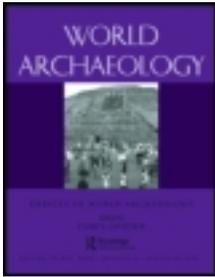


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### Sonic Horizons of the Mesolithic: using sound to engage wider audiences with Early Holocene research

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# ***Sonic Horizons of the Mesolithic: using sound to engage wider audiences with Early Holocene research***

Ben Elliott and Jon Hughes

## **Abstract**

This article examines the work of the *Sonic Horizons of the Mesolithic* project in using sound to address the pressing issue of engaging wider audiences with the British Mesolithic. It describes the process of collaboration between archaeologists and musicians to create a continuous thirty-four-minute sound fabric which draws directly on research into the Early Mesolithic archaeology of the Vale of Pickering, Yorkshire (England). By considering the various responses from a range of audiences at installation events carried out in the summer of 2013, the adaptability and versatility of this approach for communicating complex research narratives to non-academic audiences is evaluated, and possible new directions for similar approaches to encapsulating archaeological landscapes through sound are drawn. As such, the article represents a pioneering new methodology for communicating high-level archaeological concepts to wider audiences, and suggests novel ways in which archaeological research could be disseminated beyond the academic sphere in the future.

## **Keywords**

Mesolithic; ambisonics; public engagement; sound; Vale of Pickering.

## **Introduction**

The issue of presenting the archaeology of the British Mesolithic to wider audiences beyond the academic sphere has long been highlighted as a key area which needs to be addressed (Blinkhorn and Milner 2013; Milner et al. 2013; Prehistoric Society 1999). The longstanding, personal commitment of many archaeologists to the ideals of public discourse and knowledge sharing has recently been supplemented by shifts in the policies of funding bodies and government agencies, which now stress the role of ‘impact’ and ‘public benefit’ in the research process

(Milner et al. 2013), and this has created an urgent and pressing need for Mesolithic research to be more effectively communicated to wider audiences.

However, this goal comes with its own challenges. The lack of compulsory Mesolithic content within the National Curriculum means that the vast majority of the British population have little if no understanding of the concept of a Mesolithic period in prehistory. This background state of knowledge has been demonstrated by the work of Milner et al. (2013), with a series of surveys carried out within the local communities neighbouring the academically renowned site of Star Carr, North Yorkshire (England). The absence of a basic understanding of the term ‘Mesolithic’ means that communicating new discoveries or changes to existing beliefs must always be prefaced by a general introduction to the period.

This specific challenge has been highlighted in the most recent Mesolithic Research Framework document (Blinkhorn and Milner 2013), and it should be stressed that this problem has not gone unaddressed in recent years. It has been approached from a range of perspectives and in a wide variety of media formats. Television documentaries (e.g. *Rescuing a Mesolithic Foreshore* 2004; *Time Team Special: Britain’s Drowned World* 2007; *Time Team Special: Britain’s Ancient Tsunami* 2013), public lectures, websites (e.g. Birmingham University’s *Europe’s Lost World* blog), mailing lists (e.g. The Friends of Star Carr mailing list), museum exhibitions (e.g. the Yorkshire Museum’s *After the Ice: Yorkshire’s Prehistoric People*) and educational activity packs geared towards children (Hellewell 2012) have all been recently developed to tackle the issue of communicating Mesolithic research to wider audiences within Britain. However, despite this rapidly growing body of work aiming specifically to raise the profile of Mesolithic research within the consciousness of the British public, Milner et al.’s (2013) study suggests that there is still much to be done in developing wider understandings of this period.

The *Sonic Horizons of the Mesolithic* project was set up in 2013 in collaboration between archaeologist Ben Elliott and composer and sound artist Jon Hughes as an attempt to address this issue from a new angle – exploring the potential of sound as an aid in the communication of Mesolithic research to wider, non-academic audiences. The use of sound in the museum and heritage industry has developed substantially in recent years, with many well-known institutions in the UK initiating projects that engage with sound in innovative ways (Sharp 2013). There has also been a growth in projects seeking to foster collaborative relationships between creative artists and cultural institutions, such as the Museums and Heritage Partner Network. These developments reflect a growing academic interest in the study of sound in relation to a range of disciplines, frequently referred to under the umbrella term of ‘sound studies’ (Pinch and Bijsterveld 2012, 7).

