## 'For Purposes Altogether Unscientific'

Paul J. Lane

As citizens and human beings, archaeologists understandably desire that their work and expertise should have value as a public good adding to, rather than detracting from, individual and collective qualities of life, social justice and well-being (Sabloff 2008; González-Ruibal 2013; Little & Shackel 2014). Different generations of archaeologists have articulated such desires generally in keeping with the challenges of their times and their specific socio-cultural perspectives. Given the accumulating body of information on the potential consequences of rapidly escalating climate change for our planet, it is unsurprising that in recent decades perennial concerns over the societal relevance of archaeological knowledge have increasingly intersected with broader anxieties over what the future may presage for our species (Ellis & Trachtenberg 2013; Hamilton et al. 2015; Dean 2017; Mitman et al. 2018) and our non-human planetary co-inhabitants (Human Animal Research Network Editorial Collective 2015; McGill et al. 2015).

In this keynote paper, Felix Riede engages with several of these issues to map out his own vision of archaeology's future role. A central thread of his argument concerns the value and importance of extending the temporal range of the environmental humanities through closer engagement with archaeological and palaeoecological data and perspectives. In making this argument, Riede emphasises the importance of humanizing current scholarly discourse around climate change as a means to stimulate public en-

Department of Archaeology, University of Cambridge

Email: pjl29@cam.ac.uk

Department of Archaeology and Ancient History, Uppsala University

School of Geography, Archaeology and Environmental Studies, Witwatersrand University

gagement with the urgency and scale of social, behavioural, political and other changes necessary to ensure critical Earth system thresholds, the socalled planetary boundaries (Rockström et al. 2009), are not crossed. He also expresses concern that, somewhat surprisingly, deep-time archaeological perspectives have had only a marginal role in debates over how best to achieve this. Leaving aside whether Riede somewhat understates matters in terms of the efforts made by archaeologists to demonstrate the contemporary relevance of their work to addressing issues of future resilience and sustainability (see, e.g., Van der Leeuw & Redman 2002; Skoglund & Svensson 2010; Kintigh et al. 2014; Scharf 2014; Shaw 2016; Fitzpatrick & Erlandson 2018; Rivera-Collazo et al. 2018), he certainly has a point. Deep-time perspectives, whether generated by archaeologists or palaeoecologists, still have limited resonance for international bodies such as the Intergovernmental Panel on Climate Change. As critically, 'palaeo-' perspectives are also largely absent from recent calls for future action and manifestos for historicizing the Anthropocene made by many promoters of environmental humanities, especially Scandinavian perspectives (e.g. Ekström & Sörlin 2012; Palsson et al. 2013; Holm et al. 2013; Norgaard 2018; Sörlin & Lane 2018), with some notable exceptions, however (e.g., Fredengren 2016; Hartman et al. 2017). Equally, proponents of Education for Sustainable Development, another emerging disciplinary field that has been greatly inspired by Scandinavian researchers and sensibilities, seem to have largely ignored the potential value of tangible and intangible heritage as cultural anchors in a rapidly transforming and challenged world (Breidlid 2009; Huckle & Wals 2015).

Riede identifies three lines of connection between archaeology and other fields that illustrate the unique contributions archaeology can make to contemporary debates around climate change. The first of these, most obviously, through such subfields as geoarchaeology and environmental archaeology, is with the climate and environmental sciences, as others have also emphasized (e.g. Brooks et al. 2009; d'Alpoim Guedes et al. 2016; Marchant & Lane 2014). The second line of connection derives from archaeology's 'embeddedness in cultural heritage, identity-formation processes and the museum interface' (Goodnow & Akman 2008; Hare 2015). Riede's third connecting line derives from the discipline's tradition of engaging with its publics, local communities, and primary and secondary school students (Svensson 2009; Torres & Márquez-Grant 2011; Ekeland 2017). Emphasising archaeology's distinctiveness as an empirically earth-bound humanity that 'commands remarkable museum attention', Riede illustrates some of the strategies he and his collaborators have used in recent and ongoing work, and especially the importance of recasting museum exhibitions in a manner that positions them at the centre of public debates over our planet's future.

