

surprisingly, overtriage rates frequently are much higher than undertriage rates. This is the result of making an effort to avoid undertriaging.

Today, as one looks across the archaeological landscape, one sees a range of archaeologists. At one extreme there are ‘hyper-’excavators. Their *raison d’être* is to excavate. They travel from one site to another and every intellectual and training problem is solved by excavation. No summer is complete without at least one excavation. At the other extreme are the infrequent excavators. They may excavate once in a lifetime or a decade. For all, the two extremes and those between, judicious planning and adoption of protocols for excavation triage are necessary to optimize outcomes during the site-discovery pandemic in which archaeologists find themselves.

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### **‘Haven’t we dug enough now?’ Excavation in the light of intergenerational equity** Rick Bonnie\*

In western Europe, cultural resource management agencies have enforced, through treaties and legislation, the principle that archaeological sites endangered by development are protected. Excavation has played – and still plays – a major role in this: thousands of archaeological sites that are threatened by destruction have been ‘rescued’ through excavations. While treaties (e.g. Malta 1992, 4.2) and legislations (e.g. Planning Policy Statement 5, A.13; *Wet op de archeologische monumentenzorg*, 2007) stipulate that rescue excavation stands equal to protection, they also acknowledge that there are better ways – like *in situ* preservation – to protect our heritage.<sup>1</sup>

Many archaeologists, however, are sceptical about *in situ* preservation and fear that there are improper, ‘developer-friendly’ motives lying behind it (e.g. Lucas 2001, 37; Holtorf and Ortman 2008, 82). According to Willems (2009, 97), for instance, ‘assuming that preservation *in situ* is the best option, is a largely unproven and mostly untested hypothesis’. The result is that excavation remains *the* predominant ‘means of rescue’ in archaeology (see Kristiansen 2008, 9).<sup>2</sup> I, for one, would like to question the effectiveness of excavation for the protection of endangered sites. While I do not want to advocate a complete ban on excavation, as it remains archaeology’s primary research method, I want to go back to the question, why do we protect?

#### **Intergenerational equity**

The question ‘why do we protect?’ is closely bound up with the debate on whether the archaeological record may be considered a finite, non-renewable resource. While cultural resource management agencies imported the notion of archaeology as a finite resource from the ongoing discussion on sustainable

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development (World Commission on Environment and Development 1987), archaeologists still question the validity of the comparison between the archaeological record and natural commodities. In particular, the intention to preserve archaeological resources for the future is seen as unreliable, unfair and even unethical (e.g. Lucas 2001). Holtorf and Ortman (2008, 82) ask themselves, for instance, 'whether it is right . . . to spend scarce public resource[s]' on 'unknown needs of unspecified future generations'.

A tendency thus still exists to argue that preservation for the future should never be a goal in itself. Yet artefacts have become archaeological remains only by the human characterization of them as such (Lucas 2001, 38). For this reason, one should not question the pertinence of preserving for the future from a 'remains-oriented' viewpoint, but rather from a 'human' perspective. By constantly making choices about what to protect, archaeologists seem to claim ownership of the archaeological record, not the responsibility and privilege of stewardship. Preservation is not only about the future well-being of the material remains themselves, but rather concerns the equal right of every generation to interact with the archaeological record in its own way. In that sense, it is addressing the moral principle of intergenerational equity (World Commission on Environment and Development 1987; Roemer and Suzumura 2007).

#### **The disadvantages of excavation**

Ultimately, anything constructed or altered by humans can be encompassed in the archaeological record and arguably becomes worth protecting. Yet because excavating extensively is for many reasons unfeasible, selection seems inevitable. As selection can only be based on present needs and interests, it implies that other endangered sites whose 'value' is presently not recognized remain unprotected and will likely be irrevocably altered by construction development. The danger lurks in a systematic application of this selection based on *current* knowledge, resulting in a conscious over- or underrepresentation of the original.

