a major geological driver affecting Quaternary/Prehistoric environmental baselines, which created a physical reality that directly affected hominid and/or prehistoric settings.

Keywords: ancient civilization, ejection of mass, ferromagnetic domain, inertons, magnetostriction, shock wave

Introduction

The global Internet, mobile Wi-Fi, YouTube, and available messengers on mobile phones allow researchers to share their findings and discoveries with humanity. In particular, my attention was drawn to researchers of ancient history who visit ancient ruins and show their finds to the whole world. From watching such documentary videos, I, as a physicist interested in fundamental science, have identified the following global features of the ancient world:

- they were excellent at producing durable concrete/geopolymers (this indicates that they had deep knowledge of chemistry);
- they were perfectly able to cut and process natural stone of any strength weighing up to hundreds of tons using precise mechanisms, as if they were cutting and carving wood, and they did this sometimes in cramped conditions and on such a high-altitude platform that it was impossible to deliver any equipment to it (did they not have anti-gravity technology?);
- cities, settlements, and large areas at any altitude above sea level (up to 1600 m) are buried under a continuous cover of 6–20 meter fills of clay and mud

with admixtures of silt, small stones, marble fragments, small minerals, ceramic and pottery shards, and bones, mostly human.

This last point is the subject of the presented article. Such terrible fills cover the territory of the Near East, Tunisia, and Cambodia – these are the places shown in the documentary videos “Forgotten Ruins” of Maksim Gaubets (2021-2026), as well as the Sahara Desert – where did so much sand come from? Almost 9 million square kilometers of sand; the sand layer is on average 10 meters thick, but there are also large embankments 50 meters thick. The few excavations in the Sahara show that under the sand lies agricultural soil; there are river beds, and there are solid stone buildings several stories high. That is, it looks like the Sahara is an area that suffered a terrible catastrophe; fertile lands were covered with sand from above in a short period of time, just like the territory of the Near East was covered with clay and mud mixed with debris. This scale of catastrophe, which generated a layer of sediment 10–20 meters thick, is a globally significant anomaly, and such an event requires an understanding of the geological and environmental mechanism of the end of the Younger Dryas (Sweetman, 2019; Powell, 2022).

When did those disasters happen? In his video Forgotten ruins (Gaubets, 2021-2026), the author indicates a possible date of about 11–12 thousand years

ago, which is essentially prehistoric time (and this coincides with the start date of the Holocene, the era when global glacial melting began 11,7 thousand years ago). In addition, he also shows that fresher fills were placed on top of the first embankments, and that this occurred approximately 2,000 years ago. The fills have become overgrown with vegetation and are now home to modern humans, and people are farming on these fills.

Morphological Anomalies in Classical Stratigraphy

Figures 1–3 below demonstrate the presence of 10–20 m and higher fills, which are essentially a “Regional Chronostratigraphic Marker Bed.” This thick layer physically seals and caps the late Palaeolithic/Epipaleolithic archaeological sites (such as the Natufian or early PPNA horizons in the Levant), explaining the sudden, absolute termination of their tool assemblages and settlements.

Gaubets [1] also noted that in the so-called ancient city of Troy, which is located at an altitude of around 200 m above sea level and is 4.5 km from the sea coast, he found many seashells in the backfills.

So, civilizations died, and in place of the destroyed ones came other, undeveloped ones, and started all over again. Gaubets (2021-2026) notes that he has observed three successive backfillings – the first covered the developed proto-civilization, and the Greeks came in their place. But

the Greeks suffered the catastrophe of the backfilling too. In their place came the Roman civilization, but it also died under the next backfilling.

This is where it would be appropriate to quote Plato (*Timaeus*) who in his dialog devoted to the origin and structure of the universe noted: “And when in turn gods purify the earth by flooding it with waters, then those who live in the mountains – herdsmen and shepherds – are saved, while those who live in the cities near you are swept into the sea by the rivers. But along this place here, neither then nor at any other time does water stream down on the fields from above, but it all tends by nature to come up from below. Hence, through these causes, the things preserved here are said to be the oldest... But it happens that at any given time your lands and those of other people have only just been equipped with writing and all the things that cities need; and after the usual span of years, the heavenly stream comes back again like a plague to sweep your people away, and leaves only the illiterate and uneducated among you, so that you become young, as it were, all over again from the beginning, knowing nothing either of things here or of whatever was in your own land in olden times. ... you remember only one flooding of the earth, whereas many have come to pass before this.”

Consequently, the ancients were aware of catastrophes that from time to time destroyed civilization. But can we then learn how these backfills of mixed clay, mud, and debris shown in Fig. 1–3 were formed?



Fig. 1. a: Carthage, Tunisia, traces of disaster. These wide “towers”, are the remains of unexcavated embankments that once reached a height of 15 m (<https://www.youtube.com/watch?v=qUbqXe-N6o0>); b: Jerash (Jerash), Jordan, partially excavated marble columns (https://www.youtube.com/watch?v=xHksxZ_TqBk&t=330s); c: Sardis, Turkey, a high backfill

(<https://www.youtube.com/watch?v=YuX0yMk6pSI>); d: Sardis, Turkey. These are not mountains; it is all backfill from the very bottom to the top (<https://www.youtube.com/watch?v=zSHfySyTFjl>).

The possibility of collisions between the Earth and space objects cannot be ruled out, as a result of which the Earth's surface became covered with solid stuff. Undoubtedly, all this massive material fell from the sky. For example, the Younger Dryas impact hypothesis

(Sweatman, 2019; Powell, 2022) assumes that at the end of the Last Glacial Period, around 12,900 years ago was the result of some kind of cosmic event, although the majority of researchers believe that it did not happen.



Fig. 2. Anomalous 6-meter sediment backfill obscuring classical street horizons at Laodicea, Turkey (37°50'N, 29°06'E). The altitude of Laodicea is about 1000 m above sea level; the mountains around are far away. There was nowhere to start the mudflow, but it passed here (<https://www.youtube.com/watch?v=152GbhZJows>).

Some researchers sometimes mention a collision with the hypothetical planet Phaethon/Phaeton (Wikipedia; James and van der Slujs, 2016) and also exotic Nibiru. James and Slujs (2016) have examined the myth of Phaeton in detail and noted that the myth appears to be based on some unusual celestial event that was visible in the ancient Near East; Phaeton caused a solar eclipse and devastated the Earth. They derive the origin of the myth from Northern Syria. The stories of ancient people from Asia Minor about Silver (Hurrian), Fire (Hittite) and Erra (Babylonian) contain virtually all the essential motifs of the eventual later Greek version of the myth about Phaeton. These named territories include places shown in Figs. 1–3, i.e., eastern Anatolia, Mesopotamia and Iran.

The events demonstrated in this section happened much earlier than the powerful seismic upheavals that occurred around 2,200 BCE (4.2-kiloyear event). Schaeffer (1948) also argued that areas of the major sites in the Aegean,

Anatolia, the Caucasus, and Iran were levelled by earthquake and the flood, leading to the end of the Early Bronze Age and drought, but did not destroy the community living there.

Kugler (1927) suggested that the same meteor stream (3.4 km in diameter) passed over Ethiopia and the Aegean Sea, producing big fires there and then enormous flood waves in Lake Estonia, creating the Kaali crater field there (now it is dated to about 3,500 BCE). Nevertheless, that event did not bury any civilization.

James and Slujs (2016) have noted that the two possibilities of the original Phaethon being an impactor and a passing comet are not mutually exclusive, and a fireball collision in the Middle East (modern territories from Iran to Syria including Jordan) around 2,200 BCE can explain most of the defining elements of the classical story of Phaethon and its Eastern equivalents.

Tompson III (2017) held research and engineering

positions at the former NASA Electronics Research Centre, the U.S. Department of Transportation, and several defense contractors. His avocational interest for over four decades has been in studying cosmic catastrophism affecting the Earth in ancient times. He has compiled an archive containing about 2,750 articles in which researchers,

including astronauts, have presented evidence that our planet has experienced many more large-scale asteroid collisions than previously thought. Documents about cosmic catastrophes outside the Earth's environment are listed because they may have a bearing on the mechanisms causing catastrophes on Earth.

