

**Re: Discovery of ‘A Massive, Late Neolithic Pit Structure associated with Durrington Walls Henge’**

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**FURTHER SUBMISSIONS ON BEHALF  
OF THE CONSORTIUM OF ARCHAEOLOGISTS  
AND THE BLICK MEAD PROJECT TEAM**

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*Introduction*

1. Appended to these overarching submissions is a paper by Paul Garwood and Vince Gaffney responding to the evidence/submissions of Highways England and others addressing the late Neolithic Pit Structure together with a short statement from six members of the Scientific Committee. These overarching submissions address:
  - a. Procedural fairness;
  - b. Comment on the expertise of those producing evidence, including the views of the scientific committee;
  - c. The significance of the pit structure and its implications for the scheme;
  - d. Conclusion and summary of the issues.

*Procedural Fairness*

2. The Consortium maintains its representations with regards to the fairness of the procedure adopted by the Secretary of State for the consideration of the new discovery (see TR010025-001991). By failing to re-open the examination and the consideration of the new discovery by the expert panel, the parties have been deprived the ability to test the evidence. In particular,

the Consortium would wish to cross-examine the author of the HIA addendum and also the authors of the responses from the statutory consultees. Further, the Secretary of State has been deprived of the opinion of his expert panel of independent Inspectors. Given the technical nature of the archaeological evidence, the absence of this assistance is particularly of concern.

3. As the further evidence/submissions makes clear, there remain material issues of fact and opinion between the parties to the Examination. Some of these are simply incapable of proper resolution by written submissions and without the testing of the evidence. This is not merely related to the implications of the new finds for the scheme (more on this below). Further issues which require detailed testing/examination include:
  - a. the repeated implication or explicit claim of support from the independent experts on the Scientific Committee for the DAMS. As set out by the statement of six expert members of the Scientific Committee appended to these representations, it is in fact the case that the majority of the Scientific Committee experts oppose the scheme and are not content with the mitigation proposed; and
  - b. the document which claims to be written on behalf of The Stonehenge and Avebury World Heritage Site Coordination Unit but is instead written by Wiltshire Council's Heritage Services Manager 'on behalf of' the WHSCU. At the examination, the independent WHSC co-ordination officer representing the WHSCU was clear in her objection to the scheme, its harmful effect on the WHS and the breach of the Management Plan. No explanation is given for why this response is purported to have been written on behalf of the WHSCU but does not come from an independent officer of that organisation. In the absence of any explanation no reliance can be put upon it by the Secretary of State.

#### *Expertise*

4. The Consortium has repeatedly highlighted that the assessments produced by Highways England and the consultation responses from Statutory Consultees are either silent as to their authorship or as to the credentials/expertise/experience of their authors (see for example see TRO10025-

0001172). It remains the case that the new addendum to the ES and also the responses from the statutory consultees are unattributed and/or unsupported by evidence of the author's expertise. In these circumstances the Secretary of State can have no confidence that the documentation has been prepared by appropriately qualified experts and they must therefore be given little weight as a result.

5. It is extremely concerning that, perhaps in recognition of the paucity of expert backing, some parties have sought to 'pray in aid' alleged support from the Scientific Committee experts (or at least imply such support). As set out in the appended statement from six expert members of that committee, these claims are false. There is no majority support from the Scientific Committee experts for the Scheme or the DAMS. Rather, as that statement makes clear, the majority of the Scientific Committee experts are opposed to the principle of the Scheme and the mitigation it proposes due to the harm it will cause to the WHS.
6. The fact is that the weight of expert opinion remains firmly opposed to the Scheme and is of the view that it will be highly damaging to the heritage significance and OUV of the WHS. Most importantly, UNESCO has objected to the Scheme<sup>1</sup>, so too has ICOMOS-UK. The Consortium is made up of a large number of individual experts on the WHS who oppose the Scheme. It is now clear that the majority of the experts on the Scientific Committee also oppose the Scheme. The views of these experts should be given considerable weight in the Secretary of State's decision.

#### *The implications of the new discovery*

7. The Consortium maintains its position with regard to the implications of the new discovery for the scheme. Appended herewith is evidence from Professor Vince Gaffney and Dr Paul Garwood which comprehensively and convincingly emphasises the serious implications of the new discovery for the Scheme and refutes the contention of Highways England that it has no effect on the assessed impact of the Scheme. The Secretary of State is urged carefully to consider the evidence of these undoubted experts which reaches the following compelling conclusions:

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<sup>1</sup> It must be noted that UNESCO has not had the opportunity to respond to the significance of the new discovery for the tunnel and the positioning of the Eastern Portal, given the timetable of its annual meetings.

‘Ultimately, Highways England have insufficient baseline knowledge and understanding of the sub-surface cultural heritage evidence along the line of the proposed roadworks and wider DCO to make sound reasoned judgements about a suitable ‘Mitigation strategy’. In short, they do not know what is there, have little understanding of the features and deposits revealed during the evaluation process, and thus have little idea about how best to investigate or record the archaeological features and deposits that would be destroyed in the course of the proposed road works.’ (p.7)

‘...the discovery of what is in effect the largest monument in the WHS profoundly affects our understanding of the Stonehenge landscape and everything within it, with major implications for the OUV of the WHS, and all future research and infrastructure development impinging on the WHS area (cf. Garwood 2002b for a discussion of the relevance of the discoveries for our knowledge of very large scale landscape organisation around Stonehenge).’ (p.10)

‘The spatial configuration and terrain setting of the massive pit circuit at Durrington escapes any ‘natural’ explanation. This would suppose a natural geomorphological (periglacial) formation of entirely unparalleled form and generated by unknown natural processes (that happens to be close to Stonehenge), comprising massive ‘solution hollows’ that are all of the same shape and scale (all circular and c. 20 m across at the surface), distributed in a regularly-spaced fashion in a near circular spatial arrangement that just happens - coincidentally - to have its centre in the middle of the largest and most massive circular Neolithic enclosure in the Stonehenge landscape.’ (p.12)

‘The Addendum to the HIA produced by Highways England (2020d) in response to these discoveries changes nothing, as they persist in treating cultural heritage in terms of individual ‘assets’ (Highways England 2018, 10-20; 2020d, e.g. sections 2.3-2.5) rather than recognizing the totality and inter-relatedness of monuments, sub-surface features of all kinds, ploughzone sites, and so forth, that together constitute the Stonehenge landscape and underpin the OUV attributes of the WHS....

Highways England’s view is founded on a crude characterisation of spatial relationships and the observation that the Durrington pits circuit lies outside (and therefore beyond the impact zone

of the A303 DCO, a view repeated by Prof. Darvill (2020b) and Mr. Pitts (2020). As previously noted, however, this simply misses the fundamental importance of the extensive spatiality and the interrelatedness of prehistoric landscape organizations, monuments, social practices, sensory perceptions and meanings (Darvill 1995, 2005; Gaffney et al. 2020b; Garwood 2020b)' (p.12-13)

'From a social, cultural and sensory perspective, the 'presence' of the massive pits circuit, and other large-scale structured organizations of monumental architecture (such as the extraordinarily well preserved Early Bronze Age ceremonial and funerary landscape threatened by the A303 western corridor; Garwood 2020b; see Figure 5) affects not only their immediate hinterlands, but the wider landscape of the entire WHS. The presence of these structured prehistoric landscapes, and their centrality to the OUV of the WHS, should surely be the starting point for any HIA, which should seek to prevent the kinds of serious damage the road scheme will cause to them.' (p.13)

'Given what we know about the ways in which prehistoric landscapes were inhabited, traversed and at times physically configured by monumental constructions of diverse kinds, it is apparent that effective and reliable means of highly intensive data/material recovery at very spatial extensive scales are essential if we are understand the evidence. In a worst-case scenario, in which the current road scheme is approved, leading to total destruction of the evidence (both in the ploughzone and in sub-surface anthropogenic and natural features) in the highly sensitive and culturally significant setting of the Stonehenge landscape, anything less than 100% recovery is unjustifiable.' (p.14)

8. Neither Highways England, nor any other party, has presented any credible evidence to refute that of Dr Garwood and Professor Gaffney. Their paper comprehensively addresses attempts to downplay the implications of the newly discovered pits for the Scheme.

*Concluding remarks and summary of the issues*

9. Indeed, the discovery of the Neolithic Pit Structure has brought into sharp focus the issues which the Secretary of State must grapple with in making his decision on the Scheme. As part of that decision, he must decide what the level of harm is to the World Heritage Site, that will involve (at the very least) answering the following questions which are in issue between the parties:

- a. In assessing the WHS, must it be treated as a whole asset or can it be carved into individual assets/groups and their settings (as is the approach of Highways England)?
- b. Must the interrelationships of the various features in the landscape be understood, appreciated and assessed or can they be looked at individually (as is the approach of Highways England)?
- c. Can decades of established archaeological research which demonstrates the significance of the landscape as a whole be simply set to one side?
- d. Can the physical destruction of a significant area of the WHS (together with the archaeological sterilisation of c.10ha), including the destruction of what is likely to be a Neolithic settlement, a significant funerary landscape, and the densest concentration of Neolithic longbarrows in Britain, be counterbalanced/outweighed by asserted improvements to the mere experience of another part of the WHS (as argued by Highways England)?
- e. Can methods of archaeological assessment and investigation fall anywhere below best available techniques at this site given its World Heritage status (as has been the case in the HIA)?
- f. Can ploughzone artefact recovery and excavation methods fall far below standards which have hitherto been required of archaeological research in the WHS (as is proposed in the DAMS)?
- g. Is the Western Portal sited in an area of comparatively 'low' sensitivity rather than being the location of a large group of Early Neolithic monuments and an Early Bronze Age settlement area with considerable heritage significance (as argued by the Consortium)?
- h. Is the area of the Eastern Portal also an area of low sensitivity rather than being a highly significant area of funerary landscape (as argued by the Consortium)?

