

The Meso-what? The public perceptions of the Mesolithic

Volume 1 (of 2)

Donald Henson BA, MPhil, FSA, MCifA, FHEA

PhD

University of York

Archaeology

December 2016

ABSTRACT

The Meso-what? The public perceptions of the Mesolithic (Ph. D. thesis)

This research has identified ways in which the communication of archaeological knowledge of the British Mesolithic to the wider public could be improved. This has led to recommendations for good practice in improving public understanding of the period.

Narrative theory has been used to conduct an analysis of how the Mesolithic has been portrayed across the following communication channels:

- a selection of academic writings since 1865;
- popular channels labelled as informative media (web-pages, blogs, YouTube videos, popular archaeology books, newspapers, BBC Online news and popular archaeology magazines);
- imaginative media that involve reconstruction or evocative exploration of the past (television programmes, fiction and pictorial illustrations);
- popular channels linked to education (museums and their education activities, school resources).

School education was identified as offering the best chance to influence the widest potential audience and develop new perceptions of the Mesolithic. The final output of the research therefore has been the creation of a school resource for the Mesolithic, focussing on the site of Star Carr and available on the Star Carr web-site.

The research has identified and challenged the stereotypes in our depictions of the Mesolithic. It shows that the Mesolithic can be made more accessible and pertinent to audiences through the use of narrative principles and that the period has relevance for those audiences through offering them a perspective on their lives in the present. The research has shown that our portrayals of the Mesolithic can help us better understand the present, and at last allow us to fulfil Grahame Clark's wish from 1943 that prehistory can find a place in educating new generations to create a better world.

TABLE OF CONTENTS FOR VOLUME 1

Abstract	2
Table of Contents.....	3
List of Tables	11
List of Figures	12
Acknowledgements.....	16
Author's Declaration.....	18
Chapter 1 Introduction	
1.1 Background.....	19
1.2 Aims.....	22
1.3 Objectives.....	22
1.4 Methods.....	24
1.5 Chapter summary.....	26
Chapter 2 Public perception	
2.1 Introduction.....	28
2.2 The public and archaeology.....	28
2.2.1 The public.....	28
2.2.2 The public purposes of archaeology.....	30
2.2.3 Public attitudes to archaeology and prehistory.....	32
2.3 Processes of communication.....	35
2.3.1 The importance of communication in archaeology.....	35
2.3.2 Communications theory.....	37
2.3.3 Narrative theory.....	39
2.3.4 Communication as learning.....	41
2.4 Communications in archaeology.....	44
2.4.1 The nature of archaeological communication.....	44

	2.4.2 Archaeologists as authors.....	46
	2.4.3 Communication channels in archaeology.....	47
	2.4.4 Studies of archaeological narrative creation.....	51
	2.4.5 Guidance for narrative creation.....	54
	2.5 Discussion: communication as interpretation.....	56
	2.6 Summary and conclusions.....	58
Chapter 3	The development of Mesolithic archaeology	
	3.1 Introduction.....	60
	3.2 The Mesolithic is proposed, and opposed.....	60
	3.3 The Mesolithic is established.....	62
	3.4 The Mesolithic is reimagined.....	67
	3.5 Summary and conclusions.....	69
Chapter 4	A narrative analysis of the academic discourse	
	4.1 Introduction.....	71
	4.2 Methodology.....	71
	4.3 Words.....	72
	4.4 Characters.....	74
	4.5 Setting.....	76
	4.6 Actions.....	78
	4.7 Happenings.....	79
	4.8 Discussion: academic communication.....	80
Chapter 5	Portrayal of the Mesolithic in popular media	
	5.1 Introduction: popular communication in archaeology.....	84
	5.2 Method of analysis of popular communication channels.....	85
	5.3 Presentations of the Mesolithic.....	86
	5.3.1 Web-pages.....	86

	5.3.2 Blogs.....	88
	5.3.3 YouTube videos.....	89
	5.3.4 Facebook.....	91
	5.3.5 Popular archaeology books.....	91
	5.3.6 News media.....	93
	5.3.7 Popular archaeology magazines.....	97
	5.3.8 Fiction.....	99
	5.3.9 Pictorial illustrations.....	105
	5.3.10 Television programmes.....	124
	5.4 Summary.....	126
Chapter 6	Analysis of popular communications	
	6.1 Popular communications.....	127
	6.2 Characterisations.....	128
	6.3 Settings.....	134
	6.4 Actions.....	136
	6.5 Happenings.....	142
	6.6 Value judgements.....	143
	6.7 Overall features of public communications.....	145
	6.8 Summary.....	147
Chapter 7	The portrayal of the Mesolithic in museums in Britain	
	7.1 Introduction.....	149
	7.2 Predicted Mesolithic communication in Museums.....	149
	7.3 Museums visited.....	151
	7.3.1 British Museum.....	151
	7.3.2 Museum of London.....	152
	7.3.3 Amesbury History Centre.....	153
	7.3.4 Cheddar Show Caves Prehistory Museum.....	154

	7.3.5 Hull and East Riding Museum.....	156
	7.3.6 Rotunda Museum (Scarborough).....	157
	7.3.7 The Mesolithic Museum (Abinger).....	158
	7.3.8 Yorkshire Museum (York).....	159
	7.3.9 Great North Museum: Hancock.....	160
	7.3.10 West Berkshire Museum.....	161
	7.4 Narrative in British museums.....	161
	7.4.1 Characters.....	162
	7.4.2 Settings.....	162
	7.4.3 Actions.....	163
	7.4.4 Happenings.....	164
	7.5 A summary of narrative engagement aspects in the displays.....	165
	7.6 Summary.....	166
Chapter 8	The portrayal of the Mesolithic in museums in continental Europe	
	8.1 Museums in northern Europe.....	169
	8.1.1 Göteborg Stadsmuseum, Sweden.....	169
	8.1.2 Nationalmuseet, Denmark.....	170
	8.1.3 Vedbækfundene, Denmark.....	171
	8.1.4 Klosterlund, Denmark.....	172
	8.1.5 Schloss Gottorf, Germany.....	176
	8.1.6 Archeon, Netherlands.....	176
	8.2 Narrative in continental museums.....	177
	8.2.1 Characters.....	177
	8.2.2 Settings.....	179
	8.2.3 Actions.....	181
	8.2.4 Happenings.....	182
	8.3 A summary of narrative engagement aspects in the displays.....	182
	8.4 Comparison between continental and British museums.....	183

	8.5 Conclusion.....	184
Chapter 9	Museum education	
	9.1 Introduction.....	186
	9.2 Museum education in Britain.....	187
	9.3 Museum education on the continent.....	193
	9.4 Summary.....	195
	9.5 Conclusion.....	197
Chapter 10	School education	
	10.1 Introduction.....	199
	10.2 The educational context: archaeology in the school curriculum.....	199
	10.3 The importance of teaching archaeology in schools.....	203
	10.4 Analysis of school textbooks and resources.....	206
	10.5 Narrative analysis of school textbooks and resources.....	210
	10.6 Summary.....	212
	10.7 Conclusion.....	213
Chapter 11	Rebuilding the narrative	
	11.1 Introduction.....	215
	11.2 Some basic principles.....	215
	11.3 Application to the Mesolithic and Star Carr.....	218
	11.3.1 <i>Archaeological Skills Log</i>	219
	11.3.2 <i>11,000 Years Ago</i>	220
	11.3.3 <i>Lessons from the Middle Stone Age</i>	221
	11.3.4 <i>Background information</i>	222
	11.4 The creation of the resource.....	223
	11.5 Applying narrative within the resource.....	226
	11.6 Reactions to the resource.....	228

	11.7 Strengths and weaknesses of the resource.....	229
Chapter 12	Conclusions	
	12.1 Introduction.....	232
	12.2 The portrayal of the Mesolithic.....	232
	12.3 The wider contexts of the research.....	234
	12.4 The outputs of the research.....	235
	12.5 The importance of the research.....	235
	12.6 Future research.....	236
Appendices	1 Summary of communication channels analysed by decade.....	238
	2 Academic writings providing value-laden words to describe the Mesolithic. .	239
	3 List of value-laden words and phrases in academic writings.....	243
	4 Narrative elements found in academic writings.....	255
	5 Analysis of communication channels: academic writings.....	264
	6 List of web-pages analysed.....	281
	7 List of blogs analysed.....	286
	8 List of YouTube videos analyses.....	291
	9 List of popular archaeology books analysed.....	295
	10 List of newspaper articles analysed.....	298
	11 List of BBC Online news article analysed.....	306
	12 List of popular archaeology magazine articles analysed.....	309
	13 List of fiction analysed.....	317
	14 Reviews of fiction.....	318
	15 List of pictorial illustrations analysed.....	332
	16 List of television programmes analysed.....	342
	17 Narrative elements found in web-pages.....	344
	18 Narrative elements found in blogs.....	353
	19 Narrative elements found in YouTube videos.....	362

20 Narrative elements found in popular archaeology books.....	369
21 Narrative elements found in newspaper articles.....	388
22 Narrative elements found in BBC News Online articles.....	416
23 Narrative elements found in popular archaeology magazine articles.....	426
24 Narrative elements found in fictional stories.....	458
25 Narrative elements found in pictorial illustrations.....	461
26 Narrative elements found in television programmes.....	475
27 Analysis of communication channels: web-pages.....	485
28 Analysis of communication channels: blogs.....	495
29 Analysis of communication channels: YouTube videos.....	502
30 Analysis of communication channels: popular archaeology books.....	509
31 Analysis of communication channels: newspapers.....	521
32 Analysis of communication channels: BBC News Online.....	545
33 Analysis of communication channels: popular archaeology magazines.....	556

TABLE OF CONTENTS FOR VOLUME 2

Appendices	34 Analysis of communication channels: fiction.....	581
	35 Analysis of communication channels: illustrations.....	583
	36 Analysis of communication channels: television.....	609
	37 Comparison of narrative elements in popular media.....	619
	38 Comparison of characters in popular media.....	626
	39 Characters in fictional stories.....	628
	40 Comparison of settings in popular media.....	638
	41 Comparison of actions in popular media.....	640
	42 Comparison of happenings in popular media.....	645
	43 List of value-laden words and phrases in popular media.....	646
	44 List of museum displays analysed.....	672
	45 Narrative elements found in museums displays.....	674
	46 Analysis of communication channels: museums.....	683
	47 Vedbæk worksheet.....	690
	48 List of school resources.....	693
	49 Narrative elements found in school resources.....	699
	50 Analysis of communication channels: school resources.....	710
	51 Comparison of narrative elements in all media types.....	725
	52 School resource: <i>Archaeology Skills Log</i>	745
	53 School resource: <i>11,000 Years Ago</i>	833
	54 School resource: <i>Lessons from the Middle Stone Age</i>	930
	55 School resource: <i>Background to the Mesolithic</i>	1002
	56 List of units in the Star Carr schools resource.....	1035
	57 Narrative elements used in the Star Carr schools resource.....	1039
	58 Analysis of the Star Carr schools resource.....	1053
	59 Comparison of the Star Carr schools resource with other media.....	1086
References	1093

LIST OF TABLES

1	The numbers of media items on the Mesolithic found and analysed.....	24
2	Sources of information about archaeology.....	49
3	Communication channels from archaeologists to the public.....	49
4	Google search results for prehistoric periods on 23rd January 2015.....	87
5	Coverage of newspapers in various press archives.....	95
6	Occurrence of Mesolithic items in popular print magazines.....	98
7	Numbers of Mesolithic articles by decade.....	98
8	Rating and reviews of fiction set in the Mesolithic.....	101
9	Percentages of narrative elements in different channels of communication.....	128
10	Percentages of types of characterisation in different channels of communication.....	129
11	Comparison of masculine and feminine characterisations in non-fiction public media.....	130
12	Types of setting across different media.....	134
13	Utilitarian functions across popular media.....	136
14	Other functions across popular media.....	137
15	Happenings identified in each communication channel.....	142
16	Narrative aspects at each of the British museums.....	167
17	Narrative aspects at each of the continental museums.....	182
18	An archaeologically based school curriculum (based on Clark 1943).....	205
19	Links between archaeology and the school curriculum (based on Henson 2004a).....	206
20	Organisation of narrative aspects in the schools resource.....	218

LIST OF FIGURES

1	The communications process diagram.....	38
2	The narrative chain of communication (after Chatman 1978).....	40
3	The communications pyramid in archaeology.....	51
4	The archaeological communication chain.....	57
5	Number of occurrences of negative and positive words for the Mesolithic in each decade....	73
6	Numbers of items that describe functional characters.....	75
7	Illustration of hunting scene by Dominic Andrews.....	106
8	Reconstruction by Jon Prudhoe of Early Mesolithic scene at Lominot.....	107
9	Reconstruction by Jon Prudhoe of a Late Mesolithic scene at March Hill Carr.....	107
10	Reconstruction by Jon Prudhoe of a Terminal Mesolithic scene at March Hill Top.....	108
11	Image by Alan Braby of Mesolithic artefacts.....	108
12	Image by Alan Braby of a Mesolithic landscape at the Sands of Forvie, Aberdeenshire.....	109
13	Image by Chrissie Harrison of a Mesolithic site at Ven Combe.....	109
14	Illustration by Eugene Ch'ng of a Mesolithic camp in Doggerland.....	109
15	Illustration by Eugene Ch'ng of a Mesolithic camp in Doggerland.....	110
16	Drawing by Helen Williams of a Mesolithic camp.....	110
17	Drawing by Helen Williams of the inside of a Mesolithic house.....	110
18	Cartoon by Gary Larson.....	111
19	Anonymous cartoon from Punch magazine.....	111
20	Cartoon by Eoin Ryan.....	112
21	Illustration by David Ace of Cheddar Man.....	112
22	Drawings by Liz James of children through the ages.....	113
23	Illustration by Shane Phillips of a Mesolithic boy, Helfeydd.....	113
24	Anonymous illustration summing up the Mesolithic.....	113
25	Illustration by Ian Kirkwood of Torak from <i>Wolf Brother</i>	114
26	Drawing by Dominic Andrews of a Mesolithic bowman.....	114
27	Drawing by Alan Braby of a Mesolithic hunter.....	115
28	Illustration of a Mesolithic camp by Dominic Andrews.....	116

29	Anonymous reconstruction of Mesolithic life at Holyrood Park, Edinburgh.....	117
30	Illustration by James Innerdale of the on-line story <i>Raven's Wing: son of True Arrow</i>	117
31	Illustration by Harry Bland of a Mesolithic burial.....	118
32	Illustration by Alan Braby of a burial at Vedbæk, Denmark.....	118
33	Anonymous illustration of a Mesolithic winter.....	119
34	Illustration by S E James of a Mesolithic hunting camp.....	119
35	Cartoon by Arro of a taste of the past.....	120
36	Drawing by Jagdeep Lall of charcoal burning destroying the Caledonian Forest.....	120
37	Drawing by Nancy Bryce of antler frontlets used in hunting.....	121
38	Drawing by Nancy Bryce of antler frontlets used in a ritual dance.....	121
39	Drawing by Mary Kemp-Clarke of smoking meat and fish.....	122
40	Drawing by Mary Kemp-Clarke of a Mesolithic camp.....	122
41	Illustration by Alan Braby of a Mesolithic site at Rum.....	123
42	Illustration by Alan Braby of a Mesolithic site at Rum.....	123
43	Illustration of Star Carr by Alan Sorrell.....	124
44	Number of media items analysed by decade.....	127
45	Illustration of Palaeolithic flint knapper, Worthington Smith 1883.....	131
46	Characterisations by age.....	132
47	Description of family relationships.....	132
48	Characters described by function.....	133
49	Different environmental settings in popular media.....	135
50	Different activities concerned with getting food in popular media.....	137
51	Actions relating to food treatment.....	138
52	Actions relating to tool making.....	138
53	Actions relating to movement.....	139
54	Actions taking place within settlements.....	140
55	Social actions depicted.....	140
56	Religious or spiritual actions.....	141
57	Woodland interactions.....	141

58	Happenings in the Mesolithic in popular media.....	143
59	Number of occurrences of negative and positive words for the Mesolithic in each decade. .	144
60	The European Mesolithic display case at the British Museum.....	154
61	The Mesolithic display at the Museum of London.....	155
62	The river wall display at the Museum of London.....	155
63	The Amesbury History Centre.....	156
64	Cheddar Show Caves Prehistory Museum.....	157
65	Cheddar Gorge mural.....	157
66	Cheddar Gorge Museum outside activity area.....	158
67	Inside Cheddar Gorge Museum.....	158
68	Hull and East Riding Museum Mesolithic displays.....	159
69	The Star Carr display at the Rotunda Museum, Scarborough.....	160
70	Inside the Mesolithic Pit Dwelling Museum at Abinger.....	161
71	The Mesolithic Pit Dwelling Museum at Abinger.....	161
71	Mesolithic displays at the Yorkshire Museum.....	162
73	Mesolithic display at the Great North Museum: Hancock.....	162
74	The Mesolithic display at the West Berkshire Museum.....	163
75	Mesolithic gallery at Göteborg Stadsmuseum.....	169
76	Room 2 of the Mesolithic galleries at Nationalmuseet.....	170
77	Room 3 of the Mesolithic galleries at Nationalmuseet.....	171
78	The archaeology gallery at Vedbækfundene.....	172
79	The entrance to the Mesolithic gallery at Vedbækfundene.....	172
80	The end of the Mesolithic gallery at Vedbækfundene.....	172
81	Museet in Stenholt Skov.....	173
82	Inside Museet in Stenholt Skov.....	174
83	Inside Museet in Stenholt Skov.....	174
84	Room 2 of the Mesolithic galleries at Schloss Gottorf.....	175
85	Room 3 of the Mesolithic galleries at Schloss Gottorf.....	175
86	Room 3 diorama in the Mesolithic galleries at Schloss Gottorf.....	176

87	The Mesolithic area at Archeon looking towards the lake.....	177
88	The Mesolithic area at Archeon looking back towards the trees.....	177

ACKNOWLEDGEMENTS

There are many people who have helped and supported this research. First among these is my supervisor Professor Nicky Milner for her creation of the project, her faith in my ability to carry it out and her clear and critical support throughout. Other members of the POSTGLACIAL project team at the University of York have also been very supportive and provided useful comments or help: Mike Bamforth, Shannon Croft, Becky Knight, Aimee Little, Harry Robson, Charlotte Rowley. I must also thank Hayley Saul for stepping in as my initial supervisor during Nicky's maternity leave and being so helpful at the beginning. Among other members of the Department of Archaeology, Sara Perry has been extremely helpful in providing detailed comments on early drafts of the thesis. The research was initiated through the sponsorship of the York Archaeological Trust, and its Chief Executive, David Jennings, has been a helpful supervisor. The thesis advisory panel was chaired by Kevin Walsh, whose comments were always constructive. Funding for the research came from the European Research Council and the Arts and Humanities Research Council.

Many thanks go to Robyn Croft for providing original illustrations to go with the schools resource and her imaginative reconstructions of the characters that helped bring them to life.

The following school teachers provided help and advice about the teaching of prehistory in the new national curriculum in England: Becky Atkinson, Lou Cavell, Richard Chapman, Spencer Cole, Laura Collier-Woods, Lyndsey Green, Sophie Gunnell, Helen Hambleton, Anna Harrison, Dianne Johnson, Wesley Possible, Sandra Reid-Frow, Charlotte Roper, Fiona Shaw and Julia Wass.

My friend Julie McLaughlin, a retired school-teacher from the USA, was kind enough to look through an early draft of the schools resource and provide comments which helped to improve the final version. Archaeology educators Vanessa Bunton and Kim Biddulph also provided comments on early versions. Others who provided help and ideas included Brian Wilkinson of the National Trust Scotland and freelance educators Roy Lawson and Kevin Robson.

Danielle Joyce at Worcester University archive was very helpful in arranging access to the Batho collection of history school text-books. Bisserka Gaydarska of the University of Durham helpfully loaned me her collection of TAG conference programmes and abstracts.

Illustrators Dominic Andrews and Alan Braby were generously forthcoming with information about their images of the Mesolithic.

I received a great deal of help from various museums in Britain and abroad, whose staff were unfailingly courteous and generous with their time. Abroad, these included Mari Wickerts, Håkan Stromberg and Emilie Zackrisson of Göteborg Stadsmuseum, Ditte Kroner and Marlene Kramm of Nationalmuseet Denmark, Anne Gurlev of Vedbækfundene, Tinna Møbjerg, Constanze Rassmann and Carsten Tatarczuk of Midtjylland Museum, Pauline Asinghe, Camilla Bjarnø, Henrik Skousen and Peter Balch Berthelsen of Moesgård Museum, Sönke Hartz, Jorge Scholz and Harm Paulsen at Schloss Gottorf, Ronald Bijl, Lisa Wassenaar and Margot Gaastra from Archeon. In the UK, there were Emma King and Emma Williams of the York Museums Trust, Cherry Clarke of the Mesolithic

Museum, Abinger, Mick Cordingley of the Amesbury History Centre, Phil Hendy of Cheddar Gorge, Victoria Barlow of Newbury District Museum, Kathryn Wilson of the Great North Museum: Hancock, Jennifer Dunne and Rosie Goodwin of Scarborough Museums, Zoe Martin of the Hull and East Riding Museum, Victoria Barlow and Claire Bromley of the West Berkshire Museum, Jackie Dodworth and Richard Tyson of Luton Museums, Cathy Silmon of Chiltern Open Air Museum, Ron Cowell of the Museum of Liverpool, Rebecca McVean of the Pitt Rivers Museum, Kirsty Sullivan of the Museum of London, Elle Root of Colchester & Ipswich Museums, Sarah Orton of Gloucester City Museums, Frances Bennet of York Archaeological Trust, Robert Chester of Sewerby Hall Museum.

AUTHOR'S DECLARATION

None of the research presented in this thesis has been published previously, by this author or any other. Some aspects of it have been delivered as conference papers, which are in the course of publication for 2017 in the Proceedings of the Mesolithic in Europe Conference 2015:

- “Elusive, perplexing and peculiar? Presenting the Mesolithic to 21st century audiences”;
- “Public perceptions and engagement with the Jomon and the Mesolithic”.

The whole thesis is the result of my own work and includes no work done in collaboration with others. None of the work has been presented previously for an award at any university. All sources are presented as references, using the Harvard style, formatted in a version of that recommended by the Council for British Archaeology 1979 *Signposts for archaeological publication*, London: Council for British Archaeology.

Chapter 1

Introduction

1.1 Background

This thesis has been carried out as part of the ERC-funded POSTGLACIAL project at the University of York, and thus is closely linked to the site of Star Carr. It fulfils one of the key features of heritage education; the need to focus on local heritage. This emerged as one of the strong outcomes of the survey into public opinion on heritage in 2003, that the heritage of the local area is the most relevant to people and therefore the most important for education (Martin et al. 2003). It is also supported by a survey of Young Archaeologists' Club branch leaders who also emphasised the importance of linking educational activities to local evidence (Hellewell and Hadley 2012: 9).

However, it also fulfils a national need. The Mesolithic is often considered a dull and impoverished period within British archaeology, with a lack of recognisable, monumental sites, rich burials or spectacular finds, and barely features in museums, popular media and school education (Milner et al. 2015: 233). It has been claimed that "the Mesolithic is arguably still the most neglected period in British prehistory" (Blinkhorn & Milner 2013: 5). As noted by Wickham-Jones:

“Palaeolithic and Mesolithic Britain ... are almost invisible to the public eye. Few hunter-gatherer sites are laid out for the public to visit, information on their lifestyle is usually glossed over in popular depictions on television or in the literature, and courses are often only for the initiated. It is almost as if these people never existed.”

(Wickham-Jones 2010: 2-3)

The archaeological evidence for the period is “complex, difficult to disentangle, and often fragmentary, at best” (Lillie 2015: xvii). As a result few people have heard of it or know anything about it. Finlayson and Warren noted that the Mesolithic is invisible to the public as its sites are mostly empty fields or beaches without “the physical immediacy of an encounter with a monument”, and that Mesolithic studies were an academic specialism with “little public resonance” (Finlayson & Warren 2000: 134).

For example, the site of Star Carr is of major international importance for our understanding of early Mesolithic ways of life and for the early post-glacial resettlement of northern Europe.

“The site of Star Carr is one of the fixed points of British archaeology – every student has to know about it”

(Bewley 1994: 39)

Since the first excavation of the site in 1949-1951 (Clark 1954), Star Carr has been repeatedly reinterpreted (from the 1970s onwards), chiefly questioning the time of occupation and seasonality of residence at the site (Caulfield 1978, Jacobi 1978, Legge & Rowley-Conwy 1988, Carter 1998,

Mellars & Dark 1998). Further excavations since 1975 have enlarged the site and provided new data, not only about Star Carr and its environment but also about other locations of settlement around the former Lake Flixton, most notably at the nearby site of Seamer Carr (Schadla-Hall 1987, 1989, Conneller & Schadla-Hall 2003). The most recent campaign of fieldwork has been by Chantal Conneller, Nicky Milner and Barry Taylor since 2004 (Milner 2007, Conneller et al. 2009, Taylor et al. 2010, Conneller et al. 2012). Star Carr is no longer the only spectacular archaeological site or find from the Mesolithic, but it is by far the most excavated and analysed, and remains the pre-eminent Early Mesolithic site in Britain:

“like it or not, this rich site had been assessed and re-assessed in some form or other almost annually; the archaeological pack has chased after the only juicy bone apparently available, gnawing at it and extracting the marrow of its information base”.

(Schadla-Hall 1988: 27)

Yet, the site is largely unheard of (and the Mesolithic largely unknown) in the nearby town of Scarborough (Milner et al. 2015: 233). Surveys carried out in the town during 2009-2011 showed that only 8% of respondents knew the name and any details of the site. Likewise, only 8% knew anything about the Mesolithic period. Only 3% had heard of both the Mesolithic and Star Carr (Milner et al. 2015: 235-237).

However, despite this, the Mesolithic has a lot to offer (Milner et al. 2015: 233). It lasted for approximately 5,500 years and saw important environmental events and changes. These included a rapid rise in temperature at the start, the clothing of the land in a forest environment, the breaching of the land bridge cutting Britain off from the continent, as well as a dramatic tsunami in the North Sea. Mesolithic hunter-gatherers had very different lifeways to ours and yet there were also many resonances with modern life: they built houses, wore jewellery, domesticated dogs, and buried their dead.

Promoting the period was identified as a major strategic theme in the most recent research framework for the Mesolithic (Milner et al. 2015: 234), in which strategic theme 1 was "improving public engagement and education" (Blinkhorn & Milner 2013:26), based on:

"a continuing need to disseminate our understanding of the Mesolithic widely, clearly and in non-specialist language in order to explain the story of how the repopulation of Britain took place in a changing world"

(Blinkhorn & Milner 2013: 13)

The different specific themes identified within this were (Blinkhorn & Milner 2013: 26-27):

S1.1 improving coverage in national media of the relevance of the period to discussion of climate change and sea level rise;

S1.2 increasing Mesolithic display in museums;

- S1.3 innovative presentation using digital technology and the Internet;
- S1.4 working with local societies;
- S1.5 running training workshops in Mesolithic archaeology;
- S1.6 engaging schools, having it taught in the curriculum and producing resource packs for schools;
- S1.7 improving undergraduate understanding of the period;
- S1.8 developing more avenues for PhD research into the period.

Evidence that the Mesolithic can appeal to a wide public audience comes from excavations at Star Carr which attracted local, national and international media attention for “Britain’s Oldest House”: over 120 newspapers worldwide (e.g. Washington Post, The Guardian, Toronto news, Brisbane news) and worldwide TV and radio coverage (BBC, Sky, ITV, Channel 4) (Milner et al. 2015: 233). Star Carr has also appeared on television through the series *Digging for Britain*. In addition, the excavation team has carried out a variety of outreach work between 2006 and 2015 (Milner et al. 2015: 242-244). The team has:

- publicised the excavations through 2,000 visits to site open days;
- engaged with local people through 30 talks to local groups and taking volunteers to help on the excavations, and a Friends of Star Carr email list;
- worked with schools, where 78 pupils had a day on site helping the excavation in 2012;
- created an activity resource for the Young Archaeologists’ Club, also freely available for schools;
- provided public events at various national festivals, such as the Festival of Ideas, Festival of British Archaeology and in local festivals in Scarborough;
- published books aimed at a public audience (Milner et al. 2012, 2013);
- worked with the Yorkshire Museum on an exhibition on Star Carr, which included a digital video fly-through and soundscape.

Most of the Scarborough residents surveyed who did know about the site or the period had received their knowledge through television, local newspapers and books (Milner et al. 2015: 236).

Museums were not a major source of information about the Mesolithic. Indeed, poor display of the period was highlighted in the English Heritage research framework in 1999. Milner et al. (2015: 236) argued that this was still the case “with the period occupying a very low profile in museums”. The Mesolithic is better presented in other parts of Europe, notably Denmark. Here it is described as their “Golden Age”; school children are taught about the period and play at being hunter-gatherers, and it usually takes pride of place in museums, often through reconstructions: there is much to learn from there for Britain.

This thesis has built on the work already done by the team at the University of York and others (Milner et al. 2015: 239-244), especially the suggestions that we need to think carefully about the key messages we give out about the period and which channels of communication will have a longer lasting impact on the public. As Russell (2002: 53) has pointed out, if we are to improve the perception of archaeology (and by extension, the past as studied by archaeology) then the first step must be to understand archaeology's place within popular culture. Therefore, a key part of this thesis has been to understand how the Mesolithic is conveyed and reported in popular channels of communication. If a key part of improving public perception of the Mesolithic depends on developing better ways to communicate it, then this thesis has provided such attempts with a firmer foundation by developing a greater understanding of how the messages about the period are encoded in popular media.

Blinkhorn & Milner (2013: 8) pointed to the relevance of the Mesolithic for informing current debates about issues of public concern, such as climate change, the environment and Britain's place in the world. They also noted the growth of creationist views and the persistence of the 'caveman' stereotype as challenges to be addressed (Blinkhorn & Milner 2013: 13). Among the 36 research themes identified in their research framework, Blinkhorn & Milner (2013: 20-25), included how an understanding of Holocene environmental change could inform perspectives on climate change in the present day, what Mesolithic people ate and their health, the genetic relationship between Mesolithic human populations and their predecessors and successors, and the impact on human groups of Britain's separation from continental Europe.

In this instrumentalist view of archaeology, they were following the excavator of Star Carr and pioneer of Mesolithic archaeology in Britain, Sir Grahame Clark, who was a key advocate for the use of prehistory in education in schools (Clark 1943). He saw that an understanding of a different, yet shared, human past could promote values of decency and tolerance in a world in which these were in short supply. Producing a way of enabling the Mesolithic to find a place in school teaching was thus a key outcome of the thesis.

1.2 Aims

The aims of this thesis were to identify ways in which the communication of archaeological knowledge of the British Mesolithic to the wider public could be improved, and to suggest good practice for improving public understanding of the period.

This research therefore addressed the following questions:

1. How has the Mesolithic been presented to the public in Britain in both academic and popular media?
2. Could the presentation of the Mesolithic to the public be improved?

1.3 Objectives

There were three specific research objectives.

Objective 1

The first objective was to evaluate the presentation of the Mesolithic to the public. This involved unpicking what is meant by the public (a very broad and normative category), of presentation as a process of communication and where this sits within communications theory.

Beyond this, there were three subsidiary questions that were looked at:

- where is the Mesolithic presented;
- how is the Mesolithic presented;
- does northern Europe offer examples of good presentation?

I examined how the Mesolithic has been written about, described and illustrated within scholarly and public discourses in Britain since it was first defined in 1866. Scholarly discourse includes monographs, articles in journals, contributions to edited volumes and conference proceedings. Public communications covered were websites, digital media (blogs, Facebook, YouTube), books aimed at non-academic readers, newspapers, BBC News online, magazines (British Archaeology, Current Archaeology), novels and short stories, pictorial illustrations, television programmes, museum displays and school textbooks and resources. The thesis traces the qualitative judgements that have been made of the period and how the lifestyles and events of the period have been imagined and portrayed; and how these may have changed over time. In other words, what narratives have been used to communicate the period?

The research informs the presentation of the Mesolithic in Britain by looking at examples abroad where the period is more widely known and communicated. The most obvious countries to look at are those in northern Europe, where the Mesolithic cultures are the same or similar to those in Britain. A research trip was undertaken to visit public heritage sites such as museums and reconstruction centres to examine the narratives and methods used, and assess their applicability to Britain.

The collaborative nature of the research was tied into the work of the York Archaeological Trust. This is not an obvious strength of the Trust at the moment. Although not featuring in the thesis, I did undertake an assessment of how much Mesolithic material was held in the collections of the Trust and undertook some training of Trust interpretive staff in the Mesolithic. The research presented in the thesis will underpin these areas of work for the Trust in the future.

Objective 2

The second objective was to devise ways of disseminating research on the Mesolithic to the public. The theoretical context for the research is complex. Affecting perceptions of the past and of archaeology is best achieved through the process of communication between archaeologists and their audiences. The thesis is therefore situated within a communications theory context. An essential part of the thesis has been devising principles for communicating archaeology based on narrative and rhetoric.

Subsidiary questions addressed were:

- can narrative be used to structure meaningful communications about the Mesolithic;
- which channels of communication would be most effective for reaching the widest audiences?

The dissemination of the Mesolithic focusses on Star Carr, one site within the Mesolithic. However, this is placed into its wider context and related to themes applicable more widely within the Mesolithic as a whole.

Objective 3

The culmination of the research was to devise an actual example of communications about the Mesolithic based on the principles developed by the research. This is a resource for schools, which integrates communications and narrative theories with theories of learning and interpretation.

The subsidiary questions that were asked were:

- which topics are most likely to engage the public;
- how can meaningful communications about the Mesolithic be structured.

The resource has been made available through the new Star Carr website.

1.4 Methods

To evaluate the presentation of the Mesolithic to the public, a narrative analysis of academic and popular communications about the Mesolithic has been undertaken. This covers a range of media, identified from the existing literature on public understanding of archaeology, including the Internet, popular books and magazines, news, television, images, fiction, museums and schools resources. The number of media found and analysed is given in Table 1.

Channel	Items found	Looked at	Analysed
Academic	121	65	58
Web-pages	488,000	50	50
Blogs	260,000	50	50
YouTube videos	3,270	50	50
Popular books	82	53	42
Newspapers	641	546	158
BBC News	73	73	51
magazines	560	560	176
fiction	31	25	18
images	157	157	131
television	46	34	25
museums	70	17	16
school resources	125	75	57
TOTAL	753,176	1,755	882

Table 1: the numbers of media items on the Mesolithic found and analysed

The media were chosen to cover as wide a range of presentation of the Mesolithic as possible. Some media proved not to have any, such as games or films (in spite of some titles being promising), or only yielded items too late in the research process to be included (see section 5.2 for more detail). Where the number of items in a medium was less than 1,000, each item was looked at and assessed for its focus on the Mesolithic and its substantive presentation of the period. Web-pages, blogs and videos contained too many items for this to be done. For these media, the top 50 items (as determined in a Google search) to meet the requirement for substantial presentation and focus on the Mesolithic were chosen. In fiction, a few promising early titles were simply unavailable in print any more and could not be assessed.

The method of analysis that was chosen was to undertake a mixed qualitative and quantitative approach as advocated by Mayring (2000, cited in Macnamara 2005: 17). As the task was to understand how the Mesolithic is being communicated, the most obvious approach was to undertake a contents analysis (an approach common in literary and philosophical studies). This examines the narrative content of communications using induction of data from each item and then quantifies these contents to derive the broad patterns in the data (more detail is given in section 4.2).

This approach has revealed the messages being delivered to the public about the Mesolithic, and whether they have narrative coherence and appeal. The elements of narrative that are present in each item of communication were identified to see whether there are any overall patterns in the portrayal of the period. This allowed an assessment of how wide-ranging or otherwise the depiction of the period is. Differences between the channels reveal lessons on how the period could be portrayed by the others.

As a comparison, I undertook a study tour of museums and visitor centres in northern Europe to assess methods and content of Mesolithic displays. The reason for choosing northern Europe is the broad similarity of Mesolithic cultures with those in Britain, and that the Mesolithic tends to be better identified and presented as part of the national or local narratives in these countries.

To devise ways of disseminating research on the Mesolithic to the public, I have devised principles based on communications, narrative and interpretation theories which can be applied to presenting the Mesolithic. The most appropriate channel to use to reach the widest audience was identified as being resources for schools. As a result, an example of a presentation of the British Mesolithic has been created in the form of a schools resource. This is based on the principles that were devised in order to make the resource deliver a coherent and meaningful presentation of the British Mesolithic, based on Star Carr.

The idea of quantitative testing of the resource created was considered. However, it is only one of the aims of the thesis to find ways to improve public perceptions of the Mesolithic. It is the contention of this research that this should not be done without first assessing the existing communication of the period and this would take up most of the time of the PhD. Furthermore, to assess whether any one specific resource achieves a change in perceptions would face several

problems:

- the need for a longitudinal survey to assess the long-term impact on perceptions among the target audience that would extend beyond the time frame of the PhD;
- the need to assess previous perceptions of the period and which media were responsible for these before assessing the later perceptions and how these differed, which would add considerably to the work involved and length of the thesis;
- the difficulties in isolating the influences of various channels on the perceptions of the period.

Therefore, this thesis has provided a sound academic basis for future work, and has suggested one possible method for rebuilding the narrative of the Mesolithic, rather than providing the definitive solution to the problem.