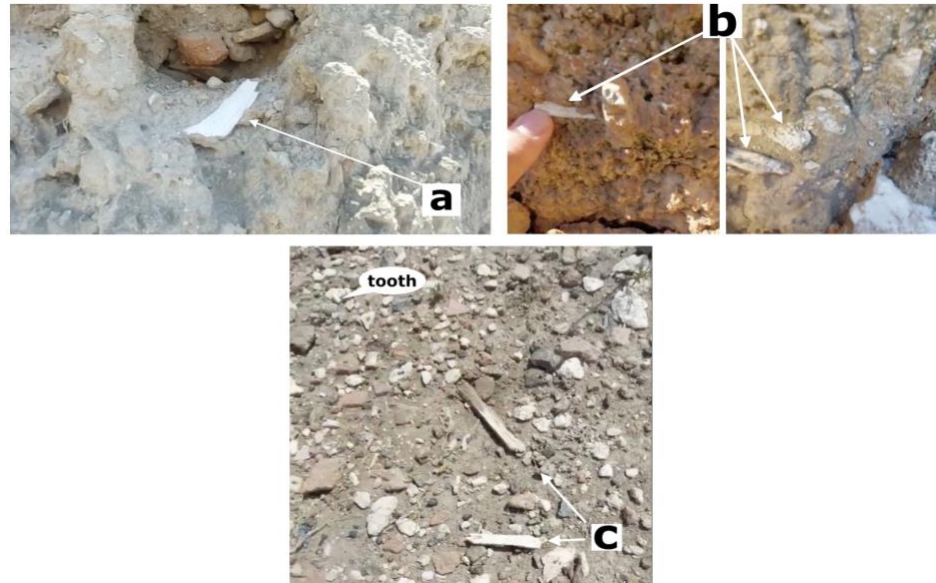


Fig. 3. Fragments of human bones in the backfills, which are almost completely decayed porous structures. Until now, these bone remains have not interested archaeologists in investigating their age and DNA. a: in the backfill wall. Laodicea, Turkey (<https://www.youtube.com/watch?v=152GbhZJows>); b: in the backfill wall. Elayussy Sebaste, Turkey (https://www.youtube.com/shorts/OH_FNbOJ9jo?app=desktop); c: on the surface of the land. Cybira, Turkey (<https://www.youtube.com/shorts/dd7-gDqicGw?app=desktop>).

However, among the articles in Thompson's (2017) archive, we do not come across reports of the catastrophic destructive action of space objects of such force that could significantly distort a large area of the Earth's surface and destroy civilization.

Figures 1–4 reveal a very ancient excavated civilization buried under a thick layer of an unusual material of the seabed and the Earth's surface. Therefore, the catastrophe is most likely not related to the collision of the Earth with a celestial body, but has a purely terrestrial origin.

Gaubets (2021-2026) emphasizes that, apparently, the entire prehistoric highly developed civilization completely perished. The Hellenes, Iranians, and Romans came later to the lands of the lost civilization and to a large extent used and appropriated the excavated buildings and cultural achievements of the lost advanced civilization. But the second civilization also suffered a catastrophe similar to the previous one; in the younger fill that covered the Hellenic and Roman civilizations, modern people often find numerous gold ornaments.

The article is further organized as follows. Section "Materials and Methods" gives an overview of earthquakes and volcanic eruptions, which have been traced back to

prehistoric times, and also mentions their classification. Section "Results" represents the mechanisms of generation of the Earth's magnetic field and highlights one of them, which alone is capable of explaining the physical cause of the large-scale disasters that occurred in prehistoric times. Section "Discussion" provides an analysis of the results. The presented work is largely based on both the author's previous discoveries in fundamental physics (Krasnoholovets and Byckov, 2000; Krasnoholovets and Gandzha, 2012; Krasnoholovets, 2014, 2017; Litinas et al., 2020) and the findings of other researchers focused on studying the mechanism of generation of the Earth's magnetic field (Okonkwo, 2025; Landeau et al., 2022; Aubert et al., 2017; Dumberry et al., 2025; Dormy, 2025; Sens, 2023; Gordienko, 2024; Teodorescu, 2021; Teodorescu and Huşanu, 2022; Lowes and Wilkinson, 1963; Olson, 2011; Verhile et al., 2010; Stoner, 1938), Sens, 2023; Gordienko, 2024; Teodorescu, 2021; Teodorescu and Huşanu, 2022; Lowes and Wilkinson, 1963; Olson, 2011; Verhile et al., 2010; Stoner, 1938), relying on knowledge of the structure and properties of the Earth's core.

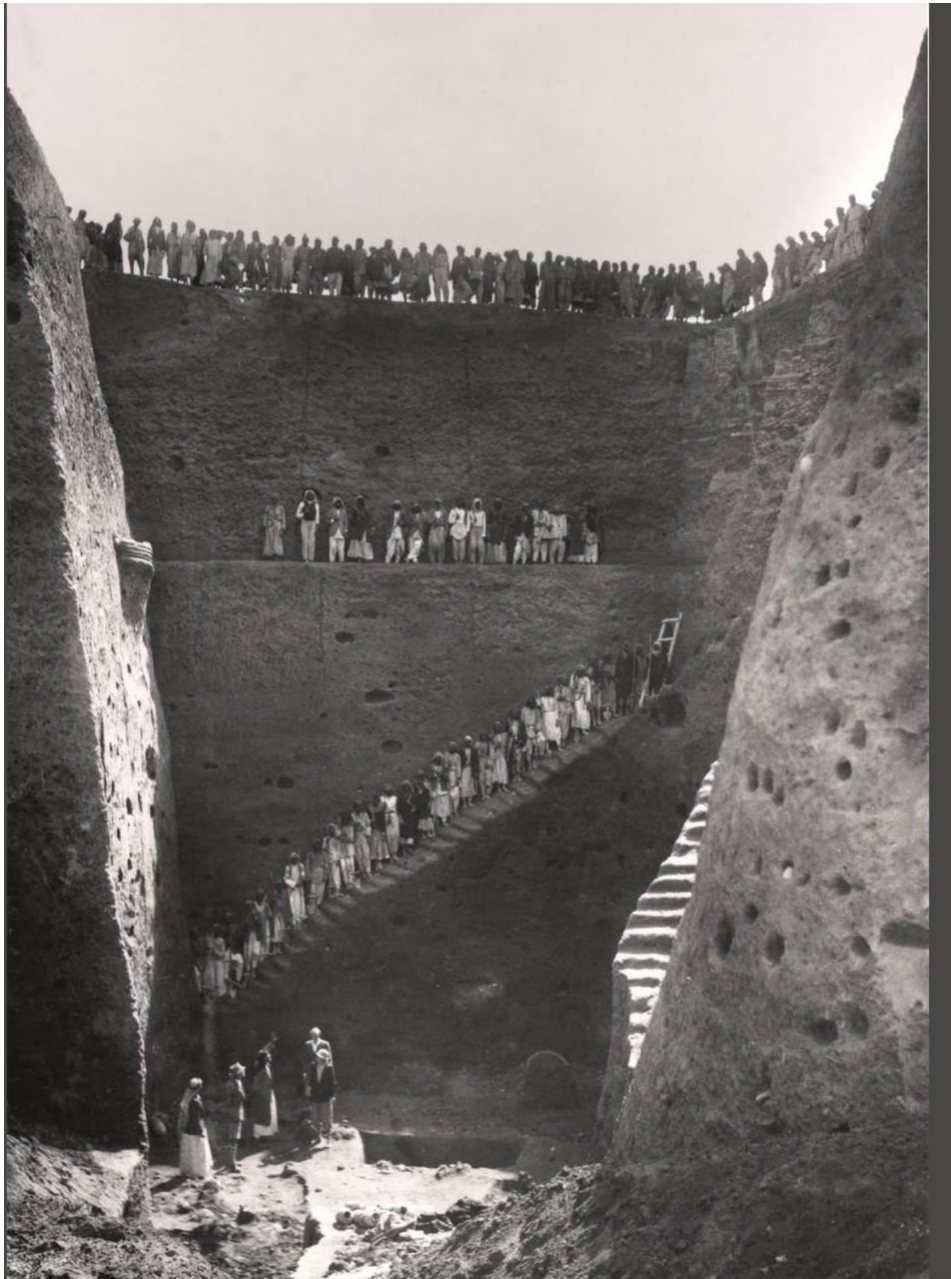


Fig. 4. During excavations at the ancient Sumerian city of Ur in the 1920s, archaeologist Leonard Woolley uncovered a massive layer of clean silt. The deposit was so deep that it had to be completely removed before older structures could be reached below. Beneath this layer, Woolley discovered remains of an earlier culture with different pottery styles, showing a clear break in occupation. This was not the result of seasonal flooding, but a large-scale event that deposited meters of material at once. Woolley himself described it as “a flood of a magnitude unparalleled in the history of the site.” If a catastrophic flood buried Ur this deep 5,000 years ago, how many older layers of history remain undiscovered beneath the ground?.. (This photo was taken from facebook.com by my colleagues many years ago. Courtesy of Heatherly and Timothy Hookers.)

