Hillforts: Britain, Ireland and the Nearer Continent

Papers from the Atlas of Hillforts of Britain and Ireland Conference, June 2017

edited by

Gary Lock and Ian Ralston





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

www.archaeopress.com

ISBN 978-1-78969-226-6 ISBN 978-1-78969-227-3 (e-Pdf)

© Authors and Archaeopress 2019

Cover images: A selection of British and Irish hillforts. Four-digit numbers refer to their online Atlas designations (Lock and Ralston 2017), where further information is available. Front, from top: White Caterthun, Angus [SC 3087]; Titterstone Clee, Shropshire [EN 0091]; Garn Fawr, Pembrokeshire [WA 1988]; Brusselstown Ring, Co Wicklow [IR 0718]; Back, from top: Dun Nosebridge, Islay, Argyll [SC 2153]; Badbury Rings, Dorset [EN 3580]; Caer Drewyn Denbighshire [WA 1179]; Caherconree, Co Kerry [IR 0664]. Bottom front and back: Cronk Sumark [IOM 3220]. Credits: 1179 courtesy Ian Brown; 0664 courtesy James O'Driscoll; remainder Ian Ralston.

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 Severn, Gloucester

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

Contents

List of Figures	ii
List of Tables	vi
Acknowledgements	 vii
Contributors	ix
Preface	xi
Part 1. The Atlas of Hillforts of Britain and Ireland	
1. The Atlas: an introduction Gary Lock	3
2. The hillforts of Britain and Ireland – the background to the Atlas Project: an overview of the number of the hill- and promontory-fort sites	
3. Hillforts of England, Wales and the Isle of Man: diversity captured	28
4. Forts and fortification in Scotland; applying the Atlas criteria to the Scottish dataset Stratford Halliday	 54
5. The Irish Hillfort	 77
6. Fortified settlement in early medieval Northern Britain and Ireland Gordon Noble and James O'Driscoll	 97
7. A GIS-based investigation of morphological directionality at hillforts in Britain: the visual perspec	
Jessica Murray	******
8. Using Atlas data: the distribution of hillforts in Britain and Ireland	137
9. The Atlas of Hillforts of Britain and Ireland online	155
Part 2. Continental perspectives	
10. Iron Age fortifications in France	165
11. Hillforts of the central Cantabrian area in the Atlantic context: views on their distribution and re	
Fernando Rodríguez del Cueto	188
12. Hillforts and <i>oppida</i> : some thoughts on fortified settlements in southern Germany	206

List of Figures

1. The Atlas: an introduction

Figure 1.1	The Atlas project team, from left to right: William O'Brien, Strat Halliday, Johnny Horn, Gary Lock, Jessica Murray, Paula Levick, Ian Ralston, James O'Driscoll, Ian Brown and John Pouncett	5
2. The hil	lforts of Britain and Ireland – the background to the Atlas Project: an overview of the numb of hill- and promontory-fort sites	er
Figure 2.1	The total distribution of all hillforts in Britain and Ireland within the Atlas including unconfirmed	
	and irreconciled sites	
Figure 2.2	All confirmed cropmark hillfort sites in Britain and Ireland	13
Figure 2.3	An extract from the Ordnance Survey Map of Southern Britain in the Iron Age (1962) showing the	
	Welsh Marches	
Figure 2.4	Distribution by James Forde-Johnston of hillforts of his Types VIII-XI	20
Figure 2.5	Distribution by James Forde-Johnston of Wessex hillforts by size and vallation	21
Figure 2.6	A.H.A. Hogg's 1975 distribution map of hillforts in the south-east of Britain, showing his use of size categories	22
Figure 2.7	Hillfort totals derived from A. H. A. Hogg's 1979 survey; the Isle of Man is excluded	22
Figure 2.7	Dennis Harding's (2012 figures 1-3) maps of hillforts in Britain using the O.S. 1962 size categories	22 23
iguic 2.0	3. Hillforts of England, Wales and the Isle of Man: diversity captured	23
	3. Inition is of England, water and the isle of want diversity captured	
Figure 3.3	Hillforts 300m and above	33
Figure 3.4	The distribution of small, medium and large hillforts based on total enclosed area using the	
	Ordnance Survey size categories	34
Figure 3.5	The 1.9 ha contour hillfort of Moel Arthur, Clwydian Range, Denbighshire	
Figure 3.6	Hillforts classified as 'contour' and 'partial contour' types	35
Figure 3.7	Inland and coastal promontory forts	36
Figure 3.9	The stone-walled hillslope hillfort of Caer Drewyn, Denbighshire	37
Figure 3.8	Hillslope forts	
Figure 3.10	Multiple Enclosure forts.	38
Figure 3.11	Univallate hillforts based on current and detailed morphology	39
Figure 3.12 Figure 3.13	Multivallate hillforts according to current morphology only	40 11
Figure 3.15	Hillforts with an inturned entrance	
Figure 3.16	Hillforts with evidence of guard chambers or <i>chevaux de frise</i>	43 44
Figure 3.17	Hillforts with different types of evidence for roundhouses other than that from excavation	45
Figure 3.18	Hillforts with excavated evidence for roundhouses	46
Figure 3.19	Hillforts with different types of evidence for square or rectangular structures	47
Figure 3.20	Hillforts with evidence for pits from excavation or geophysical survey	49
Figure 3.21	Hillforts with surface evidence for quarry hollows	50
Figure 3.22	Hillforts that have had excavation or geophysical survey	51
4	. Forts and fortification in Scotland; applying the Atlas criteria to the Scottish dataset	
Figure 4.1	Scottish data in the Atlas of Hillforts in Britain and Ireland	гг
Figure 4.1	Distribution of sites annotated Fort and Camp on the 1st edition of the OS 6-inch map	55 57
Figure 4.2	Distribution of sites annotated <i>Fort</i> and <i>camp</i> on the 1st edition of the OS 6-inch map	
Figure 4.4	Extract covering the Border Counties from David Christison's map titled <i>Distribution of Forts on the</i>	39
igare i.i	Scottish Mainland	60
Figure 4.5	Distribution of sites annotated <i>Dun</i> in Gothic script, either as a classification or as part of a name,	
-8	on the 1st edition of the OS 6-inch map. It includes a few in Galloway with the Anglicised spelling of <i>Doon</i>	62
Figure 4.6	Extract covering the southern half of Scotland from Gordon Childe's map of Iron Age Forts and Refuges	
Figure 4.7	Gordon Childe's map of Forts between the Roman Walls (after Childe 1933). The original map is crudely	
	drawn and in places appears impressionistic rather than strictly accurate, subtly differing from his later	
	rendering of the distribution	64
Figure 4.8	Extract covering the southern half of Scotland from Leo Rivet's map of Iron Age Monuments in	
	Northern Britain	66
Figure 4.9	Map of Confirmed hillforts in Scotland enclosing less than 0.2 ha	
Figure 4.10	Map of forts in the Atlas revealed wholly or partly by cropmarks set against the overall record of cropmark	s 72