1.5 Chapter summary

Chapter 2 is a literature review on the topic of public perceptions in archaeology. The stance taken in this thesis has been that public perception is an issue of communications and narrative. Hence, this chapter begins with an overview of communications and narrative theory. It continues with a discussion of the literature on public knowledge of archaeology before going on to examine the nature of archaeological communications.

Chapter 3 focusses on archaeologists as authors of the messages about the past. This involved looking at academic writings about the Mesolithic, how they have changed over time and the messages they deliver about the period.

Chapter 4 complements chapter 3 and provides a narrative analysis of a sample of the academic writings about the Mesolithic.

Chapter 5 describes the web-pages, internet blogs, YouTube videos, popular archaeology books and magazines, newspapers and BBC News articles, works of fiction, pictorial illustrations and television programmes that were found to feature the Mesolithic.

Chapter 6 is the narrative analysis of these popular communications channels. Overall conclusions are offered about the portrayal of the period, and about which channels are best at offering an engaging narrative.

Chapters 7 and 8 offer a comparison between how the Mesolithic is portrayed in British (chapter 7) and continental (chapter 8) museums. Museums offer a different kind of communication, in which people can engage with actual evidence and a physicality of communication that differs from the two-dimensional written or visual materials covered in chapters 5 and 6.

Chapter 9 covers museum education as a key interface between archaeological evidence and the public, again comparing Britain with the continent. School visits to museums involve people of all socio-economic backgrounds and offer a wider audience for the Mesolithic than the traditional

adult museum visitor. The chapter shows how the educational programmes augment the displays and provide ideas for improving the narrative.

Chapter 10 examines where the Mesolithic fits in the school curriculum in England (the curriculum most relevant for Star Carr). Schools reach the widest possible audience and have been a key target for archaeology and heritage for many years. This chapter presents the narrative analysis of the resources produced for teachers that include the Mesolithic, both currently and in the past. This offers an understanding of what teachers need and the kinds of communications that are likely to be effective.

Chapter 11 covers how the narrative of the Mesolithic could be rebuilt. This begins with presenting the principles that were derived from the research and which can be applied to the creation of schools resources on the Mesolithic. A summary is then presented of a set of resources that I have created for schools and which has been made available through the Star Carr website.

Chapter 12 offers my conclusions about how the Mesolithic can be better communicated, with lessons that go wider to cover all periods of the past as dealt with by archaeology.

Chapter 2

Public perception

2.1 Introduction

The necessary first step in this thesis is to define the terms of the topic. Who are the public and what is the nature of their relationships with archaeologists? These relationships are formed by the processes and content of communications between them. We must therefore have some understanding of communications and narrative theory. Only then can we examine the role that archaeologists have as mediators between people in the past and the people consuming our interpretations in the present.

This chapter begins with a consideration of archaeology's relationship with the wider community, usually termed 'the public'. This explores the nature of the term 'the public', the public purposes of archaeology and public attitudes towards archaeology and prehistory. The next section looks at the importance of communication as an aspect of archaeology, the nature of communications theory and narrative theory, and how they link with learning theory. This leads into a discussion of the nature of archaeological communications, the notion of the archaeologist as author of a narrative and the types of communication channels used in archaeology. Following this, there is a summary of previous studies of archaeological narratives and of guidance for archaeologists on how to structure their writings. The chapter ends with a discussion of communication in archaeology as an act of public interpretation.

2.2 The public and archaeology

2.2.1 *The public*

Early recognition of the public by archaeologists reflects wider confusion about what exactly is meant by the term 'public': as audiences to be enlightened or entertained, and as an abstract concept which frames archaeology as a public service.

The term 'public' is often used as a summative term that describes a vague generality imbued with some sense of entitlement. Hence, we can have public opinion, public library, public liability, public sector or public health. The creation of a term, and hence a recognised area of endeavour, of 'public archaeology' occurred in the 1970s. As defined by McGimsey (1972) in the USA, public archaeology was the exercise of archaeology as a government-funded enterprise on behalf of the people as embodied in the state. Public archaeology was therefore a public service organised under legislation for the public benefit. Definitions of what that benefit might be were hazy and easily conflated into a self-serving interest in conserving remains as a good thing in and of itself, and therefore safeguarding the position of a profession to do the conserving and management of those remains.

The utility of this usage as a shorthand is severely limited once we move away from debating high level generalities of political policy into implementation within the practical constraints of the real

world. The term 'public' then becomes an essential characterisation of a group of people who are outside the perceived boundaries of archaeology. For the purposes of this thesis, I define the public as those who do not work in, or practise, archaeology and its related professions or disciplines. In reality, the public dissolves into a myriad of individuals or interest groups, each with its own characteristics, needs and demands.

Many organisations that deal with the public will often seek to break them down into smaller categories (Moore 1993: 124). This is usually done to more effectively target the public with specific messages or to affect specific behaviours. Such audience segmentation has been used by various heritage organisations (Black 2005: 11). This can be done by using readily identifiable innate characteristics that may be fixed over time (such as gender) or change predictably (like age). Other groupings are defined by acquired characteristics such as interests or lifestyles and may have to be teased out by careful use of surveys and third party data.

None of the various market segmentation methods is ideal, applying normative models and often based on very limited group identities. For example, the socio-economic classification was originally designed by the Joint Industry Committee for National Readership Surveys and was based mainly on occupation, categorising families as classified by the male head of household and took no account of age or life-stage (Moore 1993: 125). Other approaches, for example, the psychographic which looks at attitudes and behaviours, can be reductionist, basing people's attitudes purely on psychology with no link to location or socio-economic background (Moore 1993: 129).

More nuanced understandings of the nature of the audiences for archaeology began to emerge, in the late 1970s. Fowler (1977) in particular highlighted the socially situated nature of archaeology and therefore the different constructions, understandings and uses of the past, of which scholarly archaeology was only one. The breaking down of the public into groups with different uses for the past was by means of differentiating their motivations, rather than their characteristics as groups. Among the motivations identified were curiosity, seeking comfort, self-satisfaction, acquisition of profit, to be educated, to add to the sum of human knowledge, for political ends, emotional satisfaction and escapism (Fowler 1997: 32). Around the same time, a more classificatory scheme of motivations was developed in the USA where people's interest in the past could be classified as (Davis 1978: 15-17):

1. a romantic yearning for a symbolic past;
2. an aesthetic interest in the objects of the past;
3. an interest in human lives and behaviour;
4. a search for social roots and communal pride;
5. a technical hobby that enriches its practitioners' lives.

By 1981, Fowler was exploring the idea of a pyramid of engagement with archaeology in which

practising archaeologists were the uppermost level above increasingly large and more distanced levels below (Fowler 1981: 56-57).

A more essentialist and normative approach was that of Selkirk (1986: 29) who categorised the non-archaeological public by their stage in the life cycle: youth, married, parents with young families, older parents whose families have grown up and the retired. Others sought to identify which sections of society archaeologists needed to influence to further their own disciplinary aims. This was certainly the case with McManamon (1991: 123-127) who identified five categories of the public that archaeologists should communicate with: the general public, students and teachers, politicians, lawyers and cultural resource managers and native Americans.

2.2.2 The public purposes of archaeology

There are two main reasons for archaeologists to engage with the public. These may be categorised crudely as the selfish and the altruistic, or, perhaps more fairly, as the scholarly and the activist. The scholarly view can be parodied as the intellectual elite working on self-evidently worthwhile subjects, staking out proprietary claims to knowledge, which they deliver to an ignorant public deemed in need of enlightenment (Samuel 1994: 3, Smith 2004: 34, 50-51, Henson 2009b: 132-134). The hope is that the public will appreciate the scholars' efforts and accept their leadership role.

The elite soon realise that it is in their self-interest to develop a broad base of public interest in what they do. Self-interest obviously comes to the fore when a discipline is under threat. Hence, it was natural at the founding of the Council for British Archaeology (CBA) in 1944, when archaeologists were looking forwards to their role in a post-war world of financial insecurity and massive urban redevelopment, that they should consider the place of education in their disciplinary future.

“Furthermore it may be urged that unless a larger section of the British public is brought to take an intelligent interest in archaeology, our science will continue to be handicapped by ignorance, apathy and obstructionism in the post-war world and to find difficulty in obtaining state or other financial assistance for research. It is therefore of the utmost importance to the Council to promote archaeological studies in general education.”

(Dobson et al. 1944)

The more altruistic reason for engaging the public is hard to pin down. As the discipline that studies the origins and development of human behaviours that are reflected in material culture, archaeology touches upon every aspect of human existence. The possibilities it offers for insights into the human condition are correspondingly large (Fagan 1984: 176). Good archaeologists have to develop a split personality; being both the obsessive pedant and outward looking visionary. It is easy to get bogged down in the minutiae of stone artefact reduction sequences, pottery typologies or the stratigraphic relationship of ditches and walls. At some point the mind has to emerge from

the trench and take stock of why it was there in the first place.

Attempts to define the benefits of archaeology seem to have become common from the late 1960s (Shanks and Tilley 1992: 26), although Jacquetta Hawkes had been an earlier voice for a publicly engaged archaeology that recognised its social responsibilities (Hawkes 1951). The self-reflexive spirit of the time is evident in the inaugural lecture of Professor John Evans as the newly appointed Director of the Institute of Archaeology at University College London (as is a note of exasperation at the failure of archaeology to realise its potential):

“Despite its great and growing popularity it seems to me that archaeology is still a widely misunderstood subject (not least by some of its friends, and even of its practitioners), and as a result of this it is still far from having achieved the place, either in formal education or in the general consciousness of society, to which its achievements, and its relevance to our human condition, entitle it.”

(Evans 1975: 2)

By the 1980s, archaeologists had begun to consider that archaeology offered valuable lessons and that we could learn *from* as well as *about* the past (Henson 2012b). The founding of the World Archaeological Congress (WAC) in 1986 was a key development in publicly oriented archaeology (Ascherson 2001). WAC was founded with a strong emphasis on archaeology being politically and socially situated, and that it should be open to all rather than serve vested interests; a stance also developed in ‘post-processualism’ in archaeological theory during the 1980s (Shanks & Tilley 1987, 1992). Thus, by the turn of the millennium, McManamon (2000a: 8-9) could include in the social benefits of archaeology:

- the commemoration of individuals’, families’ and communities’ pasts;
- the tourist income it could generate;
- the harnessing of community energies and;
- the development of mutual tolerance and respect, especially for other cultures.

Likewise, Skeates (2000: 109-110) included in his justifications used by archaeologists:

- responding to people’s curiosity with reliable evidence to correct misconceptions;
- providing interpretations of human behaviour to help us in the present and future;
- contributing to heritage tourism and local economic growth;
- providing a valuable educational resource.

For Jameson (2003: 161), the aim of archaeology was “to improve people’s lives by helping them to enjoy and appreciate their cultural heritage”. More recent writers on public archaeology have tended to emphasise its relative lack of theorisation (Almansa Sanchez 2010) and its ability to make real contributions to people’s lives, over and above an understanding of the past (Little 2010).

Hence, we can raise awareness of the diversity of the past as a way of teaching tolerance today, use archaeology to address environmental concerns or help to build communities and raise social capital among disadvantaged groups. This view of a publicly engaged archaeology was taken further by Sabloff (2008) who called for an active archaeology addressing modern world concerns. I also explored this (Henson 2012a: 149-161) under the heading of activist archaeology. The kinds of activism I identified included:

- utilitarian, an instrumentalist use of archaeology to tackle present day issues;
- democratic, the empowering of non-archaeologists to find their own relationship to the past;
- dogmatic, serving an ideological agenda;
- methodological, using archaeology to study modern material culture and human behaviour.

While these are presented as discrete categories, in practice, there is much overlap between them. The public are at once our audience, our partners and our masters; a tricky relationship in need of constant dialogue and redefinition of roles. This is seen at its starkest in archaeologists' relationships with government and legislators (Rockman & Flatman 2012), but is also true of their relationships with others.

Davis (1997: 85) had already noted that greater public engagement would allow alternative views on the past to be heard, so enabling archaeology to be more democratic. In a democratic archaeology, we effectively become mediators (Henson 2011b: 219-220) empowering the public to critically evaluate the archaeological interpretations that are presented to them and understand the relevance of the past to their own lives (Jameson 1997: 12-13). Matsuda (2004: 70) argued that it was the task of public archaeology to create a democratic public sphere of archaeological practice, in which there could be rational-critical debate about the past and its uses.

2.2.3 Public attitudes to archaeology and prehistory

What do we know of audience perceptions of the past? There has been relatively little academic research into public perceptions of the deep archaeological past (prehistory), let alone into perceptions of the Mesolithic.

Understanding the actual audiences for archaeology will help us when we come to look at how archaeologists structure their discourses and the problems they face in encoding their messages. McManamon (2000a: 11) complained that archaeologists in the United States knew little about which subjects the public were most interested in nor about the extent of public understanding of archaeology. Likewise, Merriman (2002: 547-548) noted that:

“Archaeology has too often, then, been in the position of communicating blindly, to an audience it does not understand, and with no clear idea of whether it has communicated successfully, or at all.”

This remains broadly true but there have been a few surveys of public attitudes and opinions.

Early surveys of public opinion about archaeology were largely positive, if somewhat generalised. Between 72 and 79% of those interviewed in early surveys felt that knowing about the past was important or useful to society (Stone 1986: 17, Merriman 1991: 23, 101). People expressed similar levels of interest in archaeology in a later survey, between 67 and 82% (Paynton 2002: 34-36). Surprisingly, while 100% of pub-goers and metal-detectorists accepted that archaeology was useful, only 41% of museum visitors thought the same (Paynton 2002: 35). Most people in an early survey (82%) thought that life in the past was hard, and that prehistory was the least attractive era of the past (Merriman 1991: 27-29, 34). Only 38% of respondents in one of the surveys thought that prehistoric people were the same as people today (Merriman 1991: 101-102).

In contrast to the paucity of qualitative studies into perceptions, attitudes and motivations towards archaeology, there is now abundant quantitative data on public engagement with heritage (covering a wider field than archaeology). One major survey on heritage in 2003 found that people were most interested in the heritage of their local area (Martin et al. 2003: 5-6). The government-published *Taking part* survey has shown that while 73% of people had visited a heritage site, there had been a sharp increase in those looking at heritage websites from 18% to 31% (DCMS 2013: 7).

Some surveys have shown that there are differences between men and women in how they interact with the past. In one study, more women than men saw archaeology as relevant and having educational and spiritual values, while more men saw the past as having political value (Pokotylo & Guppy 1999: 412-413). The interest of women in the wider relevance of archaeology was thought to mirror their higher concern for environmental issues (Pokotylo & Guppy 1991: 414). There was also a strong difference in attitudes to the past by gender in the study by Merriman. While 43% of women felt that people in the past were the same as those of today, only 32% of men thought the same (Merriman 1991: 101-102).

People then find the past interesting, think it may be important to know about, have a keen interest in their local heritage but also seem to have a negative perception of prehistory. The past is seen as having educational, environmental, spiritual and political value.

Surveys of archaeological knowledge among children are very few. Given the constantly changing nature of the school curricula in the United Kingdom, such surveys would only be a snapshot within a particular context of the teaching of the past. One early study of a small number of pupils aged 10-12 from six primary schools in Southampton found that 47% of them did not know the meaning of archaeology or prehistory. Another 47% were familiar with the word archaeology but associated it with either the study of dinosaurs or the finding of treasure (Emmott 1989: 24). However, 93% did think that the past was interesting, 83% that it was also useful and 77% that it was important, although they found it hard to state why that was the case (Emmott 1989: 27). On the other hand, a survey of 80 children aged 14 found that only 18% of them thought history had any utility, although 66% of them thought it was interesting (Richardson 1990: 286). As with Merriman's study of adults, children seem to have a low opinion of people in the past, 41%

believing they were less clever than people today, compared with only 19% believing they were cleverer (Emmott 1989: 29).

One interesting study at the Alexander Keiller Museum asked children what questions they wanted to see answered in the displays, and these highlighted the importance of relating interpretation to the lives of the audiences (Stone 1994: 195, 205). The commonest questions were:

1. where did they go to the toilet?
2. what did they wear?
3. various questions about death
4. what were their houses like?
5. washing and make-up
6. did children have to go to school?
7. did they have birthdays or parties?
8. what toys or games did they have?
9. what weapons did they have?
10. what animals did they have?

Less frequent were:

11. what did they use for light?
12. what language did they speak?
13. did they have wives?
14. what did they eat?
15. what transport did they have?
16. were there old people?
17. did they have art?
18. did they have shops?
19. physical differences between them and us
20. what did they think of the world?

This interest in the mundane aspects of the past was also seen in the Museum of London's audience research into new prehistory displays, which showed that people were interested in aspects of personal and domestic life such as food, clothing, keeping warm, the role of women and children (Skeates 2000: 120-121). A more qualitative study was that of Högberg, who worked with 11 year-olds in Sweden on a project to recreate Iron Age life. Their interpretations were largely based on

their acceptance of what was natural to them about modern lifestyles, such as the nuclear family and a gendered interpretation of the past. Girls tended to focus on daily life and family, while boys were more interested in representing warfare and sacrifice. They were happier to use a known narrative instead of exploring how the past might have been different to what they were familiar with (Högberg 2007: 33-34).

The extent and persistence of misconceptions should come as no surprise. These misconceptions seem to be the reflection of deeply rooted stereotypes that permeate popular culture. Russell has pointed out that mass media stereotypes will be far more widely received by audiences than the work of real archaeologists (Russell, M 2002: 53).

2.3 Processes of communication

2.3.1 The importance of communication in archaeology

Archaeology is fundamentally resolvable into acts of communication (Jameson 1997: 12). Fowler (2007: 89) wrote that “communication is the lifeblood of archaeology”. A report by the Council for British Archaeology into public participation in archaeology accepted communication as one of its key premises:

"It is clearly of great importance for the health of the discipline that there is effective communication between those working professionally in archaeology and the wider public."

(Farley 2003, section 5)

While McCarthy (2008: 540) has pointed out that delivering good archaeological narratives is part of archaeology’s publicly funded responsibility, feeds the public thirst for information about the past, and supports heritage tourism, others have pointed out that there is often a mismatch between what archaeologists offer and what the non-archaeological public wish to consume (Davis 1997: 86, Skeates 2000). In Young’s view, many archaeologists were unable even to see the good stories they may have (Young 2002: 241, 2003: 10). In the words of novelist Margaret Elphinstone, “in the blank spaces between the words of archaeological narrative lie the buried kernels of all the forgotten stories” (Elphinstone & Wickham-Jones 2012: 535).

The nature of the communication needs careful thought as a form of interpretive narrative (McCarthy 2008: 540) which provides stories and themes of relevance to the public. This was also highlighted by Tilden, regarded as the ‘guru’ of heritage interpretation in the USA and other English-speaking countries. Tilden had a long career as a journalist before being asked by the United States National Parks Service to devise guidance on good public interpretation (Tilden 2007: 2, 9). His publication in 1957 became the authoritative text for interpreters of both natural and cultural heritage. Good interpretation for Tilden was fundamentally an act of communication, in which archaeologists and others revealed the beauty, wonder, inspiration and spiritual meaning behind what the visitor saw (Tilden 2007: 25). The main skill of the interpreter was the application of rhetoric through the use of narrative (Tilden 2007: 55-58). Stories were especially important for

communicating with children, who although eager to gain new factual knowledge really loved stories and adventures (Tilden 2007: 83).

He provided three separate definitions of interpretation (Tilden 2007: 33). The first and second covered the revelation of meaning through first-hand experience of original objects, while his third definition focussed on the purpose behind interpretation as the enrichment of the human mind and spirit. These definitions go beyond mere description or explanation. As a good example of narrative, Tilden referred favourably to Charles Darwin's description of the inhabitants of Tierra del Fuego in the 1830s as having "almost fictional allure" (Tilden 2007: 46). We will see later how this same description was used in 1865 to describe what others would later call the Mesolithic and became a founding image of the period that proved hard to shake off.

Tilden was damning about the way many museums simply displayed disparate objects with no coherence, with no attempt to tell a story (Tilden 2007: 173). Indeed, it has often been noted that archaeologists have not always been effective communicators. Daniel noted that television professionals often felt that archaeology was "a dull subject with dull exponents" (Daniel 1954: 201). Cunliffe (1982: 61-62) wrote passionately about archaeology's seeming indifference to its public audience and bemoaned the failure to communicate with no attempt to tell a story or place sites in their social or economic context. Fowler wrote that "archaeology is not of itself boring; but its advocates often are" (Fowler 1986: 11). Hodder (1989: 273) observed that archaeological reports "are dull, excessively long, detailed and expensive and read by no one except the delirious specialist". Archaeological writing has been characterised as tedious, using overblown and pseudo-technical language (Denison 1997), turgid, verbose and dull, scattered with scientifically sounding jargon (Deetz 1998: 94), bland, lifeless and safe, lacking any of the excitement of discovery (Gale 2002: 7), dry and bloodless (Young 2002: 40), as prone to pretentious and complex syntax, vocabulary and meaning or even deliberately difficult and pretentious, "lost in a sea of jargon and half-baked philosophies acquired from other disciplines" (Noble 2004). Even where post-processual approaches have led to a return to a more subjective discourse style, there may be a tendency towards obfuscatory and introverted texts that may be incomprehensible and with little relevance to our understanding of the past, and so laden with jargon that the reading of it could be mental torture (Connah 2010: 67-70). Tilley has argued that this publication of "rather dry and unappetizing products" (Tilley 1989: 276) was the inevitable result of the empiricist modernism of archaeology and the self-validating professionalism that developed in the 1970s (Tilley 1989: 278-279). The pressure of academic writing leads archaeologists to suppress subjectivity or emotion and emphasises the erudition and scholarship of description and documentation (Bradley 1996: 38, Young 2003: 8). We will see that this is apparent in accounts of the Mesolithic after the 1930s. Too often the overall picture of the past is swamped by large amounts of detailed data and archaeologists have forgotten that their real objective is to tell the story of past human activity (McAdam 1999: 50). Allen pointedly observed that archaeologists write obscurely, tentatively and defensively to avoid being criticised by their peers (Allen 2002: 247). Holtorf (2007b: 150) described archaeologists' insights being received with "boredom or incomprehension".

Connah has written that the writing of popular books is often regarded by academics to be of marginal importance (Connah 2010: 38), and that there is a professional prejudice against popularisation (Connah 2010: 154). I have myself written about the divide between academic and non-professional engagement in archaeology as created by the academic appeal to reason and science over the popular desire for emotional or spiritual encounters with the past (Henson 2010: 212). Morris (1999: 15) highlighted emotional content as an important part of storytelling and the best archaeological stories would combine both feelings as well as the intellect. It is worth noting that the main guide to writing archaeology in the UK has been that published by the Council for British Archaeology, which focuses wholly on typographical and logistical matters, with no coverage of narrative, neither story content nor discourse style (Council for British Archaeology 1979).

Communication emerges as an essential component of public archaeology. What people really want is good stories and for the archaeologist to be the expert storyteller (Skeates 2000: 122-123). If people want stories about the past that have meaning for them in their own lives, how then can we ensure that these are based on some kind of rational interrogation of the evidence rather than flights of fancy? Archaeology can deliver important information about the past (McManamon 2000a: 10), but Lipe has pointed out that stories about the past become harder to authenticate the more we move away from studies of ancient technology into more abstract areas of human culture. It is part of archaeology's ethical stance that there may be multiple stories that we can base on the evidence, but we have to avoid the attitude that any interpretation is valid, no matter what the evidence is (Lipe 2002: 23-24, McCarthy 2008: 541-542). Tilden was clear that good interpretation had to be based on solid specialist research (Tilden 2007: 27-33). Respecting the evidence of the past helps us give meaning to real human lives in the past and commemorate their achievements and lived experiences (Henson 2011b: 224). However, there is always a potential for the misuse of narratives of the past, as seen in the tragic and destructive history of Europe during the last century.

Archaeology has important things to say about issues vital to the human race and the accuracy of its information could be crucial (Holtorf 2007b: 161). It should never be in archaeology's interest to peddle ethically unsound visions of the past (Holtorf 2007b: 156-157). An engagement between archaeologists and the public must involve not only presenting the results of archaeological research but also the methodologies used that help us evaluate conflicting ideas of the past (Lipe 2002: 26-27). Good archaeological narratives are never replacements for the presentation of evidence (McCarthy 2008: 542).

2.3.2 Communications theory

As Walsh (1990: 290) has pointed out, if we are to understand how better to present the past to others then we need to develop a better understanding of communications. Silberman (2008: 175-176) has written that the public will search for meaning in their consumption of archaeology, and that this meaning comes from the stories we tell. He argued that archaeologists needed to learn about the structure and social function of narratives and how these mediate the place of the past in

the present. Likewise, Bray (1981: 221) argued that archaeology had to accept its place within the communications industry.

Communications theory developed rapidly after the 2nd World War and had developed its basic premises by the mid 1950s (Lasswell 1948, Shannon & Weaver 1949, Schramm 1954, Katz & Lazarsfeld 1955). The most basic form of communication is the sending of information (the message) from one person (the source) to another (the receiver). Of course, it is not really so simple in practice. The creation of the message involves translating the information (encoding) into a form that can be sent (the signal or message). Sending the encoded message involves using a communications channel or medium. This channel is subjected to interference or noise, which blurs the signal. Just as the message is the encoding of information so this has to be translated at reception back into the original data. In other words, the receiver decodes the signal so that it can be read/viewed. This seeming symmetry between transmission and reception is deceptive. In fact, the process of communication is often asymmetrical. Unless the recipient and the sender share a common framework then successful reception of the message as intended by the sender is unlikely. The sender and recipient each have their own field of experience (language, background, culture etc.) which governs how they encode and decode the message (as noted in archaeology by Davis 1997: 86). The relationship between the sender and recipient can be direct (such as face to face, by telephone or Skype) or indirect (over time and distance, such as by letter, email or interpretation panel). The more direct the interaction, the greater the possibility of using feedback to overcome noise, adjust the transmission and negotiate the understanding of the message. An indirect relationship can involve the interposition of influential others who help to determine the reception of the message and retransmit or recode the message to its final recipients. The whole process of communication can be envisaged as a diagram (Figure 1).

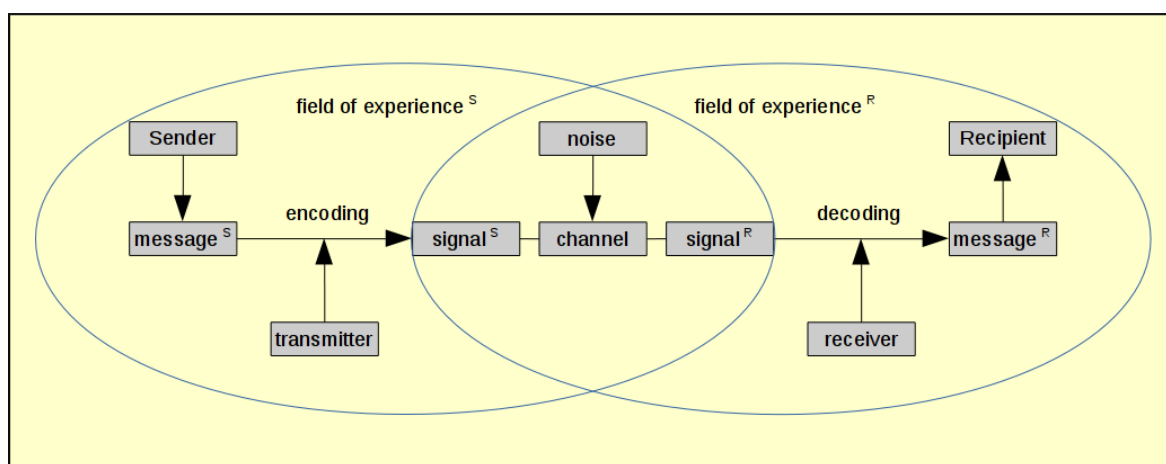


Figure 1: the communications process diagram

We can imagine how the communications model may be applied to a straightforward communication of archaeological research to the public. The archaeologist (source) excavates a site and recovers finds, features and derives an interpretation from these in terms of past behaviour (the intended message). The museum curator and designer (transmitters) take this information and produce a selection of artefacts, graphics and text (the encoded signal) to show to the public in a

museum display (the channel). Visitors will pass through the museum and may or may not stop in front of the relevant display, distracted by other displays, other visitors, members of their own party (noise) or find text hard to read, graphics badly lit or have forgotten their reading glasses (more noise). What they see will be viewed as perhaps interesting or strange things with more or less interesting words (the decoded signal). From this, the individual visitor (recipient) understands that the past was a strange place in which they did things differently (the received message). If a child, the visitor's reception of the signal may be helped or hindered by an accompanying parent or teacher (opinion leaders). At all stages in the process, the ability of the archaeologist to transmit their message without any loss of coherence is weakened. Furthermore, the university educated archaeologist may find that the child of parents in a C2 socio-economic category from an inner city neighbourhood finds it hard to grasp the idea of seasonal mobility in search of food that was the main finding of the excavation since they have such widely differing fields of experience.

The process model of communication can only take us so far in understanding how we might influence the perceptions of the past by various audiences. Classic communication theory offers a linear model of message transmission that reflects a positivist view of knowledge and learning (Hooper-Greenhill 1997: 2). The problem we face is the agency and heterogeneity of the category 'audience'. The rise of post-modern attitudes within media and culture theory has focussed attention on the active nature of audiences and their ability to create meanings beyond those of the transmitters of the message (Hooper-Greenhill 1997: 2). Producers of a message may encode a meaningful, structured text but the signs they use are polysemic, capable of more than one meaning. The result may be one of three possible audience responses: acceptance of the producer's meaning, negotiation of exceptions to the meaning or opposition to the intended meaning (Moores 1993: 16-19).

Holtorf has written that archaeologists cannot assume that the public is an undifferentiated mass in which everyone is the same. He referenced German journalist and archaeologist Diane Scherzler on the importance of identifying the target audience and seeing how a topic can be made interesting or relevant to them, which involves seeing archaeology from their perspective (Holtorf 2007b: 157). Early paradigms of audience research, such as active audience theory, tended to assess audiences in general or work from a non-evidential base. Critics quickly pointed out that people's political and personal identities mediate their interaction with media leading to plural, diverse publics that did not necessarily behave in the ways that theoretical models would predict (Livingstone 1998: 199). They have also noted that audience research diverts attention away from the intended messages, that audiences are not always active in constructing their own meanings and that media effects cannot be discounted as having no role to play in recipients' derivation of meaning in message transmission (Philo 2008: 537-538).

2.3.3 Narrative theory

An alternative to understanding communications as a set of processes is the stance taken by literary theorists who have focussed on the nature of messages as a specific form of communication;

known as narrative (Herman 2005). Early ideas on the relationship of narrative forms such as character and plot had crystallised by the 1940s into defining the key features that defined narratives. Analysis of narratives also distinguished between the story or plot (*fabula*), and the means of its telling, the discourse (*sjuzhet*). Importantly, studies of narrative later widened their scope to cover all kinds of discourses, not only fiction (Herman 2005).

Chatman (1978: 445) clarified the four elements of narrative structure as existents (characters in settings) and events (actions and happenings). Actions are events caused by the characters, while happenings are events caused by outside agency, that have an impact on the characters. Herman (2009: 106) described the sum total of events, characters and the created, consistent world they inhabit within the discourse as the storyworld. Stories can also be seen as having two aspects: mimesis (imitation) and diegesis (narration) or showing and telling (Jahn 2005). Phelan and Rabinowitz (2012: 7) described the mimetic aspect as the realistic storyworld of the characters and events. Audiences involve themselves in that believable world and empathise with characters or situations. They described the diegesis as the synthetic aspect of the discourse, the way the story is presented as an artificial construct, towards which the audience will have a largely aesthetic response. Phelan and Rabinowitz added to these the thematic aspect, which concerns the underlying themes illustrated by the story. Audience response to these depends on how far the ideas presented reflect their own cultural, philosophical or ethical stances in the world of the present.

The structured time-course of events is crucial if narrative is to be more than a simple listing of unrelated events, *annals*, or a list of events that share a theme or topic, *chronicles* (White 1987). The events are not only ordered but also related through cause and effects within a trajectory that has a defined beginning, middle and end (Pluciennik 1999: 654). Herman (2009: 90-92) distinguished literary narratives (with particular events) from scientific communication (with generalised events), which he allotted to categories of description or explanation rather than narrative. Other forms of communication include not only tragedy (sad ending) and comedy (happy ending) but also satire, the lyric (personal expression of feeling), the epic (a narration of deeds) and the dithyramb (personal praise of another) (Aristotle, trans. Heath 1996). To these, we might add the debate and the polemic.

The sending and receiving of messages by authors and audiences have been further explored by narrative theorists. One influential model is that of Chatman in 1978 (Shaw 2005: 100) and is summarised in figure 2.

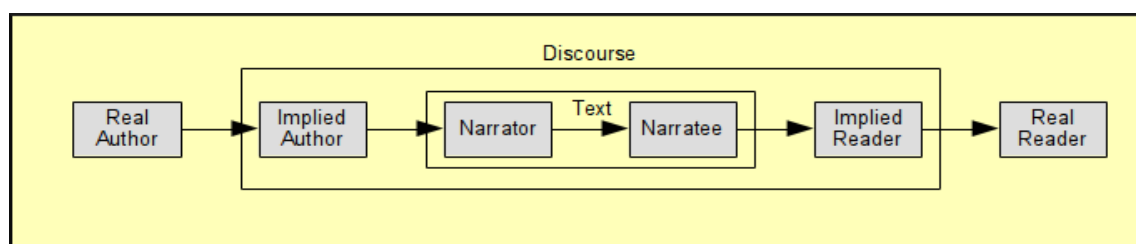


Figure 2: the narrative chain of communication

The terms of the diagram have been defined in multiple ways and used within different contexts, the diagram being a guide to analysis rather than a defined scheme with fixed referents (Shaw 2005: 299). The chain effectively deconstructs the notions of the source and recipient of the narrative message into cognitive categories which relate to how each sees (reads) the other. The real author is the creator of every text or message. This is not necessarily the same as the persona adopted by the author in his/her discourse, nor need it be the same as the author as imagined by the reader or viewer through decoding that discourse. This discourse persona is the implied author. The text itself has an authorial voice within it, of various kinds, known as the narrator. Narrators may be within the text as characters in their own right (first person or homodiegetic) or stand outside the plot as an observer (third person or heterodiegetic) (Jahn 2005). Within fictional texts, there is often a narratee, someone being directly addressed within the story. Narratees may or may not be present in other forms of text besides fiction. Creators of texts usually aim their work at specific audiences. They have in mind the type of reader they expect, the implied reader, which may or may not be the same as the person actually reading (or viewing) their work, the real reader.

2.3.4 Communication as learning

One particular audience that has usually been treated as different to others is that of children. This is also an audience for which a ready-made discourse context exists, that of formal education. The traditional approach to learning (and a default position for many) is based on the acquisition of knowledge by transmission from teacher to student, articulated through the verbal and written word, and largely privileging cognitive learning skills (Hooper-Greenhill 2007: 2-3). However, much of modern teaching follows what is often termed a constructivist approach to learning, which seems to have arisen out of information processing theory (Duffy 2009: 354). Dewey in the USA began the constructivist revolution through his ideas about hands-on learning and matching learning to the experiences of the student (Dewey 1925), an approach that is often summed up as *child-centred learning*.

Following Dewey, the three people most commonly referred to as the fathers of modern constructivism are Piaget, Vygotsky and Bruner. Piaget was a Swiss educational psychologist who identified certain key points (18 months, 7 and 11 years-old) at which a child's thinking moved upwards into more complex intellectual reasoning (Piaget 1950). For Piaget, teaching had to differ according to the age of the child. His ideas became fashionable among teachers in the 1960s as part of a move towards investigative topic based teaching in primary schools (Richardson 1990: 283). Vygotsky worked on educational psychology in the Soviet Union, his ideas being popularised in the west in the 1960s (Vygotsky 1968). He emphasised the social interaction of children with each other and teachers, and held that this interaction could help raise a child's capability above what it could achieve on its own. A child's understanding is therefore not so much innate as a product of social and cultural interaction. Bruner's ideas were a natural development of those of Dewey (Bruner 1960). He emphasised that children built upon their own experience and current knowledge to construct their understandings of the world. Teaching is thus an active dialogue between teacher

and learner, and learners needed to be keen and willing to learn for effective teaching to take place. Bruner also hypothesised that learning progressed through three modes, from enactive (concrete) through iconic (pictorial) to symbolic (abstract) means of assimilating knowledge. Thus, the means of transmission of educational messages could affect their reception by students.

Constructivist learning is a way of developing a child's understanding through a mix of correct encoding of messages and relating the message carefully to the child's own field of experience (such as age, background and social interactions). Overt links between learning and communications theories are occasionally made, as in Chatman's referencing of Piaget in discussing the structural principles of narrative (Chatman 1978: 21). Hooper-Greenhill (2007: 37) has described object-based learning in museums, as a way of decoding the messages (histories, memories and cultures) carried by objects. Constructivist philosophy has been influential in identifying different means of educational message encoding and transmission. One of the earliest of these approaches was developed in the 1950s (Bloom et al. 1964), with a taxonomy of three basic ways in which people learn: cognitive (using reason and intellect), affective (through emotion and creativity) and psycho-motor (through physical manipulation and action).

Another approach was that of Kolb (1984), who defined a series of learning styles under the broad heading of experiential learning. Kolb's four ways of experiencing the world are doing, feeling, watching and thinking, or in the jargon of his model active experimenting, concrete experiencing, reflective observing and abstract conceptualising. A particular learning style will incorporate two of the four processes of interaction. Kolb's styles, therefore, are diverging (feeling and watching), assimilating (thinking and watching), converging (thinking and doing) and accommodating (feeling and doing). A popular variant of Kolb's scheme uses a different terminology for the learning styles: reflector (diverging), theorist (assimilating), pragmatist (converging) and activist (accommodating) (Honey and Mumford 1982).