A more implicit facet of his argument is the need for a different (I hesitate to write 'new') style of communicating scientific knowledge about past, present and possible future human-environment entanglements, Homo sapiens' complicity in driving climate change, biodiversity loss, land and natural resources degradation and all the attendant social and humanitarian challenges these have given rise to. A need, in other words, to overcome the common epistemic distancing that occurs when we are confronted by charts, tables and figures documenting the empirical evidence for current rapid climate change and its likely drivers. As Lesley Duxbury (2010:294) has noted, far from galvanising us to action and behavioural changes, even as the quantity of empirical data released into the public domain has increased, climate change remains difficult for the non-specialist 'to comprehend or connect with in an appreciable way'. In calling for more effective communication to lay audiences by drawing on archaeology's unique ability to transcend boundaries between deeptime and shallow-time disciplines, Riede echoes some of the thinking of the British novelist, poet and archaeologist Jacquetta Hawkes. As she expressed in her most widely-read and critically acclaimed book, A Land, 'geologists and archaeologists [...] [are] instruments of consciousness [...] engaged in reawakening the memory of the world' (Hawkes 2001[1951]:26).

Like many of her generation of British archaeologists, among them Gordon Childe, Graham Clarke and Mortimer Wheeler (Moshenska & Schadla-Hall 2011), Hawkes was committed to communicating archaeological results to a wider public. She was also a pioneer in the use of films as a means to achieve this (Hawkes 1946; see also Finn 2000). Writing in early post-war Britain, and having witnessed the ravages of World War II and the transformations in farming practices this necessitated, as well as the loss of the countryside as a consequence of post-war urban development and reconstruction, Hawkes' picture of Britain is certainly overly nostalgic. Her assessment of the impacts of the Industrial Revolution focus on the loss of ties to the land, the erosion of the (English) countryside in the face of urban sprawl and, in the early twentieth century, also the motor car, and not on, for example, either the early negative consequences for public health, the rise of capitalism, or other longer-term legacies. Implicitly, she also expresses concern over the decline of an older pattern of class relations in a manner that does not align with modern sensibilities. However, as the landscape historian Richard Muir (2003) has highlighted, Jacquetta Hawkes was also an ardent campaigner for nuclear disarmament, an early supporter of environmentalism and greatly troubled by an increasing scientism in the discipline (see e.g. Hawkes 1969) – a concern that has found recent re-expression in the pages of the Norwegian Archaeological Review (Sørensen 2017 and commentary). Importantly, it is the style of Hawkes' writing that makes A Land so prescient. Uniquely among her generation of British archaeologists, she chose deliberately to use of the findings of palaeosciences such as archaeology and geology for 'purposes altogether unscientific' (Hawkes 2001 [1951]:xix), to convey their importance to understanding individual and collective 'being-in-the-world' to wider audiences (and without a whiff of Heidegger, either!).

For Muir (2003:102), Hawkes perfectly captures the essence of our 'organic world flowing with visceral, submerged forces in which everything connects with everything else and where conventionally inanimate objects like trees, vegetables, rocks and buildings have senses and vibrancy and can surge and bend'. The cultural geographer Hayden Lorimer (2012), is equally complimentary, describing A Land as 'experimental in composition, serious and cerebral in tone, yet at the same time imaginatively and intimately conversational', full of 'dreamscapes, wellsprings of desire and dramatic riffs'. One of Hawkes' particular qualities was her ability to draw connections between seemingly disparate entities, while never losing sight of archaeology's potential to help us 'understand what it is to be human' (Finn 2001:43). As Hawkes herself observed, '[o]ur subject has social responsibilities and opportunities which it can fulfil through school education, through museums and books and through all the instruments of what is often rather disagreeably called 'mass communications' – the press, broadcasting, films and now television. If archaeology is to make its contribution to contemporary life and not risk sooner or later being jettisoned by society, all its followers, even the narrowest specialists, should not be too proud to take part in its diffusion' (Hawkes 1952:198).