5. The Irish Hillfort

Ci F 1	Distribution man of trials billforts of Classes 1, 2 and 2	70
Figure 5.1	Distribution map of Irish hillforts of Classes 1, 2 and 3	/9
Figure 5.2	Clomantagh, Co. Kilkenny, an example of a Class 1 hillfort	80
Figure 5.3	Toor More, Co. Kilkenny, an example of a Class 2a hillfort	80
Figure 5.4	Caherconree, Co. Kerry, an example of a Class 3 hillfort	81
Figure 5.5	Cairn at the highest point of the interior of Carn Tighernagh, Co. Cork	82
Figure 5.6	The coastal promontory fort of Dunbrattin, Co. Waterford	84
Figure 5.7	Cumulative viewshed analysis of Toor More hillfort, Co. Kilkenny	86
Figure 5.8	Geophysical survey (with interpretation) of Glanbane hillfort, Co. Kerry	an
Figure 5.9	Tinoran hillfort, Co. Wicklow, showing the extensive forestry that has heavily damaged the site	02
igure 3.9	Thioran miniort, co. wicklow, showing the extensive forestry that has heavily damaged the site	92
	6. Fortified settlement in early medieval Northern Britain and Ireland	
Figure 6.1	Examples of fortified settlements in early medieval Scotland	98
Figure 6.2	Aerial view of the nuclear hillfort at Dundurn, Perthshire, Scotland	100
Figure 6.3	The nuclear fort at Norman's Law, Fife, Scotland	101
Figure 6.4	Burghead, Moray, Scotland, the largest known Pictish fort	
Figure 6.5	Aerial view of the promontory fort at Isle Head, Whithorn, Scotland	103
Figure 6.6	Examples of early medieval fortified settlements in Ireland	105
Figure 6.7	The probable royal fort at Ballycatteen, Co. Cork, Ireland	106
Figure 6.8	The internally ditched enclosure at Navan Fort, Co. Armagh, Ireland	106
Figure 6.9	Aerial view of the univallate promontory fort at Dalkey Island, Co. Dublin, Ireland	107
		107
Figure 6.10	Aerial view of the large internally ditched enclosure at Kedrah hillfort, Co. Tipperary, Ireland,	100
	which is similar in morphology to Navan, Co. Armagh	108
Figure 6.11 Figure 6.12	Aerial view of the stone-walled ringfort abutting the cliff-edge at Cahercommaun, Co. Clare, Ireland Examples of large later prehistoric fortifications in Ireland and Scotland	109 110
7. A GIS-ba	ased investigation of morphological directionality at hillforts in Britain: the visual perspect	ive
Figure 7.1	Location map of test areas in relation to the distribution of known hillforts	110
		110
Figure 7.2	The results of the slope-based cost surface analysis at Tre-Coll, Wales, shown on LiDAR. The highest	100
	number of pathways approach the site from the north-east where the most impressive ramparts are	120
Figure 7.3	The results of slope-based cost surface analysis at Battlesbury, England, shown on LiDAR. The highest	
	number of pathways approach the site from the north-east where the most impressive ramparts are.	
	Map A: Landscape Scale; Map B: Site Scale	120
Figure 7.4	The results of slope-based cost surface analysis at Castell Grogwynion, Wales, shown on LiDAR.	
	The highest number of pathways approach the site from the north where the most impressive ramparts	
	and an entrance are	121
Figure 7.5	The results of slope-based cost surface analysis at Pen-y-Bannau, Wales, shown on LiDAR. The highest	
_	number of pathways approach the site from the north where the most impressive ramparts and an	
	entrance are	122
Figure 7.6	The results of viewshed analysis from the three hillforts on Harding's Down showing the visibility of	
O	The Bulwark, Wales, shown on LiDAR	123
Figure 7.7	The viewshed results indicating the visibility of The Bulwark, Wales, from the surrounding landscape,	
8	shown on LiDAR	123
Figure 7.8	The results of slope-based cost surface analysis at The Bulwark, Wales, shown on LiDAR. The highest	123
iguic 7.0	number of pathways approach the site from the north and east	12/
Figure 7.9	The viewshed results from the other sites on Harding's Down, Wales, indicating the visibility of the	125
rigure 7.9		104
E' 7.10	West Camp, shown on LiDAR	124
Figure 7.10	The viewshed results showing the visibility of Harding's Down West Camp, Wales, from the surrounding	
	landscape	125
Figure 7.11	The results of slope-based cost surface analysis at Harding's Down West Camp, Wales, shown on LiDAR	126
Figure 7.12	The viewshed results indicating the visibility of the East Camp from the other sites on Harding's Down,	
	Wales, shown on LiDAR	
Figure 7.13	The results of slope-based cost surface analysis at Harding's Down East Camp, Wales, shown on LiDAR	127
Figure 7.14	The viewshed results indicating the intervisibility between Battlesbury and Scratchbury, England,	
O	shown on LiDAR	127
Figure 7.15	The viewshed results indicating the intervisibility between Prestonbury and Cranbrook, England,	
-6	shown on LiDAR	128
Figure 7.16	The results of slope-based cost surface analysis at Prestonbury, England, shown on LiDAR. The highest	120
igare 7.10	number of pathways approach the site from the east where the most impressive ramparts and	
		120
Figuro 7 17	entrances are	129
Figure 7.17		100
5	from the north	130
Figure 7.18	The viewshed results indicating the visibility of Harding's Down North Camp, Wales, from the	10-
	surrounding landscape, shown on LiDAR	130
Figure 7.19	The distribution of blind least-cost pathways at Pen-y-Bannau, Wales, shown on LiDAR	131

