

Coastal archaeology in western Britain: Charles Thomas and other inspirations

Book or Report Section

Published Version

Bell, M. (2018) Coastal archaeology in western Britain: Charles Thomas and other inspirations. In: Jones, A. M. and Quinnell, H. (eds.) *An Intellectual Adventurer in Archaeology: Reflections on the Work of Charles Thomas*. Archaeopress, Oxford, pp. 207-214. ISBN 9781784918620 Available at <https://centaur.reading.ac.uk/86956/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

Publisher: Archaeopress

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

An Intellectual Adventurer in Archaeology: Reflections on the work of Charles Thomas

edited by

Andy M. Jones and Henrietta Quinnell

ARCHAEOPRESS ARCHAEOLOGY



ARCHAEOPRESS PUBLISHING LTD
Summertown Pavilion
18-24 Middle Way
Summertown
Oxford OX2 7LG

www.archaeopress.com

ISBN 978 1 78491 861 3
ISBN 978 1 78491 862 0 (e-Pdf)

© Archaeopress and the individual authors 2018

Cover: Gwithian, Crane Godrevy 6th–7th century belt buckle water colour by Charles Thomas,
Christmas card December 2004
North Cliffs (F68-071, © Historic Environment, Cornwall Council)

Frontispiece: Charles Thomas, self portrait as a young man

All rights reserved. No part of this book may be reproduced, or transmitted, in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of the copyright owners.

Printed in England by Oxuniprint, Oxford

This book is available direct from Archaeopress or from our website www.archaeopress.com

Contents

List of Figures	iii
Acknowledgements and disclaimer	xi
Foreword	xii
Chapter 1 A miscellany of papers.....	1
Andy M. Jones and Henrietta Quinnell	
Chapter 2 Charles Thomas 1928–2016: The sixty-year archaeological adventure of a Cornish polymath.....	5
Nicholas Johnson	
Chapter 3 To The North Cliffs!	25
Andy M Jones	
Chapter 4 Looking at the Cornish Early Neolithic from all directions	43
Roger Mercer	
Chapter 5 Gwithian's environmental history: Landscape change and farming.....	55
Vanessa Straker and Thomas Walker	
Chapter 6 Before the Early Christian cemetery site on Lundy	71
Henrietta Quinnell	
Chapter 7 Working in the shadows of the giants: Charles Thomas, Courtenay Arthur Raleigh Radford (and King Arthur) – past and current archaeological fieldwork at Tintagel, Cornwall	83
Jacqueline A Nowakowski	
Chapter 8 Excavations on Teän, Isles of Scilly, 1956.....	101
Charles Thomas† and Charles Johns	
Chapter 9 Charles Thomas in North Britain: A career in the making	147
Ewan Campbell and Adrián Maldonado	
Chapter 10 My memorial stone to Charles	155
Anna Tyacke	
Chapter 11 St Piran's Cross: A Cornish Icon re-considered.....	159
Ann Preston-Jones	
Chapter 12 A little less mute: 3D laser scanning prehistoric rock art and early medieval inscribed stones in Cornwall.....	175
Thomas Goskar	
Chapter 13 The name of Annet (Scilly)	183
Oliver Padel	
Chapter 14 Deserted Settlement in an Antique Land: Elements of a post-Roman field archaeology on le Causse Méjean, Languedoc, France	191
Peter Fowler	

Chapter 15 Coastal Archaeology in Western Britain: Charles Thomas and other inspirations.....	207
Martin Bell	
Chapter 16 Lift up mine eyes unto the hills: Archaeology and the uplands	215
Timothy Darvill	
Chapter 17 Antony Charles Thomas, the bard of Manton.....	221
Nicholas Thomas	
Chapter 18 Charlie: Excavations and archaeology at the University of Edinburgh 1957–1967.....	225
Mary-Jane Mountain	
Chapter 19 Remembering.....	229
Arthur ApSimon	
Chapter 20 Memories of the Gwithian excavations.....	231
Adrian Rodda and Christopher Knowles	
Chapter 21 ‘The weather’s fine! Do you fancy a trip to the flint fields?’	235
Anna Lawson-Jones	
Chapter 22 Charles Thomas and Church Archaeology in Cornwall: Reminiscences of a Diocesan Archaeologist	239
John Gould	
Chapter 23 Charles Thomas: Linguistic archaeologist	251
Adam Sharpe	
Chapter 24 From Gwithian to York: A short saga.....	255
Freya Lawson-Jones	
Chapter 25 End note: A man of letters.....	259
Philip Marsden	
The Complete Bibliography of Charles Antony Thomas.....	263
Compiled by Nicholas Johnson	

