The un-Henging of Stonehenge

by

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Abstract: In this paper we *un-henge* the mystery of Stonehenge and propose a simple and consistent explanation to all its puzzling enigmas. How the stones got there? How was it built? Why was it built? Why is it aligned with the summer solstice sunrise? When was it built? Who built it? We argue that Nature built Stonehenge while men directed its construction. Its original function was neither an astronomical observatory nor a healing religious center. Stonehenge acquired such attributes thousands of years later as people, even now, felt its grandeur and wonder. Though the method of its construction can be easily explained, loosening its magical hold on people's imagination may be a more difficult task.

Introduction: We are prepared to argue, and to put forth our own reasons, that glaciers brought the huge stones to Stonehenge. That these huge and heavy stones were naturally quarried by a combination of geological events involving ice, hot lava and seismic activity. The stones were brought to location naturally when the ice sheet began to melt and the weather got warmer. But having discovered the work of archeologist Aubrey Burl and geologists Geoffrey Kellaway (1971 article in Nature) and Brian John, among others, we defer this argument to their published articles and to the ample scientific references they make to make the case. We take their glacier transport theory one stage further, however, and argue that the ice cover also accounts for the construction of Stonehenge. So along with these archeologists, and the scientific evidence they present, we start the un-henging of Stonehenge with an ice cover of this region of Europe, and more specifically the Irish Sea Glacier that is said to have extended eastward to Bath and beyond.

To guote Brian John,

There is in fact abundant evidence of glaciation in Somerset, Devon and Cornwall -- the evidence from one key site after another is all itemized in the NCC Geological Conservation Reviews for The Quaternary of Wales and the Quaternary of South-West England. (Those are two bulky and comprehensive reviews packed full of detailed field information and discussion.) As a matter of interest, the Irish Sea Glacier extended at least as far east as Bath ...



All the ice that flowed into the North Sea depression from the British and Irish Ice Sheet was flowing eastwards, and the ice that flowed up the Bristol Channel was flowing eastwards as well. ...

Glacier flow is one way that 'errant' stones can be transported. Such ice flow would leave behind tale-tale tracks of glaciation. But we argue that an area can be cleared of ice without any signs of glaciation left behind. The stone alignments and stone circles we see in the UK and Brittany are in fact themselves the evidence left behind. This would occur especially in enclosed low lying areas where there would not be any ice flow and plains surrounded by mountains during a period of sustained warming. We argue that an ice sheet can melt and leave no tracks, much like an ice cube in a plate melts and leaves no sign of its existence formerly in the plate. The melting ice surface would create a natural gradient from high hills to low valleys. Along with melting seasonal snow falls and runoff water on the ice surface, this would create a slick conveyer belt effect transporting stones from quarries to ice rims, whether these rims be linear or circular. The water flow would create a smooth surface and edge. The downward motion would align the stones lengthwise to minimize friction and would carry them to the ice edge all properly aligned for local people to 'hang' these in an upright vertical manner where they choose, with the width of

the stones aligned parallel to the ice rim. We see this in all of the huge sarsen stones forming the inner horseshoe and the outer circle at Stonehenge.

By using the Canadian Rockies analogy, it suddenly becomes clear how the boulders of Stonehenge could have been deposited in a trail across southwestern England — and thus would have been easy pickings for Neolithic Britons. (reference)

Although this view is not dominant in the currently accepted thinking on Stonehenge, and has been actively marginalized by prominent archeologists like Prof Geoffrey Wainwright, this glacier transport explanation is one that just 'makes sense'. And as is often the case, whether it be in Archeology, Politics, Art and even Physics, the explanation that 'makes sense' is closer to Reality. Mental acrobatics by nimble minds and self-sustaining gyrations by strong egos do not by themselves bring us closer to the Truth. Power and Intelligence are not synonymous with Wisdom.

Again quoting Brian John,

In August 2008 I attended a lecture by Prof Geoffrey Wainwright on the subject of "Stonehenge and Preseli." I didn't expect to agree with what he said, and assumed we would agree to disagree on assorted matters involving a degree of speculation, but I did expect a bit more respect for the truth from a senior archaeologist. ...

Wainwright said that there is no evidence that glacier ice extended to the south of the Bristol Channel, and accused me of fantasizing on the matter. Wrong, just plain wrong...



