

**Chantal (nymf.hathaway):**

Welcome everyone to today's Science Circle Field trip by Maggie Rae!

Maggie will use Text Chat, Because of it we are able to make a transcript out of this event.

The PDF will be available for download later this weekend. Website <http://sciencecircle.org/>

Next to this... Quaezar Agnomen will film the entire presentation and this will be provided by our YouTube Channel later this week. YouTube Channel:

<https://www.youtube.com/channel/UCRDaLAU-VB9qT78GZ7em0tQ>

**Shailey Garfield:** I like how the colours in the sky are constantly changing

**Chantal (nymf.hathaway):** Other Social Media we use:

Twitter <https://twitter.com/ScienceCircle>

LinkedIn <http://www.linkedin.com/company/science-circle>

Official SC FB page <https://www.facebook.com/TheScienceCircle>

FB Group <https://www.facebook.com/groups/155012474522202/>

Flickr [http://www.flickr.com/photos/science\\_circle/](http://www.flickr.com/photos/science_circle/)

Wishes everyone an amazing hour... which will not be difficult... Maggie we are yours ☺

**Tulpa (jes.cobalt):** YAY! ☺



**Maggie Rae:** Hello everyone – thank you for coming to my talk on Stonehenge, I'll try not to disappoint! Just to introduce myself, in RL I am not an archaeologist or an anthropologist – I'm a former Physics and Maths teacher whose career led me to be a Spacecraft Controller and Data Analyst, amongst other things – I've continued to be involved in Space Programmes for the past 25 years. It just so happened that a frequent commute to work took me by Stonehenge and I got interested – some 15 years of personal inquiry has led me to love this monument and be astonished by the minds and the effort that created it. I hope to be able to share some of that love with you this evening.

**McMillan:** Stonehenge

**Shailey Garfield:** thank you, Maggie.

**Tulpa (jes.cobalt):** Hi CB 😊

**Maggie Rae:** The plan is that I'll give a presentation and answer questions later, or immediately if personal bandwidth copes!

**CB Axel:** Hi, all

**Chantal (nymf.hathaway):** CB 😊

**Maggie Rae:** First, I have to tell you that Stonehenge is misnamed. A Henge is a very specific archaeological feature and Stonehenge isn't one! A circular enclosure with a bank outside and a ditch inside characterises a Henge – one of the best examples of one is Avebury, itself a fascinating monument, some 24 miles to the North of Stonehenge.

<http://www.stone-circles.org.uk/stone/images/aveburymap2.jpg> The largest stones in Stonehenge have been shown to have come from the hills near Avebury – but more of that later. Stonehenge has the bank inside, with the ditch outside – the opposite of a proper Henge!

**Tulpa (jes.cobalt):** Heheh ☺

**Maggie Rae:** It is important to understand the bank and ditch – it is unfortunately overlooked, given the magnificent stones inside – but it is the first thing that was built on the site and its structure gives clues as to how Stonehenge was 'used' – at least in one particular and clearly scientific way. The land on which Stonehenge was constructed is not exactly flat – it is slightly higher to the NW, yet the bank was constructed carefully so that it was precisely level all the way around. <http://www.stone-circles.org.uk/stone/images/stonehenge-plan.gif>

**Shailey Garfield:** so very interesting, Maggie

**Maggie Rae:** The megaprim you are standing on is tilted to approximate the fall of the land.

**Vic Michalak:** Really? That is a nice touch...

**Paolo Rousselot:** Indeed. As is the sky.

**Maggie Rae:**

[http://www.megalithic.co.uk/a558/a312/gallery/Stonehenge/Stonehenge\\_Aerial/Stonehenge\\_aerial\\_0418.JPG](http://www.megalithic.co.uk/a558/a312/gallery/Stonehenge/Stonehenge_Aerial/Stonehenge_aerial_0418.JPG)

Where the aerial picture shows the ditch being deeper to the South East, this is a little misleading as it was this portion of the ditch that has been excavated and cleared. It does reveal the profile however, which has a gradient of 1:1 rising to the centre. It is a perfect gradient to stand in the ditch facing the centre with one foot in front of the other so that your eye-line can cross the lip of the near bank to the crest of the far-bank on the other side of Stonehenge. As the bank is made perfectly level all round, it provides an accurate local horizon datum all the way around, independent of the distant horizon, which has elevations varying between 0.14 and 0.79 degrees.