Chapter 15

Coastal Archaeology in Western Britain: Charles Thomas and other inspirations

Martin Bell

The history of archaeology is so often written in terms of larger-than-life characters, of which Charles Thomas, with his polymathic interests, was certainly an outstanding example (Johnson 2015). Research advances through the interrelationships of researchers, who bring complementary perspectives to the study of the human past. My generation has been fortunate to follow a group of archaeologists who, whilst they did not have primarily palaeoenvironmental specialisms, recognized the value of environmental archaeology and did a great deal to encourage its development, thus preparing the way for those who followed. This paper reflects on the way various individuals, including Charles Thomas, have influenced research on coastal archaeology in south west England over the period during which the writer has been involved, since 1980, some 37 years.

I was a student of Environmental Archaeology at the Institute of Archaeology, London, where in 1953 Charles Thomas had also studied. In those days there was a somewhat limited number of sites which could be used to illustrate the potential of a palaeoenvironmental approach. Gwithian was often mentioned (Thomas 1958; Megaw *et al* 1961), along with such places as Star Carr, the Fenland, Snail Down and the Somerset Levels. The year I went to university (1972) saw the publication of John Evans' (1972) *Land Snails in Archaeology* which I still regard as the most outstanding book on environmental archaeology. I was given a copy as the W.F. Grimes prize when I graduated. My subsequent PhD thesis, supervised by Professor Geoffrey Dimbleby and Dr Ken Thomas, used land snails as part of an investigation of *Valley sediments as evidence of prehistoric land-use on the South Downs* (Bell 1981a); with that the geoarchaeological course of my subsequent research was set.

Towards the end of my PhD, once the fieldwork and laboratory analysis were done, I was fortunate to be given the job of Regional Environmental Archaeologist for South West England. This was a new post established following the recommendations of the Dimbleby (1978) report which recommended the establishment of a series of regional posts. This post was based at Bristol University and funded by the Directorate of Ancient Monuments and Historic Buildings, later to become English Heritage. The region was large: Gloucestershire, Avon, Somerset, Devon, Cornwall and the Scillies, with occasional forays into Wiltshire and Dorset when required by specific projects. The post was managed initially by Professor Ian Simmons and was supported by a Management Board which met twice a year. Charles Thomas was a member of that board. An initial task was visiting the region and Charles introduced me to the work of the Cornwall Committee for Rescue Archaeology and the Institute of Cornish Studies and explained to me something of what was special about the Cornish landscape. Particularly memorable, as we drove round the coast, was Charles' explanation that each of the river valleys with sand dunes at their mouths had similar potential to his great project at Gwithian (Nowakowski *et al* 2007). An early job was to prepare a regional Environmental Archaeology review which was later published (Bell 1984). It was quite a daunting task for one new to the region who was required to take stock of what had already been done and identify recommendations for the future. This was eased significantly by Charles Thomas, who arranged for the preparation of a card index of palaeoenvironmental work in Cornwall as part of a larger project. That card index was, I suppose, one of the foundations of what became the excellent palaeoenvironmental and coastal coverage of the Cornwall Historic Environmental Record.

The Regional Review was personally significant in setting the course of my subsequent research. It highlighted the major palaeoenvironmental resource of the coastal zone, which was largely untapped:

particularly blown sand sequences, coastal wetlands, intertidal peats and submerged forests. Two sites stood out and I was later fortunate to have the opportunity to work on both. One was Westward Ho! where I was part of the team investigating the Mesolithic midden and associated intertidal contexts (Balaam *et al* 1987).