Figure 7.20	The distribution of blind least-cost pathways at Tre-Coll, Wales, shown on LiDAR	
Figure 7.21	The distribution of blind least-cost pathways at Castell Tregaron, Wales, shown on LiDAR	
Figure 7.22	The distribution of blind least-cost pathways at Harding's Down West Enclosure, Wales, shown on LiDAR	133
	8. Using Atlas data: the distribution of hillforts in Britain and Ireland	
Figure 8.1	The total distribution of hillforts in Britain and Ireland taken form the Atlas database	138
Figure 8.2	The City Clustering Algorithm (CCA)	
Figure 8.3	The percolation transition plot showing the normalised maximum cluster size against the	
· ·	percolation radius	140
Figure 8.4	The hillfort clusters in Britain at 34 km percolation radius	141
Figure 8.5	The hillfort clusters in Britain at 12 km percolation radius	142
Figure 8.6	The hillfort clusters in Britain at 9 km percolation radius	144
Figure 8.7	The hillfort clusters in England and Wales at 10 km percolation radius overlaid on Domesday counties	145
Figure 8.8	The hillfort clusters in England and Wales at 12 km percolation radius overlaid on Domesday counties	
Figure 8.9	The hillforts of England (red) and Iron Age finds from the Portable Antiquity Scheme (grey)	146
Figure 8.10	The hillforts of Britain and Ireland by size of enclosed area	
Figure 8.11 Figure 8.12	The hillforts of Wales and south-western England by size of enclosed area	
Figure 8.13	The hillforts of the Central Wales cluster at 6 km percolation radius, with sites plotted by size of enclosed area	
Figure 8.14	The hillforts of the Cotswold cluster at 10 km percolation radius with sites plotted by size of enclosed area	
Figure 8.15	The hillforts of the Cornwall cluster at 14 km percolation radius with sites plotted by size of enclosed area	
8	9. The Atlas of Hillforts of Britain and Ireland online	
Figure 9.1	The user interface for the Atlas of Hillforts of Britain and Ireland web mapping application	
Figure 9.2	Maximised HTML pop-up for Maiden Castle, Wimborne St. Martin, Dorset (Atlas ref: EN3598)	
Figure 9.3	Filter expression to show all confirmed hillforts on the Isle of Man	159
Figure 9.4	Geographic footprint of the Atlas of Hillforts of Britain and Ireland web mapping application, showing the	
	number of visitors per country since launch (from 22nd June 2017 to 21st March 2019). The symbology is binned at intervals of 500 visitors and is clipped at 6,000 visitors	161
Figure 9.5	Gary Lock, John Pouncett and Ian Ralston (left to right) and the Atlas of Hillforts of Britain and Ireland at the	201
118410 7.5	American Association for the Advancement of Science (AAAS) meeting, Austin, Texas, 2018	161
	10. Iron Age fortifications in France	
Figure 10.1	Changing numbers of Late la Tene fortifications in France: (a) the total number known in 1984 by size	
	categories; (b) dump ramparts and (c) timbered ramparts in 2018	
Figure 10.2	Map of Iron Age fortified sites in France	167
Figure 10.3	The changing pattern of the distribution of ramparts in France in (A) the late Bronze Age, (B) Hallstatt	1/0
Figure 10.4	and (C) La Tène Distribution pattern of dry-stone ramparts in France	160
Figure 10.4	Plan of the fortification of Pech Maho beside the R. Berre (Sigean, Aude). Phase III (325/200 BC)	
Figure 10.5	Puech de Mus (Aveyron). (A) Plans of the ramparts from phases II to VI. (B) Reconstructions of the successiv	
118010 1010	ramparts	
Figure 10.7	Models of timbered ramparts of the Iron Age in Europe: <i>Kastenbau</i> type; 2: Ehrang type; 2a: <i>Murus gallicus</i> ;	
0	3: box rampart with earthfast vertical timbers front and rear; 4: Altkönig-Preist type or <i>Pfostenschlitzmauer</i> ;	
	Hod Hill variant; 6: Kelheim type; 7: mixed type with timber-framing and – lacing	171
Figure 10.8	The distribution of timbered ramparts in France	
Figure 10.9	Excavation of the murus gallicus of Alesia: the external wall-face showing beam-holes	173
Figure 10.10		
=-	General plan of the <i>oppidum</i> of <i>Bibracte</i> with the main lines of the fortifications, A (external)	
Figure 10.11	General plan of the <i>oppidum</i> of <i>Bibracte</i> with the main lines of the fortifications, A (external) and B (internal)	174
F: 10 10	General plan of the <i>oppidum</i> of <i>Bibracte</i> with the main lines of the fortifications, A (external) and B (internal)	
Figure 10.12	General plan of the <i>oppidum</i> of <i>Bibracte</i> with the main lines of the fortifications, A (external) and B (internal)	
	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175
Figure 10.13	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175
Figure 10.13	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175
Figure 10.13	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176
	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176
	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177
	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177 178
Figure 10.14	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177 178 178
Figure 10.14 Figure 10.15.	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177 178 178 179
Figure 10.14 Figure 10.15. Figure 10.16 Figure 10.17	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177 178 178 179
Figure 10.14 Figure 10.15. Figure 10.16	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177 178 178 179 180
Figure 10.14 Figure 10.15. Figure 10.16 Figure 10.17	General plan of the oppidum of Bibracte with the main lines of the fortifications, A (external) and B (internal)	175 176 177 178 178 179 180

