

MRAV 2014
Report to research, investigations and observations
INTERNATIONAL summer Camp
Prepared for
Bosnian Valley of the Pyramids Foundation
By
Timothy Moon
Archaeological Project Manager

Forward

The Archaeological Park Bosnian Pyramid of the Sun Foundation completes its 9th year of scientific investigation at the end of 2014. Throughout this time scientists representing many disciplines have collected an enormous volume of data. More than 800 pages of technical investigations undertaken by dozens of contributors have been described and published in the 1st Edition ICBP, annual Archaeological reports, independent investigations and many published books present an accumulation of evidence confirming the existence of pyramids in Bosnia Herzegovina South Eastern Europe. In addition to the mountains of information supporting past existence of an advanced civilisation, colossal architectural structures and subterranean labyrinths, the Foundation has amassed in excess of 12,500 ceramic materials, several never previously decrypted glyphic texts, megac ceramic stones, construction materials and more than 1,200 lithic artefacts ranging from stone tools to art objects and utility items. When all of this material is considered as a body of evidence the accusational argument ***“everything is natural formation”*** as promoted by the ‘academic’ community, those fiercely opposing the projects revelation to ancient civilisation, including the European Archaeological Association- completely falls apart. The

evidence is available for examination. A civilisation incredibly substantial in its footprint, spanning a great many years existed at this location in a distant epoch. So distant that it has been forgotten to history. So ancient the processes of geological time have applied their pressures absorbing much of the structures back in to the landscape.

This is a story of Collapse, civilisation accumulating knowledge, rising to great heights of arts and sciences, expressing technical capability in defiance to our 'Modern' understandings and then vanishing.

The commentary that follows is intended to share observations, investigations, understandings and ideas as to what occurred at this location, what is presenting both quantifiably and intangibly. The project presents a renaissance to investigation technique. No longer can we confine ourselves to the observation of purely material evidence, but we must venture further to adopt a wider concept of evidential capture, energy signatures, acoustic outputs, electromagnetism, atmospheric composition and observable phenomena contain elements of cultural expression complementary to physical artefacts and features. Just because we may not hold them in our hand, gaze upon them with our eyes, should not discount their value or existence. To choose to ignore the presence of these cultural elements is akin to crying Heresy, exclusion, denial or doubt about what in fact IS purely because it contrasts to a prevailing set of beliefs- as with belief the Earth was at the center of the Solar system, is flat, its creation young- enquiry, investigation and understanding reveal truth, truth absent without investigation, leading to growth in knowledge.

The challenge we propose is to consider what is observed and communicated in this report with reason free of ridged constraint and

open to possibility of deeper understanding. This approach will form a basis to new discovery and knowledge, eventually overthrowing ingrained and orthodox constraints and opening ones eyes to what was achieved in the past, a time before recorded history, before accepted timelines to developed civilisation, a challenge to an engrained World view of Human history. No doubt this will meet with fearful opposition, a continuation to accusation, debunking and character assignation. However, those are legacy of the threatened, do not diminish the right to enquire, to observe or present opinion. What we invite next is participation in pursuit of a great truth, revelation of lost knowledge and a new chapter in Human history.

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Bosnian Valley of the Pyramids 2014



**Historic photograph Bosnian Pyramid of the Sun,
Visoko River Basin, Bosnia Herzegovina**

1.0 Introduction

The Archaeological season commenced on 1st June despite catastrophic flooding in other parts of Bosnia. This extreme weather event negatively impacted volunteer enrolment and archaeological tourism, both of which contribute significantly to the Foundations support and funding models. However, the investigation programme remained robust expanding on the

successes and data obtained across the previous seasons. Archaeology by nature is a process, a process of discovery, observation, retention and contextualisation. As inherent in processes of knowledge- archaeology is a cumulative process, artefacts, features, modified landscapes, even ephemeral traces of culture, energy signatures and phenomena, all contribute in part toward telling a story that is carefully teased out over time, each attribute contributing to a fuller understanding, building on the previous, progressing to the next. This season we emphasised the approach to gain a comprehensive view to the complex activity that occurred in the Visoko River Basin in the distant past. Activity that spanned a large period in time, grew a great civilisation that we now see expressed in the landscape today.

Another guiding principle we considered in our approach to the 2014 investigation is time, specifically timelines to the emergence and development of civilisation as we are taught in our learning institutes. Eight years of investigation has produced a plethora of scientific data in support of advanced civilisation, megalithic construction and architectural structures on an immense and perplexing scale not previously witnessed by the Modern World. Nonetheless, they exist in the archaeological record, their material remains reside in our laboratories, their features dominate the landscape and their spectral signatures are measurable. Because archaeology is a process of discovery we witness year on year time lines being pushed back further and further. This process tells us nothing is fixed, what we know today is expanded tomorrow, to fix understandings as absolute impedes further discovery and is a flawed practice, leading to misguided thinking and assumptions prejudicial to development and over the long term a restricted position.

Objectors to the hypotheses fail to recognise ‘deliberately buried cities’ as precedents- investigations at Gobekli Tepe in Turkey propose deliberate burial of cultural architecture. If we recognise that as a cultural action, then we must accept the possibility other cultures acted similarly.

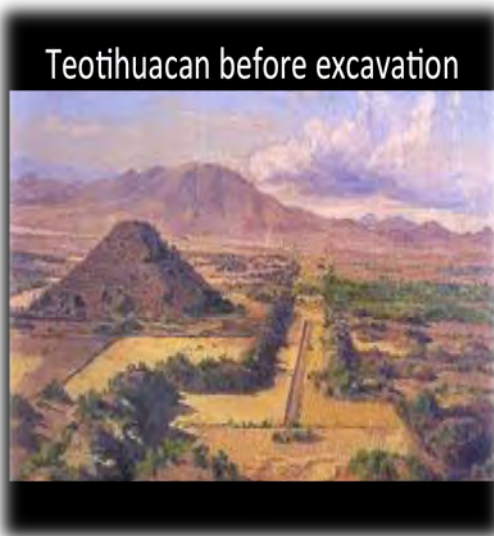
These are key to gaining an understanding of the process that went on in the Bosnia Valley of the Pyramids. We are told ‘advanced’ civilisation, as distinct to barbarian or savage, emerged approx. 8,500BP with the formation of city-states such as Jericho and Ur in modern day Iraq. However, in the past few years this has been rolled back to 12,500yrs BP by the investigations at Gobekli Tepe Turkey- what this reassessment demonstrates is our principle argument that it is patently wrong to prejudice a discovery because it contradicts orthodox teachings or contrasts their time reference. What we must do is open our minds to possibility, undertake comprehensive investigation and illustrate an understanding that will itself be subject to modification over time, remain malleable and, in the process, achieve more comprehensive understanding of Human history. These are the challenges we issue to the academic world.

Adopting these guiding principles and considering what we have discovered here in the Bosnian Valley of the Pyramids, it is understandable people question. They question because they hold a limited and an illusory reference. If, however, we consider considerably longer time lines, as our scientific dating evidences (Sec8.0) then the existence of a lost, long forgotten civilisation is entirely plausible. 8,500 years is a blink of the eye in geological time, 12,500 years simply a moment longer, but if we jump to a pre-diluvian Southern Europe, advanced civilisation building technical architecture- we are better

equipped to understand how and why these structures have been absorbed back in to the landscape, covered in marls, soils and forested- just add a lot of time, water, mix with a bit of nature and as the Gods wave their solar wand -magically they disappear- only to be re-discovered eons later- that time is now and we are in the process of revealing something truly great.

By example of these temporal processes: Our 19th century discovery of a series of hills out side Mexico city, soiled, forested, lost- were transformed in to the spectacular city of Teotihuacan. The following photographic montage displays a series of buried structures (left frame), the revealed structure on the right and Bosnian Pyramid of the Sun below.

1.0



Teotihuacan Before



After



Piramida Sunca Before

That is what we believe we are witness to, ancient mega architecture, absorbed in to the landscape over time, re-discovered and now in the process of being revealed!

1.2 Art-e-Facts (*arte factum, from skill, art and fact*)

The Foundation has amassed a collection of artefacts housed in its two laboratories in the town of Visoko, 40km N/W Sarajevo. One laboratory processes and stores lithic materials and currently has an inventory of 1,200 objects ranging from Art objects to Effigy Stones, Butchery Stones, Hand Tools, Oil Lamps, Culturally Modified Stones to Construction Materials and more. The other is a Ceramic and Technical Laboratory housing archive storage of some 12,500 Ceramic materials, several unidentified Language Stones, processed Iron, and anomalous cultural materials, an Organic sample Bank and various Utility items. All of which evidences cultural activity in the area in the distant past. This is not a situation of a hypotheses with nothing to support it. This is a valid

hypotheses challenging orthodox thinking backed by material evidence and scientific testing establishing profiles to time and place for activity.



A Lithic collection begins



Sandstone artifact



Glyphic Stone

One of the key principles in the 2013 and '14 investigation programme has been to 'go wide' in conceptual approach. The principle we have adopted is understanding that we appear to be looking back in time to a period of highly advanced civilisation. Megalithic architecture, tunnel labyrinths, terra forming, energy systems and observable recordable phenomena are the tell tail signatures of what went before. Contrasting with our modern thinking, our current science and knowledge and frame of reference. Therefore in order we better understand the processes we must shake off our narrow, prejudiced and ridged thinking, adopting instead a broad mind following intuitive leads, capturing data and then bring all of that back to a scientific center. In short- we will not be able to resolve the many cultural evidences presenting with out stepping out side of our cloistered paradigm- this we argue is why so many ancient and scared sites remain unresolved- our scientific thinking can not accept the presence of anything that contrasts or contradicts accepted theory. Observers find them selves asking 'how' when confronted with the great

many megalithic structures found all over the world. To understand ‘how’ unimaginably heavy blocks were worked, transported and set requires a departure to ‘our’ conceptual understandings. The observation is simply they ‘did’ and from that premise thinking develops. So, as we being to summaries the 2014 Archaeological season we remain mindful of the need to be receptive to things we have not witnessed previously, things we do not understand. Absence of a reference model does not preclude the possibility of something new, that is what Dis-Cover is, a process of revealing what was previously Covered, Hidden, Lost.

Finally, before we delve in to the season’s observations we must consider Archaeology as process. Essentially, archaeology is the study of cultural material remains. However, this is limited in that it falls short where culture develops practices and technologies beyond the material realm. Our ‘modern’ computer based communications, television transmissions, micro wave frequency’s, radio wave, telecommunications and internet all demonstrate that civilisations can and do develop vastly sophisticated cultural systems that do not survive or are invisible in the archaeological record. We are not stating these specific technologies existed, but we employ them as allegory to convey a theory not all cultural achievements can be seen, touched, excavated- some are ephemeral in design, illusive in remnant, but their signatures remain spectrally and must be considered to gain a fuller understanding to What, Who, When, How and Why. Keep this in mind! The Bosnian Valley of the Pyramids goes beyond traditional archaeology, quite possibly heralding a renaissance or new era in approach in the discipline.

2014 investigation by sites

2) Site: The Block

Location: BPS N/E lower corner

Description: Vertical sandstone

Toward the end of the 2013 season this location was selected for investigation. Our primary interest was to understand and describe why there exists a vertical face on an otherwise diagonal pyramid, establish parameters to its dimensions, identify cultural modification and understand its purpose.

The block has grown through excavation from that of a minor surface feature @ approx. 1,000kgs to a megalithic buried feature currently estimated mass of 190,000kgs and it is still concealed within the landscape on three sides.

The 2013 excavation determined there is something to be investigated. Tooled surfaces were identified and airflow detected emitting from a small crevasse. Airflow from rock is an indication to internal cavities, chambers or passages. Over winter and with heavy rain that characterised the Bosnian floods, silts have infiltrated the crevasse and are preventing detection of air movement. However, a plan was conceived and implemented across the season subject only to weather conditions (47:120 rain days to season).

The block has revealed a number of attributes supporting site selection:

- a. Culturally modified surfaces have been recorded, including flat worked surfaces, right angle corners and intricate seems.

- b. Tooling marks and complex angles
- c. Lateral fracture along the extent of the North face
- d. Converging fall angles against the horizontal plain
- e. Buried
- f. Location

To expand: Excavation of the Block has demonstrated a lack of stratigraphic separation in the surrounding material. The earth presents obvious signs of 'Tumble' deposition; this is the process of rapid material deposit in opposition to formation over time. Under geological formation process clear lines demarcate geological periods that can be studied to determine past climatic, flora and temporal sequence. However, only two layers of stratigraphy exist across a 3 meter vertical cut. They are- 200mm humus layer (top soil), 2800mm indeterminate layer comprising a dense mix of small to moderate construction stone, ceramic tiles, small amounts of animal bone, scant ceramics and clays. This indicates the structure has been buried at some point in the past. Material has either been back filled through deliberate cultural action or a landslide has occurred at some point depositing material in a rapid disarticulate fashion. The questions arise- was the Block deliberately buried to conceal its existence or has interment occurred through environmental process?

We now examine the worked cut stone surfaces Refer photo





Cut stone surfaces 90deg angles.

Here we observe very clean angles and smooth surfaces in contrast to features produced through natural actions of erosion. We are beginning to consider these blocks as placement in opposition to quarry stones. Our primary reason in support of placement is a total absence of extraction marks or fissures created when stone is manually quarried. That process requires one or a number of chisels or pegs be riven between surfaces to force them to part leaving clear tool lines along the length of the remaining stone. Secondly to this observation the surfaces have been detailed, worked to a clean smooth finish. This also contrasts to quarry technique that requires stone extraction and finishing as separate processes. Quarry blocks are split, removed and then chiseled to even surface before transportation begins. Having stated this we think there is

some evidence of quarry work at a later time, quite possibly a resource reuse process by a subsequent culture overlaying the earlier stone work. That subsequent quarrying could be attributed to the construction of Sari Grad Castle in the 13th Century Kingdom, considerably later than the time period presenting for the construction phases of the pyramid structures, (Dating Section 8.0), or at any stage in the last few hundred years.

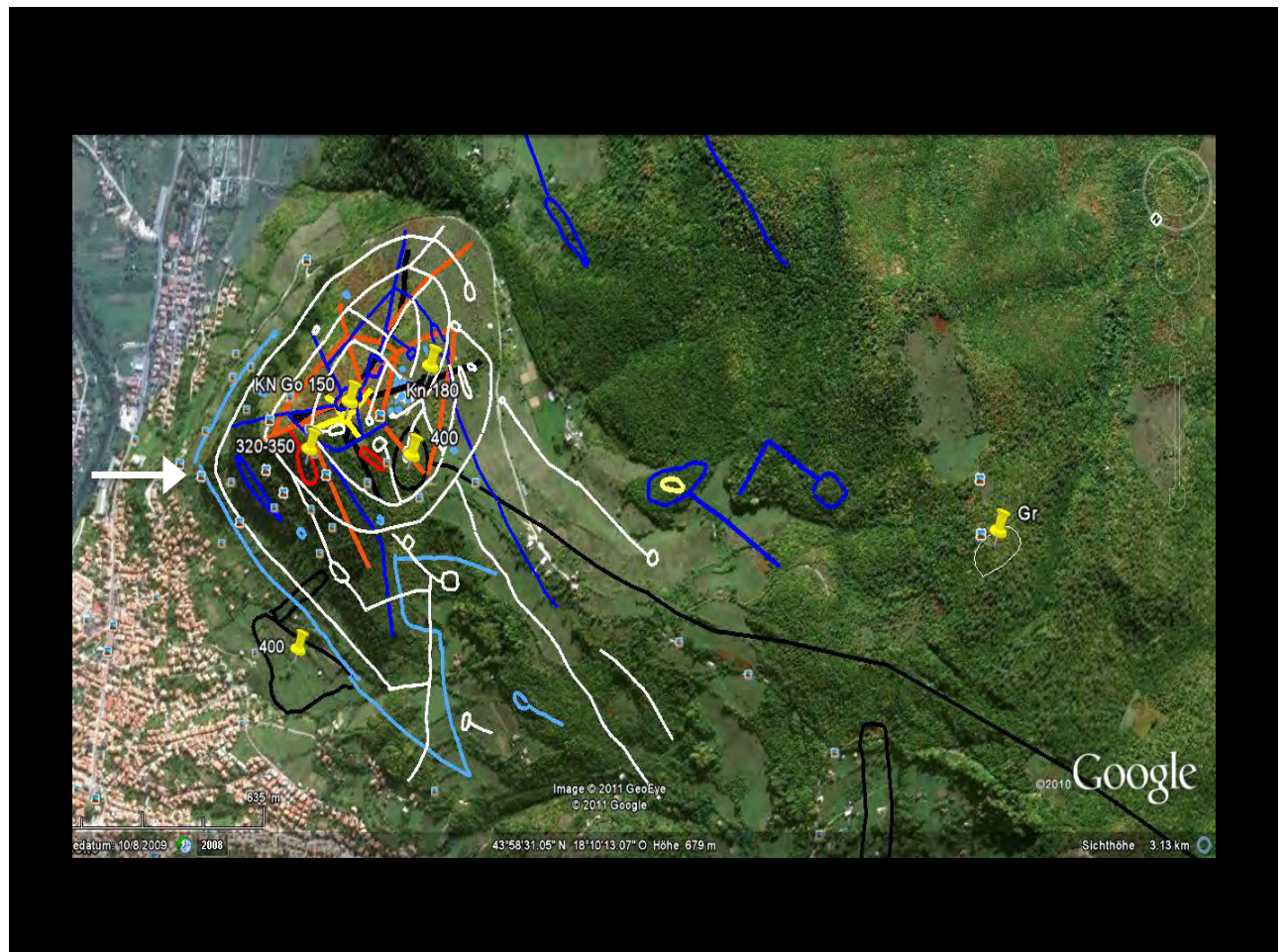
Converging falls angles and lateral cracks- these present a confusing picture that is proving difficult to describe at present. One theory may be stone has been removed from the upper level either in ancient times or during the period(s) of reuse and the cut worked blocks are what remain. Or, the interior section has collapsed in on an underground cavity along the lateral face creating a consistent fall angle converging with the vertical face. Measured angles of declination relative to total height of the exposed face indicate a uniform level to the gross block may once have existed. To elaborate on this hypotheses, a hypotheses that will be tested over coming years. It is possible the Block was a larger rectangular single form of many hundreds of tons mass. Something has triggered it to break off and fall approx. 3m to its current resting level. Assuming this as possibility- the fall angle back toward the exposed face is consistent.



Sample Telemetry fall angle

Overlaying supposition is Location. The Foundation holds numerous satellite imagery showing subsurface cavities, primarily subterranean tunnels and passages within Pyramid of the Sun (Sunca). What follows is a scan displaying two tunnels at 5m depth- one running along the East face of Piramida Sunca for approx. 250m, another along the North face then winding its way up to the Western Plateau (450m). In total this tunnel appears to be some 600-700m long at a consistent depth of 5m sub-surface. The important aspect we are investigating and tying to the Bock is location. There is an intersection within this tunnel precisely at the location of the Block. This gives rise to consideration the Block as a component to the tunnel, perhaps a massive lintel, ceiling stone or quite

possibly an entrance. The scan below displays the position of the Block relative to the 5m tunnel.



BPS satellite tunnel scan (-5m/-350m)

We anticipate this theory will be explored over the coming years as the Block undergoes further excavation to reveal its distal ends, height and width.

In terms of cultural material remains, artefacts and such like. Excavation at the Block has recovered a lot of cultural materials. Impact fractured construction stones, plaster tiles, ceramic fragments, glass and animal bones. Because the site has been subjected to back ‘fill’ it is not possible to determine a sequence across time, order of deposition or possible surface migration. However, what we have observed is the animal bones

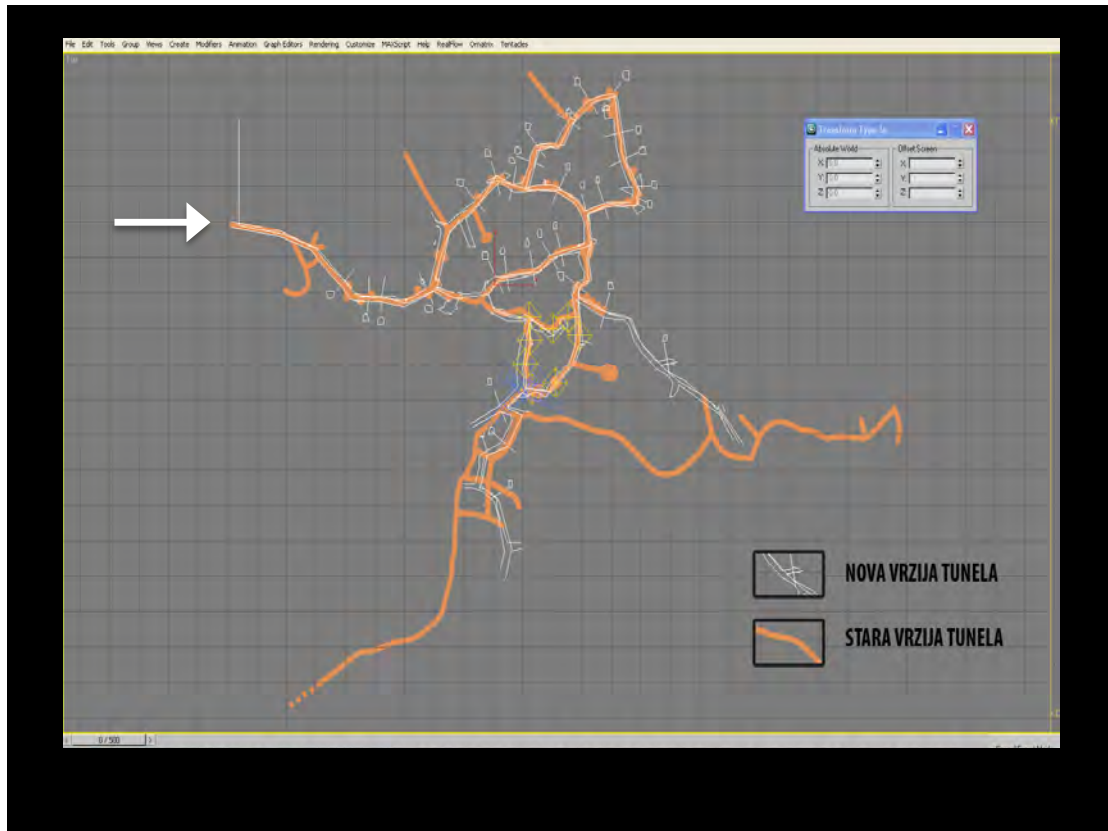
(Capra/Canine), glass and ceramic (fine/pottery) were located in the upper portions, possibly through surface migration. Construction material and plaster tile fragments appeared throughout the cross sectional cut. An assumption drawn from this information is the construction material, which makes up the majority of infiltration, is dominant. The remaining materials have in all probability migrated through the action of water and soil compression down to their recovery levels.