- i. Can the Secretary of State realistically give any weight to the heritage evidence of Highways England and the responses of the statutory consultees where no expert has been willing to put their names to that evidence, no curriculum vitae or credentials have been provided?
  - j. Can the Secretary of State give anything other than significant weight to:
    - i. The majority view of independent experts on the Scientific Committee;
    - ii. The independent experts who make up the Consortium, the evidence of whom is supported by their CVs/credentials;
    - iii. The independent views of UNESCO and ICOMOS-UK?
10. The answers to each one of those questions is 'no'. This is clear from the evidence and submissions which the Consortium and others have submitted to the examination. The conclusions of that evidence/those submissions can be summarised as follows:
- a. If approved and built out the Scheme will cause irreversible and significant harm to the significance of the WHS including the various attributes of OUV (see TRO10025- 000870, TRO10025- 000869, TRO10025- 0001172, TRO10025- 001364);
  - b. The Scheme will breach Articles 4 and 5 of the World Heritage Convention, as is clear from the authoritative response of UNESCO and ICOMOS-UK and also the Operational Guidelines(see TRO10025- 000870, TRO10025- 000869, TRO10025- 0001172, TRO10025- 001364);
  - c. The significant heritage harm also amounts to a clear breach of the NPS for National Networks (see TRO10025- 000869, TRO10025- 0001172, TRO10025- 001364);
  - d. The significant heritage harm also breaches the WHS management plan (see TRO10025- 0001172)
  - e. The HIA work provided by Highways England is materially deficient in that it:

- i. Has deployed substandard investigative techniques which leave much of the WHS unsurveyed and have failed to discover features such as the latest discovery (see TRO10025- 0001172, TRO10025- 001991);
- ii. Fails to assess the impact on the WHS as a whole (see TRO10025- 0001172, TRO10025- 001991);
- iii. Fails to appreciate the importance of the interrelationship of features in the landscape and artificially carves up the landscape into individual 'assets' (as has been underscored by the response to the latest discovery) (see TRO10025- 0001172, TRO10025- 001991);
- iv. Fails thereby to understand the OUV of the WHS (see TRO10025- 0001172, TRO10025- 001991);
- v. Seriously underestimates the heritage significance of both the Western and Eastern portals which cannot be seen as less sensitive sites within the WHS (TRO10025- 001991). The Western Portal road line cuts through the densest concentration of Neolithic long barrows and part of the largest known Early Bronze Age settlement area in Britain (see TRO10025- 000870, TRO10025- 000936, TRO10025- 0001172), and compromises the physical, spatial and visual setting of the best preserved Early Bronze Age funerary monument complex in northwest Europe (see TRO10025- 000878, TRO10025- 001064, TRO10025- 001991). The road in this area would lead to the unacceptable loss of 5ha of prehistoric remains (see TRO10025- 000870, TRO10025- 0001172). The Eastern Portal cuts through the ceremonial landscape as emphasised by the recent discovery (see TRO10025- 000870, TRO10025- 0001172, TRO10025- 0001366). The Scheme will sever parts of the WHS (see TRO10025- 000870), archaeologically sterilise 10ha of the WHS (see TRO10025- 0001172) and lead to the loss of an estimated 0.5million prehistoric artefacts (TRO10025- 0001172);



- vi. Fails properly to assess the risk to the Mesolithic to Medieval period archaeological site at Blick Mead and in particular fails adequately to model the potential hydrogeological impacts of the Scheme (see TRO10025-000868, TRO10025- 000870, TRO10025- 0001172, TRO10025- 0001366, TRO10025- 001364); this puts at risk the internationally significant remains at that site;
  - vii. Fails to take into account damage already done to Blick Mead through the drilling of boreholes by Highways England through areas of the site (TRO10025- 0001172);
  - viii. Fails to take into account the harm to the setting of Blick Mead (TRO10025- 0001172);
  - ix. Adopts an illogical and inappropriate approach of elevating purported enhancements to the setting of parts of the WHS to offset physical destruction of the WHS itself (see TRO10025- 0001172). UNESCO have repeatedly stressed that damage to the OUV in one part of the WHS cannot be mitigated by a perceived enhancement to another part of the WHS, but this has fallen on deaf ears.
- f. The DAMS is unfit for purpose given the significance of the WHS (see TRO10025- 000870, TRO10025- 000936, TRO10025- 0001366, TRO10025- 001364), nothing less than 100% sieving of the ploughsoil should be required in this location, as has hitherto been required from researchers as an industry standard (see TRO10025- 0001172, TRO10025- 0001499, TRO10025- 001497, TRO10025- 001364). Only 100% sampling will give some measure of the chronology of an otherwise undatable scatter (TRO10025- 0001172);
- g. Given the breaches of the World Heritage Convention, which is an international obligation, the Secretary of State should refuse the application in accordance with s104(4) Planning Act 2008 (TRO10025- 001364).

11. The decision is clear. The Scheme should be refused on the basis of the significant and irreversible heritage harm. The harm breaches the NPS and also the WHC and should therefore be refused under s104 of the Planning Act 2004.

**Victoria Hutton**

**On behalf of the Consortium of Archaeologists  
and Blick Mead Project Team**

**We the undersigned are alarmed that many of the representations by Highways England and supporters of the Stonehenge Tunnel either explicitly or implicitly claim support from the Scientific Committee. (Hereafter, and for the avoidance of any doubt, all references to the Scientific Committee are understood to refer to the independent experts forming the Scientific Committee, and not to any wider definition)**

**The majority of the A303 Scientific Committee oppose the whole scheme due to the fact that it will undoubtedly harm the significance of the World Heritage Site and its OUV. The majority also opposes the scheme in relation to its archaeological mitigation in advance of construction within the WHS. We stress that, by sitting on the Scientific Committee, we are not endorsing the scheme but have sought and continue to seek to mitigate the damage if it cannot be stopped.**

The Scientific Committee consists of 13 independent experts, including a Chair, and was formed by the Highways Agency on the recommendation of UNESCO. We meet together with representatives of Highways England and members of HMAG, drawn from the heritage bodies involved in the A303 proposed scheme. Our role is entirely advisory, and it has been evident throughout the course of discussions and amendments to the DAMS that our advice is not always followed. No system of voting is employed by the committee. It is entirely at the discretion of Highways England to follow or ignore our suggestions or directions. As a result, some crucial aspects of the scheme have not been approved by the Scientific Committee, contrary to what may be claimed by a number of parties who support the Scheme.

A key issue in which the Scientific Committee’s advice has not been followed is that of ploughsoil sampling. At the last meeting of the Scientific Committee in July 2019 there was a clear majority of 7 (out of 13) who were not satisfied with the low percentages proposed for ploughsoil sampling and which have subsequently appeared in the DAMS. In contrast, two members appeared to be in favour, two appeared uncommitted, and two did not attend the meeting.

**Response to further specific assertions made by the applicant and the heritage agencies concerning the function of the Scientific Committee:**

| <b>Assertions made about SC approval</b>   | <b>Our response</b>   |
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| “It must be remembered that the Outline Mitigation Strategy was discussed and approved by the A303 Scientific Committee”, (Wiltshire Council submission, 13.8.20, paragraph 2.3) | This is false. It was never approved by the majority of the Scientific Committee.                                       |
| “The Council is very confident the evaluation programme of comprehensive geophysical surveys and trial trenching has been carried out to a high standard and to a                | This ignores the programme of ploughsoil sampling which is neither comprehensive nor to a high enough standard, and has |

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| <p>strategy approved by the A303 Scientific Committee”, (WC, para 2.5)</p>   | <p>been considered as not fit for purpose by the majority of the Scientific Committee.</p>  |
| <p>“The mitigation strategy set out in the DAMS is already comprehensive. If any unexpected discoveries are made within the boundaries of the Development...then these processes should be followed and informed by further consultation with the SC”, (Eng. Heritage, 13.8.20, Conclusion 5)</p>  | <p>This is false, see above.</p>  |
| <p>“The DAMS provides for a proportional approach to sampling with natural features that have been shown to contain archaeological remains to be completely excavated (100%)..”, (Hist. Eng, 13.8.20, para 2.5.9)</p>  | <p>A proportional approach is not satisfactory since sampling of natural features should be 100% to reveal the total number containing archaeological remains (not just those revealed by ‘proportional’ sampling which is likely to be well below 100%).</p>   |
| <p>“Within the WHS, HE have also sought the advice of HMAG and the A303 SC (an independent panel of experts) in relation to the archaeological evaluation, the drafting of the DAMS and the scoping of the HIA”, (NT, 13.8.20, para 6.1.2)</p>   | <p>Whilst HE have sought the advice of the SC, they have not always adopted it. This is particularly problematic for ploughzone artefact recovery and 100% sampling of natural features which the majority of the SC recommend but is not being followed in the DAMS.</p>   |
| <p>“Within the WHS, HE is being held to high and unusually expensive standards...we expect a higher proportion of remains to be fully investigated than is often the case. The archaeology is overseen by an independent specialist committee”, (Pitts, 12.8.20, page 3)</p>   | <p>This is false. The archaeology is not overseen by the Scientific Committee. The SC merely provides advice which has been adopted on occasions and not followed on others.</p>  |
| <p>“the archaeological evaluation strategy was developed in consultation with HMAG and the SC. Specific contributions from members of the SC in respect of ploughzone artefact sampling were adopted as part of the evaluation strategy. The draft Archaeological Evaluation Strategy Report and its accompanying Overarching Written Scheme of Investigation were provided to the SC for comment. (Footnote here adds the final approved versions of the above documents are available through the SC website), (HE Overarching response, July 2020, para. 2.2.2)</p> | <p>Some specific contributions were indeed adopted as part of the evaluation strategy but the wider issue of ploughzone artefact recovery has not been resolved to the satisfaction of the majority of the Scientific Committee who deem the resulting loss from the WHS of up to half a million artefacts as unacceptable.</p> |
|  |   |

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# **Further comments on the implications of the Durrington monumental pits for the A303 Stonehenge road scheme**

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28<sup>th</sup> September 2020

## **1. Introduction**

The discovery of the monumental Durrington pits structure in the eastern part of the Stonehenge World Heritage Site (WHS) area completely changes our knowledge and understanding of the prehistoric landscape (Gaffney *et al.* 2020a, 2020b; Garwood 2020a, 2020b). It also foregrounds a range of fundamental issues relating to the WHS and its Outstanding Universal Value (OUV) attributes, and the purposes and methods of archaeological valuation and ‘mitigation’ with respect to the A303 scheme (considered in detail in Garwood 2020b. cf. previous submissions concerned with these themes, particularly: Council for British Archaeology 2019a, 2019b, 2020; Garwood 2019a, 2019b, 2019c, Parker Pearson 2019).

This submission assesses the nature of the Durrington massive pits evidence in the light of responses to the *Stonehenge Hidden Landscapes Project* (SHLP) discoveries from a wide range of heritage institutions and other bodies concerned with the WHS and the A303 road scheme, focusing first on the nature of the massive pits themselves, and secondly on their spatial organization both around Durrington Walls super-henge and in the context of the WHS as a whole. We point out the fundamental flaws in some of the observations made in these responses, and further consider the profound implications of the Durrington discoveries for understanding the Stonehenge landscape and for current road scheme proposals, especially in relation to Highways England’s Heritage Impact Assessment and Detailed Archaeological Mitigation Strategy. We argue that these documents are profoundly compromised in terms of frameworks of knowledge and understanding, baseline datasets essential for reasoned decision-making for the purposes of archaeological assessment, evaluation and mitigation, and investigative methodology and practice. As a result, they provide no basis for proceeding with the road scheme in its present form.