A similar issue holds for the excavation itself. As an excavation is always (but sometimes only implicitly) based on a hypothesis, it implies that during fieldwork choices and selections are made on the grounds of testing that hypothesis and interpreting the site, not on grounds of protecting it (Lucas 2001; Holtorf and Ortman 2008). Excavation seems to be a research rather than a protection method. However, despite excavation's scientific purpose of enlarging our knowledge of the past, in many western European countries archaeological sites are generally not being excavated according to this goal, but by developer-led necessity. This process works in opposition to the generally applied research process, where one starts from a hypothesis that will be tested using a specific site. Because of this opposing process, such excavations deprive future generations of the opportunity to use these sites for more suitable hypotheses. It takes away a site's unique research potential. Moreover, because of a growing commercialization in archaeology, current routinized excavation processes leave insufficient space for scientific creativity, which leads to homogenization and obscures the material potentials of sites (see Lucas 2001).

After fieldwork, only the documentation holds the fragmented context of a site together. Yet ‘when the primary source has gone, the secondary source can be but a faint reflection of this’ (De Grooth and Stoepker 1997, 299). The constant flow of fieldwork means also a growing pressure on available storage facilities for the materials and documentation. Insufficient storage space can by definition only lead to more degradation and decontextualization of the excavated site, as future selection seems inevitable (Merriman and Swain 1999). As just one example, De Grooth and Stoepker (1997, 303–7) show how in only 30 years after excavation a site can be almost completely decontextualized and lost. For the medieval pottery kilns from Schinveld (the Netherlands), which are important for the production, typochronology and distribution of medieval pottery in western Europe, it is no longer possible to establish any link between the finds and their exact stratigraphic location.

The excavation report binds together the two aspects of an excavated site, i.e. material and documentation. Yet despite the importance of such reports, they often remain neglected after fieldwork has ended. Fagan (1995) has even called this ‘archaeology’s dirty secret’. For instance, in the Netherlands around 4,000–6,000 excavations have not been drawn up into reports. This is more than half of the total number of excavations carried out before the Malta Treaty became implemented in Dutch legislation, first through an interim regulation and then by the adoption of new legislation in 2007 (Goudswaard 2006). Despite the fact that this legislation has set a maximum term of two years for publishing an excavation report, still many excavations do not make this deadline, the quality of the reports is in many cases low and accessibility remains problematic (e.g. Erfgoedinspectie 2010).

### **An alternative**

Considering these problems, I argue that the alternative protection method of physical preservation *in situ* seems to come closer to the goal of intergenerational equity than excavation does. This alternative, which is gradually developing in British and Dutch archaeology, among others, consists in setting certain norms and regulations for construction development in order to enhance the protection of the underlying archaeological remains. Minimal norms and regulations, as well as innovative engineering solutions, make it possible to keep alteration rates of the site in almost every case below 10 per cent (see Goudswaard 2006; Williams, Sidel and Painter 2008). When norms and regulations are maximized, however, even rates of 1–2 per cent will be possible. Recent research has shown, for instance, that the destructive effect of piling through archaeological remains has been overrated (e.g. Williams, Sidel and Painter 2008). Therefore physical preservation *in situ* seems a more effective method to protect sites, as it is able to protect almost any archaeological site, disregarding current interests. Furthermore, while selection through excavation results in a protected archive that always forms a conscious over- or underrepresentation of the original, physical preservation *in situ* does not, as its alteration is non-selective and subconscious.

### Conclusion

If we want to allow future generations the privilege of having their own say in archaeology, we should abandon the present 'fear' of protecting archaeological sites for the unforeseeable future. Just as past generations have been exploiting the archaeological record for their own purposes, we keep doing so in the present and hopefully will still be able to do so in the future. We in the present should thus not claim ownership but responsibility over this record, as it is not the protection of the record for the future that is the goal but the protection of intergenerational equity. In light of this goal, excavation may often be a rather ineffective method.

### Notes

- <sup>1</sup> For PPS 5 see [www.communities.gov.uk/publications/planningandbuilding/pps5](http://www.communities.gov.uk/publications/planningandbuilding/pps5); for the *Wet op de Archeologische Monumentenzorg* (Dutch Legislation on the preservation of archaeological monuments) see <http://wetten.overheid.nl/BWBR0021162>.
- <sup>2</sup> No hard data can be given for this statement, as to my knowledge – in contrast to sites 'rescued' by excavation – no figures are available for the number of archaeological sites under threat that are 'rescued' by preservation *in situ*. It thus remains impossible to compare the use of excavation and preservation *in situ*. I would argue, however, that the lack of data is a sign of archaeological agencies' hesitation towards preservation *in situ* and their preference for excavation.

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