The other site was Brean Down which I had been interested in since PhD days, because colluvial slope sediments were interstratified with blown sand. A really pioneering paper on what today would be called geoarchaeology had been published by Arthur ApSimon (*et al* 1961). Arthur is another of the inspirations of my title. The opportunity to work at Brean Down arose because Dr Keith Crabtree, who took over management of the environmental archaeology post when Ian Simmonds left Bristol for Durham, took his Quaternary class to Brean Down and, whilst in full flight describing the stratigraphy, he noticed two gold bracelets sticking out of the section (Crabtree 1984). We quickly recorded part of the section where they had been found, then subsequently, after I had moved from Bristol to a teaching post at Lampeter, obtained funding to clean and draw the entire Holocene section; this was in collaboration with Vanessa Straker, who followed me in the Bristol post. That exercise showed that Bronze Age buildings were exposed in the eroded section in units not visible at the time of the original ApSimon recording. Given this active erosion, a project was funded by the Historic Buildings and Monuments Commission to excavate the eroding section and establish the extent of the site inland (Bell 1990; Figure 15.1).

In planning the Brean project, the work of Charles Thomas and his colleagues at Gwithian was very much in our minds. In many respects those expectations, based on Gwithian, were realized. Five phases of occupation, Beaker (2 phases), biconical urn, Trevisker and Late Bronze Age were separated by episodes of sand deposition and colluvial (slope) sedimentation. As at Gwithian, the sand deposition phases were blankets covering the site and represented phases when the sites were unoccupied.