Materials and Methods

Stratigraphic Site Selection and Visual Analysis

To evaluate anomalous macro-sedimentation events across the Near East and Mediterranean basins, a

morphological survey has been conducted across key archaeological complexes, including Carthage (Tunisia), Laodicea, Sardis, Cybira (Turkey), and Persepolis (Iran). Initial site cross-examinations were compiled using high-resolution video documentation and field surveys (Gaubets, 2021-2026). Stratigraphic metrics were assessed based on the vertical depth of unexcavated sterile clay, silt, and matrix backfills overlying established architectural horizons.

Evaluation of Catastrophic Deposition Models

The physical parameters required to deposit 6 and much more meters of continuous, poorly-sorted matrix (mud, clay, marine shell debris, shards of pottery and marble, and fragments of human bones) over terrestrial urban centers up to 1,000 meters above sea level (e.g., Laodicea) have been evaluated against three distinct catastrophic models:

- *Localized Fluvial/Alluvial Mudflows*: Assessing regional topography to determine upstream catchment basins capable of generating macro-scale colluvial flows.
- *Cosmic Impactor Hypotheses*: Evaluating regional databases, including the Thompson (2017) archive for evidence of localized meteoric airbursts or crater fields matching the chronological constraints.
- *Terrestrial Endogenous Dynamics*: Modelling the kinetic energy thresholds (10^{23} Joules) required to lift marine and lithospheric sediment via core-generated magnetostriction shock waves. This is a completely new view of the nature of Earth's cataclysms, which stands apart from volcanic eruptions and earthquakes.

Historical and Mythological Textual Concordance

To cross-reference physical stratigraphic data with ancient historical memory, comparative textual analyses have been conducted of classical and Near Eastern accounts of catastrophism. This framework evaluates the structural parallels between Hellenic accounts (Plato's *Timaeus*, the Phaethon myth (Wikipedia; James and Slujs, 2016) and equivalent Bronze Age scripts from Northern Syria, Anatolia, and Mesopotamia (Hurrian Silver, Hittite Fire, and Babylonian Era traditions) regarding sudden aerial soil and thermal depositions.

Analysis of the Capabilities of Known Destructive Sources

Extreme atmospheric events, such as category-5 hurricanes, are hydrodynamically incapable of fracturing multi-ton megalithic structures or depositing thousands of

cubic kilometers of poorly-sorted sterile sediment over inland elevations.

Could a seismic wave produce effects described in subsection *Morphological Anomalies*? Probably not because its propagation is coming outward from the hypocenters in all directions, like ripples on a pond, and hence the power of such a wave is distributed into a spherical angle of about 2π , which weakens the impact force of the wave front, and such a wave does not carry material with which it can cover huge areas ten meters thick from above. Standard earthquakes lose energy rapidly due to geometric spreading and anelastic attenuation as body waves (*P*-waves and *S*-waves) move through the heterogeneous crust.

Could the physical mechanism of a volcanic eruption lead to the filling of large areas with material that is not present in the eruption, i.e., mud, clay, and small minerals? The list of large volcanic eruptions in the present Holocene time (List of large volcanic eruptions. Wikipedia) occurred in the Near East and South Europe region mentions only one event with a volcanic explosivity index (VEI) of about 7, namely, the Minoan eruption of Thera (Greece), which took place around 1610 BCE (Minoan eruption. Wikipedia). The ejected mass devastated Minoan settlements on the island of Thera and in the surrounding areas of the Aegean and Mediterranean Seas with subsequent earthquakes and tsunamis, and its effects were felt throughout the Mediterranean and the Middle East. The ejection of $\leq 41 \text{ km}^3$ of dense-rock equivalent was one of the largest volcanic events in human history (Karstens et al., 2023), and its profile falls orders of magnitude short of the $1,000 \text{ km}^3$ threshold required for the macro-sedimentary backfills documented in subsection *Morphological Anomalies*. Furthermore, no magmatic VEI 8 events are chronologically supported in the region's recent archaeological strata.

Nevertheless, atypical eruptions are known to exist. In 1980, tragedy struck: Mount St. Helens in the United States captured the world's attention with a powerful volcanic eruption that sent waves over 600 feet (182 meters) high into Spirit Lake and unleashed an avalanche of water, uprooted thousands of trees, and millions of tons of soil, ultimately radically changing the surrounding landscape (Dzurisin et al., 1980). The volcanic explosivity index (VEI) of the 1980 Mount St. Helens event was a VEI 5 (discharging $\sim 1 \text{ km}^3$ of material).

This tragedy points to the possibility of a similar scenario in ancient times, namely, a very strong jolt from beneath the ground, much more powerful than the one that occurred in 1980, tore apart the deposited soil mixed with seawater and threw this huge mass high into the atmosphere. No volcanic eruption, just a jolt. Then this ordinary mass fell, scattering back to the ground, and having high kinetic energy, stirred everything that was on the surface, covering a large area with a thick layer of mud, clay rubble, and other debris, burying all living things.

If such an event is theoretically possible, then there must be a mechanism in the Earth's interior that is capable of tearing a large mass of Earth's matter from its surface. The presence of volcanoes and earthquakes is associated with geophysical phenomena occurring in the mantle and crust of the Earth. These phenomena are quite well studied, and the boundaries of their action are outlined in different regions of the globe; therefore, a possible new mechanism seems to lie outside the known concepts.

Results

In this section, we are to investigate a mechanism capable of severely damaging the Earth's surface.

Core Ferromagnetism and Limits of the Geodynamo Framework

Beneath the silicate mantle lies a multi-phase core composed of a liquid outer layer and a solid, high-density inner core. While minor radioactive decay configurations exist within these layers, the concentration of unstable heavy nuclei is insufficient to induce critical fission or sustained fusion dynamics. Consequently, sudden energy releases must stem from alternative electromagnetic or structural transitions.

Traditional geodynamo models attribute the Earth's magnetic field to convective fluid loops within the outer core (Okonkwo, 2025; Landeau et al., 2022; Aubert et al., 2017; Dumberry et al., 2025; Dormy, 2025). However, standard thermal convection models struggle to maintain a physical basis without a continuous, mechanically forced seed input, as confirmed by rotating liquid metal container experiments (Lowes and Wilkinson, 1953; Olson, 2011; Verhille et al., 2010).

The major scientific community considers the generation of the Earth's magnetic field as a result of the movement of fluid in the outer core, which is called the geodynamo (Okonkwo, 2025; Landeau et al., 2022; Aubert et al., 2017; Dumberry et al., 2025; Dormy, 2025). However, even some researchers working within the framework of the geodynamo concept note that there is no physical justification for such a strange mechanism. The proposed carrier is thermal convection in the Earth's liquid core. It is difficult to determine unequivocally what energy supports heat and mass transfer and how it leads to the specific properties of the magnetic field source. Sens (2023) considered a hypothesis in which the magnetism of the Earth is generated by the motion of the solid central core with charges rather than a current of charged ions and electrons. Gordienko (2022) proposed, as an alternative, to treat convective flows in the global asthenosphere caused by the influence of active processes in the tectonosphere.

Laboratory experiments involving rotating liquid metals have successfully generated magnetic fields

through mechanically forced flows, sometimes with the addition of an external seed magnetic field (Lowest and Wilkinson, 1963; Olson, 2011; Verhille et al., 2010), however, none have yet created a self-sustaining magnetic field from purely thermal convection in a rotating container. But it is convection flows that should contribute to the generation of the Earth's magnetic field in the geodynamo model.