The Block will be subject to investigation across future archaeological seasons and over time a more complete understanding of its value as an archaeological feature, cultural or otherwise will be determined. A recommendation for the 2015 season is to undertake close quarter Ground Penetrating Radar scan along all four of its extremities to ascertain whether there are any significant subsurface features to focus and target future excavation. A possibility the Block excavation will lead to an entry point to Pirimida Sunca is entirely possible and worthy of continued investigation.

3) Ravne Tunnels

Ravne Tunnels are proving to be a true labyrinth, presenting complex purpose. Main passageways, side tunnels and numerous 'Filler' tunnels, interconnect, terminate and wind in a maze like design principle that alludes us today. To recap:

Ravne is a system of open and filled sections of tunnels. The conglomerate from which tunnels are hewn is distinctly separate to the Filler material content, although, upon examination it appears the Filler material is a processed form of conglomerate, e.g. its has been subjected to extraction, process crushing, return transportation and installation in to pre-prepared tunnels.



3.1 Ravne Map- Geodesic survey June 2014

The Map shows passageways that were originally open or recently excavated by the Foundation. Overlaying that system are 40 Dry Walls within the public sections. By definition the name Dry Wall denotes a construction method of building walls without a binder material, clay, mortar, lime concrete, etc. Dry Walls within Ravne are constructed according to this method, but represent a terminating technology found at the intersection of an open passage and a Filled side tunnel. In some situations Dry Walls are uncovered deep within a 'Filled tunnel' adding to the perplexity of purpose. Attributes extend to specific stone selection, inclusion of large anchor stones (60kgs+) in lower courses, vertical faces, erected to 2/3rds of tunnel height. They are ancient, Radio Carbon 14 dating of organic material found in association with a Dry Wall suggests a minimum age of 4,600BP -we know the age stretch's back earlier because the C14 dating process provides minimum dates to material

association. An interesting observation is the high state of preservation. The walls do not lean, have not fallen down or become disarticulated as one might expect from a modern 20th/19th century dry wall constructed in an agricultural setting. Dry Walls in context to Ravne represent an ancient and purposeful technology, they are Archaeological Features as old as the Great Pyramid of Egypt and we have a great many!

The focus of investigation at Ravne this year has been multi faceted:

We seek to investigate:-

- How atmosphere is created and mechanisms of regulation
- How Oxygen is being liberated from H₂O
- What is happening to the remaining Hydrogen
- What is 'Filler' material as medium
- What is the purpose of Dry Walls as a terminating technology
- What part quartz and piezoelectric effect plays in the energy transfer observed
- Ravne Energy Phenomena (orb) research
- Understanding Ravne as integrated energy system
- Preservation of tunnel architecture and maintenance of archaeological record.
- Artefact recovery

3.2 Atmosphere- Ravne demonstrates some extremely interesting attributes. Here we have a Closed tunnel system, that is, a tunnel labyrinth that has no external ventilation shafts, circulation or extraction vents, shafts or fans. It is high in Oxygen content, high in Negative Ion, temperature and humidity stable, essentially a fresh air system that appears to regulate its self. What mechanisms achieve these properties,

can we understand them, describe them- these are some of the enquiries we will attempt to address. A number of observations were made with respect to atmosphere.

- i. A gentle draft can be felt indicating air movement. This can be explained by principles of Thermodynamics, or, Atmosphere production.
- ii. High Negative Ion counts
- iii. Clean of odours, fresh
- iv. Bacteria free
- v. Euphoric- biologically beneficial
- vi. Air draft transmission off Filer material before breaking through to cavity sections

3.3 Negative Ion:-

In 2013 and 2014 we undertook several Ion monitoring programmes concentrating on Negative Ion as oppose to Positive Ion. By explanation- Negative Ion is synonymous with feelings of well being. High concentrations of Negative Ion are common within nature, around natural running water, waterfalls, the Ocean, Forests and during/after lightening strike activity. In those circumstances measurements range from 5000p/cc to 10,000p/cc. What we discovered in the monitoring process in Ravne is an ebb and flow in levels from extremely high (100,000+p/cc), to average Highs (40,000p/cc) and Lows (25,000p/cc). Theses were matched against tunnel occupancy and what we observed was a fall in Negative Ion when large numbers of tourists visited Ravne, followed by a regeneration phase over a 3-4hour period, stasis attained and the system then appeared to stop producing Negative Ion. It is important to note here, regulation and fluctuation in Negative Ion content appears to be location specific, e.g..

When and where content was affected in contrast to the tunnel system as a whole requiring rebalancing.

The reduction in Negative Ion density is most probably influenced through introduction of positively charged energy on the cloths, synthetics and perfumes of public visitors earthing the Negative Ions. This is a remarkable cycle to observe, suggesting an intelligent controlling system is operating according to mechanisms we have yet to identify. A general observation is the air quality is high, fresh and plentiful. The atmospheric composition has been studied across previous years. Those testings tell us the Oxygen content is around 22% to 24%, no harmful gasses or radiations or bacteria and rich in Negative Ion saturation.



Tri Field Meter- Negative Ion monitoring- (Micro /EM other fields)

Negative Ion readings

Date	21st June 2014									
Location	Entrance	20m From Entrance	Healing Chamber K2 Megalith				K5		Dry Wall (near K5)	
			Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2
Time	10:15	10:16	10:23		10:49		10:36		10:38	
- Ion Reading (1000 Ions/cm3)	1	5	38	41	34	37.5	44	43	41	41
			Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2
Time	11:09	11:10	11:18		11:35		11:30		11:32	
- Ion Reading (1000 Ions/cm3)	2.4	8.5	41	42	42	39	49	45	40.5	42
Daytime average	1.7	6.75	39.5	41.5	38	38.25	46.5	44	40.75	41.5
Date	26th June 2014									
Location	Entrance	20m From Entrance	Healing Chamber K2 Megalith				K5		Dry Wall (near K5)	
			Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2
Time	10:11	10:15	10:19		10:22		10:28		10:33	
- Ion Reading (1000 Ions/cm3)	4.5	6.5	31	30	32.5	34.5	37	34.5	32	31.5
			Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2
Time	10:57	10:59	11:02		11:06		11:18		11:21	
- Ion Reading (1000 Ions/cm3)	5.5	8.5	34	31.5	34.5	35	37	37	36	36
			Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2
Time	12:08	12:09	12:46		12:32		12:38		12:41	
- Ion Reading (1000 Ions/cm3)	5	6.5	35	34	30	25	36	35.5	35	33
Daytime average	5	7.16666666666667	33.3333	31.6333	32.3333	31.5	36.667	35.667	34.3333	33.5
Date	27th June 2014									
Location	Entrance	20m From Entrance	Healing Chamber K2 Megalith				K5		Dry Wall (near K5)	
			Site 1	Site 2	Site 1	Site 2	Site 1	Site 2	Site 1	Site 2
Time	10:16	10:18	10:26		10:21		10:33		10:36	
- Ion Reading (1000 Ions/cm3)	1.5	2.5	25	26	26	25	30	28	27	25

Example of Negative Iron recording

3.4 Scientific Section:-

This is a long section of open tunnel discovered at the close of 2012 season. At that time the Scientific Tunnel was measured at 157m in length, however, toward the end of 2013 a Filler tunnel was excavated to create an access passage bypassing the K5 megalith. In the process of extraction we intersected with this new Scientific Section at approx. the midway point. Prior to breaking through from the Filer tunnel to the Scientific Section an unknown distance remained. What we observed was

rather strange- a cooler (to ambient) fresh air draft was observed emitting from the last remaining Filler material. Within 24 hours our minors broke through to intersect the open section of Scientific tunnel on the other side of the Filler. The Filler material appeared to transmit atmosphere from one side to the other through its material mass. (Refer Filler Material below). This we believe to be a characteristic of Filler material as energy medium discussed later in this report.



Scientific tunnel in original form

We suspect the Filler material is an engineered medium for the retention and transmission of energised O_2 or H_2O particles- this might be explanation to how we were able to detect air movement from a large cavity on the one side (Scientific tunnel) to the smaller space (access

tunnel) through several tons of crushed processed material. The Filler material displays many attributes, some understood, some not.

- a. It does not compress as 'normal' fill would
- b. Has high moisture content
- c. Contains high quartz content
- d. Broad-spectrum class size from course sands to intermediate stone.

In July a sample piece of organic material was recovered from the floor in the Scientific Section. The existence of organic material is important as it provides an opportunity to establish a dating profile for the existence of the tunnel section. To explain- Organic material represents biological cellular life, be that Flora or Fauna. All life forms are carbon based, as cells divide and multiple they carry with them a signature to atmospheric conditions at the time. Part of this process is accumulation of Carbon 14 Isotopes that have a known decay rate of -5730 +/- 30 years. The Carbon is subject to a number of variables across large time spans. By example, atmospheric nuclear testing in the 1950- 1980's greatly affects background isotopic values. Similarly, Solar activity, Supernova's and other punctuated cosmic radioactivate events has caused peaks and troughs across the ages. These cycles have been identified through dendrochronology sciences and an algorithm produced based on atmospheric fluctuation over the past 12,500 years. What all of this leads to is a well understood profiling science to dating Carbon 14 half life, allowing highly accurate and actual C14 dates, adjusted to C12 isotopes decay, and highly calibrated end dating techniques. C14 exists as 0.0000000001% (1p/Trillion).

The organic material pictured below was carefully extracted, zip bagged and dispatched to a laboratory in the United States for archaeological

materials dating. The date returned, adjusted in the described procedure, is 9,545-9,520BP. This is an excellent result. What this tells us is the tunnel existed at this point in time or prior to this date. At some time after construction the organic material was deposited on the floor of the open tunnel, possibly faunal remains from a creature making its way in to the system or flora deposited by water egress or other means. It is important to understand the dating of material provides an insight to association, i.e. association between material and tunnel. It does not tell us the tunnel was made in this epoch, but rather suggests an associated date, a point in time when these two elements existed in combination, one pre dating the other. Radio Carbon 14 dating is widely recognised as a benchmark in archaeological dating. Although it is subject to variables and has outer limits (-40,000/-50,000 years), its is accepted as reliable.



Organic material for Radio Carbon14 dating

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

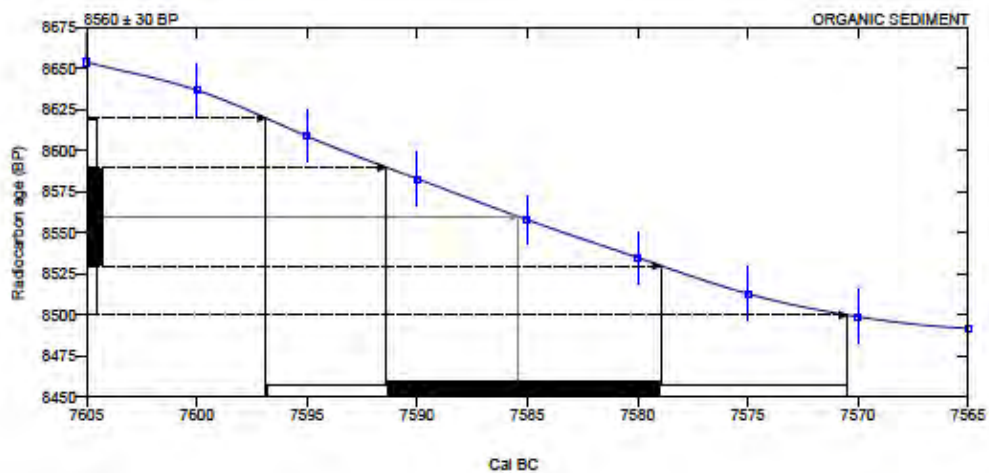
(Variables: C13/C12 = -23.9 ‰ : lab. mult = 1)

Laboratory number	Beta-387475
Conventional radiocarbon age	8560 ± 30 BP
2 Sigma calibrated result 95% probability	Cal BC 7595 to 7570 (Cal BP 9545 to 9520)



Intercept of radiocarbon age with calibration curve	Cal BC 7585 (Cal BP 9535)
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1 Sigma calibrated results 68% probability	Cal BC 7590 to 7580 (Cal BP 9540 to 9530)
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Database used
INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Taima, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. Radiocarbon 55(4):1869–1887.

Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • Email: beta@radiocarbon.com

Dating Certificate Organic Material

Toward the closing weeks of the 2014 season a new direction was adopted in the tunnelling strategy and method for Ravne. This involved redefining protocol, compass direction and extraction method. Primarily the work undertaken at Ravne is an exercise in reverse engineering. The hypotheses holds that all Pyramids throughout the World have tunnel systems in association; in fact, tunnels are critical to pyramid architecture as energy machine. Here at Ravne we have an entrance from the outside environment (exit from internal) that is being followed back to Piramida Sunca. In that process the Foundation is discovering a perplexing labyrinth system, Megalithic Ceramic stones (Megaceramics), Dry Walls, Side Tunnels, Filler Material, Atmosphere regulation, Electromagnetic outputs, Energy Flow and even observable recordable Ravne Energy Phenomena (photo REP 3.7).

3.5 The Rabbit Hole

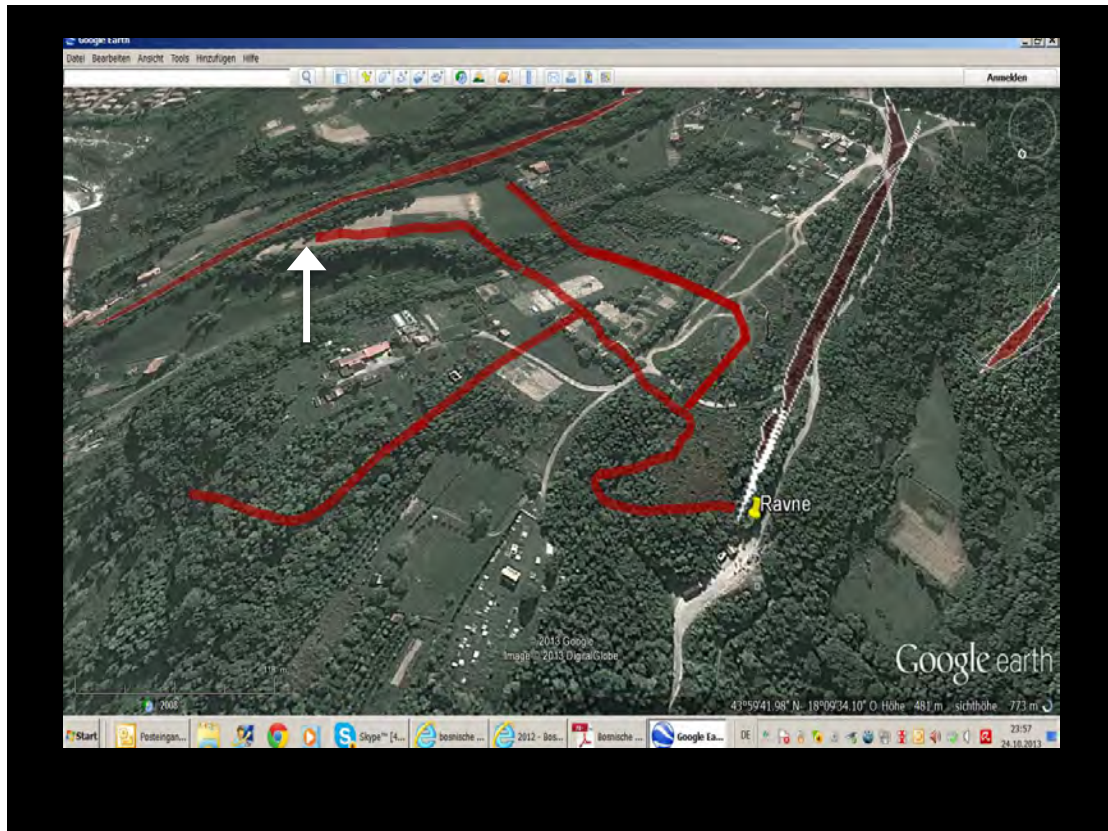
A new compass direction of due East was adopted following the Scientific Tunnel. At the same time a new protocol was adopted designed to preserve as much of the original tunnel as possible. If Ravne is an integrated energy system, linking Piramida Sunsa, Megaliths and Water, to touch on a few elements, then its is vital we preserve its dimensions and recognise tunnel design as critical to functionality, accurately recording the archaeology record.

Our Satellite images display a large tunnel running North South for what appears to be a considerable length lying approx. 100m meters East of the Scientific intersection. This new extraction process and location has been euphemistically named the Rabbit Hole. The Rabbit Hole originated @ 70m in length, variable in height from a high of 1.0m to an average of 60cm. Protocol requires that the ceiling is not modified, nor the walls on

each side, however, the floor can be extracted to facilitate human egress. The floor depth is self-regulated by the water table, too much extraction and the tunnel floods under foot.



The Rabbit Hole (60cm dia) Scientific Section- note circular construction design.

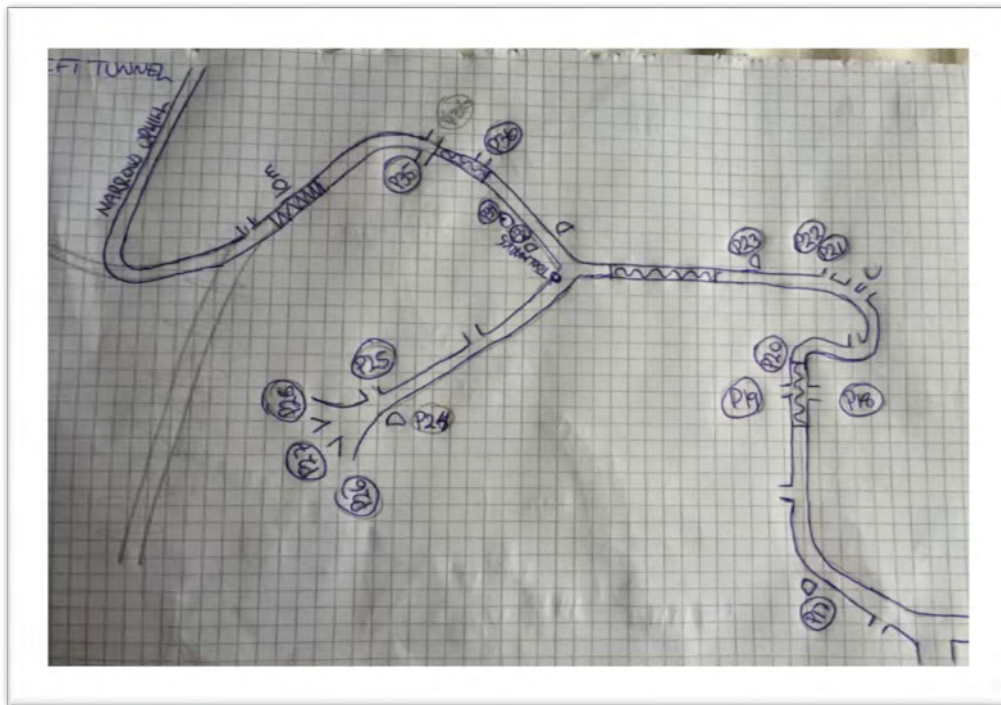


Rabbit Hole approx. location.

What we know is the design and construction of Ravne tunnel labyrinth is purposeful and ancient, it appears to conduct energy across several spectrums, utilises natural processes, materials and charged Oxygen as medium, and is biologically beneficial. This is a most perplexing place that is being decoded through processes of investigation, investigation that will span many years to come, producing scientific data in support to the hypotheses, overlayed with photographic evidence of these energies in action (ref 3.7 below).

In this report we share what we have learned and observed in an attempt to educate our public and stimulate discussion to one of the Worlds most interesting mysteries. It is premature to arrive at a conclusion, a

conclusion may only be delivered when we achieve a fuller understanding and investigation is complete.



Left Scientific Section (Rabbit Hole)

Map courtesy Rie Jespersen (Lead Anthro), Thomas Green and Tom Crawshaw



Rabbit hole side tunnel



Stone displaying cultural markings- Rabbit Hole (removed for laboratory analysis)

3.6 Construction Material in support to Human Presence

In 2013 we located an area of occupation known as the K5 Megalith (mega ceramic). This is located some 200m South on the horizontal plain in to the tunnel labyrinth, some 40m-65m below the surface. K5 is an important discovery because construction stones have been identified on and around the megalith. This year we excavated more of the stones to demonstrate the none natural form, culturally modified surfaces and concentration in materials.