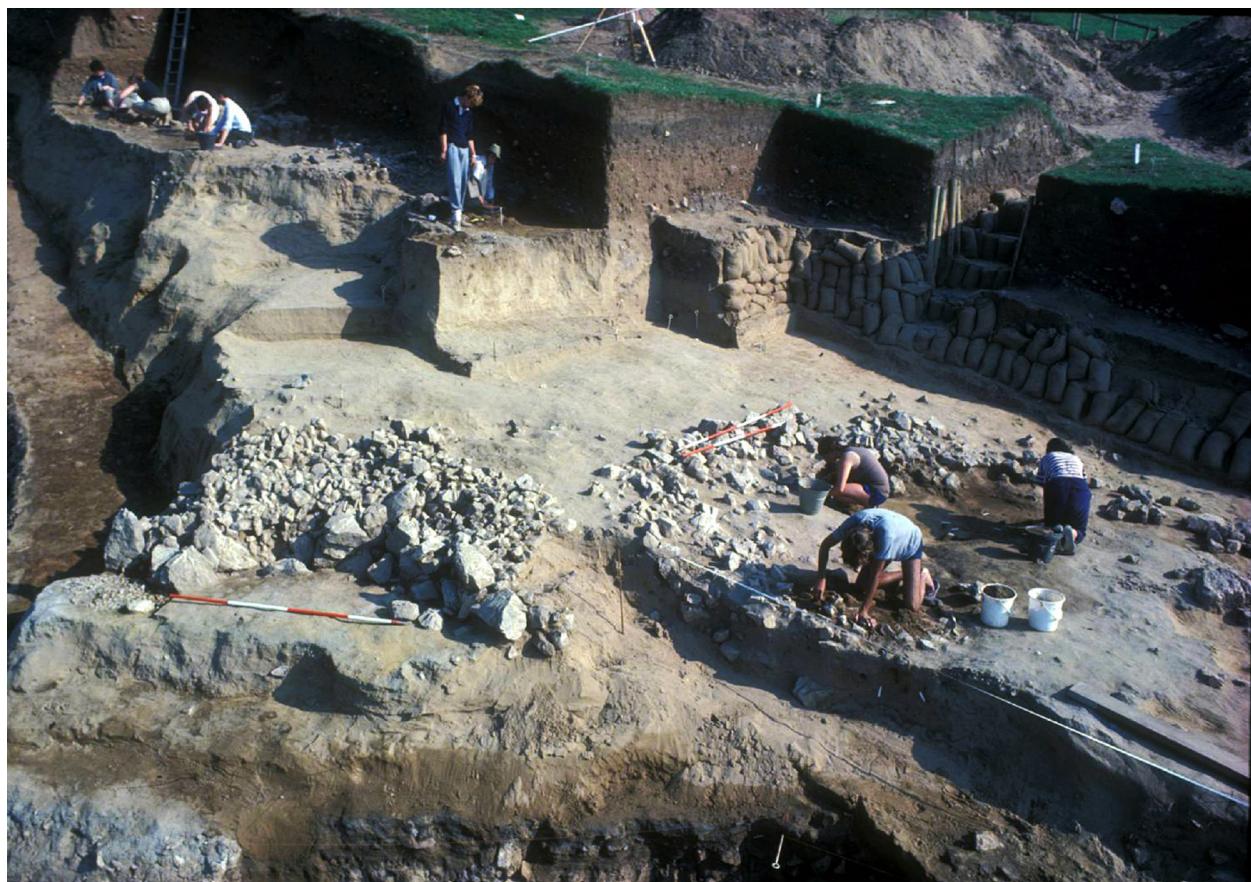


Figure 15.1: Brean Down excavation 1985: Middle Bronze Age settlement Unit 5b roundhouses stratified in a sand dune sequence.
(Photograph: A. Philpott.)

Such episodes may well have a palaeoclimatic cause, although this remains to be established by more refined chronology as noted in the contribution by Straker and Walker. The main occupation phase represented by the excavated buildings was characterized by Trevisker style pottery, although made in local Somerset clays (Woodward 1990). That pottery established a clear cultural link to Cornwall, which has subsequently been strengthened by the finding of Trevisker style pottery on other sites in Somerset and on the Welsh side of the Severn Estuary (Bell 2013). This, together with the discovery of Trevisker pottery in gabbroic clay in Kent and pottery of this style in France, highlights the role of these West Country Bronze Age groups in maritime communication up the Bristol and English Channels (Gibson *et al* 1997).

In the Brean sequence there were two distinct episodes when colluvial sedimentation from the slopes above created a distinct layer of finer and stony sediment within the sand (Macphail 1990; Bell 1992). The first (Unit 6), apparently eroded soil from cultivation upslope, occurred during the time of the biconical urn settlement (c1600 cal BC) and truncated the soil upslope down to Pleistocene head, thus ruling out cultivation of the immediately adjacent slopes above for some eight centuries. The second buried the Late Bronze Age settlement (1000–800 cal BC). This re-established a cultivatable soil which was associated with a field wall and the surface marked by poorly preserved linear ploughmarks (Figure 15.2). Walker's (2018) more recent work at Gwithian demonstrates a similar interdigitation of blown sand and colluvial silts which strengthens the case for an arable element at times in the Gwithian economy, despite the limited direct evidence for cereal macrofossils noted in Straker and Walker's chapter.

In other respects Brean turned out rather differently from expectations based on Gwithian. I had expected a more significant arable element to the economy brought about perhaps by the possibility of using the resources of the seashore, shell sand, seaweed and so on, to form man-made soils, of which there was evidence at Gwithian as Straker and Walker note in their chapter. This was an interest of mine following excavations in Sussex where we had found evidence for the use of seaweed in this way (Bell 1981b). In the event we found some charred seaweed. Micromorphological evidence and the evidence for two distinct colluvial phases indicates arable activity but only during two phases. The plant macrofossil evidence for arable was quite limited (Straker 1990). The only field boundary and ard marks were on the upper colluvial soil post-dating the latest Bronze Age occupation (Bell 1991; 1992). The economy of Bronze Age Brean seems to have had a pastoral emphasis based on the vast tract of saltmarsh at the seaward edge of the Somerset Levels. Two recent scientific studies have strengthened the case for this. Organic residues on the Trevisker pottery show it was used in the processing of dairy products (Copley *et al* 2005). The other study used isotopic analysis of animal teeth at Brean and Welsh Severn Estuary sites to demonstrate that they had grazed part of the year on saltmarsh (Britton *et al* 2008; Britton & Müldner 2013).



Figure 15.2: Brean Down excavation 1989: field wall on colluvial Unit 4a, the surface of which shows indistinct linear ploughmarks along the contour. In the foreground are burials of a post-Roman cemetery (Photograph: M. Bell).

Figure 15.2: Brean Down excavation 1989: field wall on colluvial Unit 4a, the surface of which shows indistinct linear ploughmarks along the contour. In the foreground are burials of a post-Roman cemetery (Photograph: M. Bell).