*Sonic Horizons of the Mesolithic* emerged from an engagement with this field. One particularly relevant strand, acoustic ecology, developed under the auspices of the *World Soundscape Project*, founded by Raymond Murray Schafer, Barry Truax and Hildegard Westerkamp during the 1970s at Vancouver’s Simon Fraser University (Pinch and Bijsterveld 2012, 7). Truax (1999) defines a soundscape as any sonic environment, with particular emphasis on the way it is perceived and understood by an individual or by a society. Elsewhere Schafer (1977, 7) has given a more general definition, describing a soundscape as ‘any acoustic field of study’, which includes a piece of music, a radio program or any sonic environment.

Throughout the summer of 2013, a number of publicly accessible soundscape installation events were organized as part of this project, with the general aim of encouraging audience

members to think about the different sounds that characterized life in the Mesolithic. This article will outline the methodology employed, and discuss the various ways in which this approach was found to be a successful and significant medium for engaging non-academic audiences with the concepts of the British Mesolithic. While this work is couched firmly within the context of research into the British Mesolithic, the implications of its findings have wider resonances for the communication of prehistoric research in a range of different periods and geographical regions.

### **Towards a methodology of soundscapes**

The approach taken for the *Sonic Horizons of the Mesolithic* project developed in part from Hughes' recent compositional practice. Particularly relevant in this regard are two site-specific installation pieces: *Terrarium*, a dance work commissioned by North York Moors National Park in 2012 (Hughes and Birch 2012), and a John Cage-inspired sound installation, *A Dip in the Lake*, performed in York in 2012 (Hughes 2012). Both utilized environmental sound recordings mixed ambisonically and played back through the use of a large outdoor 30-metre ambisonic speaker circle. This allows sounds to be mixed using ambisonic technology, an effective kind of multi-channel surround sound system. In both of these projects a circle of eight speakers was used both during the mixing process and in performance. This set-up enables sounds to be mixed in 360°, creating the impression that sounds originate from any direction, with the listener placed in the centre of the speaker circle for playback. This creates a high-quality, fully immersive sonic experience.

Both *Terrarium* and *A Dip in the Lake* drew their primary sound recordings from a specific geographic area and sonic community. In the case of *Terrarium*, this consisted of the landscape and community of the North York Moors National Park while *A Dip in the Lake* drew on the sounds of the City of York itself during a single twenty-four-hour period. In both cases, the primary recordings were used as a source of audio material to create the final sound fabric. Hughes' experience capturing, selecting and shaping sounds and audio material gathered from these landscapes and urban soundscapes provided a fruitful point of departure from which to begin the *Sonic Horizons* project.

In the case of *Sonic Horizons of the Mesolithic*, this approach consisted of the construction of a sound archive for a specific archaeological landscape – Lake Flixton during the time that Star Carr was occupied (c. 9000 cal. BC). Since the initial discovery of a series of Early Mesolithic sites around the edges of an extant lake by John Moore in the late 1940s, this landscape has been the focus of intense archaeological and palaeoenvironmental investigation. Clark's (1954) famous excavation of a rich assemblage of organic and inorganic Early Mesolithic material culture at the site of Star Carr brought this landscape to the attention of the academy internationally, while the pioneering integration of palaeoenvironmental studies alongside archaeological investigations helped to set the tone for future approaches to the study of the Mesolithic period. Further investigations both in and around Lake Flixton have helped to identify and excavate twenty-four Mesolithic sites (Lane and Schadla-Hall, forthcoming; Schadla-Hall and Conneller 2003; Taylor and Gray-Jones 2009) which document an extensive and diverse use of this landscape throughout the Mesolithic period. Parallel environmental work has also built up a detailed and nuanced account of the changing wetland environments in which these activities

took place (Cloutman 1988a, 1988b; Cloutman and Smith 1988; Mellars and Dark 1998; Taylor 2011).

Using the archaeological and palaeoenvironmental data from this region (Clark 1954; Cloutman 1988a, 1988b; Cloutman and Smith 1988; Conneller et al. 2012; Lane and Schadla-Hall, forthcoming; Mellars and Dark 1998), a catalogue of sound recordings was assembled, featuring the sounds of animals, environments, materials and human activities that have a demonstrable presence in and around Lake Flixton during the Early Mesolithic. These recordings originate from a variety of sources – some environmental and animal sounds were kindly donated by the British Library’s National Sound Archives, some human activity sounds were created experimentally using flint, antler, water, wood and stone. Further recordings were contributed from the archives of Hughes’ previous work, including the sounds of coastal environments, fire and weather conditions. Finally, a small number of recordings were donated by fellow researchers within the University of York’s Department of Music – including field recordings of contemporary Mongolian shamanic dance ceremonies. The latter inclusion was taken to represent the body of academic literature concerning the role of shamans at Star Carr (Bevan 2003; Chatterton 2003; Clark 1954; Strassburg 2000), and the prominent role that ethnographic analogy has played within these discussions.