There are two conflicting theories about how the stones moved from West Wales to the Salisbury Plain district -- one involving glacier ice, and the other involving human effort on a grand (indeed unprecedented) scale. The glacial theory has been dismissed and marginalized systematically by archaeologists keen to demonstrate the organizational and engineering skills (not to mention the spiritual and artistic attributes) of prehistoric man. At the same time their human transport theory has become a ruling hypothesis, presumably on the basis that if something is repeated often enough, it must be true.

Such controversy between two competing theories is not uncommon among scientists and academicians. But it does point out how peripheral and extraneous matters can often come front and center, casting a shadow on a theory. Too often power and promotion, not to mention human psychology, become the gravitational attractions around which theory and explanations take orbit. So how are we mere mortals to judge who is right and who is wrong in such matters of the Mind? Each of us must use our own free and independent judgment, using as guide our innate and intrinsic connection to our own Experience. What makes sense to us. What is True must be naturally true and must be confluent with our sense of reality. Truth supports in a coherent and consistent way all its physical manifestations. When a theory becomes too disconnected from our lives, and explanations stretch the limits of credulity, requiring authoritative declarations for support, than we are that much more separated from our selves. And what is not supported by life dies. In the discussions to follow we ask you ask, "does it make sense"?

sarsen comes from a word for 'wanderers' Stonehenge means 'stone hanging'

Stone Alignments and Circle Formations: We believe that the mystery of Stonehenge is intimately linked to the many stone alignments and circle formations to be found in many other places in Europe and indeed of the world. We consider the physical features of these stone formations that can be directly observed on site. We examine such stone alignments in the Brittany area of France, closest geologically and geographically to Stonehenge. These stone alignments, for example in Carnac, Brittany, are nearly straight lines and parallel (with some deviations at places). The spacing between rows is nearly uniform and equal.



stone alignments at Carnac, Brittany

In the last stages of the receding ice glaciers from this part of Europe, along with warmer climate changes, seasonal fluctuations in the atmospheric temperature and fresh snowfalls, we have runoff water on the surface of the melting ice sheet carrying stone boulders from an earlier geological period - when intense volcanic and seismic activities in the region broke

off the British Isles from Continental Europe. It is noteworthy that generally these stone alignments run NNW to SSE. The same general direction as the geological lines in that part of Europe. These stones are smaller and more irregular in their shape, than those at Stonehenge, due to the natural quarrying mechanisms of their formation. As to the stone alignments themselves, these we believe mark the receding edge of the ice sheet from year to year. This is the reason why these alignments are naturally almost straight and why they run nearly parallel, reflecting the natural processes of ice melting. This also explains why the spacing between stone alignments is nearly even. These stone alignments provide a natural record of the melting of glaciers in this area of Europe.

Initially, the stones could have been pushed off the ice edge by boys as part of annual Spring celebrations and the end of Winter. This could have been a yearly seasonal activity, with more new stones appearing near the ice rim each Spring and Summer. These stone alignments also may have been created to clear the land from these boulders for farming and cultivation. But we don't believe that these stones were carried by men over long distances and placed there through hard manual labor and for dubious purposes! Who in their right mind (and that includes our primitive ancestors) would have used precious scarce resources, mobilizing the villagers to a difficult task that took them away from the hard work of cultivating the fields and assuring their survival for one more year. But if some archeologists want to argue the point, that primitive

men had the organizational and engineering skills to 'move the stones' then why were the stones not placed in some other formation, possibly criss-crossing in places, or placed more precisely straight and more evenly spaced in parallel rows? Why are there gaps in some rows? Why weren't these stones placed to mark boundaries of farm fields instead of this useless arrangement of row after row of nearly parallel lines? It just doesn't make sense!

Stone circles likewise can be found in many parts of the world. There are some 1000 stone circles in just Britain and Ireland alone. Many others can be found in France and as far North as Scandinavia. These stone circles are typically surrounded by an outer ditch with an earthen embankment on the outside. Many times the stone circles are concentric with some stones randomly inside. In larger circles the continuity of the outside ditch is broken at a couple of places permitting a level road access to the interior area from the

outer fields. Sometimes these formations are more elliptical or form just an arc of a circle but not a complete circle. One particular stone circle of great interest is at Avebury some 20 miles North of Stonehenge.