Both Bloom and Kolb have taken an essentialist position towards the child as a subject of learning, attempting to define innate processes involved in how children receive and encode messages. Other approaches focus on the nature of the message inputs transmitted to learners. One influential approach divides these into three styles: visual, auditory and kinaesthetic: the VAK model (Dunn et al. 1979) in which effective learning both understands the field of experience of the learner and provides a range of inputs in different message formats. A development of this model has widened the inputs to include visual, aural, kinaesthetic and reading/writing: the VARK model (Fleming & Mills 1992).

The most detailed adaptation of constructivist education has been multiple intelligences theory (Gardner 1983, 1999). Different people will have a mix of different ways of understanding the world around them, described by Gardner as intelligences. It might be better to think of his multiple intelligences as multiple skills or ways of reasoning. He has identified eight basic intelligences:

- linguistic, good at understanding and using words, highly developed in writers and poets;

- logical-mathematical, good with number and problem solving, found in scientists, engineers, computer programmers;
- spatial, good at visualising abstract notions or designs, found in architects, designers, chess players;
- musical, identifying sound, pitch and rhythm, developed in musicians, sound engineers, mechanics;
- bodily-kinaesthetic, good balance, coordination and body skills, useful for sports, dance etc.;
- naturalist, good at observing, recognising patterns and classifying the world around them, found, among others, in farmers and astronomers;
- interpersonal, people who are good with other people, good social skills, e.g. teachers, counsellors;
- intrapersonal, self-awareness, found in spiritual and expressive people.

Gardner's categories relate both to assumed innate characteristics and message encoding. Most people will be stronger in approximately three intelligences at the expense of the others, but there is room in his theory for people's mixes of intelligences to change over time and to be developed through education.

Constructivist learning theory has been influential in museum education since the 1990s, and is ideal for application within archaeology and heritage education and communication (Russell 1994, Watson 1995, Hein 1995, Hooper-Greenhill 1997, Tishman 1997, Copeland 2004, 2006, Henson 2004a, 2012b: 125, Hooper-Greenhill 2007: 34). Indeed, Hein (1995: 23) pointed out how Gardner used the idea of the constructivist museum as one of the major models for his vision of education. Education of the public, including children, about archaeology is more than simply delivering 'facts' about the past, or even presenting them with our own interpretations of the past. Our audiences will construct their own meaningful understandings of both the past and of our work as archaeologists. Learners refract what they are taught through their own experiences of the world and existing knowledge. Both adults and children will associate information and facts with their emotions, feelings and values, their individual biographies, cultural positioning, gender etc. (Husbands 1994: 5, Hooper-Greenhill 2007: 35).

Colley (2007: 36) pointed to constructivism as a way of reforming public-facing archaeology towards a more people/student centred approach. Copeland (2004: 136) developed the idea of the mutual construction of interpretation by both the archaeologist and the public. Copeland's work bears a strong resemblance to the chain of communication model and can be easily translated as the authoring, encoding and transmission of a message with its subsequent decoding and reception by an audience. Gardner's idea of multiple intelligences was used as the basis for the *Inspiring learning for all* website produced by the Museums, Libraries and Archives Council in 2004

(inspiringlearningforall.gov.uk).

Peterman (1997) highlighted the key elements of constructivist learning for museum education. These included personal relevance, academic tasks (such as developing ideas rather than facts) and studenting (active learning and a focus on skills as much as content). Tishman (1997) referenced Bruner, and used the idea of targeting three thinking dispositions in designing museum education: exploring and questioning, reasoning and evaluating and meta-cognition (self-awareness and evaluation).

However, learning theories in general, and constructivism in particular, are not unchallenged within educational studies. Much of the research upon which the theories are based has not always been rigorous, and is seldom capable of replication. As Tobias has pointed out, “there is stimulating rhetoric for the constructivist position, but relatively little research supporting it” (Tobias 2009: 346). The research that does exist suggests that students’ success in learning depends greatly on the amount of prior knowledge they have (Tobias 2009: 342-343) and the importance of providing background knowledge and guidance, known as scaffolding (Duffy 2009: 353-354). It has also been pointed out that a student’s learning is enhanced by an engagement with the topic being studied, their motivation. This is stimulated by wanting to make sense of their world and wanting to participate, which in turn depend on their culture, personal goals and pre-existing knowledge (Duffy 2009: 358-359). In spite of the criticisms, constructivism has been highly influential and continues to underpin much modern teaching practice and heritage education. At the very least, it offers archaeologists a way of structuring our material and of differentiating child or student audiences to ensure a wider appreciation of archaeological knowledge, skills and interpretations.

Perception involves a great deal more than simply seeing the past. Perception is the end result of communication. The form of narratives, the processes of communicating those narratives, the real or implied audiences who receive them and the contexts of their production and consumption will all affect the final perception of the Mesolithic by individuals. Likewise, communication leading to perception is a form of learning, and understanding the nature of learning, as well as ways of structuring the learning experience should be vital parts of a constructive public archaeology.

2.4 Communications in archaeology

2.4.1 The nature of archaeological communication

There is clearly a role for communications theory in helping us to envisage how we might carry out archaeological communications. It helps us to ask the right questions about our attempts to reach out to the public (Walsh 1990: 290):

- who communicates to whom? (sources and receivers);
- why communicate? (functions and purposes);
- how does the communication take place? (channels, languages, codes);
- what about? (content, objects of reference, types of information);

- what are the consequences of communication? (intended, unintended).

We can imagine how the chain of communication works within the creation of academic narratives. The field excavator (real author) writes up their results for publication within a peer-reviewed journal. They use a particular style of writing and referencing which signals their status as an academically trained scholar worthy of publication in so august a medium. They will be seen by others as being scholastically authoritative (the implied author). They will adopt a third person, heterodiegetic stance as narrator, which gives them authoritative omniscience over the narrative (with the valuable power of hindsight, Pluciennik 1999: 667). Most academic writings tend not to have an intra-textual narratee as they seldom conform to a fictional narrative style (usually taking the forms of description or explanation instead, Herman 2009: 88). The excavator will however aim their writing at a particular audience, that of the interested scholar and fellow researcher (the implied reader). The real reader may end up being a puzzled first year undergraduate struggling with unfamiliar concepts and writing style.

Narrative studies is often seen as some kind of master discipline applied to non-linguistic or non-literary forms (Fludernik 2003: 47). Various people have suggested that archaeologists inherently produce narratives. McAdam (1999: 51) praised Woolley's popular account of his excavations at Ur because of his use of the imagination to flesh out the details of his finds, in other words his creation of a narrative. The archaeologist, historian and philosopher Collingwood, in 1936, had already identified the key to writing historical (and archaeological) texts as creative re-enactment of past experience by attempting to place oneself in the mind of the past human actor; a kind of creative fiction (Collingwood 1994: 282-302). Hodder (1989: 273), Pluciennik (1999: 654) and Tilley (2003: 13) have noted the ability of archaeology to produce temporal sequences with structured relations of dependency in a discourse; clearly a form of narrative. Tilley (1993: 6) pointed out that archaeological evidence is culturally emergent. That is, we impute properties to the evidence and appropriate them for discourse using schemes of imagination and perception. In other words, archaeological interpretation is a process very like that of creating literary narratives. Bernbeck's view (2005: 98) is that archaeological interpretations are no more real than fictional stories in that they are rationalisations imposed on data using hindsight and imagination. Boyd (2002: 30) categorised science fiction authors and archaeologists alike as explorers of unfamiliar worlds. Gale (2002: 2) wrote that archaeology and a particular literary genre like science fiction both inhabit fantasy worlds *outside* the present yet are written by authors who are situated *in* the present.

Connah (2010: 75-76) categorised archaeological writing into three basic types of structure: the mosaic of disparate information cobbled together in one text (description), the narrative linking of a beginning, middle and end (narrative), and the argument that logically relates an opening premise to a concluding statement (explanation). Likewise, Gibb (2000a: 2) distinguished between stories and technical writing of the kind practised by archaeologists. He saw stories as having events, personalities and attitudes, while technical reports related how a problem was analysed and solved.

Archaeological texts and fiction share the use of narratives and rhetorical technique, authorial situation and reference to an assumed other world (Evans 1993: 441), the ordering and selection of information, the use of analogy and metaphor, diegesis (an interior view of a world), temporality (the sequence of events), emplotment and explanation (Tilley 2003: 24). Where academic and fictional texts differ is in their discourse contexts. The context of creation of archaeological and literary narratives is different, and archaeology and literature (or other non-academic communication media) have different implied audiences (although undoubtedly there is an overlap among real audiences) and different sources of narrative themes. Our attempts to reach an audience always take place within particular situations, within which we envisage the nature and role of our message and the potential needs of our audience. Producing a lecture or course for an adult education class will involve a different level and style of encoding than creating a museum display, developing a script and screenplay for a television documentary or creating an interactive session for a branch meeting of the Young Archaeologists' Club (YAC). Likewise, the reception of our work will differ not only in each context but among individual class members, visitors or viewers.

2.4.2 Archaeologists as authors

Archaeologists are mediators between the past, present and future (Fowler 2007: 107), hopefully empowering individuals and groups to engage for themselves with the past (Henson 2012b: 126). They need to think about what messages they want to communicate and why they should communicate at all.

For some, the whole point of archaeology is to tell stories, which provide a way of giving people an emotional connection with the past. As Denison wrote (1997), our stories “allow us to find our own meanings in the events of long ago”. A few archaeologists have explored what these stories might look like. Holtorf has written that “archaeology tells us stories that are both exciting and full of important metaphorical meanings” (Holtorf 2007a: 141), through which contemporary human beings make sense not only of the past but also of their own world in the present (Holtorf 2010a: 25). Archaeologically created stories can be good to read and help us to remember new information, giving a coherence to fragmentary data, smoothing out interpretations and can help us to identify with the people of the past (Terrell 1990: 7). As Hackett and Dennell have pointed out (2003: 826), archaeologists use narratives because they are instinctively appealing to audiences, provide a sense of order and purpose to the events they describe and allow them to restrict their analyses to a limited set of accounts of the past (cf. Lewis 2000: 7), giving the archaeologist authorial status and authority (see also Terrell 1990: 7).

Archaeologists need to be aware however that not all the particular narratives that can be created within these story frameworks need be benign or comforting. Collective identities are often expressed violently at the expense of others (Holtorf 2010b: 390). Archaeology has often been used in the service of nationalist agendas that justify conquest or ethnic cleansing (Silberman 1995: 249). The public reception of stories may also be at the expense of scientific accuracy or truthfulness to the events of the past (Holtorf 2010b: 391). Archaeologists need to be aware of their

responsibilities to past as well as to the public (Lipe 2002: 23, Merriman 2004: 7). The public and political context in which archaeology is practised demands a level of public accountability and an obligation to work to scholarly standards of logic and evidence (Silberman 1995: 250).

The more extreme postmodern claim that the past only exists as a mental construct in the mind of the archaeologist suggests parity between archaeological and fictional accounts of the past. In which case, we could simply impose our own ideas onto the past and write novels instead of archaeological accounts (Connah 2010: 62). However, Joyce noted both Bakhtin's and Barthes' refusal to allow total relativity in interpretation on the part of the reader (Joyce 2002: 14-15). Barthes allows the reader to shape meaning from the text only within the potential meanings inherent in the text supplied by the author. Extreme relativism is, in Bakhtin's term, 'irresponsible' in that it denies the responsibility of the author to partake in dialogue with the reader (Joyce 2002: 14), similar to Hall's view of cinema as enabling a dialogue between film maker and viewer (Hall 2004: 159, 173). An archaeological narrative therefore has to be grounded in the evidence, and Joyce cited the literary theorist Genette who saw the distinction between historical and literary narratives as due to the historian's use of evidence upon which to base the narrative (Joyce 2002: 13). Science fiction author Douglas Adams stated this with a typical fiction writer's economy, "imagination tempered with logic and reason is much more powerful than imagination alone" (Adams 2002: xi).

Archaeologists must empower others to engage with the past in ways that respect the original lived experience of that past (Henson 2011b: 224). Our difficulty is that the direct link between the people living in the past as authors of the story and archaeologist excavators in the present has become tenuous with the rise of post-modern ideas in archaeology, parallel to the death of the author in post-modernist literary studies (Bintliff 1993: 97). We need to re-establish a connection with the sources of so many human stories placed in the record for us to read. Fortunately, the interpretation of archaeological data often relies on the subjective intuition of the archaeologist who uses the data to tell the story of the site and now has the post-modern freedom to be honest about their subjective inferences (Praetzelis 1998: 1). This has also allowed space within the discipline for empathy, intuition and personal connection with the past (Henson 2010: 213). Rather than tell the same story over and over again, the archaeologist can free his or her imagination to tell different stories, explaining their sites in different ways that are all based on the evidence and yet entertain and keep the interest of different audiences (Praetzelis 1998: 2).

The telling of archaeological stories therefore restricts authorial freedom in a way not shared in the creation of fictional narratives. Yet, the audiences for archaeological narratives could find themes to delight, to instruct, to make them think, to stimulate their emotions, to thrill and all the many effects that fictional narratives can produce. More than this, archaeology has stories of great relevance and importance to tell. Some of these are vital for human survival, such as the relationships of people with their environment and their responses to climate change. Some simply help to make the world a better place, one more tolerant and understanding of difference.

2.4.3 Communication channels in archaeology

The major study of communication methods in archaeology is that by Kulik (2007). She created a five stage history of the way in which archaeologists have communicated with their audiences (Kulik 2007: 113-125):

- the Age of Antiquarian Communication (1770s-1830s), characterised by amateur archaeologists, validating their work in networks of their fellow peers through lectures, journals and limited edition books;
- the Age of Print Communication (1840s-1910s), engaging with a wider public through popular books, magazines and newspapers (marked by the founding of the *Illustrated London News* and *Punch* magazine in the 1840s);
- the Age of Mass Communications (1920s-1950s), beginning with the discovery of Tutankhamun's tomb in 1922, using the new medium of cinema newsreels (e.g. *British Movietone News*) as well as the mass circulation newspapers, popular books, the new magazine *Picture Post* and BBC radio (and television in the 1950s);
- the Age of Specialist Communication (1960s-1980s), when archaeology turned inwards to focus on theories, procedures and organisation, and became more esoteric and jargon-ridden, publishing for other academic or more up-market audiences;
- the Age of Global Communication (1990 to now), in which the fragmentation of media through satellite and cable broadcasting and the Internet produce greater competition for entertaining narratives as well as opportunities for archaeology to reach out to wider audiences

Kulik highlighted the danger for archaeology in televisual narrowcasting and a ghettoisation of audiences in which archaeologists communicate to a narrow, interested sub-set of the population rather than to the public as a whole (Kulik 2007: 123-125).

Mass communications media clearly form effective channels for transmitting messages to large audiences. They provide archaeology with a way of reaching out beyond its academic enclave. They also erode the boundaries between different social networks of cultural practices, such as elite and vulgar, high-brow and low-brow, scholastic and popular (Walsh 1990: 279). However, the mass media have their own agendas, and are happy to exploit archaeology in order to meet the expectations of their public, make money and deliver their own messages. What they take from archaeology is often filtered through the lens of adventure and mystery (Bathurst 2000: 3).

It is important for archaeologists who seek to communicate with wider audiences to be aware of which media are particularly important to those audiences. There have been a few general studies on which media people use to gain their knowledge about the past (table 2). The studies in table 2 are not strictly comparable but do provide a broadly similar picture of the importance of mass media and the limited role of direct archaeological communication through lectures, adult

education courses or visits to museums and sites. Two of the studies found that while schools were an important influence on understandings of archaeology, they were less important than the mass media. On the other hand, the study by Emmott (1989: 34-35) found that while most children attend school and could potentially learn about archaeology, only 54% of them had seen archaeology or prehistory on television.

Source	Pokotylo & Guppy 1999 (Canada)	Ramos & Duganne 2000 (USA)	Paynton 2002 (UK)	Holtorf 2007 (Sweden)
Television	55	56	34 - 47	70
Books	24	33	16 - 17	60
Magazines	24	33		
Newspapers	11	24		
School	21	20		
Museums	58			
Travel	37			
Film	9			
Internet				2
Talks	3	1		
Projects		2		
Events		1		
Societies		1		

Table 2: Sources of information about archaeology (expressed as percentages of respondents)

The Council for British Archaeology's working group on public participation in archaeology highlighted the need for better communication skills among its recommendations (Farley 2003, recommendations 20, 21). This reflects not so much a belief that archaeologists are poor communicators in themselves but that they have little familiarity with the channels and processes of communication between themselves and non-academic audiences. This was put more bluntly by Silberman (2008: 177) who wrote that some archaeologists have failed to understand communication and have been trained to "fixate on archaeological factoids of no meaning with little interesting or profound to say to the public at large".

Mode	Channel	Audience	Message	Medium
Direct	Lectures/talks/events	Small Self-selected	Controlled Direct feedback Factual	Verbal Physical
	Adult education			
	Web forums			
Indirect	Books/articles	Wider Self-selected	Controlled Little feedback Factual	Written Visual
	Heritage site visits			
	Internet pages			
Mediated	Museums	Widest audiences General interest as well as others	Less controlled Little dialogue Emotive	Written Audio-visual
	Newspapers/magazines			
	Fiction			
	Television/radio/film			
	Schools			

Table 3: Communication channels from archaeologists to the public

Direct communication with an audience allows for immediate feedback and dialogue. However, communication is more often indirect, in which the author is not present at the moment of reception. Any feedback is therefore not immediate but delayed and dialogue is rendered more difficult. The commonest kind of communication however is mediated, in which the message from the author is transmitted through a third party, with all the potential for distortion of the message that this entails, and a reduction in the possibility of direct feedback from the receiver to the author.

Giving talks to local societies or other interested groups and the delivery of adult education classes are highly effective in transmitting archaeology, but only to a small, self-selecting audience.

Opening up excavations to the public, archaeology as open air theatre, may involve direct verbal communication and can involve large numbers of visitors. The Internet has opened up new channels of communication such as online forums and email, which also allow some form of direct exchange between archaeologists and others. Mechanisms of communication in most of these cases will be primarily verbal, along with some physicality.

A major form of indirect communication is the publishing of books or articles for a particular audience. Archaeologists will use different written styles (registers) for their different implied readerships. Visits to heritage sites involve a simple transmission from archaeologist to visitor of the remains of the past, in which the archaeologists may have some control over the display and interpretation. While publishing and presenting heritage sites can reach large audiences, modern media now provide the possibility to reach even more people than before through archaeologically authored websites.

Mediated communications interpose a third party between the author and receiver. The archaeologist no longer 'speaks' to the audience, but relies on others to do the 'speaking'.

Museums are the clearest example of this within the heritage sector (Hooper-Greenhill 1994).

Visitors have a direct experience of archaeological finds, but it is the expertise of the curator that determines the messages being delivered. Of course, a few curators are themselves archaeologists, but in most cases, they will be displaying the artefacts and sites explored, recovered and analysed by others. The mediators in mass media include journalists (O'Connor 1986: 31) and broadcast producers, editors and television executives (Kulik 2006: 80). Journalists have priorities for narrative that are different to those of the archaeologist. They may carry preconceptions or biases about archaeology, and are not always neutral mediators (O'Connor 1986: 32). In fiction, it is the novelist who mediates the archaeology, although a few archaeologists have themselves written fiction (e.g. Glyn Daniel, who wrote two detective novels under the pseudonym Dilwyn Rees). A newer form of published medium is the graphic novel, growing in popularity and containing visual as well as verbal encoding. The greatest possible audience is reached by the final mediator, the teacher. Every child in the land has to attend school, all will receive some teaching of history, in which archaeology may, or may not, appear. School teachers will mostly have little specialist knowledge of archaeology and the potential for distortion of the message is high, usually through reliance on out-of-date archaeological interpretation or lack of awareness of authoritative sources

of information.

Channels of communication in archaeology can be envisaged most clearly as a diagram in the form of a section view of a pyramid. This is presented in figure 3, in which A and R are the author and receiver, IA and IR the implied author and implied receiver, and M the mediator.

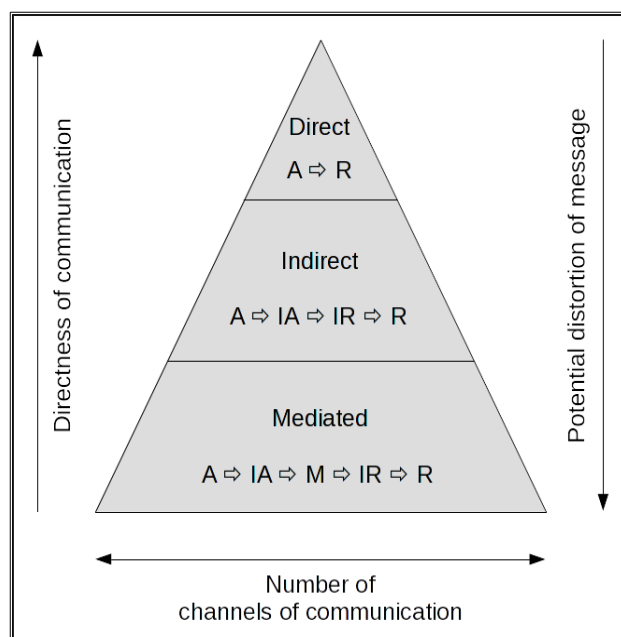


Figure 3: the communications pyramid in archaeology

As the directness of the communication between author and receiver decreases, the potential for distortion of the message increases. Crucially the mechanisms of communication also increase and therefore engage a wider range of people with different learning styles. Mediated communication reaches a wider diversity and larger number of audiences.

Some of the channels used in archaeology have more relevance than others for this particular thesis, which seeks to improve perceptions of the Mesolithic among the public. These will be the subject of most of the later chapters.

2.4.4 Studies of archaeological narrative creation

The arrival of interest in narratives into the mainstream of the discipline seems to have occurred in the late 1990s, with a session on archaeologists as story tellers at the US Society for Historical Archaeology conference in 1997 (Gibb 2000a: 1, McCarthy 2008: 536-537) and a session on narrative archaeologies at the TAG conference in Cardiff in 1999. At the same time, an editorial in *British Archaeology* magazine (Denison 1997) advocated a better use of stories to bring the past to life and redress the rather dull, even tedious nature of current archaeological writing. The archaeologically trained journalist and broadcaster Neil Oliver has advocated story-telling to communicate archaeology as it helps us to visualise real people behaving in ways that are instantly

recognisable, and believable (Oliver 2012). However, writings about this that are informed by narrative theory are still few and widely scattered (Pluciennik 1999: 653). Moreover, Högberg (2007: 29) noted that archaeologists have little knowledge of the effects their narratives have on the present or of the interplay between theirs and others' narratives.

Joyce is the one archaeologist who has used literary theory to analyse archaeological writing, based largely on the works of Bakhtin and Barthes (Joyce 2002). She argued that archaeology is permeated by the creation of narratives, defining archaeology as “a discipline engaging in the present in the construction of persuasive stories about imagined pasts” (Joyce 2002: 2). However, archaeologists cannot complete and encompass their material as they cannot deny the agency of the people of the past, an agency they cannot control. Thinking actors in the past gave the objects we study their meanings, which may be different to those ascribed to the same objects by the archaeologist (Joyce 2002: 100-101). As such, the archaeologist as author has a responsibility to be more open about identifying themselves and their goals within the narrative (Joyce 2002: 113-114), albeit as only one voice and that other voices exist of those with a stake in the same objects of study. We need to incorporate multiple voices as part of a process of dialogue which is fundamental to our acts of communication about the past (Joyce 2002: 117).

For Bernbeck (2005: 116), allowing multiple perspectives in the present is a truer reflection of a past lived by multiple lives. Effective archaeological narratives should therefore be structured around multiple, situated and homodiegetic narrators to allow open readings of the past. The relationship between past actors and present archaeologists may be unequal in that the archaeologist imposes a narrative on the past (Bernbeck 2005: 114), yet the archaeologist as author cannot create a monologue about past. To do so is to retreat into a form of academic elitism.

It is no wonder then that many outside the profession see archaeology as academic, remote, filled with jargon, snobbish, white middle-class and elitist (Farley 2003, section 3.1). This echoes the earlier criticism by Jacquetta Hawkes of trends within academic archaeology in the 1960s, which can still hold true today:

“Some discussions of archaeology have seemed to me so esoteric, so overburdened with unhelpful jargon, so grossly inflated in relation to the significance of the matters involved, that they might emanate from a secret society, an introverted group of specialists enjoying their often rather squalid intellectual spells and ritual at the expense of an outside world to which they will contribute nothing that is enjoyable, generally interesting or of historical importance.”

(Hawkes 1968: 255)

This elitism can be seen clearly in Fowler's dismissal of Miranda Krestovnikoff (presenter of the BBC's *Hidden Treasures* in 2003) as a “breathless bimbo, here of invisible academic credentials and ethics” (Fowler 2007: 97).

What archaeology requires is to produce narratives that remain true to the evidential basis of the

discipline, yet allow an imaginative and emotive exploration of the past, what McCarthy (2008) has called interpretive narratives, and Denison (1997) called intelligent speculation (cf. Tilley 1993, offered as part of a rejection of positivist archaeology). A similar identification of interpretive historical fiction by Gibb (2000), was credited by Little (2000: 11) as a way to reconcile rationalism with subjectivity by the application of imagination to solid, accurate data. For Majewski (2000: 17), storytelling is a bridge between processual and post-processual approaches to archaeology, by addressing the big questions of the processualist with the humanised scale of the post-processualist. The key to the creation of interpretive narratives is that they are based on induction, making generalisations about the past from the specifics of the archaeological evidence (McCarthy 2008: 538-540). Bernbeck has highlighted the problem archaeologists have in creating meaning out of factual data. He criticised the use of ethnoarchaeology as ultimately a sterile exercise in classification and fundamentally ahistorical (denying past cultures the possibility of change). He also criticised the use of a hermeneutic relationship based on a common humanity between past and present as imposing a modern perspective on the past. His solution to the problem was to have a better understanding of the role of applying fiction (imagination) to archaeology (Bernbeck 2005: 99-100).

Making narratives is a form of model building, allowing the exploration of the past (cf. Gibbs 2000a: 3). For example, Wickham-Jones has noted that working with a novelist stimulated her to ask new questions of the Mesolithic and to think about what life at the time was actually like. As a result, she became more aware of the weaknesses in her theoretical approaches and interpretations of the period (Elphinstone & Wickham-Jones 2012: 536). Good narratives may also lead to testable propositions and guide us further along our own relationship with the past (Terrell 1990: 20-22).

However, using narratives has pitfalls that we need to be aware of in our rush to entice the public with our particular visions of the past. Terrell (1990: 16-19) has helpfully provided an analysis of what these pitfalls may be. Although narratives need a beginning and an end, social groups or historically located cultures seldom have stark cut-offs from their own pasts and futures, unlike the birth and death of individuals. Furthermore, the necessity of linking events through sequences of causation both simplifies the causative relationships involved, and assumes that we can accurately identify such relationships in the first place. Our narratives may end up giving a false sense of certainty. If we provide individual characters within our narratives then we run the risk of overemphasising individual power and choice at the expense of larger societal or natural forces. Allowing our readers/viewers to identify with characters in a narrative can lead them to make value judgements about people or events that may not be appropriate or be anachronistic. Murphy (2002: 63) has pointed out how projecting modern day assumptions onto the past within historical novels can result in gender stereotyping and a collapsing of the distance between past and present, reducing the strangeness of the 'other'. For Terrell, creating narratives involves being explicit about our biases, and imagining alternative scenarios and explanations.

Narratives need not only be written, Moser has pointed out how good pictorial images also allow

archaeologists to explore and refine their ideas as much as depict them (Moser 1992: 831). Pictorial illustrations are regarded by scientists as the most effective means of communicating ideas since visualisation is a seductive method of argument, being both subtle and unconscious (Moser 1996: 186). Making something visible makes it more believable (Moser 1996: 187). Moser noted that images are full of gratuitous details in the background that set the image in a recognisable and real world (Moser 1996: 213). In this respect, they are similar to written fiction, in which the accumulation of descriptive background detail adds to the historical mimesis which enables the reader to believe the storyworld to be real. Pictorial illustrations of the past are created through the use of conventions which are often laden with symbolic content. As such, they not merely depict the past, but carry messages and reproduce meanings. Moser identified the key conventions in archaeological images as iconography, autonomy, longevity, authenticity, singularity, dramatism and persuasiveness (Moser 2001: 288-289).

2.4.5 Guidance for narrative creation

McManus (2000: 103) pointed out that people like to know about who made, owned or used the objects they are seeing on display. This links with Young's advice to humanise archaeology (Young 2003), itself reflecting the belief of Wheeler, a great archaeological communicator, that:

“... the archaeological excavator is not digging up things, he is digging up people; however, much he may analyse and tabulate and dessicate his discoveries in the laboratory, the ultimate appeal across the ages, whether the time-interval be 500 or 500,000 years, is from mind to intelligent mind, from man to sentient man”.

(Wheeler 1956: 17)

Creating narratives is an essential part of this, by putting people at the heart of our stories. In addition, characters allow us to find personal expression, challenge existing views, create solidarity (or empathy) and invite involvement in the story which leads to deeper engagement and decoding of the message (Hooper-Greenhill 1999: 315).

Young's advice on creating narratives was to explain what happened, then why it happened, followed by what we learn from this and why we should care about it. Above all, we should entertain as well as inform, and humanise the past (Young 2003).

Fagan (2006: 13-27), a prolific and successful archaeologist and author, offered as his first rule of writing that the archaeologist should always tell a story, and goes on to offer advice on the story content and nature of the discourse. The basic elements of good discourse for Fagan are:

- narrative flow using descriptive language, active tenses, avoidance of scientific languages alien to outsiders and clarity of expression;
- lively sentences, moving description and evocative paragraphs;
- a plot with a beginning that leads to a satisfying end;

- find a genre appropriate to the story, although there is no set formula for this;
- use first person narration to bring the writer's own passion and experiences to the narrative.

His advice on story content is that good stories should:

- unlock the past by linking it to our own lives using elements we have in common;
- tell how we found out, how the archaeologists pieced their account of the past together (one approach to this is to get the reader to become a detective at the author's side in a first person account);
- deliver compelling accounts based on the best scientific data (by compelling accounts he means using evocative description);
- focus on the people behind the artefacts (which could use detailed accounts of how one artefact can reveal lived experience in the past).

On the other hand, McManamon (2000: 13) and Allen (2002: 248) refer to generic guidance for authors circulated by AltaMira Press in 1995:

1. find a hook, what is important about the site or find and begin the narrative with this rather than leaving it to the end;
2. tell a story using narrative conventions such as the quest, solving a mystery, the puzzling paradox or the mundane object that reveals a larger truth;
3. include yourself as first person narrator;
4. avoid jargon;
5. talk to a single reader as a kind of conversation;
6. use memorable words and phrases;
7. determine the data you need and stick to these instead of including everything;
8. present data visually where possible;
9. show how theory and methods are linked and your story is grounded in data;
10. always think of the nature of your audience.

Both Fagan and AltaMira clearly lead authors away from the neutral, heterodiegetic narrative of academia towards the more subjective, homodiegetic narration typical of non-academic discourse. Similar advice was given by Young (2003: 10), whose guidance to archaeologists was to:

1. become familiar with a range of types of stories;
2. understand that all topics could be made interesting;
3. work with specialists in publishing for the popular audience;

4. be subjective and personal (first person narration);
5. clearly spell out why the audience should be interested in your story;
6. be evocative and explain what it was like to be there;
7. explain or avoid technical terms;
8. inform and entertain, humanise the discipline.

In other words, explain what you do, why you do it, what you have learned and why people should care about it. If McManamon offered guidance on the discourse, the form of the narrative, then Young provided guidance on the story, the content of the narrative.

2.5 Discussion: communication as interpretation

The archaeologist's task is to make a connection between people today and people living in the past. There is a past-directed chain of communication between those long-departed people and the archaeologist of the present, as well as the future directed chain between the archaeologist and the public of today (figure 4). The message left behind by people in the past is not a narrative communication in the pure sense since there is seldom an intentionality by those in the past to direct a message to people outside their own culture and of a future time. Nevertheless, the chain is real and perhaps can be termed instead as a chain of analysis. People in the past (real authors) left their remains behind which we now categorise as belonging to normative cultures, periods or other entities, such as hunter-gatherers (implied authors). The nature of the discourses that we read are their traces in the material record. They have left behind signs that can be read (decoded) as a message. Read by whom? In the first instance, by the individual excavator (recorder) who may be, among others, a first-year undergraduate, a professional unit digger or a local society amateur. The results of their labours are delivered to the site director, assumed to be working to high professional standards and with the appropriate period or subject specific knowledge (the implied reader). Of course, the dig director may or may not actually have these qualities (the real reader/analyst of the 'message'). All along this chain there lies the potential for error, misunderstanding and false readings. The archaeological narrative as delivered to the publisher is therefore only an approximation to the reality of the lived past.

While communications theory directs our attention to the links in the chain in figure 4, it is narrative theory that gives us guidance on the nature of our messages. These messages can encompass the two storyworlds inhabited by the archaeologist: the present world of the archaeological quest and the past world of lived experiences as reconstructed by the archaeologist. The next, necessary step is to integrate these messages into archaeology through an understanding of the purposes of archaeological communication, to move from the *how* and the *what* to the *why*. I would argue that this must be related to the goals of public archaeology, as discussed in section 2.2.2.

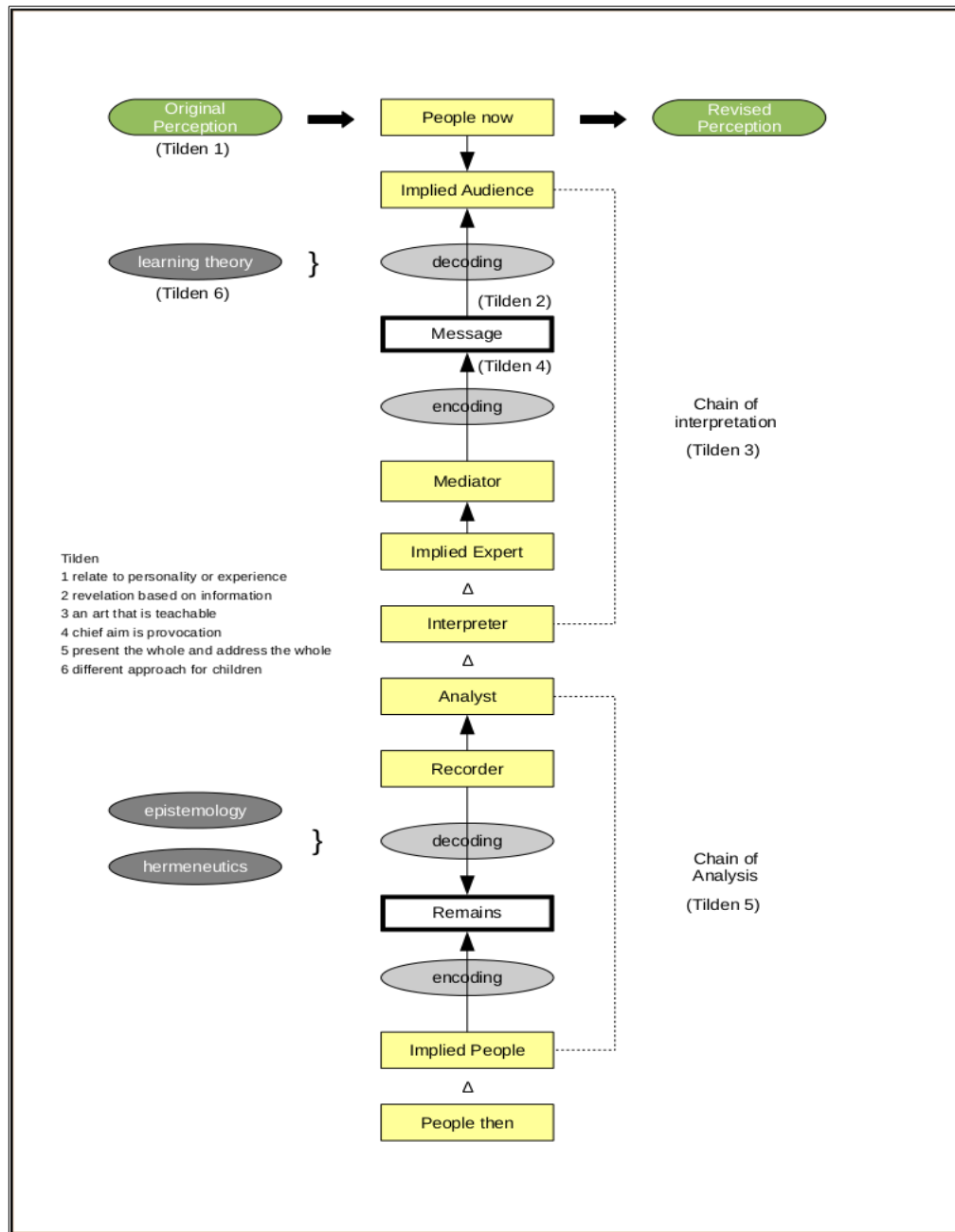


Figure 4: the archaeological communication chain

At this point, it is worth returning to Tilden. He is often quoted for his six principles of interpretation, which he never intended to be fixed and authoritative, but have been treated as such (Tilden 2007: 34-35):

1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
2. Information, as such, is not interpretation. Interpretation is revelation based upon information. But they are entirely different things. However, all interpretation includes information.