These sounds, once assembled and catalogued, were used to create a thirty-four-minute long soundscape composition inferred from the Mesolithic archaeology of the Vale of Pickering. This utilized a series of sixteen ‘scenes’ to provide an overarching structure. The theme of each was based directly on the human activities evidenced within the archaeological record and set against the backdrop of environmental sounds inferred from the palaeoenvironmental record. As an aid to the compositional process, two recurring, fictitious Mesolithic characters – Jack and Amber – were used to link the various activities together.

For example, the considerable body of evidence for flint knapping and the use of fire around Lake Flixton (Conneller and Schadla-Hall 2003) formed the basis for one particular scene. This was set by a fireside in front of a hut-like structure, similar to that excavated at Star Carr (Conneller et al. 2012), but located some 20m from the lake edge. Recorded sounds of flint being experimentally knapped by Elliott in a studio environment were mixed ambisonically with the sounds of night-time forest and marshland environments from the British Sound Archive’s environmental sound recordings. To this was added the sound of a modern-day campfire, recorded by Hughes in York in 2012 as part of his previous work. British Sound Archive field recordings of various birds and animals were then mixed into the scene: a tawny owl, barn owl and long eared owl, alongside the sounds of red deer and wolves. The remains of these species have been recovered from Star Carr and several other sites around the edges of the Vale of Pickering (Fraser and King 1954; Rowley-Conwy 1998; Lane and Schadla-Hall, forthcoming). These were situated at varying distances from the listener to create a sense of spatial scale and place within the landscape. For example, sounds from the lake-fringes were positioned as if coming from the left, sounds from the forest on the right and the fire and flint knapping sounds positioned centrally. Animal sounds such as wolf and red deer were positioned at a distance from the right, as if being heard from deep within the forest.

The total list of scenes featured within the soundscape included:

- Midnight flint knapping
- Foraging

- Heavy weather at a lake edge
- Stalking red deer
- Heating water with fire-warmed stones
- Coracle journey across marshland
- Distant thunder
- Communal dances by a fireside
- Rolling birch bark
- Collecting flint nodules on the beach
- Walking through snow
- Making barbed points from red deer antler
- Hunting wild boar
- Spear fishing at a lake edge
- Roe deer in a rookery
- Walking along a forested river

During the mixing process, recordings were positioned and blended together to create a continuous piece of sound. This allowed the full texture and richness of specific sound recordings to be explored and to build towards an immersive and captivating sonic experience for the listener, without compromising the academic integrity of the research on which the scenes were based. However, it should be stressed that the mixing of the soundscape was in itself an interpretative and expressive process. The final piece has been referred to as a ‘soundscape’ rather than a ‘sonic reconstruction’ in recognition of this fact.

### **Presenting the installation**

The thirty-four-minute soundscape was presented in an ambisonic set-up at four events throughout the course of the summer of 2013. The first of these events took place at the public opening of the *After the Ice: Yorkshire's Prehistoric Peoples* exhibition, Yorkshire Museum – an open air event in the Museum Gardens adjacent to the Yorkshire Museum in York. This featured a set of eight outdoor speakers, set up in a circle 24m in diameter with a series of benches positioned in the centre. A small marquee was erected to one side of the speaker circle, housing the less weatherproof equipment from the elements and sheltering a small display board. Appropriate handling objects lent from the adjacent Yorkshire Museum were also housed within this marquee (Fig. 1). Members of the public were free to wander through the speaker circle and experience the soundscape, and the authors and museum staff were on hand to discuss the content and relevance of the sounds being played with the aid of laminated print-outs providing a scene-by-scene overview of the piece. The installation lasted from 10 am until 3 pm in the afternoon.

The second event took the form of the opening lecture and reception of York's *Festival of Ideas* – a ticketed event featuring a lecture on world prehistory from Peter Watson alongside a scaled timeline representing 15,000 years of human activity in Europe. This 30cm-thick, annotated line ran through several rooms of a large exhibition space, working at a scale of 1cm for every year. This differed from the first event in that it took place indoors, and used an



Figure 1 Ambisonic sound installation set up within the Yorkshire Museum Gardens, York. Note the marquee containing display boards, handling collections and non-waterproof equipment.