<u>Avebury</u> is the largest stone circle in the world: it is 427m (1401ft) in diameter covers an area of some 28 acres (11.5 ha)... a huge circular **bank** (a mile round), a massive **ditch** now only a half its original depth, and a great **ring** of 98 sarsen slabs enclosing **two smaller circles** of 30 stones each and other settings and arrangements of stones. The outer bank, still very impressive, was originally 17m (55ft) high from ditch bottom to bank top. The stones, each weighing about 40 tons or more,



Boscawen-un Circle, Cornwall, UK



Stonehenge, UK





Iceland, glacier hole

Iceland, glacier edge with boulders

There are geothermal springs and hot spots throughout the surface of the Earth. These spots can be found in greater number at regions of greater volcanic and seismic activity. The British Isles and North Western Europe were experiencing great geological evolution that extended into the Ice Age, (somewhat similar to Iceland now, with ice glaciers and volcanoes simultaneously existing). Places like Bath, UK (some 25 miles West of Stonehenge) have the warmest hot springs in all of Europe. At such hot spots the ice sheet will melt more quickly, forming an ever expanding circular area. Or such melting sink holes may have been formed by irregularities in the ice and more rapid melting due to the land and glacier morphology and melting process. Thus, at places where melting first begins will show more accelerated melting. Such areas will expand radially and evenly creating concentric rings if the edge was to be traced.

Our contention is that the stone circles, large and small alike, were made through the same collaborative activity of Man and Nature; the same as with the stone alignments described above. As the ice sheet and seasonal snowfall melted during Spring and Summer, the water runoff on the surface of the ice sheet would carry with it 'wandering' stones which, once pushed by local people off the smooth circular ice edge, would form near perfect circles (see figure above). This explains not only why these stone circles are so perfect (something that would be an engineering challenge for primitive men to achieve with very large circles over landscape obstructions) but it explains how the circles on the inside are so perfectly concentric. Try to draw circles as large as a mile long using just rope



and deer antlers -- the tools presumably used by these primitive people to dig the ditch! It doesn't make sense!



With waterfalls over the smooth ice rim, deep ditches and earthen embankments would form naturally. The embankments would be high on the outside and low on the inside flat area. Something that can be observed in all such earthen formations. The deep ditches would be most prominent along the direction of the water falls. Again a feature that can be observed in these formations. For areas over geological hot spots the waterfalls would occur on nearly all sides around and the resulting ditch would be nearly complete and mostly unbroken, with some differences as to the depth of the ditch that reflects more profuse waterfalls in deeper places. The pool of water accumulating inside the hole would eventually break through and would form an ever enlarging stream which would naturally flow into a nearby

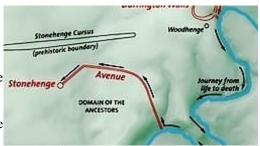
river. Over time these streams would become the 'avenues' to the stone circle interior. Typically there are two such paths to the circle interior with one being more prominent. These are usually spaced where one would expect the water streams would have broken through the ice.

The 'Avenue' at Stonehenge and the positioning of certain stones (the 'heel stone' at Stonehenge) align along the direction of the summer solstice sun. This has led to speculations that these prehistoric monuments were astronomical observatories predicting annual celestial occurrences. These explanations however are just not supported by any other record. Such advanced prehistoric civilizations with such advanced knowledge of nature and high engineering skills to erect such observatories would surely have left behind more evidence of their existence. Any theory that claims to explain an isolated

phenomenon with no collaborating evidence of existing records cannot be credible. The theory that these monuments were astronomical observatories have as much collaborative evidence as claiming that Stonehenge was build by extra terrestrial visitors leaving no other evidence of their earth-shattering visitation, then or latter. Or that these monuments were build by a race of giants that vanished leaving behind no other evidence of their existence. It just doesn't make sense.

But we propose an explanation of the alignment at Stonehenge that does make sense. This explanation fits naturally and well with the theory we put forth above that these formations were build by Nature under the direction of Man. Above we described how the changing climate and receding ice glaciers could have brought these 50 ton stones to Stonehenge and how with the help and direction of local people these heavy stones could have then been 'hanged' into place in the circular area formed by melting ice over a thermal geological hot spot.