Figure 10.20	The extent of the oppidum of Châteaumeillant-Mediolanum (Cher) and the proposed lines of the	
	murus gallicus and the dump rampart	182
Figure 10.21	The rampart and ditch at Châteaumeillant (Cher). Excavation across the wide flat-bottomed ditch;	
T' 10.00	reconstruction of the flat-bottomed ditch and the rampart	
	3D reconstruction of the fortifications at the <i>oppidum</i> of Châteaumeillant (Cher)	184
Figure 10.23	Excavation of the massive dump rampart of Châteaumeillant in July 2016	
Figure 10.24	The rampart at Châteaumeillant during excavation, July 2018	185
11. Hillforts	s of the central Cantabrian area in the Atlantic context: views on their distribution and reco	ords
Figure 11.1	The three present-day regions of north-western Iberia: Galicia, Asturias and Cantabria.	
C	Asturias and Cantabria, linked by the Cantabrian Mountains, occupy the central part of the	
	Cantabrian region	189
Figure 11.2	Clear connections can be established between the high mountains and coastal settlements (upper),	
	as is shown for the major promontory fort of La Campa Torres (lower picture foreground) with the	
	Cantabrian Mountains	190
Figure 11.3	North-west Iberia, highlighting areas where Cantabrian-type and Douro-Minho-type saunas	
	were constructed	
Figure 11.4	Key areas of Cantabria as mentioned in the text	193
Figure 11.5	Graph showing the radiocarbon dates available for Asturias by 2002. The chronological evidence	
	for different site types in Cantabria is summarized in the lower part of the chart	194
Figure 11.6	In the foreground below, a bar chart showing the sizes of the 29 promontory forts studied by Camino.	
	In the background, the site of <i>La Cavona</i> representing the most frequent size (almost 60%) of this type	
	of site: less than 0.5 ha	197
Figure 11.7	Pie chart showing the size ranges of all coastal promontory forts in Asturias by size ranges:	
=!	80% are 1 ha or less in extent, as is the diminutive site of <i>La Garita</i> in the background	198
Figure 11.8	The hillfort of Moriyon, dated between the 4th and the 1st centuries BC, controlling the	
E' 11 0 D	Villaviciosa estuary in eastern Asturias	199
Figure 11.9 Pi	lan of the hillfort of Pendia (4th century BC to AD second century) in western Asturias, with an analysis	201
Figure 11 10	of the use of internal space	201
Figure 11.10	Coaña (1.6 ha), both in western Asturias	202
	Coana (1.0 na), both in western Asturias	202
1	2. Hillforts and oppida: some thoughts on fortified settlements in southern Germany	
Figure 12.1	Sites and places mentioned in the text	207
Figure 12.2	Map of the Federal States of Germany superimposed on a Digital Terrain Model	
Figure 12.3	The distribution of early Iron Age Fürstensitze (blue dots) and sites of Herrenhof type (red squares)	210
Figure 12.4	Plan of the early Hallstatt Herrenhof site at Wolkshausen-Rittershausen	
Figure 12.5	Plan of the fortification system surrounding the Glauberg. 1. Urnfield Culture promontory wall,	
	reused in later phases. 2. Early Iron Age (late Hallstatt and early La Tène) wall surrounding the plateau,	
	also reused in later phases. 3. Annexe wall incorporating a potential reservoir for water. 4. Large early	
	Iron Age (early La Tène) ditch-and-rampart system, partially surrounding the Glauberg hill. 5.	
	The 'processional avenue'	
Figure 12.6	Map of the Glauberg and the various burials within its vicinity	215
Figure 12.7	Plan of the fortifications and potential fortifications on the Dünsberg in Hesse based on multiple	
	directional hillshading of LiDAR data	217

List of Tables

2. The hillforts of Britain and Ireland - the background

Table 2.1	The three criteria used in combination to define hillforts in the Atlas database.	
T 11 00	The minimum threshold is that two must be satisfied.	10
Table 2.2	Southern British hillfort data derived from the Ordnance Survey Map of Southern Britain in the Iron Age	1.0
T-1-1- 0 0	(1962) index. Key: M= multivallate; U= univallate; size ranges in acres	18
Table 2.3	Barry Raftery's 1972 classification of Irish hillforts.	Z4
4	. Forts and fortification in Scotland; applying the Atlas criteria to the Scottish dataset	
Table 4.1	Canmore records sifted	67
Table 4.2		71
Table 4.3	Sources of Records for Scotland included	
	in the Atlas	71
	9. The Atlas of Hillforts of Britain and Ireland online	
Table 9.1.	Cumulative user statistics for the Atlas of Hillforts of Britain and Ireland	4 - 0
Table 9.2.	web mapping application	160
rable 9.2.	Top 10 countries by visitor for the Atlas of Hillorts of Britain and freland web mapping application	100
1	12. Hillforts and <i>oppida</i> : some thoughts on fortified settlements in southern Germany	
Table 12.1.	The chronological scheme for the Iron Age in southern Germany.	209

Acknowledgements

The final Atlas project conference took place in Edinburgh in June 2017 and this volume is a record of that event. Together with papers by members of the Atlas team are others by colleagues from Scotland, France, Spain and Germany to provide a wider chronological and geographical context. The *Atlas of Hillforts* project was funded by the Arts and Humanities Research Council which included support for this final conference, as well as an earlier one held in the University of Oxford.

Ms Elaine Philip, Administrative Assistant, School of History, Classics and Archaeology undertook much of the practical organization of the conference. The excellent support provided by Edinburgh undergraduate archaeologists, over the conference week-end is also gratefully acknowledged.

Many of the maps in Chapters 2-4 are the work of Dr Paula Levick, who worked as the IT and GIS specialist on the Atlas project.



Contributors

Fernando Rodríguez del Cueto, History Department, University of Oviedo, Spain.

Ian Brown, Keble College, University of Oxford, UK.

Stratford Halliday, School of History, Classics and Archaeology, University of Edinburgh, UK.

Alan Hawkes, Department of Archaeology, University College Cork, Ireland.

Sophie Krausz, European Prehistory, University of Bordeaux, France.

Gary Lock, Emeritus, School of Archaeology, University of Oxford, UK.

Simon Maddison, Independent Researcher, Chepstow, UK, formerly Institute of Archaeology, UCL, London.

Jessica Murray, Arcadis Design and Consultancy, UK, formerly School of Archaeology, University of Oxford, UK.

Gordon Noble, School of Geosciences, University of Aberdeen, UK.

William O'Brien, Department of Archaeology, University College Cork, Ireland.

James O'Driscoll, School of Geosciences, University of Aberdeen, UK, formerly Department of Archaeology, University College Cork, Ireland.

Axel Posluschny, Research Centre, Keltenwelt am Glauberg, Germany.

John Pouncett, School of Archaeology, University of Oxford, UK.

Ian Ralston, School of History, Classics and Archaeology, University of Edinburgh, UK.



Preface

Hillforts are one of the most immediately apparent archaeological features in the British and Irish landscape. They have always had a significant place in the popular imagination, both in folktales and in the works of many authors, of whom Thomas Hardy is only the most immediate example. According to the OED, the expression 'hill(-)fort' itself only goes back to the earlier 19th century, but we know that these structures, from the most magnificent to relatively humble enclosures, have always been recognised as major features in the landscape by those who have encountered them there, as is demonstrated by the very high proportion of known hillforts for which names of Celtic, Anglo-Saxon or Norse origin survive.

In view of their prominence in the landscape, it is hardly surprising that hillforts have always played a large part in the imaginative recreation of the past, and that they formed one of the primary points of attention of the first generations of antiquarian scholars in Britain, amongst whom hillforts, together with the great stone circles, generated most interest and study. Thereafter, the work of the Ordnance Survey provided a major impetus to identification and recording, and at this point the eternal preoccupation with description and classification of this really quite heterogeneous group of monuments began. More recently, excavations have significantly widened the date range of sites we call by this name, as well as demonstrating the complex construction histories and chronology that they offer. Fashions swing, too, between the most fundamental 'explanations' of these sites – whether they are for defence or display – while it is only in the last few decades that they have regularly been studied in their wider landscape and archaeological context.