3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical, or architectural. Any art is in some degree teachable.
4. The chief aim of interpretation is not instruction, but provocation.
5. Interpretation should aim itself to present a whole rather than a part and must address itself to the whole man rather than any phase.
6. Interpretation addressed to children (say, up to the age of twelve) should not be a dilution of the presentations to adults but should follow a fundamentally different approach. To be at its best it will require a separate program.

Tilden's principles are applicable widely beyond site-based interpretation to communication between archaeologists and the public in general. They form a framework for considering how both the story and discourse of communication may be structured and can be explicitly linked with various parts of the communications chain in figure 4. Tilden's ordering of his principles needs to be changed in order to see this. His fifth principle lies at the base, concerning our task to present the whole of past human lives, understood through the epistemological and hermeneutic processes applied by archaeologists to the fragmentary traces of human behaviour. The third principle concerns how we encode and communicate messages about our understandings of the past. The content of those messages is covered in Tilden's second and fourth principles. The fourth urges us to provoke, to encode a message that not merely delivers factual data but makes our audience think about the past and their relationship to it. The second covers our intent to guide the audience's decoding of our message, as an act of revelation where our data guides their understanding without determining exactly how they will receive the message. Tilden's first principle ensures that we understand our audiences as thinking beings already supplied with ideas, information and thoughts about the past. We therefore need to engage with their lives in the present to help them reach a meaningful engagement with the past on their own terms. Finally, his sixth principle focuses our attention on the need to treat seriously the situation and needs of children as a specific part of our audience. We not only need to understand their educational context in terms of the school curriculum but also their modes of learning and making sense of the world around them.

2.6 Summary and conclusions

Improving the public perception of the Mesolithic has been presented as an issue of how archaeologists communicate with their publics. The content of that communication takes the form of various types of discourse, best assessed using a theoretical understanding of narrative. The actual conveyance of archaeological knowledge and understandings is undertaken through a range of communication channels: direct, indirect and mediated. While the work of archaeologists reaches its widest audiences through the mediation of others, the archaeologists are themselves playing the role of mediator between the people who once lived in the past and our audiences in the present. The decoding and encoding of past peoples' life experiences into messages by archaeologists, and their subsequent decoding by the public are a form of interactive dialogue best

guided by principles laid down by Tilden in 1957. Tilden's principles act as a needful reminder of our responsibilities as socially situated authors within a complex chain of communication.

The next step in applying this model of communication to the Mesolithic is to ascertain what messages about the period have been communicated thus far by archaeologists. Once we know these, then we can examine how they have been reflected (recoded) in public communications media. We can ask if there is a mismatch between academic and public messages about the Mesolithic. The former will be the subject of chapters 3 and 4, the latter of chapters 5 and 6. Chapters 7 and 8 will examine museums as a special case, and chapter 10 will include an analysis of school resources. Altogether, some 882 separate items of communication will be analysed (Appendix 1).

Chapter 3

The development of Mesolithic archaeology

3.1. Introduction

It has been noted, with some justification, that the Mesolithic is effectively invisible to the public, without obvious monuments and seen as a largely academic specialism (Finlayson & Warren 2000: 134). This is in spite of around 150 years of study and publication. The lack of obvious field monuments is one reason for this. Mesolithic remains are usually only encountered as hard to see and badly contextualised small stone tools inside museum display cases. The Mesolithic as a period exists mainly in the interpretations produced by archaeologists.

This chapter will be a review of academic communication of research into the Mesolithic. It will take a broadly chronological approach to show how Mesolithic research has progressed over time, and how the Mesolithic has been portrayed within publications of the research.

3.2 The Mesolithic is proposed, and opposed

The founding view of the Mesolithic is that laid down by Lubbock in 1865. For his description of the Ertebølle shell middens in Denmark, only recently excavated, he quoted the words of his friend Charles Darwin writing about the inhabitants of Tierra del Fuego in 1832, during his voyage on HMS Beagle. Lubbock's use of Darwin served two purposes. It equated the people of the shell middens with a particular type of hunter-gather society, and provided an overwhelmingly negative lens through which the future Mesolithic would be seen:

“These were the most abject and miserable creatures I anywhere beheld. ... These poor wretches were stunted in their growth, their hideous faces bedaubed with white paint, their skins filthy and greasy, their hair entangled, their voices discordant, their gestures violent and without dignity. Viewing such men, one can hardly make oneself believe they are fellow creatures and inhabitants of the same world.”

(Lubbock 1865: 190, quoting Darwin 1839: 213)

As yet, no archaeologist had developed a terminology to describe the material cultures of the post-Ice Age hunter-gatherers whose remains were beginning to be found. The term ‘Mesolithic’ was first put forward by Westropp in 1866 (Westropp 1866: 291). He elaborated his idea into its final form in 1872, when he defined the Mesolithic according to the way of life of its people (Westropp 1872: 65). They were those who lived by the hunting of red deer, wild boar and aurochs, and whose stone tools were occurring as surface finds in Denmark, England, France, Germany, Ireland and Switzerland (Westropp 1872: 102). This original definition was of a stage of human development rather than a chronological period, and was linked with Westropp's notion of human progress. This itself was part of the intellectual climate of its time, dominated by an evolutionary perspective that had become fashionable after Darwin and Wallace had published their mechanism for biological evolution in 1858 (Darwin & Wallace 1858).

The period was seen in a very negative light, conditioned by colonial attitudes towards contemporary hunter-gatherers and the paucity of the archaeological evidence for the period (Zvelebil 1986b: 6). Westropp described the people of the time in various uncomplimentary ways: “scarcely less savage than the beasts of the forest”, “living in a wild and uncultivated state”, “a hunter is a wild man”, “stationary and unprogressive”, “his intellect was dormant” (Westropp 1872: 8-9).

It was only gradually that the major finds that were to define the period were published and accepted. The Danish kitchen-middens had been explored as early as 1850, but had been treated by most people as Neolithic (Lubbock 1865: 191-192, Munro 1912: 280). Portuguese middens at Muge (referred to in early writings as Mugem or Mughem) were announced in 1880 (Munro 1912: 284), and soon after came notices of finds in the Pennines of extremely small retouched flints (Law & Horsfall 1882, March 1883), allotted by Allen Brown (1889: 138) to the Neolithic. These would later be termed ‘pigmy flints’ (Gatty 1895), or ‘microliths’ (Kendall 1906). One early writer clearly admired the microliths, although he had difficulty in imagining who (or what) might have made them: “whoever the people were who made them, dwarfs or fairies, they certainly were handicraftsmen of no mean order” (Gatty 1895: 37). March thought that microliths represented a distinct advance in culture, made by a people who were adapting to a changing environment and acquiring a considerable skill in manufacturing their tools (March 1883: 19, 22-23). Nevertheless, even he could not avoid an eventual put-down, describing the people of the time as “feeble folk who camped and clustered on the summits of hills” (March 1883: 23).

The key breakthrough in the acceptance of the Mesolithic as a named period was the excavation of the site at Mas d’Azil in France, announced in 1889 and published in 1895 (Munro 1912: 249). This was recognised as a key anchor for defining the period (Allen Brown 1893, Read 1902: 78). Finds of Mesolithic material in Scotland at Oban and Oronsay were reported, also in 1895, and widely seen as similar to the material from Mas d’Azil (Anderson 1895, 1898). Finds of microliths on the continent had already been described from the site of Fère en Tardenois in France in 1890 (Osborn 1915: 465). Such tool forms as microliths could not be associated with either the Palaeolithic or the Neolithic, and so became the second firm anchor for advocates of the Mesolithic. The final confirmatory evidence that the Mesolithic had an identity all its own came with the excavation of the site of Maglemose, published in Danish in 1903 (Armstrong 1923: 62). This had microlithic stone tools dated to the period of the post-glacial Ancylus Lake in Scandinavia and so earlier than the Ertebølle sites.

However, the term Mesolithic was not immediately accepted in Britain. The archaeological establishment especially avoided the term. Every edition of Lubbock’s *Prehistoric Times* from the 1869 to the 1913 editions, the standard text-book of the day, ignored it. Even more dismissive was the leading French archaeologist, de Mortillet in 1872, who advocated an abandonment of Europe between the Palaeolithic and Neolithic: a ‘hiatus’ in settlement which proved remarkably hard to shift from the minds of archaeologists (Munro 1912: 243-244). The pre-eminent authority on

prehistoric stone artefacts was also actively hostile to its use (Evans 1897: 701-702). The British Museum in 1902 had dismissed the Mesolithic as an entirely foreign concept with no accepted finds in Britain (Read 1902).

By 1904, the possibility of there being a British Mesolithic was being reluctantly admitted, although only as a possibility rather than proven (Windle 1904). The recognition that the finds made since the 1880s did indeed belong to the Mesolithic, came four years later (Johnson 1908). Even then, the first comprehensive account of the Mesolithic in north-western Europe was that by Munro, who preferred to write about Azilian and Tardenoisian cultures within the early Neolithic. He continued the negative stereotype that had already been established, arguing that the “domestic economy was of a low order” (Munro 1912: 285-286).

Even at this point, there were still authorities who were unwilling to accept the existence of the period as a meaningful category. The period could be dismissed as having been “invented to disguise various gaps in our knowledge of the remote past” (Smith 1912: 110), its sites being allotted to the Neolithic (Geikie 1914: 314-316) or the Epi-Palaeolithic (Dalton 1926: xiv). Balch wrote “the term Mesolithic period is a misnomer and the sooner it is abandoned the better for prehistoric archeology (sic)” (Balch 1923: 60).

So much new evidence was being found by 1920 that Macalister (1921) could fully accept the term Mesolithic in a review of the evidence for post-glacial occupation in northern Europe. He pointedly noted that the term should be used as a chronological period not as an evolutionary stage in human development (Macalister 1921: 516-517).

The first phase of academic consideration of the Mesolithic reached its fruition in the publications of Burkitt. In the first edition of his book, *Prehistory*, he did not use the term Mesolithic but described the features of the period using culture historical terms, calling the whole Mesolithic phenomenon the Azilio-Tardenoisian (Burkitt 1921). Burkitt’s focus was on conventional artefact typology, although he did introduce the ‘Bushmen’ in Africa as analogues based on similarities in stone tools. A few years later, Burkitt had come round to fully accepting Macalister’s position in using the term Mesolithic to cover a group of cultures in western and northern Europe (Burkitt 1925). He provided a definition of the period the following year: that it began with the change in climate at the end of the Ice Age and ended with the introduction and general use of polished stone axeheads and megalithic tombs (Burkitt 1926a: 220, 1926b: 3-4). While doing much to raise the status of the period as a proper category of the human past, Burkitt was still hardly enamoured of its archaeological remains. He wrote that:

“Mesolithic times as a whole are perhaps rather unprogressive and present scenes of primitive culture little relieved by either wealth of industries or beauty in art.”

(Burkitt 1926b: 47)

3.3 The Mesolithic is established

Thus far, the Mesolithic was seen as a filler between two other periods of greater interest or

importance. The scene was being set for Clark's masterly survey of the British Mesolithic in 1932. Clark almost single-handedly raised the Mesolithic into a period worthy of serious research. His first attempt was to collate all the then known evidence for the Mesolithic in Britain (Clark 1932). Clark was clear about the origins of the negative views of the period stemming from the cultural evolutionary view of human development and tried to redress the balance.

In cultural terms, Clark was clear that the Mesolithic and Neolithic were parallel developments and that the Mesolithic was worthy of study in its own right not as a precursor to the Neolithic (Clark 1932: 6-7). On the other hand, the evidence for the period by the 1930s was still relatively meagre, leading Clark to follow his supervisor Burkitt in dismissing Mesolithic folk as "poverty stricken" and their culture as "poor" (Clark 1932: 9-10). He saw European Mesolithic people "as the laggard survivors of a more primitive civilisation in a backward region" (Clark 1932: 12).

By 1936, Clark had begun to avoid describing the period using value judgements, instead offering an objective description of the evidence. His work on the Mesolithic of Europe (Clark 1936) was a much more sober affair. Hodder noted that Clark spearheaded the drive to make archaeology a more objective science (Hodder 1989: 272). It is this drive for a more objective archaeology, and the use of functionalist ecological models by Clark and others, which changed the nature of writing about the Mesolithic by archaeologists.

Clark used an ecological framework for human cultural adaptation. Rather than tracing cultural history, he was more interested in tracing the way of life of the people as food-gatherers. Clark's perspective was strictly utilitarian and tightly focussed on the material conditions of life. Naturally, he had little time for the few indications of Mesolithic art and decoration that had been found, writing that at least "their prowess as hunters and fishers earned them sufficient leisure to be bored" (Clark 1936: 127).

Other archaeologists in the 1930s were continuing to address the Mesolithic through the lens of higher civilisations. Peake was typical of many in having a poor opinion of Mesolithic life, describing it in 1933 as "a time of poverty and hunger" with a low and declining civilisation whose "people were becoming poorer and more miserable" (Peake 1933: 45). Peake even brought back the indigenous peoples of Tierra del Fuego, whose derogatory description by Darwin had laid the foundations for understanding the Mesolithic some 70 years earlier, using this to characterise the people as "miserable and hungry", living off what "meagre fare" could be taken from nature (Peake 1933: 103). Peake was however a staunch defender of the term 'Mesolithic', against strong opposition to it as a category of the human past, expressed in a series of short letters in the journal *Nature* (Bury 1934, Moir 1933, 1934, Peake 1934). Clark's drawing together of the evidence and placing it in an analytical framework was thus timely.

The Mesolithic had at last become a fixed feature of prehistory. One engagement with it that stands out from the rest is a deliberate use by Hawkes (1942) of the Mesolithic to develop a story that had contemporary political resonance. This was written as a reaction against Nazi racism, and meant to show how Europe had always been a vibrant mix of different races and cultures. He wrote about

how the Mesolithic northern European Maglemose culture included both broad-headed peoples in the west and long-headed in the east. Therefore, there was no simple equation of race and culture. He went on to argue that the Tardenoisian culture had come from the south, from north Africa through Spain, thus bringing a more Mediterranean racial type into the Mesolithic ethnic mix (Hawkes 1942: 127).

The other major English-language archaeologist capable of providing a holistic overview of the past at this time was Childe. In the first edition of his highly influential *The dawn of European civilisation* in 1925, he was very dismissive of the Mesolithic as contributing nothing to the development of civilisation, by which he meant the Neolithic (Childe 1925: 3). He used the term 'Forest Cultures' to acknowledge that the northern European Mesolithic had an identity to itself, distinct from the Epipalaeolithic farther south (Childe 1929: 19; 1931, 1937). Childe's focus was on the development, within his Marxist-inspired paradigm, of the Neolithic Revolution and he was bound to judge the Mesolithic according to how far it contributed to this later period. He would later say that the Mesolithic ended up as "conservative groups in cultural backwaters, obstinately clinging to an obsolescent economy" (Childe 1940: 29). In his later writings, he still portrayed the period as one that was "shrivelled and decayed" with its "isolated and poorly equipped" people "picking up a bare livelihood" (Childe 1947: 1-3), but he also began to credit the Mesolithic with some success: the independent invention of pottery and the axe, and of polished axes, being favourably situated and well equipped in an environment with no inducements to adopt agriculture (Childe 1947: 13), and contributing the technology of fish-traps, leisters, also the use of birch pitch, and developing an efficient kit of wood-working tools (Childe 1947: 48-49).

Childe was moving slowly towards seeing the Mesolithic as a specialist and successful adaptation to a woodland way of life. Indeed, the development of the hafted axe was seen by Piggott in positively heroic terms, as "a symbol of the battle of man with the natural environment" (Piggott 1949: 55). For others, it was the bow and arrow that marked the major Mesolithic advance (e.g. Sauer 1948: 72-73). The Mesolithic could be presented as the supreme age of the hunter (Hawkes 1951: 156).

The next step forward came again from Clark in two works of the 1950s. He provided not only a breadth of outline, but also a detailed archaeological record unimaginable in earlier decades (Clark 1952, 1954). The major event that allowed him to do this was of course the discovery and excavation of the site of Star Carr. The outlines of Clark's approach remained ecological, with culture being an interdependence of biome (people, plants and animals) and habitat (soils, climate). The equilibrium of the culture could be affected by changes in climate, demographic growth, culture contact and human disturbance of the environment (Clark 1952: 7-9). This is not environmentally determinist but does serve to place the environment as a key framing device for the Mesolithic. Culture history was firmly eclipsed in Clark's mind by cultural ecology (Clark 1952).

Excavating across dry land into former lake deposits at Star Carr yielded a rich harvest of wood,

bone and antler that revolutionised our understanding of the Mesolithic. The detailed excavation revealed a site that had been occupied more than once, had been the home for possibly four families at any one time and whose occupants had been remarkably self-sufficient from within their local area for all their material needs. Clark was able to paint a picture of potential plant and animal foods, possible seasonal occupation in late winter to early spring, as well as making assumptions of gender roles (men hunting and women hide processing) (Clark 1954: 9-24). His most remarkable finds were the 191 antler and bone barbed points and the 21 red deer antler frontlets that had been shaped in order to be worn as headdresses, either for stalking in hunting or for ritual ceremonies connected with fertility (Clark 1954: 170-171). Star Carr fleshed out the picture of the Mesolithic and provided new evidence that it was more complex and with a richer social life than previously imagined.

Clark's view was that a hunting, fishing and gathering economy satisfied people's needs to such an extent as to be an attractive way of life with little incentive to change. Any change towards the Neolithic would be in the direction of the "shackles of the farmer or the squalid life in cities" (Clark 1952: 37). This was a straight reversal of Childe's vision of progress. Clark's report on Star Carr was a model of a sober, straightforward account of contexts and finds. The rarity of the organic finds and spectacular nature of some of these, such as the red deer head-dresses, could have led to a highly coloured account of Mesolithic life. It is notable that Clark avoids this, letting the finds speak for themselves (Clark 1954).

Clark was easily the dominant figure in Mesolithic studies at the time. although others were producing site specific, regional and environmental studies that added greatly to the database for the period throughout the 1950s and 1960s; such as the excavations at Thatcham (Wymer 1962, 1963), Deepcar (Radley & Mellars 1964) and Culverwell (Palmer 1968, 1972). Few overviews were published and there was not much academic debate until the 1970s. Clark's later overview of the period was happy to proclaim the Mesolithic way of life as "in no way inferior to that of the peasants to the south" (Clark 1967: 108). However, Roe's widely used introduction to prehistory still used earlier motifs and referred to the Mesolithic as "long and uninspired" or as a "sadly impoverished survival" of the Palaeolithic (Roe 1970: 86 and 99).

New developments included the publication of the 1966 conference on hunter-gatherer societies, *Man the hunter* (Lee & De Vore 1968), which led to radical revisions of opinions about hunting and gathering societies in a more positive direction (Zvelebil 1986b: 8). By the 1970s, archaeologists like Jacobi and Mellars were providing a greater focus on typology and chronology, while the New Archaeology systems frameworks (pioneered by Clark) effectively transformed the Mesolithic into sets of functional relationship between its features (Jacobi 1973, 1976, Price 1973, Mellars 1974, 1976, Clarke 1976).

Clark continued to publish and revise his thoughts about the Mesolithic and his own re-evaluation of Star Carr provided an object lesson in seeking to understand a prehistoric way of life in functional ecological terms, stripped of emotion but rich in understandings of prehistoric

subsistence (Clark 1972). Much of the new work on the Mesolithic was not so much a reorientation away from Clark but an amplification and refinement of where Clark had previously led. This is clearly seen in the work of Jacobi and Mellars (Jacobi 1976, Mellars 1976), and the foray into the period by David Clarke (1976), who provided an admittedly speculative examination of the Mesolithic in functional terms.

Clark soon provided his own positive presentation of the Mesolithic, commenting negatively on the way it had been defined and investigated since the 1860s, and attacking Childe's Marxist model of progress which led to his downgrading of the period (Clark 1978). Clark's view was that the Mesolithic was a period whose people deserved our respect. His final word on the Mesolithic came in 1980. Yet, the very title of his book, *Mesolithic prelude*, is somewhat ambiguous. In raising the status of the period and giving its way of life a degree of admiration, he could not avoid admitting the superiority of the Neolithic, admitting that when compared to hunting and gathering

“even primitive farming was markedly more productive, permitted greater concentrations of population based on more reliable as well as richer sources of food, and therefore favoured a higher degree of social integration, and a more advanced technology”

(Clark 1980: 66-67)

It almost seems as though, even at the end, Clark could not quite bring himself to act as the cheerleader for the Mesolithic way of life. The Mesolithic as a prelude is a period of waiting for something else to come along that will raise human society to a different level. A functional ecological approach to the Mesolithic had reached its limit.

Mesolithic archaeology in the 1980s continued to re-iterate a view of the period as a time of woodland adaptation and hunting of red deer in the northern temperate forests, as a viable alternative to agricultural societies (Rozoy 1984, 1989, Zvelebil 1986: 6-7, Darvill 1987: 38-43). Research continued to benefit from the use of anthropological models (such as Binford 1980). At the forefront of the late Clarkian group of scholars were Zvelebil and Rowley-Conwy, who were keen to stress the value of the Mesolithic in its own right, rather than being compared to the Neolithic of farming societies. They still followed a broadly ecological model, although with a variety of hunter-gatherer experience within different habitats that changed over time (Rowley-Conwy 1986, Zvelebil 1986a, b) and saw the period as a kind of Garden of Eden for affluent foragers (Zvelebil 1986b: 8).

Others agreed, and saw the period as a kind of Arcadia. Pluciennik (1999: 665) quoted Tilley's Marxist belief in the Mesolithic as a proto-communist utopia:

“I am politically old-fashioned enough even to want to describe [late Mesolithic southern Scandinavia] as a kind of Garden of Eden before the fall. These were a series of communities in which ownership of land and resources was common or collective, sharing was generalized and no one is likely to have gone hungry.”

(Tilley 1996: 68)

Clarke (1976: 458-459) noted that the idea of the hunter-gatherer economy as affluent and easy had been especially common since the publication of the *Man the Hunter* conference in 1968. He pointed out that such a view was just as much a distortion as the view of hunter-gatherers as primitive and economically marginal.

Archaeologists had gone as far as they could in teasing out Mesolithic lifestyles from the available evidence based on cultural-ecological frameworks.

3.4 The Mesolithic is reimagined

Post-processual approaches began to appear as part of the investigation into the origins of the Neolithic and its interface with the Mesolithic (Young 2000: 4). Among the early applications of new theoretical frameworks were papers appearing in Young's collection of conference papers in 2000, the introduction to which he suggestively entitled "Waiting for the great leap forward" (Young 2000: 1).

In the same year, an issue of the *Archaeological Review from Cambridge* was devoted to new approaches to the Palaeolithic and Mesolithic. In this, Finlay noted that the established narrative of the Mesolithic was based around men chasing deer into the uplands for their meat with occasional fishing, shell collecting or hazelnut gathering, and that women and children rarely formed part of the story. She dubbed these accounts the "boys and arrows narratives" (Finlay 2000a: 67-68). Finlay complained about the lack of attempts to envisage the landscape in social or symbolic terms instead of only subsistence, and identified a need to develop other narratives of the women and children, the old, the young and experiences of movement, of place and time (Finlay 2000a: 75-76). Other papers focussed on the Mesolithic dataset (Spikins 2000), on-site patterning (Pollard 2000), artefacts in the landscape (Conneller 2000) and landscapes (Finlayson & Warren 2000). A key feature of these approaches was the concern with events as structured sequences, a necessary condition of narrative.

A key aspect of the new way of looking at the Mesolithic was an interest in more socially cognitive approaches to landscape studies (Cummings 2000, Finlay 2000b, Warren 2000). Likewise, the inclusion of a subjectively phenomenological response to the Mesolithic by Mithen, within a traditional field report on excavating Mesolithic sites, was also a signal that new thinking (and imagining) was beginning to be applied to the period (Mithen 2001: 629 & 632). Although we now live a very different lifestyle to the people of the Mesolithic, Mithen argued that we would still have common physiological responses. We could combine this with our knowledge of modern hunter-gatherers and our physical engagement with the same landscapes in which Mesolithic people lived:

"For all we need to do is to give our evolved, and perhaps repressed, hunter-gatherer mind a chance, give it the right environment the right stimuli, and we can indeed catch a glimpse, however small and fleeting and superficial that may be, of

the Mesolithic experience.”

(Mithen 2001: 629)

He was careful to note that there was the possibility of a false sense of empathy as opposed to a shared hominin response: a “forlorn optimism” that archaeologists could reach the minds of the past (Mithen 2001: 629). Such open subjectivity is based on very different premises to the subjectivity of earlier writers. It is not a judgement on the Mesolithic from the standpoint of the present, but an informed imagining trying to engage with the Mesolithic on its own terms. This is still rare in archaeological accounts of the period.

Mithen continued to immerse himself subjectively in the Mesolithic world in his global human history by hearing the same birds, crouching down among the same plants and smelling the same wetland, seeing what they would have seen with no signs of the modern world (Mithen 2003: 141-142, 201).

The years since 2000 have seen the publication of several major collections of papers dealing wholly or partly with Mesolithic archaeology (Bevan & Moore 2003, Larsson et al. 2003, Cobb et al. 2005, Milner & Woodman 2005, Conneller & Warren 2006, Bailey & Spikins 2008, Crombe et al. 2009, Fairbairn & Weiss 2009, Finlay et al. 2009, McCartan et al. 2009, Marciniak & Coles 2010). Especially noteworthy is that edited by Milner and Woodman which was concerned to deconstruct the canons of Mesolithic archaeology – the environmentally situated framework of analysis linked to functional models of Mesolithic life – and stimulate new ways of thinking about the period (Milner & Woodman 2005: 8).

As well as new theoretical approaches, there have been various new finds or reinterpretations of material over the last 20 years that have given us a new picture of Mesolithic life. There have been finds of human footprints (Roberts et al. 1996, Bell & Neumann 1997), of houses (Goeder 2007, Waddington 2007a, 2007b), submerged landscapes (Momber et al. 2011), evidence for the North Sea tsunami (Dawson et al. 1990), a possible Mesolithic calendar (Gaffney et al. 2013), careful research into the disposal of human bones (Conneller 2006) and the application of isotope analysis to understand diet (Schulting & Richards 2000) among other advances. We have also now been able to fill in the geography of the North Sea basin and added a new land to the European Mesolithic, Doggerland (Gaffney et al. 2009). The arrival of the Mesolithic as a period worthy of study in its own right with rich possibilities for interpretation has been signalled by the publication of its own research framework in England (Blinkhorn & Milner 2013), while the earlier, equivalent frameworks in Wales (Walker 2011) and Scotland (Saville & Wickham-Jones 2012) still bracket the period with the Palaeolithic.

Mesolithic archaeologists now had the tools to develop engaging accounts of the period. That such were needed is suggested by Kozłowski’s observation that descriptions of the Mesolithic were banal, poorly documented and not exclusive to the period (Kozłowski: 2003: xviii). The banality of the accounts lay in their focus on food gathering and technology. Mithen’s account of human

response to the loss of Doggerland is one example of broadening the presentation of the Mesolithic from pure description towards greater imaginative content. The slow flooding and drowning of Doggerland provides a motif that allows human characters from the Mesolithic to be inserted into the story, albeit in a general way rather than by individual characterisations (Mithen 2003: 151). Conneller's work on plotting human movement through a landscape, linking sites and areas of activity by the patient detective work of refitting lithic finds provides another (Conneller & Schadla-Hall 2003, Conneller 2005).

Conneller and Warren's edited volume aimed to counter the perception of the period as "dull and impoverished" by highlighting the possibilities for engendering new narratives with a focus on human relationships with technology (Warren 2006: 7), paying attention to gender to go beyond male dominated narrative motifs (Finlay 2006), embedding the food quest as an aspect of social behaviour (Milner 2006), the use of ethnography as a source of possible narratives (Jordan 2006), placing human ritual as part of the Mesolithic characters' responses to their world (Chatterton 2006), seeing landscapes as settings for human emotional response (McFadyen 2006) and highlighting the consideration of death (the ultimate plot 'fulfilment') as part of the individual's life story (Conneller 2006). Finlayson noted the need to move away from generalising models applied in a normative way towards micro-scale analysis of the details of temporal and regional variation (Finlayson 2006: 167). Likewise, Warren called for a focus on the human behavioural scale and individuals who acted out their lives in the Mesolithic (Warren 2007: 319). These calls can be read as an academically coded plea for a greater concern with narrative where characters act out their lives in a storyworld we call the Mesolithic.

3.5 Summary and conclusions

We have seen that academic portrayals of the Mesolithic have gone through three main phases: from subjective impression to factual description and in turn to imaginative reconstruction.

The 1860s to the 1930s saw debates about the reality of the Mesolithic as a concept, and the early accumulation of evidence for a post-glacial hunter-gatherer culture. This culture was seen in mostly negative terms by being contrasted unfavourably with the preceding Palaeolithic and succeeding Neolithic. The period is full of the derogatory comments of a few seemingly fascinated but appalled archaeologists.

The 1930s to the 2000s were dominated by a cultural ecological approach whereby archaeologists sought increasingly more detailed understanding of hunting and gathering, and revealed increasing chronological and geographical variation in the Mesolithic way of life. However, a greater rigour in analysis of the evidence came at the expense of the personal, subjective experience of living in the world and reduced archaeologists' understanding of past viewpoints (Bradley 1996: 39).

Since the 2000s, new kinds of evidence for Mesolithic life have been discovered and archaeologists have begun searching for new ways to interrogate the period. Many have moved towards a cognitive interpretation of personal experience in the Mesolithic by incorporating approaches from

the post-processual turn of thought in archaeological theory. They have heeded the criticism of Thomas (1988: 64) who called for “injecting a little history and human intentionality into the cybernetic wasteland of the Mesolithic”. Spikins could now talk of using social psychology to focus on Mesolithic people’s aspirations and emotions (Spikins 2008: 13).

Having provided an overview of how Mesolithic archaeology has developed, I will present in the next chapter an analysis of how this is reflected in the narratives used to describe the period.

Chapter 4

A narrative analysis of the academic discourse

4.1 Introduction

This chapter contains a narrative analysis of selected academic media: those which offer an overview of the Mesolithic and which contain value judgements about the period. The first section covers the methodology adopted for the analysis. The next discusses the results of the analysis of value-laden words used to describe the Mesolithic from the 1860s onwards. Narrative motifs of characters, settings, actions and happenings are then covered in the following sections. The chapter concludes with a summary of how the academic narrative of the Mesolithic has developed over the three phases of academic writings that were identified in chapter 3.

4.2 Methodology

Textual analyses of writings on prehistory are rare. Thomas undertook an analysis of words used in descriptions of the Neolithic to reveal trends in the interpretation of the period over time (Thomas 1993). His analysis could be said to offer a series of snapshots through time as he only covered six texts between 1872 and 1990. It would seem worthwhile to undertake a similar analysis of writings about the Mesolithic to see if there were any trends in its description or changes in the words being used that shed light on the characterisation of its people, plots and settings.

A selection of academic writings on the Mesolithic from 1865 onwards (the first discussion of Mesolithic finds, and the year before the term was first coined) was chosen for analysis. The analysis has been subjective and largely qualitative. Contents analysis is a methodology widely used in communication studies, developed originally in the 1920s. Its originator, Harold Lasswell described it as “Who says what, through which channel, to whom, with what effect” (Lasswell 1948, cited in Macnamara 2005: 2), and as “a technique which aims at describing, with optimum objectivity, precision, and generality, what is said on a given subject in a given place at a given time” (Lasswell, Lerner and Pool 1952, cited in Macnamara 2005: 2). Modern content analysts include those who employ strict quantitative measures, seeking objectivity, but also those who recognise a more nuanced qualitative approach may be more useful (Macnamara 2005: 5) and which is more commonly used in literature and philosophy (Smith 2000: 327). A balanced approach combines the two.

This short study does not aim to uncover the intention or mental constructs of the authors in their descriptions of the Mesolithic. This is not possible from a cursory analysis of selected writings. Nor does it establish how readers may have imagined the Mesolithic to be. What it does do is provide a way of noting changes in the depiction of the Mesolithic, which form the message content audiences had access to, and which form the accumulated ‘noise’ against which interpretations of the period could be made. Inevitably, it is highly subjective, making use of my own reactions to key words and phrases. Nevertheless, these reactions will have much in common with others of my background and are part of the shared engagement with the writings of the period by educated

people with an education in archaeology. I hope therefore that they can shed some light on how the period may have been received by others. Macnamara (2005: 6) wrote that media content analysis of data over an extensive period can help to identify popular discourses and their likely meanings.

While I have included an element of quantitative analysis, nevertheless, my analysis is largely qualitative. It is not replicable in the sense demanded by rigorous contents analysis (Macnamara 2005: 13). My conclusions are inevitably subjective and other scholars are free to produce their own analyses of the same data, and their own interpretations of my results. This would itself be of great interest in revealing differing views of the Mesolithic.

My approach follows the procedure of inductive analysis, working from specific observations of categories and patterns to broad conclusions. This is one of two methods advocated by Mayring (2000, as cited in Macnamara 2005: 17 and referenced in Kohlbacher 2006). Kohlbacher (2006: 12) quotes Bryman (2004: 542) in describing the qualitative approach as one that:

“emphasizes the role of the investigator in the construction of the meaning of and in texts. There is an emphasis on allowing categories to emerge out of data and on recognizing the significance for understanding the meaning of the context in which an item being analyzed (and the categories derived from it) appeared”.

McKee (2001: 1-2) has pointed out how qualitative textual analysis is poorly defined and without a standard methodology. My approach has been to examine academic accounts that were published from 1865 onwards. Works examined are those written by scholars who offer an overview or general account of the period, along with those more specific reports which helped to establish the Mesolithic as a period of study in the late 19th century. A number of works from the middle and later 20th century, as already noted, offer a notably objective and value-free account of the Mesolithic and so have no content which helps to fix an image of the period in the readers' minds other than the cumulative reception of factual information. They are therefore excluded from this analysis. The 58 works examined are listed in Appendix 2.

The analysis covers the nature of the narrative elements used and changes in their occurrence over time to see how the narrative of the Mesolithic has developed. Each text has been examined and relevant content entered into a spreadsheet, which allows the collation of the data. The content recorded is each value-laden word or phrase (Appendix 3), indications of characters or people, descriptions of settings, actions and happenings (data are given in Appendix 4 and a summative analysis in Appendix 5).

4.3 Words

A search was carried out for descriptive words and phrases that ascribed a characterisation of the Mesolithic as a period or its people. These are mostly adjectives or adjectival phrases, accepted by Macnamara (2005: 17) as among the legitimate elements of analysis, which give strong indications of a writer's attitude and which can be categorised as both positive and negative. Care was taken to note the context of the words within the sentence. For example, the term 'miserable' was ascribed

to Mesolithic people, and occurs in Palmer (1977: 192-192) but only as a refutation rather than an affirmation of the characterisation, and is therefore excluded from the word count.

A total of 115 value-laden positive and negative words or phrases were identified in these publications. The words can be characterised under a number of broad headings:

- negative – degenerate, empty, marginal, miserable, passive, precarious, primitive, scattered, stagnant, strange, struggling, surviving, unpleasant, unskilled, wild;
- positive – advanced, adventurous, complex, courageous, skilled, successful.

The totals for the number of times that each negative and positive word occurs in each decade since the 1860s are presented in figure 5.

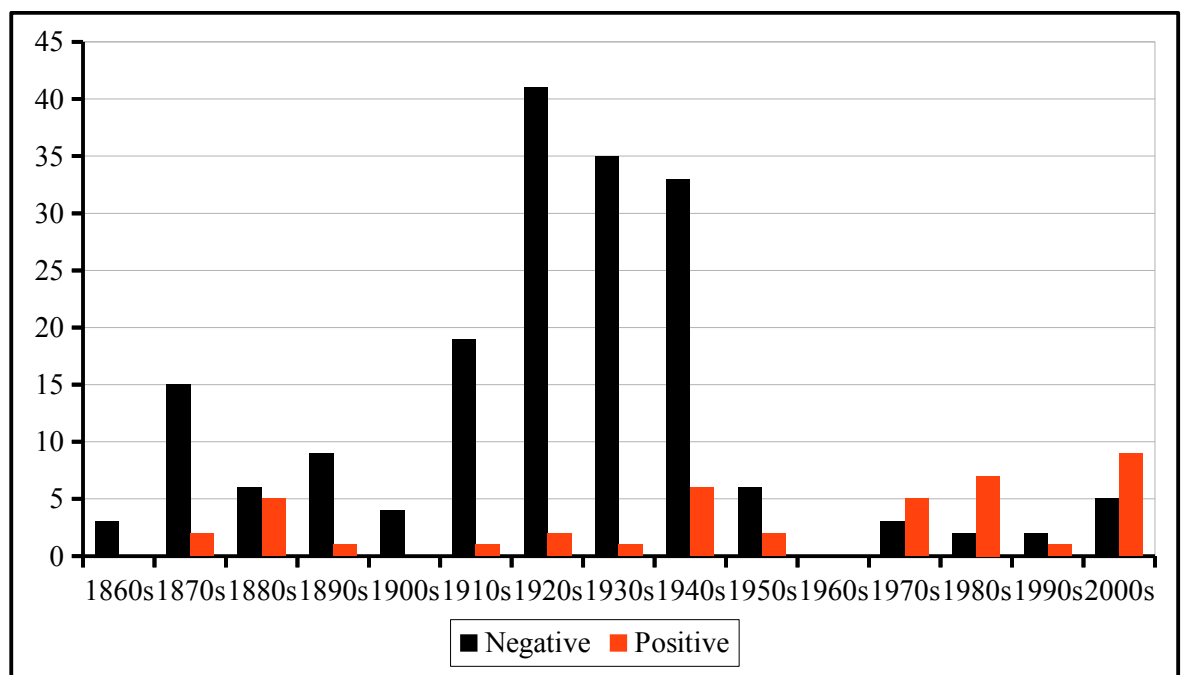


Figure 5: number of occurrences of negative and positive words for the Mesolithic in each decade

The dominance of negative words (87 with largely negative connotations compared with 28 largely positive) reflects the greater use of value-laden language in earlier archaeological discourse. Most individual words (73) occur only once and 15 occur only twice. The commonest single words used, occurring four times or more, are:

- rude (11, 1865-1922);
- degenerate/ion (11, 1915-1947);
- primitive (8, 1865-1933);
- poor (8, 1927-1948, with poor also occurring a further four times as ‘poorly-made’, 1925-1926 and poverty occurring four times, 1921-1933);
- miserable (7, 1927-1933);
- deterioration (6, 1915-1980);

- savage (5, 1872-1952);
- compelled (1884-1952), eking (1927-1940), isolated (1940-1947), precarious (1867-1940).