8m diameter circle of six indoor speakers. The speaker circle was set up at the point at which the Mesolithic period began on the timeline and was staffed constantly by the authors, who were on hand to explain the purpose and content of the soundscape and offer listeners a printed copy of the overall scene structure. Guests at the opening lecture were able to explore the timeline and soundscape during a post-lecture wine reception, which lasted around three hours.

The third event took place within the same exhibition space as the second and formed part of the *Festival of Ideas* Fringe event – a publicly accessible event aiming to engage children and young people with humanities research at the University of York. The space was shared with several other interactive activities promoting a diverse range of research. Again, an 8m speaker circle was created with six speakers. In the centre of this circle, a tarpaulin was laid down and children and adults were given the opportunity to participate in red deer antler-working tasks using flint tools (Fig. 2), in the manner employed at Star Carr (Elliott and Milner 2010). Both authors were on hand throughout the event to supervise the antler-working activities and explain the soundscape with the aid of the print-out. The event was open to members of the public and was attended by families, meaning that a mixture of children, adolescents and adults experienced the soundscape through the course of a five-hour day.

The fourth event took place on-site in the Vale of Pickering, during the public open days of the 2013 excavations at Flixton Island. This site is situated approximately 1km away from Star Carr, and is being excavated as part of the POSTGLACIAL project, alongside Star Carr itself. The open days featured guided tours of the ongoing excavations at the site led by the project leader Nicky Milner, lectures on the artefacts and faunal remains being recovered from finds specialist Becky Knight and ecological landscape walks which dealt with the environmental history of the region, led by Tim Berkinshaw of Scarborough Borough Council. A 30m-diameter speaker circle was set up using eight weather-proof speakers on the grassland adjacent to the open trenches (Fig. 3). Deckchairs were arranged in the centre of the circle and the authors were again available to discuss the purpose and content of the soundscape with any



*Figure 2* Festival of Ideas fringe visitors working antler with flint tools within the Mesolithic soundscape, while discussing various aspects of Mesolithic life with a project director (image courtesy of Ian Martindale).



*Figure 3* Visitors to the 2013 Flixton Island Open Day, in the Vale of Pickering, experiencing the Mesolithic soundscape on-site.

members of the public or project who showed an interest. Copies of the narrative structure were again made available to aid these discussions.

### **The response**

These various installations stimulated a range of responses from their respective audiences, which provide some interesting insights into the potential value of multi-layered soundscapes as

a medium for communicating Mesolithic research to wider audiences. These responses will now be summarized and discussed in relation to each individual event, before a final conclusion is drawn as to the effectiveness and wider significance of the *Sonic Horizons of the Mesolithic* project.

The first event promoting the *After the Ice* exhibition provoked a mixture of responses from its audience. Attendance on the day was inhibited by poor weather, which reduced the size of the audience considerably (Natalie McCaul, personal communication). A positive response from the archaeological community ensured that the majority of those who experienced the soundscape in the Museum Gardens came from a heritage, museums or archaeological research background. The novelty of the approach was appreciated by this particular demographic, and the transportive nature of the sonic experience was also commented on by several audience members. The sounds seemed to serve as a powerful sensory stimulant for those from an archaeological background, helping to develop a deeper level of empathy with an already known prehistoric past.

However, non-archaeological audience members responded rather differently. The majority were offered a copy of the soundscape overview and structure, stayed to listen and then moved on. The precise length of time varied somewhat, with a few people braving the elements to listen to the full thirty-four minutes while the majority stayed for one, two or three 'scenes'. A small number of the audience were either emerging from or heading to the *After the Ice* exhibition, and demonstrated a clear understanding of the link between the exhibition content and the sounds being played. These individuals were more likely to engage with the artefact-handling activities offered by Yorkshire Museum staff within the marquee, reaffirming the link between the sound installation and the adjacent museum and exhibition. For the most part, however, participants followed the brief scene synopses on the hand-out and discussed the basic general characteristics of the Mesolithic period with the project staff. The immersive nature of the soundscape appeared to capture the attention of the audience and lead to a more active engagement with the sound content and the supplementary information that was made available as part of the event.

A minority of audience members were specifically interested in the technical side of the installation, and asked questions relating to the specifications of the speaker set-up and the mechanics behind ambisonic mixing and playback. This technical engagement was somewhat fostered by the large and obviously weather-resistant speakers and the visible amp and laptop set up within the covered area, which provided props for conversations which gradually moved towards the archaeological content of the soundscape.