## **2. Massive pits and solution hollows**

### **2.1. *The nature of the evidence and its interpretation***

The publication of the Durrington pits discovery (Gaffney *et al.* 2020) and the Consortium of Archaeologists’ submission to the Secretary of State for Transport outlining its significance for the A303 road scheme (Garwood 2020a), have prompted a very large number of responses from Stakeholders and Interested Parties, first in August and now in a second round in September 2020. Many of the responses have focused specifically on the nature of the pits, questioning their identification and interpretation (notably: The National Trust 2020; Wiltshire County Archaeology Service 2020), in some cases attempting to argue they are natural features, and even - entirely unreasonably - questioning SHLP methodology, expertise and significance (e.g. Darvill 2020b). Others

have broadly accepted the presence and self-evident significance of the pit discoveries, recognizing their importance for investigating and interpreting large natural and anthropogenic features in the Stonehenge landscape while rejecting the argument that these have major direct implications for the A303 archaeological mitigation strategy (e.g. English Heritage 2020; Historic England 2020; Highways England 2020a, 2020b, 2020c, 2020d).

For clarification, we should point out that the SHLP is the largest multi-sensor archaeological geophysics project ever undertaken, involving probably the largest collaboration of experienced archaeo-geophysicists from across Europe, alongside specialist researchers in British landscape, palaeoenvironmental and prehistoric archaeology with decades of experience working in and interpreting the Stonehenge landscape (cf. C. Gaffney *et al.* 2012; V. Gaffney *et al.* 2018, 2020a). The intrinsic collaborative nature of the SHLP provides the foundation for assembling exceptional expertise for every aspect of investigation and data interpretation, and we agree with Pitts (2020, 1) that academic researchers should collaborate with archaeologists carrying out commercial fieldwork on a day-to-day basis in the Stonehenge landscape. We were very pleased to incorporate the comments of Wessex Archaeology staff in the Durrington article and invite them to contribute to the article to ensure that the interpretation of the results benefitted from their knowledge and experience. Any comment on competence should thus appreciate the scale, expertise, collaborative character and ambition of the project, and fully recognize the extraordinary range of new discoveries and new understandings of Stonehenge and its prehistoric landscape setting that the project organized in this way has generated, and will continue to generate in the future.

## **2.2. Comments on responses to the new discoveries**

Claims that the massive pit features identified by the *Stonehenge Hidden Landscapes Project* (Gaffney *et al.* 2020a; cf. Gaffney *et al.* 2020b; Garwood 2020a, 2020b; see Figure 1) are natural solution hollows, and not anthropogenic dug features (e.g. Darvill 2020b; English Heritage; Wiltshire County Archaeology Service 2020), do not hold up to scrutiny. These claims relate mainly to three aspects of the evidence: (1) the physical forms of the features and their in-fill deposits; (2) the dating of sedimentation processes and the cultural deposits within them, and (3) the spatial distribution of the features and their relation to prehistoric land use and ceremonial landscape social organization. The first two aspects are discussed here and the third in Section 3.

### **2.2.1. Claims that the pits are natural solution hollows**

The suggestion that the massive pits are really natural solution hollows is based on two main lines of 'argument'. First, some of the statements concerning solution hollows (e.g. Darvill 2020b, 1) *presume* that such large features are common in the Stonehenge landscape, circular in shape, and can be very large, even though these assertions are not supported by actual evidence. As far as the present authors are aware, no presumed 'solution hollow' has been fully excavated within the WHS, while many features interpreted as such hollows are irregular in shape and usually smaller than those identified at Durrington (e.g. an example investigated by the SLE project team near Stonehenge in 2018). Second, reports on previous excavations by Wessex Archaeology of six of the features that form part of the circuit of massive pits (Wessex Archaeology 2018, features 5573, 6257; Wessex Archaeology 2020) are cited as proof that they are 'natural', partly on the basis that the excavators were experienced enough to differentiate between natural and anthropogenic features (Darvill 2020b, 1). However, none of the pits identified prior to the SHLP fieldwork was fully excavated (*contra* Darvill 2020b, 1), and in most cases they were not investigated

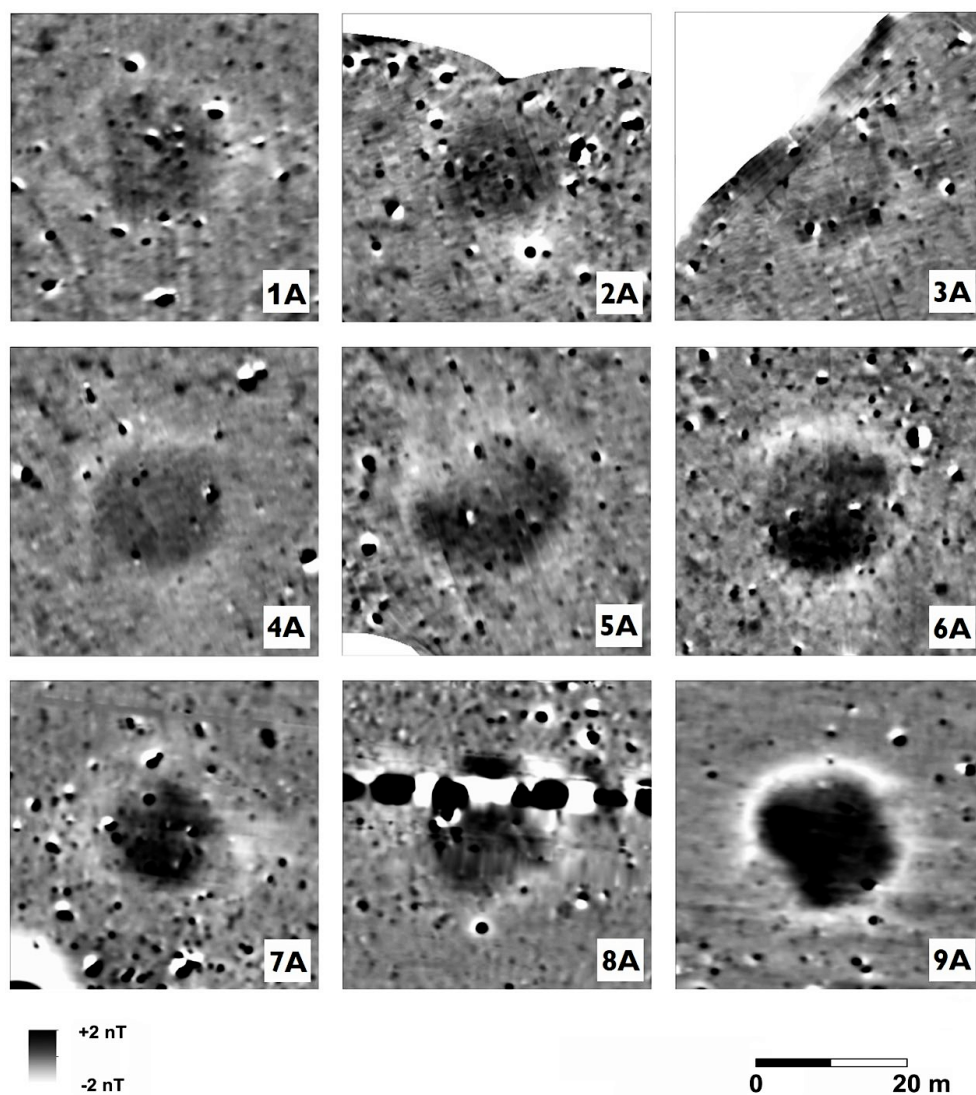


Figure 1: Magnetic responses for Pits 1A to 9A, demonstrating the consistency of size and shape of the features identified through geophysical survey (Gaffney et al. 2020, fig.2)

to any great depth. At the time of writing, it is not possible to assess the evidence relating to four of these features as the excavation assessment report (Wessex Archaeology 2020) has not been released by Wiltshire County Archaeology Service (WCAS) or by Wessex Archaeology. However, on the basis of the two published sites (Durrington MOD HQ features 5573 and 6257), it is possible to falsify the line of argument that they are natural on the following grounds:

1. The Wessex Archaeology excavators believed, *a priori* (on the basis of expectation and surface inspection), that they were investigating natural solution hollows. They excavated them accordingly, but did not, once the upper fills were removed, continue to determine their morphology, depth, fill sequence or chronology *fully* by excavation (as the lower fills were *assumed* to derive from glacial/periglacial processes during periods in which the landscape was uninhabited, even though sediments of all periods infilling steep-sided hollows in chalk bedrock appear similar). In this light, it is unsurprising that the excavators seem to have mistaken massive pits for natural features.
2. The Wessex Archaeology excavations consequently examined the upper fill deposits only, to a maximum depth from the modern surface of 3.0 m in the case of 6257, ending at the interfaces between upper more soil-rich fills with spreads of flint gravel and the lower chalky-clay sediments eroded from the sides of the features. A central 'near vertical' solution shaft is described in the case



of 6257, though its character and fills are not entirely clear from the published account (Thompson & Pollard 2018, 15-17, pl.3.5). Only in the case of 5573 were the lower sediments cored: the borehole revealed that the feature was at least 6.0 m deep, although the base depth was not determined. In comparison, the known depths of the massive pits revealed by the SHLP boreholes range from 4.8 m (Pits 4A and 5A) to 6.8 m (Pit 8A); see Figure 2. This knowledge base invalidates any suggestion that it is sufficient to undertake either shallow excavation (e.g. to c. 2.0 m depth) or shallow coring (e.g. to 1.6 m depth) to determine whether similar features identified in geophysical survey or exposed by trial trenching are natural or anthropogenic, as advocated by Historic England (2020, 6, section 2.2.11) and The National Trust (2020, section 6.1.4) respectively.