If there are echoes of Jacquetta Hawkes' work, whether intentional or not, in Riede's piece there are also absences and, perhaps missed opportunities. We can all agree with his suggestion that getting the insights of archaeological deep-time perspectives across to those who are most influential in shaping policy responses to climate change, requires targeting a different range of academic publication outlets than has been conventional. In our increasingly social media-driven societies, we should also (including dinosaurs like myself) be making more effective use of digital technologies to communicate our results and insights with lay audiences in a more critically informed way, cognisant of the overlapping issues of power, freedom, control and exploitation embedded in the way social webs are used and constructed (Perry & Beale 2015).

But, we need more than this. We need communicators who can weave tales that link the material traces of long-gone societies to our own routine practices, explain the multi-sited and multi-temporal nature of our individual and collective identities, and illustrate their multi-species contingencies. These should not just provide cautionary tales, or harrowing accounts of why we face the environmental challenges we do on account of our past

practices and neglect, important though these might be (Bulfin 2017). We also need future scenarios of the possible, drawn from past illustrations of how 'human energy and intelligence can be applied to that which is already part of the fabric of life to meet human needs' without either causing further harm to the planet or trying to reinvent the past (Albrecht 2018:364). I have yet to be convinced that archaeologists, with their inherent 'backward looking curiosity', are the best persons to generate these visions. We need to have the honesty to admit this and find suitable partners not just from the arts, humanities, but also other constituencies, including but not limited to climate activism, environmental psychology, multi-sensory ecology, future studies, and sustainability education, to collaborate with, and who can deliver on these messages if we truly desire our work to resonate with policy makers, government agencies and our publics.

## References

- Albrecht, G.A. 2018. Public Heritage in the Symbiocene. In: Labrador, A.M. & Silberman, N.A. (eds). *The Oxford Handbook of Public Heritage Theory and Practice*, pp. 355–367. Oxford: Oxford University Press.
- Breidlid, A. 2009. Culture, Indigenous Knowledge Systems and Sustainable Development: A Critical View of Education in an African Context. *International Journal of Educational Development*. Vol. 29 pp. 140–148.
- Brooks, N., Grist, N., & Brown, K. 2009. Development Futures in the Context of Climate Change: Challenging the Present and Learning from the Past. *Development Policy Review*. Vol. 27 pp. 741–765.
- Bulfin, A. 2017. Popular Culture and the 'New Human Condition': Catastrophe Narratives and Climate Change. *Global and Planetary Change*. Vol. 156 pp. 140–146.
- d'Alpoim Guedes, J.A., Crabtree, S.S., Bocinsky, R.K. & Kohler, T.A. 2016. Climate and Ancient Society in the 21st Century. *Proceedings of the National Academy of Sciences*. Vol. 113 pp. 14483–14491.
- Dean, J. 2017 The Anamorphic Politics of Climate Change. In: Brevini, B. & Murdock, G. (eds). Carbon Capitalism and Communication, pp. 163–171. Cham: Palgrave Macmillan.
- Duxbury, L. 2010. A Change in the Climate: New Interpretations and Perceptions of Climate Change Through Artistic Interventions and Representations. Weather, Climate and Society. Vol. 2 pp. 294–299.
- Ekeland, T.G. 2017. Enactment of Sámi Past in School Textbooks: Towards Multiple Pasts for Future Making. Scandinavian Journal of Educational Research. Vol. 61 pp. 319–332.
- Ekström, A. & Sörlin, S. 2012. Alltings mått: Humanistisk kunskap i framtidens samhälle. Stockholm: Norstedts.
- Ellis, M.A. & Trachtenberg, Z. 2013. Which Anthropocene Is It to Be? Beyond Geology to a Moral and Public Discourse. *Earth's Future*. Vol. 2 pp. 122–125.
- Fredengren, C. 2016. Unexpected Encounters with Deep Time Enchantment: Bog Bodies, Crannogs and 'Otherworldly' Sites. The Materializing Powers of Disjunctures in Time. World Archaeology. Vol. 48 pp. 482–499.