Interesting theoretical and experimental studies of iron under high pressure and temperature were conducted by Cristian Teodorescu and collaborators, which are presented in a concentrated form in papers (Teodorescu, 2021; Teodorescu and Huşanu, 2022). Teodorescu notes that although the temperature in the Earth's core (roughly 5500 K) is close to the melting point of iron under the Earth's pressure of 360 GPa, it is nevertheless possible to reproduce ferromagnetism in the solid core, which he calls 're-entrant ferromagnetism'. This means that traditional Born-Oppenheimer lattice approximations break down due to pronounced thermal lattice vibrations (Teodorescu and Huşanu, 2022). By incorporating these perturbations directly into Fermi-Dirac statistics, the classic Stoner (1938) criterion is modified to define a new stability limit for spin-asymmetry in the absence of thermal effects:

$$g'_0(\varepsilon_F) \cdot \int_0^{\varepsilon_F} g_0(\varepsilon) d\varepsilon \geq g_0^2(\varepsilon_F), \quad (1)$$

where ε_F is the Fermi level, $g_0(\varepsilon)$ is the paramagnetic single-electron density of states (DOS) in the absence of spin splitting, g'_0 is its first derivative with respect to state energy (Teodorescu and Huşanu, 2022). The temperature dependence is introduced using the Fermi-Dirac function, and ultimately this is what allows one to increase the critical Curie temperature for *bcc* Fe phase and *hcp* Co phase to about 5500 K (which is beyond the capabilities of the Stoner (1938) model).

When the derivative of the DOS at the Fermi level is negative ($g'_0 < 0$), the zero-asymmetry state becomes inherently unstable (Teodorescu and Huşanu, 2022): the electronic population shifts toward maximum spin asymmetry, establishing a stable, high-temperature **re-entrant ferromagnetism** within the solid *hcp* iron phase. Incorporating a magnetostriction coefficient of $\alpha \sim 10^{-5}$, Teodorescu and Huşanu evaluated the associated magnetic ordering enthalpy at $\epsilon = 0.16$ meV per iron atom, bounding a core ferromagnetic domain radius R_{domen} between 188 km and 201 km located at the Earth's centre. They also estimated the maximum magnetic induction at the Earth's surface to be $B_{\text{surf}} \approx 65 \mu\text{T}$, which is consistent with the measured value.

Quantitative Energetics of Core Magnetostriction Activity

Structural transitions, chemical diffusion anomalies, or external mechanical stresses from the outer core boundary can destabilize the magnetic ordering enthalpy, inducing a rapid, first-order magneto-structural phase transition. When this occurs, a rapid loss of magnetization triggers sudden volume magnetostriction. After that, the core's ferromagnetic order gradually renovates its magnetization, i.e. the magnetic moment $\mathbf{M}$.

To quantify the potential kinetic output of this core engine, the physical properties of the inner core domain are modelled using a baseline radius $R_{\text{domen}} = 2 \times 10^5$ m. The corresponding domain volume is $V_{\text{domen}} = 4\pi R_{\text{domen}}^3/3 = 3.351 \times 10^{16}$ m³. Utilizing a localized inner-core iron density $\rho_{\text{Fe}} = 1.29 \times 10^4$ kg·m⁻³, the mass of the ferromagnetic domain is $m = \rho_{\text{Fe}} V_{\text{domen}} = 4.323 \times 10^{20}$ kg. Given the molar mass of iron (55.845 g·mol⁻¹) and Avogadro's number ($N_A = 6.022 \times 10^{23}$ mol⁻¹), the total constituent atomic population (N) within the domain volume is

$$N = \frac{m}{\text{molar mass of Fe}} \times N_A = 4.66 \times 10^{45} \text{ atoms.} \quad (2)$$

When a sharp drop in regional magnetization destabilizes this domain, the conversion of magnetic ordering enthalpy ($\epsilon = 0.16$ meV $\approx 2.563 \times 10^{-23}$ J per atom) yields a cumulative instantaneous kinetic energy release

$$E = \epsilon N = 2.563 \times 10^{-23} \text{ J} \times 4.66 \times 10^{45} \\ = 1.194 \times 10^{23} \text{ J.} \quad (3)$$

This immense energy E is mechanically stored via volume magnetostriction, governed by the relation $E \approx \alpha P \delta V$, where $\alpha \approx 10^{-5}$ represents the magnetostriction coefficient, $P \approx 350$ GPa defines the ambient inner-core hydrostatic pressure, and δV indicates the net volumetric distortion of the core domain during the phase transition.

Shock Wave Propagation and Lithospheric Coupling Mechanics

The instantaneous liberation of volume magnetostriction energy $E \sim 10^{23}$ J induces a localized mechanical collapse within the core domain. Because the macroscopic structural shifts associated with magnetic domain boundaries occur on millisecond scales, the rapid phase transition generates a highly directional, longitudinal shock wave. The propagation vector of this wavefront is governed by the structural elongation axes of the *hcp* Fe crystals during spin relaxation, focusing the kinetic energy into a collimated propagation cone that minimizes global spherical attenuation.

As this supersonic longitudinal front approaches the upper lithosphere, it encounters structural discontinuities at major tectonic boundaries – specifically the crustal material transitions dividing low-density continental granite from dense oceanic basaltic plates. Upon breaching these fault matrices (e.g., the Levant margin, Mediterranean coastlines, or the North African continental shelf), the wavefront partitions into coupled geomechanical components: primary P waves ($4.8 - 8$ km·s⁻¹), secondary S shear waves ($3.2 - 4.8$ km·s⁻¹), destructive surface configurations (Rayleigh and Love waves), and global atmospheric Lamb waves.

Ballistic Mass Ejection and Regional Sedimentation Footprints

To evaluate the volume of terrestrial and marine substrate displaced by the arrival of the core shockwave front, the mechanical work required to launch the surface mass against gravitational acceleration must be quantified. Assuming an empirical coupling efficiency (η) wherein a fraction of the total shock energy ($E = 1.194 \times 10^{23}$ J) translates directly into vertical kinetic displacement, the mass (Δm) of the detached lithospheric and marine substance is bounded by the change in gravitational potential energy:

$$E_{\text{shock}} = G \frac{M \Delta m}{R+H} \quad (4)$$

where $G = 6.674 \times 10^{-11}$ m³·kg⁻¹·s⁻² is the gravitational constant, and $M = 5.972 \times 10^{24}$ kg and $R = 6.371 \times 10^6$ m are the mass and mean radius of the Earth, respectively, and H is the height to which the detached material is ejected, which can be neglected. Solving for the accelerated mass yields

$$\Delta m = \frac{E_{\text{shock}} \cdot R}{G \cdot M} \approx 1.6 \times 10^{15} \text{ kg.} \quad (5)$$

Given a mean bulk density $\rho = 1,600$ kg·m⁻³ for a saturated marine matrix consisting of water, benthic silt, and alluvial clay, the total volume of the ejected material is derived as

$$V = \Delta m / \rho = 10^{12} \text{ m}^3 = 1,000 \text{ km}^3. \quad (6)$$

Structurally, this volume corresponds to an initial submarine or coastal excavation trench measuring approximately 200 m in depth across a localized 50 km $\times$ 100 km pull-apart zone. Following sub-orbital atmospheric trajectory arcs, this immense mass of wet

slurry is driven laterally by coupled surface and Lamb atmospheric waves before collapsing back to the surface.

The resulting aerial deposition blankets a macro-regional footprint

$$S = (500 \text{ km}) \times (134 \text{ km}) \quad (7)$$

mapping a dense, non-uniform stratigraphical layer averaging 15 metres in thickness. The high kinetic energy of this descending matrix would catastrophically shear, crush, and hermetically seal any existing Epi-Paleolithic or early Neolithic settlements within the distribution zone, providing a mechanical explanation for the sudden architectural and cultural terminations documented across the Near East.

Discussion

The physical framework proposed by Teodorescu (2021), and Teodorescu and Huşanu (2022) provides a natural mechanism wherein a sudden magnetostrictive collapse within the inner solid core's ferromagnetic domain generates a collimated shock wave. However, to account for the recurrent macro-catastrophes observed throughout human prehistory and history, this core engine must be modelled as a dynamical, non-linear system.