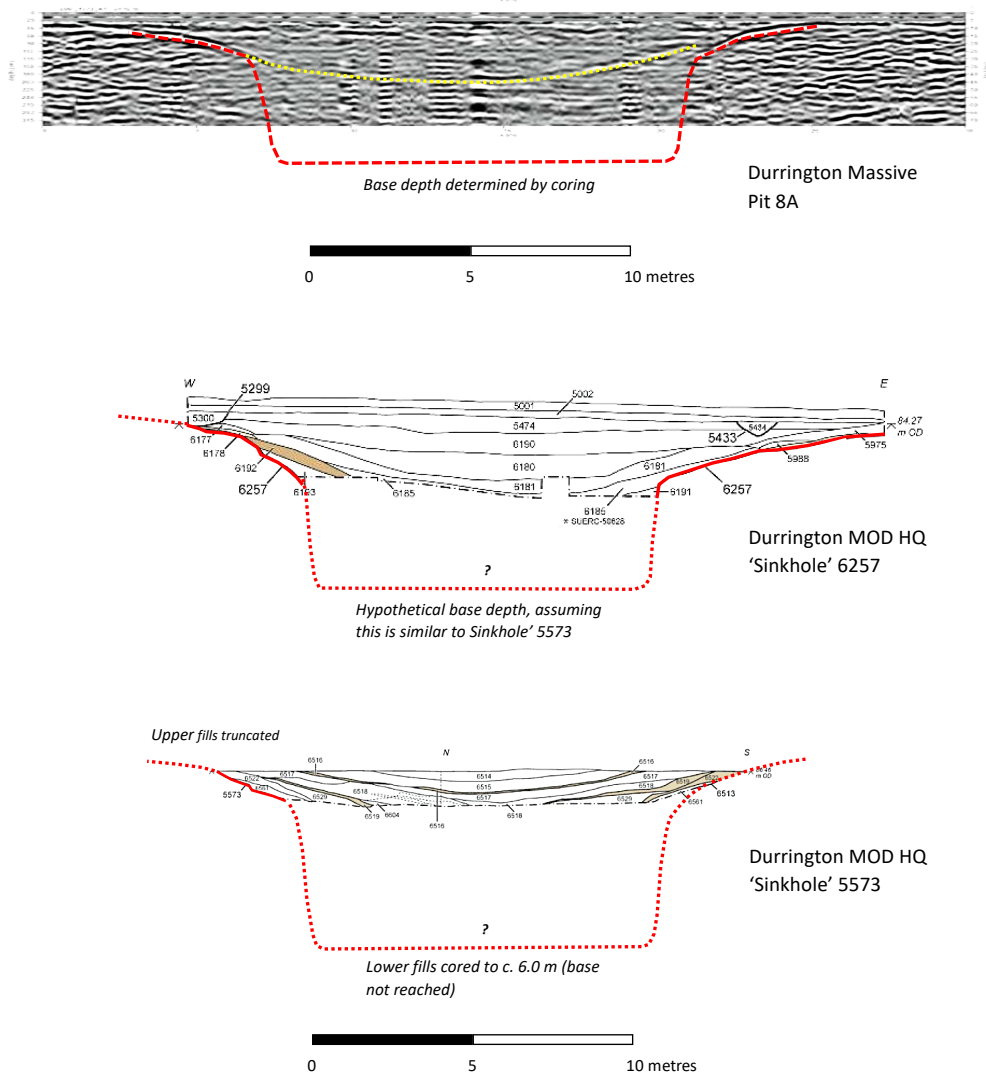


Figure 2: Approximate comparative profiles of Durrington Pit 8A (interpretation of GPR profile (radargram) of central cross-section; Gaffney et al. 2020) and Durrington MOD HQ 'Sinkholes' 6257 and 5573 (excavation sections: Thompson & Powell 2018; with added interpretations of possible profiles assuming these are pits similar to Durrington Pit 8A).

The implications for Highways England's A303 Heritage Impact Assessment and Detailed Archaeological Mitigation Strategy are discussed in Sections 2.3 and 2.4 below. The SHLP magnetic surveys of the massive pit features demonstrate their consistent circular shapes and similar sizes (see

Figure 1), while the Ground Penetrating Radar (GPR) surveys of Pits 4A, 5A and 8A (see Figure 2) further demonstrate that all three are circular and have near-vertical sides, which are not characteristic of natural chalkland solution hollows. This not only strongly supports an anthropogenic interpretation but is consistent with the shape and profile of the Durrington MOD HQ feature 6257, which shows the edges becoming steeper (W side) to near-vertical (E side) at the base of the excavated trench. It is very likely indeed, therefore, that the Durrington MOD HQ site features are *identical* - in scale, form, and character - to those examined by SHLP geophysical survey and coring.

4. The SHLP boreholes produced direct evidence for the deposition of cultural material at the time the basal sediments of Pit 8A were accumulating, probably during the Late Neolithic (Gaffney *et al.* 2020a, 20, 27, fig.16, tbl.1), and at the base of a possible Middle Bronze Age recut in the base of Pit 5A (*ibid.*, 20, 27, fig.17, tbl.1). Chronological issues are discussed further below, but it is important to note here that there is no question in the case of Pit 8A that later prehistoric social activity is evident in a near-primary silting context, soon after the pit was originally created: i.e. it is not an ancient pre-Holocene natural glacial/periglacial landform.

5. Whilst the SHLP paper does not exclude the *possibility* of natural origins for *some* of the mapped features (see comments below in section 2.4 concerning the relationships between ‘natural’ and ‘cultural’ features in prehistory), such an origin can be excluded for the three features cored by the SHLP team. Whilst one appreciates that the large amount of original data provided in the SHLP publication may be daunting, Pitts’ statement that it would have been “helpful to have comment from geologists” (Pitts 2020, 2) is puzzling. The SHLP team, both in the field and during analysis, included a geologist with more than 22 years research experience in geological geophysics research and teaching at a major UK university, and an archaeological geomorphologist with 38 years’ experience working on the Quaternary history of the Chalklands from the Middle Pleistocene to the Holocene in both research and contract archaeology. In their assessment of the massive pits the SHLP geologists observed that: *“These features certainly do not exhibit characteristics of solution hollows – their shape being the most obvious. Solution hollows are also usually lined with a thin, but distinct rind of dark brown clay along the surface of the chalk that defines the solution hollows – this is the long-term weathering rind from gradual solution of the chalk. Almost all Pleistocene sequences on chalk exhibit such features at the contact between chalk and overlying Pleistocene sediments. This is not present in the boreholes from our studies”*. The evidence thus suggests that these features, at least, are unlikely to be natural in origin (*contra* The National Trust 2020; Darvill 2020b; Pitts 2020).

It is apparent, therefore, that claims of natural origins for the Durrington pit features investigated by the SHLP, both the published Durrington MOD HQ features and the unpublished Larkhill examples (which are reported to have been investigated in similar ways), as well as other features regarded as ‘solution hollows’ on the road line (e.g. see comments by The National Trust: 2020, section 6.1.4) are based on partial and superficial investigation, incomplete datasets, and biased prior assumptions about what such features might be. These suggestions lack any sound evidential foundation, and thus have no value in judging the character or significance of the Durrington pit discoveries.

### 2.2.2. Chronology

The dating of the Durrington massive pits is not yet fully determined (Gaffney *et al.* 2020, 38). The radiocarbon samples derive largely from depositional contexts in upper fills, those on shell are probably affected by residual ancient carbon, and the two reliable dates on bone from near-primary fills are inconsistent. In addition, artefacts from the Wessex Archaeology excavations were all recovered from upper fills, while the flint flake from the SHLP pit 8A borehole is chronologically

undiagnostic. This chronological uncertainty has been used by some commentators not only to challenge interpretative statements concerning the possible date of the massive pits array but the validity of the entire monumental structure. This is misleading in two respects: first, it *is* possible to use the dating evidence available to make a sound reasoned case for a probable Late Neolithic date for the pit features; second, *whatever* the date of the pit features, their very existence and distinctive spatial arrangement are exceptionally significant in themselves (*contra* Darvill 2020b, 2).

Of the two dated radiocarbon samples in primary contexts, one is Late Neolithic/Chalcolithic (Pit 8A: 2460-2200 BC), and the other is Middle Bronze Age (Pit 5A: 1390-1130 BC). The presence of dated earlier Middle Bronze Age material in the lowest of the upper fills of Durrington MOD HQ Feature 6257 (animal bone: 1690-1520 BC; Thompson & Powell 2018, 17) demonstrates activity within the partially in-filled feature in the mid-2<sup>nd</sup> millennium BC, and it may be that the slightly later material near the base of Pit 5A relates to similar Middle Bronze Age activity, possibly in a recut of the pit fills (cf. Gaffney *et al.* 2020a). If so, this leaves the date from Pit 8A as the most compelling for dating the early infilling of this feature shortly after it was dug and, by extrapolation, all the other pits forming the circuit (though the possibility of redeposition cannot be discounted). This would certainly be consistent with the spatial configuration of the pits overall: they encircle Durrington Walls super-henge, the enclosure embankments of which are dated to the early 25<sup>th</sup> century BC. On current evidence, therefore, the massive pits array appears to mark an extraordinary monumental extension, in concentric spatial form, of the largest circular prehistoric ceremonial enclosure in the Stonehenge landscape, at a time of wider changes in the ceremonial landscape associated with introductions of Beaker material culture, new funerary practices and monuments, and metallurgy.

### **2.3. Implications for Highways England's Heritage Impact Assessment (HIA)**

In the light of the discussion in section 2.2 above, it is evident that statements made about Highways England's Environmental Statement and Heritage Impact Assessment are seriously flawed. For example, Historic England asserts that: "*The ES and HIA are sufficiently rigorous to inform the development of "appropriate and proportionate" archaeological mitigation strategies, and the SHLP discovery does not change that*" (2020, section 2.4.1). Yet it is plain that presently there has been no adequate assessment of even the *known* large pits/solution hollow on the road line (such assessment has been limited to shallow excavation and coring of upper fills at best; see section 2.2.1(1))

The extent to which any reliance can be placed on the surveys that preceded such investigation, as well as the evaluation process more widely, is very low (*contra* Historic England 2020, section 2.5.1-2; *contra* The National Trust 2020). For example, it is worth noting again that the one large pit/solution hollow superficially sampled in a test trench in the western portal corridor, Feature 24105 (Highways England 2019a), is not deeply buried (it is plough-truncated) yet it does not seem to have been detected even by magnetometry. Another larger 'natural' feature located nearby (within the same evaluation trench, Tr.241) was also not recorded by geophysical survey and was not subsequently evaluated either by excavation or coring. In both cases, as the examples of massive pits investigated at the Durrington MOD HQ site demonstrates, it is clear that superficial examination and evaluation of the upper fills provide no guide at all for determining the actual scale, morphology, lower fill sequence, chronology, or natural or anthropogenic origin of such features.

Sub-surface assessment is even more limited and unsatisfactory along the line of the eastern portal approach. The buried soils and potential buried features beneath the colluvial deposits in this area have been barely evaluated by any means: magnetometry is mostly ineffective because of the depth of colluvial sediments; the few test trenches in this area barely touched buried soils and features

even in the upper parts of the valley fill sequence; and just two coring transects were made (Highways England 2019b, figs.11.4, 11.22, 11.23; Garwood 2020a, 2020b). In fact, only *one* evaluation trench investigated the deeper colluvial sediments, including buried soils (T504; Highways England 2019b, figs.11.4, 11.19), and both Borehole Transects A and B are located close to this, leaving most of the route without any deeper sub-surface assessment. The single large ‘natural feature’ sampled along the eastern approach, the presumed ‘sinkhole’ 51224 in Trench 512, was – like feature 24105 in the western approach corridor – not identified by geophysical survey and only encountered accidentally at one end of the randomly-positioned evaluation trench (Highways England 2019b, figs.11.18, 11.21). Only the upper fills of this were excavated (so both depth and morphology are unknown), and the full scale of the feature in plan is uncertain, though it appears to be c.16-20 m across and thus similar in size to the Durrington massive pits.