It is true to say that hillforts have varied in their vogue among archaeologists over the last century or so. The foundation of the Hillfort Study Group (HFSG), initiated in the 1960s, reflects one peak of interest in and study of these splendid monuments, and in itself provided a major impetus to work on the subject. One of the objectives of the HFSG was to visit and catalogue all British sites known as hillforts. The visits did, and continue to, take place, but little formal cataloguing was carried out save for the exceptional work of A.H.A. Hogg. The genesis of *The Atlas of Hillforts of Britain and Ireland*, initiated 40 years after Hogg's publication by two long-standing members of the HFSG, perhaps reflects another impetus to the study of hillforts.

The hold that hillforts extend over both the archaeological and popular imagination never really goes away. To some extent there is a very sad reason for this, as they now represent a higher proportion of all the immediately visible and explorable archaeological sites of the British Isles than they did say two hundred years ago. The loss of so many sites, field systems, barrows, lowland earthwork enclosures and the like since the inception of mechanised ploughing and enclosure of common land has meant that these great enclosures have survived in disproportionately greater numbers as visible upstanding entities than many other classes of monument. They now constitute one of the clearest focuses for the public appreciation of archaeology as well as being the most important surviving reservoirs of archaeological data that we have.

For this among many other reasons, the continuing study of hillforts and related enclosures has much to contribute to the health of the archaeological discipline in these islands. Mercifully, the days when only the perimeter earthworks of a hillfort were the subject of statutory protection are now past. In the last twenty years, the widespread capacity for extensive geophysical survey of hillfort interiors has demonstrated that despite much cultivation important archaeological deposits still survive within the defended circuit, while excavations such as those at Danebury and Rathgall reinforce this point. Excavations of the defences themselves consistently show a previously unrecognised complexity to the chronology and construction history of hillforts. Survey and reconnaissance, including geophysical surveys and the interpretation of LiDAR data, in the hinterlands of hillforts demonstrate that they did not exist in isolation but were components of wider patterns of settlement and occupation. The present Atlas project, with which many Hillfort Study Group members have been involved, will serve as a stimulus to the greater study of our most impressive field monuments, whose ability to capture the public imagination has been demonstrated yet again by the volunteer engagement in this project. The papers in this volume present the detail we can now bring to that study in Britain, Ireland and further afield.

Perhaps the last word should be with one of the Hillfort Study Group's illustrious founders, the late A.H.A. Hogg:

'No archaeologist is satisfied with the term 'hill-fort', but all the alternatives which have been suggested are open to even more objections...' (Hogg 1975: xv).

Eileen Wilkes Chair, Hillfort Study Group Bournemouth February 2019

Reference

Hogg, A.H.A. 1975. A Guide to the Hill-Forts of Britain. London: Hart-Davies, MacGibbon Ltd.

Part 1. The Atlas of Hillforts of Britain and Ireland

1. The Atlas: an introduction

Gary Lock

Why hillforts?

There are different ways to think about and to experience hillforts. To the Cultural Resource Manager they are assets to be catalogued, monitored and preserved. The academic gaze sees them as central to understanding the settlement record and social relationships of the later prehistoric/early medieval periods, sites to be dissected, analysed, interpreted and represented. While both of these descriptions are admittedly reductionist, the point is that they can be, and often are, carried out without the emotional impact of actually being at a hillfort. When we embarked upon the Atlas we envisaged that the data collected would be useful to both of these interests offering a rich standardised online database that crossed local, regional and national boundaries (Ralston this volume). What we did not fully anticipate was the interest and use of the Atlas in the public domain based on experiences and needs very different to those mentioned above.

On reflection this is not so surprising. Indeed, this wider interest in hillforts runs in parallel with academic thought and writing over many decades; it is the lived reality of embodied connections with place and landscape rather than the theory. Writings in a range of disciplines have sought to explain what it is about these connections that have such resonance within us and archaeology has provided a source of inspiration for many decades headlined by Tilley's phenomenology (1994) to Ingold's Being Alive (2011) and beyond. An early writer in this vein was Jacquetta Hawkes whose book A Land (1951) she describes as coming 'directly out of my being; emotion had aroused my imagination and imagination had kindled memories' (Hawkes 1978: 1). The essence of encountering landscape, according to cultural geographer Hayden Lorimer (2005: 84), 'offers an escape from the established academic habit of striving to uncover meanings and values that apparently await our discovery, interpretation, judgement and ultimate representation'. It is this aspect of being beyond representation, even beyond interpretation, I would argue, that gives hillforts their wide public appeal that the Atlas has connected with.

Added to this is the fact that many hillforts are set in beautiful landscapes, they are dramatic in location and in form and of course they are mysterious. The doyen of hillfort studies A.H.A. Hogg (Ralston this volume) in the preface to his 1975 A Guide to the Hill-Forts of Britain states

that it is 'intended for those who find their enjoyment of the countryside is enhanced by reconstructing the past in imagination. Even companions who do not share this interest will usually find the view from a hill-fort rewarding' (1975: xii). The age-old questions of who built these massive structures and why cannot escape anyone walking around the ramparts of a hillfort on a windswept, cold and rainy day. Photographs, written descriptions and even virtual reality models such as Kieran Baxter's award winning film The Caterthuns,1 despite claiming to model 'something of what it feels like to stand at a particular place... to focus on conveying a sense of place and atmosphere', cannot capture the raw reality of visiting a hillfort. Indeed, six months after the Atlas website was launched, the AHRC (which funded the work) were offering the Top 10 Hillforts for a Christmas Walk² '... to explore some of the most iconic, beautiful - best loved - ancient monuments in Britain, and take the family back in time as you stroll along in the footsteps of our Iron Age ancestors'.

As Jacquetta Hawkes perceptively remarked, some hillforts have 'become features of our national consciousness', for example through literature exemplified by Thomas Hardy's description of Maiden Castle in his short story of 1893 A Tryst at an Ancient Earthwork, claimed to be an 'unsurpassed evocation of place and mood' (Kay-Robinson 1984: 29) although the site is perhaps better known through its appearance in the Mayor of Casterbridge (1886). In order to finish his gritty novel of 1930's Scotland, Grey Granite, Lewis Grassic Gibbon had to travel north from Welwyn Garden City where he was living to find inspiration on the hillfort of Barmekin of Echt, Aberdeenshire, close to where he was born.³

Siegfried Sassoon's poem *On Scratchbury Camp* captures the atmosphere of the downs on a summer day: '... Scratchbury Camp, whose turfed and cowslip'd rampart seems more hill than history, ageless and oblivion-blurred...'. Hawkes goes on to comment that even relatively unknown sites can make 'pleasant uncultivable retreats in an over-crowded island' where

https://ahrc.ukri.org/research/readwatchlisten/features/thecaterthuns/ (accessed November 2018)
 https://ahrc.ukri.org/research/readwatchlisten/features/take-

https://ahrc.ukri.org/research/readwatchlisten/features/take-the-high-path-top-10-hillforts-for-a-christmas-walk/ (accessed November 2018)

https://www.scotsman.com/lifestyle/culture/books/in-the-chill-light-of-dawn-1-1117703 (accessed January 2019)

we can 'rehearse the bloodier stormings of other days and where the banks and hollows make picnic grounds or a trysting place for lovers' (1978: 171). This invocation of memory and imagination is also shown by Mike Tonkin in his poem *Galleons Sailing Across the Sky*:

The site of a hillfort, Which took me back To the Iron Age And gave my young mind A playground for My thoughts.