- Finn, C. 2000. Ways of Telling: Jacquetta Hawkes as Film-Maker. *Antiquity*. Vol. 74 pp. 127–130.
- Finn, C. 2001. A Rare Bird: Love Her or Hate Her, Jacquetta Hawkes, with Her Intuitive, Humanistic Approach to Archaeology, Still Has Us Talking. *Archaeology*. Vol. 54(1) pp. 38–43.
- Fitzpatrick, S.M. & Erlandson, J.M. 2018. Island Archaeology, Model Systems, the Anthropocene, and How the Past Informs the Future. *Journal of Island and Coastal Archaeology*. Vol. 13 pp. 283–299.
- González-Ruibal, A. (ed.). 2013. Reclaiming Archaeology: Beyond the Tropes of Modernity. Abingdon: Routledge.
- Goodnow, K.J. & Akman, H. (eds). 2008. Scandinavian Museums and Cultural Diversity. Oxford: Berghahn.
- Hamilton, C., Gemenne, F. & Bonneuil, C. (eds). 2015. The Anthropocene and the Global Environmental Crisis: Rethinking Modernity in a New Epoch. Abingdon: Routledge.
- Hare, J.L. 2015. Excavating Nations: Archaeology, Museums, and the German-Danish Borderlands. Toronto: University of Toronto Press.
- Hartman, S., Ogilvie, A.E.J., Ingimundarson, J.H., Dugmore, A.J., Hambrecht, G. & McGovern, T.H. 2017. Medieval Iceland, Greenland, and the new Human Condition: A Case Study in Integrated Environmental Humanities. Global and Planetary Change. Vol. 156 pp. 123–139.
- Hawkes, J. 1946. The Beginning of History: A Film. Antiquity. Vol. 20 pp. 78-82.
- Hawkes, J. 1952. Purpose in Prehistory. *Transactions of the London and Middlesex Archaeological Society*. Vol. 10 N.S. pp. 193–200.
- Hawkes, J. 1969. The Proper Study of Mankind. Antiquity. Vol. 42 pp. 255-262.
- Hawkes, J. 2001 [1951]. A Land. Introduction by Robert Finch. Boston (MA): Beacon Press.
- Huckle, J. & Wals, A.E. 2015. The UN Decade of Education for Sustainable Development: Business as Usual in the End. *Environmental Education Research*. Vol. 21 pp. 491–505.
- Human Animal Research Network Editorial Collective, (eds). 2015. Animals in the Anthropocene: Critical Perspectives on Non-Human Futures. Sydney: Sydney University Press.
- Little, B.J. & Shackel, P.A. 2014. Archaeology, Heritage, and Civic Engagement: Working Toward the Public Good. Walnut Creek (CA): Left Coast Press.
- Lorimer, H. 2012. Memoirs for the Earth: Jacquetta Hawkes's Literary Experiments in Deep Time. Cultural Geographies. Vol. 19 pp. 87–106.
- Kintigh, K.W., Altschul, J.H., Beaudry, M.C., Drennan, R.D., Kinzig, A.P., Kohler, T.A., Limp, W.F., Maschner, H.D., Michener, W.K., Pauketat, T.R. & Peregrine, P. 2014. Grand Challenges for Archaeology. *American Antiquity*. Vol. 79 pp. 5–24.
- Marchant, R. & Lane, P.J. 2014. Past Perspectives for the Future: Foundations for Sustainable Development in East Africa. *Journal of Archaeological Science*. Vol. 51 pp. 12–21.
- McGill, B.J., Dornelas, M., Gotelli, N.J., & Magurran, A.E. 2015. Fifteen Forms of Biodiversity Trend in the Anthropocene. *Trends in Ecology & Evolution*. Vol. 30 pp. 104–113.
- Mitman, G., Armiero, M. & Emmett, R. (eds). Future Remains: A Cabinet of Curiosities for the Anthropocene. Chicago: University of Chicago Press.
- Moshenska, G. & Schadla-Hall, R.T. 2011. Mortimer Wheeler's Theatre of the Past. *Public Archaeology*. Vol. 10 pp. 46–55.
- Muir, R. 2003. Founders: Jacquetta Hawkes. *Landscapes*. Vol. 1 pp. 99–110.