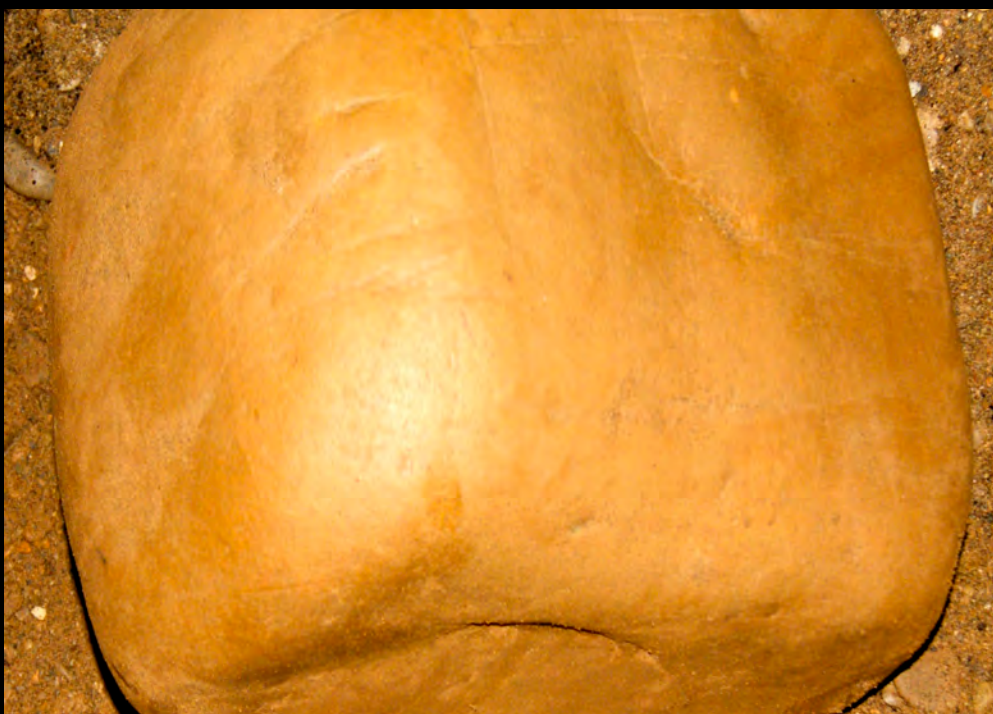
K5 Megalith chamber



Worked Construction stone K5 Access passage



Worked Lintel Stone – Removed from Floor of K5 Passage



Square Construction Block (tooling marks) removed from floor K5 Passage



Large Construction Blocks (est. 2,000kgs)- K5 Rear passage



Foundation Stone- Attached K5 Megalith

These materials in combination tell us *Man Was Here*- This is extremely important to recognise, because our deriders tell us everything we are discovering is natural. However, here we have evidence of man in a time

period geologically separate to today- geological time is long.... At some point the K5 megalith was exposed to the open air, possibly sitting on a plain or field. It supported built structure and then was buried, either deliberately or through processes of nature, inundation, catastrophic upheaval, land formation processes.

The question that arises through this discovery is what time period might be attributed or calibrated. To examine this question we turn firstly to our Radio Carbon Dating programme. Organic material removed from the tunnel floor immediately adjacent the Lintel Stone pictured above has produced a minimum date of 20,100BP. This association date suggests to us the area was occupied prior to 20,100 years ago. Organic dating can be vexed- in some respects we may need to support date profiles with more organic testing, and also, organic material tells us the last time something was alive in association with a specific location. What this process cannot reveal is how long the location had been in cultural use, occupation, or existence, but the agreed science tells us Prior to the organic materials synthesis!

Now to the Second consideration in dating activity at this location. The K5 site is buried under a ridge running in a North South direction for approx. 2km's. The volume of material comprising this ridge runs in to hundreds of thousands of tons of conglomerate. Ravne tunnel labyrinth is hewn from this material- so the supposition we arrive at is the K5 megalith and associated construction materials existed prior to ridge formation. If the ridge formed under normal geological land forming processes as opposed to mountain building, then the date must be truly extreme. To contrast this we have considered the conglomerate as process of flood deposit. The Geological report published last year by Richard

Hoyle (1.0 Geo-archaeological Summary) proposes rapid formation, most probably attributed to deposition by water force. Taking in to account the various 'Flood' models pertaining to de-glaciation of Northern Europe, calibrated to Bolling data from Caribbean coral records, we find 3 possible dating references of approx. 15,000BP, 12,000BP and 9,000BP- Explained in the three Charts set out below- representing the generally accepted, most recent and broad 3 punctuated flood cycles of continental glacial melt. We cannot rule out earlier inundations identified in the Meltwater Chart for Heinrich Events that pre-date Bolling. These are important indicators to possible civilisation 'Collapse' theory in the Bosnia Valley of the Pyramids. The effects of an inundation, or a series of inundations, emanating from the Northern continent of such massive magnitude would remove all traces of life, washed away- leaving only megalithic material remains bearing the undeniable signature of cultural. By example of destructive hydraulic force (water)- in 2004 a Tsunami struck Sumatra, Indonesia. In a very short space of time, perhaps 10 minutes, 250,000 people disappeared, washed away, perished. This by example suggests the absolute power of nature to clean man from earth. Scared landscapes and Geological deposits in Northern Canada tell us that sub-glacial lakes, oceans in volume, created torrential wave action up to 600m in height. Now we begin to understand the magnificent force and authority of Nature over Human civilisation, how the Pyramid builders may have been obliterated and why megalithic architectural structures left behind are a buried and damaged testimony to the existence of culture.

Summary to geologically (recent) accepted cycles of global
Melt water Floods (Inundation)- Refer Charts

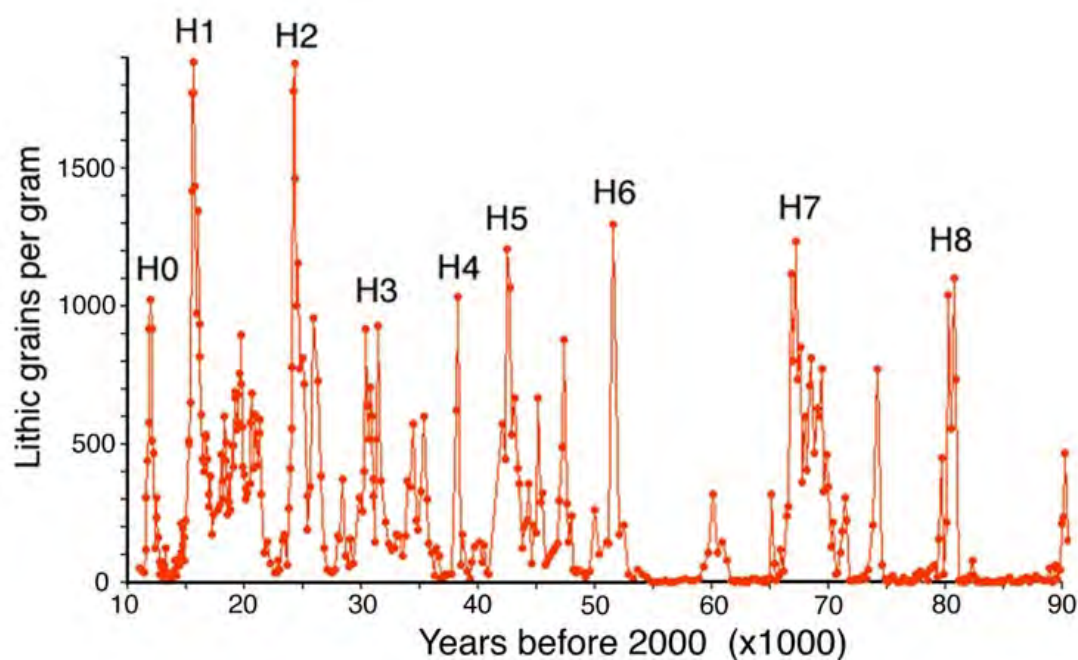
Heinrich events	Years Before Present
H1	16,000BP
H2	24,500BP
H3	31,000BP

Bolling Phase

Meltwater pulse

1A	14,000BP
1B	11,600BP

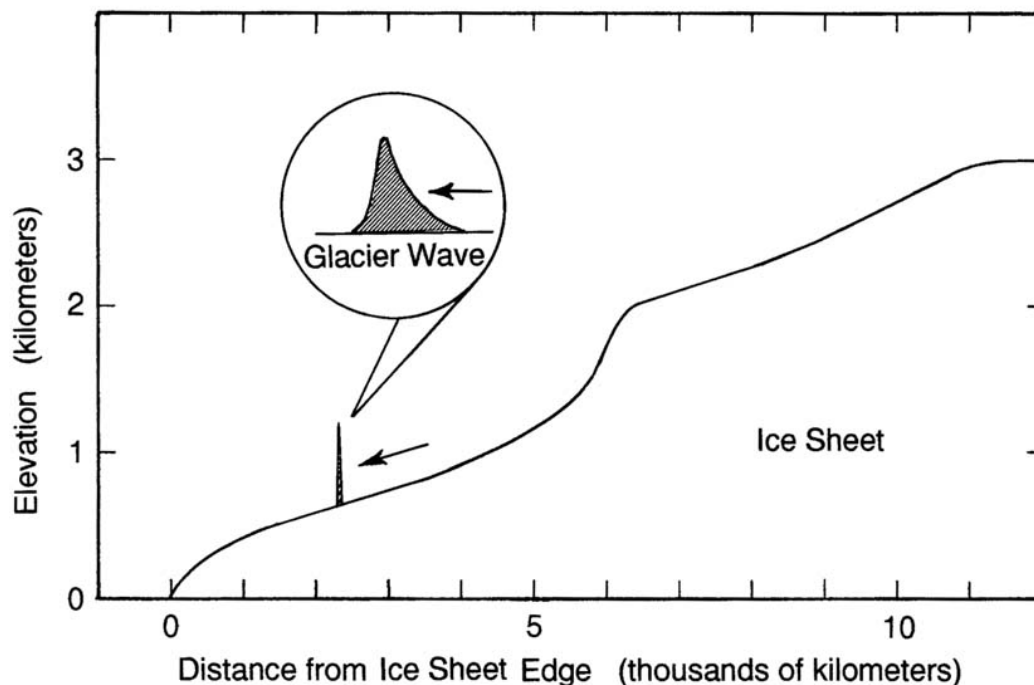
Heinrich Chart- Glacial peaks x 90KY cycle (Citation 2.0)



So, we may begin to understand a number of destructive cycles and forces at play. Many peaks in Continental and Ocean Ice Shelf levels- Freeze periods locking trillions of litres of water up, Warm phases, Thaws, Meltwater surging forth from truly massive sub glacial and surface lakes presenting destructive wave energy capable of wiping the surface of the

Earth clean of civilisation- megalithic features the only surviving remnant to what was there before.

Glacial Surface- Wave Heights (citation 2.1)



3.7 REP (Ravne Energy Phenomenon)

Possibly one of the most unusual aspects to our investigation has been the undeniable observation across 4 years of a phenomenon present within the Ravne tunnel labyrinth. The effect is something caught on cameras across a number of locations, times of the day, months and years. Initially this phenomenon was considered an illusion, a lens distortion, light diffraction, lens flare and so forth. However, as our project developed the frequency upon which REP was being recorded increased exponentially. This increase we now know is attributed to a larger number of participants in the project, specifically within Ravne, bringing with them an ever increasing technology to record still and motion images under

low light conditions. This actually extends to extremely sophisticated digital cameras with their incredible capture speeds of up to 1/4,000,000th of a second. By comparison the Worlds leader in SLR film formats produced a consumer camera with what was considered a fast shutter of just 1/4000th sec. So what does this mean to our project and this line of research? Well, here we have a tunnel labyrinth presenting many anomalous characteristics- negatively charged air, oxygenated atmosphere, circulation, no ventilation, no bacteria, no poison gases, no radiation, ultra and infra sound, processed materials, archaeological features and artefacts, and now something observable via image capture devices otherwise invisible to the naked eye. The speed at which REP moves has been estimated @250m/sec or 900k/h. Issues arise in determining size of the object, distance from observer and luminosity. However, several scientific experiments have been designed to address all of these questions.

To expand. Through 2011 and 2012 many students and volunteers to our programme were bringing their cameras to attention with interesting effects presenting in photographs. The volume of photographs was high, diversity of devices wide and consistency across images impressive. Responding to the observations and attempting to either confirm or dismiss the existence of something anomalous we set up a series of experiments. This response is an aspect of the Bosnian Valley of the Pyramids project that demonstrates our policy of 'wide conceptual capture' as stated in the introduction to this report and the requirement to move beyond the constraints of archaeology as a solely material study. Here we have something that appears to exist, unusual in form, consistent, fleeting in appearance and does not appear to be material in nature.



REP passing over K2 Megalith



A typical REP moving through Tunnels

Investigation:

Stage 1- 2012

Gather as many examples of the phenomena as possible. Record the variety of devices capturing the unusual images. Discuss circumstances surrounding photography and then decide if there is something presenting that warrants investigation. The result of this process was a resounding Yes. Some 135 photographs were examined to eliminate lens flare, light

refraction, Lens emissions, operator error and so forth. 25 images were filtered out, leaving a remaining 110 unexplainable photographs. This established a requirement to develop a line of investigation to explain what was being captured.

Stage 2- 2013

This Second stage required we write a set of observation and data capture guidelines consistent to scientific research method. Recruit a small team of technicians; train them to the method, data recording requirements and importance of accuracy. Three image capture devices were selected- 1 x Nikon DSLR , an iPhone 4s and a Samsung Galaxy 300. Each was fixed to a tripod to ensure ‘locked’ off shots. Locations were chosen to achieve diversity in environment and then 8 days of photography commenced. At each location air temperature, humidity and negative ion was recorded. Locations were also selected with out artificial light spill.

To the results-

Nikon DSLR- no verifiable phenomena was recorded. However, a number of contrasting light effects were and remain unexplained. We put those to one side as unusual. iPhone and Galaxy- Both these format devices reproduced the phenomena in still and motion formats. What’s more, tests and filters were applied to determine contamination effects of airborne Dust, Winged insects, Light spills and Water vapour. Analysis suggested the first two of these contaminants was present across a number of images and could possibly account for several other image effects. At this point I will mention that we erred on the side of caution,

whishing to eliminate images that might be explainable or marginal and concentrated on those images demonstrating consistency across 5 main criteria- illumination, spherical shape, concentric patterning, colour and evidence of movement. The following photographs represent a selection from the 2013 research programme demonstrating obvious and observable consistency.



REP Centre frame

We now have determined something consistent is presenting and demands further investigation. Regardless of whether one considers the observable nature of the effect as ‘believable’ or its opposite, something

is happening and to ignore that information amounts to biased filtering. This is the extent to our conclusion- Light Phenomenon is presenting, Phenomenon is consistent, Phenomenon demands investigation.

Now at this point we take a look at one of last year's great artefact discoveries- the Heart Stone. This just might possibly be our Rosetta Stone, in that it links Culture, Technology and Phenomena. By way of explanation- the Heart Stone projected an image for 4 days after recovery and return to the technical laboratory. Approx. 39 photographs were taken before the image disappeared.



Heart Stone- surface image concentric rings to nucleus

Note the structure of the image(s) at lower centre left- we have an outer perimeter circle, inner circle and a nucleus. There is also something concealed in the Top Right of the Heart Stone. At this point I will emphasise this artefact is currently with a Materials Laboratory in the

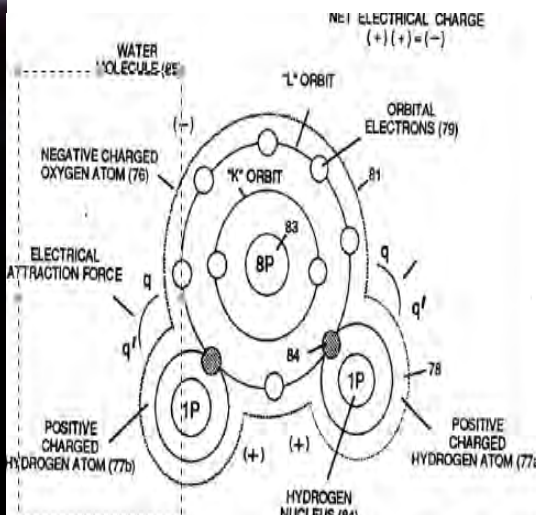
USA- The tests we have requested include, scanning the surface to determine image detail and scale, presence of pigmentation or other means by which the image is fixed. Analysis of the construction material. What follows is a montage of similar images captured at differing times and locations within Ravne Tunnel Labyrinth.



Heart Stone concentric circles-



REP over K2- concentric circles



Water Drop REP- concentric circles/Water molecule- concentric circles?

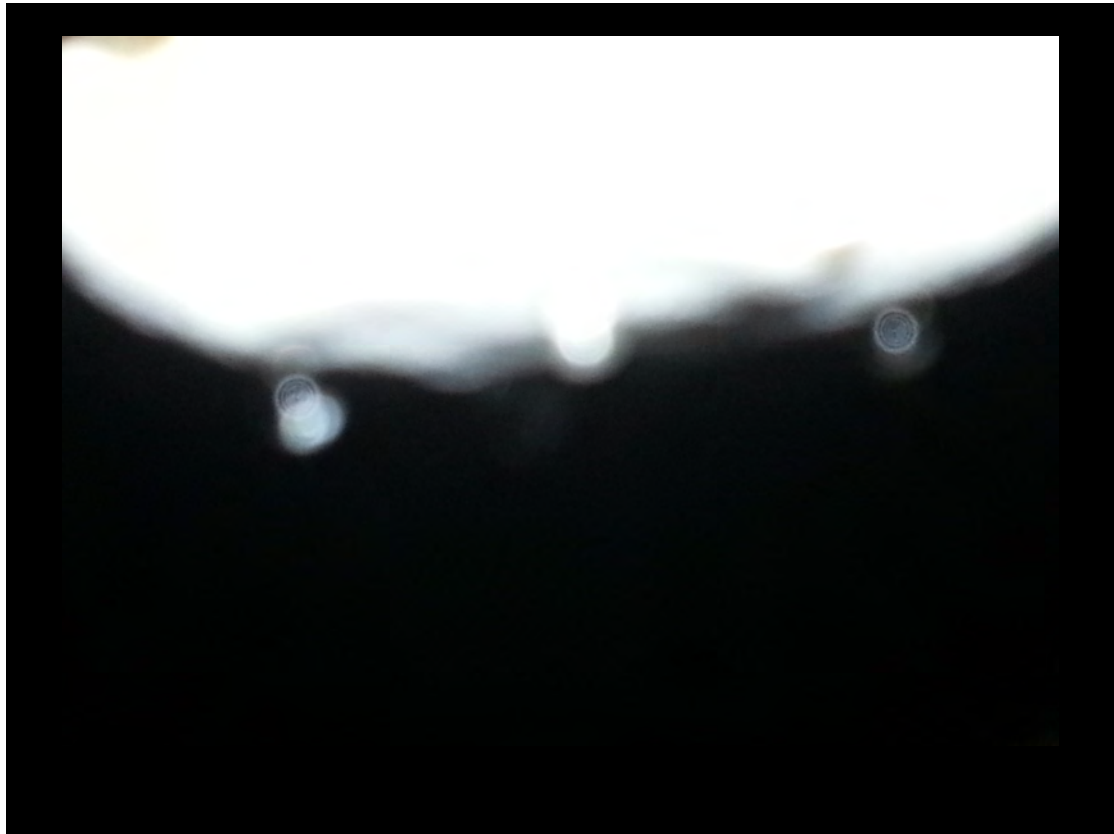
Here are the questions we posit:

- 1- Is this an art object

- 2- If art object then we have cultural evidence to past civilisations knowledge of REP
- 3- If this is not an art object how was the image projected
- 4- Is image stored energetically or by other method

We clearly have a link between the Heart Stone and REP. Whether this link is due to cultural observation and recording or natural action, we do not know. If our laboratory tests fail to reveal a surface image then we may be looking at an imprint by other means, thermal, staining, energetic signature. What is interesting is the 'theme' repeats throughout our research. If the laboratory detects a surface image then we can establish an absolute link between cultural knowledge, technology and phenomenon- these are very important theories because each creates an undeniable link, it then adds weight to our investigation of Ravne's complex energy interactions.

As interesting as the Heart Stone is, the still images of energy forming within a water droplet, post season analysis of a selection of moving images, has provided a glimpse to some most perplexing activity and as it would happen has formed the foundation to 2014's REP research programme. In this specific instance our 2013 research team identified a water droplet forming in side Ravne labyrinth. The camera focused in on the drop, approx. 1.2mm wide, and captured the normal cycling of water- an attribute of water is it never stays still- what came in to focus however was something forming within the droplet, a series of spherical objects displaying concentric circles consistent to those observed earlier in the seasons REP research. Initially one, then two and finally eight objects could be seen and are recorded.



Water Drop selected- displaying small REP formation

The camera was adjusted to micro focus capturing microscopic images in high-resolution detail.



Micro REP forming within water drop

This image capture and research set the stage for our 2014 research that concentrated on high spec camera equipment and water droplet subject locations. We were unsure what results if any might be achieved, but knew from the leads of the previous two years research what to look for. This time we progressed from the Smart Phone and High MPixel pocket camera technology platform and moved toward professional specification camera equipment (DSLR), micro lenses, time exposures and still frame from locked off tripod mounts. The resulting images are simply stunning in their beauty and perplexing in the objects captured.

What we have is a series of photographs concentrating on the surface area of a water droplet. What can be observed is a migration of particle/energy/molecule or some combination of these from the droplet into the surrounding atmosphere. It has been likened to a birth of energy,

drawn from the water possibly by the unique composition of atmosphere present within Ranve tunnels. At this point we stress our opinion and position still remains one of observation, we are not drawing a conclusion, as there is considerably more investigation required before the event can be further described, defined or explained.

The following is photograph specification:

Camera: Nikon Alpha 77 - 24 Megapixel APSC sized Sensor

Lens: 135mm plus Macro Lens magnification 4.4.