Others engaged quickly with familiar sounds within the piece that they could recognize or relate to. Birdwatchers and nature enthusiasts quickly began to ask direct questions about the bird and animal calls sampled in the various scenes, and then relate these to the various times and places they had experienced such sounds 'live'. Individuals with a keen interest in these areas then began to ask questions regarding the sounds that they did not recognize, which led into some interesting and fruitful discussions about the character and composition of Mesolithic ecologies and the role of humans within these.

The second event at the *Festival of Ideas* opening lecture provoked a different set of responses from the audience. A clear link was drawn by many audience members between the adjacent timeline and the soundscape – there were fewer basic questions relating to the chronology and length of the Mesolithic period and its relationship to more widely known

archaeological periods. The slightly more formal, ticketed atmosphere at the event led to fewer open discussions of the soundscape and its content – the audience's attitude turned the installation into more of a sonic spectacle to be experienced and appreciated, rather than a spring-board for further discussion and engagement with the Mesolithic period and its archaeology. The size of speaker set-up may have also contributed to this, the smaller scale of both the space and sound inhibiting the 'transportive' power and empathic responses that were stimulated in the outdoor set-up. This is not to say that the installation was not well received, with positive feedback on the quality of the sounds and their natural character being passed to both the authors and event organizers on the day itself.

The third event again drew a range of unexpected and positive responses from the audience. The use of the soundscape alongside a practical activity, in this case antler working, proved a fruitful and effective way of engaging audiences with the Mesolithic period and its archaeology. Different individuals seemed to respond to both sound and a physical activity differently, some being more interested in one particular 'stimulant' than the other. This allowed discussions to develop on the terms of the individual audience member. Some of the most in-depth and enthusiastic conversations occurred when themes which arose from one stimulant were linked to that present in another stimulant. The practical activity provided many cues for this, with antler, water and flint acting as 'props' for building links between the animals, materials, technologies and environments referenced within the soundscape at various points.

Children in particular responded very positively, clearly recognizing and engaging with specific sounds from their own experiences. This allowed discussions to develop from particular details of life in the British Mesolithic, and over time move into broader conversations about the various differences between life in Britain today and the deep past and the position of the period in relation to other more recognizable elements of the 'national story'. The addition of a practical activity allowed concentration and focus to be maintained – once engrossed in antler working, children would spend longer periods within the soundscape, which offered the opportunity for extensive and free-flowing dialogues to develop and the range of narrative scenes to be experienced. Some individuals spent longer than an hour engaged with these activities, a significantly greater period of time than the average observed at other installation events. Additionally, children who were intrigued by the soundscape lingered longer within the installation, allowing any shyness to be overcome and the confidence to try the antler-working activities to develop.

The effect of the immersive soundscape on the levels of engagement with the antler-working activity was pronounced. In previous public engagement exercises that have featured antler working without the soundscape, responses of individuals can vary. However, when conducted within the speaker set-up with the soundscape on loop, the levels of concentration and length of interest were dramatically heightened in audience members.

The positive influence of the presence of a practical activity could also be seen in the behaviour of the parents and older family members who experienced the installation. They too became engaged for longer periods of time, and there was a definite shift in the openness of older audience members to admitting ignorance of the Mesolithic period more generally when learning alongside children. When they did so, the basic elements of the period could be outlined in conversation without the danger of patronization or condescension.

The Flixton Island Open Day installations proved to be successful in yet more ways. The location of the event proved a defining factor as clear links could be forged between the sounds

that people could hear in the landscape today (outside the circle of speakers) and the sounds that could be heard within the Mesolithic soundscape itself. This worked well with the themes elsewhere within the content of the open days, helping to reinforce the points made on site tours, landscape walks and finds lectures in a more experiential manner. This was clearly mirrored within the discussions that occurred with audience members – with more focused questions relating the relationship of the human activities and environments featured within the soundscape and their relationship to the archaeology currently being excavated alongside the installation. The contemporary ecological content of the landscape walks and the ongoing re-wetting projects within the Vale of Pickering landscape today linked particularly well to the soundscape, with audience members clearly being prompted to imagine how the deep past and immediate future of the area might differ.