- Norgaard, K.M. 2018. The Sociological Imagination in a Time of Climate Change. *Global and Planetary Change*. Vol. 163 pp. 171–176.
- Palsson, G., Szerszynski, B., Sörlin, S., Marks, J., Avril, B., Crumley, C., Hackmann, H., Holm, P., Ingram, J., Kirman, A. & Buendía, M.P. 2013. Reconceptualizing the 'Anthropos' in the Anthropocene: Integrating the Social Sciences and Humanities in Global Environmental Change Research. *Environmental Science & Policy*. Vol. 28 pp. 3–13.
- Perry, S. & Beale, N. 2015. The Social Web and Archaeology's Restructuring: Impact, Exploitation, Disciplinary Change. *Open Archaeology*. Vol. 1(1), https://DOI.org/10.1515/opar-2015-0009
- Rivera-Collazo, I.C., Rodríguez-Franco, C. & Garay-Vázquez, J.J. 2018. A Deep-Time Socioecosystem Framework to Understand Social Vulnerability on a Tropical Island. *Environmental Archaeology*. Vol. 23 pp. 97–108.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F.S., Lambin, E., Lenton, T.M., Scheffer, M., Folke, C., Schellnhuber, H.J. & Nykvist, B. 2009. Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society*. Vol. 14(2) 32. https://www.ecologyandsociety.org/vol14/iss2/art32/
- Sabloff, J. 2008. Archaeology Matters: Action Archaeology in the Modern World. Walnut Creek (CA): Left Coast Press.
- Scharf, E.A. 2014. Deep Time: The Emerging Role of Archaeology in Landscape Ecology. Landscape Ecology. Vol. 29 pp. 563–569.
- Shaw, J. 2016. Archaeology, Climate Change and Environmental Ethics: Diachronic Perspectives on Human: Non-Human: Environment Worldviews, Activism and Care. World Archaeology. Vol. 48 pp. 449–465.
- Skoglund, P. & Svensson, E. 2010. Discourses of Nature Conservation and Heritage Management in the Past, Present and Future: Discussing Heritage and Sustainable Development from Swedish Experiences. European Journal of Archaeology. Vol. 13 pp. 368–385.
- Sörlin, S. & Lane, M. 2018. Historicizing Climate Change: Engaging New Approaches to Climate and History. *Climatic Change*. Vol. 151 pp. 1–13.
- Sørensen, T.F. 2017. The Two Cultures and a World Apart: Archaeology and Science at a New Crossroads. *Norwegian Archaeological Review*. Vol. 50 pp. 101–115.
- Svensson, E. 2009. Consuming Nature Producing Heritage: Aspects on Conservation, Economical Growth and Community Participation in a Forested, Sparsely Populated Area in Sweden. *International Journal of Heritage Studies*. Vol. 15 pp. 540–559.
- Torres, S.M. & Márquez-Grant, N. 2011. Forty Years of 'Archaeology for Children'. *AP: Online Journal in Public Archaeology*. Vol. 1 pp. 29–44. http://revistas.jasarqueologia.es/index.php/APJournal/article/view/5
- Van der Leeuw, S. & Redman, C.L. 2002. Placing Archaeology at the Center of Socio-Natural Studies. *American Antiquity*. Vol. 67 pp. 597–605.