The summer solstice marks the longest day of the year. During that day, and along the direction of the solstice sun, the earth receives the most intense and greatest amount of solar energy. And ice is of course the most sensitive substance to such solar energy and responds to it the most. The solstice sun leaves no trace of its direction on a grassy field but it will leave its mark on an ice sheet with greater melting of the ice along that direction. Along with other factors, a small track of melting ice will form and over time this track will become more like a stream. This stream would carry the water from the melting ice and from the water falls collecting in a large



pool of water inside the circular area. The water falls would dig the ditch, while the draining stream would pave the 'avenue'. And any stones that escaped 'hanging' by being trapped in the ice track that created the stream, of course will be deposited on the ground along the same path. This 'avenue' naturally aligns in the direction of the summer solstice sun. It is the 'procession avenue' that after a straight line segment veers off and leads to the Avon River some 3 miles away. Of course! Where else would such stream of water drain other than a nearby river? Makes sense! (see map).

The Dating of the Ditch: Digging deep in the Stonehenge ditch archeologists found buried deer antlers that dated to the 3000 BC. To connect the antlers to the construction of Stonehenge, they hypothesized that the antlers were the tools used to construct the ditch. To account for their preservation at the site they fabricated yet another chapter in the history of Stonehenge and made the burial of these antlers an act of religious ritual to give thanks for the task completed. But try to dig a ditch just a meter deep and perfectly round and make it as long as Stonehenge using deer antlers! And let's not forget that these were highly advanced primitive people that had the engineering skills and knowledge to move stones and raise them to build monuments. Why not use an ox and a plow to dig the ditch? It doesn't make sense.

But our explanation does. The waterfalls from the melting ice and seasonal snowfall would not only carry huge stones to Stonehenge, but would also deposit carcasses of dead animals and other debris deep into the ditches dug out by falling water. And if the dead animal happens to be a deer, its antlers would naturally break off and get stuck and buried deep into the ditch while the rest of the body would be carried down the stream. These carcasses could have been dead and buried in deep ice in higher mountains for thousands of years before the melting ice water brought them and deposited them in the ditch. In my view, the deer antlers found buried in the Stonehenge ditch and used to date the construction of the ditch had nothing to do with Stonehenge, its age or its construction. It's pure speculation to think that these were the digging tools used by Stonehenge builders and then in a ceremonial ritual buried in the ditch to honor its construction.

There is no end to the inventiveness of true believers of a false theory. Just as there is no end to the stories told by liars to hide their lies. While the first believes in a lie the other conceals a lie. But each time there is a new twist and turn in their explanation. The story gets made up as each new question arises. But there is a new story for each new circumstance that requires explaining. Our theory remains one true simple and consistent explanation that makes sense.

Disputing the 'Evidence': But this theory does raise some serious questions on the currently accepted archeological and geological timeline, however. Quoting from a recent exchange with Brian John,

The last glaciers in the British Isles were present in the uplands of Scotland, N Wales and the Lake District around 11,000 years ago. They were very small, and were restricted to highland cirques. ... there was no glacier ice anywhere near Southern Britain around 5,000 years ago.

Geological and archeological dates are just not that absolute and are constantly been revised. If the evidence used for glaciation involve geomorphology and deposits due to glacier flow, moraines and the like, then it is possible that no such evidence is left behind when you have an ice cover melting in place over a flat plain. And carbon dating of organic material

is always problematic in areas where such material could have been deposited there from elsewhere and at different times. Perhaps also Stonehenge was built earlier than currently thought, when ice did exist. Since the engineering skills and social organization needed were minimum, according to our theory this would be possible. Also, the simple and consistent explanations that our theory provides to so many facts on Stonehenge, and on all the other stone alignments in Brittany and in the UK, support the proposition that indeed ice covered these parts of Europe when these megalith structures were made. It can be argued that these very stone alignments and these stone circles and the surrounding land morphology *is* the evidence of such ice cover. How else would you explain so many details of the features of these formations? Saying that local people made them through hard manual labor just begs the question. To move these huge stones just few miles would have required considerable labor and straight timber, like pine or palm. Salisbury Plain just does not support such forests, then or now.