We should not underestimate the power of imagination in experiencing hillforts. Which of us hasn't walked around one and joined David Cooke in his poem *Hill-Fort*:

Night draws in, and the mind is a function of its yielding light; it makes out smoke from a further camp,

the sense of it borne upon a stirring of breeze. I imagine dogs and people, their utensils

ranged around fire; the land burdened with lumber of settlement; blood-heat of habitation.

The beauty of many hillfort locations is captured by Seamus Heaney's *The Old Road*:

And there they were, Astray in the hill-fort of all pleasures Where air was other breath and grass a whisper, Feeling empowered but still somehow constrained.

Of course visiting a hillfort in a group can be a powerfully binding experience as members of the Hillfort Study Group know only too well and is shown by the community arts project *Impressions of the Past* which 'celebrates the Iron Age landscape'. Their visit to Earl's Hill, Pontesford, Shropshire, is recorded by Jean Atkin in her poem *Earl's Hill Translated* with associated images in her blog *Making Poetry on a Hillfort.*⁴

It is not just poetry that is inspired by hillforts, their settings and their mystery. The late Victorian polymath Heywood Sumner's love of the chalk landscape of southern England and its prehistoric monuments,

particularly hillforts, is witnessed through his drawings and paintings in his three publications *The Ancient Earthworks of Cranborne Chase/the New Forest/the Bournemouth District.* Drawing on his Arts and Crafts movement background, Sumner's line drawings and water colours are at the same time representational, romanticised and atmospheric. In his accompanying text he describes at length his emotional attachment to his subjects, 'the spell of mystery and enchantment that veils the outline of prehistoric times' together with the natural beauty of places such as Hambledon Hill:

'.... with its down scarps spotted with yews and thorn trees, with thickets of ash, elder, white beam and yew, over which great wisps of Traveller's Joy fling their feathery tangle, with sheep feeding peacefully on the warlike camp, and hawks wavering in the pure air – while North, East, South and West we gaze over hill, and vale, and down, and woodland that stretch and fade into far distance and vacant haze.' (Sumner quoted in Cunliffe 1985: 80).

In contrast is the artist Simon Callery's work inspired by his involvement at the excavation of two Ridgeway hillforts: Segsbury Camp and Alfred's Castle. The work he produced at both is challenging and provocative, not just abstract paintings but a chest full of drawers of photographs and a life-size cast of a finished excavation trench. Simon drew on the physicality of place, the material engagement with earth, sky, view and emotions. Reviewing his work, Tracey Chevalier said:

'Simon's response..... was not to recreate the answer, but to set up the question so that we ask it over and over as we look. His work is open-ended. There are no answers, only unresolved questions, and the joy becomes in the asking' (Chevalier 2003: 38).

Surely this captures the attraction of hillforts for many people: unresolved open-ended questions without answers, where the joy is in being there and asking them. Certainly judging by the public reaction to the Atlas, for most people the act of discovering where hillforts are and walking to, around and within one is an experience of discovery and pleasure (see Pouncett this volume for details of the webmapping launch and reactions to it).

Building the Atlas

The Atlas was inspired by the works of the great hillfort names of the past like Hogg and Forde-Johnston who had attempted to catalogue and map all of the known hillforts, the former in Britain and the latter in England and Wales (Ralston this volume). Between them these two must have visited and listed many hundreds of hillforts, but while our intention was never to replicate their fieldwork we very much wanted to reproduce,

https://jeanatkin.com/2016/11/28/making-poetry-on-a-hillfort/ (accessed November 2018)



Figure 1.1 The Atlas project team, from left to right: William O'Brien, Strat Halliday, Johnny Horn, Gary Lock, Jessica Murray, Paula Levick, Ian Ralston, James O'Driscoll, Ian Brown and John Pouncett.

check, enhance and provide easy access to their lists of sites.

The data in the Atlas was collected between 2012 and October 2016 and is not, therefore, guaranteed to be absolutely current. It covers sites in the territory of the United Kingdom, comprising England with the Isle of Man, Northern Ireland, Scotland and Wales, as well as in the Republic of Ireland. All offshore islands are included northwards to and including Shetland, and south to the Scilly Islands (Cornwall) and the Isle of Wight, but the Channel Islands are excluded.

The majority of the time and effort of the Atlas team,⁵ Figure 1.1, was spent on designing, testing and populating the online database⁶ with input from the Project Steering Committee.⁷ The final number of sites

Deciding which sites to include in the Atlas was problematic because it is acknowledged that enclosed sites of potential interest form a continuum based on their dimensions (Ralston this volume). Unless a site met at least two of the three criteria as described below it would not be included, particularly as a confirmed site. Exclusions apply particularly to small sites (in terms of their enclosed areas) such as the rounds of SW England, those in SW Wales and many Scottish duns. Irish raths, cashels and ringforts offer a particular problem as they are very numerous (over 40,000 extant examples) and could not be re-assessed within the scope of this project. When assessing a site for inclusion its assumed date was not considered. This is

included is 4,147, with 3,354 being confirmed hillforts according to our selection criteria (see below). The database had a possibility of *c.* 120 fields of data for each site ranging from administrative information, locational data, landscape setting, details of interior evidence, enclosing works and entrances, investigations and references.⁸

⁵ The project was co-directed by Professor Gary Lock (Oxford) and Professor Ian Ralston (Edinburgh). The team comprised Dr Ian Brown and Dr Paula Levick (Oxford), Strat Halliday (Edinburgh), Professor Willian O'Brien, Dr James O'Driscoll and Dr Alan Hawkes (University College Cork). Jessica Murray (Oxford) and Johnny Horn (Edinburgh) were project funded PhD students.