While a permanent ferromagnetic phase dominates the inner solid core, fluid motion within the outer liquid core generates a transient magnetic field via traditional geodynamo mechanics (Landeau et al., 2022; Aubert et al., 2017; Dumberry et al., 2025; Dormy, 2025). Probably, the primordial magnetization $\mathbf{M}$ of the solid inner core acts as a continuous seed field, initiating and stabilising the outer core's convective magnetic vector $\mathbf{M}_{\text{out}}$. Consequently, a complex, coupled $\mathbf{M} - \mathbf{M}_{\text{out}}$ oscillatory regime can become established.



Fig. 5. Paris, France (1973): restoration of the original appearance of the Les Halles building. The city of Shelbyville, Illinois, USA; the city was founded in 1827, which means that the mudflow of unknown origin occurred much later (screenshot from video (Burau of Ruins, b, 2226)). Kyiv, Podil district, Ukraine. Kazan', Muscovy.

Under specific thermodynamic thresholds, this coupling can trigger a cascading series of successive magnetostrictive events (5, 10, 20, ...) within the inner domain. Rather than a singular isolated event, the core can discharge a rapid succession of shock waves along a shared anisotropic axis over brief temporal windows (minutes to hours). This multi-shock sequence effectively amplifies the cumulative kinetic energy, expanding the regional deposition footprint (S) by orders of magnitude. Depending on the initial core-alignment angles, these events can blanket massive continental expanses, providing a physical explanation for sudden regional desertification sequences, such as those that formed the modern Sahara Desert or the arid basins of the Near East.

The limits of conventional uniformitarian volcanic models become apparent when analyzing historical multi-meter sedimentary anomalies. For example, the severe climatic anomalies of the “Year Without a Summer” (1816–1819) are classically attributed to the April 1815 eruption of Mount Tambora in Indonesia (VEI 7, discharging about 41 km^3 of dense-rock equivalent) (List of volcanic eruptions. Wikipedia; Minoan eruption. Wikipedia; Stothers, 1984). While stratospheric transport via the Brewer-Dobson circulation distributes light volcanic aerosols globally, it cannot mechanically account for the massive, localized clay backfills and non-uniform sediment accumulations documented across Western Europe, the

Eurasian plain, and the United States during this exact window.

The mass balance of regional clay deposits suggests that these sedimentary blankets did not descend from long-lived stratospheric sulphate aerosols, but were instead injected directly into the troposphere (8 – 15 km altitude) via localized, low-altitude terrestrial ejections. This strongly implies that sub-colloquial regional flooding and clay backfills – such as those observed in early 19th-century municipal foundations – stem from lower-magnitude, core-generated magnetostriction shock waves breaching vulnerable continental interior faults.

Physical footprints of these endogenous kinetic pulses remain visible across the modern landscape. Independent historical and geological surveys indicate that anomalous, rapid soil burial events actively impacted urban architectures globally well into the mid-19th century, Fig. 6 (Kungurov, 2017; Bureau of Ruins, a & b, 2026; Quantum of Supermind, 2024).

These localized, high-energy mud ejections correlate spatially with expansive networks of anomalous round and oval lake formations stretching from the Tver region across the Ural Mountains and into the Tyumen depression (Fig. 6). The loose, poorly-sorted soil matrices surrounding these circular depressions lack typical glacial or standard fluvial features. Instead, they closely resemble the geomorphology of explosive crater



Fig. 6. Top row: Round lakes northwest and northeast of Moscow. Bottom row, left: the Lena River; right: oval-shaped depressions, the USA (screenshot from video (GeologyHub, 2024)).

This mechanical framework is highly consistent with the formation of kimberlite pipes – such as those found within the Lena River basin in Yakutia – where deep-seated mantle material was violently forced to the surface from depths of 150 – 200 km (Fig. 6). Because the formation of diamonds within these pipes demands ultra-high pressure configurations that exceed typical tectonic or volcanic stresses, they stand as physical evidence of hyper-accelerated, vertical kinetic shock fronts propagated directly from the Earth's core.

Stratigraphic and field investigations conducted by an international team – including Dr. Dallas Abbott and D. Breger (Lamont-Doherty Earth Observatory), Dr. P. McCafferty, and Prof. V. Guzyakov (Siberian Branch of the Russian Academy of Sciences) – revealed an internal basin morphology incompatible with simple karst collapse (Karabelnikov, 2013). The lake floor exhibits crushed, highly shocked lithic materials displaying horn-like conchoidal fractures, indicating the passage of a high-velocity mechanical shock front. While the presence of microspheres has been used to support a stony meteorite impact scenario that could have happened about 2,000 years ago, the total absence of macroscale meteoritic fragments points toward an endogenous shock vector originating from the deep lithosphere.

Similar non-karst deep basins emerge globally, notably Kingsley Lake in Florida, USA. This morpho-stratigraphic footprint matches thousands of shallow, oval depressions clustered across the Atlantic Coastal Plain, universally designated as the Carolina Bays (spanning North and South Carolina, and Georgia; see Fig. 6). Gravity and magnetic anomalies across these bays reveal older, deep-seated circular subterranean fractures beneath the surficial sand rims.

Rather than invoking highly speculative, uniformitarian cosmic-shower grids, these geometries can be modelled as surface venting fields where core-propagated acoustic-gravitational solitons breach fluid-saturated sediment layers. This expansive out-venting mechanism accounts for the uniform alignment of the rims and maps directly to equivalent high-density subterranean shock-vent structures, such as the network of over 60,000 limestone cenotes cross-cutting the Yucatán Peninsula.

Macroscopic evidence for an endogenous, radiative shock mechanism is preserved in the unique stratigraphy of historic urban ruins and coastal marker beds. In locations such as Bray, Ireland, massive, poorly-sorted sediment backfills composed of intermixed clay and un-eroded marine clasts have physically buried classical architectural ground floors, transforming them into sub-surface basements.

Mechanically, these events correlate with the extensive fields of unique, surface-vitrified impactite pebbles distributed within and around 19th-century geomorphic

crater fields [35, 36]. Independent attempts to replicate these structures via conventional thermal conduction, furnace baking, or localized combustible heat treatments have consistently failed. The pebbles exhibit a pristine, hyper-localized glassy surface layer measuring precisely $\delta \approx 0.2$ mm in thickness, while the inner lithic core remains entirely unaltered.

Thermodynamically, a purely mechanical kinetic collision or hydrothermal mudflow cannot restrict a high-temperature $T \approx 1,600$ °C and high-pressure ($P \geq 2$ GPa) phase change exclusively to a 0.2 mm boundary layer across thousands of independent clasts simultaneously. Standard kinetic impacts release energy via bulk thermal dissipation and mechanical vaporization.

The worldwide distribution of surface vitrification anomalies and compact crater grids introduces profound thermodynamic contradictions for uniformitarian impact geology. The Libyan Desert craterless glass sheets cover thousands of square kilometers of the Sahara (Koeberl, 2007). They demand formation temperatures exceeding $T \approx 1,700$ °C. Yet, they lack any associated cosmic impact craters or meteoric mass distribution beds.

Unexplained high-energy signatures recur throughout human history, including the Iron Age vitrified forts of Scotland (e.g., (Craig Phadrig)) and the Bronze Age structural ruins of Arkaim (Bureau of Ruins, a & b, 2026) in the southern Urals. These stone walls exhibit localized, non-uniform point-melting and spot-sintering, which cannot be replicated by conventional tribal warfare fires, wood-fueled kiln temperatures, or localized lightning strikes.

In China, extensive fields of tektites and impact glass debris exhibit peak structural preservation and soil stratigraphy limits that anchor their deposition to the late 18th and early 19th centuries, directly challenging millions-of-years impact models.

All this fits into a single scheme: {Core Magnetostriction: 10^{23} J} $\Rightarrow$ {Wavefront Fragmentation} $\Rightarrow$ {Localized Pulses: 10^{16} J (=10 megaton of TNT)} $\Rightarrow$ {Reverse-Side Spallation}.

To account for these compact, non-random crater networks (Fig. 6), alternative historical researchers frequently invoke the hypothesis of a global, prehistoric nuclear war utilizing 5 to 10 megaton trinitrotoluene (TNT) equivalent detonations. One ton of TNT releases exactly 4.184×10^9 J of energy. A 10-megaton detonation translates to a localized kinetic and radiative output of 4.184×10^{16} J.