**Vic Michalak:** Ah, there was a 'method to their madness' (as they say)

**CB Axel:** How did they do that?

**Maggie Rae:** I've just got a simple ring representing the bank at present - the horizon represented around the edge of the planetarium shows the elevation surrounding the site accurately

**Maggie Rae:** Exactly to the True South of Stonehenge and on the horizon is a Neolithic site known as Rox Hill Clump.

<https://maps.google.co.uk/maps/ms?msa=0&msid=213217151815554772435.0004cb7a5f904f36e20ef&ie=UTF8&ll=51.146833,-1.826305&spn=0.064828,0.131493&t=h&z=13&vpsrc=6&iwloc=0004f4a247db4fe0e9559>

This shares the same diameter of the Stonehenge bank of 97m. Stonehenge therefore has 2 important datums – a marker to the exact South and an accurate local horizon – these make it possible to make repeatable and accurate astronomical observations, especially if Rox Hill Clump was used, as I suspect, to remove parallax error when making an observation from a location in the ditch.



**Shailey Garfield:** just taking a step back, Maggie - if it is fine with you: why did they build Stonehenge?

**Vic Michalak:** Really? Accounting for parallax... how sophisticated

**Shailey Garfield:** yes, indeed, Vic

**Vic Michalak:** Maggie may be answering questions at the end, according to her plan...

**Maggie Rae:** Well, there are so many theories - I like to think it is a multipurpose site - much like a football stadium is today - a principal use, connection with the skies - and other uses

**Vic Michalak:** Or not... ☺

**Maggie Rae:** It is perfectly possible to use Stonehenge as a very accurate 'celestial protractor' using items such as plumb-lines and sight-line markers placed on the lip of the bank. Though I have devised a scheme that 'works', based on the items found in the ditch and the famous nearby Bush Barrow, there is no way to prove such a scheme was in use – however, the more gross structural elements – the South direction being defined and the bank being so precisely level do suggest deliberate purpose and are not aesthetic or natural!

<http://www.wiltshiremuseum.org.uk/galleries/index.php?Action=3&objID=89&prevID=25>

If Stonehenge just needed to be 'pretty', it need not have been as precise in its dimensions.

**Maggie Rae:** Before the great Sarsens arrived from Avebury, there is evidence that wooden posts were erected in the centre of Stonehenge in a double-row circle of similar diameter to the present stone one of 33m. In addition, just inside the bank, a ring of 56 holes has been discovered – named the Aubrey holes, the ones excavated show evidence of burning and cremation as well as some 'bruising' of the chalk at the base of the holes which suggests they

may have held posts or stones at some time, despite being shallow. Their purpose remains mysterious. <http://www.stonehenge-stone-circle.co.uk/aubrey-holes.htm>

**Vic Michalak:** Or perhaps if it simply had other social purposes...

**Shailey Garfield:** Great, website of the Museum.

**Vic Michalak:** ...that is, it would not have had to have been so precise, astronomically speaking, if the sightings did not have some meaning, socially or otherwise.

**Maggie Rae:** If the bank and ditch, Aubrey holes and wooden post circle in the centre of Stonehenge were the first structures, the first four stones to arrive were actually placed away from the centre! Their position gives an indication of why Stonehenge was built where it was – and this is for a purely Astronomical reason. These four stones are arranged such that a sight-line from the North Western to North Eastern one, kissing the tangent of the central wooden post or Sarsen stone circle in the centre is in the direction of the most Northerly Moonset, whilst the corresponding sight-line from the Southeasterly stone to the corresponding Southwesterly stone, again kissing the tangent of the central circle, is in the direction of the most Southerly Moonrise. The positions of Moonrises and Moonsets varies in a complex way due to the orbit of the Moon. <http://www.umass.edu/sunwheel/pages/moonteaching.html>  
Marking these most northerly and southerly lunar directions represents a feat of observation and recording as the cycle of Lunar movement repeats only every 18.6 years!