The most commonly occurring positive words are:

- innovative/ion (4, 1948-2008);
- rich (3, 1926-2008);
- efficient (3, 1947-1988);
- skill/ed (3, 1881-1914).

What the words reveal is the persistence of particular characterisations in archaeologists' accounts of the period. This will be summarised in the accounts of character and setting given below.

4.4 Characters

Archaeological stories need people. For Fagan (2006: 17), the stories lie in the people behind the artefacts. Little (2000: 10) has also noted the lack of characters (as well as plot) in modern archaeological writing. In contrast, Terrell (1990: 4) and Stone (1994: 199-200) have highlighted the importance of characters as part of stories about prehistory and in museum displays.

Furthermore, Holtorf (2006: 165-167, 2010b: 383) has emphasised that characters matter to readers, in that they reflect their dreams and aspirations, through reading relevance from the characters into their own lives (see also Fagan 2006: 14).

Can we identify characters in the academic accounts of the period? One feature of the Mesolithic in Britain is a scarcity of formal burials so far identified. Characters as individuals are not a normal feature of academic writing in archaeology. According to Pluciennik (1999: 660), characters in archaeological narratives are usually unnamed and may not even be individuals, being instead "communities, societies, traditions, cultures, styles, activities, technologies, sites, landscapes, or even regions". An analysis of the academic writings used in the works already analysed for value-laden descriptions reveals a scarcity of identifiable individuals. Instead, neutral words such as inhabitants or colonisers, group designations as communities, groups, societies or abstract notions such as people, folk or race are common.

Where more specific terms are used, they are mostly functional (in 70.8% of items depicting characters). The commonest are those functions that describe different aspects of obtaining food, like hunter-gatherers or fishers. Characters with an individual personality or description are rare (only 10.4% of items). The main distinctions between characters are simply those of adult or child, man or woman. Such a reduction of the idea of character to generalised constructs removes from archaeological narratives as one of the main elements of emotionally engaging stories. The use of the term 'man' or 'men' as a generic word for people occurs in 43.8% of items. Males are specifically identified in 33.3% of items, compared with women in only 20.8%.

For many of the early writers, Mesolithic people seem to dissolve behind overtly racial

characteristics. Rendall (1889: 52) sought the origins of the Indo-European speech community (at that time known as the Aryans) in Scandinavia and valued the people of the shell mounds as ancestral to later Scandinavians. Others were more prepared to characterise Mesolithic people in physical terms, albeit in a highly negative way::

“It is not less difficult to believe that the repulsive savage of the kitchen-middens, with his narrow brow, his retreating forehead, his low skull, his prognathous jaw, his prominent orbital ridges, and his animal propensities so clearly indicated by the occipital development, a mere nomad hunter, without fixed abode, and making no use of regular sepulchres, could have been the ancestor of the noble Aryan race.”

(Taylor 1890: 242)

Others were more perplexed about identifying the people behind the artefacts. This is reflected in Gatty’s no doubt tongue-in-cheek reference to dwarves or fairies as the makers of microliths (Gatty 1895) and Burkitt’s reference to the period as elusive (Burkitt 1921). Words used to describe its people scarcely advanced. Clark’s emphasis on understanding the Mesolithic way of life, at least of subsistence, helped to keep its people present only as generalised characters in the accounts of the period during the main part of the 20th century. Variations on the term hunter-gather +/- fisher are the dominant characterisations of the Mesolithic since the 1930s, with hunting by far the commonest and gathering the least represented (Figure 6).

Figure 6: numbers of items that describe functional characters

The dominance of hunting as a major activity in accounts of the period led to Finlay’s attempt to widen the characterisation of individuals away from simply male hunters (Finlay 2000). It is only with the more recent changes in the depiction and analysis of the period that a more subjectified way of establishing characters was developed. This began with an appeal by Mithen (1991) to bring an emotional empathy back to accounts of the period and so provide one of the key elements

of narrative: the conveying of the human experience of events (Herman 2009: 14).

Mithen's approach takes us closer to the past and forces us to rethink how we imagine that past (the chain of analysis in figure 4). It helps to put the archaeologist in the role of the reader of the past, immersing themselves in the storyworld in the same way that readers of a novel immerse themselves in a fictional universe. He also both described the period in newer, more positive terms and provided explicit narratives to get across particular aspects of the period. The Mesolithic becomes a new world of European culture forged by the descendants of Late Upper Palaeolithic peoples, a notably more heroic image than the miserable degenerates of the earlier archaeologists (Mithen 2003: 134-135). The pioneering heroes seamlessly morph into the eco-folk who have "an intimacy with the natural world that is lost today" (Mithen 2003: 140). Mithen's account of the discovery, interpretation and reinterpretation of Star Carr can be read as a straightforward detective story (Mithen 2003: 136-137).

However, as noted above, the placing of individual characters within a Mesolithic storyworld has yet to be achieved in academic accounts of the period.

4.5 Setting

There can be no doubt about the importance of setting as affecting characters' actions within narratives. Chatman (1978: 138-139) highlighted this, describing it as "the place and collection of objects 'against which' his actions and passions appropriately emerge". It sets off the characters and contributes to the mood of the narrative, and can be symbolic and mental as much as physical (Chatman 1978: 138-141). Setting also exists as an abstract concept at a deep narrative level prior to its materialisation (Chatman 1978: 138). Mesolithic communities exist in the minds of the archaeologist within an environment which for much of the period of their study has determined how they react, adapt and act out the details of daily life. Clark's insistence on the importance of integrating archaeological with environmental evidence was an attempt to make manifest this abstract conceptual setting (Clark 1954, 1972).

The commonest settings in academic writings since the 1860s are coasts (81.3% of items that describe settings), lakes (54.2%), woodlands, rivers, caves (33.3 – 45.8%) and marshes or sandy soils (22.9 – 27.1%). Very few use settlements or peoples as the locus of action rather than simply description (less than 10%).

The disadvantage of Clark's approach was to establish an ecological setting that effectively reduced the Mesolithic to its economic foundations alone. Earlier, and alternative, approaches to providing setting allowed greater conjecture about wider areas of Mesolithic life in that they took in the idea of a whole society. These approaches involved the use of ethnographic analogy to make up for the deficiencies of the archaeological record. Such analogies could be seen as a surrogate for social settings in that they enabled social frameworks, technology and ways of life to be envisaged. The disadvantage of this approach was to make comparisons regardless of the similarity, or lack of it, of the instances being compared. Clark was especially scathing about the loose application of such

analogy:

"Equally to be avoided is the indiscriminate seeking of parallels among cultures far removed in time and space and with which no continuity of tradition can be traced."

(Clark 1952: 3)

Likewise, Rowley-Conwy (1986: 25) criticised the common use of inappropriate analogues for the European Mesolithic drawn from desert or sub-arctic environmental settings.

Indeed, almost all continents have been raided for analogies, although the early ethnographic analogies were drawn from a relatively limited set of instances. The most notorious is Lubbock's use of Darwin's account of the inhabitants of Tierra del Fuego (Lubbock 1865: 190), which we have seen repeated by Taylor (1906: 60-61), Peake (1933: 103) and referred to favourably by Tilden (2007: 46). Westropp (1867: 193, 1872: 102-104) preferred to make analogy with the native inhabitants of North America, also used by Clark (1954: 10-11) to explore gender roles at Star Carr, by Price (1973) in an extended use of Algonkian groups to shed light on the north-western European Mesolithic, by Constandse-Westermann & Newell (1989) to create the social and demographic setting for the Mesolithic and by Kozłowski (2009: 82) to create the general setting for the Mesolithic as a whole. North American sub-arctic Inuit (Eskimos to the earlier writers) were used by Taylor (1906: 60-61) and Piggott (1949: 58). African hunter-gatherers of the Namib Desert (referred to as Bushmen and Strandloopers) were preferred by Burkitt (1921: 155, 1926: 43). Australian aboriginal groups were used by Peake (1933: 103) and by Clark himself (1967), while Megaw and Simpson suggested Papua-New Guinea as an appropriate analogy for understanding Mesolithic exchange (Megaw & Simpson 1979: 53). In contrast, using northern Eurasian peoples as analogies has been rare in writings in the UK. Geikie (1882: 369) used the Lapps to characterise the people of the Danish kitchen-middens. Outside the UK, examples include the work of Jordan (2003) and Grøn (2003) using Siberian ethnography to shed light on northern European Mesolithic religious and settlement patterns.

Most recent writers on the Mesolithic eschew ethnographic analogy and have fallen back on the establishment of the physical environment as setting for the period. However, this environment is no longer the functional ecological framework determining human action but a further setting of the imagination, created as an interplay between the natural world and the people of the Mesolithic. The setting becomes a deeply embedded part of the identification of character (e.g. Cobb 2009, Overton & Hamilakis 2013). However, this has yet to appear to any extent in academic syntheses of the period.

4.6 Actions

The Mesolithic is now known to be a long period of time, covering more than 5,500 years in Britain, within which there is a chronological patterning of events. It would seem ripe for the development of narrative plots (sequences of events). As Pluciennik (1999: 656) has pointed out,

providing accounts of prehistory face a special problem of defining what is an event. Prehistory is full of spatially diffuse categories that could be events or long-term processes (Pluciennik 1999: 657). On the other hand, the Mesolithic has a particular way of life which is categorised through the medium of actions such as hunting or gathering.

The actions depicted in academic writings are dominated by hunting (71.9% of writings that depict actions) and making tools (61.4%). Less common but widespread are fishing (49.1%), migrating (42.1%), using dogs, making houses and using decoration (33.3% each), eating (31.6% each), gathering plants (28.1%), knapping flint or burying the dead (24.6% each), moving around the landscape (22.8%), preparing food (21.1%). The commonest categories of actions are therefore getting food, making tools and movement. As with characterisations of people, gathering of plants is less represented than hunting or fishing.

The Mesolithic has been categorised as a hunting society from the very beginning (Lubbock 1865: 173, Westropp 1866: 291). The action of hunting has seldom been made explicit, other than by describing the weapons used, such as the bow and arrow. Indeed, academic writing styles rarely make actions explicit, preferring to use neutral, depersonalised descriptions in which characters and actions are absent or implicit rather than stated. For example:

“Wooden bows and arrows are known; wooden arrow-shafts, incidentally, were abundantly represented in the Ahrensburgian levels at Stellmoor.”

(Roe 1970: 96)

Such a neutral description removes human actions and renders the people behind the artefacts invisible. One rare exception is that of Bishop (1914: 102-103) who provided a conjectural description of some of the methods that might have been used by the Mesolithic population of Oronsay in their hunting, fishing and fowling. Bishop had a keen appreciation for the skills necessary for catching their prey. He was a rare early archaeologist who saw the Mesolithic in a positive light, pointing out that the people of Oronsay “would have neither much need nor inclination” for adopting agriculture (Bishop 1914: 102-103).

We could add some further details of hunting methods from later accounts, such as the use of dogs in hunting (Sollas 1915: 524) and the use of temporary hunting camps (Petch 1924). Hawkes (1951: 156) provided a description of hunting that at least involved human action and cognition. Clark’s excavation of Star Carr would provide the possibility of using hunting disguises in the form of the antler frontlets (Clark 1954: 170). Hunting is key action that lies at the heart of the traditional academic accounts of the Mesolithic.

A more generalised human action attributed to Mesolithic people is adaptation. To adapt is to take positive actions in response to external changes, e.g. to their way of life and their technology. For Childe, the key step taken by post-glacial humans was to adapt to the growing woodland (Childe 1931, 1937). This involved learning how to work wood, changing the nature of family and residential group structures as well as learning how to obtain new forms of food. This adaptation

then involved further actions, especially that of tool making. In many ways, this is the most basic action that archaeologists can recover. Yet, it is only relatively recently that Conneller (2000, 2005) has shown how we can move beyond simple categorisation of tools to analyse them as the representations of human action within sites and the landscape.

Another generalised action highlighted in accounts of the period is colonisation, the idea of a people moving into a new area for the first time. This obviously only applies during the early stages of the Mesolithic, but it has been a feature of various academic descriptions. Early accounts were more concerned with the direction of migration than the mechanics of colonisation, with Osborn (1915: 458) advocating Tardenoisian migrations from the south, De Morgan (1924: 74) migrations from the east and Burkitt (1925: 30) from the west. For later writers, the nature of movement into new areas was more important. Childe (1937) saw colonising groups encountering the forest for the first time and making conscious decisions about how to adapt. Colonisation continued to be taken as read by many (e.g. Sauer 1948: 72, Clark 1967: 104, Mellars & Dark 1998: 237-241). The mechanics of colonisation were rarely addressed, although it seems to be seen as something not altogether easy (cf. Spikins characterisation of the colonisers as hardy and intrepid, 2008: 2). Reactions to colonisation are equally as important as colonisation itself and the actions of Mesolithic people in the face of this at the end of the period are raised by the issue of Neolithic colonisers moving into hunter-gatherer territories (Zvelebil 1986: 8-9).

4.7 Happenings

As for happenings, there are various which have been identified as having an impact on Mesolithic populations. The main happening to appear in earlier accounts of the Mesolithic is the seasonal nature of the climate and environment. Seasonality has long been a given in interpretations of the Mesolithic, present in Westropp (1872: 8) and many later publications. It is usually seen as a generic background factor that determines a particular pattern of human behaviours such as migration or aggregation. Only rarely is it specified as a particular happening against which human agents make decisions and thus a key part of Mesolithic narratives.

Academic writings have two dominant happenings: changing climate (65.8% of writings) and the arrival of new fauna or flora (52.6%). Other common happenings are the melting of ice and growth of forests (50% each) and sea level or land rising and falling along with Britain being cut off from the continent (31.6 – 34.2%). Among non-environmental happenings, the only common one is contact or interaction with incoming or nearby Neolithic people (39.5%).

The two most obvious happenings identified in the most recent writings are rising sea levels drowning the Doggerland continental shelf and the Storegga Slide tsunami, which provides a particularly strong event around which evocative story-telling can be based. Human responses to these are hard to establish but are occasionally suggested in the literature (Smith 2002, Wickham-Jones 2002: 473 and Edwards 2004: 67 for the tsunami, and Spikins 2000: 12 and Mithen 2003: 151 for the drowning of Doggerland).

The Storegga Slide is a particularly stark example of a particular, dramatic event, with profound effects for the characters in the story:

“Water from the northern North Sea would have rushed into the space. People on land would have noticed that the sea receded, probably as far as the eye could see, in a matter of tens of minutes. They may have thought that the newly revealed shellfish and stranded fish represented an amazing bonanza ... or that ‘Doggerland’ had re-appeared! The seawater, having piled up in the depression, then begins to flow out again as a series of massive waves or tsunamis, travelling at 20-30 metres per second on shallow coasts. Four or five waves would have hit the coast over two or three hours, each separated by a strong backlash as water flowed back to the sea. Any coastal settlements would have been flooded without warning, indeed the water depth would have been many metres, and people and animals would have been drowned. Coastal and estuarine areas, resources, and people would have been devastated.”

(Edwards 2004: 67)

4.8 Discussion: academic communication

One way of understanding the narrative objects that have been implicit or explicit within academic writings on the Mesolithic is to identify the motifs that bring together characters, events and settings, as presented in the works examined above. These motifs would allow a better understanding of the thematic elements of Mesolithic narratives as they relate to ethical and other resonances in the culture of the reader (Phelan & Rabinowitz 2012: 7).

I have presented a description of interpretations of the Mesolithic in three phases. Phase 1 began in Britain in the 1860s with the arguments over the definition and reality of the Mesolithic as a category of the human past. There were strong motifs right from the beginning of discussions about the period. Lubbock’s motif, as derived from Darwin, was of primitive people scarcely advanced above the animals. Westropp’s foundational description of the period in 1872 was based on very little evidence but had one overarching motif of “people who live by the chase” (Westropp 1872: 65), which both repeated the idea of the people being primitive (Westropp 1872: 103) and in turn produced several subordinate motifs (Westropp 1872: 8-9) of precarious seasonal dependency, being scarcely more advanced than wild animals, being nomadic and lacking in any development or change.

This set of negative motifs remained remarkably persistent in later writings about the Mesolithic. Geikie (1881: 369), who gave the first clear account of the way of life of the people of the Danish kitchen-middens, used a comparison with the Lapps to describe the people in rather unflattering terms as smutty, cowering around a fire, squawking and screaming.

Further negative themes would emerge in time, such as people of the period being physically repellent (Taylor 1890: 242), the Mesolithic as a decline in standards of art or technology, a

“retrogression” of civilisation (Johnson 1908: 31) and so being compared unfavourably with the preceding Upper Palaeolithic Magdalenian culture (Osborn 1915: 456, 463, 470, 486, Sollas 1915: 522-523), people having to struggle to make a living (Johnson 1908: 43), having only a rough or poor level of technological skill (Munro 1912: 285-286), a people living in misery (Munro 1913: 236-237), leading a poverty stricken existence (Macalister 1921: 560) and in a bleak and dreary time (Burkitt 1926: 8). In his 3rd edition of *The origin of the Aryans* in 1906, Taylor described the Mesolithic as a similar stage of civilisation as the Eskimos and Fuegians, thus reinforcing Lubbock’s appropriation of Darwin more than 40 years earlier.

The negative narrative of the Mesolithic is well exemplified by the Presidential address to the Royal Anthropological Institute in 1927:

“It is a perplexing period, its industries poor, its art moribund, its people apparently degenerate. Gone were the spacious days of big-game hunting and realistic art. The miserable descendants and successors of Magdalenian man, hemmed in on all sides by the forest, had killed out what were left of the big beasts of the steppe, and were forced to hunt lesser game on the limestone hills and sandy heaths. Others dwelt by the seashore or by the banks of lakes and rivers, gaining a miserable subsistence from clams and limpets, eking out this meagre fare with nuts and berries in the autumn and at other times with edible roots.”

“All the evidence available suggests that the people of Europe had passed from being hunters of big game to the status of hunters of small animals, while most of them had further degenerated into mere collectors of food.”

(Peake 1927: 20, 21)

The one positive motif of Westropp’s, the cunning hunter, was repeated only by Geikie (1881: 368-369). Other positive early motifs would be technological skill and advance, and successful adaptation to the environment rather than passive dependency upon it (as found, for example, in March 1883 and Gatty 1895). These would remain minority themes in archaeologists’ views of the period well into the 20th century.

The culmination of phase 1 is perhaps best seen in the writings of Burkitt (1921, 1925, 1926). The replacement of evolutionary phases by culture history as the dominant paradigm for prehistory allowed for a degree of agency by peoples. This was expressed as a narrative of the development and interaction of cultural or racial groups. For Burkitt, this was the interplay between surviving Palaeolithic populations and incoming Neolithic peoples from the south and east at a time of climate change which resulted in the development of the Mesolithic cultures in northern and western Europe.

Phase 2 began in the 1930s, when we see a dichotomy between Clark’s studiously neutral descriptions of the Mesolithic way of life and Childe’s more evaluative interpretation of the period’s place in socio-economic development. Common to both was a concern for understanding

ways of life rather than discussion of migrations and relationships between peoples. The environmental context for Mesolithic life assumed a larger role. Clark was a pioneer of cultural ecology while Childe was a firm advocate of the Mesolithic as a successful adaptation to a woodland environment. However, Childe could not resist seeing Mesolithic people as outside the main (Marxist inspired) narrative of the development of civilisation.

Most later scholars of phase 2 followed where Clark had led and, by the 1970s, most accounts of the Mesolithic can be characterised as descriptions or explanations rather than narratives.

Archaeologists were continuing to produce what Praetzelis (1998: 1) observed as the professional style of communication in which they restricted themselves to the facts and carefully qualified neutral statements (e.g. the papers in the edited volumes Kozłowski 1973, Gramsch 1981, Zvelebil 1986, Rowley-Conwy et al. 1987, Bonsall 1989, Vermeersch & van Peer 1990, Fischer 1995, Ashton et al. 1998, Thevenin 1999). The main contributions of the 1990s to Mesolithic studies were a closely argued processual, functionalist approach to the re-evaluation of Star Carr (Mellars & Dark 1998) and Mithen's traditional-style account of the Mesolithic, written according to accepted academic, third-person and objective discourse format (Mithen 1999). An attempt at a different kind of discourse was Mellars' call for a debate on the period's definition, which only garnered a small response (Mellars 1981, Rozoy 1984, Castleford 1986).

The kinds of themes used to describe the Mesolithic in phase 2 focussed on subsistence activities. While some negative stereotypes persisted in this phase, the growth of more positive views was marked. By the 1960s, the dominant view of the period had a markedly more positive attitude than in phase 1. Particularly important characterisations of Mesolithic people (some of which continued into phase 3), were as:

- skilled woodland folk (Childe 1931, 1947, Darvill 1987, Mithen 2003);
- bowmen hunters (Sauer 1948, Hawkes 1951, Rozoy 1984, 1989);
- affluent, successful foragers (Childe 1958, Clarke 1976, Clark 1980, Tilley 1996);
- different but equal (to farmers) (Childe 1958, Clark 1980, Zvelebil 1986);
- heroic precursors (Clark 1980, Mithen 2003).

Phase 3 began with the introduction of more post-processual approaches into Mesolithic archaeology, with a focus on micro-scale activities and the cognitive aspects of Mesolithic life. Being able to trace individual actions and imagine personal responses by Mesolithic people effectively restored characters to the narratives that could be written. Archaeologists were now able to move beyond description or explanation towards full narrative. However, the narratives have yet to be fleshed out. The most recent written accounts of the period are still descriptions and explanations, catching up with the wealth of new evidence and presenting the period in a fuller and more rounded way (e.g. Tolan-Smith 2008, Milner & Mithen 2009, Darvill 2010), or giving accounts of new evidence from fieldwork (e.g. Conneller et al. 2009, Momber 2010, Momber et al.

2011, Taylor et al. 2010, Conneller et al. 2012, Jacques et al. 2012). The one exception to this is the newly published account of possible human responses to the drowning of Doggerland (Leary 2015), based largely on post-processual approaches such as entanglement.

By the 2000s, attitudes to the period had become overwhelmingly positive. Bailey described the Mesolithic as “a time of radical change and innovation” (Bailey 2008: 3370) and Spikins saw Mesolithic people as “hardy and intrepid colonisers” (Spikins 2008: 2). Mesolithic people were now pioneers, exploring and settling a new land, living in a more intimate relationship to their environment than we do today, removed as we are by urbanisation, industrialised farming and globalisation.

Having looked at the academic transmission of messages about the Mesolithic, the next step, in chapters 5 and 6, will be to examine what messages are being communicated in more popular channels of communication, in which academics are only one of the authorial voices, and whose words and ideas may be subject to mediation by others. We will see whether (and how) academic messages are transmitted to popular audiences.

Chapter 5

Portrayal of the Mesolithic in popular media

5.1 Introduction: popular communication in archaeology

This chapter will begin by looking at our current understanding of audience reception in archaeology. I will then undertake a description of various popular channels of communication.

There needs to be a better understanding of the audiences for archaeology, and the dialogue between the archaeologists and others about the meanings of the past (Merriman 2004: 8-11). Merriman (2004: 5-7) has pointed out that archaeologists now realise that their audiences are diverse and derive their own meanings from the information produced by archaeological research. As Moser (2015) has noted, archaeologists are now increasingly interested in how the past is represented and audiences' reactions to this. Her own work uses reception studies to provide a theoretical framework for this. It seems to me that it would be premature to use her approach on the Mesolithic. I take the advice of Russell (2002) that the first step is to establish how the period is represented. Only then could we study how the representations are received.

The messages transmitted by academic media seldom reach the public directly. We need to see how those messages are conveyed in the media channels that public audiences read and view. The channels chosen include a range of traditional and more recently developed media, some of which reach wider audiences than others. Different media may well have different ways of presenting the same information and different narrative imperatives, as well as different levels of engagement with their audiences.

In spite of the similarities between academic and other discourses, there is a clear hierarchy at work in the validation given to different forms of communication within academic disciplines. Samuel has pointed out how the demarcation of disciplines involves the creation of boundaries between who is and who is not a 'proper' practitioner. For the discipline of history, communicators such as historical novelists and Ladybird book illustrators clearly exist outside the tribal boundary (Samuel 1994: 4). However, academics rely on these external mediators to recode their messages for transmitting to wider, more public audiences. If we are to understand how the public may perceive the Mesolithic, then we need to look at the messages they are receiving in these non-academic media.

There is a wide range of popular media that can potentially feature archaeology. Fowler considered television, radio, newspapers, magazines and websites in his study of archaeological media, reluctantly excluding reconstruction sites and novels (Fowler 2007: 89). While noting that archaeology is not essential for the media, but that the media are essential for archaeology, he also highlighted what he saw as the problem of making archaeology a form of entertainment with a stereotyped image and lack of relevance (Fowler 2007: 93, 100). On the other hand, Morris (1999: 15) suggested that archaeology was simply a fruitful source of appealing stories for the news media, which attracted viewers and readers. He noted that the receptivity of these audiences to

news items depended on their being sensitised to the period in other non-news media (hence, one reason for studying the range of communication channels below). Morris commented that:

“... a fresh theory about, say, the Mesolithic would be harder to promote, because the Mesolithic has no established presence in the public mind”.

(Morris 1999: 15)

I demonstrate below how far these observations by Fowler and Morris are actually reflected in the popular media portrayals of the Mesolithic.

5.2 Method of analysis of popular communication channels

Direct archaeological communication with the public tends to be through talks, open days on site and other such face-to-face opportunities. These will not be dealt with here as they are largely situational and temporary, held as one-off occasions with little permanent record (unless filmed). Indirect communications are commoner. These include books written by archaeologists for a popular audience, blogs and websites written for consumption on the Internet and interventions on social media such as Twitter and Facebook. Mediated communications will reach wider audiences but will involve someone else other than the archaeologist creating the message to be delivered. These include news media, magazines, historical fiction, graphical novels, games, museum displays and exhibitions, television programmes and educational work in schools. The treatment of the Mesolithic in these indirect and mediated channels of communication will be covered in turn below. The different channels cannot be studied in isolation. They each play off, or reinforce, each other. For example, people were more likely to visit monuments, castles or ruins if they had already visited a museum, looked at a heritage website or seen heritage programmes on television (Wineinger 2011: 3).

A total of 751 items of communication were analysed, from 10 channels of communication:

- 50 Internet web-pages (appendix 6);
- 50 Internet blogs (appendix 7);
- 50 Internet YouTube videos (appendix 8);
- 42 popular archaeology books (appendix 9);
- 158 newspaper articles (appendix 10)
- 51 BBC News Online articles (appendix 11);
- 176 popular archaeology magazine articles (appendix 12);
- 18 fiction novels and short stories (appendix 13);
- 131 pictorial illustrations (appendix 15);
- 25 television programmes (appendix 16).

In addition, school textbooks and museum displays will be analysed in later chapters.

Games are another possible channel of communication, and games set in prehistory are popular (Gardner 2007). The Palaeolithic is represented, e.g. *Secret of the Lost Cavern* (<http://www.lostcavern.com/index2.html>). However, the only one that seems to be set in the Mesolithic is the recently released (2016) *Far Cry Primal* (<http://far-cry.ubisoft.com/primal/en-gb/home/>). This is set in the time frame of the Mesolithic but has all the stereotypes of the Palaeolithic instead: mammoths and sabre-toothed tigers. There are also examples of a more generic Stone Age, such as the *Stone Age* board game, which includes hunting but also farming and panning for gold, (http://www.zmangames.com/store/p105/Stone_Age.html). Related to game playing, but for younger people are physical toys. Playmobil have Stone Age figures available, but these are also firmly based on the Palaeolithic rather than the Mesolithic (see <http://download.playmobil.com/FunAction/Microsites/Steinzeit11/UK/index.php>).

Information about each communication channel was entered into a spreadsheet database with fields covering background and analytical information. The main narrative analysis covered the following analytical fields:

- characters;
- settings;
- actions;
- happenings;
- any value judgements on the period.

It is important to note that categories of content have been extracted from the data, rather than imposed upon it. This is therefore an inductive method, working from specific observations of categories and patterns to broad conclusions.

The data extracted from the sources is tabulated in spreadsheets. Each medium is the subject of one spreadsheet. Comparison of narrative elements will be presented in separate spreadsheets. The spreadsheets are available in appendices 17 to 26.

The media will be compared against each other and summarised as a whole at the end of the chapter. The results of the narrative analyses for each channel are presented in appendices 27 to 36. Based on the analyses, recommendations will be made for each narrative element on how the presentation of the Mesolithic could be improved.

5.3 Presentations of the Mesolithic

5.3.1 Web-pages

A simple search on Google using the term ‘Mesolithic’ yielded some 488,000 results (at 23rd January 2015). This is the least amount for the prehistoric periods (see table 4). Each user’s search

on Google is optimised by Google for that user. The returns for my search will therefore be different to a similar search by others, or from a different computer. It is important to understand that my list of web-pages is therefore not a meaningful random sample of the pages potentially available to other users. It is merely one person's snapshot of returns at a particular moment in time.

Period	Number of results	%
Stone Age	17,600,000	39.6
Palaeolithic	509,000	1.1
Mesolithic	488,000	1.1
Neolithic	6,990,000	15.7
Bronze Age	9,420,000	21.2
Iron Age	9,410,000	21.2

Table 4: Google search results for prehistoric periods on 23rd January 2015

Not all these websites aim at delivering information about the period to the public. The first page of results includes a description of the MA in Mesolithic Studies at the University of York and a page from the Scottish Archaeological Research Framework intended for specialists. Further pages include advertisements for books about the Mesolithic, links to articles in academic journals or PDF downloads of specialist archaeological reports. The publicly oriented results that directly present findings and ideas about the Mesolithic to non-specialist audiences include information web-pages, personal blogs and videos. These will be dealt with as separate channels.

The first 50 web-pages intended to deliver information about the period for a public audience were chosen as a sample for detailed narrative analysis (Appendix 6). These pages were created by a wide range of people and organisations. Museums, professional archaeological organisations and local archaeological societies (alone or in partnership) account for 21 (42%) of the pages. Local authorities account for five of the pages (10%). Ten (20%) of the pages were created by individuals. Twelve (24%) were created by non-archaeological commercial organisations whose business is the publishing of information.

Only eight web-pages contain what may be considered as value judgements on the Mesolithic or aspects of it. Negative characteristics (on three pages) include Mesolithic people as passive users of their environment, their manufacture of only basic tools and that they were a primitive Stone Age people. These seem to hark back to outdated academic models of the period and must surely reflect inadequate reading of modern accounts. One of them was on an individually authored web-page, one on that created by a local community project, but the notion of Mesolithic people as passive was on a page created by a professional archaeological trust. More positive images of the period (on five pages) include seeing hunter-gatherers as adept within an ideal environment, that they practised sophisticated hunting and gathering, made proper houses in places that were easier to live in (but also made some strange things), and that the period showed greater innovation and diversity with greater hunting efficiency than the preceding Palaeolithic. The most positive judgement came

from the website of an illustrative artist, Dominic Andrews, describing how he developed his illustrations of the period. As might be expected from a creative artist rather than an academic, he was much freer and evocative in his use of language to describe Mesolithic people and their environment. He saw them as living in a mysterious and dangerous woodland, but as highly skilled with a profound knowledge of their environment. Moreover, he described them as moving with grace and that “physically, they would have been like gymnasts or ‘Free-Runners’; spiritually they were wild and free, and at one with their world” (Archaeoart, http://www.archaeoart.co.uk/landscape/mesolithic_methods.htm).

5.3.2 Blogs

A search for Mesolithic blogs on Google yielded 260,000 results (at 12th January 2015). Of these, many are references to blogs rather than blogs themselves. Again, a sample of the first 50 self-described blogs was chosen for analysis (Appendix 7). The creators of these blogs were a mirror image of those of the web-pages. Individuals were responsible for 40 (80%) of them, while organisations created only 10 (20%): five archaeological organisations, one school, one university and three other, non-archaeological trusts and companies. Blogs are more likely to focus on specific sites or locations and are slightly longer on average (594 words as opposed to 379 words for web-pages). Some were more useful than others in conveying information about the Mesolithic. Those less useful (4 blogs) were merely lists of links to news items or had topics on something else in which the Mesolithic was only mentioned in passing.

Value judgements occurred in 20 of the blogs and were mostly very positive. The low incidence (less than half) of such judgements is surprising given that blogs are, by nature, more of a channel of individual commentary than information web-pages. There were only four blogs with negative comments. These were either on the period (a transitional period, “light houses unable to withstand the harsh weather”), on the evidence for it (the “period is notoriously ephemeral” and leaving little trace) or on the attitudes of modern archaeologists (“scholarly jackdaws out to render everything boring”). The most colourful of the negative comments was on modern attitudes to the period by unidentified archaeologists or broadcasters on an unidentified television programme. The blogger disparages the interpretations he saw on the programme, ending with a heartfelt “our island blah blah heritage blah blah total bollocks drone whine”. On the other hand, a wide range of positive words were used to describe the period, sites or finds: adept, amazing, complex, cool (two blogs), evolved, famed, handsome, incredible, rare (two blogs), rich, significant, sophisticated (two blogs), sturdy, unusual, varied and wonderful. One of the more evocative judgements was in a blog describing the evidence from DNA used to characterise a Mesolithic man from Spain, entitled “Was there an ancient Marlboro Man? Cool, swarthy. handsome?”.

Six blogs described special characteristics of the Mesolithic. Two blogs noted the relevance of the Mesolithic for the present, being useful for bushcraft and survival, for those who want a “meaningful and harmonious relationship with non-humans”, and for discussions of sustainability and reducing waste. Two bloggers posted their emotional responses to engaging with the

Mesolithic, watching the uncovering of evidence before their eyes (a “Time-Teamesque” experience), and holding an axe “last used by a man or woman with serious intent to acquire food and dug from the ground this week”.

More curious characteristics of the period were highlighted by two of the bloggers. These show a misunderstanding or misinterpretation of the evidence recently emerging for Mesolithic interest in measuring the passage of time by lunar observation. Thus, the bloggers evidently believe that Mesolithic people used the moon as guide in night-time hunting and that Mesolithic people lived a nocturnal rather than diurnal existence.

Forty of the blogs allow for comments to be posted and engage in a dialogue with readers. Of these, 19 had no posted comments. Most of the remaining 21 blogs had only a few comments. Fifteen had from one to eight comments. Three had between 14 and 25 comments. Only three had more than this: 85, 199 and 210 comments. In fact, five out of the top six commented sites share the same overall topic: the analysis of genetic ancestry using DNA (with 63 people contributing 533 comments, and four contributing to three of the blogs). The sixth was a personal account of a visit to an excavation.

5.3.3 YouTube videos

A search on YouTube for the term ‘Mesolithic’ yielded 3,270 items (at 19th January 2015). A sample of 50 was chosen for analysis (Appendix 8). Some videos were about the Stone Age in general, with only shorter sections on the Mesolithic (only the Mesolithic sections were used in the analysis). Most of these were archaeological in nature, but there were three musical tracks using the Mesolithic as a theme. The videos were made by various kinds of creators: 19 by individuals (38%), eight by universities, six by other educational organisations, six by broadcasters or film producers (one video is an unauthorised excerpt from *Time Team*), four by archaeological organisations, two by local authorities. Three were made by musicians and two were by user-names whose status was unclear. Most of them (29) are broadly educational in purpose, aiming to deliver information or directed at an educational audience. Fourteen are directly mimetic, aiming to simply show a process, site or artefact. Three can be classed as news items, and four as having entertainment as their main purpose (although one of the educational videos is certainly made in a highly entertaining style!). Twenty two (44%) of the videos were made in the UK, eight in the USA, seven in Ireland, three in India and two in Sweden. Other nations in which the videos were made include Australia, Denmark, France, Germany, Malaysia and Switzerland. One has an unknown country of origin. The total of video playing time was 4 hours 45 minutes and 45 seconds, with a mean video length of 5 minutes and 50 seconds, and a range from 18 seconds to 48 minutes and 13 seconds.

The videos were in a variety of formats. The commonest (six) was the filming of an activity, with or without commentary. Similar were filmed demonstrations showing how something was done (seven) or of a demonstration to children (two). Filmed lectures or talks accounted for six videos, while nine were lecture notes or PowerPoint slides (with or without commentary) and one was a

story-telling to camera. Four videos were clips of television broadcasts. Five videos were filmed visits to sites or museum displays. Four were animated maps or digital animations. Three were performances of music.