While an anthropogenic nuclear model satisfies the basic localized thermodynamic melting thresholds, it fails to explain the global geological orchestration, the deep-seated gravitational anomalies under the basins, or the macro-scale sediment displacement ($1,000 \text{ km}^3$) documented in Introduction.

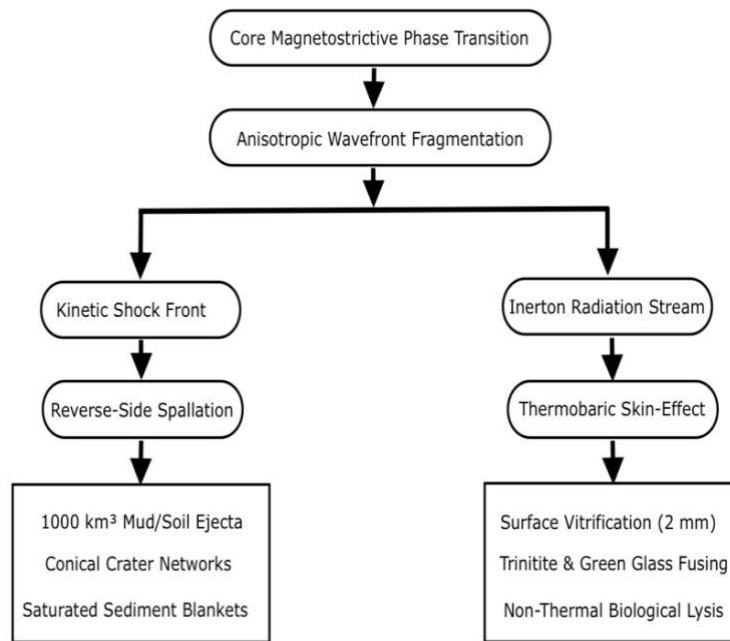
The endogenous core engine resolved in Eq. (3) yields a cumulative potential of $E = 1.194 \times 10^{23}$ J – a threshold exactly seven orders of magnitude higher than an isolated 10-megaton blast. As this colossal wavefront propagates outward through the anisotropic *hcp* iron lattice and mantle boundary faults, the primary wave collapses and undergoes geometric fragmentation. The main energy front breaks apart into a coherent cluster of dense, localized shock channels, each carrying an individual kinetic budget on the order of 10^{16} J.

When these high-energy seismic-acoustic solitons strike the rigid lithospheric surface *from the rear side*, they trigger a classic mechanical phenomenon known as reverse-side spallation. When a compressive shock wave hits a free boundary, it reflects back as an intense tensile wave. If the tensile stress exceeds the structural yield strength of the rock or soil matrix, the material fractures instantly. The surface layer is violently torn out and ejected forward in a conical trajectory.

The incorporation of the submicroscopic inerton field framework (Krasnoholovets, 2014; 2017) resolves a critical explanatory gap that has forced alternative

historians to rely on anthropic nuclear strike models and mainstream geologists to invoke unproven meteoric events. Mechanically, both nuclear detonations and core-generated magnetostrictive ejections utilize identical underlying submicroscopic energy carriers: dense, high-energy streams of mass-carrying inertons.

When a fragmented core shock wavefront ($E_{\text{local}} \sim 10^{16}$ J) breaches the surface, it functions as a highly collimated mass-radiation beam. This intense bombardment induces a rapid submicroscopic compression of surface electron-nuclear clouds within the target lithosphere. This quantum phase coupling generates a catastrophic, localized thermobaric skin-effect – yielding melting temperatures 1,500 – 2,000 °C and gigapascal pressures – while simultaneously releasing destructive ionizing field radiation. This dual mechanism accounts for the uniform patterns of destruction documented across highly disparate geographical and chronological boundaries:



Let us mention some important results examined by different research groups.

At the high-altitude 4,000 m Andean plateau of Puma Punku, Bolivia, the structural ruins display a distinctive vertical kinetic disruption (Project Chronos, 2026). Multiton andesite megaliths were violently lifted, sheared, and overturned in mid-air, with a 400-ton monolith left displaced at a 45-degree angle. Rather than indicating an aerial kinetic blast, the presence of swollen, structurally ruptured soil beneath the blocks – combined with highly localized, short-term thermobaric surface vitrification –

points directly to a sub-surface mechanical jolt. The upward propagation of the core-generated shock wave induced a massive, backside spallation front directly beneath the complex.

Multidisciplinary stratigraphical analyses of the Dead Sea settlement of Tall el-Hammam (~3,700 BP) reveal an instantaneous 2,000 °C destruction layer containing molten ceramics, diamond-like carbon, and melted noble metals (Bunch et al., 2021). While standard models invoke a cosmic airburst, this hypothesis fails to account for a critical geomorphological feature: a continuous,

centimeters-thick layer of salt blanketing 200 km² footprint around the site. The endogenous core shock wave model resolves this paradox. A highly collimated energy channel from the inner core breached the hyper-saline Dead Sea basin from beneath, instantly vaporizing and ejecting thousands of cubic meters of brine and benthic mud into the lower atmosphere. The resulting regional tropospheric vortex deposited the thick saline layer alongside an explicit secondary energy beam that struck the urban center, inducing instantaneous material sintering and elemental transmutation.

The physical signature of a core-generated inerton flux is chemically preserved within the archaeological strata of Mesopotamia. At Eridu, Iraq, excavations within a 12,000-year-old horizon uncovered green, glassy trinitite fragments at a depth of 10 meters (FACTS HUB, 2026). Quantitative cross-examinations conducted by geophysicist John Olson demonstrate that the vitreous chemical composition of these Eridu trinitite fractions is identical across seven diagnostic elemental components to the 3,700 year-old melted fractions retrieved from Tall el-Hammam. The fact that two distinct geographical centers separated by 1,200 km and a chronological expanse of 8,000 years exhibit identical vitrification signatures confirms a recurrent, non-anthropogenic planetary engine. Furthermore, cuneiform accounts from the city of Ur (2,000 BCE) describe the physiological footprint of this event: an invisible, non-thermal “evil wind” that caused citizens to collapse in the streets without external wounds, leaving bodies that resisted standard organic decomposition and assumed a clay-like rigidity while corrupting regional canal waters. This represents a classic, highly documented clinical manifestation of acute, high-energy mass radiation exposure induced by severe, non-classical inerton flux density.

This core-breakthrough dynamic explains the structural layout documented by Davenport and Vincenti (1979) at the ancient Indus Valley complex of Mohenjo-Daro (~3,750 BP). Their field mapping reveals a highly defined, 50-meter-wide central epicentral zone where all brickwork was completely crystallized, vitrified, or melted at temperatures exceeding 1,600 – 2,000 °C, with structural damage decreasing systematically toward the periphery along three concentric shock wave vectors. The unilateral melting patterns observed on the inward-facing surfaces of building blocks up to 60 meters from the epicenter demonstrate a directed, bottom-up radiative energy flash. The complete

absence of human skeletal remains within this central zone indicates instantaneous material vaporization. This thermal signature matches the descriptive accounts preserved within ancient Sanskrit epics detailing the discharge of an intense, smokeless thermal weapon that induced rapid atmospheric pressure drops, localized cyclonic reversals, and boiling aquatic environments. The systemic marginalization of these rigorous Italian and international mineralogical analyses by uniformitarian academia has obscured the true cyclical nature of these geodisasters.

The macro-scale geological consequences of these core-generated pulses are captured in the extensive datasets compiled by Immanuel Velikovsky (1955), who documented massive, global bone-cave complexes where remains are packed into deep rock fissures. These chaotic, high-density bone breccias – coupled with erratic boulder displacements and instantaneous coal formation tracks – indicate sudden mass transport and burial by immense, high-velocity mud matrices falling from sub-orbital trajectories.

The rapid, localized nature of this energy deposition is further validated by contemporary discoveries. For instance, during a 1999 infrastructure project in Andhra Pradesh, India, engineers exposed a continuous underground layer of completely molten vitrified quartz covering an area of 50 m² and 30-40 cm thick at a depth of 2 meters. The formation of pure fused quartz demands an instantaneous thermal input of 1,600 °C directly within the shallow alluvial soil matrix, confirming the passage of a high-density, upward-directed endogenous inerton radiation channel.