**Shailey Garfield:** super interesting

**Vic Michalak:** See, for example,

<http://astropixels.com/ephemeris/moon/lunarstandstill2001year.html> about 18.6 year cycle

**Maggie Rae:** There are pointers with 'lasers' showing this and other alignments - the Planetarium built by Jean Pierre Euler will react if some of the pointers are clicked, setting the time correctly to see the celestial event

**Vic Michalak:** Did not know that!

**Tulpa (jes.cobalt):** ☺

**Maggie Rae:** Equally remarkable is that these Lunar directions, uniquely for Earth latitudes similar to that of Stonehenge, are exactly at right-angles to the directions of the Summer Solstice Sunrise and corresponding Winter Solstice Sunset. These Solar directions are clearly more frequently available to measure and the Summer Solstice Sunrise is still a celebrated event! The constructors of Stonehenge seem to have been particularly sensitive to the orthogonality of the Sun and Moon movements in the sky above them to record it in the construction of the monument in this way. <http://www.tivas.org.uk/stonehenge/images/fig2.gif>

**Vic Michalak:** I would like to learn more about how to set different times here...

**Maggie Rae:** The greeter should have given you a notecard with the commands to 'say' Vic - if it hasn't, I'll fix that.

**Vic Michalak:** I will check... maybe I just did not read it lately...



**Maggie Rae:** The Lunar nature of Stonehenge is further underlined by the next stones to arrive at Stonehenge, the Bluestones. The number of them is interesting – it seems there were 59 at one time arranged in two circles of 29 and 30 around the timber central structure, they then being repositioned as a continuous ring of 59 inside the circle of Sarsens, when that was built. The Lunar Month is close to 29.5 days (an even better approximation is  $29 + \frac{1}{2} + \frac{1}{33}$  days), so 59 stones could be used to keep track of the lunar phases very well, even when the weather was bad. It also appears that there were 19 other Bluestones, initially arranged in an oval, then repositioned into an open horseshoe in the centre. It has been speculated that these could have been used in Lunar Eclipse prediction, as  $2 \frac{1}{2} * 19 = 47$ , and every 47 Lunar Months, the relative positions of the Earth, Sun, and Moon very nearly repeat their alignment: If a Lunar Eclipse was observed, 47 Full Moons later, there was a good chance of another being observed.

<http://eclipse.gsfc.nasa.gov/SEsaros/SEsaros.html>

**Maggie Rae:** When the Sarsens arrived, Stonehenge took the eye catching form that everyone is familiar with, in robbed (probably by the Romans for road building materials) and ruined form. Again, the structure of the Sarsen Circle Stonehenge gives clues to the thinking of the builders – when complete, there were 30 uprights capped with 30 lintels, these being fashioned with mortise and tenon joints as if they were wood, perhaps a respectful 'nod' to the long-standing wooden structure they had replaced. <http://stonehenge.zorger.com/>

**Vic Michalak:** It sounds like the people who built Stonehenge were some of the best astronomical observers long before Tycho Brahe.  
Plus great builders for their time...

**Maggie Rae:** These massive stones weigh about 25 tonnes each and the surviving ones have a smoother side facing inwards. The presence of Sarsen chips at the Stonehenge site suggests that whatever method that was used to move them from Avebury, it must have been sufficiently efficient for excess mass to be moved without a problem. Sarsen is also very hard – the only way to shape it could have been to hit it with another bit of Sarsen: numerous Sarsen 'mauls' have been found at the site.