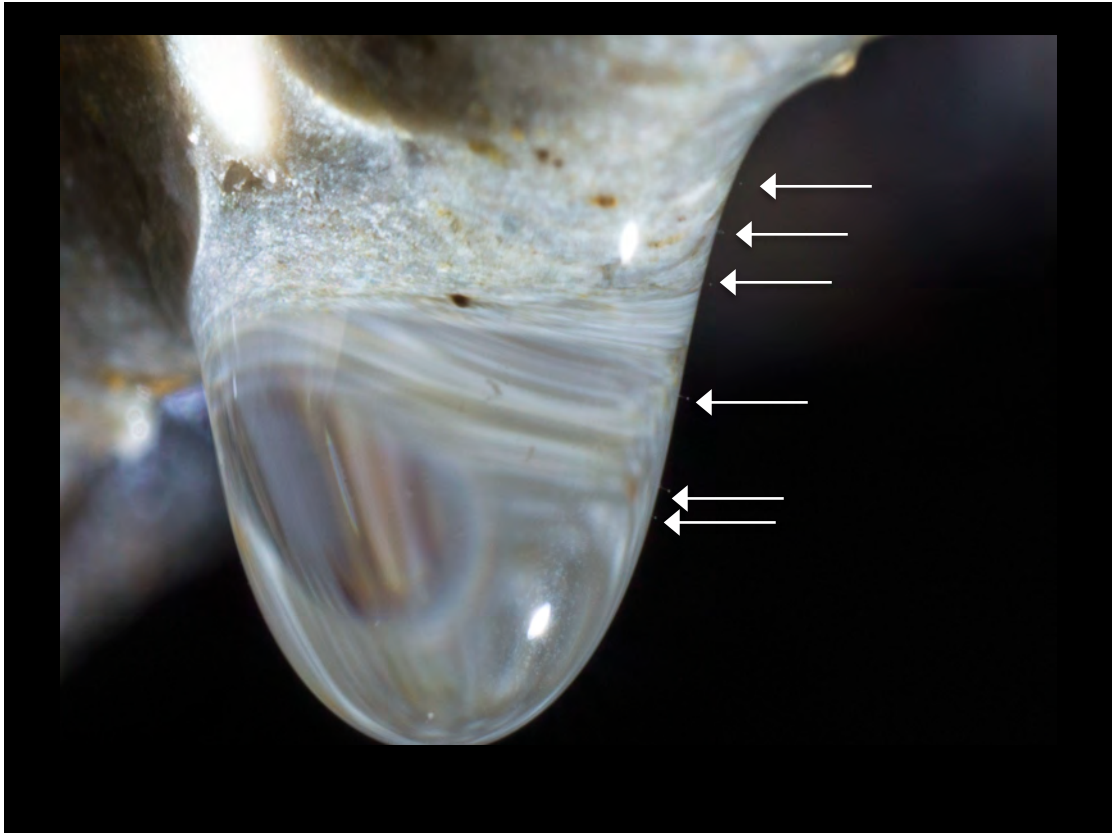
Exposure: 30"

Photo credit and ©: Kolja Singrün- Deutschland

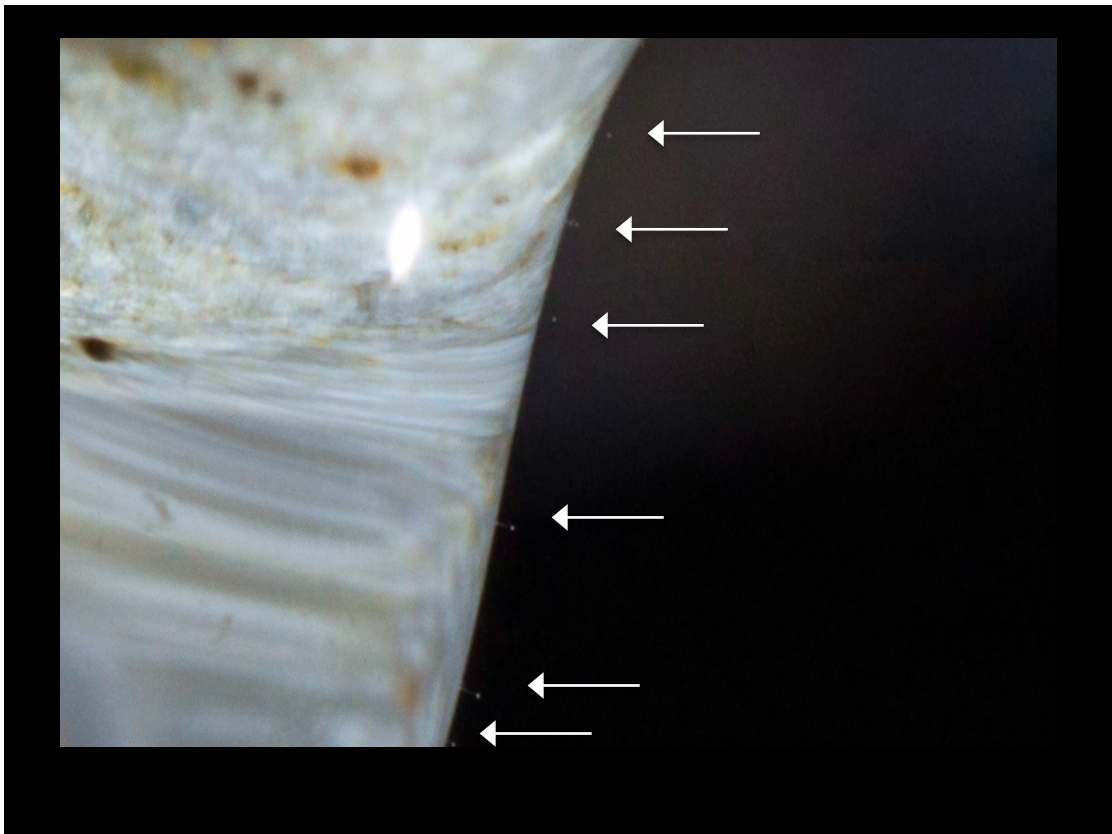
1) Selected Water Droplet



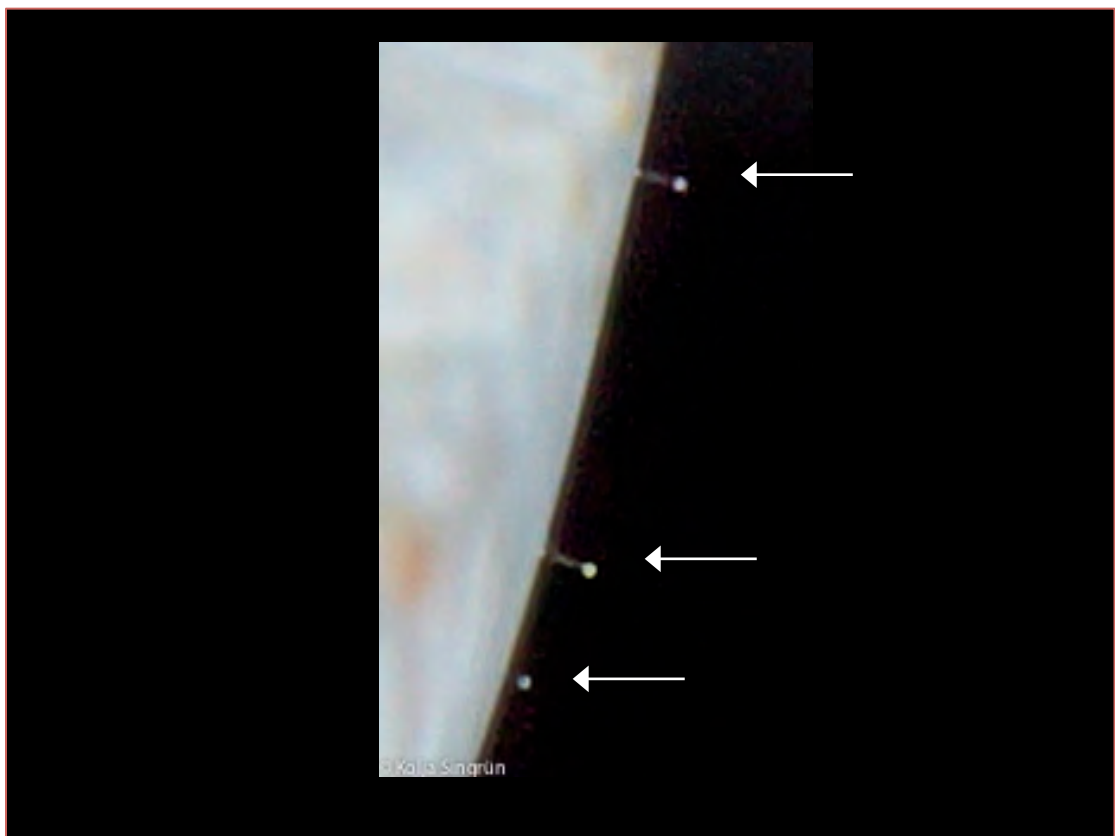
2) Accumulating water with migrations beginning to appear RHS



3) 6 objects migrating (RHS) from surface



4) Micro zoom on 3 of the exiting forms



This photographic research is important for a number of reasons. We are now tying many complex parts of a puzzle together. On the one hand we started this journey looking in to student and volunteer photographs, attempting to understand what they were capturing, then we move to an Artefact displaying a facsimile- the Heart Stone (refer MRV 2013)- here an art object or technology shows us that someone in the past saw REP and reproduced it for aesthetic, worship or technical reasons, establishing a relationship between culture, man and REP. Then we correlate to the water droplet in which we see again the same concentric circles, outer ring, internal ring, down to a nucleus- very interesting that all of these parts are beginning to interlink. By extrapolation- Are we seeing ancient knowledge? Are we witness to a forgotten and naturally forming technology? Or, is this all just coincidence? Coincidence is a too convenient dismissal for a phenomenon that spans time and space. The Heart Stone was recovered from a 20,100BP deposit, the photographs were taken in 2013, the Water Droplet was filmed in 2014, REP Orbs 2012-2014- something very interesting is at play and we suspect it is the product of natural energy emissions being influenced, focused, manipulated and encouraged through a complex interrelationship between engineered architecture, geology (quartz), atmospheric conditioning and water, not forgetting these elements and the Ravne complex appear to radiate out from the Pyramid of the Sun. Underlying these properties is the ever presence Quartz crystal and its associated piezoelectric effect. We talk about this in greater detail in a subsequent section 4.5.

4) Materials Testing and Characterisation

This season our artefact recovery programme moved from art objects, utility, construction, language, etc. to technologies. By expansion we are referring to a number of interesting materials found that appear to be cultural, modified, constructed or influenced by man. They are held at our laboratories in Visoko, Bosnia. A more complex series of analysis is required to determine what we have. The Foundation has allocated a materials testing budget this year, additional to other scientific examinations and Radio Carbon testing of organic material. In total 12 artefacts have been identified worthy of expert technical analysis, of which 8 have been approved for 2014 submission and shipped internationally. The selection process is not arbitrary. We determine importance of location of the find, its apparent attributes and how the analysis might support our wider investigation. The remaining artefacts are held in archive storage for testing at any future point in time- preserved.

Here we outline materials sampling:-

4.1 Composite Cells

Our investigation developed another interesting line of enquiry. In July 2014 our workers in Ravne labyrinth came across an unusual geological specimen or object, which we now classify as artefact. This is approx. 120mm-125mm in triangular form, a reddish brown texture and approx. 40mm thick.

Larger Cell 120mm x 125mm



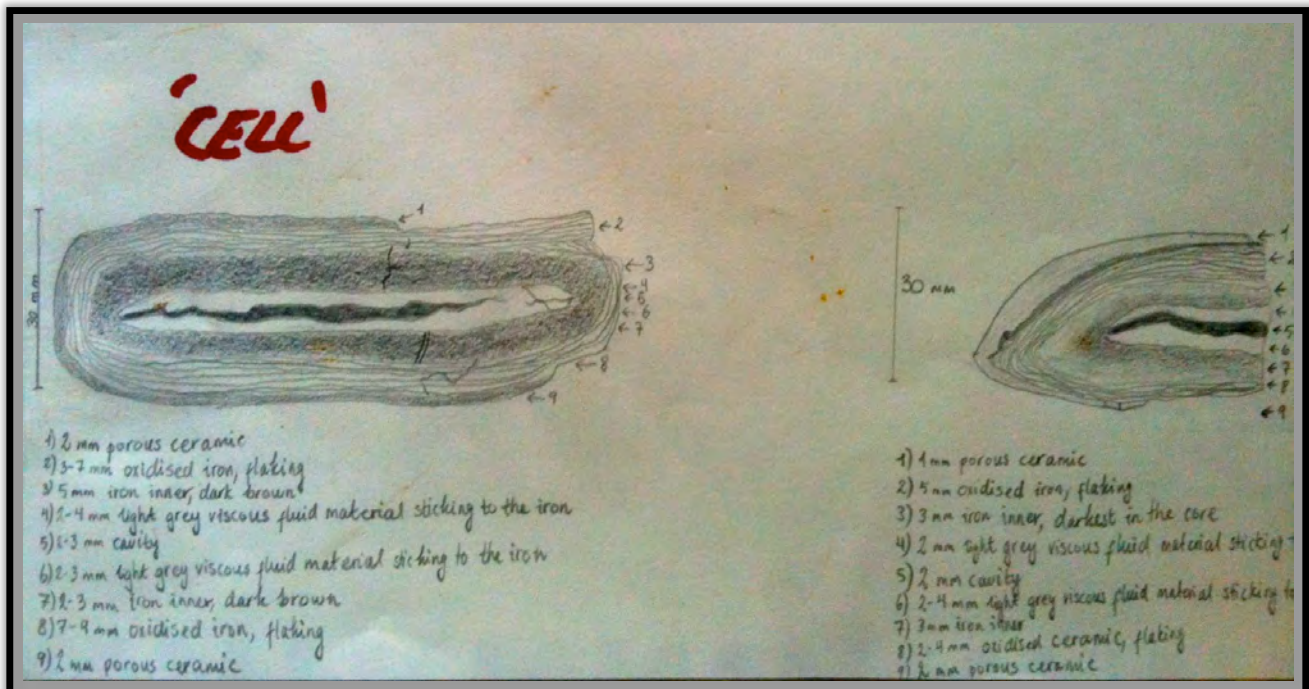
Mystery Cell- Plan view

What immediately captured our attention was the complexity of its internal structure, a composite form. Below is a cross sectional diagram, which we expand on here describing from the outer most surface to inner most void- we have the following:

Layers

- 1- 2mm ceramic outer shell**
- 2- 5mm oxidation**
- 3- 7mm unidentified stone/iron**
- 4- 2mm hydrated elastic material**
- 5- 2mm cavity**
- 6- Repeating in mirror form for the remaining half.**

Cross section



Cell cross sectional sketch

We now have secured three of these Cells in various sizes from 30mm diameter to 100mm, up to the one pictured above @125mm. We have also seen evidence of others in destroyed form. Their distribution is also interesting. All three were found within conglomerate in different parts of Ravne, separated by 100's of meters of tunnels. Others have been seen on Pyramid of the Moon, and a local archaeologist has reported seeing them in pebble size in the general area.

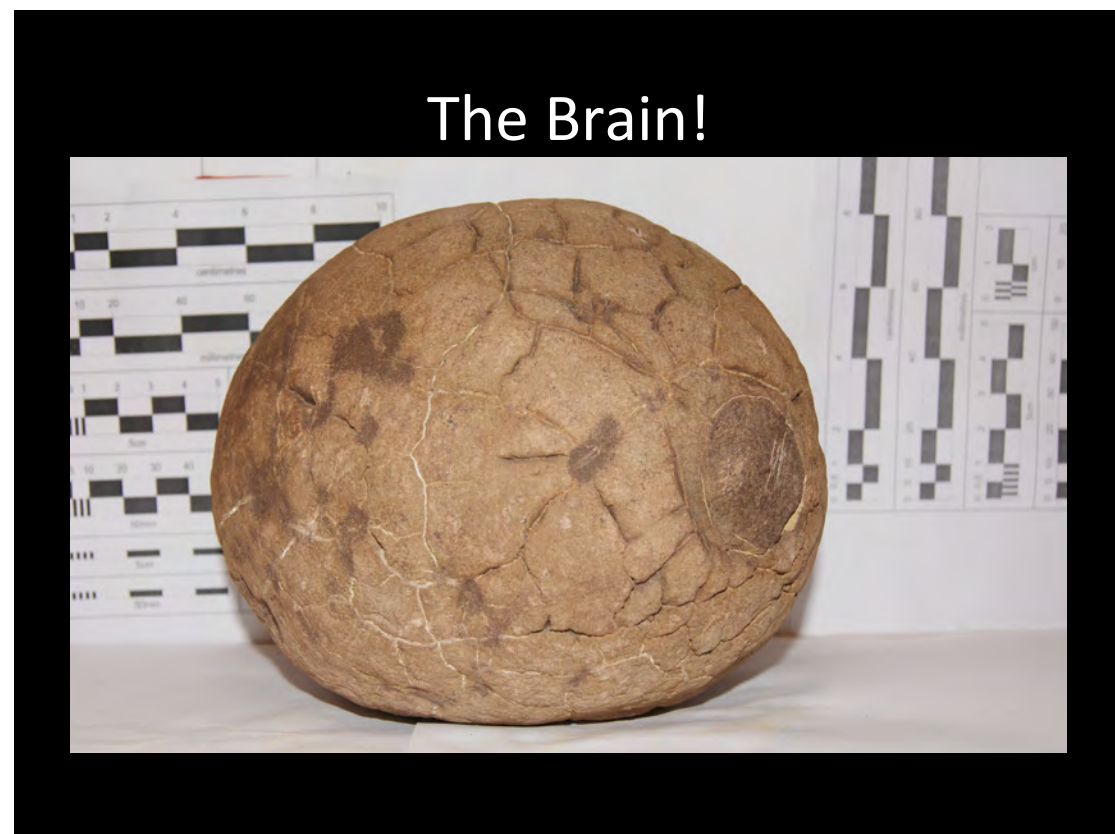
A physical Cross Sectional sample of the Cell has been sent to a materials testing laboratory in the USA for characterisation, stratigraphic analysis and conductivity testing. This is a complex process requiring exceptionally sophisticated equipment such as Electron Mass Spectrometers, EDX and XRF. Results of the scientific characterisation profiling will no doubt raise additional questions and require interpretation in context to their provenance.

A big question we are asking ourselves is this- If we have composite construction consisting of artificial combinations, could we be looking at a man-made component and if so could this be related to energy production, distribution, resonance device or the such like, perhaps even a utility item? An extension to these considerations is- if that is a possibility then could we also be looking at Micro and Macro versions of the Megaliths (Mega ceramics) located throughout the Ravne Labyrinth- K1 thru K5? This is an interesting possibility that will lead investigation through subsequent years?

4.2 The Brain

Remaining with materials testing and technologies we made a number of other discoveries this season- all of which are at Laboratories in North America and Canada undergoing a battery of analytical testing.

A local merchant working adjacent to Ranve tunnels entrance donated the Brain. He was very proud of the unusual geology he had come upon in the general area, although he would not disclose the exact location of the find to protect his trade in tourist crystals.



To describe- here we have an oval object, crazed surface showing signs of stress. There is a single exposed polished circle on the surface 40mm in diameter. Were as the larger surface is 'crazed' (cracked and marked) the site of the 'circle' is clean and unaffected by whatever else has influenced the rest of the objects surface. That raises a question of whether this is a connection point to a greater part(s), or, is this an entry

point to the internal structure. Another recorded attribute is the objects disproportional weight to size ratio- it weighs a hefty 5.8 kilograms! Because we are not in a position to identify and confirm absolute provenance we could not determine its exact relationship to our larger investigation, sites, features and artefacts.

It was therefore decided we could submit the object to a series of destructive cross section longitudinal and latitudinal cuts to determine internal structure.



Cross Sectional cut- Diamond blade



Internal composition- Fine grain, 'Swirl' characteristic of a mould pour

Initial observations made by the stonemason who undertook the cross sectional cut was that it felt like he was cutting something much more dense than stone, possibly metal. On examination of the internal section he was amazed. In the opinion of this stonemason the Brain appeared to be cast, poured, displaying tell tail swirls common in moulded materials. In cross section it is consistent in texture, extremely fine grained and the circle on the surface described earlier appears to be the point in mould through which viscos material was poured before setting. These observations are anecdotal, nonetheless, impressions of a person familiar with cutting local stone. We will publish the results of materials testing when they are complete later this year.

4.3 Butchery Stone

This artefact was recovered in 2013 and has awaited more detailed examination at our Lithic Laboratory. This year we determined it a cultural artefact, placing man deep within Ravne tunnels in the distant past. The stone was sent for characterisation testing this year and has produced evidence of Blood residue on the surface and within the incised lines. This confirms its use for butchery. What we are unable to determine due to the vast age and surface contamination is whether this is animal or human blood. No viable DNA can be extracted.



4.4 Quartz Cell

The last artefact sent for materials testing is a small piece of quartz crystal, approx. 1cc. What drew our attention to this item was when prepared for photography in the catalogue registering stages of Lithic

classification two of the Lab cameras failed to focus. Both cameras utilise auto focus modes, but could not determine a focal point instead producing out of focus and distorted photographs. They were both removed from the laboratory, re-booted and then eventually captured the artefact clearly. This situation was an interesting and unique anomaly not experienced across some 1,200 recorded artefacts. Exactly what occurred is conjecture at this point? However, what we do know and an area we have set up very specific research in, is quartz crystal and its associated piezoelectric effect. This phenomenon has been well documented across scientific and geological disciplines. In summary- when quartz is subjected to a Load an electrical discharge is produced. By example, 1cc of quartz subjected to a 250kg load will typically emit 12,500 volts of electricity (4.5). During the early to mid 20th Century small pieces of quartz were used to make amateur AM radio tuning devices. The quartz as small as just 2mm was connected by copper wire to a simple copper coil and by moving the 'hair' of the positive circuit along the coil the operator could tune in to radio broadcasts. What is interesting here is there was no external power supply or battery required, electricity was delivered by the quartz. In the late 20th Century (1980's) quartz crystal displays were incorporated in wristwatches and video games. Quartz is also used as a timing device in most all high-end electronic control systems from nuclear plants to satellites and space rockets. Quartz is a phenomenon in its self! - Did the ancients hold this knowledge?