Value judgements only occurred in 16 videos. Nine of these are clearly or possibly negative in their connotations, five are positive, one is both, one is neutral. The negative judgements or descriptions include the Mesolithic being a transitional period, that getting food was tedious and slow, that the food was not very nice (although cooking made it sweet and enjoyable) and that people would have had bigger, hairier hands (this last one is very subjectively negative). People of the time were also described as being content to continue as hunter-gatherers (and therefore passive). Mesolithic artefacts were described as crude and simple, or as being less durable than Neolithic equivalents. The environment was described in one video as a never-ending wood, with thick heavy ground and cold damp air. One music video contained lyrics that gave very stereotypically sexist characterisations to men and women, that women would be submissive and obedient and the men were knuckle-draggingly masculine. The one video with positive judgements on the Mesolithic itself offered that people then knew what they were doing, were sophisticated and skilled at cremating their dead. The other positive judgements were of the modern day archaeological and experimental processes. Mesolithic tool-making was described in one video as unique, which I consider as a neutral value judgement being capable of both positive and negative connotations. One rather artistic interpretation of the period occurred in one music video, which described the Mesolithic as a time of no stress when food and love were free.

Some of the videos were of a nature that would make them suspect in the eyes of archaeologists. One was an attempt to show how archaeology supports the literal interpretation of the Bible and the divine origin of cultivation and farming (although the video creator was explicit about not being a Christian apologist, but was a believer in all mystical religions and ancient texts from the Middle East). One video about recreating a supposedly Mesolithic style cooking pit also involved the cooking of potatoes, carrots and onions. One video refers at one point to the Neolithic by mistake. The musical pieces were obviously not archaeological, using the Mesolithic as a convenient metaphor within the lyrics. One of these is a scarcely comprehensible contrasting of the Mesolithic with the modern world and its problems. The other was a hopefully, ironic use of the Mesolithic as primitive, symbolic of basic gendered (and overtly misogynistic) stereotypes.

Only one video was a true narrative, the telling of a story to camera. Two of the videos were comical presentations, one by students about the Mesolithic itself, and the other a take off of the television series *Big Brother* by a participant in the reconstruction of a Mesolithic house.

As with blogs, YouTube allows comments to be posted on videos. Only four had this facility turned off. Of the remaining 46 videos, 34 had comments. These ranged from only one up to 52 comments. Only six videos had more than 10 comments. A *Time Team* clip testing a Mesolithic against a Neolithic axe to fell a tree attracted 11 comments. One of the videos of the building of a replica Mesolithic house at University College Dublin had 12 comments. The video asserting that

archaeology supported a literal reading of the Bible attracted 18 comments. An educational video for school students on the whole Stone Age had 22 comments. The ironic (?) “Let’s Get Mesolithic” song by the folk group *Eddie from Ohio* provoked 33 comments. The most commented video with 52 comments was a demonstration of how to make a Mesolithic style arrow for use in hunting.

5.3.4 Facebook

A simple search on Facebook for the term Mesolithic yielded only 16 results. Of these, six are Google-generated interest pages rather than pages created by people or organisations. Three pages are a person’s Facebook page without any necessary connection to the Mesolithic. Two are community pages, posted by organisations: one by *Mesolithic Miscellany* journal, the other by the *Mesolithic in Europe* conference 2015. There are three group pages: two closed (*Mesolithic Studies* and the *Scottish Mesolithic Studies Group*) and one public (*Mesolithic Germany*). One page is advertising an event (the *Mesolithic in Europe* conference), and another is a page ostensibly about a video game (*Mankinds Beginning: Paleolithic to Mesolithic Era*) but in reality containing a wide variety of posts about history, culture and gaming. There are thus only four Facebook pages about the Mesolithic which are available to a public audience: *Mesolithic Miscellany*, *Meso 2015* (both as a community page and an event page), *Mesolithic Germany*. None of these really features narrative elements or delivers messages about the Mesolithic itself (apart from access to academic articles in *Mesolithic Miscellany*).

5.3.5 Popular archaeology books

Books written for a non-academic, popular audience can be individual titles, books within a wider series or books published for a particular occasion such as guides to exhibitions. I have looked through some of the more obvious popular series as well as noting individual books. Altogether, 42 books were analysed for their narrative content, covering the period since 1940 (Appendix 9). My list is unlikely to be complete but does form a range of book formats, implied audiences and periods of publication. I have excluded books aimed at supporting teaching in schools, as these will be dealt with later in a separate section.

There can be little doubt that the Mesolithic struggles to find a place in popular published representations of the archaeological past. The marginality of the Mesolithic in mainstream popular publishing is illustrated by the *Very Short Introduction* series published by Oxford University (Gosden 2003), whose volume on prehistory has index entries for the Palaeolithic and Neolithic but not for the Mesolithic. Likewise, the series published by Batsford on behalf of English Heritage as a popular guide to the heritage of England had a volume on the Stone Age (Barton 1997) devoted entirely to the Palaeolithic, while the Neolithic was covered in the book on the Bronze Age (Parker-Pearson 1993), leaving the Mesolithic as a glaring gap in their coverage. Where the Mesolithic is mentioned it is usually given less space than other periods. Pryor’s popular book on British prehistory (Pryor 2004) has only 27 pages devoted to the Mesolithic (6% of the content that describes British prehistory). My own book on the archaeology of Great Britain (Henson 2015) has

43 pages of content on prehistoric periods and sites, of which six (14%) are devoted to the Mesolithic. If the Mesolithic were to be equally treated with the other prehistoric periods then it should have 20% of the page content.

Out of a sample of three of the *Shire Books Regional Archaeologies* series (north-eastern England, central England, Wales), published from 1970 to 1974 (Marsden 1970, 1971, Anthony 1974), only two out of 407 sites listed belonged to the Mesolithic (0.5%). In Dyer's guide to archaeological sites in southern England (Dyer 1973), there are only four Mesolithic sites out of the 621 listed (0.6%). His later, more comprehensive guide to sites in England and Wales (Dyer 1981) had only nine Mesolithic sites out of 954 (0.9%) and is remarkable for its omission of the site of Star Carr. Of books published for younger audiences, the extremely prolific *Ladybird Books* series had two titles covering the Mesolithic (Peach 1961, Bowood & Lampitt 1966), while the more recent, and extremely popular, *Horrible Histories* books included the Mesolithic within one of its volumes (Deary 2008). Perhaps not surprisingly given the period's lack of obvious monumentality, the *I-Spy* book on ancient Britain only had 2 out of 123 sites that cover the Mesolithic and both are cave systems better known for their Palaeolithic remains (anon. 2009).

The British Museum seems to have a blind spot when it comes to the Mesolithic. A 1979 exhibition on early prehistoric technology, *Man before metals*, was supported by a written guide in which the Mesolithic appeared on only two pages out of 32 (British Museum 1979). What was conveyed about it was a curious mix of recent interpretation (e.g. the use of burning to manage woodland) with somewhat old-fashioned attitudes which could describe post-glacial hunting and gathering as "sometimes referred to as the *Mesolithic*" (British Museum 1979: 14). Likewise, the guide to their exhibition, *Archaeology in Britain: new views of the past, celebrating archaeological achievements in Britain since 1945* (James 1986), had 28 pages covering the different periods of Britain's past up to 1600 AD. The Mesolithic merited only one page and the mention of two sites: on Oronsay and at Star Carr (James 1986: 4).

Mentions of the Mesolithic in books could be remarkably out of date, such as one rather late account that referred to pigmy flints (microliths) and Tardenoisians (Jessup 1970). Even more august, and more recent, archaeologists could be found sometimes espousing very old-fashioned interpretations of the period, such as the early interpretation of the Obanian as derived from the Azilian as being "not unreasonable" (Cunliffe 2013: 116-117).

An early exception to lack of coverage for the Mesolithic was provided by Clark in his book on prehistoric hunter gatherers (Clark 1967). The next popular book to deal with the Mesolithic as its primary focus would be a Shire Books publication nearly 25 years later (Wymer 1991). Other books followed shortly afterwards, covering the Mesolithic in Scotland (Wickham-Jones 1994, Finlayson 1998). Only recently have books appeared specifically on the Mesolithic in general (Wickham-Jones 2010) or on the site of Star Carr (Milner et al. 2012, 2013). Other books either give considerable space to the Mesolithic within wider coverage (Pryor 2004, 2014, Oliver 2012, Cunliffe 2013). Lest we should think that the battle for recognition of the Mesolithic has been won,

the recent publication of a major exhibition on evidence for one million years of human settlement in Britain contained very little mention of the period and characterised it in very old-fashioned terms as foreshadowing the Neolithic (Dinnis & Stringer 2013).

Value judgements occur in 24 of the books (57%). There is a wide range of both positive and negative judgements. Among the more evocative (and yet still negative) judgements is this:

“Any modern visitor to Mesolithic Britain would hardly be able to guess that anything so momentous was afoot. He would see poor little groups of hunters and food-gatherers scattered round the fringes and in the clearings of the dripping forests. And watching the Azilian woman crouching among the rocks as she dislodges limpets with a stone, the Tardenoisian with his flint-tipped arrow lying in wait for a hare, or even the Maglemosian leaning over the prow of his canoe with a glistening fish thrashing between the prongs of his spear, he would not think that the foundations of his civilization were being laid.”

(Hawkes & Hawkes 1943: 29)

The earliest unequivocally positive book was published in 1958 (Childe 1958), describing its people as ingenious, having excellence of adaptation and being highly efficient. Wholly negative judgements continued as late as the 1960s, in which Mesolithic folk were described as “in some ways rather a poor, struggling stage in man’s development” (Kenyon 1961: 18) and as having a “somewhat bleak way of life” (Wood 1963: 50). More equivocal attitudes continued until much later. One writer used a very outdated and now derogatory term to describe the Mesolithic as ‘transitional’ and noted that very little changed during the period (Pryor 2004). Negative comments on the period as an object of archaeology are also found. Finlayson (2005) noted the Mesolithic as being difficult to study and hard to interpret. Among the many positive judgements on the period, the commonest words used are rich, sophisticated, complex, efficient and skilled.

One of the more nuanced verdicts on the period is that by Wickham-Jones (2010). Her overall viewpoint is that the Mesolithic way of life has a great deal to teach us about the modern world and some of our current problems. However, while she stated that past hunter-gatherers had a way of life that was “based on a sophisticated knowledge of the land, and a detailed understanding of the way the world worked” (Wickham-Jones 2010: 11), she is also careful to counter this by saying that the “the view that Mesolithic Britain was the last truly sustainable age is patently not true” and that Mesolithic people were “not happy hippies living in harmony with their environment” (Wickham-Jones 2010: 20). In this, she echoed Finlayson who wrote that we should “not be fooled by ideas of a people living in a hazy dream time at one with nature” (Finlayson 2005: 61).

5.3.6 News media

We now live in a world of 24 hour news, a relatively recent phenomenon. Yet, news has always been an important part of how people gain access to other worlds outside their immediate experience. Print newspapers have long played a key role in this, and arguably still dominate news

agendas rather than their more recent rival, the television news broadcast. The most prestigious of the news broadcasters is the BBC, whose online presence is a key source of news for the modern Internet generation (Newman et al. 2015). Newspapers also now have online versions, often with articles that do not appear in their print equivalent. In this section, I will look at both print and online content, as they reflect the writing of a common world of news journalism that spans communications formats.

Archaeology can be a good source of stories for news media, especially at times when more ‘serious’ news is scarce (Morris 1999). However, newspaper circulations have been in decline for many years. Daily sales in 1950 were around 21 million (Communications Management 2011: 20). Figures from the Audit Bureau of Circulation show a decline from 12.06 million copies sold daily in 2001 to 6.89 million copies in 2014 (<http://www.themediabriefing.com/article/newspaper-circulation-decline-2001-2014-prediction-5-years>). It could be argued that newspapers are no longer the main source of information for people who have ready access to the Internet, and they are now themselves moving to online content. Yet, newspapers are still influential in setting media agendas and still highly regarded by politicians.

I have compiled a database of newspaper articles using the digital archives available through the University of York library. These are the:

1. British Newspaper Archive;
2. Financial Times archive;
3. Gale Group;
4. Illustrated London News archive;
5. Nexis UK;
6. ProQuest;
7. The Times archive;
8. UK Press Online.

These archives are not complete digital runs of all newspapers. Coverage is given in table 5.

There are 541 national newspaper articles in the archives searched that use the word Mesolithic, along with 74 articles yielded by the same search term on the BBC News website (the BBC News website has been online since 1997). I have gone through all of them to assess how substantial is their coverage of the period. Many of the mentions of the Mesolithic are only in passing in articles with a focus elsewhere.

Archive	Newspapers	Years
British Newspaper Archive	various regional newspapers	1800-1960
Financial Times Historical Archive	Financial Times	1888-2010
Gale Group	various regional newspapers	1600-1950
Illustrated London News Historical Archive	The Illustrated London News	1842-2003
Nexis UK	Daily Mail	1992-now
Nexis UK	Daily Mirror	1995-now
Nexis UK	Daily Star	2002-now
Nexis UK	Daily Telegraph	2000-now
Nexis UK	independent.co.uk	2010-now
Nexis UK	Mail on Sunday	1992-now
Nexis UK	Mail Online	2012-now
Nexis UK	mirror.co.uk	2013-now
Nexis UK	Sunday Express	1999-now
Nexis UK	Sunday Telegraph	2000-now
Nexis UK	Sunday Times	1985-now
Nexis UK	telegraph.co.uk	2011-now
Nexis UK	The Express	1999-2006, 08-now
Nexis UK	The Guardian	1984-now
Nexis UK	The Independent	1988-now
Nexis UK	The Observer	1990-91, 93-now
Nexis UK	The Sun	1999-now
Nexis UK	The Times	1985-now
ProQuest	The Guardian	1821-2003
ProQuest	The Observer	1791-2003
The Times Digital Archive	The Times	1785-1985
UK Press Online	Daily Express	1900-now
UK Press Online	Sunday Express	1900-now
UK Press Online	Daily Mirror	1903-1980
UK Press Online	Daily Star	2000-now

Table 5: coverage of newspapers in various press archives

The earliest occurrence of the term Mesolithic in a national newspaper occurred as late as 1926. A search of all newspapers has revealed only seven references before this in local publications. The earliest of these is in the *Leicester Chronicle* for 19th March 1870 (quoting Westropp's creation of the term Mesolithic only four years after his academic publication of the term). The Mesolithic has become more of a feature of news reporting over time. The mean number of articles with substantial coverage of the Mesolithic varied between 0.08 and 0.2 per paper/per year in the decades of the 1930s to 1960s, and then 0.18 to 0.28 in the decades of the 1970s to 2000s. So far in the 2010s, the mean has been 0.79 per paper/per year (around 1.5 articles over two years).

The analysis has concentrated on the 158 newspaper (Appendix 10) and 51 BBC News (Appendix 11) articles that feature substantial coverage of the Mesolithic as either the main item or as a

subsidiary item in another story. Newspapers have been markedly up-to-date in their coverage of the Mesolithic. As noted above, notice of Westropp's creation of the term Mesolithic occurred as early as 1870. The two key academic works of the 1920s that helped to establish the period, those of Macalister (1921) and Burkitt (1926) were reviewed in articles in their years of publication. Likewise, the publication of Clark's seminal work of 1932 was announced that same year. Clark's work at Star Carr was also noted in *The Times* in 1949. It is unusual therefore to see out-of-date narrative themes in the newspaper articles, such as the remarkably late mention of the hiatus theory in an article in *The Times* of 31st August 1957.

There are 82 newspaper and 11 BBC articles that use value judgements in their descriptions of the period or its investigation and interpretation. Negative judgements are rare. Beside noting the catastrophe caused by the Storegga slide tsunami, the main negative judgements are of the period being primitive (*The Times* 28th July 1933), of the people as subject to the forest and affecting it scarcely more than the animals in it (surprisingly by Harry Godwin who had worked on the Mesolithic with Clark, *The Times* 25th April 1966), of birch tar 'chewing gum' whose "taste cannot be described as pleasant" (*The Guardian* 4th February 1997), of Mesolithic populations as being fragile and scattered (*BBC News* 15 February 2011). A more colourful negative judgement is of Mesolithic artefacts being a "dismally untelegenic pile of rocks" (*The Independent* 12th September 2014). More ambiguous judgements include:

- being civilisation's late starters, but having unsuspected sophistication (*Sunday Times* 14th July 2013);
- being savage, barbarous, but also more enterprising or progressive (*Leicester Chronicle* 19th March 1870);
- being simple but ahead of their time (*Mail Online* 14th July 2013);
- the taste of birch tar being neither pleasant nor entirely unpleasant (*The Times* 4th February 1997);
- a fishing trap being simple but ingenious (*The Times* 16th July 2005).

Positive descriptions are common (in 91% of the newspaper judgements and 82% of BBC judgements). Sites or finds are often important, exciting, significant or special. The commonest positive description of the Mesolithic itself is that it was sophisticated. Among the more unusual positive descriptions are that a Mesolithic feast had a 'Heston Blumenthal style menu' (in eight newspapers of the 15th to 16th October 2013 and therefore probably coined by the archaeologists in their press release). A review of the novel *Gathering Night* described its depiction of the Mesolithic as having "shades of the hippy commune", which may be positive or negative depending on your point of view.

Among the more notable articles that convey an understanding or interpretation of Mesolithic life is one on the consequences of farming as a disaster for humankind leading to a loss of women's

power, harder work, stress, road rage, claustrophobia, crime, resistance to home-working and to use of the Internet, and a lack of body hair making us shiver (*The Sunday Times* 9th February 1997). This article posed the Mesolithic as a kind of paradise in which people could live in their natural state. Likewise, in a review of the novel *Gathering Night*, in which the Mesolithic is seen as invested with a convincing emotional landscape and trivial chat (presumably everyday human dialogue), the reviewer put forward the idea that we accept an entirely different value system without qualm; that we regret “swapping the hunter’s spear for the tiller’s spade” (*The Guardian* 25th July 2009).

Newspapers tend to like items which are a bit different, or even bizarre. One of those noted by Morris (1999: 15) is the use of pine resin as chewing gum in the Mesolithic: in *The Guardian* and *The Times* (both 4th February 1997). An extension of this may be the attraction of extreme theories as a story. One of the more extreme views on the Mesolithic is a report on ideas by Robert Langdon, who on exploring Stonehenge became puzzled by contradictions in the official explanations offered on the site and turned conventional history on its head by placing the whole of Stonehenge in the Mesolithic and turning Mesolithic people into a great seafaring folk, sailing to Egypt to kick start that civilisation’s own engineering efforts (*The Sunday Express* 29th May 2011).

The Mesolithic has even engendered political controversy. A letter to a newspaper describing the ‘Bushmen’ (whom we would now refer to as the San people) provoked an angry response protesting at this by ‘Bushmen’ themselves (*The Guardian* 24th and 25th March 2006).

One further noteworthy article is that by a young journalist, Michael Gove, noting the existence of the Mesolithic in the national narrative of Britain (*The Times* 28th October 1999). Gove would later of course be Secretary of State for Education and responsible for introducing the teaching of prehistory to the national curriculum for history in England.

5.3.7 Popular archaeology magazines

Popular magazines have long been a medium for those interested in a topic to keep abreast of current developments. A quick look at any newsagent’s shelves will reveal a great many magazines catering for a wide variety of interests. History magazines are common. Archaeology magazines have been rarer to appear on open sale, being more likely to be subscription based. The longest-lived archaeology magazine in the United Kingdom is *Current Archaeology*, founded in 1967. This has absorbed the hard core popular audience for archaeology, those willing to pay a subscription rather buy their reading over the counter (Fowler 2007: 96). *Current Archaeology* appeared every two months until 2007 when it became monthly, and is now also available by subscription or in major national newsagents. The now defunct *Popular Archaeology* ran from 1979 to 1988 (renamed as *Archaeology Today* in 1987). The chief rival to *Current Archaeology*, is *British Archaeology* produced by the Council for British Archaeology. This began in 1995 with ten issues a year, but has been published every two months since 2000, and has recently become available in selected newsagents as well being circulated by subscription. A search through 549 issues of these magazines has yielded 165 items covering the Mesolithic (table 6).

Magazine	Years	Items	Mesolithic	% Mes.
<i>British Archaeology</i>	1995-2015	3,890	68	1.7
<i>Current Archaeology</i>	1967-2015	9,609	89	0.9
<i>Popular Archaeology</i>	1979-1988	2,357	8	0.3

Table 6: occurrence of Mesolithic items in popular print magazines

A more recent development is the presence of online magazines. The main UK-based one for archaeology is *Past Horizons*, with articles online since 2008. A search of this found 11 more items. Online searches of *History Today* (published since 1951) and *BBC History Magazine* (published since 2000) under the term ‘Mesolithic’ returned no substantive articles dealing with the period. Of the 176 items covering the Mesolithic (Appendix 12), the first appeared in 1975, and items have occurred in every year since 1995. There is a clear trend towards increasing exposure for the Mesolithic over time (Table 7). This is due in part to an increase in the number of magazines, but is also a genuine improvement in coverage for the Mesolithic as seen in the mean number of articles for each magazine during each decade. A quarter (45 = 25%) of items have appeared in the last three years, since 2013.

Decade	Items	Mean/year /magazine
1960s	0	0
1970s	7	0.7
1980s	15	0.8
1990s	30	2.1
2000s	52	2.5
2010s	72	4

Table 7: numbers of Mesolithic articles by decade

The more important notices of the Mesolithic are those in feature articles. Mesolithic features account for 3.1% of all features in *British Archaeology*, and 1.5% in *Current Archaeology* and 0.5% in *Popular Archaeology*: a total of 43 articles in the print archaeology magazines. With the feature articles in *Past Horizons*, this is a total of 54 feature articles. The other content ranges from news to book reviews, letters and opinion pieces.

Value judgements can be found in 52 items. Thirty-six of these are wholly positive. Five are mixed, with both positive and negative comments. There are a further six wholly negative descriptions and five neutral or hard to categorise as entirely positive or negative. The commonest positive descriptions of the Mesolithic are that its finds are important and significant, and that its way of life was sophisticated (but, often surprisingly so). The Mesolithic could be characterised as a Garden of Eden (Faulkner 2007), in which people may have been primitive but were at one with their environment, having a balanced diet and led contented lives (O’Malley 1980). People may have had to work hard for their living but had a complex society with an organised and intensive way of life (Young 1998). They were ingenious and sophisticated (Pitts 2013). Negative comments include

being primitive or simple. People could be squalid hunters and scavengers (Sloan 1986), living a mobile, hand-to-mouth existence (*Past Horizons* 2015). They may not have lived in a golden age of harmony with nature and peaceful coexistence (Thorpe 2000). If archaeologists do find anything to write about the period then it is probably ineffable waffle (the intentionally humorous McHale 2012).

Some articles, even recent ones, show a remarkably old-fashioned attitude towards the Mesolithic. In 2008, one article described Mesolithic people as fundamentally nomadic, wandering in search of food, and archaeologists as having a slim chance of finding their slight impact on the earth (Westcott 2008). Another, in the same year, referred to sparse, small groups often on the move, with few permanent settlements or well built structures (Faulkner 2007). A well informed commentator wrote that “Our knowledge of the British Mesolithic is based almost entirely on scatters of flint” and, after reviewing other kinds of evidence, “Even so, we know precious little about the period”, describing the Mesolithic as the real ‘dark age’ in British archaeology (Catling 2012: 30-31). Even in 2015, an article on the Mesolithic could describe the people as “simple British hunting societies” (Durrani 2015).

On the other hand, one reviewer was remarkably positive about Wykeham-Jones’s *Fear of Farming*, expressing support for her ‘eloquent argument’ for the hunting and gathering lifestyle teaching us how to live in a better balance with nature (Catling 2011).

We seldom see evocative writing in magazine articles. Rare exceptions can be found. From the pages of *Current Archaeology* comes:

“We are left with the vivid impression of mesolithic man standing in his dug-out canoe with a small fire burning precariously in the stern to attract the fish. His hooks are set, his two pronged spear is at the ready: we hope to see more of him.”

(Andersen 1984: 317)

Non-archaeologists are often more willing to express themselves in subjective narrative, and this examples comes from the pen of Ray Mears:

“And she said when she was a little girl she used to climb up on this big boulder and her mother used to say to her, ‘Come down, or you’ll fall and hurt yourself’. If I had walked there and seen those flaked chips without that woman, what would I have read? Now when I go to sites in Britain where people rock climb, where we know our ancestors stopped at, I look at those rocks and I see children climbing over them, and their mothers just as they would today, saying, come down or you’ll fall and hurt yourself.”

(Mears 2004: 50)

5.3.8 Fiction

Narrative development of the Mesolithic is most fully developed in worlds of fiction. The novelist

or feature film maker has a greater license to create imaginings of the Mesolithic. Only one feature film is set within the chronological range of the Mesolithic. This is *10,000 BC*, released by US film makers Warner Brothers in 2008. However, this has only the most tenuous of connections to the Mesolithic, featuring both horse riders and mammoth hunters along with sabre-toothed tigers. It is best ignored.

Depictions of the Mesolithic within fictional television are equally as scarce. Simpson (2011) presented an early episode of *Doctor Who* as one of these, in which the Doctor and his companions land in a prehistoric time of hunter-gatherers. While it is true that the tribe make reference to fearing the return of the time of the great cold (ice age) and could therefore be post-glacial Mesolithic, they have all the stereotypical features of primitive 'cavemen and women', more usually associated with the Palaeolithic.

One example of the use of fictional narrative by archaeologists is by Spikins (2002: 75-79), who wrote imaginary accounts of how Mesolithic people might have acted and felt in three pictorial illustrations of the period. Another is that by Finlayson (2005) who included fictional passages describing characters and actions to illuminate key aspects of the Mesolithic way of life before writing about the archaeological evidence for the period in Scotland. Another is the insertion of a fictional imagining of Mesolithic life based on remains found by a local archaeological trust at Mellor in Derbyshire (Hearle 2011). These are not true narrative fictions but more akin to Herman's narrativised description form of discourse (Herman 2009: 88).

Representations of the Mesolithic in fictional literature do occur, although rarely (Appendix 13). Two very early examples could be claimed. *The Story of Ab* by Stanley Waterloo in 1897 represented a Stone Age man inventing the bow and arrow, and domesticating a dog as well as building the first house; all key aspects of Mesolithic identity (Ruddick 2009: 40). Part of Waterloo's aim was to show how the Neolithic could have developed out of the Palaeolithic and therefore disprove the currently debated hiatus theory which was stifling acceptance of the Mesolithic. Joseph-Henri Rosny's *Vamireh* in 1892 had late Magdalenian blonde hunters confronted by dark-haired, 'lesser' forest races from the east who hunted with dogs (Ruddick 2009: 50-51). The next possible appearance of Mesolithic characters do not seem to occur until the 1980s. Clifford Simak's *Grotto of the Dancing Deer* in 1980 has as its lead character an Azilian cave painter (Ruddick 2009: 83-84). Naomi Mitchison's *Early in Orcadia* of 1987 may also contain Mesolithic material, as the long time series of the novel ends around 6000 BP (Ruddick 2009: 93), while Edward Rutherfurd's *Sarum: the Novel of England*, also from 1987, has a section set among post-glacial hunter-gatherers (Ruddick 2009: 93). The tradition of books taking a multi-period long-time span continues with Stephen Baxter's *Evolution* of 2002, which has one of its sections (Chapter 14. *The Swarming People*) set as an encounter between hunter-gatherers and the first farmers in the Middle East. Baxter has also used the Mesolithic as a setting for coherent historical fiction set during one period of time. Modern novels like this, wholly set within the Mesolithic, began to appear in the 1990s. There are three other authors who have done this apart from Stephen

Baxter: Margaret Elphinstone, Lesley Howarth and Michelle Paver. Paver has written a series of six novels (published in 2004-2009), collectively entitled *The Chronicles of Ancient Darkness* (2004 *Wolf Brother*, 2005 *Spirit Walker*, 2006 *Soul Eater*, 2007 *Outcast*, 2008 *Oath Breaker*, 2009 *Ghost Hunter*). Baxter, Elphinstone and Howarth have written one each (*The Pits* by Howarth in 1996, *The Gathering Night* by Elphinstone in 2009 and *Stone Spring* by Baxter in 2011). In most cases, the author undertook extensive research into relevant archaeology and ethnography. In addition, there are a few short stories. One of these, *Raven's Wing, son of True Arrow*, is a story on the Yorkshire Dales National Park website, while the other three (*The man and the forest*, *How the boy found his name*, *Kindness and strangers*) are part of a compilation of stories, *The Whitestone Stories* by John Barrett in 2007. There is also one graphic novel, *Mezolith*, by Ben Haggarty and Adam Brockbank that was published in 2010 as a compilation of seven short stories, originally published between 2008 and 2009 (*Bull hunt*, *Urga*, *Boundaries*, *Swan bride*, *Raven*, *Missing*, *Hands*). The follow up volume *Mezolith 2* has only recently been published at the end of 2016. Also to be added here is what might be termed a graphic short story, *Hunt the magic*, produced to go with an exhibition on the Mesolithic at the Yorkshire Museum in 2014.

It is hard to establish the true popularity of these fictional narratives. An indication of their relative popularity may be had by looking at their ratings and reviews on websites like GoodReads and Amazon (UK). Examples of reviews are presented in Appendix 14.

Title	GoodReads			Amazon	
	Rating (out of 5)	Rated by, number of people	Reviews	Rating (out of 5)	Reviews
The Pits	3.4	5	0	n/a	0
The Gathering Night	3.5	104	24	4.5	12
Wolf Brother	4.1	13,699	1,004	4.8	183
Spirit Walker	4.2	8,689	268	4.8	78
Soul Eater	4.3	6,436	211	4.9	66
Outcast	4.3	5,420	172	4.7	61
Oath Breaker	4.3	5,136	134	4.9	59
Ghost Hunter	4.4	4,435	166	4.8	71
The Whitestone Stories	4.5	2	0	n/a	n/a
Mezolith	4.3	47	7	5.0	10
Stone Spring	3.5	578	77	3.7	14

Table 8: rating and reviews of fiction set in the Mesolithic

The six books of *The Chronicles of Ancient Darkness* seem to have been very popular (see table 8). They have been the basis for at least three sets of resources for teachers. While reading the novels, it is tempting to assume that they are located in northern Britain. However, Paver apparently intended their location to be Norway (pers. com. Matt Ritchie, 28 May 2015).

The Gathering Night is an impressively detailed and evocative rendering of what a Mesolithic life might have been like. The story takes place in Late Mesolithic northern Britain, clearly situated

shortly after the Storegga tsunami. While the story takes precedence over detailed information, the author was concerned that it should still tell a kind of truth, with the narrative possibilities being set within the limits of the evidence (Elphinstone & Wickham-Jones 2012: 534-535).

Baxter's *Stone Spring* is a good example of the novel as counter-factual history. In this, he imagined the increasing flooding of Doggerland resulting from rising sea levels and the effect this had on a coastal Mesolithic community. The alternative past he offered had one community, led by a feisty young woman improbably helped by a young man from Jericho and a woman from North America, building a sea wall to defend the land and keep the sea at bay.

Howarth's *The Pits* is an altogether less realistic, yet more intriguing exploration of the Mesolithic. The novel is more interested in the interplay between gangs of youths, relations between different age groups and the developing conscience of one teenager than in the details of Mesolithic life. It could equally as well be set among modern urban society. Yet, there is some attempt to situate the storyworld as a genuinely Mesolithic place and time. The main settlement was described as a brushwood platform by a lake, as home for four or five families; a clear echo of Clark's description of Star Carr. The presence of one family clinging stubbornly to archaic (seemingly Palaeolithic) traditions is one interesting feature of the novel.

Raven's Wing, son of True Arrow (Griffiths 2003) is a good example of a story being used to introduce readers to elements of Mesolithic life; such as flint knapping, hunting, settling conflicts and burial practices. Indeed, the story is also the basis for a set of teaching resources. *Raven's Wing* is the young boy whose adventures include being chased away from a hunt by a rival tribe and later meeting a girl from the same tribe who gives back the flint core his father had dropped. *Hunt the Magic* (Yorkshire Museum 2014) was meant as an activity to go with an exhibition on Star Carr and the Mesolithic at the Yorkshire Museum in 2014. The story revolves around a boy being sent on an errand and encountering various people along the way. The use of the graphical format allowed the conveying of a Mesolithic lifestyle along with the narrative.

In contrast, Barrett's three Whitestone stories serve to illustrate overarching themes, using a non-realistic or stylised narrative to avoid mimetic representation of the period overwhelming the thematic resonance. *The Man and the Forest* (Barrett 2007a) introduced human settlers as aliens in the natural world, having to learn to adapt to the forest rather than control and exploit it without care. *How the Boy Found His Name* (Barrett 2007b) provided a similar illustration of how humans must hunt animals with respect. *Kindness and Strangers* (Barrett 2007c) provided an antidote to Hackett & Dennell (2003: 817) who wrote that:

“Surprisingly, there are no major novels on that other major contact period in prehistory, between indigenous Mesolithic European hunter-gatherers and intrusive early Neolithic farmers.”

Barrett's story imagined contact between Mesolithic people and incoming Neolithic settlers, with an accompanying devastation of a way of life through the introduction of disease.

Mezolith (Haggarty & Brockbank 2010) provided a series of short stories based around the character of a teenage boy. These serve to illustrate various elements of the Mesolithic world: hunting, healing, social boundaries between peoples, the supernatural entwining with the world, rites of passage into adulthood. The use of graphical images give a strong sense of mimesis, portraying a realistic world with an economy of discourse. They also provide an instant sense of otherness, a world different from our own, reinforced by the supernatural elements of the narrative.

Judgements of the Mesolithic in fiction are not usually about a way of life or of comparisons with others but mostly about people as characters within the plot. The exceptions are *The Man and the Forest* (where humans' attitudes are found wanting by the spirits of nature), *Kindness and Strangers* (where the Neolithic settlers are judged negatively by Mesolithic survivors) and the unfavourable view of the Middle Easterner Novu's actions by his host Mesolithic community in *Stone Spring*. On the other hand, it could be argued that the stories themselves are sympathetic attempts to get readers to re-evaluate their judgements of hunter-gather lifestyles. Elphinstone was keen to show that Mesolithic people existed in a holistic world with nature, "hefted to their land" (2009: 372) and commented:

"I am not suggesting that Mesolithic Scotland was a Rousseau-esque paradise full of noble savages, but all the evidence suggests that human life was about more than mere subsistence."

One reader-reviewer ('Emily Johnson') of her book seemed to agree with her dislike of the Rousseau-like paradise, writing:

"I particularly admire her abandonment of an optimistic and ultimately feminist tendency to create an egalitarian Eutopia [sic] in which both genders existed in equality within prehistory."

(<http://www.goodreads.com/book/show/6011266-the-gathering-night>)

Paver's view was that Mesolithic people were "superb survivors" (Paver 2004: 243). One reader, 'Eva Mitnick' wrote on GoodReads about *Oath Breaker*:

"As my 15-year-old daughter (a reader of this series since it began) said after reading this most recent instalment, you REALLY don't want to have lived 5000 years ago."

(<https://www.goodreads.com/book/show/3081438-oath-breaker>).

Perhaps the least rosy-eyed depiction is that of Baxter, whose characters are full of all the human vices we might expect, and therefore perhaps also the most realistic. One reviewer was particularly repelled by this ('Stephanie Ricker' on GoodReads):

"Baxter clearly did a lot of research and his premise was intriguing, but I admit I despised his characters."

<http://www.goodreads.com/book/show/6575200-stone-spring>)

while 'Lisa' wrote that:

“The characters I did not like, even ones who started out likeable or at least understandable did not develop in a good manner. There was an ugliness and hatefulness to each.”

<http://www.goodreads.com/book/show/6575200-stone-spring>)

Baxter (2011: 501) stated that his novel was “not meant to be taken as a reliable history of the Mesolithic”. However, the authors of these tales mostly attempt to be accurate about their portrayal of Mesolithic life. Occasional lapses can be entertaining and include the idea of the over-35s being forced to live on the outer edges of the camp to be picked off by sabre-toothed tigers (Howarth 1996: 15). The creators of *Mezolith* were criticised for their reliance on folklore and myth (and a generic, inaccurate material culture drawing on elements from the Palaeolithic to the Early Bronze Age) rather than archaeology, while at the same time being commended for fusing myth with elements of archaeology, such as the Vedbæk burial in Denmark (Pope 2011). Likewise, the *Whitestone Stories* are distinctly folkloric rather than archaeological. Nevertheless, most authors have used archaeological sources for their narrative details. Both Paver (2004: 243, 2005: 277-281, 2006: 263, 2007: 261-268, 2008: 239, 2009: 245-246) and Baxter (2011: 497-501) provided authorial commentary on the ethnographic or archaeological sources for their novels, while Elphinstone did the same in a separately published article (Elphinstone & Wickham-Jones 2012).

Rather than simply plundering archaeology for narrative material, Elphinstone met with archaeologist Caroline Wickham-Jones over a period of three years to explore the Mesolithic and together imagine how it might have been, alongside using her own ethnographic experience among modern indigenous groups such as the Inuit and Ojibwa (Elphinstone & Wickham-Jones 2012: 532-533), the Saami, in Mongolia, Australia and South Africa (Elphinstone 2009: 372). She clearly found resonance between her own literary writing and the work of archaeologists, both being imaginative reconstructions of other worlds. Interestingly, the subjective, phenomenological approaches of recent archaeology were less useful to her than more traditional presentations of the evidence from the period. Her work was an imaginative engagement with artefactual evidence. The use of research into archaeology and ethnography is clearly valued by readers, judging by the reviews on GoodReads.com, with many commenting on how it makes the stories more believable as representations of the prehistoric past (see Appendix 14 for a list of reviews).