These observations, in combination with the many previous criticisms of fundamental flaws in the HIA evaluation strategy, field methodology (especially in relation to sampling intensity), and evaluation/interpretation of results (e.g. Parker Parson 2019), further demonstrates the intrinsic inadequacies of the entire HIA process. The claim made by Historic England, for example, that: “*the surveys conducted under the Scheme are adequate to detect features of the [kind recorded by SHLP]*” (2020, section 2.5.1) is clearly unsupported by Highways England’s own evaluation reports. Ultimately, Highways England have insufficient baseline knowledge and understanding of the sub-surface cultural heritage evidence along the line of the proposed roadworks and wider DCO to make sound reasoned judgements about a suitable ‘Mitigation strategy’. In short, they do not know what is there, have little understanding of the features and deposits revealed during the evaluation process, and thus have little idea about how best to investigate or record the archaeological features and deposits that would be destroyed in the course of the proposed road works.

#### **2.4. Implications for Highways England’s Detailed Archaeological Mitigation Strategy (DAMS)**

The inadequate nature of the HIA (Highways England 2018), the unsatisfactory outcomes of the archaeological evaluation process (Highways England 2019a, 2019b), and the fundamentally flawed DAMS (Highways England 2020a), have all been brought to the attention of the A303 Examination Authority and the Secretary of State for Transport on numerous occasions (e.g. Council for British Archaeology 2019a, 2019b, 2020; Garwood 2019c, 2020a, 2020b; Parker Pearson 2019). The position of Highways England is, of course, that the DAMS is comprehensive and fit for purpose, and this view is broadly supported by English Heritage, The National Trust, WCAS, and Historic England. The main stated reasons for this assertion are: (1) the DAMS is based on a great amount of high-quality evaluation fieldwork (e.g. The National Trust 2020, section 6.1.2); (2) the HIA and evaluation process were informed and advised by the Heritage Monitoring and Advisory Group and the Stonehenge A303 Scientific Committee (e.g. Historic England 2020); (3) the DAMS is iterative, in the way it is founded on research agenda, and flexible in relation to potential unexpected results (e.g. English Heritage 2020), building-in a process for developing and modifying Site-Specific Written Schemes of Investigation (SSWSIs), to be informed and guided by the Scientific Committee, and is thus responsive to precise research issues and priorities (e.g. WCAS 2020, section 2.4).

The problems with these assertions are considerable and diverse:

1. the scale and quality of fieldwork are irrelevant if the methodological framework established is not sufficiently well-designed or appropriate technically for achieving key research aims (for example,

ploughzone sampling of less than 50% volume will fail to determine the distribution, character and chronology of prehistoric settlement; cf. Parker Pearson 2019);

2. HMAG comprises representatives of four heritage stakeholders: English Heritage, Wiltshire County Archaeology Service, The National Trust and Historic England; all of these bodies broadly support the road scheme proposals (and are unlikely to challenge the DAMS they advise on; cf. Historic England 2020, section 2.6.5). It is also important to recognize that the Scientific Committee has at no time ‘approved’ either the HIA or DAMS, and that some SC members are profoundly critical of the field methodologies used or proposed (their views have been ignored by both HMAG and Highways England; Parker Pearson *pers. comm.*). ‘Consulting’ the SC does not mean, therefore, that the SC agrees with what has been consulted on, as implied in recent responses to the Durrington discoveries by English Heritage (2020), The National Trust (2020), WCAS (2020) and Historic England (2020).

3. Whilst a recursive and flexible investigative strategy is welcome, it is unclear how this would be implemented practically, who would contribute to SSWSIs, or how decisions on methodology and technical procedures would be reached. Positive involvement of the Scientific Committee in this process is unlikely considering the points made in (1) above, yet Historic England regards such involvement as ‘essential’ (2020, section 2.6.9). This undermines one of the justifications for the DAMS, which is in any case intrinsically contradictory with respect to research-led practice: in particular, while a great deal is made of the research drivers of the DAMS (e.g. Highways England 2020, section 4; County Archaeology Service 2020, section 2.4), Highways England’s and HMAGs approach so far has been to observe that routine commercial field methods are sufficient, and to dismiss the need for research-standard practices that would be expected of research projects within the WHS (e.g. in relation to ploughzone sampling, investigation of ‘natural’ features, and sampling of linear features; cf. Parker Pearson 2019). This is all the more remarkable considering that the deposits and features to be ‘sampled’ will be completely destroyed by the ground works for the road (hence the real need for 100% sampling if the scheme proceeds).

Attempts to address criticisms have led to confused and contradictory methodological rationales. For example, Historic England asserts (2020, section 2.5.9) that the DAMS “*provides for a proportional approach to sampling with natural features that have been shown to contain archaeological remains to be completely excavated (100%)*”, yet how can any feature be shown to contain archaeological remains unless it *is* 100% excavated (as any lesser sampling level must risk missing cultural deposits and artefacts)? In the case of large ‘solution’ features encountered along the road line, for example, it would be impossible to determine whether there were episodes of cultural activity and material deposition within them (likely to be localized and short duration) without complete excavation of their fills. More generally, as already demonstrated in section 2.2, superficial excavation of just the upper fills of these features is wholly inadequate for determining what they are, let alone for understanding their purpose, use, or chronology. As Historic England observes, “complex stratified deposits ...cannot be properly understood without excavation (2020, section 2.2.6), and that “a truly nuanced interpretation ...can only be achieved through large scale excavation” (2020, section 2.2.9).

Irrespective of whether such features prove to be natural or anthropogenic, an understanding of their cultural use and significance in prehistoric landscapes (potentially considerable in both guises), can only be achieved by maximum recovery of cultural, palaeoenvironmental and chronological evidence. This clearly justifies total excavation of all such features. Curiously, the importance of overlapping and syncretic understandings of nature and culture in prehistory is fully recognized even by those who have suggested that because the Durrington massive pits are ‘natural’ (in their view) they are somehow *less* important (in contradictory fashion) for A303 scheme consideration (e.g.

Darvill 2020b; The National Trust 2020, section 4.1.10). This strange perception runs counter not only to current interpretations of Neolithic and Bronze Age cultural worlds but also undermines any informed and reasoned approach to the investigation of ‘natural’ features within the WHS.

### 3. The Durrington Massive Pits array and the large-scale structuring of the Stonehenge landscape

#### 3.1. *The nature of the evidence and its interpretation*

One of the primary conclusions of the Durrington massive pits publication is that the spatial inter-relatedness and coherence of the features identified are such that it is inconceivable they are anything other than a non-natural prehistoric monumental structure of a kind that is unparalleled in scale and character not only within the WHS but more generally in British prehistoric archaeology (Gaffney *et al.* 2020a). It is evident that large circular geophysical features of the sort recognised at Durrington are not ‘littered’ around the landscape (*contra* Darvill 2020b, 1; cf. Gaffney *et al.* 2020a, fig.8). Indeed, the SHLPs geophysical surveys that extend over c.18 km<sup>2</sup> of the WHS demonstrate that only the circuit of features around Durrington Walls super-henge present a coherent pattern (see Figure 3), centred on the Late Neolithic monument in a manner which is extremely unlikely to occur by chance. There is also no indication of geological constraints or processes that might account for this pattern: the conditions relating to the distribution of solution features is discussed in the published article, and the variable topographic positioning of the massive pit features suggests that a natural origin for all these features is highly unlikely.

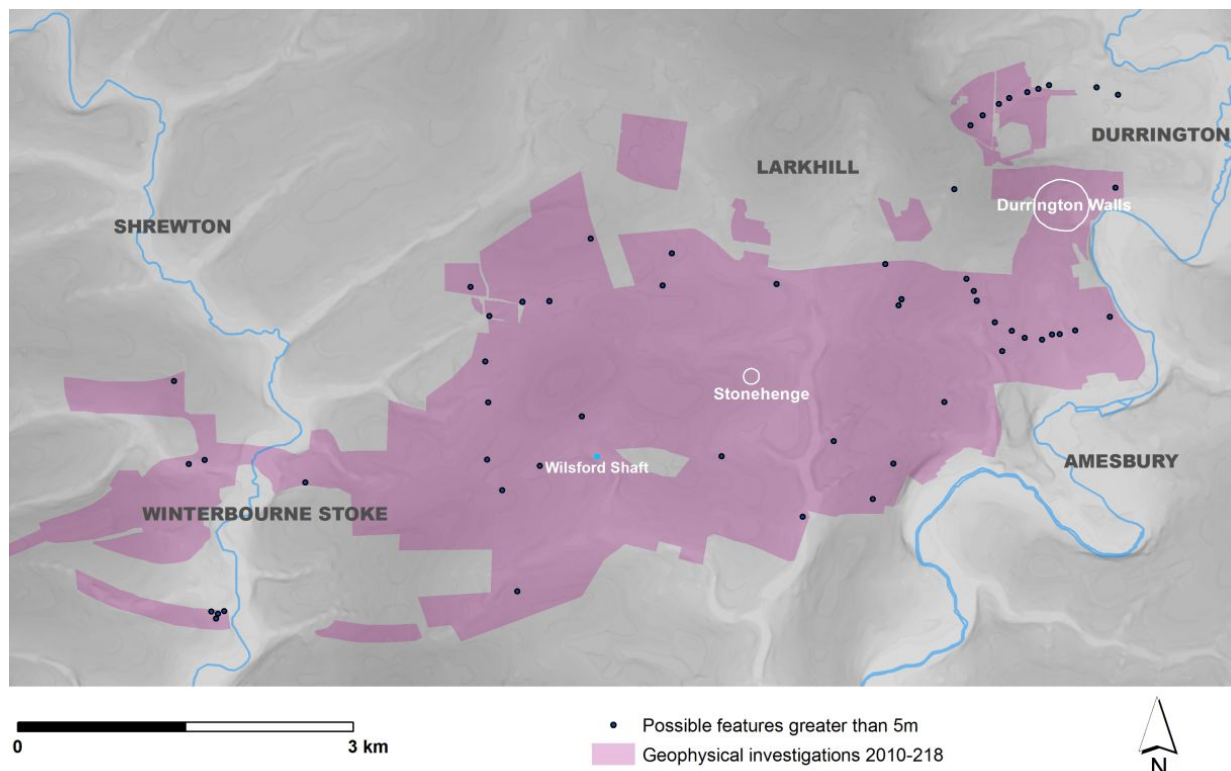


Figure 3: *Distribution of large anomalies across the Stonehenge landscape (Gaffney et al. 2020, fig.9)*

In spite of these observations, and the inherent strengths of the data presented and since discussed in relation to our understanding of the Stonehenge landscape in prehistory (Gaffney *et al.* 2020a, 2020b; Garwood 2020a, 2020b), some of the responses to the Durrington discoveries – incredibly –

question their validity and/or significance, and commonly suggest that they have no impact directly on the A303 scheme. We reject these assertions, and instead argue here that the discovery of what is in effect the largest monument in the WHS profoundly affects our understanding of the Stonehenge landscape and everything within it, with major implications for the OUV of the WHS, and all future research and infrastructure development impinging on the WHS area (cf. Garwood 2002b for a discussion of the relevance of the discoveries for our knowledge of very large scale landscape organisation around Stonehenge).