Quartz Cell

Upon close examination we observed an oxidised intrusion inserted in to the quartz. Our investigation then shifted to examination of this intrusion to determine wether it was a natural occurring process or an artificial manipulation of the quartz. Iron is found in association with quartz, generally contributing to coloration.



Quartz with Iron intrusion

Quartz is known to form around natural iron deposits and this is acknowledged as one possibility. We are also investigating the artificial possibilities and note a couple of interesting attributes that might support this. This particular item displays fracture marks on both the Quartz and Iron, indicating it is remnant from a larger piece. The Iron core comprises:

81.1% Iron (Fe_2O_3)

3.6% Manganese (MnO)

3.3% Aluminum Oxide (Al_2O_3).

There is approx. 10 other elements present in varying ratios, mostly below 1.0%, except Silicone @7.85% (SiO_2) the building block or seed of Quartz.

Table 1.**Sample Compositions (in Wt%)^a**

Element	Inclusion
MgO	0.75
Al₂O₃	3.30
SiO₂	7.85
P₂O₅	0.77
SO₃	0.10
Cl	0.021
K₂O	0.073
CaO	1.63
V₂O₅	0.11
MnO	3.66
Fe₂O₃	81.1
NiO	0.071
CuO	0.066
ZnO	0.11
As₂O₃	0.10
SrO	0.021
Y₂O₃	0.040
BaO	0.198
PbO	0.053

However, the combination of Iron, Manganese and Aluminum is most interesting and will form the basis for further research and laboratory testing going forward.

The second attribute we have examined is the very clearly defined triangular nature of the intrusion, uniform angles and straight cut edges. These suggest the possibility of deliberate insertion.

Our third attribute is the electromagnetic discharge first observed effecting focus sensors on two auto focus cameras in the laboratory and secondly measured by our Electro Magnetic Meter immediately during photography. Clearly some form of energy emission is occurring, albeit in very a low frequency spectrum. This artefact has been selected for further testing in 2015 to ascertain natural or none natural.

Applying the accepted theory of piezoelectric effect to the large volumes of quartz fragments present within Ravne Labyrinth, we gain a perspective on natural electricity production, the interaction that might occur between piezoelectric output, purposefully designed architectural features, interaction of water and unusually high levels of negatively Ionised atmosphere.

By extension we set out some of our research in to this phenomena particularly as it relates to observations and theory on Ravne as energy system. We present this material to encourage discussion and further research because we feel it imperative this line of thinking be stimulated.

4.5 Quartz phenomena and Piezoelectric effect as it relates to Ravne

Research Assistance Richard Takauu

Outline

The Ravne tunnel labyrinth displays some interesting attributes that require investigation. Some of the questions we are proposing are:

- 1) How does Ravne create positive atmosphere in a closed system
- 2) How does it generate negative ionized air and by what mechanisms does it respond/regulate production
- 3) How is it breaking the Oxygen Hydrogen bonds and what happens to the residual H?

- 4) What function might Quartz have in these processes
- 5) Is Ravne an energy system driven by architecture, water, electromagnetism and an exchange mechanism

These notes look at Quartz, how it might relate to observed effects within Ravne and lead us to deeper research.

Observations

- 1- Filler Material- Assumption- consider this as a manufactured medium. It has been subjected to extraction, processing, re-installation and is terminated (Dry Wall). This suggests purpose and function beyond a simple process of ‘closing’ a tunnel.
- 2- Filler Material is energized- observation- after thousands of years the material has not compressed and is still quite light to the touch. This suggests particle separation, particles are being held apart, perhaps by H₂O or Oxygen molecules attaching to the small classes. There may also be an energized component in a spectrum we have not yet been able to read. Why does ‘Filler’ defy Gravitational force (none compression) and why does this also defy waters self-patterning properties- moisture does not migrate to the lowest point, drain or exit. There is no ‘pooling’ of water at floor level.
- 3- Examination of Filler Material indicates high quartz content in a ‘crushed’ form. The conglomerate contains high volumes of Quartz in typically normal clast sizes. Quartz ground to small clast size has the effect of increasing surface area exponentially and reduces load/stress required to trigger piezoelectric effect.
- 4- Open Sections- Ravne consists of both open and closed sections. Consider these features as designed and not accidental. Accordingly, as with engineered Filler Material the Open and

Closed sections perform a function we as yet do not understand. They may be integral to the energy transfer/transportation process or atmosphere producing H₂O bond separation.

5- If H₂O bonds are being dissolved- what energy source/force is employed and what is happening to the H. If this system is as complex as we are beginning to consider, then it stands to reason there is no wastage and the H must play a role we are not able to see.

6- Look at H absorption via the Para effect.

An overview to- what is Quartz?

Quartz or SiO₄, is produced beneath the ground, taking billions of years to form deep within the earth's crust, usually around volcanic and earthquake activity and it is generally accepted that rock is made up of 60-80% quartz (depending on which journal is referenced). The process requires immense heat and pressure, and always starts with a 'seed' crystal. A seed crystal is created when a single silicon atom, under intense heat and pressure, fuses with two oxygen atoms from superheated water or steam vapour trapped in the same location. The atoms fuse to form a single crystalline cell of silicon-dioxide (quartz). The by product of this fusion is hydrogen, presumably left over from the fusion of oxygen atoms separated from water, which consists of two hydrogen atoms and one oxygen atom. In short, when the oxygen atom is separated from the water molecule, the two hydrogen atoms remain. (Possible link to Ravne hydrogen by-product).

The process the 'seed' follows reoccurs and every cell replicates itself to produce a geometric pattern. The end result is a six sided, angular and geometric growth matrix, which consists of 46% silicon and 53% oxygen. The Crystals grow in an organised spiral pattern, which causes each atom

of a crystal to line up in a structure similar to a serial battery- another link to Ravne concerning the energy system hypothesis.

Look at the Cellular Structure at Atomic Level:

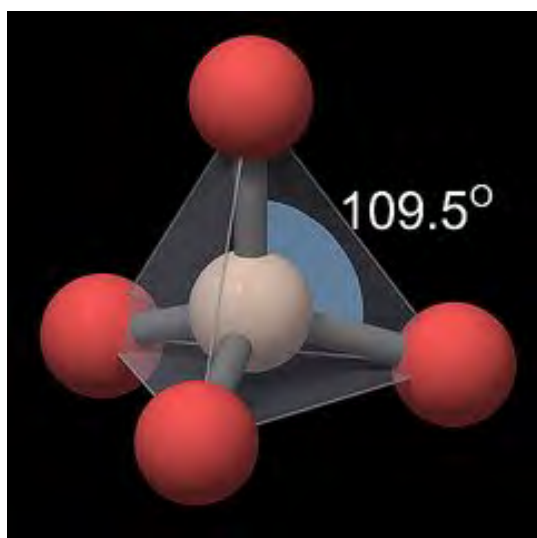


Fig.1.0- SiO₄ Tetrahedron

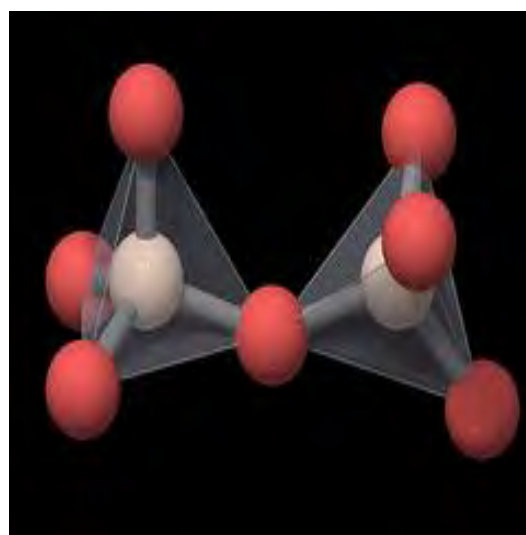


Fig.1.1- The Si-O-Si bond forms an angle of 144°

Figure 1.0 shows a single quartz molecule broken down into atomic bonds (red-oxygen, cream-silicon). An interesting nuance to point out is the apparent similarity between the quartz molecule and the three dimensional pyramidal shape. Is it possible that this sacred geometrical symbol is thus because of the importance of quartz to our understanding of energetics and further, is it possible that our ancestors knew of this (conjecture at this point). Figure 1.1 shows the oxygen atom bond between two quartz molecules.

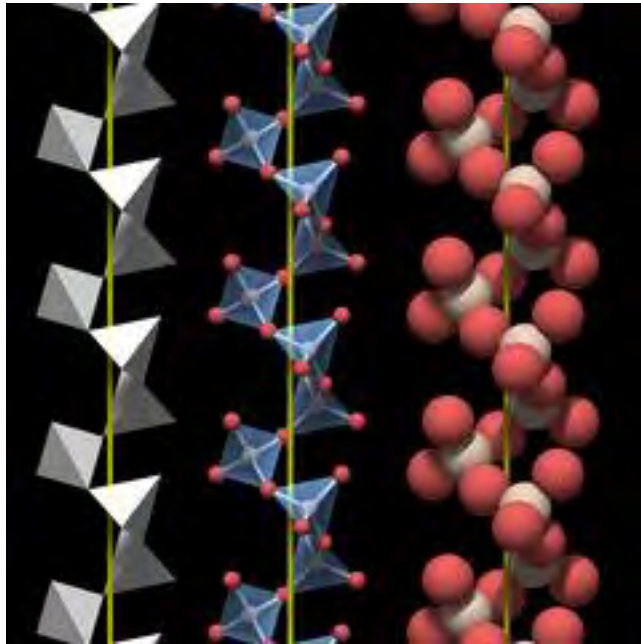


Fig.2.0- Helices of SiO_4 tetrahedra. Interesting side note that relates further to sacred geometry is the fact that the chains of SiO_4 tetrahedra wind around a vertical axis to form a helix. Figure 2 shows three different representation of these helices. Of course, these helices are virtual bodies - there is nothing that distinguishes the chemical bonds that connect the SiO_4 tetrahedra within a particular helix from bonds to tetrahedra outside that helix. Quartz does not have a fibrous structure but the helices are a geometrical feature of quartz that has important implications for its symmetry.

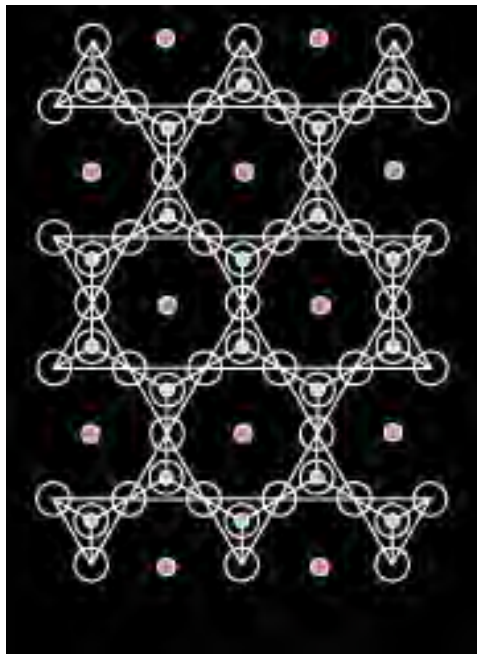


Fig.2.1- Crystalline array of tetrahedral structure repeated within the quartz crystal

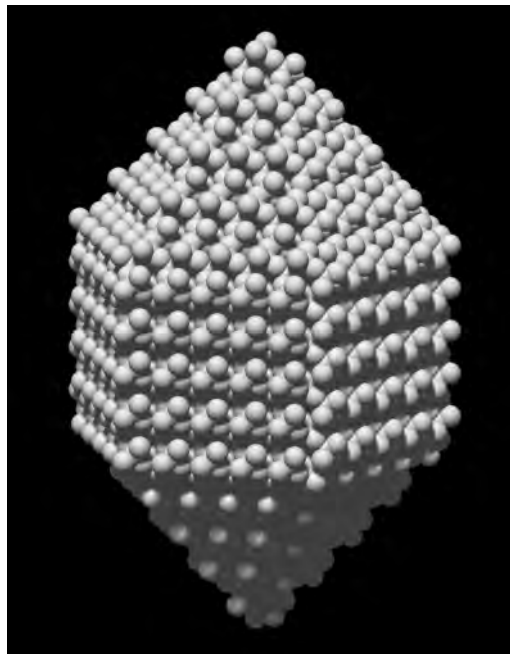


Fig.2.2- Idealised model of a quartz crystal

Figure 2.1 clearly illustrates another link with quartz structure and sacred geometry -note the Star of David or double inverted pyramidal pattern.

The more one looks into the properties of quartz the more one asks how did these esoteric symbols become part of our ancestor's repertoire.

Four Main Uses of Quartz:

- 1) Far Infrared (EM radiation) – Medical benefits include treatment of high blood pressure, congestive heart failure and rheumatoid arthritis (albeit classed as alternative medicine).
- 2) Piezoelectric – Voltage drawn from crystals subjected to mechanical stress e.g. 1cc (Cubic Centimetre) quartz with 250kgs of correctly applied pressure, can produce 12,500 volts of electricity!
- 3) Negative Ions – e.g. it is well documented that Niagara Falls emits 100,000 negative ions per cc, at certain places. The cause of these emissions is two-fold: firstly, as mention earlier, all rock contains 60-80% quartz and secondly, water. As the water hits the rocks below with tremendous force, the quartz acts as a catalyst for negative ion emissions via water (Ravne is full of both water and quartz under massive force).
- 4) Triboluminescence – Light or glow produced by pressure of friction or shock impact.

Where does quartz get its electrical energy? In short, mother nature. When quartz is produced in the sub-strata levels of the earth's crust, it shares spaces with vast amounts of iron ore deposits. Obviously, iron particles line up north-south when they are free to move (e.g. molten state), they become magnetised (e.g. iron rod in a charged coil). These

magnetised deposits influence growth patterns of all minerals especially quartz and especially the aforementioned ‘seeding’ time.

Proposed Tests for 2015 season:

- 1) EM test – spectrometer measurement different amounts of force on multiple quartz samples (in case one type is more conducive than others).
- 2) Piezoelectricity – not necessary as this phenomenon was well documented by the Curies in the 1860’s and many subsequent studies.
- 3) Negative Ion release - not necessary in Ravne as we know it exists, however a controlled test that involves isolating some filler material in a neutral environment (i.e. normal negative Ion environment, e.g. 0-2000 negative Ions/cc). Then assimilate different levels of pressure on filler material and test hypothesis using only water from Ravne. If we pick up negative Ion emissions, then using other types of water sources one could expand the test.
- 4) Triboluminescence – two similar sized, and coloured crystals of similar mass rubbed together vigorously or shocked in darkened room.

Electric effects on water:

Electron movement when shocking the crystals generate electrical charge. It is proven that electrical charge effects water molecules. Water, being dipolar, can be partly aligned by an electric field and this may be easily shown by the movement of a stream of water by an electrostatic source. Even partial alignment of the water molecules with the electric field will cause pre-existing hydrogen bonding to become bent or broken. An electric field also changes the molecular O-H bond lengths (causing $\sim\pm 6\%$ change in a lone water molecule), H-O-H bond angle ($\sim +1\%/-0.2\%$ change in a lone water molecule), vibrational frequencies and dissociation energy, depending on the relative orientation of the molecule to the field. Ultimately affecting the hydrogen bonded network by increasing the differences in the properties between the ortho and para forms of water (another link with Ravne hydrogen by-product theory).

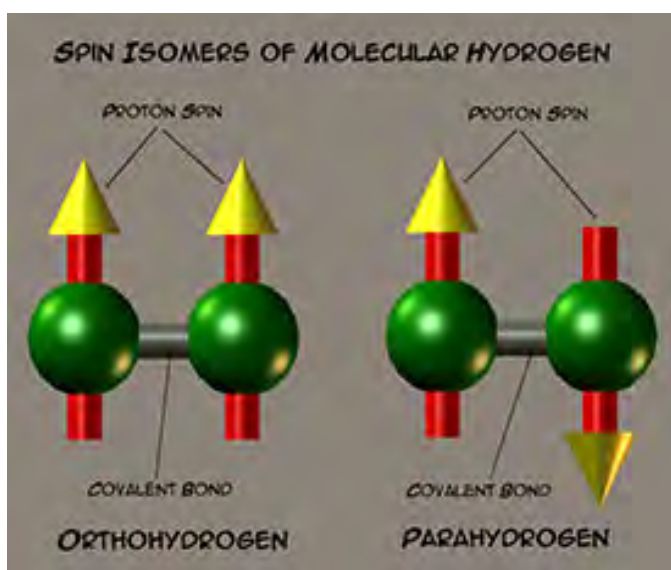


Fig.3.0- What makes Hydrogen so special is the fact that it possesses two distinctive forms; Para-Hydrogen and Ortho-Hydrogen. Para-Hydrogen occurs when the electron is spinning in the opposite direction as the nucleus. When the electron is spinning in the same direction as the nucleus it is called Ortho-Hydrogen. The research conducted by Simon Ruskin found that the conversion of Hydrogen from Para- to Ortho- was done by magnetic means. Ortho-Hydrogen is much more combustible than Para-Hydrogen. In fact, for safety reasons the liquid hydrogen used as a propellant for the space shuttle is stored in its less volatile Para-Hydrogen state.

Electromagnetic effects on water:

It is widely known that purely static magnetic fields strengthen hydrogen bonding and effect the infrared spectrum of water, which remains for a considerable amount of time even after the magnetic field has been removed.

Thus, it appears that electric and magnetic fields have opposite effects on water clustering. An open, more hydrogen-bonded network structure slows reactions due to its increased viscosity (The viscosity of a fluid is a measure of its resistance to gradual deformation by shear stress. For liquids, it corresponds to the informal notion of "thickness". For example, honey has a much higher viscosity than water), reduced diffusivities and the less active participation of water molecules. Any factors that reduce hydrogen bonding and hydrogen bond strength, such as electric fields, should encourage reactivity. Water clusters (even with random arrangements) have equal hydrogen bonding in all directions. As such, electric or electromagnetic fields that attempt to reorient the water molecules should necessitate the breakage of some hydrogen bonds; for example, electric fields have been reported to halve the mean water cluster **size!**

Hypothesis:

In order to synthesise all the parts of the ‘Ravne theory’, including the ‘Ravne Energy Phenomena’, we would put forward the idea that the water molecule, in layman’s terms, becomes lighter. Either reduced in size, by the electro-process mentioned in the *electric effects on water* section concerning bond lengths etc., or/either, by the electromagnetic process explained in the last paragraph. The issue remains, however – what happens to the remaining hydrogen?

It may be possible that the hydrogen becomes dissolved gas, in its less combustible para form, in the water chemistry and aerated into small Nano-bubbles made up of 100 or less molecules of gas and therefore not

detectable immediately by the human eye. We would obviously need to test this hypothesis.

How the 'Ravne Energy Phenomenon' fits into this synthesis is still a mystery at this moment.

Further Testing:

- 1) EM test – spectrometer measurement different amounts of force on multiple quartz samples (in case one type is more conducive than others).
- 2) Negative Ion release - not necessary in Ravne as we know it exists, however a controlled test that involves isolating some filler material in a neutral environment (i.e. normal negative Ion environment, e.g. 0-2000 negative Ions/cc). Then assimilate different levels of pressure on filler material and test hypothesis using only water from Ravne. If we pick up negative Ion emissions, then using other types of water sources one could expand the test.
- 3) Triboluminescence – two similar sized, and coloured crystals of similar mass rubbed together vigorously or shocked in darkened room. NB, this test is flawed because of the difficulty in retrieving two crystals of the same quality, mass and colour. Also present is a technique bias in the rubbing or striking of crystals, as it is impossible to guarantee the same amount of force per crystal. (We have already carried out informal testing in the laboratory with positive results)
- 4) In order to test the 'lighter water' hypothesis we would need to gather multiple sources of water of the same unit size, i.e. Ravne water 100ml vs. water from multiple sources 100ml to avoid bias, and weigh them. Then to further promote scientific

analysis without bias, we would test the same sources of water but only after exposing one sample to electromagnetism and also electric current in order to check for variation in mass.

- 5) In order to credit further the theory that covalent bonds are at play at allowing energy storage in the water of Ravne, we need to test the PH levels of the water as far into the tunnel as possible and certain intersections all the way through to the end of the tunnel system.
- 6) In order to make sure that the convection that occurs within the tunnel system is one that does not utilise energy through heating and cooling I would propose we measure the temperature of as many water streams in Ravne as possible, as far back as possible all the way to the end of the stream.
- 7) In order to test the theory that hydrogen becomes a dissolved gas, in its less combustible para form, in the water chemistry and aerated into small Nano-bubbles made up of 100 or less molecules of gas, we would need some samples of water tested for purity and quality and of course if any materials are present understand their essential characteristics.
- 8) EM tests on ceramic megaliths (note: informal testing/possible human error occurred with respect to lighting system causing bias in results).

4.6 Iron Bock Intrusions

Lastly, we have two remaining materials that demonstrate unusual properties. These are referred to as the Kopaci Blocks. Kopaci is a small settlement of just 5-6 houses occupying a valley immediately South of Vratnica (refer Vratnica sections 5). In 2013 we were invited by a local to inspect some construction materials he had been collecting to lay a patio around his house. The elderly gentleman knew the material he was pulling from the ground was not 'normal'. His family have occupied the area for several generations and know what is normal and what is not. Initial inspection was visual. Several blocks, sandstone in nature, held within them parallel veins of a contrasting material. At each end of the blocks where the material vein was exposed to the atmosphere surface oxidation in the form of particulate dust was observed. The intrusive veins ran the length of the block edge to edge. We then took a random sample block and broke it in two. Whereas the exposed surfaces were heavily oxidised the interior was bright silver to grey in texture, clean and denser than the surrounding sandstone material. A most perplexing scenario.