All these authors build believable storyworlds, which provide an acceptable degree of interpretation of the Mesolithic, and should inspire archaeologists to think more deeply about the evidence they find in terms of possible human behaviours. Howarth neatly encapsulates the two major trends in archaeological theory over the last two generations through the two characters of Anna and Brod. Anna's father, the archaeologist Professor Needcliff's view was that knowing the past was a matter of informed conjecture based on facts, while Anna maintained that “It isn't all

about facts, it's about the way people think and feel, the way they live together.” (Howarth 1996: 59). Brod then intervenes to puncture both attitudes by noting that Arf (whose body was being studied by the archaeologists) was anything but the hero that Anna had imagined and “had lived and died in weirdsville” (Howarth 1996: 60). The novel ends with Anna turning off the conservation of Arf to let him rot and at last find peace, after reading the real story that Brod had placed on the computer with the comment:

“Any way you look at it, this story’s got to rile Nerdcliff. I hope it sticks in his throat ‘til he coughs up a whole bunch of his phlegmy old theories and finally sees they say more about *him* than prehistory.”

(Howarth 1996: 205)

5.3.9 Pictorial illustrations

Pictorial illustrations of Mesolithic life (as opposed to technical drawings of finds, plans or sections) have been created since at least 1949. These are purposely created still images, aimed at conveying information, and which are often reproduced away from their original publication.

The images analysed in this section are mostly examples of reconstruction drawings, which have long been part of heritage interpretation. Such drawings have also been advocated within education as providing a way for children to more easily grasp the results of archaeological work than looking at unfamiliar plans, sections and technical drawings of artefacts (Corbishley 1986: 4-5).

Beginning with a search on Google images using the simple term ‘Mesolithic’ yielded various illustrations of the British Mesolithic, of which I have chosen the top 50 to study. A further 81 images have been sourced in various publications and web-sites found outside the initial search. Sites such as Pinterest and Flickr were also looked at but excluded. Pinterest contained a great deal of photographic and cartographic imagery. The pictorial illustrations on the site tended to be non-British or already seen on Google images. Flickr mostly had photographs of sites or of experimental archaeology and living history, many from the Archeon theme park in the Netherlands. Again, these fell outside the topic of pictorial illustrations (although would be worthy of a study in their own right).

This total of 131 images covers a range of styles and a variety of contexts (Appendix 15). Some are image panels on a web-page, but many are figures published in articles or books. Images are prone to reuse across different media, and it is unclear whether all the web-based examples were created for that web-page or have been taken from existing publications. Of all the images, 81 can be traced back to an origin as a book or article illustration. Twenty nine of the images occur in books intended for, or used, in schools for teaching prehistory. The rest have various attributions or origins: archaeological organisations (11 images), individuals’ websites or blogs (6 images), educational activity resources (6 images), news media or magazines (6 images), local groups and societies (5 images), universities (4 images), museums (4 images), individual artists’ uploads (3 images), local authorities (3 images), a print cartoonist (1 image) and a commercial organisation (1

image). The crediting of images to their creators is sporadic, but with some degree of research, 109 (83%) have an identifiable artist as creator (there are 41 named artists).

Pope (2011: 36) has criticised illustrators for producing conservative and static images, devoid of narrative. However, it was clearly important for some artists to provide some kind of narrative thread to their images. Andrews has written about the need to depict visual drama through the use of composition and lighting. He describes his depiction of a woodland hunting scene (figure 7) as mysterious and claustrophobic (Andrews 2008).

Figure 7: illustration of hunting scene by Dominic Andrews (Milner et al. 2013: 92)

Catling (2013: 37) has pointed out how one of Alan Sorrell's depictions of Star Carr was composed in a series of diagonals to lead the viewer away from the foreground to the rear and out of the frame, with a boat going out on the lake as though in a story. This is an image with a strong narrative thread, leading the viewer to ask "where are they going and what are they doing?".

Catling reads other figures in the image as a mother and child emerging from the lake after a swim and a man carving onto a tree trunk. However, other readings of these characters are possible. Similar narrative possibilities are present in many of the other Mesolithic images. For some (figures 8 to 10), the narratives are supplied by accompanying text. These texts have already been identified among the fictional descriptions of the Mesolithic, in section 5.3.8. They clearly supply a description of the events depicted in the illustrations (Spikins 2002: 80-81).

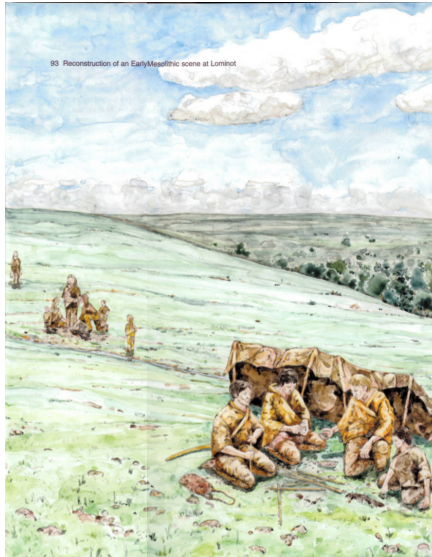


Figure 8: reconstruction by Jon Prudhoe of Early Mesolithic scene at Lominot (Spikins 2002: 75)

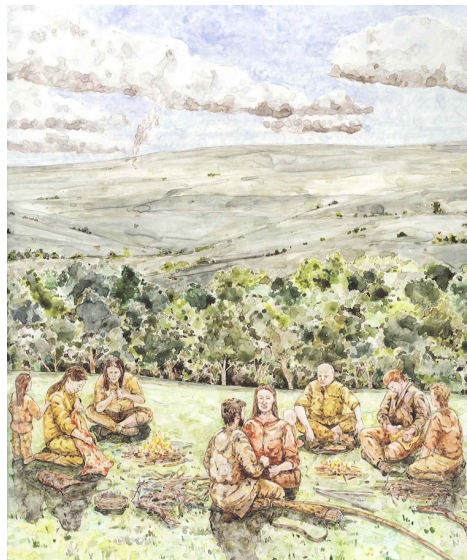


Figure 9: reconstruction by Jon Prudhoe of a Late Mesolithic scene at March Hill Carr (Spikins 2002: 77)

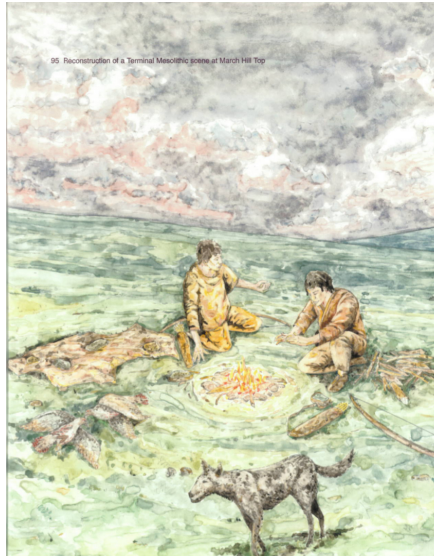


Figure 10: reconstruction by Jon Prudhoe of a Terminal Mesolithic scene at March Hill Top (Spikins 2002: 79)

Furthermore, the composition of figure 8 leads the viewer to question the spatial segregation of groups in the image and ask why the men should be sitting apart from the women and children.

Not all the images have elements of narrative. A few manage to depict Mesolithic artefacts or structures without the inclusion of any characters or any indication from the objects that they have been subject to particular actions or happenings. They become simple still lives devoid of narrative (figures 11 to 17).

Figure 11: image by Alan Braby of Mesolithic artefacts (Wickham-Jones 1994: 19)

Figure 12: image by Alan Braby of a Mesolithic landscape at the Sands of Forvie, Aberdeenshire (Warren 2005: 117)

Figure 13: image by Chrissie Harrison of a Mesolithic site at Ven Combe (Gardiner 2007: 93)

Figure 14: illustration by Eugene Ch'ng of a Mesolithic camp in Doggerland (<http://oisf.org/portfolio-items/doggerland/?portfolioID=1721>)

Figure 15: illustration by Eugene Ch'ng of a Mesolithic camp in Doggerland
(<http://oisf.org/portfolio-items/doggerland/?portfolioID=1721>)



Figure 16: drawing by Helen Williams of a Mesolithic camp
(<https://helenrachelstokeswilliams.wordpress.com/category/illustrations/>)



Figure 17: drawing by Helen Williams of a Mesolithic camp
(<https://helenrachelstokeswilliams.wordpress.com/category/illustrations/>)

Three of the illustrations are cartoons; stylised or stereotypical representations rather than realistic mimetic depictions. They aim at delivering humour, albeit in two cases also making a point about the nature of the Mesolithic. In one case (figure 18), this is as a contrast with the ‘more primitive’ Palaeolithic, while the other is a contrast with the ‘more civilised’ Neolithic (figure 19).

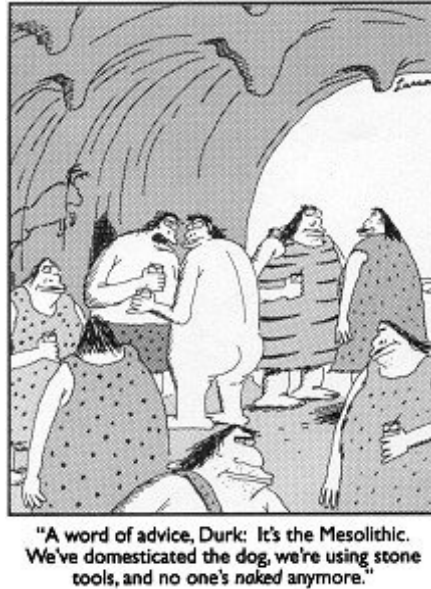


Figure 18: cartoon by Gary Larson

(<http://www.pinterest.com/pin/141863456983167262/>)

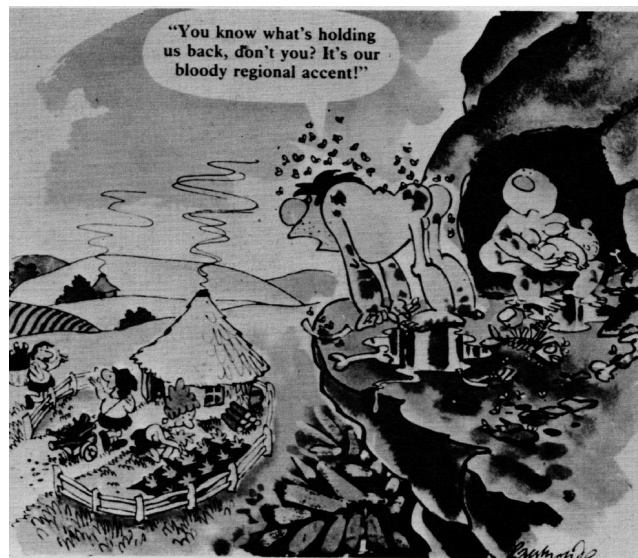


Figure 19: anonymous cartoon from Punch magazine (Zvebil 1986: frontispiece)

Larson apparently trained as an archaeologist (see <https://www.youtube.com/watch?v=voADVKvr7L4>) so it is no surprise that he often featured stereotypically ‘primitive’ early humans in his cartoons (although this is the only one featuring the Mesolithic). The third cartoon (figure 20), a strip rather than a single pane, delivers a simple joke that has nothing to do with the period.



Figure 20: cartoon by Eoin Ryan
(<http://www.spaceavalanche.com/2011/07/11/mesolithic-life/>)

A few images are of individuals as symbolic representations, devoid of setting (figures 21 to 24).



Figure 21: illustration by David Ace of Cheddar Man
(Mail Online, <http://www.dailymail.co.uk/sciencetech/article-1359346/Cheddar-Gorge-bones-Why-ancient-Britons-cannibals.html>)

Figure 22: drawings by Liz James of children through the ages
(<http://www.flickrriver.com/photos/wessexarchaeology/tags/graphics/>)



Figure 23: illustration by Shane Phillips of a Mesolithic boy, Helfeydd
(<http://www.clwydianrangeanddeevalleyaonb.org.uk/hillforts-timeline/>)



Figure 24: anonymous illustration summing up the Mesolithic
(<http://blogs.wessexarch.co.uk/ttbw/tag/free-resources/>)

Another image (figure 25) is a similar example of a character presented out of context, but in this case is a specific character from a novel set in the Mesolithic (Torak from *Wolf Brother*, Paver 2004).



Figure 25: illustration by Ian Kirkwood of Torak
from *Wolf Brother* (Mackay 2013: 27)

Two further images are of a character out of context but committing a definite action, the firing of a bow or throwing of a spear (figures 26 and 27).

Figure 26: drawing by Dominic Andrews of a Mesolithic
bowman (Milner et al. 2013: 26)

Figure 27: drawing by Alan Braby of a
Mesolithic hunter (Wickham-Jones 1994: 70)

This leaves 114 images depicting Mesolithic characters in settings that seek to convey elements of the way of life of people during the period. The degree of mimesis in these varies from the sketchy and impressionistic to the highly realistic.

Unlike other media, illustrations do not in themselves offer value judgements on the Mesolithic. Ascribing these to the images is not as easy it may seem. One of the simplest judgements is whether the people appear to be primitive or sophisticated in their culture. The earliest images, from 1949 up to the 1980s, portray a relatively simple Mesolithic, with people seemingly not far removed from stereotypical images of ‘cavemen’, with hairy males, people wearing very little or simple skin clothing and either living in caves or with very simple shelters. Even the famous images by Alan Sorrell, based on Star Carr, depict a Mesolithic that has an unkempt and rather ‘basic’ appearance. Perry and Johnson (2014: 338) have noted how Sorrell wanted the image to be more substantial with at least a proper house but that he was overruled by Clark, with the image straying as little as possible from the archaeological evidence of the time.

More sophisticated images began in the early 1990s with the work of Alan Braby, who depicted a richly cultured Mesolithic with neat, decorative and tailored personal appearances, decently made houses and a detailed material culture. The use of detail serves as part of Moser’s convention of authenticity, in which a highly detailed depiction is accepted as almost photographic and therefore more convincingly real (Moser 2001: 273-276). This convention is exemplified in the web-page of one of the artists, Dominic Andrews, on how he created two of his depictions of the Mesolithic: figures 7 and 28.



Figure 28: illustration of a Mesolithic camp by Dominic Andrews
(http://www.archaeoart.co.uk/stonage_menu.htm)

His starting point was the desire to make the images ones that the viewer could relate to:

“The important thing for me is to make these images look as realistic as possible. I try to make these pictures look a little contemporary, to avoid quasi-historical clichés; I don’t like things to look ‘olde-worlde’, because this distances people from the subject matter ...”

(Andrews n.d.)

Andrews sees Mesolithic people as highly sophisticated. This is reflected in the clothing and equipment he depicts. His characters pose in active stances reflecting dynamic movement and have clothing suited to an active, woodland lifestyle. The projection of the artist’s own attitudes and contemporary thought onto the past is clearly demonstrated by his depiction of their clothing being decorated, asserting that “they surely must have taken pride and care in their attire”. As he put it, he wanted them to look like “a seasoned Glastonbury Festival-goer crossed with an American Indian” (Andrews n.d.). He referred to Star Carr, Horsham and Holmegaard in Denmark as the inspirations for his equipment, establishing the archaeological authority for the reality of his illustration. Interestingly, he goes well beyond the level of detail that the viewer can actually see, referring to each hunter carrying a pack with a fire kit of flints, tinder, dried moss; resin, needles and sinew for mending and making clothes and gear; some flint raw materials for knapping; some pain-killing herbs and honey as antiseptic. The shelter he depicts is akin to one described by modern bushcraft expert, Ray Mears (another way of establishing authority through appeal to the expert).

Not all recent illustrations of the period reflect the new academic thinking about the period. As late as 2001, a simple image like figure 19 shows a single male hunter wearing only a loincloth, carrying a bow and a spear, and with long, shaggy hair and beard added to a hairy chest and muscular physique that conveys a highly masculine image that could be read as ‘primitive’; a

stereotypical 'caveman'. Likewise, the images in the graphic novel, *Mesolith* (Haggarty & Brockbank 2010) show a world where people wear simple skin clothing, where most of the action takes place outdoors and is largely devoid of domestic settings and cultural detail. More typical of recent images is figure 29, which shows a group engaged in a range of activities with a wide range of material culture, tailored clothing and peaceful social interaction.



Figure 29: anonymous reconstruction of Mesolithic life at Holyrood Park, Edinburgh
(<http://www.scottishheritagehub.com/content/61-mesolithic-lifestyles>)

The life we see seems to be a sophisticated one; that is materially complex and socially interdependent. The idea of the Mesolithic as a peaceful society (belied by the evidence of violence seen in skeletons from the continent) is the dominant one in the illustrations. It is not surprising that the representational convention of dramatism (Moser 2001: 276-279) is largely absent from most Mesolithic images. Acts of violence are rare (figure 30) and death only depicted twice (figures 31 and 32).



Figure 30: illustration by James Innerdale of the on-line story
Raven's Wing: son of True Arrow (Griffiths 2003)



50 WILD HARVESTERS

Figure 31: illustration by Harry Bland of a Mesolithic burial (Finlayson 2005: 50)

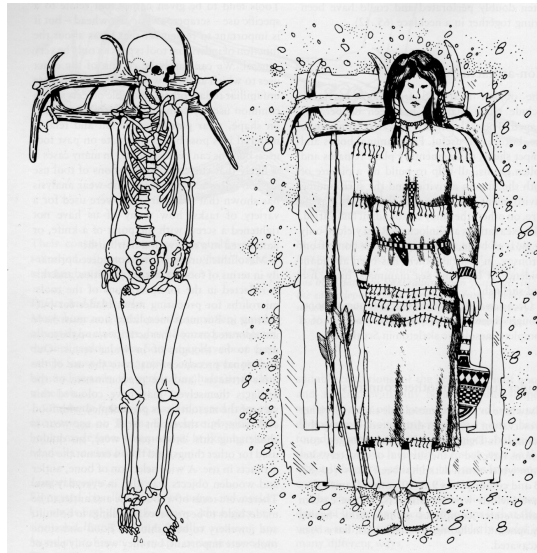


Figure 32: illustration by Alan Braby of a burial at Vedbæk, Denmark (Wickham-Jones 1994: 96)

The weather is almost always good, reinforcing the idea of a peaceful and idyllic world. Only one image shows snow (figure 33) and this seems to be a wrongly categorised use of a Palaeolithic illustration.



Figure 33: anonymous illustration of a Mesolithic winter
([http://whenintime.com/EventDetails.aspx?e=2b0edb01-77d4-4010-a57f-61ac12d9e5ee&t=/tl/Shadow13297/Age Of Treasure/](http://whenintime.com/EventDetails.aspx?e=2b0edb01-77d4-4010-a57f-61ac12d9e5ee&t=/tl/Shadow13297/Age%20Of%20Treasure/))

Apart from figure 33, there are a few other illustrations that stand out in some way. Figure 34 is unusual in showing a woman as part of a hunting party, in which she is mending hunting equipment.

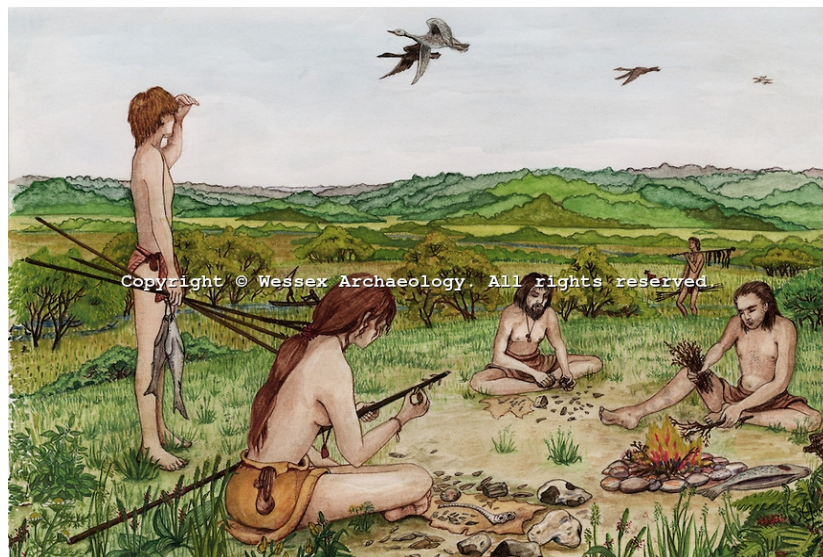


Figure 34: illustration by S E James of a Mesolithic hunting camp
(<http://wessexarchaeology.photoshelter.com/image/I0000My3HOVv3aHU>)

One cartoon image (figure 35), shows a mixed chronology with a distant trilithon of the kind at Stonehenge in the background.

Figure 35: cartoon by Arro of a taste of the past
(<http://heritageaction.wordpress.com/category/ancient-britain/>)

One image shows charcoal burning, not a normally attested Mesolithic activity (figure 36).



Figure 36: drawing by Jagdeep Lall of charcoal burning destroying the Caledonian Forest (<http://harmsworth.net/scottish-history-heritage/mists-of-time.html>)

There are three pairs of images which break Moser's convention of singularity in which a depiction of the past is a highly selective single view (Moser 2001: 276). These pairs show alternate versions by one illustrator of the same archaeological evidence. Figures 37 and 38 show different uses of the Star Carr antler frontlets: in hunting and in a ceremony back in camp.



Figure 37: drawing by Nancy Bryce of antler frontlets used in hunting
(Dawson 1983: 20)



Figure 38: drawing by Nancy Bryce of antler frontlets used in a ritual dance
(Dawson 1983: 21)

Figures 39 and 40 show different version of an excavated activity station around a windbreak at Fife Ness.



Figure 39: drawing by Mary Kemp-Clarke of smoking meat and fish (Wickham-Jones & Dalland 1998, <http://intarch.ac.uk/journal/issue5/wickham/cwj7.html#fig11a>)

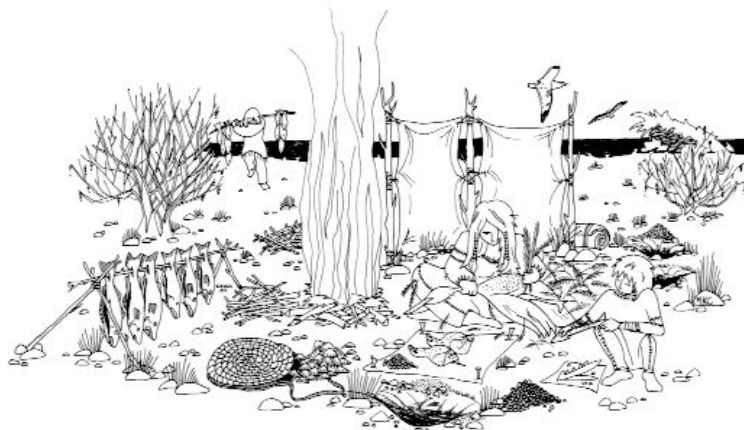


Figure 40: drawing by Mary Kemp-Clarke of a Mesolithic camp (Wickham-Jones & Dalland 1998, <http://intarch.ac.uk/journal/issue5/wickham/cwj7.html#fig11a>)

Likewise, figures 41 and 42 show two different versions of an encampment on the Isle of Rum.

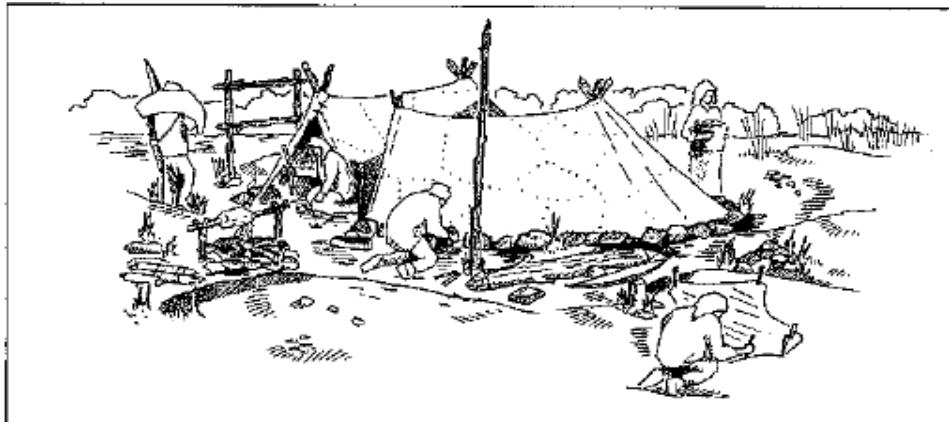


Figure 41: illustration by Alan Braby of a Mesolithic site at Rum (Warren 2005: 124)

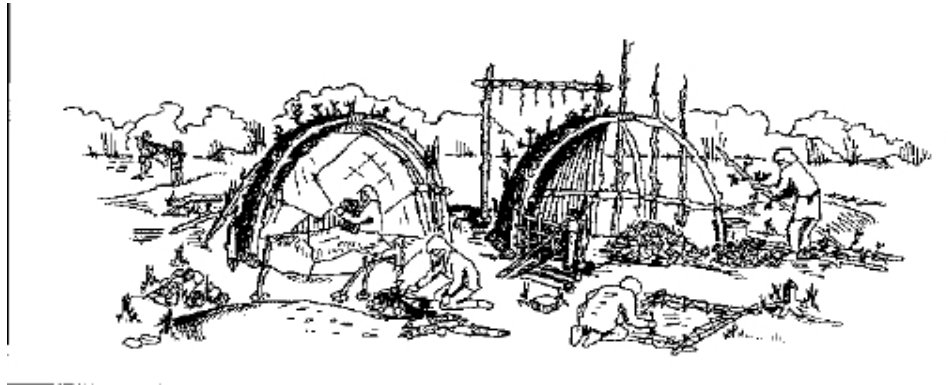


Figure 42: illustration by Alan Braby of a Mesolithic site at Rum (Warren 2005: 124)

For some artists, the creative process involves a thinking back into the past to depict what they feel should be there. This can go beyond the restricted nature of the archaeological evidence which is scarce or non-existent for items like clothing, or is ambiguous and incomplete for others like houses. The limits of artist inference lie not with the data but with the authority of the archaeologist, “but because of the conservative nature of most archaeologists/academics, alas you can’t get away with using too much!” (Braby pers. comm. 2015). Figure 43 is an imaginative reconstruction based entirely on the Star Carr excavation by Clark.



Figure 43: illustration of Star Carr by Alan Sorrell (Green & Sorrell 1968: 11)

Sorrell depicted a house/shelter which he felt must have been there but for which there was no evidence. The evidence for a house only emerged in the excavations led by Milner in 2010 (Catling 2013: 37). Illustrations then may also be interpretive tools that help to widen our possible imaginings of the period. What they also convey is a more rounded, holistic, view of Mesolithic life, similar to that in fiction. They put the flesh on the bones of the evidence and make the period more tangible for the viewer.

What impression then do the illustrations convey to the public audience? There is no single image of Mesolithic material culture. What unifies the images is a focus on domesticity, the daily life of people in a settlement, seemingly peaceful and structured. The major dramatic event that does appear is the hunting of large game (14 images have this as their primary depiction compared with 63 showing a camp or activities within a camp). The scenes depicted are primarily social interaction or the carrying out of specific tasks.

5.3.10 Television programmes

As Morris has pointed out, television is the most powerful mass medium (although this was written before the rise of the Internet, and now could be challenged), and there is heavy competition to get onto the airwaves (Morris 1999). The Mesolithic has rarely featured in the TV schedules. A search of the BFI Screenonline website (a database of TV broadcasting in the UK) yielded no results for a search under 'Mesolithic' or 'Middle Stone Age' or 'Star Carr'. Kulik (2006: 83) in a study of television programming in Britain from 1999 to 2002 found that 10.2% of programmes covered the Palaeolithic to Neolithic periods. The early TV series *Buried Treasure* ran from 1954 to 1958, just when the Mesolithic in Britain was gaining academic notice following Clark's work at Star Carr, yet included nothing on the period. Likewise, I have not been able to identify any Mesolithic content in the long-running series *Chronicle* (1966-1991), nor in the history documentary series

that would often feature archaeological topics, *Timewatch* (1982-now). Shorter running, and more archaeologically focussed series such as *Down to Earth* (1990-1992) also yielded no Mesolithic content. Two series of *Britain's Secret Treasures* (2012-13) which covered a series of the choicest archaeological artefacts found in Britain failed to provide a single Mesolithic example. A recent series such as Neil Oliver's *A History of Ancient Britain* in 2011-2012 harked back to the late 19th century in its attitudes towards the Mesolithic, refusing to accord a separate episode and instead subsuming it with the Palaeolithic in episode 1 (*Age of Ice*) and contrasting it with the Neolithic in episode 2 (*Age of Ancestors*).

In my previous capacity as Head of Education at the Council for British Archaeology, and Honorary Director of the Centre for Audio-Visual Study and Practice in Archaeology, I had compiled my own database of television programmes covering archaeology from 1952 to 2014. Out of 2,095 entries there are only a few which obviously included Mesolithic content. There was some Mesolithic content in the longest running of all archaeology series, *Time Team* (1994-2013), although this was sparse. *Meet the Ancestors* had one programme covering a Mesolithic excavation. Other series that included the Mesolithic were *Bushcraft* and *Wild Food*, both presented by Ray Mears, and single programmes in the series *Landscape Mysteries* and *Digging for Britain*. More recently, the long running science documentary series, *Horizon* (1965-now) featured one programme on the Mesolithic, focussing on the site of Blick Mead. There has also been the recent 'reality' TV show, *10,000 BC*. A total of 25 programmes was available for analysis (Appendix 16).

These programmes did not all have archaeology as their main focus. Those that did, and could be described as traditional archaeological documentaries, were *Time Team*, *Meet the Ancestors*, *A History of Ancient Britain*, *Digging for Britain* and *First Britons*. *Landscape Mysteries* had a focus on the environment and geography. *Bushcraft* and *Wild Foods* were based on survival skills and human-environment interaction, albeit with a strong archaeological connection. Indeed, *Wild Foods* was co-presented by archaeologist Gordon Hillman and included archaeologists as guests in each episode, most of whom were experts on the Mesolithic. In a sense, they could be seen as a kind of ethnoarchaeology. The series *10,000 BC* was a 'reality' show, in which modern people lived as though they were living in the Mesolithic. The ostensible purpose of the series was to understand more about the Mesolithic way of life, but as with most shows of this kind, the focus soon became the interactions of the modern people with each other and their individual responses to the situation of being away from their families and modern comforts.

Fowler (2007: 91-92) has argued that archaeologists have too often seen television as a means of providing our knowledge to the uneducated and grateful masses, and that they have failed to align themselves with wider environmental concerns or issues of heritage conservation. While there may be a genuine reluctance for televised archaeology to tackle big issues, it is the Mesolithic that has provided one clear exception to this. The *Time Team* special, *Britain's Drowned World*, was on Doggerland and the lessons that slow drowning by climate change might have for the modern

world.

Seventeen of the programmes made overt value judgements about the Mesolithic. These are almost entirely positive, even *10,000 BC* in which modern people proved to be somewhat lacking in the skills needed for living in the Mesolithic. The commonest words used to describe Mesolithic people and society are sophisticated (in four programmes), complex (three programmes), intelligent (two programmes) and spiritual (two programmes). They may be seen as close to nature or living in balance with nature (three programmes). One of the participants in *10,000 BC* noted that he had total respect for the Stone Age ancestors based on how hard it was for modern people to adjust to the way of life. Negative judgements (also by people on *10,000 BC*) were that women must have been miserable, can't have looked very nice and that life was all about gruelling hard work with no time for play due to the incessant search for food and firewood.

5.4 Summary

This chapter has shown that public communications about the Mesolithic occur over a wide range of media, and are increasing in frequency with time. The Mesolithic is becoming more publicly visible, even if it has a long way to go to achieve widespread recognition. Attitudes towards the period vary greatly but are largely positive. Some of the media take a more narrative-based approach or provide a fuller picture of the period than others, chiefly pictorial illustrations, fiction and television.

Having described the media, the next step is to compare their use of narrative elements and draw out conclusions about how the period is depicted in popular channels of communication. This is the subject of the next chapter.

Chapter 6

Analysis of popular communications

6.1 Popular communications

Each of the media analysed in the previous chapter has its own set of authors, audiences and methods of communication. It is reasonable to assume therefore that they will also differ in their presentation of Mesolithic narratives. This chapter will discuss how far each channel differs from the others, and whether there are any commonalities in the portrayals of the Mesolithic that they share. The data abstracted from each of the media are presented in Appendices 17 to 26, and their analyses in Appendices 27-36. Rather than describe the narrative analysis of each medium, I will here present their overall characteristics and compare them against the narratives conveyed by the academic media analyses in chapter 4. The detailed comparison of the media can be found in Appendix 37.

The media items analysed cover a range of dates from the 19th to the 21st centuries (Figure 44). The increase in the number of items over time partly reflects an increasing visibility of the Mesolithic, but is also due to the greater number of media available to study in more recent times.

Figure 44: number of media items analysed by decade

The different channels have different levels of narrative content (Table 9). Some channels concentrate on delivering information or facilitating discussion. These I have termed the informative media. Others also seek to deliver information but also engage audiences in more emotive or aesthetic ways, or are overtly entertaining. I have termed these imaginative media. Each of these categories tends to have a different distribution of narrative elements.

The commonest narrative element is the description of people's activities, occurring in more than half of all media (and especially common in the imaginative media). Characters are present in more than half of web-pages, popular books and BBC Online, but are likewise commonest in the

imaginative media. Placing people and actions in well defined settings is commonest in the same range of media as characters (apart from BBC Online). The description of happenings is the least common element; only present in more than half of the items among web-pages, popular books, television and fiction. Making value judgements is common only among television, popular books and newspapers. The academic representation of all the narrative elements is much higher than in the informative popular media. The imaginative media are equally as rich in most of the elements as academic writings. While happenings are the least represented in all media, they are markedly less common than in academic writings.

Channel	All items	Character	Setting	Action	Happening	Judge
Academic total	58	98%	83%	98%	66%	100%
Web-pages	50	62%	62%	90%	50%	22%
Blogs	50	48%	30%	62%	14%	40%
Videos	50	44%	48%	68%	16%	30%
Popular Books	42	74%	74%	86%	64%	64%
Newspapers	158	48%	49%	65%	17%	52%
BBC Online	51	51%	47%	86%	29%	22%
Magazines	176	44%	46%	66%	23%	47%
Informative total	577	49%	50%	71%	28%	43%
Television	25	72%	100%	100%	76%	76%
Images	131	95%	93%	92%	2%	
Fiction	18	100%	100%	100%	61%	6%
Imaginative total	174	92%	95%	94%	18%	12%

Table 9: percentages of narrative elements in different channels of communication

6.2 Characterisations

Character is an important element in public communications (Appendix 38). It is in fiction that we see most clearly the attempt to provide emotional empathy with Mesolithic people through audience identification with human characters and personalities, and especially with named individuals (Appendix 39). Having characters as narrators is of course a staple of fiction. Outside novels and short stories, there is only one example of first person homodiegetic narration by a Mesolithic character, Tarneg, in a video for the Sussex Downs Area of Outstanding Natural Beauty.

The dominant depiction of characters in the informative media is by function, followed by the depiction of groups (Table 10). This reflects the same ordering of character depictions as in academic media. Imaginative media on the other hand place greater emphasis on aspects of personality such as gender and age rather than function.

Medium	All	Total	Named	Gender	Age	Kin	Function	Group	Other
--------	-----	-------	-------	--------	-----	-----	----------	-------	-------

	items	items							
Academic total	58	48	0%	35%	21%	23%	71%	52%	58%
Web-pages	50	31	0%	2%	4%	4%	48%	24%	4%
Blogs	50	23	4%	10%	4%	2%	32%	10%	4%
YouTube videos	50	22	2%	10%	4%	2%	26%	8%	8%
Popular books	42	31	2%	6%	5%	4%	36%	14%	7%
Newspapers	158	76	3%	5%	4%	1%	33%	10%	12%
BBC News	51	26	0%	2%	6%	2%	41%	12%	2%
Magazines	176	77	1%	5%	6%	5%	33%	12%	4%
Informative total	577	286	2%	6%	5%	4%	36%	14%	7%
Television	25	18	4%	16%	16%	20%	20%	24%	24%
Images	131	124	3%	86%	51%	3%	35%	1%	10%
Fiction	18	18	72%	100%	100%	100%	83%	100%	50%
Imaginative total	174	160	10%	77%	51%	16%	38%	14%	16%

Table 10: percentages of types of characterisation in different channels of communication (All items = all analysed media items, Total items = the number of items with characters, % = the percentage of all items with that character type)

In the non-fiction media, there are only nine named individuals from the Mesolithic. One is a genuine Mesolithic person (Cheddar Man) and the others are fictional characters. Most characterisations of Mesolithic people, identify them only by age, gender, function (such as hunter or fisher), kinship (such as parent or child) or by physical characteristics. There is a marked avoidance of value-laden descriptions of individuals of the kind exemplified by Lubbock (1865), apart from those by artist Dominic Andrews, who described the Mesolithic people as “lean and athletic, moving with grace and speed” (Andrews 2008).

Gender is used to identify Mesolithic characters in 156 non-fiction items (Table 11): some having both male and female, some only male and some only female.