### **3.2. Comments on responses to the new discoveries and their interpretation**

Claims made by The National Trust and Wiltshire County Archaeology Service that the Durrington pits do not represent a major new monument, or question the validity of the findings, are not well judged. In the case of WCAS, for example, simple assumptions about the natural origin of many large features within the Stonehenge landscape (and by implications at least some of the Durrington pits) (2020, 2) are unfounded as none of these ‘natural’ features has ever been comprehensively excavated (*contra* WCAS 2020, 3; e.g. in the cases of the Larkhill and the Durrington MOD HQ sites discussed in Section 2, investigations have proceeded on the assumption that they *must* be natural, and thus in most cases restricted to superficial fills only). Indeed, the only feature of a similar size with a similar upper profile to the Larkhill and Durrington MOD HQ features that *has* been excavated fully proved to be a prehistoric ‘ritual shaft’ (Wilsford Shaft; Ashbee *et al.* 1989). The points made by The National Trust concerning the supposedly uncertain interpretation of the Durrington massive pits is based on similar arguments (2020, sections 4.1.5-4.1.7) and can be similarly dismissed.

The observation by WCAS that only three of the massive pits were cored by the SHLP team (WCAS 2020, 3) is just that; it has no bearing on the relevance or significance of the results of that work, which can be logically extended to the other features forming the pits structure because of the spatial integrity and coherence of the whole array. The further claim made by WCAS that low, broad weathering cones of the features examined at Larkhill are suggestive of natural sinkhole features “since artificial pits seldom remain open long enough for such profiles to develop” (*ibid.*, 4) is entirely groundless, as a quick glance at the Wilsford Shaft and a multitude of far smaller excavated prehistoric pit and ditch profiles demonstrates.

At present, therefore, there are very good reasons, based on the SHLP data, to be highly confident of anthropogenic origins for the pits both surveyed using multiple techniques and cored; in contrast, the interpretations of the features examined superficially by Wessex Archaeology as ‘natural’ remain unproven because they were not fully excavated. All aspects of the evidence described, such as morphology and cultural material in their upper fills, are entirely consistent with long-term weathering, erosion and sedimentation processes, and their later presence as large hollows in the landscape that became repositories or ‘traps’ for material deriving from cultural activity within them or around their edges. It is reasonable on these grounds alone, to treat all the Durrington massive pits as the same feature type and – unless proven otherwise – anthropogenic in origin.

This argument is greatly strengthened by the fact that the features defined as massive pits are collectively organized as a single, spatially coherent entity that stands out dramatically on distribution maps (see Figure 3). This has been accepted by some key stakeholders concerned with the A303 scheme, including Historic England (2020, 3-6) English Heritage (2020, 2), and Highways England (2020, 35). Other commentators have presented contradictory views: while Prof. Darvill’s letter to the Secretary of State (2020b) observes that “*there seems to be a scatter of large pit-like*

anomalies across the whole area surveyed, some of which have been picked out as being more significant than the others because it is thought that they form a ragged circle around a known monument”, he previously stated that “The proposed pit circle around Durrington Walls not only adds another dimension to our understanding of the landscape, but also accords with what we know of the way prehistoric people dealt with their past and the powerful forces around them” (Darvill 2020a). The National Trust and WCAS, in contrast, reject the idea of very large-scale monumental structuring of massive pits around Durrington Walls super-henge (discussed above).

This view is very difficult to comprehend considering the nature of the SHLP evidence, and our wider understanding of the landscape monumentalization, cosmography and ceremony in the Neolithic and Bronze Age (e.g. Darvill 1995; Parker Pearson & Ramilisonina 1998). Indeed, recognition of these fundamental attributes of the Stonehenge landscape is built into all relevant research strategies and agendas pertaining to the WHS (e.g. in Darvill 2005, Simmonds & Thomas 2015, Leivers & Powell 2016). As Darvill has noted in relation to the Durrington discoveries: “If we accept that the Durrington anomalies do constitute an integrated structure, its scale at 2km across should come as no surprise. ...Prehistoric people were just as capable as more recent communities of structuring, organising, and enhancing their world at a landscape scale. The great ceremonial centres of later Neolithic Britain were the designed landscapes of their age. These small-scale societies did not live in small-scale worlds” (2020a).

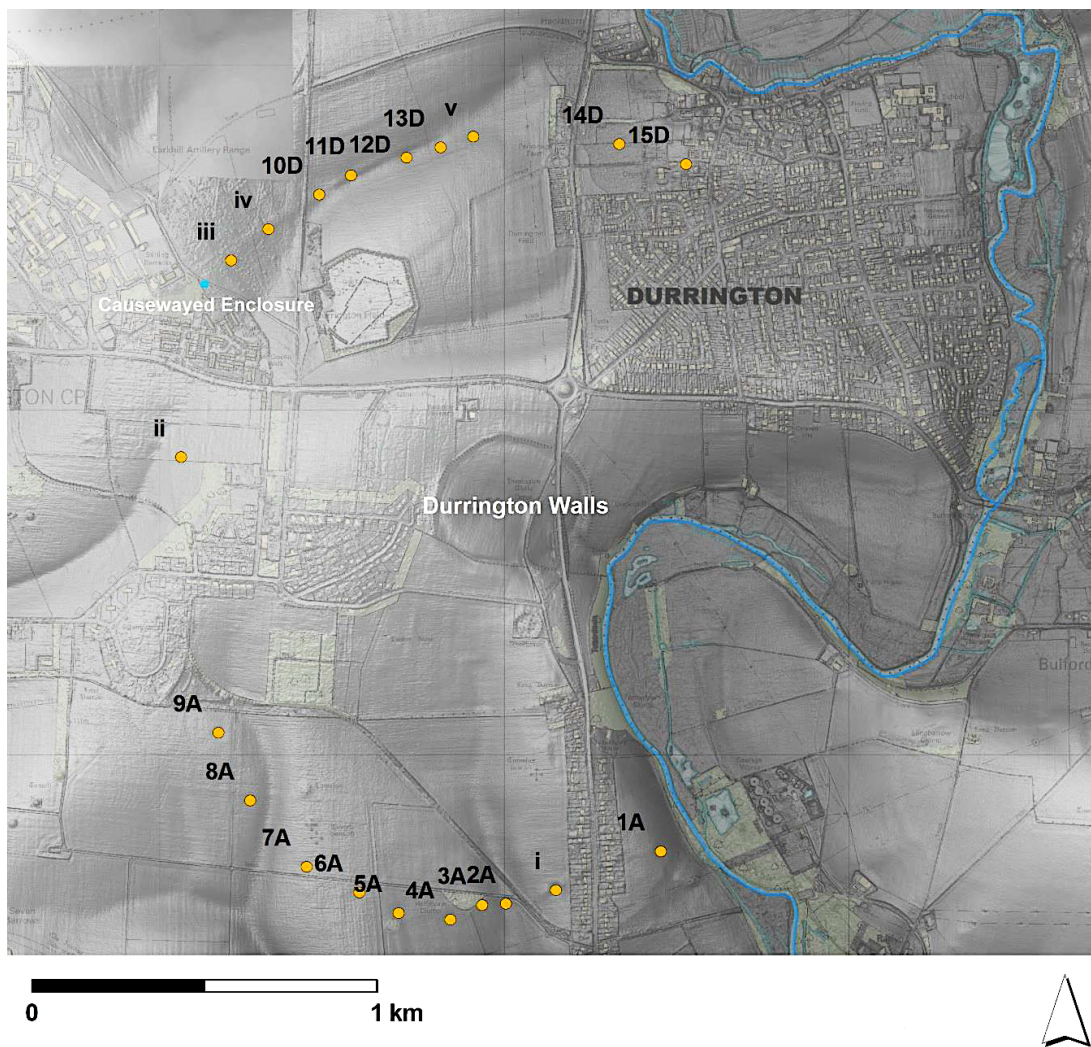


Figure 4: The monumental array of massive pits encircling Durrington Walls henge (Gaffney et al. 2020, fig.8).



The spatial configuration and terrain setting of the massive pit circuit at Durrington escapes any 'natural' explanation. This would suppose a natural geomorphological (?periglacial) formation of entirely unparalleled form and generated by unknown natural processes (that happens to be close to Stonehenge), comprising massive 'solution hollows' that are all of the same shape and scale (*all* circular and c. 20 m across at the surface), distributed in a regularly-spaced fashion in a near circular spatial arrangement that just happens - coincidentally - to have its centre in the middle of the largest and most massive circular Neolithic enclosure in the Stonehenge landscape. In contrast, an anthropogenic explanation requires no special pleading (see Figure 4): we can easily recognize a monumental construction comprising massive pits that were dug to the same physical scale (because they were intended to serve the same purposes in each case), regularly-spaced in a near circular spatial arrangement that was intentionally centred on the middle of the largest and most massive circular Neolithic enclosure in the Stonehenge landscape (well known for the large-scale construction of prehistoric monumental architecture, in some cases unique including Stonehenge itself of course). Any suggestion that the arrangement of massive features encircling Durrington Walls super-henge is natural demands a general suspension of disbelief to allow for multiple 'coincidences' (consistent scale of pits, regular spacing, circular arrangement over an area 2.2 kms in diameter, concentric positioning in relation to a huge circular Neolithic enclosure) to supersede any reasoned assessment based on an understanding of the evidence from the pits themselves, their spatial organization in this pervasively monumentalized prehistoric landscape, and their careful positioning with respect to one of largest Neolithic enclosures in Britain. There seems little doubt, of any kind, that the Durrington pits circuit represents a truly monumental addition to the Stonehenge prehistoric landscape.

### **3.3. Implications for the Heritage Impact Assessment**

The implications of the SHLP discoveries around Durrington for Highways England's HIA (2018) have been considered in some detail already (Garwood 2020b). The Addendum to the HIA produced by Highways England (2020d) in response to these discoveries changes nothing, as they persist in treating cultural heritage in terms of individual 'assets' (Highways England 2018, 10-20; 2020d, e.g. sections 2.3-2.5) rather than recognizing the totality and inter-relatedness of monuments, sub-surface features of all kinds, ploughzone sites, and so forth, that *together* constitute the Stonehenge landscape and underpin the OUV attributes of the WHS. Although Historic England (2020) broadly accepts the landscape implications of the Durrington discoveries, implying that they potentially add to the OUV of the WHS, and may have interconnections with other monuments or natural features in the WHS (as also very strongly asserted by ICOMOS: 2020), they offer no conclusion as to what this means for either assessment of the scheme or harm the scheme will cause. Instead, they seem to accept at face-value the appraisal in Highways England's HIA Addendum that the Scheme will have minimal or no impact on the pit circuit or its inferred associations and inter-relationships with other monuments and 'asset groups' in the landscape (Historic England 2020, section 4; cf. Highways England 2030d, section 4).