A further significant aspect of the Brean economy was briquetage, used for the extraction of salt from seawater. A few fragments come from biconical urn layers (Unit 6) but most from the Trevisker Unit (5b), altogether spanning *circa* 1600–900 cal BC. This is among the earliest briquetage from north west Europe and its use may well reflect the distant maritime connections of these communities, although I am not aware of Bronze Age briquetage on any of the other Trevisker related sites in South West England. However, Quinnell (2010) has identified probable Late Bronze Age briquetage from Lundy. Briquetage similar to that at Brean is known in middle and Late Bronze Age contexts in Pas-de-Calais, France (Marcigny and Le Goaziou 2012)

At Brean we did many boreholes and test pits to establish the relationship between the slope deposits eroded from the Down, the blown sands deflated from the beach, and the estuarine sediments of the Somerset Levels. Quaternary and Holocene sediments were also exposed from time to time on the beach and we investigated a late Mesolithic intertidal peat. I had become particularly fascinated by the intertidal peats and submerged forests of the region and greatly in awe of the inspirational wetland work of the Somerset Levels Project led by John and Bryony Coles (1986). Discoveries on intertidal peats on the Welsh side of the Severn Estuary were being made by Derek Upton, a skilled technician at Llanwern steelworks and another of the inspirations of my title (Bell 2005). At first Derek had difficulty getting academics to take an interest in his finds, as they did not fit the established models derived from dryland archaeology. However sedimentary research by Professor John Allen (1987) established that the deposits within which Upton's sites were stratified were prehistoric. The future of these sites was in doubt due to plans for a Severn Tidal Barrage, and the Severn Estuary Levels Research Committee was established to investigate the archaeological potential. One of Derek's discoveries was of Mesolithic human footprints at Uskmouth and an investigation of these was led by Dr Stephen Aldhouse-Green (*et al* 1992) who with Professor Alasdair Whittle stimulated academic research in the estuary.

In 1990 Derek Upton and others visited the foreshore at Goldcliff after a big storm. Here they discovered rectangular buildings and trackways on the intertidal peat. A project funded by Cadw and led by the writer was set up to investigate, with Professors John Allen and John Coles advising. We found eight rectangular buildings and 16 trackways of Iron Age date and there were also two planks from a Bronze Age sewn plank boat, no doubt the type of craft by which the maritime connections of these people were maintained (Bell *et al* 2000). There followed a project to record the prehistoric archaeology of the intertidal zone of the Welsh Severn Estuary which led to the recording and discovery of many sites. We also excavated a Mesolithic site and in 2001 a project was funded by the Natural Environment Research Council to investigate Mesolithic to Neolithic Coastal Environmental Change. Survey at Goldcliff revealed three more Mesolithic sites and exposures of Mesolithic human and animal footprints, the recording of which continues today; 27 years after survey started at Goldcliff, the pace of new discoveries is unabated. Identification of animal footprint-tracks in the Severn Estuary subsequently enabled us to identify them within the Bronze Age blown sands at Gwithian (Walker & Bell 2013).

Fascination with the Mesolithic is something with which Charles Thomas would have empathised; the Mesolithic of Gwithian was always a particular passion of his (Johnson 2015). What makes Mesolithic Goldcliff so significant is the direct association between excavated settlements and human footprints (Figure 15.3). This provides evidence for the composition of the group of people and particularly highlights the role of children, some as young as 4 or 5, in the life of the Mesolithic community. Within the Goldcliff Holocene sequence is a wide range of biological and sedimentary evidence, which establishes the nature of the Mesolithic economy and the seasonality of activity; this was mainly late summer and autumn, but with some visits at other times of year (Bell 2007).

Given my interest in coastal sediments in the South West I responded to a request from English Heritage to prepare a survey of the windblown sediments of southern Britain, which I prepared with Dr Alex Brown (Bell & Brown 2008), who had played an important part in the Severn Estuary research (Brown 2005). Although this was intended to be an essentially desk top review, we took the opportunity to do a tour of dune sites in the South West. On this we were accompanied by Thomas Walker, who shared my passion for



Figure 15.3: Goldcliff Mesolithic human footprint of a young person aged 8-9. (Photograph: E. Sacre.)