Salisbury Plain is a <u>chalk plateau</u> in central southern <u>England</u> covering 300 square miles ... the plain is sparsely populated and is the largest remaining area of <u>calcareous grassland</u> in north-west Europe. <u>(reference)</u>

Calcareous grassland (or **alkaline grassland**) is an <u>ecosystem</u> associated with thin <u>basic soil</u>, such as that on <u>chalk</u> and <u>limestone downland</u>. Plants on calcareous grassland are typically short and hardy, and include grasses and herbs such as trefoil. (reference)

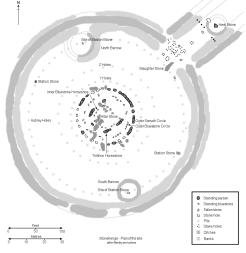
The glacier transport theory that Aubrey Burl, Brian John, Geoffrey Kellaway and others support explains how the bluestones were carried to Salisbury Plain from the Preceli Hills more than 200 miles away. But it still leaves open all the many other questions. Why did the Neolithic Britons 'pick-up' the stones and with great manual effort move them to Stonehenge? Where is the evidence of such social organization, economic development and religious zeal to engage large groups of primitive people (struggling to survive) for a task that supposedly took many centuries to complete? A zeal and an effort that had to be sustained for many generations, yet leaving no other record behind? The only relevant question that can validate completely our theory is whether Salisbury Plain was covered by ice during the making of Stonehenge, contrary to current thinking. But recent scientific research of the soil at Stonehenge seems to suggests that this area may indeed have been covered by ice.

Remarkably, the investigated soil sequences [at Stonehenge] record rare examples of a prehistoric decalcified soil cover, in a now generally rendzina-dominated landscape which reportedly has been extant since the Neolithic. (reference)

... [Rendzina] is one of the soils most closely associated with the <u>bedrock</u> type and an example of initial stages of soil development <u>(reference)</u>

If the soil at Stonehenge match characteristics of the Neolithic period (5500-2500 BC), with rendzina being the main component indicating an initial stage of soil development, isn't it then conceivable that the soil at Stonehenge had less time to develop? Why? One possible explanation is because it was still under the cover of ice and snow!

Summary: Stonehenge was build by Nature under the direction of local people, much like the many stone alignments and circle formations to be found in other places in Brittany and the UK. The stones were naturally guarried by a combination of ice, hot lava and seismic activity. These stones were transported to the Salisbury Plains and to Stonehenge (and other areas) by melting ice glaciers and seasonal snowfalls as the climate became warmer. Stonehenge marks a geological hot spot as evidenced by present day Bath nearby with the warmest hot spring waters in all of Europe. The melting ice formed a circular area enlarging radially. The various concentric stone circles record this progression. Errant stones transported to the site by ice water and surface pitch were 'hang' over the smooth ice rim and at chosen locations by local people – thus maintaining and refining a long tradition of 'stone hanging' as evidenced by the many such formations throughout that area of Europe. This practice may have started by boys as a game and latter used by elders as an effective means of clearing the land from these huge stones for the creation of farm fields.



Runoff water on the surface of the ice sheet created waterfalls and runoff streams. As the weather got progressively warmer and the circular area grew much larger, the runoff water got increasingly more rapid and profuse and the waterfalls stronger. The waterfalls dug the ditch while the streams paved the 'avenues' to the interior. The alignment of one such stream will occur in the direction of the summer solstice sun, this being the direction of most intense solar energy. Any stones that got trapped in the stream would be deposited on the ground in the same alignment when the ice melted. The stream will follow a straight line path as far as the ice cover and then would follow a path over land to the closest river where it will drain. These features match the Stonehenge 'procession avenue' that leads from Stonehenge to the Avon River. (see map)

Melting ice water would also carry carcasses of dead animals buried deep in the ice for many centuries and from far away mountains. These carcasses would be dumped over the waterfalls into the ditch. Antlers of dead deer would naturally break off and get stuck and deeply buried into the ditch while the rest of the carcass will be carried off by the stream down the river. Using such organic material found to date Stonehenge is therefore totally unreliable and misleading.

As a majestic and mysterious site, Stonehenge would naturally attract people to celebrate, feast, worship and even sacrifice at the site. But these latter uses of Stonehenge do not divulge the purpose and methods of its construction. We believe our theory does and provides a coherent and consistent simple explanation to all its puzzling enigmas.



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