<http://viewfinder.english-heritage.org.uk/story/slide.aspx?storyUId=81&slideNo=5>

**Maggie Rae:** There is a further Lunar reference in the construction of the Sarsen Circle – the most Southerly upright is significantly smaller than all the others, which appear uniformly massive. Was this the 'half-stone' for the 'half-day' in the  $29 \frac{1}{2}$  day Lunar Month? The top of the lintel circle is 4.9m above ground level, with those standing being level to within 6cm of each other. Excavation of the pits from where the Sarsens are missing shows they are of varying depths – this implies that the lengths of the stones were only approximately the same, but carefully measured so that holes were dug just the right depth so the correct height was achieved – exactly the sort of thing you would like to get right first time!

<http://classconnection.s3.amazonaws.com/36/flashcards/129036/png/stonehenge1317426393131.png>

**Vic Michalak:** I wonder if the number 30 was a nod to calendars of the day (though not the lunar cycle of 28-29 days)...

**Chantal (nymf.hathaway):** 😊 impressive

**NunkyCatt:** but that is confirmed. or theory? :s

**Vic Michalak:** I would say theory since we cannot ask the builders... 😊



**Maggie Rae:** Well, it does seem that builders of this time liked numbers that were divisible in lots of ways - Woodhenge is an example, which has many multiples of 5 in its construction.

**NunkyCatt:** oh oki

**Vic Michalak:** Theory as in a good explanation of observations... like true science is...

**Shailey Garfield:** yes, indeed, Vic :-)

**Maggie Rae:** I think Vic is right - there are many theories, but little proof, only convincing implication and successful experiment!

**Vic Michalak:** Ah, like the Babylonians and base 60 (divisible by many numbers)

**Maggie Rae:** This link includes a short movie giving the 'officially accepted' construction method for Stonehenge.

<http://www.english-heritage.org.uk/daysout/properties/stonehenge/discover/building-stonehenge/>

I consider this to be almost entirely wrong! There is no evidence that big, thick strong ropes existed at the time of Stonehenge construction. Strong plant fibre such as cotton, sisal or hemp were unknown – animal sinew, leather strops and plaited wool were available, used, for example, by the Vikings in the construction of their single-sail square rigged ships that were constructed around the similar design constraint of no big, thick ropes! In addition, sledges and rollers only work on reliably firm and easily prepared ground. That does not exist between Avebury and

Stonehenge, even now!

**Vic Michalak:** Plus difficult to have 29 1/2 lintels... :(

**Vic Michalak:** Though they tried with the half lintel...

**NunkyCatt:** damn. Romans. broke it xDD

**Maggie Rae:** Whatever the Stonehenge builders did in Sarsen, or earlier in big timber, must have been done without rope, even if that is difficult to imagine...

I greatly prefer this approach from W.T. 'Wally' Wallington

<http://www.theforgottentechnology.com/> - his methods use the balance of the stones to allow low energy manoeuvres, a little at a time and very efficiently. Something like this, particularly page 3 of his website, seems very persuasive. Taking a lead from Wally, I believe the Sarsens were moved by first converting them into 'bobbins' with a timber and wicker 'tyre' woven around each end of the stone, using techniques and materials similar to the wicker walling used in Neolithic and early Bronze Age buildings. The resulting flexible and ground compliant 'tyre' could be readily renewed and presented an easily rollable structure which could be moved by pushing or levering the 'axle' of the stone itself.

**Vic Michalak:** Roman calendar originally (long before Julius Caesar had his astronomers update it) had 10 months of 30 days and ignored the winter (it was an agricultural calendar), but that was long after the people who built this place...

**Shailey Garfield:** yes, wally's analysis seems more plausible.

**CB Axel:** I wish I could have ignored this winter.

**Paolo Rousselot:** smiles CB

**Vic Michalak:** One of the fascinating things about science is that anyone can try to explain what we observe... and others can test it... very sociable of us.

**Maggie Rae:** I would like to play with big rocks too! Garden at home is too small though :( However, you can successfully move house bricks around on a table using toothpicks and tweezers very effectively!