Mollusca and was then doing an archaeology degree at Reading, having retired as a doctor. The survey was an opportunity to revisit the suggestion made by Charles Thomas 28 years before, that many of the dune sequences had similar potential to Gwithian. Needless to say he was proved right; in nearly every dune sequence we visited there were good exposures of Holocene soils buried by blown sand, often with good potential for molluscan research. These sequences were often related to stratified archaeology, either below or within the dunes, as indeed many reports in *Cornish Archaeology* and elsewhere demonstrate. Finds from the survey included lithic flakes at Woolacombe, Devon; a possible stone wall at Harlyn Bay, Cornwall; midden and stone cist and worked flints at Constantine Bay, Cornwall; and a ditch and bank at Praa Sands, Cornwall. Gwithian was one of the sites we visited, and just inland of the cliff and coastal road, 500 m west of the main site excavated by Charles Thomas, a section was exposed in a former sandpit with several stabilisation soils. Thomas Walker did his undergraduate dissertation on the Mollusca from this sequence (2010). He also undertook mollusc analysis on other dune sequences we had visited on this tour at Widemouth Bay; Daymer Bay; Harlyn Bay (2 sites); Constantine Island; and Towan Head, Newquay (Walker 2014). He found over 20,000 molluscs in his initial Gwithian sequence, highlighting the potential for further work on the palaeoenvironments of the Gwithian dunes which became the subject of his PhD (Walker 2014) and monograph (Walker 2018). One result of the fieldwork associated with this study was identification of a probable stone field wall on the west side of the Gwithian valley near Strap Rocks (Figure 15.4). Walker's (2018) analysis and dating suggests that this wall is prehistoric and thus that the buried fields of the Gwithian area may be more extensive than previously realized. Walker's research, and how it relates to Charles Thomas' earlier work at the site and the Aggregates Extraction Levy funded project to create a Gwithian archive (Nowakowski *et al* 2007), is covered by Vanessa Straker and Thomas Walker (see Chapter 5, this volume).

What has been said by no means covers all of Charles Thomas's contribution to coastal archaeology. His *Exploration of a Drowned Landscape* (Thomas 1985) on the Scilly Isles made a significant contribution to raising awareness of coastal zone archaeology and the contribution it can make to studies of coastal



Figure 15.4: Gwithian Strap Rocks field wall which Walker's (2018) research indicates is prehistoric, sealed by a sand dune. (Photograph: Thomas Walker.)

change. His work on the early medieval period also highlighted the importance of maritime connectivity both in the Irish Sea zone and more distantly in terms of Mediterranean connections and imported pottery (Thomas 1976).

Nor should significant contributions by other researchers to earlier periods be overlooked, particularly the Pleistocene and Palaeolithic which seems to the writer the aspect of coastal zone archaeology most in need of future research in the south west region. The work of Professors David Gilbertson (1974) and Chris Hunt on the Quaternary sediments of Somerset (Hunt & Haslett 2006) and Professor John Allen (2001) in the Welsh Severn Estuary, together with the earlier work of Arthur ApSimon and many others in and around Mendip, lay foundations for much needed future work on Pleistocene sediments exposed in coastal cliff exposures in the south west and the intertidal zone of the Severn Estuary, where some Palaeolithic artefacts have recently been found.

It is appropriate to end with examples of Charles Thomas' contribution to academic life. When I became a lecturer at St David's University College, Lampeter we were a fledgling small unit of four archaeologists led by David Austin working in a Geography Department. We were looking for an external examiner and Charles was the obvious choice, with the experience and gravitas to validate and advise on our developing curriculum. Characteristically Charles went well beyond the traditional expectations of an external examiner, being more than prepared to take the opportunity to call on the Principal, Professor Brian Morris (later Lord Morris of Castlemorris), to lobby for the development of Archaeology, supporting, as Charles described us, 'the young Turks'. No doubt Charles was influenced by a strong commitment to the health of academic life on the Celtic fringe in the late twentieth century, just as in the 'Dark Ages' he and others have shown what some once saw as peripheral areas became centre of learning and civilisation. Fortunately Morris was very receptive and archaeology at Lampeter grew and flourished. Later I find myself teaching at the University of Reading where Charles had also years before served as external examiner at a critical time. He lobbied for the department's survival when a report chaired by Professor Richard Atkinson had recommended cutting several archaeology departments, including Reading, which, thankfully, survived, grew and flourished.