The convergence of historical data establishes that macro-sedimentary backfilling and high-energy inerton field releases did not cease in prehistory. Instead, they recurred well into the historical era, with a major planetary activation threshold occurring between 1815 and the late 1860s (Kungurov, 2017; Bureau of Ruins, a & b, 2026; Quantum of Supermind, 2024). Stratigraphic anomalies across global urban centers indicate that municipal foundations built in the early 19th century were retroactively buried under meters of sterile clay, silt, and mud matrix (Fig. 5). In cities like London and Tomsk, original ground-floor windows and entryways were hermetically sealed by sudden regional deposition sequences, forcing their conversion into modern semi-basements.



Fig. 7. Aspendos, Turkey. This screenshot shows how a stone slab experienced plastic deformation due to an unknown mechanism (<https://www.youtube.com/watch?v=ocVplh2dvqM>).

This mid-19th-century activation provides a concrete physical explanation for the sudden geopolitical collapse and erasure of the Tartary civilization across the Siberian plain before its systematic annexation by the Muscovite administration. The primary urban centers of Tartary did not fall to standard military campaigns. They were depopulated by localized, tropospheric mud-ejecta blankets accompanied by highly lethal, invisible doses of high-energy inerton field radiation. The destruction of regional infrastructure allowed subsequent waves of uneducated commoners to reinhabit the pristine, abandoned high-quality stone architectures starting in the 1860s, while surviving structural documentation was systematically destroyed by imperial censors to obscure the cyclical timeline of the disaster.

Standard structural geology assumes that crystalline rock matrices can only undergo ductile, plastic deformation under millions of years of lithostatic pressure or high-ancient anomalies, temperature magmatic melting. However, field surveys of ancient architectural complexes reveal anomalous, fluid-like warping of structural stone slabs that completely lack brittle micro-fractures. A primary example is preserved within the ruins of Aspendos, Turkey (Fig. 7), where heavy, load-bearing limestone and marble blocks display smooth, sinusoidal plastic bending load-bearing limestone and marble blocks display smooth, sinusoidal plastic bending.

This non-thermal crystalline warping cannot be replicated via traditional mechanical stress. Within the

framework of submicroscopic mechanics formulated on a real space tessellattice with a Planck-scale cell size (10^{-35} m), the space between overlapping atomic real wave functions (ψ -functions) in a condensed medium is densely saturated with the atoms' inertons [14]. When localized magnetostriction occurs along subterranean plate interfaces or core boundaries, a massive volume contraction (δV) fires a highly dense flux of inertons outward along spiral karst conduits (Krasnolovets, 2017; Krasnolovets and Gandzha, 2012).

Because inertons function as the physical sub-structural carriers of the field of inertia and particle mass waves, this high-density stream directly modulates the local inertial and gravitational tensor properties of the material it passes through (Krasnolovets, 2017). On a macroscopic scale, this mass-radiation flux acts as an ultra-potent field catalyst. It accelerates standard submicroscopic mass-transfer reactions by orders of magnitude (Litinas et al., 2020), temporarily loosening the rigid Coulomb barriers of the stone lattice into a hyper-plastic, clay-like state without requiring macroscopic magmatic temperatures (Krasnolovets and Gandzha, 2012; Krasnolovets, 2017). This explains the transient, non-destructive deformation of the Aspendos steps, just as lower-intensity subterranean inerton leaks induce localized cellular swelling in the basal stems of agricultural fields during the generation of complex crop circles; such a behavior of plant rhizomes was demonstrated by Levensgood (1994).



Fig. 8. Ice taken from a saucer placed under a corresponding pyramid overnight. All three saucers are identical. a – ice removed from under the first pyramid (unordered); b – ice removed from under the second pyramid (North-South orientation), and here traces of stalagmites are visible; c – ice removed from under the third pyramid (East-West orientation), and here it is clearly visible that two stalagmites grew overnight.

The behavior of these submicroscopic massotension fields can be measured and replicated using macro-scale geometric resonators. Because the Earth's orbital and rotational trajectories generate continuous, background inerton waves along a primary East-West vector, a geometric pyramid oriented precisely to the cardinal points functions as a passive resonant cavity for the massotension, or inerton field (Krasnoholovets, 2014; 2017).

The physical reality of this coupling was demonstrated in February 2023 during the catastrophic Turkey-Syria lithospheric ruptures. While conventional electromagnetic and standard seismic monitoring arrays failed to register pre-seismic gravitational variations, small, 30 cm plywood model pyramids deployed in Kyiv, Ukraine, successfully captured the anomalous core-flux propagation (Fig. 8). Saucers of water allowed to freeze overnight beneath an East-West resonant pyramid during the active earthquake sequence displayed highly pronounced, vertical acoustic-gravitational stalagmites (Fig. 8c). This morphology indicates that the local molecular bonds of the water were subjected to a strong, upward-directed vertical kinetic draw field as it underwent its phase change. Following the stabilization of the Turkey-Syria fault junctions, the stalagmite formations ceased entirely, proving that earthquakes are preceded and accompanied by deep-seated, high-flux inerton waves that can be measured using proper massotension instrumentation [13, 14].

Conclusion

This paper presents a novel theoretical framework to explain the catastrophic disruption of an advanced prehistoric civilization roughly 12 millennia ago. In the course of that civilization, not only stone structures and quarries have survived to the present, but also Vedic culture, according to which people's behavior is connected to Space, a subtle matter capable of influencing and controlling the behavior of the human community (the so-called autopilot mode). The current civilization broke the connection with Space, calling it a void (vacuum), and its behavior resembles a manual control mode.

The integration of Teodorescu's re-entrant ferromagnetism equations confirms the presence of a stable, 200 km radius permanent magnetic domain within the Earth's solid inner core, establishing a highly dynamic $\mathbf{M} - \mathbf{M}_{\text{out}}$ oscillatory relationship with the liquid geodynamo.

Sudden, first-order magneto-structural phase transitions within this central domain yield a cumulative volume magnetostriction energy release of $E \approx 1.194 \times 10^{23}$ J, providing a self-consistent physical engine capable of launching over 1,000 km³ of surface and marine sediment into sub-orbital trajectories via reverse-side spallation. This endogenous, fragmented shockwave mechanism perfectly explains the simultaneous occurrence of macroregional mud-sediment blankets, circular sagamorphic crater networks, and 0.2 mm skin-effect impactite vitrifications across disparate sites (Puma Punku, Tall elHammam,

Mohenjo-Daro, Svetloyar, and Siberia) without requiring unproven meteoric impacts or speculative ancient nuclear conflicts.

The empirical evidence tracking these core-generated inerton pulses down to the mid-19th century demands an immediate reassessment of uniformitarian chronostratigraphy. Mainstream geophysics and archaeology must implement non-classical inerton-gravitational tension sensors to map the ongoing, cyclical phase transitions of the internal planetary core engine.

Acknowledgments

Ethics

This article is original and contains unpublished material. The author declares that there are no ethical issues and no conflicts of interest that may arise after the publication of this manuscript.

References

- 4.2-kiloyear event. Wikipedia.
https://en.wikipedia.org/wiki/4.2-kiloyear_event
- Aubert A, T. Gastine, and A. Fournie, 2017. Spherical convective dynamos in the rapidly rotating asymptotic regime. *Journal of Fluid Mechanics* 813: 558 – 593.
- Bureau of Ruins, a, 2026. It was war, not the climate: Byron's Horrible Testimony
<https://www.youtube.com/watch?v=0U4GZr9Flmc>; in Muscovite.
- Bureau of Ruins, b, 2026. This is not a meteorite! Where did these glass fields in the middle of Muscovy come from?
<https://www.youtube.com/watch?v=Jnn0b90amrk>; in Muscovite.
- Bunch T.E., et al., 2021. A Tunguska sized airburst destroyed Tall el-Hammam a Middle Bronze Age city in the Jordan Valley near the Dead Sea, *Scientific Reports* 11: article 18632.
- Craig Phadrig. Wikipedia.
https://en.wikipedia.org/wiki/Craig_Phadrig
- Davenport, D., and E. Vincenti, 1979. *2000 a.C.: distruzione atomica* (2000 BC: Atomic Destruction) Milan, SugarCo.