**Shailey Garfield:** yes, very much so, Vic.

**Chantal (nymf.hathaway):** hehehe Maggie

**Vic Michalak:** Maggie, have you created a mini-Stonehenge in your garden?!? ☺

**Leo Mandelbrot:** I'd love a Stonehenge scale model in mine.

**Maggie Rae:** Who hasn't? ;)

**Vic Michalak:** Me too! Hmm... sounds like another project...

**Antonios (antoniosgubba):** Why you say "mini"...?

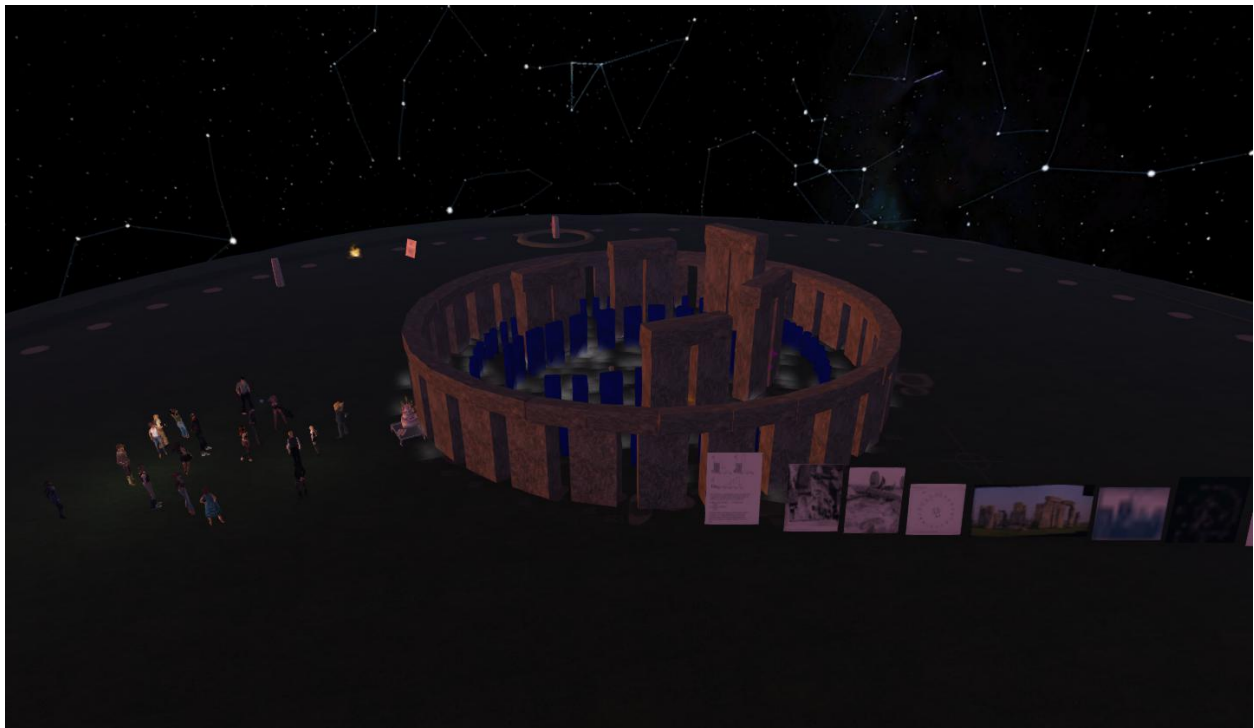
**Maggie Rae:** Stonehenge was not a monument in isolation – there was clearly a very populated encampment to the East at Durrington Walls

<http://www.stone-circles.org.uk/stone/durringtonwalls.htm> and a wooden structure fascinating in itself which has been named 'Woodhenge' <http://www.megalithic.co.uk/article.php?sid=332> Normanton Down <http://89.206.186.140/stonehengemap/sites/normanton/01.html> to the South is



studded with burial sites and there are the mysterious 'Cursuses' to the North.