Another response to the soundscape, which was echoed in part in some of the responses expressed at the Museum Gardens event, related to the simple relaxing qualities of the sonic experience itself. A small number of audience members spent prolonged periods of time within the circle, sitting on the deckchairs and listening for more than a full loop of the narrative structure. While less likely to actively engage in conversation, these audience members were able to follow the content of the piece at their own pace using the laminated hand-outs. In part, this can be seen as a response to the unusual character of ambisonic playback in an outdoor space. However, it does suggest that, for some people, effective engagement can be fostered through the simple sonic qualities of the experience itself. Creating an interesting and sonically pleasing soundscape can therefore be seen as an important attribute of the process, and one which, as opposed to an artistic indulgence which detracted from the academic integrity of a ‘sonic reconstruction’, actively played a role in engaging wider audiences more successfully than might otherwise have been achieved. This response was particularly pleasing as neither the Museum Gardens event or Flixton Island open days were graced with particularly good weather – the power of the soundscape to engage was apparent here in conditions not usually conducive to basking on benches or deckchairs.

## Conclusions

It can be seen from the discussion above that the *Sonic Horizons of the Mesolithic* project has enjoyed considerable success in engaging non-academic audiences with a challenging set of research narratives at a range of events during the course of 2013. This can be attributed to a number of different factors that have characterized the approach taken to public engagement.

A key aspect of the *Sonic Horizons of the Mesolithic* project, which helped to drive its success in engaging audiences, was the element of spectacle, experiential novelty and fun, which attracted attention in publicly accessible spaces and captivated interest in the content of the soundscape itself. The high visibility and obvious noise levels generated by the speaker set-up was an effective way of drawing audience members into the installations, and the initially strange sensation of sound placement created by high quality ambisonics also generated considerable interest. In a similar vein, the quality of the mixing and artistic expression invested in the creation of the soundscape also helped to generate a deeper engagement with the project and its work. The sound itself is pleasant to listen to, and provides – if nothing else – a naturalistic

and soothing ambience within a given space. These qualities directly influence the ability of the project to engage wider audiences.

There are also a variety of distinct advantages to working with the medium of sound which aided the project – specifically in relation to overcoming the challenges of communicating Mesolithic research. By using some sounds that are still experienced in Britain today, the soundscape was able to demonstrate quickly and effectively the relevance of Mesolithic research to contemporary society and to highlight similarities between modern-day experiences and those in the deep past. Additionally, by creating an immersive sensory experience, the ambisonic soundscape also provided a powerful stimulus for the imagination of the audience members, in ways that traditional archaeological dialogues sometimes struggle to achieve. This was most obviously demonstrated during discussions at the Flixton Island open days, when audience members were directly prompted by the content of the soundscape to empathize with the past inhabitants of the landscape and consider the environments and activities discussed elsewhere in the open day in a more experiential manner.

The initial process of building up an archive of sound recordings also served as an effective and thought-provoking methodology for characterizing a prehistoric landscape. This was followed through into the mixing process itself: by layering multiple sounds on top of each other complex relationships between research themes and concepts could be expressed and articulated. This led to the effective encapsulation of the academic understanding of a complex and intricate archaeological landscape within a single continuous piece of sound. As such, it was possible to create a subtle and nuanced summary of more than sixty years' worth of archaeological and palaeoenvironmental research within this given landscape during a single thirty-four-minute track.

This approach to past landscapes has further potential for the communication of archaeological research beyond the Early Mesolithic of the Vale of Pickering – both spatially and chronologically. The powerful engagement created by landscape-specific installations being performed within their parent landscape is also something which may have further significance beyond the remit of this current project – there is clearly scope to use this approach in the future to explore concepts of changes through time in environment and human activity at specific locations, or to contrast two distinct but contemporary landscapes. Any further work within this field would also provide the opportunity for a more in-depth study of the mechanisms by which people engage with sound, and a structured study into the longer-term impact of experiencing prehistoric soundscape installations (while outside the scope of the work undertaken to date) would help inform future decisions on the most effective contexts in which this approach can be utilized.

In conclusion, the *Sonic Horizons of the Mesolithic* project has broken new ground in the ways in which archaeologists can engage non-academic audiences with new concepts and research through the medium of ambisonic sound. This approach has been used in a series of different contexts during the summer of 2013 to foster engagement with a variety of audiences and demographics, and as such has successfully contributed towards the aims of the British Mesolithic research agenda. The approach pioneered here also has further significance for the future communication of landscape archaeology across all periods, and represents the genesis of a new methodology to aid archaeologists in attempts to communicate high-level concepts and new ideas to broader sections of society.

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