To a large extent, this view is founded on a crude characterisation of spatial relationships and the observation that the Durrington pits circuit lies outside (and therefore beyond the impact zone of the A303 DCO, a view repeated by Prof. Darvill (2020b) and Mr. Pitts (2020)). As previously noted, however, this simply misses the fundamental importance of the *extensive* spatiality and the *interrelatedness* of prehistoric landscape organizations, monuments, social practices, sensory perceptions and meanings (Darvill 1995, 2005; Gaffney *et al.* 2020b; Garwood 2020b). The discovery of the Durrington massive pits structure highlights again the coherent and integrated character of

prehistoric ceremonial landscapes, the large-scale physical and cognitive ordering of which created vast monumental structures that had an existence that far transcended any one site. Inevitably, the wider organization of social practices and cultural schemes, and their visual parameters, were defined by these structures, both within them and around them (discussed by Gaffney *et al.* 2020b).

From a social, cultural and sensory perspective, the ‘presence’ of the massive pits circuit, and other large-scale structured organizations of monumental architecture (such as the extraordinarily well-preserved Early Bronze Age ceremonial and funerary landscape threatened by the A303 western corridor; Garwood 2020b; see Figure 5) affected not only their immediate hinterlands, but the wider landscape of the entire WHS. The presence of these structured prehistoric landscapes, and their centrality to the OUV of the WHS, should surely be the starting point for any HIA, which should seek to prevent the kinds of serious damage the road scheme will cause to them.

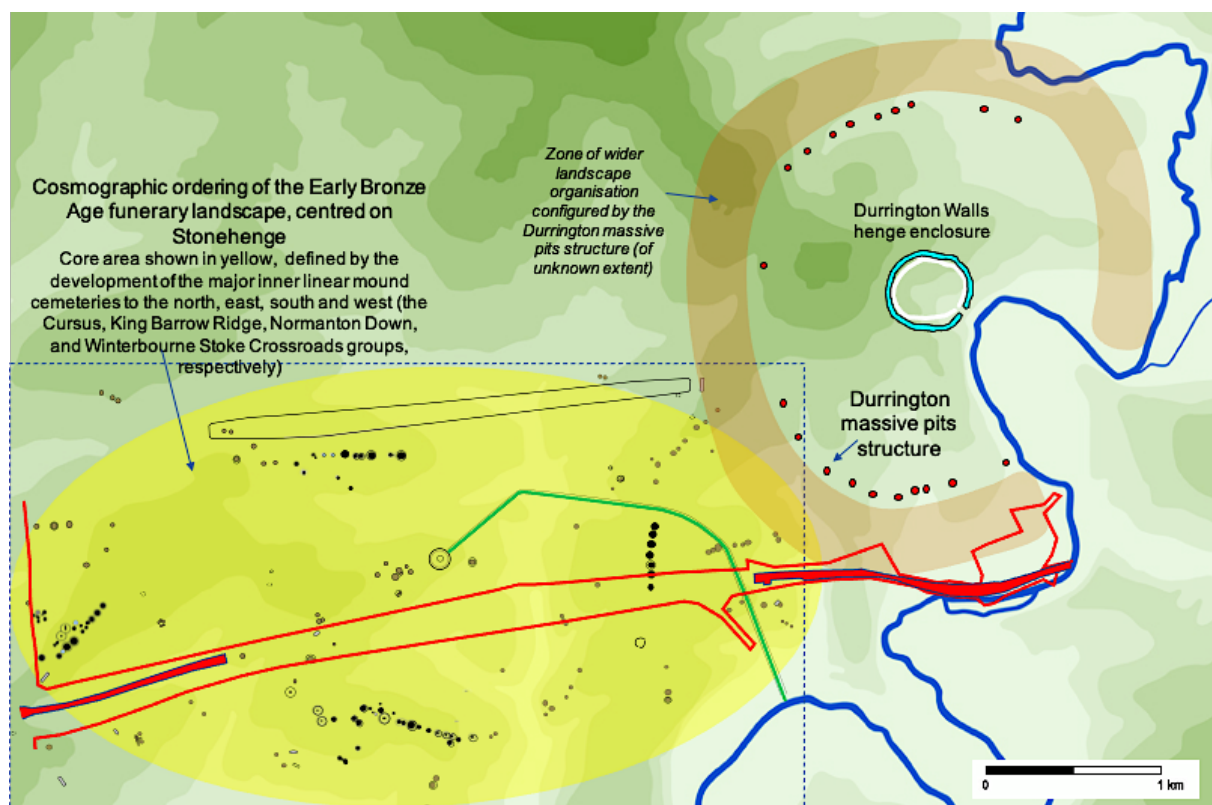


Figure 5: Two of the principal phases of very large-scale monumentalisation and integrative structuring of the prehistoric ceremonial landscapes within the Stonehenge World Heritage Site area:

(i) the Durrington pits structure (it is likely this configured not only activity within the pit circuit but also outside it: indicated by the brown arc to show just the the immediate outer zone affected by the physical an visual presence of the pits);

(ii) the structured Early Bronze Age funerary landscape with Stonehenge at the centre, surrounded by elite funerary monument organized in massive linear mound arrays (on ridge lines with extensive vistas) that developed during the early 2<sup>nd</sup> millennium BC.

The area of the A303 scheme DCO within the WHS area is shown in red outline, and the areas of proposed major roadworks in solid red).

### 3.4. Implications for the DAMS

The implications of the SHLP discoveries around Durrington for Highways England’s Detailed Archaeological Mitigation Strategy (the DAMS; 2020a) have also been considered in some previously already (Garwood 2020b). Comments by Highways England that refer to the DAMS in the light of the

Durrington discoveries (2020a, 2020b, 2020c, 2020d), and statement by agencies such as The National Trust (2020), The National Trust (2020), and Historic England (2020), all assert that the presence of the massive pit circuit has no substantial bearing on archaeological methodology or practice. Historic England, for example, while recognising that the SHLP results highlight the need to understand the nature of pits and shafts in the landscape, and how they may have been used, re-used or modified by human populations (2020, section 2.2.3), also asserts that: *“the provisions in the Detailed Archaeological Method Statement (DAMS) are sufficient to enable the Site Specific Written Schemes of Investigations (SSWSIs) to draw on the implications of the SHLP research in finalising the detailing of the programme of archaeological mitigation should the Scheme be granted consent. Safeguards have been included within the DAMS and Outline Environmental Management Plan (OEMP) to facilitate the integration of the matters raised by the research into the approach taken to the Scheme”* (Historic England 2020, 1).

This is arguable at best: in the course of the process overseen by Examination Authority, including a succession of cultural heritage hearings and a multiplicity of written statements and submissions concerning or referring to appropriate current research aims and themes (in themselves and in relation to the OUV attributes of the WHS), survey methods, sampling methodologies, and recent discoveries and new insights, there is no indication that the DAMS has been modified to take effective note of these in any significant manner. This is most striking, at a landscape scale, in the way fundamental sampling issues raised by multiple commentators have not been addressed (Council for British Archaeology 2019a, 2019b, 2020; Garwood 2019c, 2020a, 2020b; Parker Pearson 2019; and see discussion in section 2.4 above). Given what we know about the ways in which prehistoric landscapes were inhabited, traversed and at times physically configured by monumental constructions of diverse kinds, it is apparent that effective and reliable means of highly intensive data/material recovery at very spatial extensive scales are essential if we are to understand the evidence. In a worst-case scenario, in which the current road scheme is approved, leading to total destruction of the evidence (both in the ploughzone and in sub-surface anthropogenic and natural features) in the highly sensitive and culturally significant setting of the Stonehenge landscape, anything less than 100% recovery is unjustifiable.

#### **4. Concluding comments**

Contrary to the claims made by some of those who have responded to the Durrington pits discoveries, there is no question that they *are* relevant to the A303 scheme in several ways and at several levels of enquiry and decision-making (cf. Historic England 2020, section 2.2.15). In the light of the evidence presented and discussed above, it is evident that Highways England and supporters of the A303 scheme are prepared to countenance serious damage to the WHS and its OUV attributes, the intentional non-recovery of a significant proportion of the evidence in the ploughzone and sub-surface features that will be destroyed by the road, and the permanent reconfiguration of terrain and vistas (very severely in the area of the huge western road cutting and the vast Winterbourne Junction immediately to the west of the western WHS boundary) in order - supposedly - to ‘reintegrate’ northern and southern sectors of the prehistoric landscape, and remove the road from view from parts of the landscape.

This rationale is both spurious and profoundly misconceived. In particular, it is not at all clear *which* prehistoric Stonehenge landscape is being ‘reintegrated’ in this way. It is not the Early Neolithic landscape of long mounds and causewayed enclosures: the remarkable Early Neolithic long barrow

concentration in the western part of the WHS (the densest such monument cluster in Europe; cf. Roberts *et al.* 2018), will be fragmented by the road corridor in this area. It's not the little-understood Chalcolithic/Early Bronze Age landscape of settlement that existed during the centuries either side of 2000 BC (extending south-north on the high ground to the west of Stonehenge; possibly the largest 'Beaker' settlement in Europe: cf. Pollard *et al.* 2017) which is sliced through by the western road corridor. It certainly isn't the fabulously well-preserved Early Bronze Age funerary and ceremonial landscape that developed from c.1900 BC centred on Stonehenge: the setting of the best-preserved funerary monument complex of this period in north-west Europe at Winterbourne Stoke Crossroads will be profoundly compromised by the western road corridor's impact on its visual inter-relationships with the other funerary complexes and by the Winterbourne Junction to be built immediately beside it (see Figure 5; cf. Garwood 2019a, 2019b). Nor is it the highly organized later Bronze Age zone of field systems and settlement that lies across the western part of the WHS (Pollard *et al.* 2017). Further east, plainly no account has been taken to the damage to be caused to the setting of the rare Mesolithic site at Blick Mead, or indeed the wider setting of the Durrington massive pits array.

Instead, the cultural heritage argument for the road tunnel as proposed seems to relate to a conflation of parts of the landscape that existed in the very central part of the WHS during the mid-3<sup>rd</sup> millennium BC (Stonehenge), the late 3<sup>rd</sup> millennium BC (the Avenue), and elements of the Early Bronze Age funerary landscape (mainly Normanton Down barrow group, even though this is on private land and not accessible for visitors). The cost of creating this one imaginary landscape, that never existed as a coherent whole thing except in its Early Bronze Age form, will be massive damage to all the other prehistoric landscapes mentioned above, including – ironically (and indeed tragically) - the best-preserved part of that Early Bronze Age ceremonial landscape which most visibly exemplifies the OUV of the WHS. We are thus facing a potential self-inflicted cultural heritage disaster of the first order unless the present tunnel proposal is set aside.

The Durrington massive pit discoveries serve to remind us not only of the potential for extraordinary new discoveries and understandings of the Stonehenge landscape now and in the future, but also the dramatic landscape scale and extensive character of prehistoric cultural activities and imaginations. It would be a terrible reflection on the way we care for and represent our cultural heritage for us to now set aside reasoned understanding of what the Stonehenge WHS has curated in order deliberately to create a partial, permanently damaged view of the landscape and in so doing destroy much of the evidence in the areas that the road and tunnel will affect.