Acknowledgements

I am grateful to Charles Thomas for his example and support and for the other inspirations of my title: Arthur ApSimon, John Evans, John and Bryony Coles, Derek Upton, Stephen Aldhouse-Green and John Allen. Likewise to the many other people who I have worked with on these questions including Keith Crabtree, Vanessa Straker, Heike Neumann, Astrid Caseldine, Richard Bunning, Nigel Nayling, Alex Brown and Thomas Walker.

Bibliography

Aldhouse-Green, S.H.R., Whittle, A., Allen, J.R.L., Caseldine, A.E., Culver, S.J., Day, M.H., Lundqvist, J. & Upton, D. 1992. Prehistoric human footprints from the Severn Estuary at Uskmouth and Magor Pill, Gwent, Wales. *Archaeologia Cambrensis* 141, 14–55.

Allen, J.R.L. 1987. Late Flandrian shoreline oscillations in the Severn Estuary: the Rumney Formation and its typesite. *Philosophical Transactions of the Royal Society* B315, 157–174.

Allen, J.R.L. 2001. Late Quaternary stratigraphy in the Gwent Levels (southeast Wales): the subsurface evidence. *Proceedings of the Geologists' Association* 112, 289–315.

ApSimon, A., Donovan, D.T. & Taylor, H. 1961. The stratigraphy and archaeology of the Late-Glacial and Post-Glacial deposits at Brean Down, Somerset. *Proceedings of the University of Bristol Spelaeological Society* 9, 67–136.

Balaam, N.D., Bell, M., David, A., Levitan, B., Macphail, R., Robinson, M.A. & Scaife, R. 1987. Prehistoric and Romano-British sites at Westward Ho!, Devon: archaeological and palaeoenvironmental surveys 1983 and 1984. In N.D. Balaam, B. Levitan & V. Straker (eds) *Studies in palaeoeconomy and environment in South West England*. Oxford: British Archaeological Reports, British Series 181, 163–264.

Bell, M. 1981a. Valley sediments as evidence of prehistoric land-use: a study based on dry valleys in South East England. Unpublished PhD dissertation, University of London.

Bell, M. 1981b. Seaweed as a prehistoric resource. In D. Brothwell & G. Dimbleby, *Environmental Aspects of Coasts and Islands*. Oxford: British Archaeological Reports, International Series 94, 117–126.

Bell, M. 1984. Environmental archaeology in South west England. In H.C.M. Keeley (ed) *Environmental Archaeology: A regional review*. London: Department of the Environment Occasional Paper 6, 43–131.

Bell, M. 1990. *Brean Down excavations 1983–1987*. London: English Heritage Archaeological Report 15.

Bell, M. 1991. Brean Down excavations 1989 and 1991. *Severn Estuary Levels Research Committee Annual Report* 1, 34–42.

Bell, M. 1992. The prehistory of soil erosion. In M. Bell & J. Boardman (eds) *Past and Present Soil Erosion*. Oxford: Oxbow Monograph 22, 21–35.

Bell, M. 2005. Derek John Upton, 1941–2005: an appreciation. *Archaeology in the Severn Estuary* 16, 1–6.

Bell, M. 2007. *Prehistoric coastal communities: the Mesolithic in Western Britain*. York: Council for British Archaeology Research Report 149.

Bell, M. 2013. *The Bronze Age in the Severn Estuary*. York: Council for British Archaeology, Research Report 172.

Bell, M. & Brown, A.D. 2008. *Southern Regional Review of Geoarchaeology: windblown deposits*. Portsmouth: English Heritage Research Department Report 005/2009.

Bell, M., Caseldine, A.E. & Neumann, H. (eds) 2000. *Prehistoric Intertidal Archaeology in the Welsh Severn Estuary*. York: Council for British Archaeology Research Report 120.