⁶ The database used FileMaker Pro v11. It was designed in conjunction with Jeremy Worth, the School of Archaeology, Oxford, IT Officer. In late 2016 the data was transferred to ArcMap for the final website with online mapping and data analysis: this was done by John Pouncett, the School of Archaeology, Oxford, Spatial Technologies Officer (see Pouncett this volume)

⁷ Thanks are extended to members of the Steering Committee -

Graeme Guilbert, Ken Murphy and Dr Eileen Wilkes (representing the Hillfort Study Group), Robin Turner and John Sherriff (initially RCAHMS then Historic Environment Scotland), Dr Toby Driver (Royal Commission on Ancient and Historic Monuments of Wales) and Mark Bowden (Historic England) together with the Atlas Project Team.

⁸ For details of the database structure see the linked document Atlas data at https://hillforts.arch.ox.ac.uk

not an Atlas of 'Iron Age Hillforts' and acknowledges for example that some hillforts were *de novo* constructions in the mid-first millennium AD (Noble and O'Driscoll this volume). Sites of different states of preservation were considered, from wholly upstanding to entirely cropmarked.

A site was included as a 'confirmed' hillfort if it achieved at least two of the three following criteria. A site could be included in the database as an 'unconfirmed' hillfort (722 sites) if (a) it met one of the criteria and (b) was considered borderline on one or both of the others. The third category of site is 'irreconciled issues' (71 sites).

Topographic position

This concept causes difficulties within some of the landscapes of Britain and Ireland, for example lowland zones such as East Anglia, and even gently undulating and intensively used arable plains like Lothian. In general, however, the working hypothesis is that the site should take advantage of its local topographic setting so as to be locally in a dominant position, in the sense that those within it achieved some topographic advantage from its position. For example, if a site is positioned in a valley, being located on the bend of a river would be included as a dominant topographic position. Promontory forts, both coastal and inland, by definition normally pass the topographic threshold and thus in their case the other two criteria, scale of enclosing works and size of enclosed area, will be critical measures. In Ireland, coastal (but not inland) promontory forts have normally been considered as a separate category of monument from hillforts, whereas in Britain, making due allowance for their different setting, consideration of hill- and promontory-forts has often been amalgamated. The British convention is adopted here, such that Irish coastal as well as inland promontory forts are included.

Scale of enclosing works

Here the term enclosing works includes ramparts/ walls/palisades and ditches together with entrances of any configuration and their outworks if present. The problem is to define workable thresholds given the recognition that many enclosed settlements which are plainly not hillforts, were essentially fenced or barricaded or surrounded by sufficient provision to keep livestock in or out. The lower threshold could, therefore, be described as 'showing some pretension' to exclude or impress people. Multivallate upstanding systems, however slight their component elements, would thus meet the criterion; apparently or possibly single-phase bivallate systems were very likely so to do. Univallate enclosures were more problematical; the amplitude of these systems in their current condition means that their inclusion or exclusion on this criterion

is a matter of professional judgement. For those sites reduced entirely to cropmarks and sometimes set in wholly level landscapes, a minimum ditch width of approximately 4 m was used for inclusion.

Size of enclosed area

Setting an adequate minimum for this proved possibly the most contentious issue. Some consideration was given to setting this threshold high, for example at 1 ha (10000 square metres) but this was felt to be unworkable as notable numbers of small sites which had traditionally been considered as hillforts in some landscapes (e.g. Northumberland) would have been excluded. For inland sites in the Republic of Ireland, 1ha has often been employed as the effective minimum threshold for inclusion in the hillfort category in recent decades. Another consideration in arriving at a suitable figure was the internal, potentially habitable, space within the enclosure, based on the idea of trying to estimate the number of roundhouses and the associated implication that a hillfort was a form of communal enterprise and would be expected, therefore, to have more than just the one or two houses of a lesser settlement or homestead. Again, this was thought to be unworkable in practice and also questionable in terms of interpreting hillfort use. After considerable discussion, 0.2 ha (2000 sq m) was adopted as the figure to be employed; the figure already adopted by A.H.A. Hogg (Ralston this volume). One consequence of this is the exclusion on this criterion of many small sites as mentioned above including certain small vitrified enclosures in Scotland, many of the rounds of the south-western peninsula and the raths of south-western Wales.

It must be emphasised that the first two of these criteria are entirely subjective and no attempt to quantify them rigorously was possible, not least because the site's characteristics had to be assessed remotely from accessible text, cartographic and photographic sources. The third one, size, could have been rigidly quantitatively assessed but it was not considered as the unique criterion as in itself internal area is not a sufficient criterion to define a site as a hillfort and because every site in the Atlas has been assessed according to all three criteria. The balance between the three was assessed on a site by site basis by the Project Team so that, for example, a 'confirmed' hillfort could be of only 0.15 ha internal area if the other two criteria, its topographic position and the scale of its enclosing works, was judged convincing.

Central to the process of inclusion described above is a concept of reliability. In the Atlas this takes two forms: reliability of data and reliability of interpretation, with each having three possible values as already mentioned: (1) Confirmed, (2) Unconfirmed and (3) Irreconciled issues. The last of these is applied if any existing

uncertainty is impossible to resolve in the future, for example if the site has been destroyed. The inter-play between the reliability of data and of interpretation can be subtle so that a site could definitely be a hillfort even if the supporting data is minimal; and conversely the data could be of good quality but the site may not qualify straight forwardly as a hillfort. This latter situation is particularly but not uniquely applicable to small sites and it must be emphasised here that the final decision is based on the Atlas team's application of the inclusion criteria on the basis of the information they could access; in some cases this does not conform to existing interpretations. Some small sites in Northumberland, for example, scheduled as 'defended settlements' have been included as confirmed (interpretation) hillforts on the Atlas criteria, based on their topographic position and scale of enclosing works. For the principal analyses in the Atlas monograph (Lock and Ralston in prep.) and in papers by Atlas Team members in this volume only sites of confirmed (interpretation) have been used unless stated otherwise.

Citizen Science - involving the public

The initial way of engaging the public with the Atlas project was through the Citizen Science programme during the data collection phase of the work.9 While many examples of Citizen Science are computer-based and online, and are often called 'crowd-sourcing', the Atlas Citizen Science was paper-based and low-tech with the intention of attracting as many participants as possible. The Atlas Citizen Science was based on members of the public visiting sites and recording information in the field and while it is possible to use technology to do this, again it was felt that paper-based recording was more appropriate and likely to be more appealing to a larger number of people. The Citizen Science initiative took the form of a structured survey of a site using a survey form accompanied by notes for guidance, both downloadable from the project website.

The aims of the Atlas Citizen Science were threefold:

- To provide information for the Atlas database. This was mainly for known sites although possible new sites were also communicated;
- 2. To encourage people when visiting a hillfort to critically assess the earthworks they encountered in an informed way;
- To gather information on the current condition of a site.