## References

Ashbee, P., Bell, M. and Proudfoot, E. 1989: *Wilsford Shaft: Excavations 1960-2*. English Heritage Archaeological Reports 11. London: English Heritage

The Council for British Archaeology 2019a: Responses and Comments in Respect of ExA Second Written Questions, July 2019. Written Submission by the Council for British Archaeology and CBA Wessex. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001422-CBA-Late%20D6%20Sub-Response%20to%20Examining%20Authority's%20Second%20Round%20of%20Written%20Questions.pdf>

The Council for British Archaeology 2019b: *Summary of Oral Evidence given on 21st August 2019*. Written Submission by the Council for British Archaeology and CBA Wessex, September 2019. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001590-Council%20for%20British%20Archaeology%20Written%20Summaries%20of%20oral%20submissions%20at%20Issue%20Specific%20Hearings.pdf>

- The Council for British Archaeology 2020: *Letter in Response to the Secretary of State's Request for Comments on the Hidden Landscapes Project Report and Representations Relating to it at the World Heritage Site and its Implications for the Application*.  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001973-The%20Council%20for%20British%20Archaeology%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Darvill, T. 1995: Ever increasing circles: the sacred geographies of Stonehenge and its Landscape. In Cunliffe B. and C. Renfrew (eds.), *Science and Stonehenge*. Proceedings of the British Academy 92, 167-202
- Darvill, T. 2005: *Stonehenge World Heritage Site: an archaeological research framework*. London
- Darvill, T. 2020a: Ground control – how Bronze Age builders reshaped the landscape, *Apollo: the international art magazine*, 16<sup>th</sup> July 2020. <https://www.apollo-magazine.com/neolithic-pits-durrington-discovery-near-stonehenge/>
- Darvill, T. 2020b: *A303 Second Consultation; letter to the Secretary of State for Transport*.  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001964-Tim%20Darvill%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Gaffney, C., Gaffney, V., Neubauer, W., Baldwin, E., Chapman, H., Garwood, P., Moulden, H., Sparrow, T., Bates, R., Locker, K., Hinterleitner, A., Trinks, I., Nau, E., Zitz, T., Floery, S., Verhoeven, G. and Doneus, M. 2012. The Stonehenge Hidden Landscapes Project, *Archaeological Prospection* 19, 147–55
- Gaffney, V., Neubauer, W., Garwood, P., Gaffney, C., Löcker, K., Bates, R., De Smedt, P., Baldwin, E., Chapman, H., Hinterleitner, A., Wallner, M., Nau, E., Filzwieser, R., Kainz, J., Trausmuth, T., Schneidhofer, P., Zotti, G., Lugmayer, A., Trinks, I. and Corkum, A. 2018: Durrington Walls and the Stonehenge Hidden Landscape Project 2010-2016, *Archaeological Prospection* 25 (3), 1-15.  
<https://onlinelibrary.wiley.com/doi/10.1002/arp.1599>
- Gaffney, V., Baldwin, E., Bates, M., Bates, C.R., Gaffney, C., Hamilton, D., Kinnaird, T., Neubauer, W., Yorston, R., Allaby, R., Chapman, H., Garwood, P., Löcker, K., Sparrow, T., Trinks, I. and Wallner, M., 2020a: A massive, Late Neolithic pit structure associated with Durrington Walls Henge, *Internet Archaeology* 55. (<https://intarch.ac.uk/journal/issue55/4/index.html>)
- Gaffney, V., Baldwin, E. and Garwood, P. 2020b: *Further Comment on the Implications of the Durrington Pit Structure for the A303 Road Scheme*. Statement appended to the submission by the Consortium for Archaeologists to the Secretary of State for Transport, 14<sup>th</sup> August 2020.  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001991-Consortium%20of%20Archaeologists%20and%20the%20Blick%20Mead%20Project%20Team%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Garwood, P. 2019a: Winterbourne Stoke Crossroads Early Bronze Age funerary complex: heritage and research significance and the impact of the A303 scheme proposals, v.2.  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-000878-Paul%20Garwood%20-%20W%20Stoke,%20May%202019%20v2%20Late%20Submission.pdf>
- Garwood, P. 2019b: *A303 Examination Presentation (Cultural heritage specific subject hearings. Salisbury, 5<sup>th</sup> June 2019)*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001064-AS%20-%20Paul%20Garwood%20-%20Examination%20Presentation.pdf>
- Garwood, P. 2019c: *Comments on the Draft Detailed Archaeological Mitigation Strategy (dDAMS)*. [Highways England 2019: Applic Doc. Ref. 8.11 (Rev.2)]. ExA Deadline 7 submission, 12/8/19. (TR010025 – A303 Stonehenge report REP7-054)

- Garwood, P, 2020a: *The implications of the Durrington pits monumental structure and other pit discoveries in the Stonehenge landscape for the A303 road scheme*. Statement appended to the Colloquium for Archaeologists and Blick Mead Team submission to the Secretary of State for Transport, 24<sup>th</sup> June 2020. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001960-Consortium%20of%20Archaeologists%20and%20the%20Blick%20Mead%20Project%20Team.pdf>
- Garwood, P, 2020b: *Implications of the Durrington monumental pits for the A303 Stonehenge road scheme Heritage Impact Assessment and Detailed Archaeological Mitigation Strategy*. Statement appended to the Colloquium for Archaeologists and Blick Mead Team submission to the Secretary of State for Transport, 14<sup>th</sup> August 2020. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001991-Consortium%20of%20Archaeologists%20and%20the%20Blick%20Mead%20Project%20Team%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Highways England 2018: *A303 Amesbury to Berwick Down. 6.3 Environmental Statement Appendices: Appendix 6.1. Heritage Impact Assessment*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-000348-6-3 ES-Appendix 6.1 HIA.pdf>
- Highways England 2019a: *A303 Amesbury to Berwick Down. Archaeological evaluation report: Western Portal and approach*. (HE551506-AMW-HER-Z2\_ML\_M00\_Z-RP-LH-0001).  
Part 1: Text (TR010025 – A303 Stonehenge report REP1-045)  
Part 2: Figures (TR010025 – A303 Stonehenge report REP1-046)
- Highways England 2019b: *A303 Amesbury to Berwick Down. Archaeological evaluation report: Eastern Portal*. (HE551506-AMW-HER-Z4-GN\_000\_Z-RP-LH-0001).  
Part 1: Text (TR010025 – A303 Stonehenge report REP1-047)  
Part 2: Figures (TR010025 – A303 Stonehenge report REP1-048)
- Highways England 2020a: *A303 Amesbury to Berwick Down. 8.11(7) Detailed Archaeological Mitigation Strategy (DAMS) – Revised response to Department of Transport request for further information dated the 4<sup>th</sup> May 2020*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001951-A303%20Stonehenge%20-%20DAMS 18-05-2020.pdf>
- Highways England 2020b: *A303 Amesbury to Berwick Down. Highways England overarching response addressing 'new discovery', 16<sup>th</sup> July 2020*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001981-Highways%20England%20-%20Highways%20England%20overarching%20response%20addressing%20'new%20discovery'%20responding%20to%20Secretary%20of%20State%20letter%20dated%2016%20July%202020.pdf>
- Highways England 2020c: *A303 Amesbury to Berwick Down. Additional submission: Environmental Statement Addendum, 16<sup>th</sup> July 2020*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001979-Highways%20England%20-%20Environmental%20Statement%20-%20Addendum%20addressing%20'new%20discovery'%20responding%20to%20Secretary%20of%20State%20letter%20dated%2016%20July%202020.pdf>
- Highways England 2020d: *A303 Amesbury to Berwick Down. Additional submission: Heritage Impact Assessment Addendum, 16<sup>th</sup> July 2020*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001980-Highways%20England%20-%20Heritage%20Impact%20Assessment%20-%20Addendum%20addressing%20'new%20discovery'%20responding%20to%20Secretary%20of%20State%20letter%20dated%2016%20July%202020.pdf>

- Historic England 2020: *Submission on Behalf of the Historic Buildings and Monuments Commission for England (Historic England) ("HBMCE")*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001972-Historic%20England%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- ICOMOS 2020: *A303 Stonehenge: response by ICOMOS-UK to a request for comments and further information on the Hidden Landscapes Project report*. Letter to the Secretary of State for Transport, 18<sup>th</sup> August 2020. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001984-ICOMOS-UK%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Leivers, M. and Powell, A. B. 2016. *A Research Framework for the Stonehenge, Avebury and Associated Sites World Heritage Site. Research agenda and strategy*. Salisbury: Wessex Archaeology Monograph 39
- The National Trust 2020: *Response to Secretary of State Consultation of 16 July 2020*. Letter to the Secretary of State for Transport, 13<sup>th</sup> August 2020. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001975-National%20Trust%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Parker Pearson, M., 2019: *Professor Parker-Pearson's Presentation Given at Issue Specific Hearing 8* [uploaded to the A303 Examination website by the Consortium of Archaeologists & Blick Mead Project Team, 9/9/19]. (TR010025 – A303 Stonehenge report REP7-052)
- Parker Pearson, M. and Ramilisonina, 1998: Stonehenge for the ancestors: the stones pass on the message, *Antiquity* 72, 308–326
- Pitts, M. 2020: *Letter to the Planning Inspectorate re. A303 Amesbury to Berwick Down: Request for Comments and Further Information*. <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001967-Mike%20Pitts%20-%20Response%20to%20SoS%20Consultation%202.pdf>
- Pollard, J., Garwood, P., Parker Pearson, M., Richards, M., Thomas, J. and Welham, K. 2017: Remembered and imagined belongings: Stonehenge in the age of first metals. In Bickle, P., Cummings, V., Hofmann, D. and Pollard, J. (eds.) *The Neolithic of Europe: papers in honour of Alasdair Whittle*, 279-97. Oxford
- Roberts, D., Valdez-Tullett, A., Marshal, P., Last, J., Oswald, A., Barclay, A., Bishop, B., Dunbar, E., Forward, A., Law, M., Linford, N., Linford, P., López-Dórega, I., Manning, A., Payne, A., Pelling, R., Powell, A., Reimer, P., Russell, M., Small, F., Soutar, S., Vallender, J., Winter, E. and Worley, F., 2018: Recent investigations at two long barrows and reflections on their context in the Stonehenge World Heritage Site and environs, *Internet Archaeology* 47
- Simmonds, S. and Thomas, B. 2015. *Stonehenge, Avebury and Associated Sites World Heritage Site Management Plan 2015*. Stonehenge and Avebury WHS Steering Committees.
- Thompson, S. and Powell, A.B. 2018: *Along Prehistoric Lines: Neolithic, Iron Age and Romano-British activity at the former MOD Headquarters, Durrington, Wiltshire*. Oxford: Oxbow Books