Britton, K. & Müldner, G. 2013. Stable isotope evidence of saltmarsh economies. In M. Bell (ed) *The Bronze Age in the Severn Estuary*. York: Council for British Archaeology Research Research Report 172, 263–273.

Britton, K., Müldner, G. & Bell, M. 2008. Stable isotope evidence for salt-marsh grazing in the Bronze Age Severn Estuary, UK: implications for palaeodietary analysis at coastal sites. *Journal of Archaeological Science* 35, 2111–2118.

Brown, A.D. 2005. Wetlands and Drylands in prehistory: Mesolithic to Bronze Age human activity and impact in the Severn Estuary, southwest Britain. Unpublished PhD dissertation, University of Reading.

Coles, B.J. & Coles, J.M. 1986. *Sweet Track to Glastonbury*. London: Thames and Hudson.

Copley, M.S., Berstan, R., Straker, V., Payne, S. & Evershed, R.P. 2005. Dairying in antiquity: II. Evidence from absorbed lipid residues dating to the British Bronze Age. *Journal of Archaeological Science* 32, 505–521.

Crabtree, K. 1984. Two gold bracelets from Brean Down, Somerset. *Antiquity* 58, 49–52.

Dimbleby, G. 1978. *The Scientific Treatment of Material from Rescue Excavations*. London: Department of the Environment Report.

Evans, J. 1972. *Land Snails in Archaeology*. London: Seminar Press.

Gibson, A., MacPherson-Grant, N. & Stewart, I. 1997. A Cornish vessel from farthest Kent. *Antiquity* 71, 438–441.

Gilbertson, D.D. 1974. The Pleistocene Succession in the Coastal Lowlands of Somerset. Unpublished PhD dissertation, University of Bristol.

Hunt, C.O. & Haslett, S.K. 2006. *Quaternary of Somerset: Field Guide*. London: Quaternary Research Association.

Johnson, N. 2015. Obituary: Anthony Charles Thomas. *Cornish Archaeology* 54, 261–281.

Macphail, R.I. 1990. Soil history and micromorphology. In M. Bell, *Brean Down Excavations 1983–1987*. London: English Heritage. 187–96.

Marcigny, C. & Goaziou, E. 2012. Coastal salt for preserving and eating. In A. Lehoërr, J. Bourgeois, P. Clark & M. Talon, *Beyond the Horizon*. Paris: Somogy Art Publishers, 101.

Megaw, J.V.S., Thomas, A.C. & Wailes, B. 1961. The Bronze Age settlement at Gwithian, Cornwall. *Proceedings of the West Cornwall Field Club* 2.5, 200–215.

Nowakowski, J., Quinnell, H., Sturgess, J., Thomas, C. & Thorpe, C. 2007. Return to Gwithian: shifting the sands of time. *Cornish Archaeology* 46, 13–76.

Quinnell, H. 2010. Prehistoric and Roman material from Lundy. *Proceedings of the Devon Archaeological Society* 68, 19–60.

Straker, V. 1990. Charred plant macrofossils. In M. Bell *Brean Down Excavations 1983–1987*. London: English Heritage, 211–219.

Thomas, A.C. 1958. *Gwithian. Ten years' work (1949–1958)*. Gwithian; Cornwall.

Thomas, A.C. 1976. Imported late Roman Mediterranean pottery in Ireland and western Britain: chronologies and implications. *Proceedings of the Royal Irish Academy* 76C, 245–256.

Thomas, A.C. 1985. *Exploration of a Drowned Landscape*. London: Batsford.

Walker, T. 2010. Molluscs, environment and archaeology at Godrevy Towans, Cornwall. Unpublished BSc dissertation, University of Reading.

Walker, T. 2014. Shifting sand: the palaeoenvironment and archaeology of blown sand in Cornwall. Unpublished PhD dissertation, University of Reading.

Walker, T. 2018. *The Gwithian landscape: molluscs and archaeology in Cornish sand dunes*. Oxford: Archaeopress.

Walker, T.M. & Bell, M. 2013. Bronze Age animal footprints at Gwithian, Cornwall. *PAST*, 74, 1–3.

Woodward, A. 1990. The Bronze Age pottery. In M. Bell, *Brean Down Excavations 1983–1987*. London: English Heritage Archaeological Report 15, 121–145.