<http://www.manchester.ac.uk/aboutus/news/display/?id=3719>



**Leo Mandelbrot:** "encampment" implies a temporary settlement, maybe for construction crews, right?

**Maggie Rae:** It looks like it was more of a 'festival' site occupied annually.

**CB Axel:** Hengefest?

**Chantal (nymf.hathaway):** ☺

**Antonios (antoniosgubba):** Heng out with us...

**Maggie Rae:** Population in Summer - more deserted over Winter. Perhaps a 'gathering of clans' to trade and exchange stories and have weddings...

**Shailey Garfield:** :) CB

**Maggie Rae:** Also, I believe Stonehenge was not unique! There is evidence of timber and mixed timber and stone structures such as The Sanctuary at Avebury

<http://www.avebury-web.co.uk/sanctuary.html> Stonehenge may have been the grandest and best, but whatever technology was in use there, I believe there is evidence it was used elsewhere too.

**Shailey Garfield:** great Antonios

**Vic Michalak:** Here is a website that shows the hundreds of stone circles and henges and barrows and such in Great Britain: <http://www.stone-circles.org.uk/stone/>

**NunkyCatt:** also goes much mystical people. say it is a point of telluric force

**Shailey Garfield:** that's a great website, Vic. thank you.

**Vic Michalak:** I visited the one at Avebury when we took a class to England some years back....

**Maggie Rae:** I am about to REALLY speculate and I'd welcome your opinions based on the information I'm about to refer to you (sort of homework ... ;) )

**Chantal (nymf.hathaway):** ☺

**Maggie Rae:** Looking at the Maumbury Rings in Dorchester.

<http://www.megalithic.co.uk/article.php?sid=7537> , there is on the horizon from that site to the exact South a large Barrow in Down Wood, just to the East of Came Down Golf club.

[https://maps.google.co.uk/maps?client=opera&channel=suggest&q=dorchester&ie=UTF-8&ei=WmMkU9nfF6qo0QWaloG4Aw&ved=0CAcQ\\_AUoAQ](https://maps.google.co.uk/maps?client=opera&channel=suggest&q=dorchester&ie=UTF-8&ei=WmMkU9nfF6qo0QWaloG4Aw&ved=0CAcQ_AUoAQ) To the North was a cursus and other structures [http://www.themodernantiquarian.com/site/14502/dorchester\\_neolithic\\_complex.html](http://www.themodernantiquarian.com/site/14502/dorchester_neolithic_complex.html) East of Maumbury Rings was a heavily populated enclosure surrounded by a Henge similar to Durrington Walls <http://www.cpat.org.uk/projects/longer/palenc/palenc.htm> Clandon Barrow, to the South West of the Maumbury Rings <http://www.megalithic.co.uk/article.php?sid=30449> was discovered to have very similar content to the Bush Barrow, which is to the South West of Stonehenge – is the implication strong enough for Maumbury and Stonehenge to be considered sister sites?



**Paolo Rousselot:** why have one massive undertaking when you can have two!

**Vic Michalak:** Keep the workers occupied...

**Antonios (antoniosgubba):** How far apart are they from one another..?

**Maggie Rae:** Thank you for your attention and I hope you enjoy the links I have studded my talk with! I'll try to answer questions, and If I can't I'll answer them as best I can on the Science Circle

website!

**Leo Mandelbrot:** Thank you Maggie.

**Maggie Rae:** Antonius, they are about 90 miles apart.

**CB Axel:** Is this exhibit permanent?

**Vic Michalak:** It is interesting to speculate if the sites were related or just distributed and built at different times....

**Shailey Garfield:** Thank you, Maggie, most fascinating.

**Chantal (nymf.hathaway):** Inspiring, loved it 😊

**Antonios (antoniosgubba):** Cheers, Maggie. Great talk, thanks.

**Shailey Garfield:** Maggie: apologies if I have missed; but why did you choose Second Life to recreate this site?

**Vic Michalak:** This exhibit was originally on Nature's (magazine)/MacMillan's islands but I "adopted" it when they had to leave Second Life.