The author is grateful to C. M. Teodorescu for a detailed explanation of his concept of re-entrant ferromagnetism and to M. Gaubets for permission to use his documentary in this work.

Funding Information

The author declares that no funds, grants, or other support were received during the preparation of this article.

- Dormy E., 2025. Rapidly rotating magnetohydrodynamics and the geodynamo, *Annual Reviews in Fluid Mechanics* 57: 335–362.
- Dumberry, M, M. Gerick, and N. Gillet, 2025. Millennial axially symmetric Magneto-Coriolis modes in Earth's fluid core, *Geophysics Journal International* 240, No. 3: 276–290.
- Dzurisin, D., C.L. Driedger, and L.M. Faust, 2013. Mount St. Helen 1980, to now – what's going on? *U.S. Geological Survey Fact Sheet 2013–3014* 1.1, 6 p. and videos (available at <https://pubs.usgs.gov/fs/2013/3014/>).
- FACTS HUB, a, 2026 Archaeologists Discovered Anunnaki Weapons That Destroyed the World
<https://www.youtube.com/watch?app=desktop&v=VArATXDejfo>.
- FACTS HUB, b, 2026. 10 Ancient Technologies That Shock Scientists!
<https://www.youtube.com/watch?v=WtdQozn2s6A>.
- Gaubets, M., 2021–2026. Forgotten Ruins.
https://www.youtube.com/@antik_ruins; in Muscovite.
- GeologyHub, 2024. The Geologic Mystery of the Carolina Bays; The 500,000 Oval Shaped Depressions
<https://www.youtube.com/watch?v=M4NwxfMU64E>.
- Gordienko, V. V., 2024. On the nature of the earth's magnetic field. *Geofizichnyi Zhurnal* 46, No. 6: 136–145.
- James, P., and M. A. van der Slujs, 2016. The fall of Phaethon in context: A new synthesis of mythological, archaeological and geological evidence. *Journal of Ancient Near Eastern Religions* 16, No. 1: 67–94.
- Karabelnikov, D., 2013. Lake Svetloyar – a meteorite crater, MKRU
<https://nn.mk.ru/articles/2013/06/03/863538-ozero-svetloyar-meteoritnyiy-krater.html> ; in Muscovite.



- Karstens, J., J. Prein, G.J. Crutchley, and S. Kuterof, 2023. Revised Minoan eruption volume as benchmark for large volcanic eruptions. *Nature Communications* 14, No. 1, article 2497.
- Koeberl, C., 2007. Meteorites, Comets, and Planets. In: *Treatise on Geochemistry* Vol. 1, HD Holland, K.K. Turekian (eds.), pp. 1 – 52. Oxford, Elsevier/Pergamon, Oxford.
- Krasnolovets, V., and V. Byckov, 2000. Real inertons against hypothetical gravitons. Experimental proof of the existence of inertons. *Indian Journal of Theoretical Physics* 48, No. 1: 1–23; [arXiv:quant-ph/0007027](https://arxiv.org/abs/quant-ph/0007027).
- Krasnolovets V, Gandzha I. 2012. A submicroscopic description of the formation of crop circles. *Chaotic Modeling and Simulation* 2: 323–335.
- Krasnolovets, V. 2014. Submicroscopic viewpoint on gravitation, cosmology, dark energy and dark matter, and the first data of inerton astronomy. In: *Recent Developments in Dark Matter Research*, N. Kinjo, and A. Nakajima (eds.), pp. 1–61. New York, Nova Science Publishers.
- Krasnolovets, V. 2017. *Structure of Space and the Submicroscopic Deterministic Concept of Physics*. Toronto, New York, New Delhi, Apple Academic Press/CRC Press.
- Kugler, F.X., 1927. *Sibyllinischer Sternkampf und Phaëthon in naturgeschichtlicher Beleuchtung* Münster, Aschendorffsche Verlagsbuchhandlung.
- Kungurov, A., 2017. 19th-century apocalypse: The great flood and the mechanisms of its formation <https://www.youtube.com/watch?v=NGA2yWuszH4>; in Muscovite.
- List of large volcanic eruptions. Wikipedia. https://en.wikipedia.org/wiki/List_of_large_volcanic_eruptions.
- Litinas, A, et al., 2020. Biodiesel production from a high FFA feedstock with a chemical multifunctional process intensifier. *Biofuel Research Journal* 7, No. 2: 1143–1177.
- Landeau, M., A. Fournier, H.-C. Nataf, D. Cébron, and N. Schaeffer, 2022. Sustaining Earth's magnetic dynamo. *Nature Reviews Earth & Environment*: 255–269; also HAL: hal.science/hal-03623383.
- Levengood, W.C., 1994. Anatomical anomalies in crop formation plants. *Physiologia Plantarum* 92: 356–363.
- Lowes, F.G., and I. Wilkinson, 1963. Geomagnetic dynamo: A laboratory model. *Nature* 198: 1158–1160.
- Minoan eruption. Wikipedia. https://en.wikipedia.org/wiki/Minoan_eruption
- Okonkwo, E., 2025. The Earth magnetic field. *Academia.edu* https://www.academia.edu/4232424/THE_EARTHS_MAGNETIC_FIELD.
- Olson, P., 2011. Laboratory experiments on the dynamics of the core. *Physics of the Earth and Planetary Interiors* 187, No. 1-2: 1–18.
- Phaeton (hypothetical planet). Wikipedia. [https://en.wikipedia.org/wiki/Phaeton_\(hypothetical_planet\)](https://en.wikipedia.org/wiki/Phaeton_(hypothetical_planet))
- Plato, *Timaeus*, Second Edition. 2016 .Translated and edited by Peter Kalkavage of St. John's College, Annapolis. 22C-23B. Indianapolis/Cambridge, A Focus book, Hackett Publishing Company, Indianapolis/Cambridge.
- Powell, J.L., 2022. Premature rejection in science: The case of the Younger Dryas Impact Hypothesis. *Science Progress* 105, No. 1: 00368504211064272.
- Project Chronos, 2026. Puma Punku: Impact Traces That Affect Elemental Mobility <https://www.youtube.com/watch?app=desktop&v=H2EtsOOgNI&t=18s&ra=m>; in Muscovite.
- Quantum of Supermind, 2024. That's how they drowned at home. The flood of the 19th century. Part 2. Distinctive features <https://www.youtube.com/watch?v=oBpw6Qn84iQ>.
- Sens, M.A., 2023. A new hypothesis to fully justify the generation, maintenance, and behavior of geomagnetism. *Journal of Engineering Research* 3, No. 38: 1 – 11.



Schaeffer, C.F.A., 1948. *Stratigraphie comparée et chronologie de l'Asie occidentale* (III^e et II^e millénaires). London, Oxford University Press.

Stoner, E.C., 1938. Collective electron ferromagnetism. *Proceedings of the Royal Society of London* 165: 372–414.

Teodorescu, C.M., 2021. Spin asymmetry originating from densities of states: Criterion for ferromagnetism, structures and magnetic properties of 3d metals from crystal field based DOSs. *Results in Physics* 25: article 104241.

Stothers, R.B., 1984. The great Tambora eruption in 1815 and its aftermath. *Science* 224, No. 4654: 1191–1198.

Sweatman, M., 2019. *Prehistory Decoded*. Leicestershire, Matador is an imprint of Troubador Publishing Ltd.

Teodorescu, C.M., and M.A. Huşanu, 2022. Re-entrant ferromagnetism at ultrahigh temperatures in epsilon-iron as possible origin of the geomagnetic field. *Physics of the Earth and Planetary Interiors* 326: article 106856.

Thompson III, W. I., 2017. *Cosmic Catastrophism Affecting the Earth – Bibliography and Handbook*.
https://www.academia.edu/31532299/Cosmic_Catastrophism_Affecting_the_Earth_Bibliography_and_Handbook_docx.

Velikovsky, I., 1955. *Earth in Upheaval*. Garden City, New York, Doubleday & Company.

Verhille, G., N. Plihon, M. Bourgoïn, P. Odier, and J.-F. Pinton, 2010. Laboratory dynamo experiments. *Space Science Reviews* 152: 543–564.