

## Discoveries provide evidence of a celestial procession at Stonehenge

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**Guest:** **Professor Vince Gaffney** (<http://www.birmingham.ac.uk/staff/profiles/archaeology/gaffney-vince.aspx>)

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**Lucy:** Hello, and welcome to this Ideas Lab Predictor Podflash. It's a short bit of new information that's extra to our usual podcast series. I'm going to be speaking with **Professor Vince Gaffney** (<http://www.birmingham.ac.uk/staff/profiles/archaeology/gaffney-vince.aspx>) who is Director of the **Visual and Spatial Technology Centre** (<http://www.vista.bham.ac.uk/>) at the University of Birmingham. Welcome, Vince.

**Vince:** Hi there, Lucy.

**Lucy:** So we're going to be talking about this latest of your discoveries at Stonehenge and this is from fieldwork that you did in the summer but the results are just out.

**Vince:** Yeah, absolutely. We've been working at Stonehenge for a couple of years now and previously we made quite a splash with the discovery of a new mini-Henge, next to Stonehenge itself and that of course was very interesting and we anticipated that if we returned to Stonehenge, carried on with the work we were doing, we were likely to find similar monuments and further discoveries. After all, there's a large area around Stonehenge which has never been adequately explored.

**Lucy:** And this is called the Stonehenge Landscape Project so it's actually not just about when we think about Stonehenge but the landscape that it's in.

**Vince:** Well, actually it's a bit more than that, it's the **Stonehenge Hidden Landscapes Project** (<http://heritage-key.com/blogs/ann/stonehenge-hidden-landscapes-project-virtual-excavation-digital-recreation>) and the reason we called it the Hidden Landscapes is that we're looking at the areas between the monuments we know to see the things which are obscured by soil which we don't know about.

**Lucy:** And you've been using non-invasive technologies.

**Vince:** Yes, we've been using a variety of technologies to explore the landscape – magnetometry, radar – a whole range of things.

**Lucy:** So tell us, what is it you've found this time?

**Vince:** Well, rather interestingly we were working along the **Stonehenge Cursus** ([http://en.wikipedia.org/wiki/Stonehenge\\_Cursus](http://en.wikipedia.org/wiki/Stonehenge_Cursus)). This is a very enigmatic monument, it's a linear enclosure, two and a half kilometres in length. It's earlier than the monument you can see at Stonehenge. Generally there is very little inside it, however when we went back to look at the data after we returned back to Birmingham and our colleagues in Vienna were also looking at the data, we realised that there were two very large pits, one in the east end of the Cursus and one in the west end of the Cursus and to give you an idea of the scale of the thing we're talking about, these are five metres across, at least one metre deep but we aren't actually sure just how deep they are at the moment. So these things are big. Now perhaps that shouldn't surprise you that something strange was found at Stonehenge. Pretty much everything around the Stonehenge landscape is strange in some way but what's excited us was that we noticed that these pits which we presumed had some link with Stonehenge, only made sense when you considered that the area that they were in might be viewed from the Heel Stone. Now the Heel Stone is a rather enigmatic stone just outside the Henge, the circular arrangement of Stonehenge and at the head of a pathway, a track, entitled **'The Avenue'** (<http://www.english-heritage.org.uk/daysout/properties/stonehenge/world-heritage-site/map/avenue/>) which moves to the north-east of Stonehenge. And what we realised was that if you stood at that point, these two pits effectively marked the rising and setting of the sun on Midsummer's Day.

**Lucy:** So if you're standing at the Heel Stone on Midsummer's Day, the sun rises over the eastern pit and it sets over the western pit.

**Vince:** That's right. Now that in itself is interesting but of course it's not the only celestial link with Stonehenge. I mean there have long been anticipated alignments with celestial objects at various points but the interesting thing to us was not just that there was this alignment with the sunrise and sunset but that these pits were inside the Cursus as well. Now the Cursus which runs east/west had always been – or has been – interpreted as being aligned on the rising and setting sun in the past and this seemed to confirm a link, both with the sun – perhaps for the Cursus itself – but also linking this earlier monument with Stonehenge as well. So, you're seeing an affirmation of a celestial link and a link more directly between this earlier enigmatic monument with Stonehenge.

**Lucy:** So would these have been pits or would there have been something in them?

**Vince:** Well that's a really good question and in all honesty, we can't tell from the data we have at the moment. There could very well have been stone or timber settings within these pits but they are very large in themselves.

**Lucy:** They're huge if they're five metres across.

**Vince:** Five metres across is big and the other point is that one at least on the western end of the Cursus is actually below a horizon as you look from Stonehenge so it isn't directly visible. Now either there was a massive setting which could be but we couldn't be certain about it, but it at least suggests to us that there might have been something else which created the link and this looks more than a coincidence to us and one of the suggestions is that there may have been fires associated with these pits as well, or this area of the pits. That certainly makes sense in the western pit which is the most difficult to see when of course night is falling.

**Lucy:** Yes, yes.

**Vince:** So you can imagine that someone, a group of people, standing on the Stonehenge could observe the rise and the fall, setting of the sun, as a consequence of either large settings or perhaps fires lit in the area of these pits.

**Lucy:** And of course the whole thing is a ritual landscape, it's full of people doing rituals.

**Vince:** Well that again's quite interesting because another thing that we found this year is that there's actually a gap in the northern side of the Cursus. You know, it's quite large and it looks like an entrance and what do you have an entrance in a large linear earthwork for? Well, one of this sort which seems to have some sort of ritual association with the rising and setting of the sun perhaps, you could at least imagine that some procession may well have occurred inside the Cursus itself. Perhaps starting from the middle going to the east end of the Cursus and perhaps continuing round to the west end, to follow the sun as it rose and set. Now, over a day that would

be a very slow procession.

**Lucy: It would, yeah, because it's about a mile long or whatever the Cursus is.**

Vince: Two and a half kilometres so it's a big monument but, you know, over a day it's not that far. But you've got to imagine something similar to religious processions today. If this occurred, perhaps they stopped at certain points, did certain things. It may well have lasted the whole of the – if this occurred. I mean there are a number of ways of interpreting this data but on balance we feel that something of this nature could well have occurred at this point.

**Lucy: So it could have been people setting off at sunrise on the longest day and the whole procession taking place along the Cursus, lasting an entire day and ending up sunset at the other pit.**

Vince: Absolutely. But also associated with the area that was going to become Stonehenge. The link between the Heel Stone and these two pits does appear to be more than a coincidence.

**Lucy: So there might have been something going on in the Stonehenge area at the same time.**

Vince: Stonehenge may have been emerging as an important area for quite a long time and sometimes you can't necessarily see that in the standing archaeology, the stones themselves which are generally later, don't give you that information. You have to infer it from the relationships between multiple monuments to get this sort of information.

**Lucy: And this isn't the end of your work at Stonehenge, is it? There's more to come.**

Vince: No, we've got an awful lot more to do now. We'll be surveying for another two years we hope and there are many kilometres of landscape around Stonehenge to be investigated yet.

**Lucy: That's a good job because you've got a track record to keep up now! [laughing]**

Vince: Absolutely! We're going to have to find something every year! [laughing] We'll try.

**Lucy: Professor Vince Gaffney, thank you very much.**

Vince: Cheers, thank you.

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