**Maggie Rae:** Yes - this is a permanent site - well, as near as SL can be considered permanent. I'm due to build another, with JPs help, where I'll try to make the stones a bit more realistic.

**Paolo Rousselot:** yes Maggie, this has been great. Thanks for sharing your passion and research!

**Vic Michalak:** This exhibit will (hopefully) stay here as long as this island does.

**Maggie Rae:** In SL I can model accurately quite easily - Jean Pierre caught me trying to animate prims and came up with his far better Planetarium!

**Chantal (nymf.hathaway):** We will see which route the ceo of LL takes when it comes to education Vic

**Vic Michalak:** Maggie, if I could ask, what got you started with work about Stonehenge?

**Chantal (nymf.hathaway):** Smiles at Maggie 😊

**Shailey Garfield:** I think the power of SL is that colleagues from all over the world are standing at the site and hearing the stories from an expert... how can 2D technologies ever replicate this experience?

**Chantal (nymf.hathaway):** So agrees Shailey!

**Antonios (antoniosgubba):** Maggie, you must have been to Stonehenge, yes?

**Vic Michalak:** Shailey, I do not know that they can... which is why some universities have chosen Second Life for alt graduation ceremonies for immersive inclusion

**Maggie Rae:** It was riding past it almost daily on my motorcycle and noticing how precise the build was, Vic!

**Vic Michalak:** And nothing yet beats the global connectedness of Second Life!

**Chantal (nymf.hathaway):** The maths person in you Maggie 😊

**Shailey Garfield:** yes, Vic.

**Paolo Rousselot:** (thought she was typing with a British accent...)

**Maggie Rae:** Yes I have, Antonius, several times - It is a place with 'presence' (nonmathematically ;) )

**Chantal (nymf.hathaway):** hehehhhe Paolo

**Antonios (antoniosgubba):** Yeah...it is, true.

**Vic Michalak:** I hear they are making the physical Stonehenge more accommodating for large groups and taking the road farther away so the vibration (or fumes?) will not hurt the site.

**Vic Michalak:** The Roman Colosseum has long had a problem from traffic...

**Maggie Rae:** Yes -the old road that went right by the Heel Stone is now gone-

**Vic Michalak:** I bicycled by there back in 1979...

**Maggie Rae:** they have a very modern visitor centre now - since it opened I have not been, but it has had mixed reviews!

Maggie Rae: Anyone want to ask about the Bluestones?

**Vic Michalak:** haha... Okay, what can you share with us about the Bluestones?

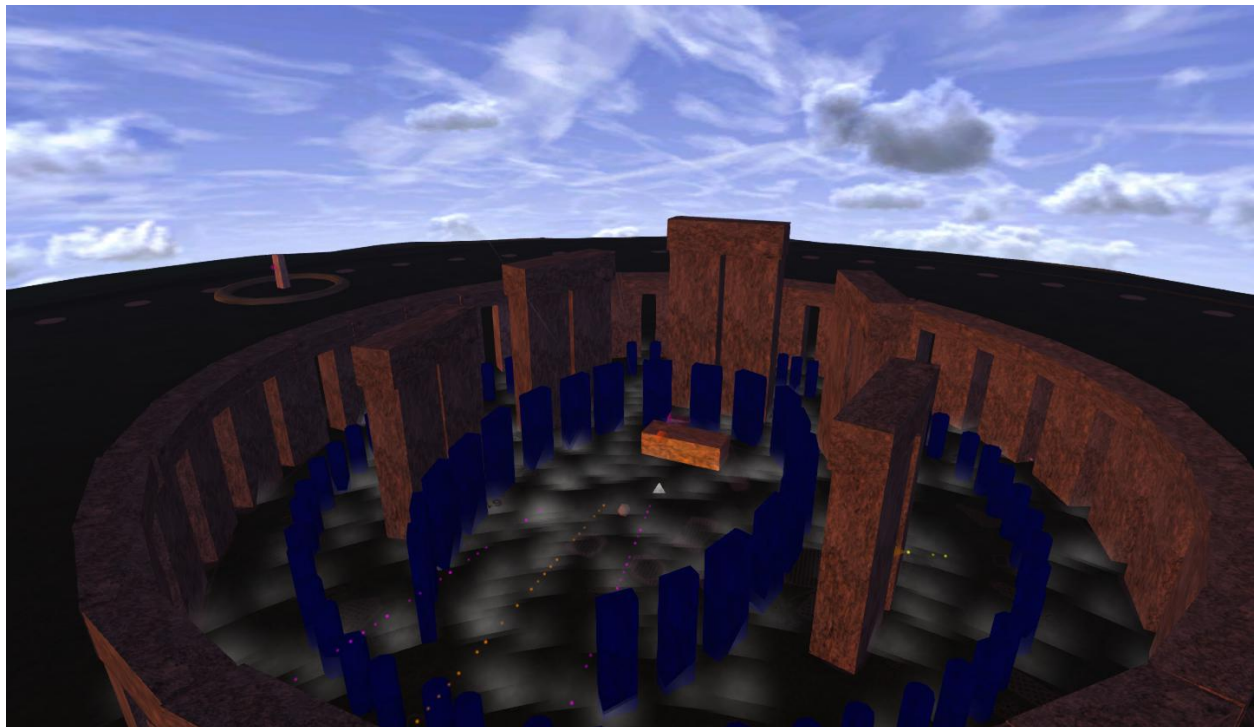
**Chantal (nymf.hathaway):** well... we have one member, not present :( whom asked me for the blue stones... are they?