Local landowner showing unusual materials



Kopaci Block- Exposed 'vein' surface oxidation



Example of an intrusion 'vein' running the horizontal length of a Block. A sample Block was taken for laboratory examination and several others earmarked for archive storage pending future analysis. The selected Block was taken to a stonemason for sectional cut.



Masons cut

As experienced with the Brian bisectional cut, the mason commented resistance on his diamond blade changed upon contact with the internal vein, it felt like cutting metal and emitted sparks on contact.



Sectional cut displaying Vein in upper centre of Block

A smaller sectional cut has been submitted for materials characterisation in the USA. Results are not available at time of publication.

A further laboratory analysis was undertaken utilising Polycontrast Interference Photography (PIP) that measures energy interference within photon emissions as a ratio to ambient surface reflected photons. This data is then run through a series of algorithms to determine spectral emission. The sample immediately displayed clear energy differential between the surrounding sandstone and considerably higher levels within the areas of vein intrusion. The data has been taken back to Paris and results will be published on our website when complete (www.bosnianpyramidofthesun.com). By way of anecdotal examination- we know we have none natural geology consistent across many samples, uniform symmetry across total length, contrasting densities, oxidation at exposed surfaces and clean internal surfaces. Subject to further scientific testing we reserve a conclusion as to what this material is, properties purpose and manufacture technique. It is clearly unusual, contrasting to all other geology in the area.

The following photograph displays another block from the same location. This has been split in the past along a horizontal seam. What is exposed appears to be a round (30mm) oxidised (rusted) iron bar running the length of the sandstone block. This item is held in the laboratory for analysis in 2015.



5) Vratnica Bore Hole

Vratnica is a tumulus mound located approx. 4.5km north of Visoko. The tumuli is 31m in height, was excavated in the 2011/ 2012 season, displays uniform megalithic blocks and spiral terraces at its outer perimeters. In 2006 a core drill was made from the apex to understand the stratigraphy, construction method and any other data obtainable. The Core was successful in identifying many layers of artificial strata. What is of most interest to us presently is that at approx. 49m the drill head broke, was extracted, replaced and continued drilling. For the following 2.0m a concrete core was encountered, followed by 3.0m cavity of no material, then 1.0m of concrete, followed by several meters of clay. The possible conclusion drawn from this is a chamber or subterranean structure exists at this depth circa 49 to 55m.

We then turn to the investigation proposition. Locate the Bore Hole, remove the protecting cap, lower HD underwater cameras into the chamber and capture images of the structures internal form.



5.1 Vratnica apex excavation Grid

A 4m x 4m grid was established primarily to locate the Bore cap, but also to investigate stratigraphy and determine cultural layers at the apex. The site presented a superficial layer of humus soils to 200mm, disturbed clays to 600mm and then we encountered a sandstone plate that appeared to occupy the total area of the apex.



Bore Hole located centre frame top and bottom.



The excavation was conducted under supervision of our Lead Anthropologist following guidelines established to identify Bore location, excavate Cap, wait for extraction plan. Remember, the Bore has been concealed for 8 years, is key to entering a structure in the Bosnian Valley of the Pyramids for the first time in history and capable of delivering ground breaking data in support to manmade structures. We had invested

two weeks in carefully locating the Bore and were prepared to invest several more weeks extracting the plug, clearing the shaft and examining the chamber. What occurred next is almost beyond belief and raises questions as to personal motive. A volunteer under instruction not to touch the cap took aggressive action to deliberately smash the cap in driving it deep in to the inspection shaft. The wooden plug is estimated at 100mm diameter and 250-300mm in length- it lodged at 11.2m.



Extraction process



Bore Hole, Site Excavation and Tether

An oil and gas industry specialist was brought in to determine extraction technique. Due to site access issues they were unable to assist. A construction firm was asked for advice- their determination is the plug is untreated wood, has been in the damp earth for 8 years and probably in a deteriorated condition. A plan was developed to destroy the wooden plug.



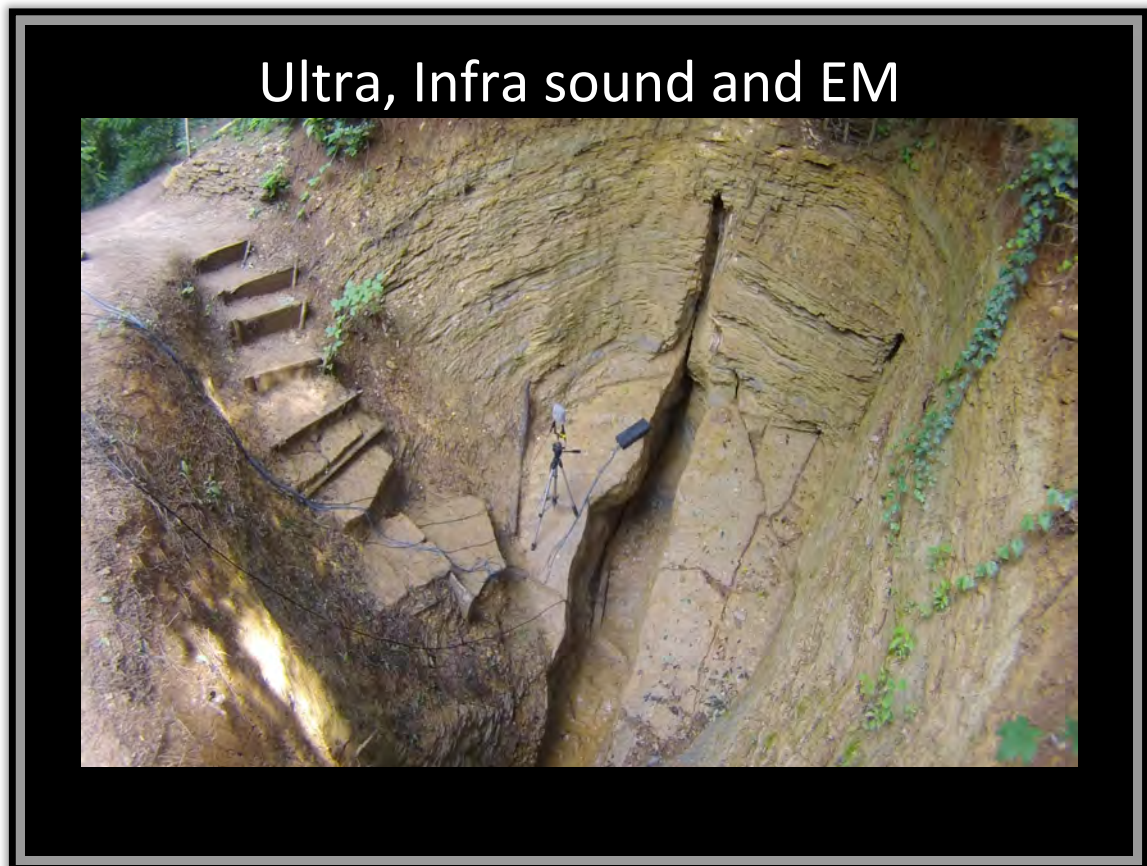
Plan view of wooden plug lodged @11.2m (split top right)

Over the following 4 weeks several attempts were made to dislodge the plug and break it in to smaller sections that would then allow a camera rig to pass by and descend into the deep chamber @52 to 55m. The plug was moved from 11.2m to a final resting position @31m. At this point the plug reached the water table and could not be moved any further due, in part, to hydraulic resistance.

To preserve the site from further damage, vandalism or weather erosion it was decided to fit a metal cap and reinstate the site to ground level. A set of moisture protection sealed site notes was placed on top of the new cap to guide any future investigation. Site closed, **investigation inconclusive.**

6) Ultra, Infra Sound and Electromagnetic recordings

During the month of August a series of acoustic and EM monitoring experiments were set up across project sites- Bosnian Pyramid of the Sun (Plateau, Apex and Sonda 12b – the Crack), Vratnica Tumulus apex and Ravne Tunnel Labyrinth (K2 Megalith, Main Passage and Water Section).



Sonda 12b is a trench excavated in 2012 by Archaeologist Ricardo Brett. The trench is 3.8m deep exposing the outer concrete casing to the Pyramid of the Sun. A crack was located in the casing, possibly due to tectonic forces in the distant past. Two significant discoveries have been made at this location.

- 1- The concrete casing of approx. 80cm in thickness is followed by 1.0m of clays, then to a second layer of concrete casing. The outer crack extends to this inner layer. Of significance is airflow emitting

from the internal fissure. Air exiting an opening is indicative to underground chambers or passageways.

- 2- In 2013 volunteer Thomas Green retrieved a piece of organic material located immediately under the outer concrete layer. The subsequent Radio Carbon 14 date was certified to be 29,200 years BP.

The second site selected for monitoring was Ravne labyrinth. Of specific interest to us was the water section. This is a section of flooded tunnel extending for approx. 200m (refer Section 7.0). Within Ravne we have a water table consistent throughout the complex at a - 300mm below main passageway floors. When we discover or open a water section, and there are several, we are able to determine they are constructed at a lower mean level that in turn suggests at a different period. By way of example- the main tunnel extending 200m West is dry under foot. The large tunnel referred to as the Water Section runs parallel to this, but is flooded to a depth of up to 1.45m. Accordingly, this section must lie up to 1.75m below the main passage, hence our assumption to earlier periods of construction. The Water Section has a number of interesting characteristics. Running for the entire 200m length is a channel cut into the floor measuring 600mm x 600mm x 600mm. This channel is centred and remains so following the tunnel meander for the full course. The form is clearly constructed representing cultural modification. The edges are at right angles x 4, the base and sides completely square and clean cut.

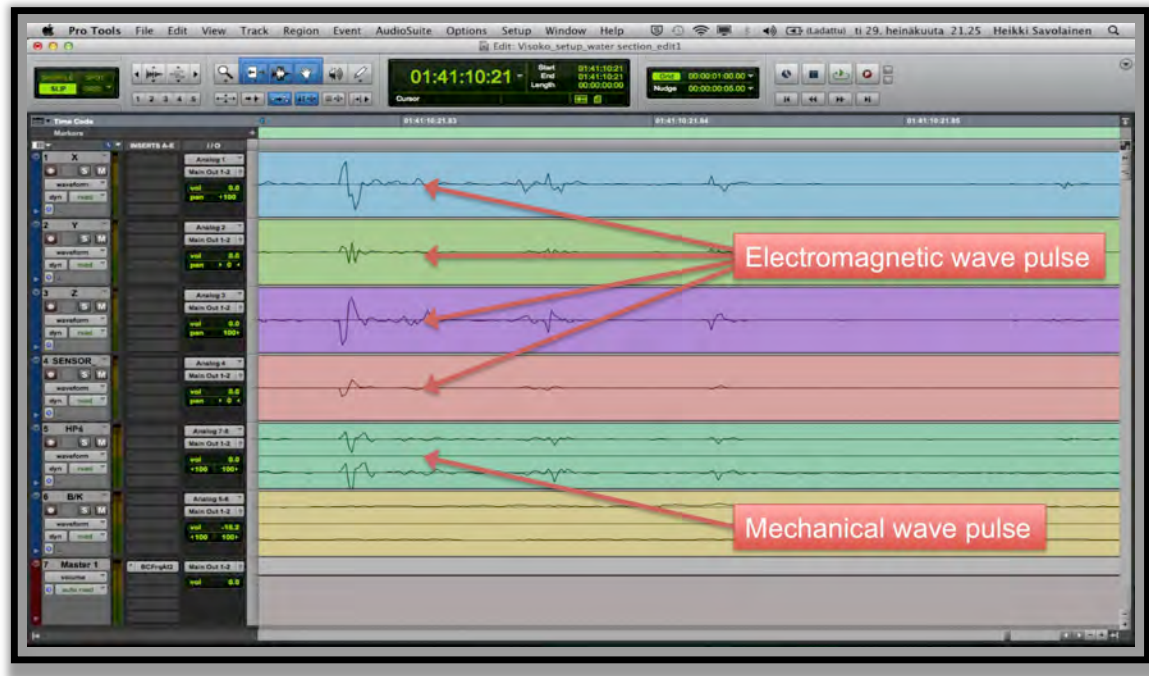


Water Section displaying central channel.

Another attribute of this section is the Dry Wall construction. As with all the other main tunnels within this labyrinth, the Water Section has a number of large Dry Walls impressive in their form and appearance. They are in pristine condition demonstrating an absolute artificial nature, purposeful design and consistency in method.

At the entrance to the Water Section Ultra and Infra sound and EM equipment was set up. Two hydrophones were placed in the water, effectively turning the entire 200m tunnel in to one large microphone pick up. The XYZ EM antennas and acoustic microphones were positioned in the dry connecting passage. Almost immediately an unusual signal was detected. To explain- the hydrophones picked up an artificial mechanical signal occurring at approx. every 2.5”s. The EM 3D antenna’s also picked up an electromagnetic signal at exactly the same

time signature. This is most unusual and suggests the Pyramid or Pyramid tunnels are sparking!



Simultaneous Electromagnetic and Audio pluses (Magnetic and Mechanical)

Simultaneous multiplatform waveform signals are very rare in nature, especially with a synchronised repeating pattern. At this moment deeper analysis is taking place for the recorded files and their form of possible origin.

Results for the full Ultra/Infra/EM testing across all main structures in the Valley are still being processed through an external laboratory located in Finland by Heikki Savolainen. Results once audited will be published.

7) Water Section survey

In July we lead a team of divers to explore the flooded Water Section. The purpose of the dive was to establish the extent of the system and what features presented at the terminal end. In the past 2 survey attempts

had been undertaken, however, both of those were unsuccessful in traversing the full length of this tunnel system. To ensure successful survey a Colonel from the Bosnian Special Forces brought his team of experienced cave divers to run Safety for Dr Semir and Timothy Moon. At approx. 85m the tunnel ceiling dipped to within just 10cm of the waters surface. Past survey attempts terminated at this point assuming the passage unpassable and terminating. However, under supervision of the experienced dive master we were able to negotiate two of these tight confinements spanning approx. 3-4m each. The tunnel is 200m in length, dividd at 85m by the 'squeeze' described. Following the squeeze is approx. 105m of unobstructed water tunnel. The water depth at this point is approx. 1.450m and the central channel (described 6 Ultra Sound) continues for the entire length. This channel is in remarkable condition, clean cut, sharpe right angles and consistently centred. At the terminal point of the Water Section is a large chamber that forms an intersection between the water passage and three large filled tunnels radiating out, one of which leads directly South to the Pyramid of the Sun. The chamber is approx. 5m x6m 3m height. This is significant as previous surveys assumed this Water Section to terminate @ 85m. We now have proven it continues to a total length of 200m- a total distance of 450m from the outside entrance- and then presents 3 more tunnels that if excavated will lead deeper toward the Pyramid, no doubt presenting more side tunnels, filler sections and dry walls as it tracks its course. Clearly we have an elaborate labyrinth tunnel system displaying repeating patterns in design, confirming artificial construction and dating to a distant point in time.



Entrance to Water Section- note round tunnel design

As we progressed through the system we observed stalactites had formed from the ceiling in several locations. A number of observations were made- the stalactites appeared to be of crystal in texture, possibly quartz or calcite. They were broad in form, that is a very wide base connection to the ceiling reducing to a point at the terminating end. What was also apparent is the entire area of ceiling conglomerate surrounding the base of the crystal growth displayed crystal as binding material. This suggests migration of water percolating down from the surface ‘gluing’ the conglomerate together through calcite crystal growth. A small sample was removed for date analysis.

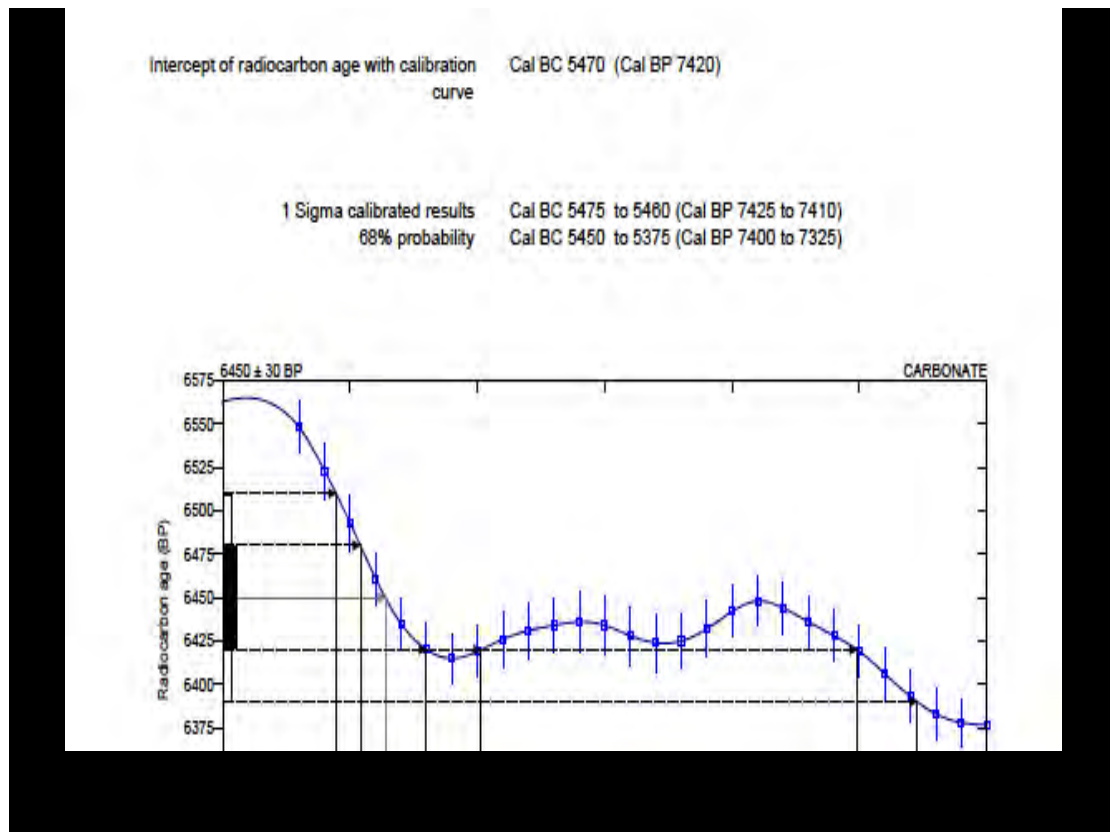
Calcite Crystal Stalactite



7.1 Calcite Crystal sample for dating.

The sample was packaged and dispatched to an archaeology Radio Carbon Dating laboratory in the USA. The first analysis in pre treatment establishes the sample is Calcite Crystal formed through soluble calcite deposits carried down from surface by water, forming in and on the exposed tunnel ceiling, extending down to form stalactite formations up to 120mm in length and 100mm wide. The appearance was that of a waveform, thick, elongated and undulating at the base, narrowing to a point at the terminal end.

Using the accepted method of Radio Carbon¹⁴, adjusted by C¹² isotopes and then calibrated to known decay profiles dating was undertaken on the calcite sample. What follows is the Dating Certificate indicating an age of 7430BP for the formation of the sectional sample.



Now at this point we must consider this in context to the larger overall accumulated calcite growth of 90mm residual length. This connects the sample to the larger base growing from the tunnel ceiling. For the purpose of estimating an average and consistent rate of growth we have adopted a conservative approach ignoring the substantially wider mass of the calcite base connecting to the ceiling. Applying a ration of 1/3rd to 2/3rd of total length we arrive at an estimated age for the crystal of 22,200years BP. This provides us with a dating guide that establishes the pre-existence of the man made Water Tunnel before 22,200 years ago. This is a significant result; consistent to other dates we are obtaining for Ravne and associated artificial structures.

8) Dating profiles

The dating profiles we are establishing support our view the Bosnian Valley of the Pyramids originated as artificial (man made structures) in

pre-diluvial times, a time before the Last Glacial Maximum, possibly prior to the Great Flood Catastrophe recounted in Judaeo, Biblical, Religious and Historical texts from at least 11 ancient civilisations across the World. This is a time in Human History we are told was occupied by un-civilised Hunter Gather cultures, living unsettled life patterns, not capable of organised public architecture, advanced engineering or formation of cities. Those activities we are told remain the exclusive domain of Human history post 8,500 (+/-500) YA as the emergence of city-states such as Jericho and Ur in modern day Iraqi attest.