The launch of the Citizen Science initiative was announced in the national media through *Current Archaeology, British Archaeology, History Scotland* and BBC

⁹ For details of the Citizen Science see the linked document Citizen Science at https://hillforts.arch.ox.ac.uk

News, as well as on local radio in Scotland, England and Ireland. The consequent demand for more information was considerable but geographically disparate with most being in England, then Scotland with little interest in Wales, Northern Ireland or the Republic of Ireland. This resulted in Atlas staff giving over sixty talks to various groups and organisations; these sessions provided a background to hillforts, the project and details of how to carry out a survey. Annual reports on the project were delivered to the Hillfort Study Group and several members of that group submitted surveys and offered information.

The results were dominated by England and Scotland. In total 304 returns were received for 279 different sites although considering that any individual survey could involve many people the number of people involved was probably several thousand. In England the 225 returns represent 200 different sites whereas in Scotland all 76 returns represent a different site. North of the border only 12 surveys (16%) were submitted by groups with the other 64 (84%) being the work of an individual, the opposite to the case in England where 190 surveys (84%) were group efforts. Within England most of the groups were existing local archaeological and historical societies which were keen to be involved in field work and a project seen as being of national importance.

Not surprisingly the surveys were of mixed quality although many of them went far beyond the basic survey form and included photographs, drawn plans, LiDAR images and a range of other material. The feedback received from many groups and individuals was very positive and showed that people wanted to engage with earthworks in a critical way rather than just visiting hillforts because they are often in attractive and spectacular locations. The educational intentions of the Citizen Science programme were often achieved even for the many individuals and groups who only surveyed a single site.

It is worth detailing some of the highlights of the Citizen Science programme. Doth the Bath and Camerton Archaeological Society (BACAS) and Gloucestershire Archaeology returned over 40 surveys, many of which contained extra information including geophysical surveys for some sites. The Community Landscape Archaeology Group (CLASP) surveyed all known and possible sites in Northamptonshire, submitting extensive reports on each and also thoughtful interpretations of the area in the Later Prehistoric period. Two groups came together in the New Forest under the guidance of Lawrence Shaw of the New Forest National Park Authority, the NFNPA Archaeology

 $^{^{\}rm 10}$ The Atlas was a winner of the 2017 Oxford University Vice Chancellor's Award for the Public Engagement with Research

http://claspweb.org.uk/?page_id=1277 [accessed October 2018]

Volunteers and the New Forest History and Archaeology Group (NFHAG). Between them they surveyed over 30 sites based on LiDAR plots which enabled them to survey known sites and also to identify possible new enclosures within woodland which have subsequently been published (Read 2018).

Within the Chilterns area, the Chilterns Conservation Board organised two one-day conferences on hillforts at which the Atlas was presented together with an appeal for involvement, as well as other papers about local hillforts and Iron Age life. A programme of training and surveying was organised and a tremendous amount of local interest generated which has resulted in a successful Heritage Lottery Fund bid to involve local people in exploring the 22 hillforts of that region, the Beacons of the past: Hillforts in the Chilterns Landscape Project.¹²

New groups have been formed, for example the Friends of Berry Castle, ¹³ Devon, with a focus on their one local site which was completely overgrown with trees and thus in need of management. The Friends have worked with Historic England and the landowner to fell trees and agree a management plan which involves archaeological recording and exploration including geophysics, guided walks, interpretation boards as well as a range of community events and excavation.

Many individuals submitted surveys and while most people only sent a single one or two, here one individual deserves a special mention – John Lumley who carried out 45 surveys by bicycle in the counties of North, South and East Ayrshire, Renfrewshire, Inverclyde, Stirling, South Lanarkshire, East Dunbartonshire, Falkirk and East Lothian.

It may be fair to conclude that engaging in Citizen Science for a project with limited resources to underpin this initiative was very much a test exercise. The Atlas team acknowledged from the outset that its resources to devote to support for this initiative, both in the field and in terms of processing the data submitted by participants, were limited; for this reason the accompanying notes (including information e.g. about access to private land) were written to make it plain to participants that they were essentially independent workers, whom the Atlas team could not directly support. Our work elicited some disapproval from the online archaeological community e.g. on BAJR, although we would maintain that the attitude we took was realistic in resource terms and the successful

outcomes incorporated into the Atlas results vindicate our approach.

References

- Callery, S. 2005. Segsbury Project: art from excavation, in G. Lock, C. Gosden and P. Daly Segsbury Camp. Excavations in 1996 and 1997 at an Iron Age hillfort on the Oxfordshire Ridgeway, 37-41. Oxford: Oxford University School of Archaeology Monograph 61.
- Callery, S. 2013. The Alfred's Castle Art Project: the story of Trench 10, in C. Gosden and G. Lock Histories in the making. Excavations at Alfred's Castle 1998-2000, 17-27. Oxford: Oxford University School of Archaeology Monograph 79.
- Chevalier, T. 2003. Responding to Segsbury, in S. Callery Segsbury Project. London: English Heritage, The Henry Moore Foundation and The University of Oxford.
- Cunliffe, B. 1985. Heywood Sumner's Wessex. Selected and introduced by Barry Cunliffe. Wimborne, Dorset: R. Gasson.
- Hawkes, J. 1951. A Land. London: Cresset Press. (2nd edn 1978. London: David & Charles)
- Hogg, A.H.A. 1975. A Guide to the Hill-Forts of Britain. London: Hart-Davis, MacGibbon Ltd. (2nd edn 1984). Ingold, T. 2011. Being Alive. Essays on movement, knowledge

and description. London: Routledge.

- Kay-Robinson, D. 1984. The Landscape of Thomas Hardy. Photography by Simon McBridge. Exeter: Web & Bower; Salem House.
- Lock, G. and I. Ralston in prep. The Atlas of Hillforts of Britain and Ireland. Edinburgh: Edinburgh University Press.
- Lorimer, H. 2005. Cultural Geography: the busyness of being 'more than representational', *Progress in Human Geography* 29, 83-94.
- Read, C. 2018. Hillforts of the New Forest National Park. A visual survey including some smaller Iron Age enclosures. Sway, Hampshire: New Forest History and Archaeology Group.
- Tilley, C. 1994. A Phenomenology of Landscape. Places, paths and monuments. Oxford: Berg.

https://www.chilternsaonb.org/about-chilterns/historic-environment/hillforts/beacons-of-the-past.html [accessed October 2018]

https://www.berrycastlehuntshaw.com/friends-of-berry-castle (accessed October 2018)