**CB Axel:** They looked gray to me when I was there.

**Maggie Rae:** OK, :) the stones inside Stonehenge appear to come from the Priselli Mountains of Wales

**Vic Michalak:** The bluestone is dolerite:

<https://www2.imperial.ac.uk/earthscienceandengineering/rocklibrary/viewglossrecord.php?glD=0000000060>



**Maggie Rae:** There are some theories that an Ice Sheet 'dumped' them close to Stonehenge - other circles and sites all seem to be made from stones gathered 5 miles away or less

**Maggie Rae:** so a 160 mile trip is a bit unusual...

**Maggie Rae:** Looking at the 'real' bluestones in Stonehenge a few of them appear quite trapezoidal in section - this matches the ones from the crags, where there are natural splits in the rock due to cooling

**Maggie Rae:** Last year I went to Priselli and on the particular crag they are reckoned to come from due to composition analysis, there is an area that looks cleared, or harvested, almost

**Shailey Garfield:** so very interesting

**Chantal (nymf.hathaway):** Nice 😊

**NunkyCatt:** Too bad they are not now :s

**Maggie Rae:** but - that's what the local farmers use for gateposts and door lintels too!

**Vic Michalak:** Ah, nice hard igneous rock....

**Maggie Rae:** Indeed - Vic - and it does have a light blue sheen which is different from the colourless grey of the Sarsen.

**Vic Michalak:** I wonder when the volcanoes were active in that area... another rock in the same category is olivine, which is very greenish (lots in Hawaii on the beaches)

**Paolo Rousselot:** RL duties call... Thanks again Maggie. Good to see everyone!

**Maggie Rae:** The way this model is constructed, it is dimensionally accurate and angularly accurate if you go right to the edge and look towards the stones

**Vic Michalak:** Well, I have always loved this place -- a really good example of how 3D virtual worlds can be used to explain science - a combination of science and technology and sociology and history and math and the like.. very multidisciplinary

**Shailey Garfield:** yes, so well said, Vic.

**Maggie Rae:** Please have a wander around and get a 'feel' for the size of the place - and imagine the human muscle and brain power involved!

**Chantal (nymf.hathaway):** Be sure we make it known at the VWBPE Conference as well

**Vic Michalak:** Yes, we need to have some visuals with landmarks...

**Shailey Garfield:** thanks to you, Vic for keeping in going in SL for us.

**Chantal (nymf.hathaway):** Likes to thank Maggie from all of us for this amazing hour! We loved it 😊