Here are our dating profiles from the Bosnian Valley of the Pyramids:

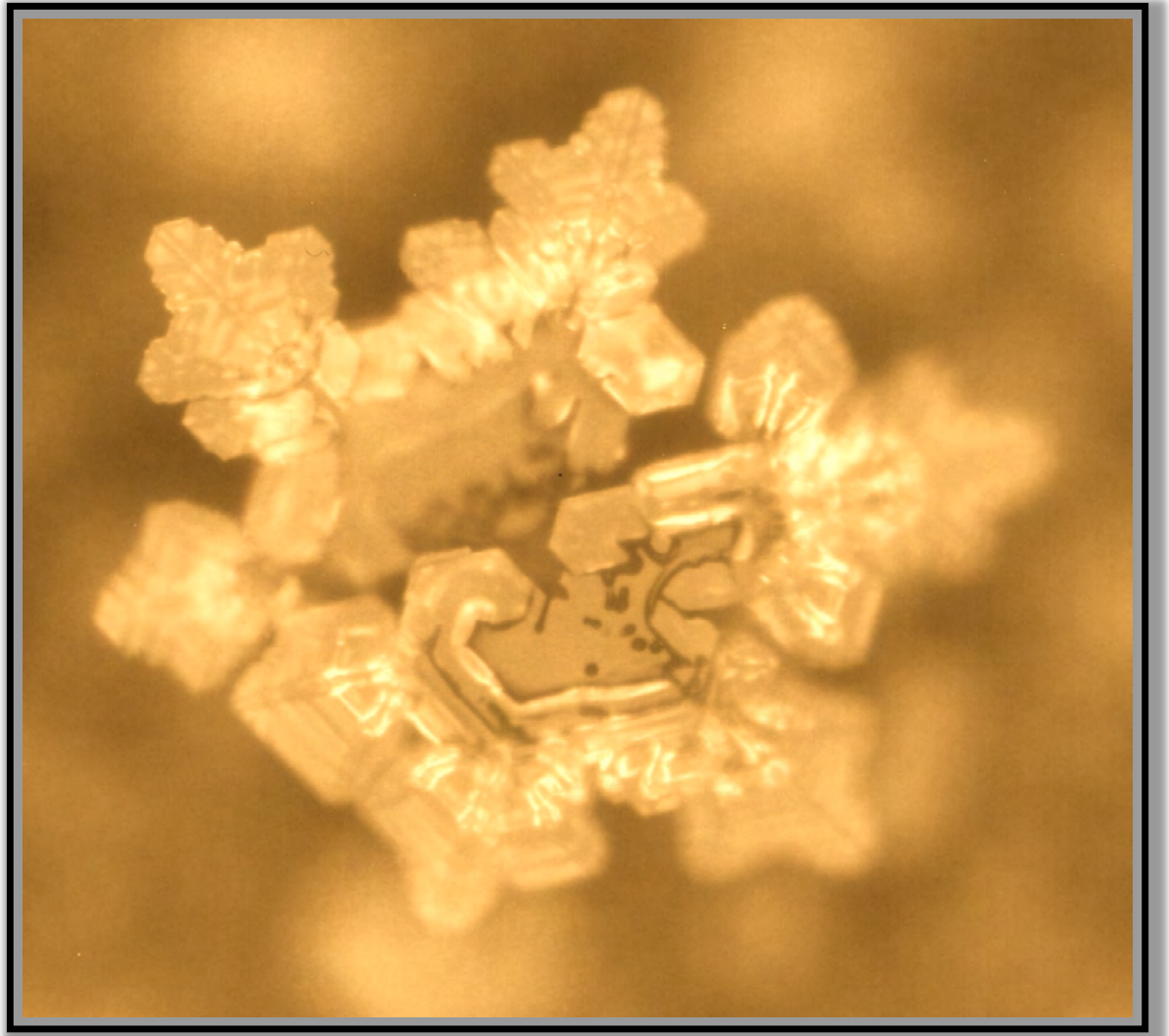
Organic Sample Location	Years Before Present
2010 Ravne Pyramid Tunnel (Wood)	34,000BP
2012 Piramida Sunca (Sun) Sonda 5	24,800BP
2013 Piramida Sunca (Sun) Sonda 12b	29,200BP
2013 Ravne Pyramid Tunnel 180m mark	20,100BP
2014 Water Section Calcite 7,430Bp extrapolated	22,200BP

Clearly, the Bosnian Pyramid Foundation through its scientific investigation and adhering to recognised archaeological dating techniques as utilised by all major investigations around the world is producing consistent ranges in support to the existence of ancient civilisation and highly advanced Human culture pre 20,000BP.

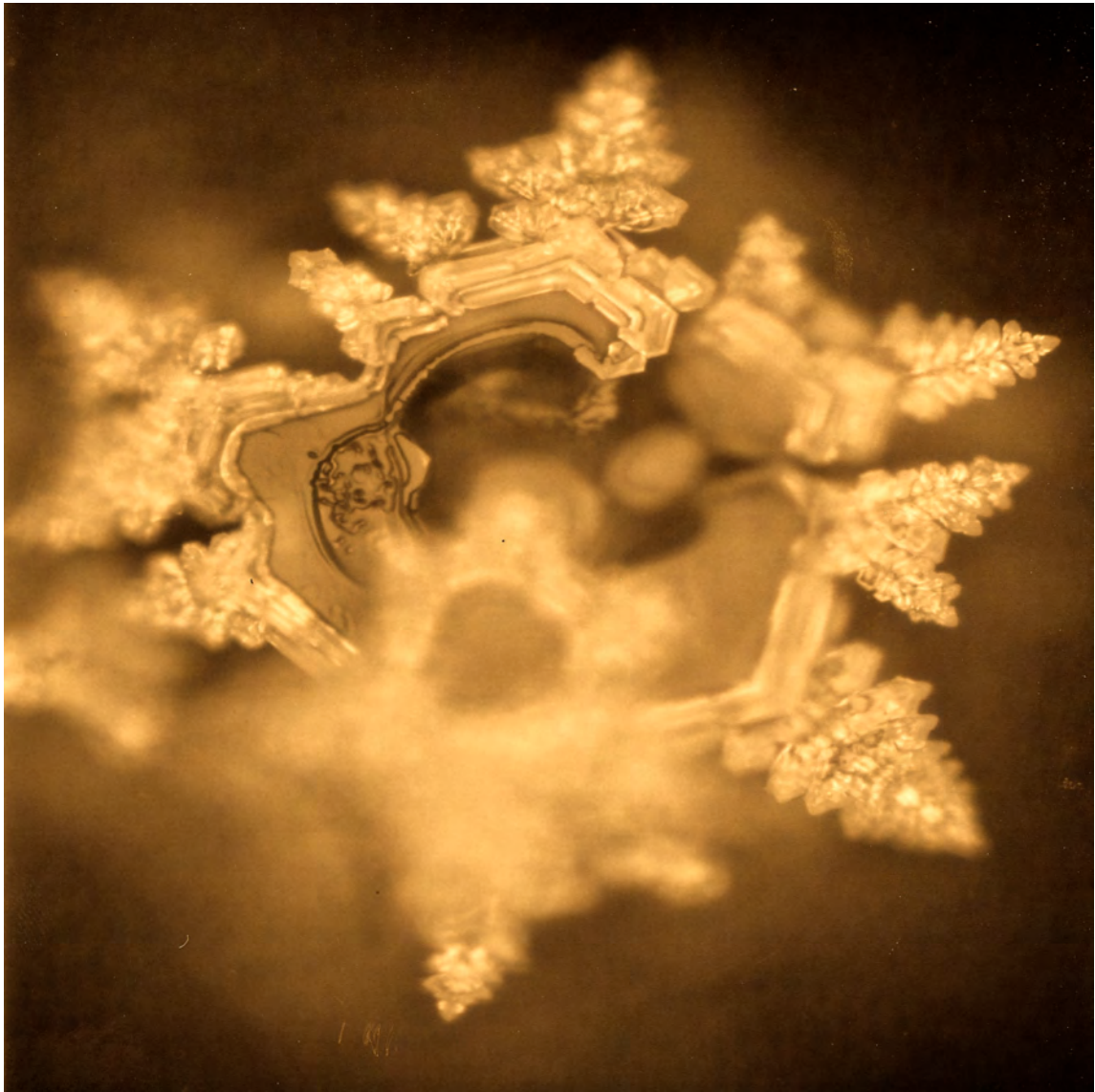
9) Water Crystal Analysis

The late Dr Emoto (RIP September 2014) pioneered an interesting science designed to determine energetic qualities of water expressed visual through photographic analysis of frozen crystal structure. In brief- his hypothesis suggests that water is a living energy, is present in all life forms on Earth, is a self-patterning system capable of caring imprint. That in its self is a substantial statement. However, accepting for the purposes of this section Dr Emoto has developed a method to examine water and determine influences of provenance, energy state and other external influences, we decided to submit 3 samples for analysis. A sample of Bosnian Pyramid of the Sun, Ravne Tunnels Water Section and Visoko Municipality water from the Museum were sent to Japan. The process involves freezing the water samples to -25c for 4 hours and then bringing the samples out to thaw rapidly in a controlled laboratory @-5c. During the thaw cycle ice crystals form on the surface of the frozen water, growing in to hexagonal 'trees' consistent to waters molecular structure. The molecular structure of water is such that water is the only substance to exist in 3 states with out loss of bonds and it is the only substance that expands when frozen as opposed to contracting. Dr Emoto's hypotheses holds that the resulting complexity and aesthetic beauty observed reflect the energy state of the water sample. Complex structure suggests highly energised and pure water; deformation and dullness suggest poorly energised, polluted or 'dead' water. There is a considerable body of evidence to support Dr Emoto's research.

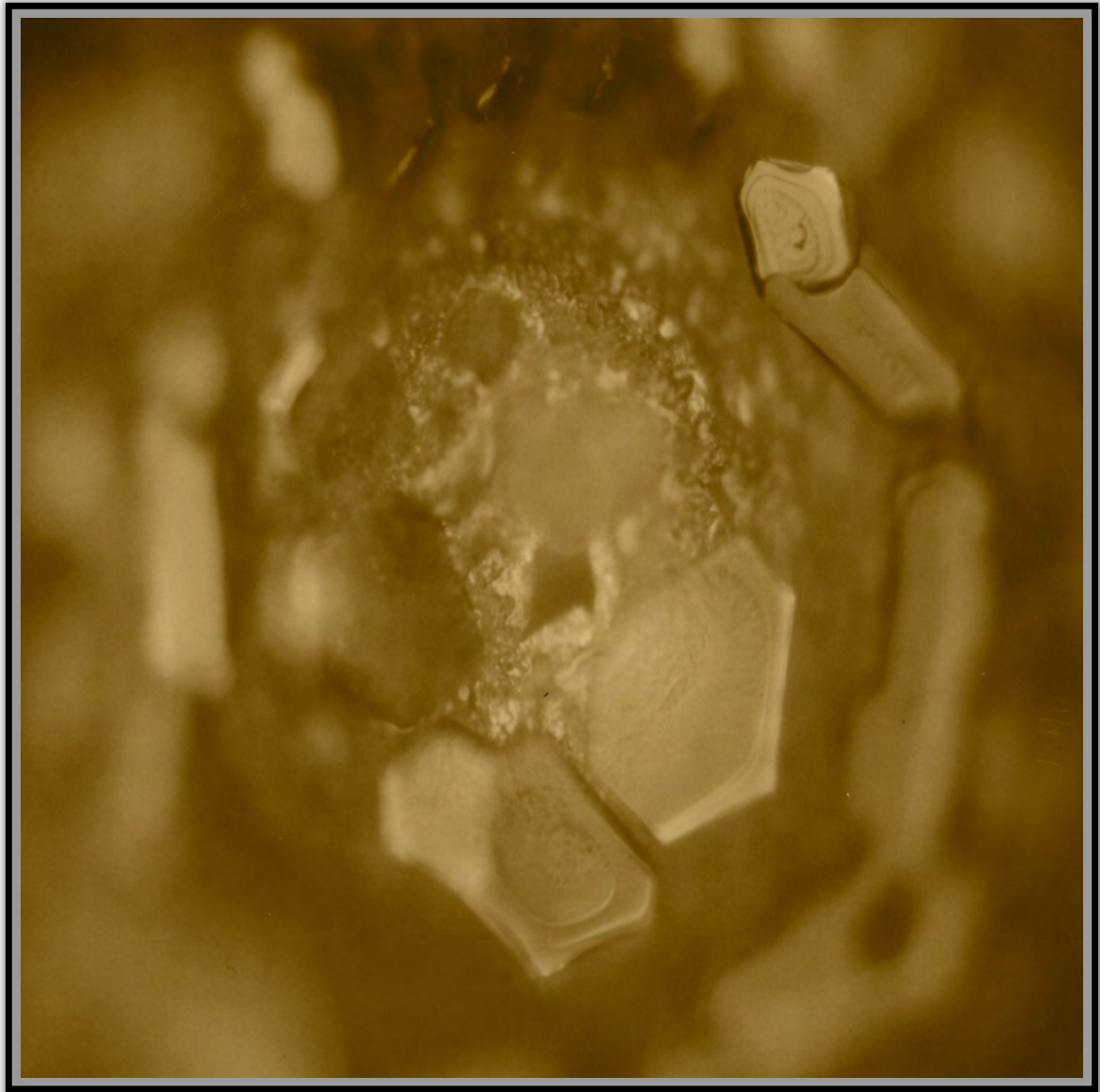
What follows are three samples and their visual reference to the quality of water sampled.



Bosnian Pyramid of the Sun Water Crystal Jan '14



Ravne Water Section Water Crystal Jan '14



Visoko Municipality Water- Site: Museum

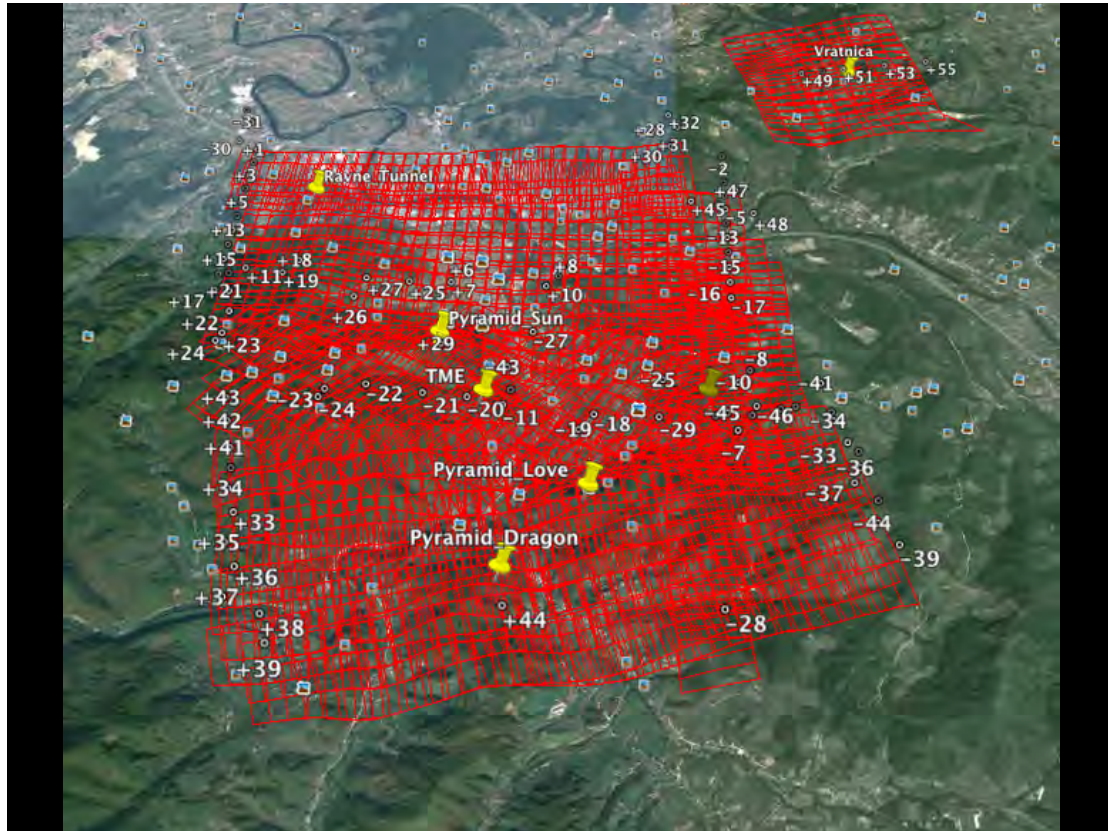
As in all new scientific investigation techniques, sample selection, procedures and processes improve over time. Dr Emoto has elevated his science to a highly respected level. We leave the determination as to which sample is more energised, alive or not to the reader.

10) None Invasive LiDAR

LiDAR Areal scan (Light Detection and Ranging)

In early 2014 Timothy Moon launched a crowd funding project to facilitate a digital terrain survey of the entire Valley taking in Bosnian

Pyramids of the Sun, Moon, Love, Dragon, Temple of Mother Earth, Vratnica Tumulus and the landform containing Ravne Tunnel Labyrinth- approx. 40km².



Survey area grid for aviation flight paths

The survey must be undertaken under specific environmental conditions. No foliage, low leaf litter and no snow cover. This project is scheduled for a survey window of February 2015.

Flight paths are set to a predetermined grid as shown above. Lasers are projected to the surface @10 points m², the reflected energy is Ranged, data is captured, processed through a series of algorithms and delivered as Point Cloud Data set. 3 dimensional graphic images are produced displaying detail of the terrain surface to within 80mm in the vertical and 65mm in the horizontal plain. In combination with these data images we are also capturing photomography- that is ortho corrected photographs to

exact scale and perspective, meaning adjusted to contour without distortion. The resulting information will be useful in cross referencing features to built structures, identifying points of interest in relation to existing features. The 3rd set of data we will capture is Infra Red spectrum scans. An entirely new flight path is required at a lower altitude to capture IR. Infra Red (IR) will display shallow subsurface features such as foundation stones, walls, roads, cannels- essentially anything buried close to the surface will emit a contrasting heat signature to the surrounding soils. All three of these captures, in overlay, will provide us with a highly detailed visual representation of terrain, features, break angles, hidden features and relationship between known and unknown structures.

Once the data has been collated and analysed, features identified and measurements complete we will publish the results for all to see. This survey will unlock a huge amount of information currently not visible, will guide 2015 investigations and beyond, and accelerate the Bosnian Pyramid project by 5- 10 years.

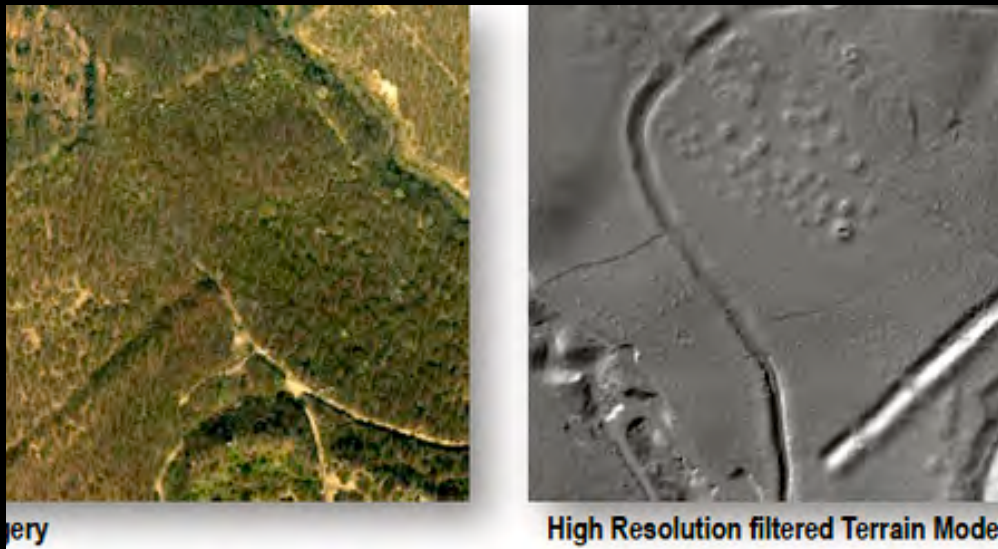


LiDAR surveillance aircraft



LiDAR laser scanning equipment.

Digital Terrain Map



Typical terrain graphic- (this image- burial site and trenches Denmark)



Report Ends

Acknowledgements and contributors: -

Dr Semir Osmanagic- Principle Investigator- Bosnia
Rie Jespersen- Lead Anthropologist- Denmark
Richard Taakou- Research Assistant- UK
Anela Podrug- Archaeology Assistant- Bosnia
Emina Karamelic - Technical Interpreter and Cultural Advisor - Bosnia
Kolja Singruen- Water photography - DE
Djani Behram- Video I/V's and unwavering Support - Bosnia
Eric Vasallo – Archaeologist- USA

Citation s

1.0- Richard Hoyle- UK. Geo-archaeological Summary Report2013
2.0 / 2.1- LaViolette, P. A., *Galactic Superwaves and Their Impact on the Earth*, Niskayuna, NY: Starlane Publications, thirteenth ed., 2012, update of 1983 Ph.D. dissertation.

Field Supervisors:

Samantha Usher - Australia
Thomas Green - Norway
Tom Crawshaw - UK
Rigobert Jakob - DE
Sigrid Bohme - DE
Martin Richter - DE
Dagmar (Dasha) Vainova - C
Sally Griffiths - UK

Kickstarter LiDAR funding contributors:

Anthea Beszant	Jürgen skaanning dall
Pierre Cahen	Verena
Jay s wakefield	Sue Brown
Cecilia Wisth	Leila Alegria Capoeira
Sebastian Paffrath	Zoran Vukajlic
Carolyn McComber	Vera Zikic
Stefan Sjlügren	Nico Heins
Linda Elliott	hana mortimore
Matija Biljeskovic	Carolien Jongbloed
Lee Pennington	Jamin Potamkin
eve elcoate	Peter Hendriksen
Kornelia Stubicar	Konstantin
Nordin ÄtatiÄt	Juan Ignacio Bravin
Laszlo Kondor	Sendi Kocijancic
Per Lindvall	Pierry Bernadette
Senad Vilic	Peter Ellvåg
Martin Macko	Runa Daniel
Noel Legault	lelarge anne
maja cikara	barry nugent
Stephen Varga	Francisco Vidal Deltell
Peter Gibson	Miha Breskvar

Ann Williams
AYE KALAYCI
Lasse Hynninen
Greg R
Clément Luminux Alizier
Gerda Liska
Simon
Matko Bednjanec
Jetze van Vliet
Janie still
Ryan OHara
Fraser Gibson

John Stovall
Charlotte Korbee
Pawel Sarniewicz
C.M.J. Bak
John C.M. Beers
Sandra McKenzie
Yoe, Bian An

Appendix A):

Carbon Dating Certificates

Ravne Water Section- Calcite Crystal

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -10.5 o/oo : lab. mult = 1)

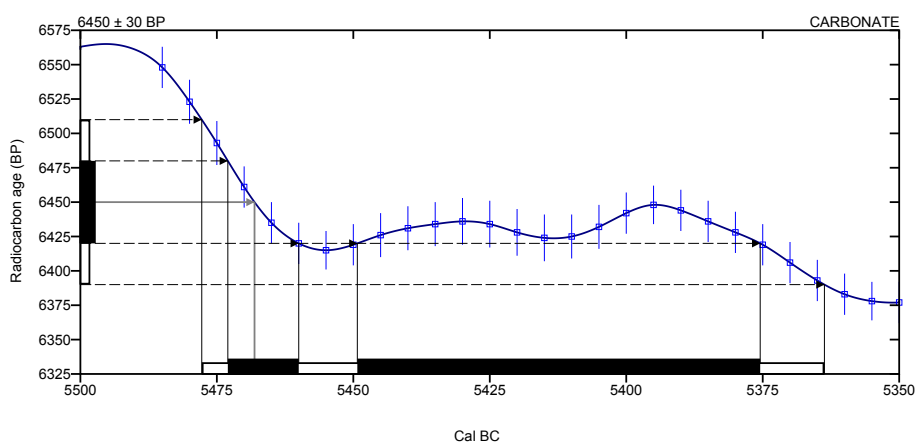
Laboratory number **Beta-388489**

Conventional radiocarbon age **6450 ± 30 BP**

2 Sigma calibrated result **Cal BC 5480 to 5365 (Cal BP 7430 to 7315)**
95% probability

Intercept of radiocarbon age with calibration curve **Cal BC 5470 (Cal BP 7420)**

1 Sigma calibrated results **Cal BC 5475 to 5460 (Cal BP 7425 to 7410)**
68% probability **Cal BC 5450 to 5375 (Cal BP 7400 to 7325)**



Database used
INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

References to INTCAL13 database

Reimer P.J. et al. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. Radiocarbon 55(4):1869–1887.

Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • Email: beta@radiocarbon.com

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -23.9 o/oo : lab. mult = 1)

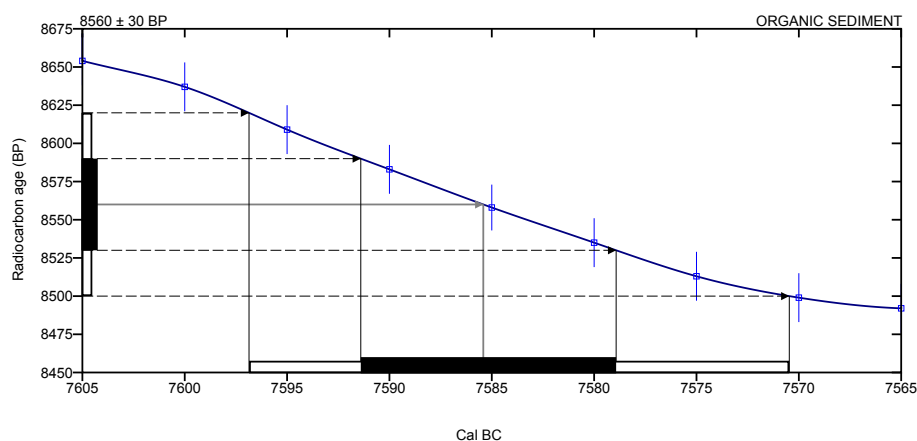
Laboratory number **Beta-387475**

Conventional radiocarbon age **8560 ± 30 BP**

2 Sigma calibrated result **Cal BC 7595 to 7570 (Cal BP 9545 to 9520)**
95% probability

Intercept of radiocarbon age with calibration **Cal BC 7585 (Cal BP 9535)**
curve

1 Sigma calibrated results **Cal BC 7590 to 7580 (Cal BP 9540 to 9530)**
68% probability



Database used
INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

References to INTCAL13 database

Reimer P.J. et al. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. Radiocarbon 55(4):1869–1887.

Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • Email: beta@radiocarbon.com

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Appendix B)**Materials Testing Reports**

Testing Cert. #2797.

Quartz Iron Sample**X-RAY FLUORESCENCE (XRF)
ANALYSIS****REPORT****15 Oct 2014****JOB****NUMBER****C0EMW762****PO NUMBER 09/2014**

for

Timothy Moon

Bosnian Pyramid of the Sun Foundation

Bravadziluk

Sarajevo

Bosnia and Herzegovina

17

71000

Prepared by:

A handwritten signature in black ink, appearing to read 'L Bisaha'.

Lori Bisaha

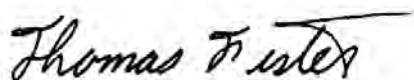
Senior Scientist

(Tel.

408-530-3614;

lbisaha@eag.com)

Reviewed by:

A handwritten signature in black ink, appearing to read 'Thomas F. Fister'.

Thomas F. Fister, Ph.D.

Sr. Director of Analytical Services

(Tel. 408-530-3660; tfister@eag.com)

Evans
810
Sunnyvale,

Analytical
Kifer
CA 94086

Group
Rd
USA

XRF ANALYSIS REPORT

Requester: Timothy Moon
Job Number: C0EMW762
Analysis Date: 13 Oct 2014

Purpose:

The purpose of this analysis was to determine the composition of an intrusion of an oxidized material in a small piece of quartz crystal.

Summary:

The results are summarized in [Table 1](#). Fe_2O_3 is the primary component of the intrusion. Al_2O_3 , SiO_2 , CaO and MnO are the most abundant among the lower concentration constituents. It should be noted that a portion of the SiO_2 may be due to the surrounding quartz.

Experimental:

X-ray Fluorescence (XRF) is a non-destructive technique that can identify and quantify the elemental constituents of a sample using the secondary fluorescence signal produced by irradiation with high energy x-rays. This analysis utilized a wavelength dispersive spectrometer (WDXRF) that is capable of detecting elements from atomic number (Z) 4 (beryllium) through atomic number 92 (uranium) at concentrations from the low parts per million (ppm) range up to 100% by weight.

Analytical Parameters

Instrument	Rigaku Primus II WDXRF
X-ray source	Rhodium x-ray tube
Atmosphere	Vacuum
Analysis area	1mm diameter

Quantification was performed using the Fundamental Parameters (FP) standardless quantification software associated with the system. The fundamental parameters approach uses x-ray

physics coupled with established sensitivity factors for pure elements. Relative accuracy by this method usually ranges from better than 5% up to ~20% for major elements.

Data were collected in scanned angle mode. In normal scanning mode analysis, the detector is rotated through the full range of dispersion to collect the diffracted x-ray signals coming from the sample and spectra are generated.

Results and Interpretations:

Fe₂O₃ is the primary component of the intrusion. Al₂O₃ and SiO₂, CaO and MnO are the most abundant among the lower concentration constituents.

Spectra are included in the attached figures. Sample or area names are provided on the spectra. The results are summarized in [Table 1](#).

After reviewing this report, you may assess our services using an electronic service evaluation form. This can be done by clicking on the link below, or by pasting it into your internet browser. Your comments and suggestions allow us to determine how to better serve you in the future. <http://www.eaglabs.com/main-survey.html?job=C0EMW762>

Table 1. Sample Compositions (in Wt%)^a

Element	Inclusion
MgO	0.75
Al ₂ O ₃	3.30
SiO ₂	7.85
P ₂ O ₅	0.77
SO ₃	0.10
Cl	0.021
K ₂ O	0.073
CaO	1.63
V ₂ O ₅	0.11
MnO	3.66
Fe ₂ O ₃	81.1
NiO	0.071
CuO	0.066

ZnO	0.11
As₂O₃	0.10
SrO	0.021
Y₂O₃	0.040
BaO	0.198
PbO	0.053

^a The results are normalized to 100% of the measured and detected elements Note: 1.0 wt%=10,000ppm

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Wavelength Dispersive X-ray Fluorescence Spectroscopy (WDXRF) Description Appendix

In XRF photons from an x-ray tube irradiate a sample causing the ejection of inner shell electrons from the excitation volume of the sample, creating inner shell vacancies. In order to reestablish a stable electron configuration, electrons from outer shells fill the inner shell vacancies. In this process fluorescent photons are produced to balance the energy difference between the outer and inner shells. These fluorescent x-rays are the source of the signal in x-ray fluorescence spectroscopy, and their energies are characteristic of the atoms from which they originate. Therefore the fluorescent signal can determine the elements present in the sample matrix and, from the relative intensities, the concentrations. By using an appropriate elemental and matrix reference standard, or fundamental parameter algorithms when standards are unavailable, accurate quantification of the elemental make-up of the sample can be obtained. With appropriate standards accuracies can be better than 1% relative; while using the Fundamental Parameters method typically yields accuracies of better than 5% to ~20% relative for major elements. Long term measurement reproducibility is ~2% at the 95% confidence limit.

In a wavelength dispersive XRF spectrometer (WDXRF) the fluorescence signals from the sample are collimated, after which they impinge upon one or more crystals. Each signal is diffracted at a specific angle based on the lattice spacing of the crystal and

the fluorescent photon energy, following Bragg's law. Wavelength dispersive systems are generally operated by sequentially scanning the detectors over the full dispersion range of one or more crystals to collect the elemental signals. The relative intensities of the signals are a function of the concentration of the element, matrix effects, and factors attributable to the primary x-ray radiation. The system used in this analysis is capable of detecting elements of atomic number (Z) 4 (beryllium) through atomic number 92 (uranium) at concentrations from the low parts per million (ppm) range to 100% by weight.

The excitation volume for XRF is both element and matrix dependent. It can range from the micrometer range for light elements in dense metallic materials to a centimeter or more for heavier elements in light element matrices such as polymers.

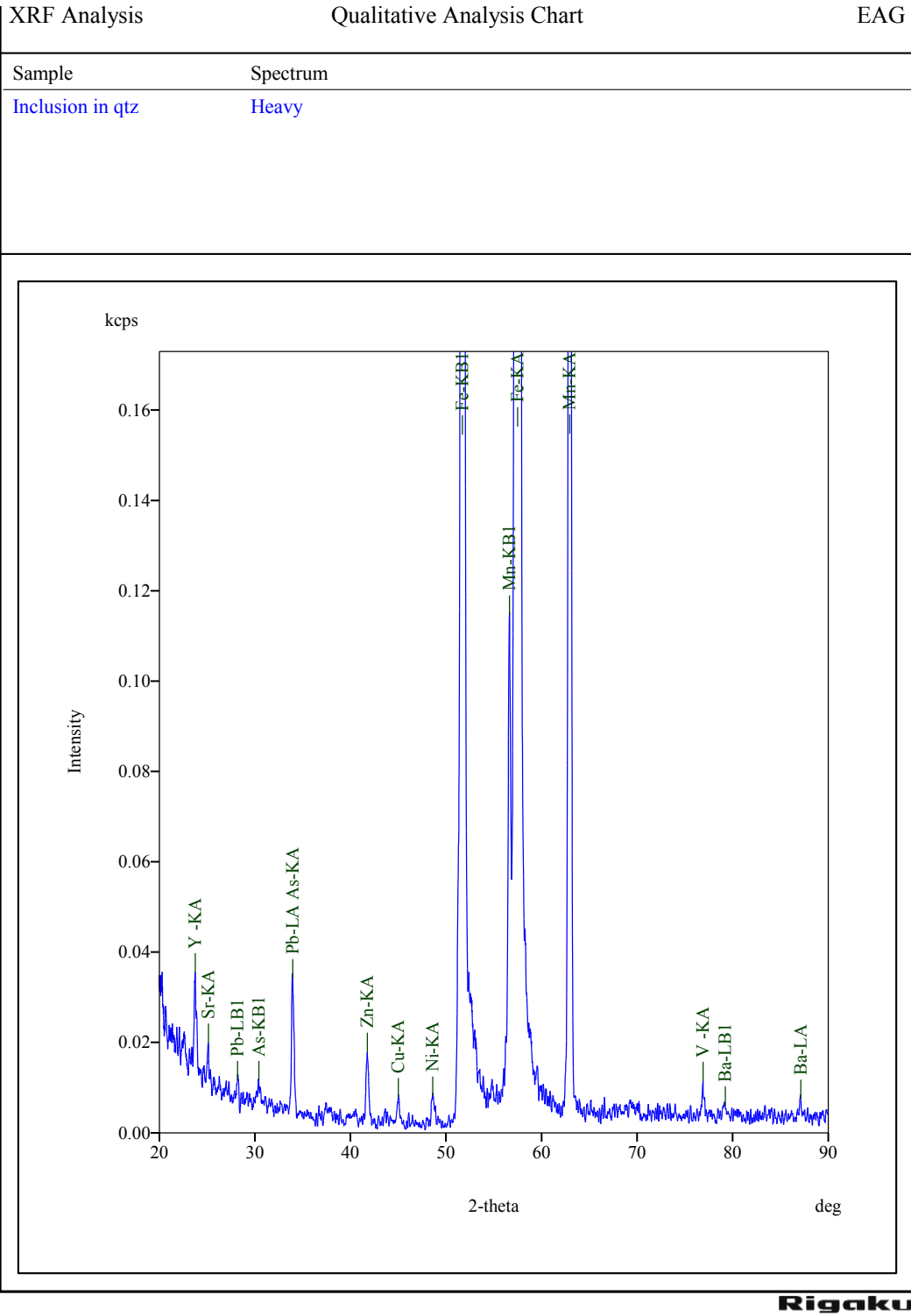


Figure 1

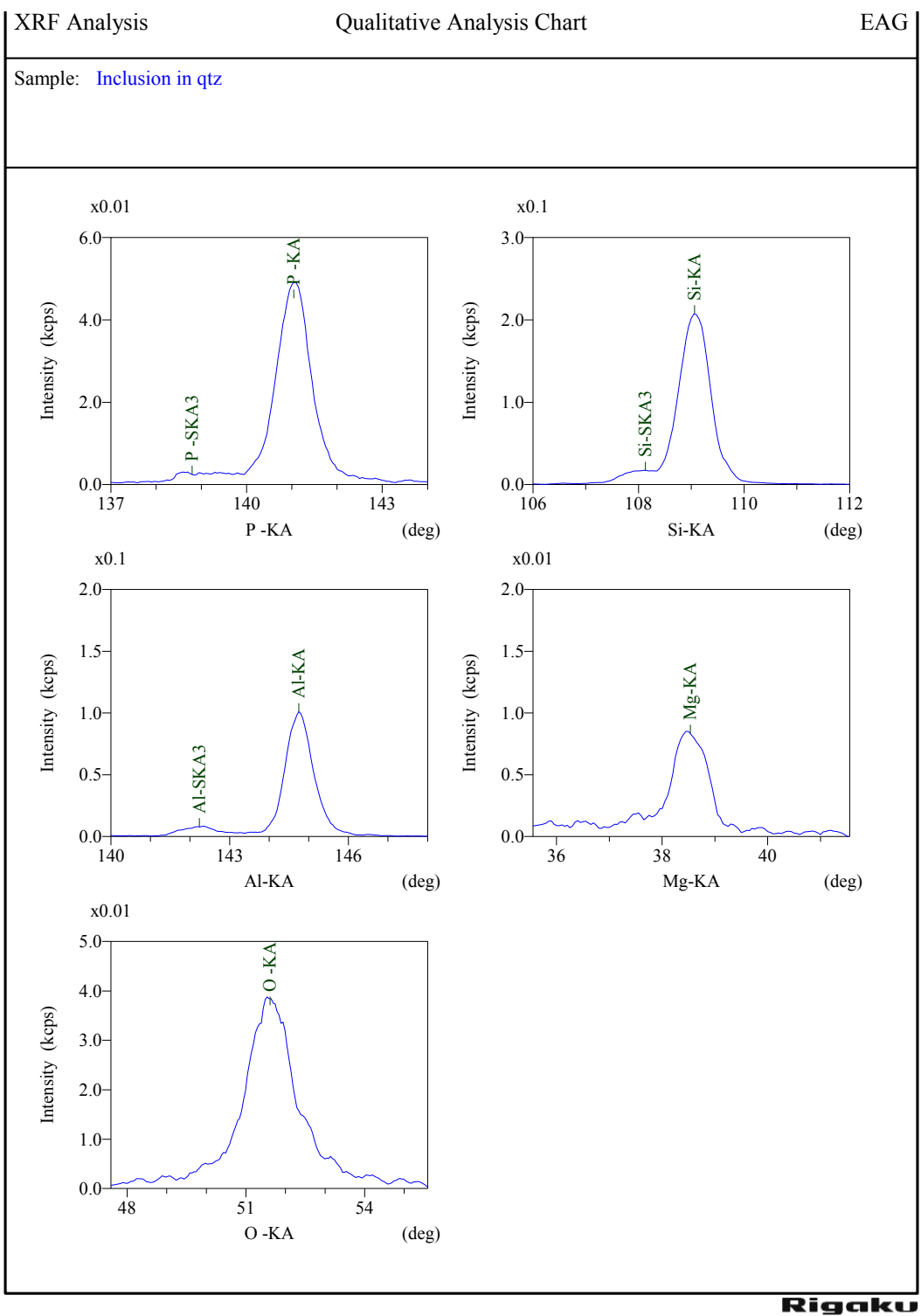


Figure 2

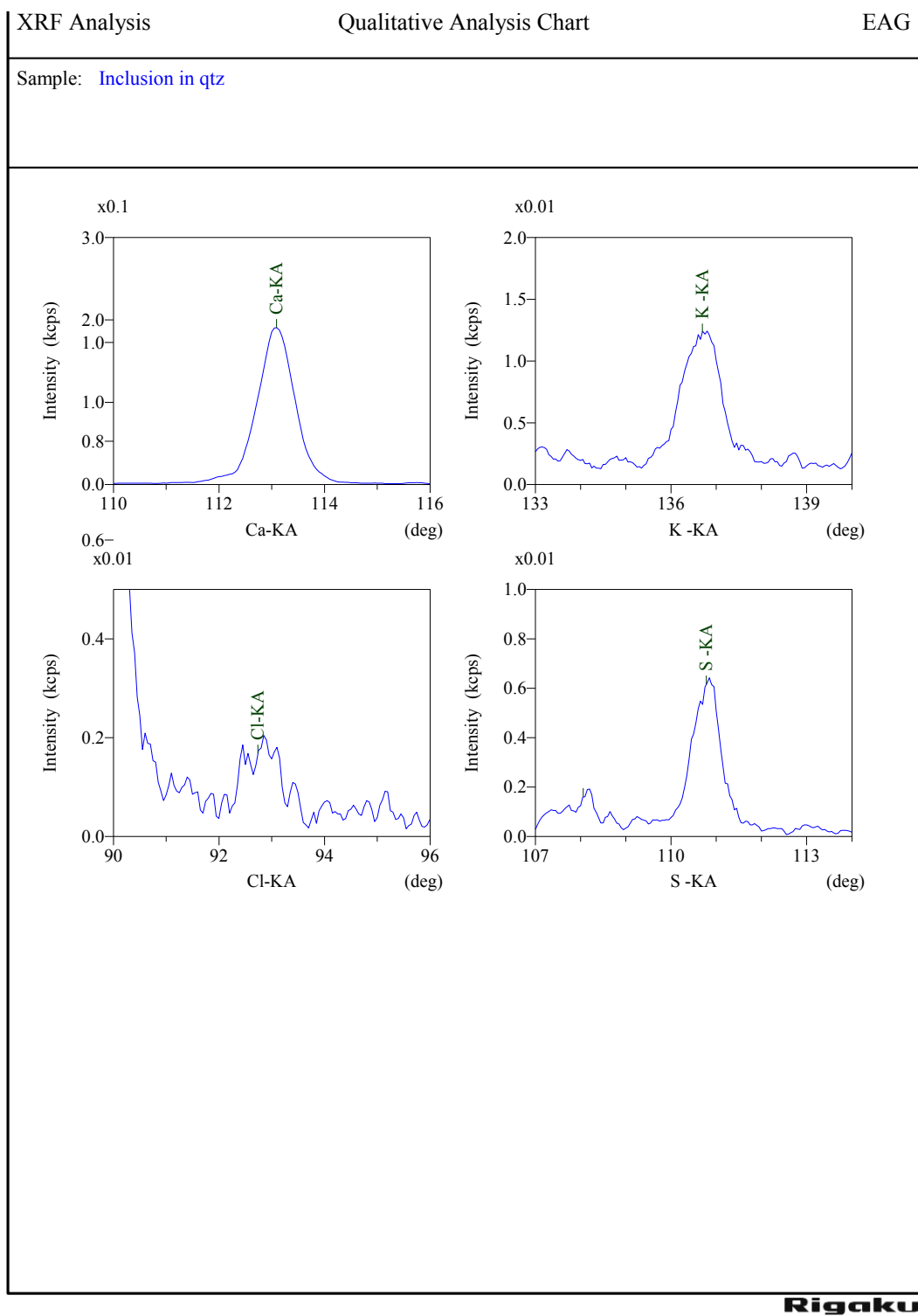


Figure 3

Notes:

FE₂O₃

Fe₂O₃ is ferromagnetic, dark red, and readily attacked by acids.

It is ferromagnetic and finds application in recording tapes

,^[8]Housecroft, Catherine E.; Sharpe, Alan G. (2008). "Chapter 22: *d*-block metal chemistry: the first row elements". *Inorganic Chemistry, 3rd Edition*. Pearson. p. 716. ISBN 978-0-13-175553-6.

MNO

Manganese is absolutely essential in the production of iron and steel. No element has been found that can replace manganese in such applications.

The principal use for MnO_2 is for dry-cell batteries, such as the alkaline battery and the zinc-carbon battery.^[2]

Al₂O₃

Aluminium oxide - Al_2O_3 is an electrical insulator but has a relatively high thermal conductivity ($30 \text{ W m}^{-1} \text{ K}^{-1}$ ^[3]) for a ceramic material but also as a tunnel barrier for the fabrication of superconducting devices such as single electron transistors and superconducting quantum interference (SQUID) devices.