Male character	No. of items	Female character	No. of items
boy	15	girl	4
man	129	woman	86
father	1	daughter	3
son	4	mother	3
uncle	2	aunt	1
grandfather	0	grandmother	1
All male items	140	All female items	92
All gendered items	156	All gendered items	156

Table 11: comparison of masculine and feminine characterisations in non-fiction public media

Some 140 items depict masculine and 92 depict feminine characters. There is a clear imbalance in the depiction of gender. Only 60% of items that depict gender contained female characterisations compared with 90% depicting males. This replicates the bias towards males noted in academic writings by Finlay (2000, 2006). The proportions are similar to those in the academic writings studied in chapter 4, where there were 17 items that made clear distinctions of gender: 16 indicating males (94%), 10 females (59%). It is not possible to count the number of individual characters in most of the media as many descriptions of them are unspecific about this, e.g. simply describing men or women rather than specific numbers of men and women. However, this is possible for fiction and for illustrations.

In all the Mesolithic fiction, there are 243 individual characters (Appendix 39): 156 male, 84 female and three of unknown gender. There is a clear imbalance in gender, with 64% of characters being male to 36% female. Even in two novels with strong female leads who drive the narrative, the same imbalance is present with 59% of characters being male in *The Gathering Night* and 65% being male in *Stone Spring*.

Determining gender in pictorial illustrations is far from straightforward. Back or side views of a character can be misleading, gender differences in costume may be slight and drawings may be deliberately ambiguous. Alan Braby will generally depict what his author commissions, but has said that he likes to have a mix of genders doing different activities as this gives greater variety and makes the person viewing the image think more about what is going on within the image (Braby pers. comm. 2015). He has also said that he would revise the genders of some of the characters in his images if he were to do them again. Simply counting obvious physical signs of gender, there are 235 men (64%) and 135 women (36%) depicted, exactly replicating the proportions in fiction. There is a danger in making assumptions of gender from the tasks being done by the character, e.g. hunting by men, preparing skins by women. Nevertheless, the prevailing stereotypes are well in evidence. This can be seen as part of the convention of deploying familiar assumptions to persuade viewers that the scenes depicted are therefore plausible and realistic (Moser 2001: 279-280). Men are usually shown hunting, fishing, making canoes and tools, knapping flint and making fire. Women are usually shown gathering, looking after children and the elderly, and sewing clothes,

scraping hides, tending baskets. It is the men who wear antler headdresses. Artist Nancy Bryce provided two alternative illustrations of using the antler headdress. One of these (Appendix 11, I24) was for hunting by two males. The other (Appendix 11, I25) was in a dance ritual by a male, watched by a crowd of people from the settlement. Among the 21 watchers, I can identify only one adult and two children as female. Exceptions to the stereotypes are rare. One illustration (Appendix 11, I114) figures a young woman fixing microliths in place on hunting gear. Another (Appendix 11, I 65) is the only one to have a woman actually knapping. The elderly knapper in Appendix 11, I49 is teaching knapping to a young person, who appears like a young boy but perhaps is just ambiguous enough that the figure could be interpreted as a girl. The dominance of male flint knappers in these illustrations stands in marked contrast to one early illustration I found in the course of previous work among the papers of the 19th century archaeologist Worthington Smith held in Luton Museum (Figure 45). This was an illustration from 1883, as far as I know unpublished, of an unambiguously female flint knapper, intended to be of the Palaeolithic (Smith's main area of research).

Figure 45: a woman knapper illustrated in 1883

Other obvious categories of character among all the popular media are by age, kinship and function. Some of the terms used to describe characters have more than one obvious characteristic. For example, the word 'child' can denote an age category as well as a family relationship. In the tables and figures below, each category is analysed by the number of items in which each category appears. The overall total is not the sum of all the items in the table but of the number of items in which any of the defined characterisations appears. The percentages therefore do not add up to 100%.

Age is used to differentiate characters in 176 items (Figure 46). The vast majority of these are people whose descriptions clearly identify them as men, women (and therefore adults) and children. This reflects a similar dominance among academic media of simply describing adults or children. Only ten academic writings distinguish age, nine with adults and ten with children compared with only two with other age categories. Twelve popular items describe people by their age in years. Other descriptions include adults, teenagers, youth, babies and the elderly. Old people are not prominent, occurring in only 8% of items that describe age. Likewise, babies are remarkably absent, occurring in only 3.4% of items that describe age.

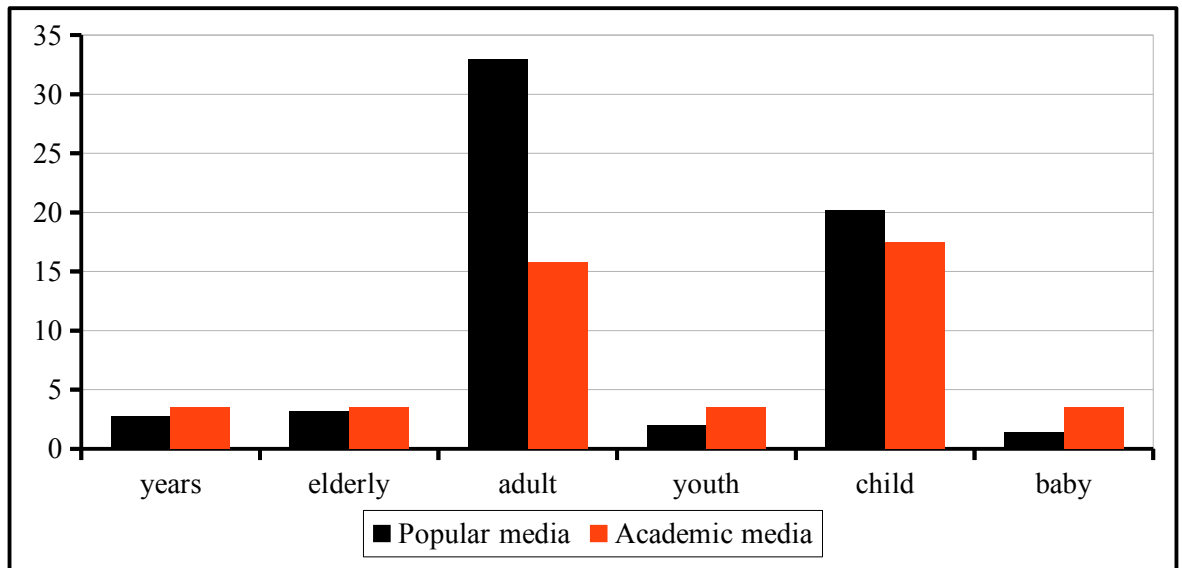


Figure 46: characterisations by age (as percentage of total items describing characters)

Specific identification of characters through their family relationships (Figure 47) is usually through the term 'child'. Other kinship terms are rare: father, mother or parent, son or daughter, aunt or uncle, grandmother or grandparent, ancestor or the generic 'family'. This again echoes the situation in academic writings, where 12 items described family relationships: four as the generic term 'family' and nine as children.

Figure 47: description of family relationships (as percentage of total items describing characters)

The commonest kind of characterisation of Mesolithic individuals is by function or activity (Figure 48). Most of these are functions to do with getting food, occurring in 262 items (96% of those showing function). Among these, the commonest description is of hunter-gatherers, followed by hunters, fishers and gatherers. Other designations include hunter-fisher, forager, hunter-gatherer-fisher, with single occurrences of fisher and fowler, fisher and gatherer, scavenger. Of the food-getting characters, being a hunter is clearly the commonest. Being a hunter is likewise dominant among academic media, although more likely as hunter rather than hunter-gatherer. In both popular and academic media, it is rare to find Mesolithic people described as gatherers. Apart from food getting, ten items feature people described as those who make things (craftsmen, knapper etc.). Other characterisations by function include shaman (four items), archer or Bowman (three items) and single occurrences of leader, senior, sailor, warrior.

Figure 48: characters described by function (as a percentage of total items describing characters)

The usual characterisation of Mesolithic people in popular media reflects that of academic writings, as hunter-gatherers with a preponderance of males and hunters, and a relative scarcity of older people and babies. Descriptions of people are usually very generic, lacking specific characteristics or detailed descriptions of social relationships.

As in academic writings (only five instances among those studied in chapter 4), only rarely are Mesolithic people described as identifiable individuals other than in fiction and illustrations. In the informative media, only 6.2% of items have such clearly described individuals, compared with 28% of television programmes, 91.6% of images and 100% of fictional stories.

There are various lessons that can be taken from this summary of characterisations in the Mesolithic in public media:

- having named individuals, as in fiction, to enable audience engagement;
- there is a need to redress the balance towards females;
- family relationships and social networks could be more presented;
- Mesolithic people need to be described as more than simply hunter-gatherer-fishers.

6.3 Settings

The description or depiction of the settings for Mesolithic life (Appendix 40) is, unsurprisingly, commonest among television and the images, but also occurs in a majority of the popular books and web-pages (Table 12). Blogs are the least likely to mention a setting. Setting is, of course, ubiquitous in fiction, and this is omitted in the analysis below. However, it is worth noting that it is only in fiction that we see the kind of mental setting envisaged by the more post-processual Mesolithic archaeologists. Paver’s novels especially depict the natural world as attributed with spiritual agency, while Elphinstone does the same through the medium of shamans.

Medium	All items	Total items	Woodland	Wetland	Dryland	Camp	Social	Spiritual
Academic total	58	48	36%	72%	48%	5%	2%	0%
Web-pages	50	31	50%	34%	8%	42%	12%	0%
Blogs	50	15	10%	12%	40%	18%	4%	0%
YouTube videos	50	24	18%	22%	8%	2%	2%	0%
Popular books	42	31	55%	60%	48%	33%	17%	2%
Newspapers	158	78	8%	25%	11%	34%	4%	0%
BBC news online	51	29	10%	29%	16%	0%	0%	0%
Magazines	176	79	14%	33%	15%	0%	3%	0%
Informative total	577	287	18%	30%	14%	17%	5%	0.2%
Television	25	25	88%	72%	28%	52%	40%	0%
Images	131	122	27%	41%	23%	23%	75%	2%
Fiction	18	18	89%	67%	67%	83%	94%	11%
Imaginative total	174	165	42%	48%	28%	33%	72%	3%

Table 12: types of setting across different media (All items = all analysed media items, Total items = the number of items with characters, % = the percentage of all items with that type of setting)

The most widespread settings are those that occur in academic writings: the natural environment as an ecological setting in the tradition of Clark, chiefly forests and waterside locations: mostly rivers, coasts and lakes (Figure 49).

Figure 49: different environmental settings in popular media (as a percentage of total items describing setting)

Academic media are more likely to mention coasts and lakes over woodland or rivers, and also more likely to mention caves, uplands and marsh or fen. These settings naturally reflect where many of the Mesolithic sites have been found, and are mostly a simple statement of location.

What the above show is the importance of the natural environment as a setting for Mesolithic activity. Another key physical environment is the settlement as a setting. While 156 items describe locations as camps, encampments or settlements, these are seldom situated as settings in which actions are physically situated or related. It is only in pictorial illustrations and fiction that settlements are depicted in which groups of people enact their lives. Likewise, while most academic writings mention specific sites, the idea of the settlement as a setting for specific actions is present in only three items.

Overt description of social settings, in which people are identified as a group or as individuals to interact with, occur in 152 items. This is unlike academic writings where exploration of social groupings as a setting for human action is rare (only one instance in those examined in chapter 4). Descriptions of spiritual settings are extremely rare (with none in the academic writings analysed). There are only six items in which the spirits of the natural world are a context for the narrative.

The level of detail in the descriptions of settings varies greatly. A wealth of details is only common in fiction and in pictorial images. Otherwise, details tend to be sparse or general. A description of 'boreal woodland', while having a specific meaning to a specialist, means little to a public audience. Where settings are given value, it is usually through a simple description of the food resources available, rather than any emotional, spiritual or aesthetic value. Social settings are likewise mostly vague and general in nature. The relationships that hunter-gatherers have with their

settings are often imbued with spirituality or relationships with unseen powers. This aspect of setting is notably lacking among most public media.

The main improvements to the description of narrative settings are:

- a need for greater provision of details of setting, whether natural or social;
- setting activities in the context of the physical layout of settlements;
- what each setting offers: the advantages or disadvantages beyond simply a wealth of resources;
- need for description of atmosphere, what it is like to experience that setting;
- providing a feeling for the spiritual setting for everyday life.

6.4 Actions

The description of actions is common across all communications channels (Appendix 41). The range of actions is very wide, wider than in academic writings, but most can be categorised under particular headings: the quest for food, the eating and treating of food, activities within settlements, making and using of tools, the treatment of animals, activities in the landscape, movement between settlements and activities, social activities between people, religious or spiritual actions and artistic endeavour.

Among the actions of Mesolithic people (Tables 13 and 14), the quest for food is by far the commonest, closely followed by the making of tools, activities within the settlement and movement in the landscape. This is very like the situation in academic writings, although these are more likely to contain descriptions of actions in the first place.

Medium	All items	Total items	Get food	Prepare food	In camp	Animals	Make tools	Forestry	Move
Academic total	58	57	71%	47%	41%	35%	66%	17%	57%
Web-pages	50	45	68%	4%	40%	8%	50%	18%	44%
Blogs	50	31	24%	10%	20%	2%	22%	4%	18%
YouTube videos	50	34	28%	14%	30%	6%	34%	4%	16%
Popular books	42	36	69%	26%	33%	24%	60%	31%	62%
Newspapers	158	103	23%	23%	20%	1%	18%	6%	27%
BBC news online	51	44	28%	24%	24%		31%	6%	26%
Magazines	176	117	27%	18%	19%	2%	26%	6%	24%
Informative total	577	410	32%	18%	23%	4%	29%	9%	28%
Television	25	25	88%	80%	76%	8%	80%	32%	68%
Images	131	121	43%	19%	13%	3%	33%	3%	16%
Imaginative total	156	146	50%	29%	23%	4%	40%	8%	24%

Table 13: Utilitarian functions across popular media (All items = all analysed media items, Total items = the number of items with characters, % = the percentage of all items with that function)

Medium	All items	Total items	Social	Religion	Art	Other
Academic total	58	57	26%	26%	29%	31%
Web-pages	50	45	8%	4%	6%	2%
Blogs	50	31	12%	16%	4%	2%
YouTube videos	50	34	8%	10%	2%	2%
Popular books	42	36	33%	26%	12%	17%
Newspapers	158	103	8%	12%	1%	3%
BBC news online	51	44	10%	16%	4%	6%
Magazines	176	117	12%	11%	3%	13%
Informative total	577	410	12%	13%	4%	7%
Television	25	25	80%	24%	12%	80%
Images	131	121	37%	4%	1%	21%
Imaginative total	156	146	44%	7%	3%	30%

Table 14: Other functions across popular media (All items = all analysed media items, Total items = the number of items with characters, % = the percentage of all items with that function)

Social activities are also common in television and images, but less so in the informative media. Artistic actions are far less likely to be mentioned than in the academic writings.

Among the activities concerned with food, it is no surprise that hunting is the most widespread of these, followed by fishing and with gathering in third place (Figure 50). This reflects the relative proportions in academic media. Some accounts of the Mesolithic include early attempts at domesticating or managing animals, or the transition to farming as something foreshadowed or initiated by Mesolithic people. Illustrations have an additional category, people bringing animals or plants back to a settlement or camp, which is a distinct narrative act apart from the getting of the animal or plant in the first place.

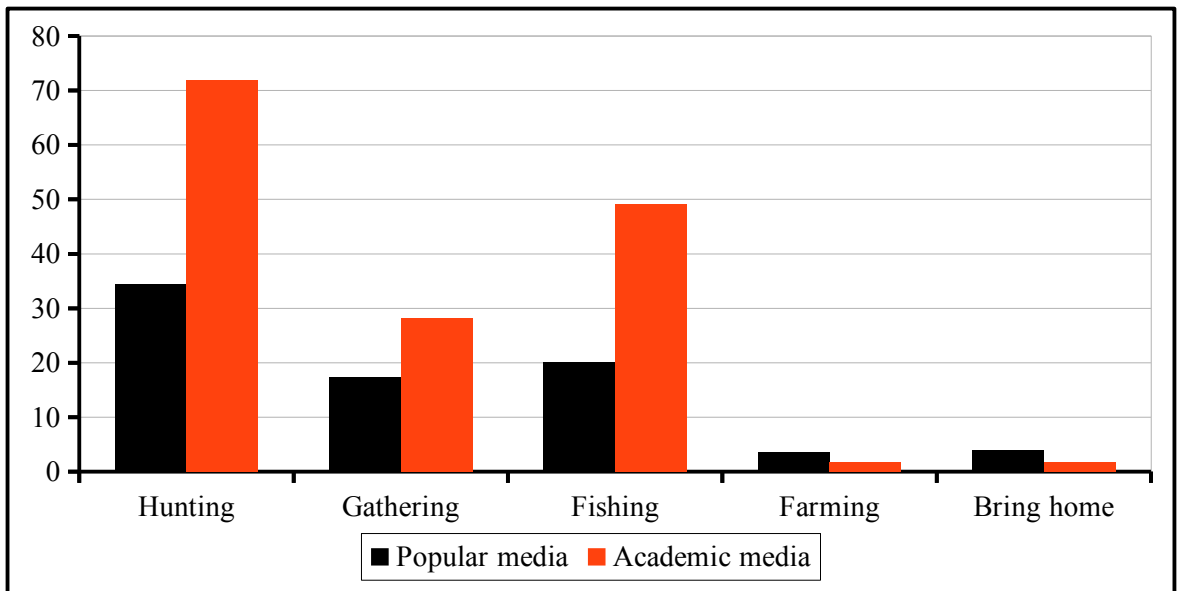


Figure 50: different activities concerned with getting food in popular media (as a percentage of total items describing actions)

It was Milner (2006: 69-70) who asked for greater investigation of the importance of the preparation, cooking and eating of foods. Activities relating to the preparation and use of food are reasonably widespread and include the simple actions of eating food, or preparing food through butchery or smoking etc. (Figure 51). This compares well with academic writings, although these feature the preparation of foods rather more frequently. What is missing is the subjective experience of doing these acts: the engagement of the senses such as taste, texture and smell.

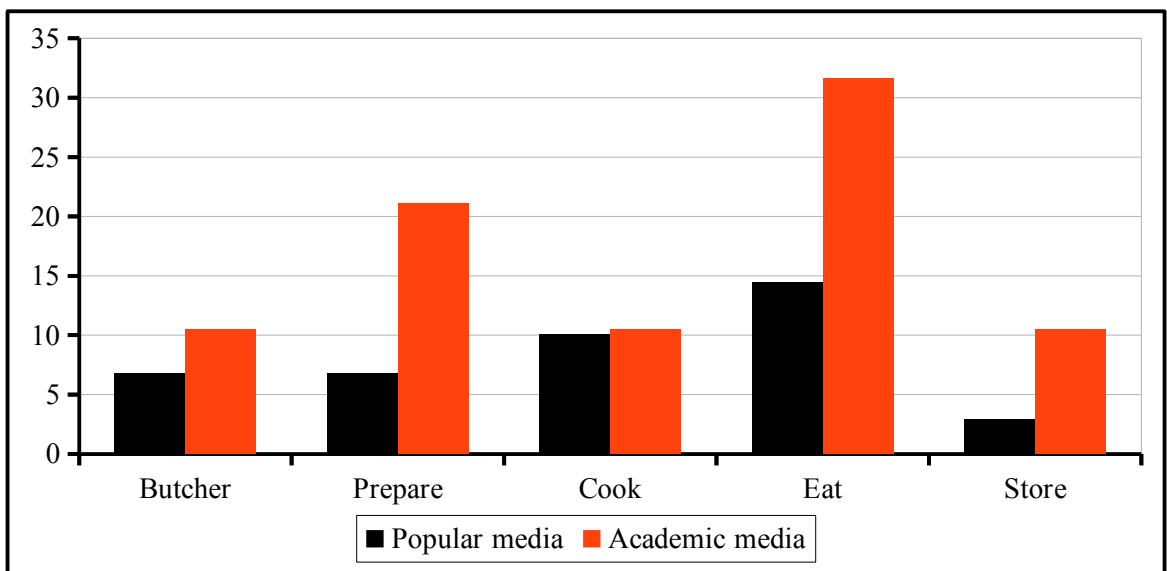


Figure 51: actions relating to food treatment (as a percentage of total items describing actions) Making tools (including obtaining raw materials) is the next commonest action after the getting of food (Figure 52). This clearly reflects the bias towards the recovery and analysis of Mesolithic technology as represented by stone and antler tools. Most of the descriptions are generic. Specific tool making activities include working skins, wood-working and making boats or clothes. The popular media reflect well the relative proportions of the different tool-making actions in academic

writings. The main difference between the two is the discussion of pottery making in academic writings, largely in descriptions of the Danish late Mesolithic.

Figure 52: actions relating to tool making (as a percentage of total items describing actions)
Actions relating to movement in the landscape or in and out of settlements (Figure 53) are mostly a simple generic description of travel or mobility. In a few cases, the type of movement is given, each of which has different narrative connotations: migrating, exploring, staying in one place, leaving a site, returning to a site, gathering of different people at a site, temporarily visiting a site. In equally few cases, the means of movement is described, such as walking or travelling by boat. Popular media are more likely to mention overall mobility as an active event than in academic writings, which instead are more likely to mention migration (especially in the early days of writing about the Mesolithic with a concern for culture historical approaches).

Figure 53: actions relating to movement (as a percentage of total items describing actions)
There are various actions relating to the creation and maintenance of settlements, and use of settlement structures (Figure 54). Most of these are the actual establishment of a settlement. The

main action involved in this is the building of a house, with a few also mentioning the creation of a clearing for the settlement. Among the least mentioned actions are those which some might think to be most important. Sleeping is only mentioned in three items, and may well have been one of the most important uses of houses with strict rules as to location of different family members within the structure. One of the commonest questions asked by children on a heritage site is where the inhabitants went to the toilet (Stone 1994: 195). This everyday activity is surely an important part of prehistoric life, and yet is only directly mentioned as an activity in two items. At least, popular media do depict activities relating to living in a settlement. In this, they improve upon the academic writings, which are far less likely to cover these kinds of activity (building houses and discarding rubbish being the commonest actions depicted).

Figure 54: actions taking place within settlements (as a percentage of all items describing actions)

Not all actions are technological or only utilitarian. Many have a social function, either between individuals or within and between groups (Figure 55). These include personal interaction and establishment of social networks, inter-group competition and territoriality, investing meaning in special places, relationships between genders and ages, leisure and the beginning and end of individual lives. Popular media depict a wider variety of social actions than do academic writings. However, apart from talking, each is not depicted to any great extent. Academic writings are more likely to focus on actions involving social networks such as exchange, disputes or violence. Some of the most important aspects of human life such as birth and death are hardly depicted at all.

Figure 55: social actions depicted (as a percentage of total items describing actions)

Hunter-gather groups to have a rich spiritual and symbolic life, in which their interactions with the physical world are imbued with meaning, often with unseen forces which, in other societies, would be classed as religious belief (Cummings 2013: 78). Mediation between the human and the unseen world is often through ritual activities (Cummings 2013: 82-83). A wider variety of actions that reflect spiritual beliefs or ritualised relationships with the spirit world are more depicted in popular than academic media. Both share a focus on burying the dead or generic ritual activity (Figure 56).

Figure 56: religious or spiritual actions (as a percentage of total items describing actions)

Among the least common activities represented in the media are those to do with managing the woodland that is such a prominent feature of the environmental setting of Mesolithic life (Figure 57). The alteration of the forest to create clearings is by far the commonest of these activities. Both this and the felling of trees are more commonly depicted in academic than popular media.

Figure 57: woodland interactions (as a percentage of total items describing actions)

Other actions depicted include the control of wild animals or the domestication, keeping and use of dogs (in 29 items), and the creation of artistic work of some kind (in 23 items). This relative lack of attention to interaction with dogs is strange given the bond between humans and dogs, and the Mesolithic being the period of the first attested presence of dog in Britain.

The overall range of actions depicted is large, and wider than in the purely academic writings. They give a clear indication of what Mesolithic life might have been like. There is clearly a great potential to use and extend some of the actions within narratives of the period. However, there are many improvements that could be made to the use of actions within narratives of the period. Many are very vague or generic and certain actions dominate at the expense of others. Many actions that would have been important in life are only seldom mentioned. Suggestions for better use of narrative actions include:

- redress the balance from hunting towards gathering and fishing;
- be more specific about actions instead of relying on generic categories;
- describe the sensory experience of many actions, especially smells and tastes;
- build on the narrative potential of types of movement as generators of human emotional response;
- include a greater mention of the actions of daily life;
- make greater use of social interaction and life events;
- provide a greater representation of the spiritual dimensions of life.

6.5 Happenings

The major happenings of the Mesolithic are all represented in the popular media (Appendix 42), but are only common in television, web-pages, popular books and fiction (Table 15). They are less

common overall than in academic writings. The nature of the happenings makes it hard for them to be visualised in a snapshot illustration and so their low incidence among images is not surprising.

Medium	All items	Total items	Environmental	Demographic	Other
Academic total	58	38	62%	26%	0%
Web-pages	50	25	50%	2%	0%
Blogs	50	7	14%	0%	0%
YouTube videos	50	8	16%	0%	0%
Popular books	42	27	60%	14%	14%
Newspapers	158	29	17%	1%	1%
BBC news online	51	28	29%	2%	2%
Magazines	176	41	23%	1%	2%
Informative total	577	165	25%	2%	2%
Television	25	19	60%	24%	40%
Images	131	2	2%	1%	2%
Fiction	18	11	46%	27%	64%
Imaginative total	174	32	11%	5%	8%

Table 15: happenings identified in each communication channel (All items = all analysed media items, Total items = the number of items with happenings, % = the percentage of total items)

The main happenings are those associated with environmental change (Table 15), especially sea level rise, climate change (post-glacial warming), Britain becoming an island with the flooding of Doggerland and the spread of forests (Figure 58). This is similar to the emphasis in academic writings, although these tend to focus more on climate change, melting of the ice sheets, the spread of woodland and new fauna and flora. Many of these are slow, long-term happenings that seldom have effects during one person's lifetime. The sudden rise in temperature at the beginning of the Pre-Boreal and the Storegga tsunami would be short-term, life changing events, while single event happenings include whale strandings, attack by animals, the burning down of a house, an earth tremor, an annual fish run, the rising of the midwinter sun and the occurrence of a drought. Very few demographic happenings are described: the rise or fall of population levels, hunger or malnutrition, and disease (outside of fiction, sickness is mentioned in only 6 items).

Figure 58: happenings in the Mesolithic in popular media (as a percentage of total items describing happenings)

Overall, there is a good range of happenings mentioned, although these are not mentioned as a matter of course in most descriptions of the period. Improvements could be made by:

- mentioning happenings more often;
- defining what effect the happenings would have during one person's lifetime;
- making connections between happenings, such as the effect of seasonality on levels of malnutrition.

6.6 Value judgements

Value judgements have been found in 132 items (Appendix 43). Of these, 26.5% (35 items) contain only negative judgements, 54.5% (72 items) contain only positive judgements and 18.9% (25 items) contain both negative and positive judgements.

A total of 101 negative value-laden words or phrases were identified in the written media sources. The vast majority only occurred once or twice. The commonest words were simple (in 7 items), primitive (in 4), savage and strange (in 3 each). The words can be grouped into the same categories as for the academic sources (Table 4 and see section 4.2 for the academic data).

There are 219 positive words or phrases occurring in the popular media analysed, of which the commonest is sophisticated, found in 29 items. Other common words are complex (in 11 items), rich (in 9), skilled (in 6), healthy (in 5), advanced (in 4), adept, astonishing, easy, efficient and ingenious (in 3 each). One rather unusual positive description occurred in nine news reports, most likely taken from the same press release, comparing a Mesolithic feast to a menu by the famous chef Heston Blumenthal. The words can be grouped in the categories already used for the analysis of words in academic media, with the addition of a wider range of categories (adding beautiful,

catastrophic, harmony with nature, pleasant, strange, ugly, violent, wonderful).

There is an interesting persistence of negative stereotypes in the popular media, long after they have ceased to be used in academic discourse (Figure 59). The 'primitive' category of words fades out of academic use after 1952, but continues into the present in popular media. The word 'primitive' itself last occurred in the academic sample in 1933, but continues in popular usage as late as 2009. The one category that has disappeared from modern usage is 'degenerate'. The popular negative images are of primitive, passive and strange people struggling to make a living.

Positive judgements outweigh the negative, and have a wider range than those found in academic writings, especially those relating to harmony with nature and the beauty of the period. The popular positive view of the Mesolithic is that its people were sophisticated, skilled and complex. There is also a tendency to debate the difficulties in attributing particular values to the period, such as in Thorpe (2000), Finlayson (2005) and Wickham-Jones (2010).

Figure 59: number of occurrences of negative and positive words for the Mesolithic in each decade
Value judgements form an important part of popular communication about the Mesolithic. This should continue with the only caveat being to avoid repeating out of date negative descriptions.

6.7 Overall features of public communications

Characters in both academic and popular writings are rarely specific (Pluciennick 1999: 660), often being encompassed within a group description, such as a people, communities, groups, bands or families. Rarely are individual Mesolithic people identified outside images and fiction, in which the portrayal of individuals is intrinsic to the medium. Excluding images and fiction, there are only 43 out of 602 media items (7.1%) that contain recognisable individuals with names or physical characteristics that give them a personality. Most characters are identified simply by age, gender, function such as hunter or shaman, or kinship.

Apart from pictorial illustrations and fiction, the characterisation of individuals in the Mesolithic is markedly lacking. This severely limits the ability of the audience to empathise with people in the Mesolithic. This, in turn, makes it harder to make the deictic shift into the storyworld and imagine oneself within it, experiencing a life quite alien to that of the present.

The settings for Mesolithic life are well established and described. These are the physical environments of a natural world in which people move and find their food and other resources. The ecological approach pioneered by Clark still dominates our portrayal of the period. However, cultural environments are also depicted, such as the encampment or settlement, and the social environment of the group or inter-group relationships. Archaeologists are seemingly good at the depiction of setting. We can often depict setting with some accuracy; listing species or determining the size and floor plan of dwellings. However, this is not the same as providing an evocative and enticing setting, in which we can easily imagine people living out their lives. There are examples where this has been done, such as Hawkes (1951: 153-154). However, the enmeshing of people and nature, one of the themes of modern theorising about the Mesolithic (see section 3.5), is conspicuously absent from public communications about the period (apart from in fiction). There is an urgent need for more evocative description of setting. One good example is provided by Milner et al. (2013).

“We can imagine the sounds as people shouted greetings to one another, the excitement as hunters returned with their kill, the laughter as people told jokes, the rustling of branches and reeds in the wind and the water of the lake lapping at the shore. The air would have been thick with the smell of smoke and cooking food, the dampness of the swamp and the woodland undergrowth. This was a place that people experienced with their senses: it was a place that was familiar to them; it was their home.”

(Milner et al. 2013: 94-95)

Such descriptions help the audience situate themselves in a believable world, and can, to some extent, help overcome the lack of empathetic characters. More than this, good evocative writing could go some way towards helping readers re-imagine their own relationship with nature.

Characters and settings on their own do not make a narrative. There must be actions carried out by those characters within the setting. Archaeologists have a well established set of actions which are described for the Mesolithic. These are largely technological and physical interactions with the natural environment, such as the quest for food and the preparation/treatment of food, tool-making and movement in the landscape or to and from sites. There are also activities within a settlement, such as building a house. The least common are social actions between people or groups, and spiritual and symbolic actions. Much less common still are the little actions of daily life that leave few or no material traces, like sleeping, waking, talking, playing with the dog etc. The actions depicted therefore tend to be those most remote from the daily lives of present day audiences.

A good fictional narrative will have a source of disruption that forces characters to make choices or change their behaviour (Herman 2009: 14). The Mesolithic is full of such narrative happenings. These are mostly environmental events such as seasonality, climatic warming, sea level rise, the drowning of Doggerland making Britain an island, forestation and the arrival of new fauna and flora. A few specific happenings are now identified, chiefly the Storegga tsunami. Happenings are seldom demographic or cultural (for example, rising population densities or the intrusion of other peoples). As agents of narrative disruption these tend towards the general rather than the specific, with the exception of the tsunami. Their narrative role mainly lies in the background rather than as triggers for specific actions.

Overall, communications about the Mesolithic have some good narrative elements, but many are undeveloped and there is a restricted range of them. Full narratives are rare outside novels and short stories. Examples are found in the video *A story of a Mesolithic hunter* (<https://www.youtube.com/watch?v=nramanQfZbU>) and in Finlayson (1998), Hearle (2011), Spikins (2002), while short examples of narrative are in Andersen (1984) and Mears (2004).

Instead, what archaeology does well is to describe physical settings and generalised happenings rather than the social world of Mesolithic individuals or their deep connectedness to the natural world. With a few exceptions, such as the novels *The Gathering Night* and *Stone Spring*, the popular image remains mainly one of people carrying out physical tasks in a natural environment. For a modern urban audience, the characters are hard to identify, inhabit strange settings, and carry out strange technological actions or have mental relationships very different from our own with the natural world. Our modern urban audience does not hunt or gather, does not live in forests or on the coast, does not make their own tools or homes, and sees the natural world only on TV screens or as somewhere to walk the dog. It is hard for a modern audience to empathise with Mesolithic people and hence hard to understand the experience of Mesolithic life. Archaeologists are not supplying a publicly engaging narrative.

While archaeology is good at describing settings and happenings (especially in academic writings), it is the placing of empathetic characters in believable situations which enables the mimesis which enables audience engagement (Phelan & Rabinowitz 2012). A reader needs characters they can empathise with to draw them into, what is to them, a strange Mesolithic world. The synthetic aspect of narrative is found in the style of communication, and the evocative descriptions provided by some authors help the audience to imagine a world that could be real, and into which they can imagine themselves living. However, it is novelists and artists who are better at providing the details which can carry the aesthetic and emotional impact of a narrative. The one overt collaboration between an archaeologist and a novelist was that between Wickham-Jones and Elphinstone (Elphinstone & Wickham-Jones 2012).

Where archaeologists can help is to provide the third key rhetorical aspect of narrative, the thematic. It is this which meets the ideological and cultural expectations of the audience. The themes used must resonate with the experience or cultural values of the reader. Jameson (1997: 13)

pointed out that “When research is not adequately made meaningful to the non-specialist, it is ultimately an empty endeavor”. Some of these themes are obvious. Climate change and the resulting catastrophe of a tsunami was highlighted by Wickham-Jones (2002). The Mesolithic as a Garden of Eden with a lifestyle that contrasts sharply with those of a problematic modern world is another (Zvelebil 1986, Tilley 1996).

The period is beginning to find a regular place in news media with recent discoveries giving it a higher public profile. However, Fowler (2007) and Morris (1999) were right. The Mesolithic is often presented in stereotyped terms as hunter-gatherers living close to the environment, whose lives were dominated by the quest for food. What is still missing is thematic relevance. The Mesolithic is still something of a curiosity rather than a period of relevance to modern audiences.

6.8 Summary

The cultural ecological approach to the Mesolithic still dominates publicly oriented discourses. However, there is a wide range of narrative elements present. Archaeology seems to be good at communicating the physical nature of the setting for Mesolithic life and the environmental happenings that affect it. There is a wide range of actions described in non-fiction, written media. However, it is usually novelists and illustrators who provide greater delineation of characters and actions. The provision of believable individual characters who bridge the narrative between the storyworlds of the Mesolithic and the present day world of audiences still has some way to go. The newer approaches of post-processual archaeology have yet to really appear in public media. Individual personhood and notions of character enmeshed in setting deserve greater exploration. Likewise, the increasing ability to look at micro-scale events will allow future description of human actions at an individual level, which has yet to appear to any extent outside novels and illustrations.

Various recommendations have been made above which should help to guide the rebuilding of the narrative in chapter 11, and to deliver a more humanistic Mesolithic.

This chapter has concentrated on the messages about the Mesolithic delivered through public communications channels. Two channels have so far been omitted: museums and schools. Each has particular characteristics that are worth looking at more closely. A look at museums will allow for a comparison between Britain and northern Europe, where the Mesolithic forms a larger part of the national stories. It will also allow for the consideration of three-dimensional, physical presentation of the Mesolithic. Schools offer a chance to deliver messages about the period to the widest, and most impressionable, of all the potential audiences. The next step in chapter 7 will be to examine the nature of the communication of the Mesolithic in British museums.

Chapter 7

The portrayal of the Mesolithic in museums in Britain

7.1 Introduction

One of the chief arenas where people encounter the past is in museums. For all the ubiquity of the Internet, social media and television, museums still have what other media lack: a direct physical or sensory engagement with the real object. Coming face to face with the past is still a powerful experience for many people. Museums thus play a mediational role where the public encounter the materiality of the Mesolithic and construct their understandings of it.

However, the most recent research framework for the British Mesolithic suggested that the Mesolithic “has a minimal presence in most museums” (Blinkhorn & Milner 2013: 13), reiterating the poor display of the period that was highlighted in the previous framework in 1999 (Prehistoric Society 1999). This has been most recently restated, “with the period occupying a very low profile in museums” (Milner et al. 2015: 238).

In this chapter, I will present an analysis of museum displays relevant to the Mesolithic in Britain. In the next chapter, I will also compare them to a selection of displays abroad, in countries where the Mesolithic is both more visible and taken more seriously. The analysis will be based on the application of narrative theory as already applied to academic and popular communication channels chapters 4 and 6.

7.2 Predicted Mesolithic communication in museums

If museums are to play a key role in improving perceptions of the Mesolithic then we need to know how far the museum context, that is the displays, enable or hinder this. We need to ask how far museum displays deliver a satisfying narrative to visitors.

We might expect museums to be situated within an academic context. The Museums Association advises prospective curators to have a university degree (<https://www.museumsassociation.org/careers/qualifications>), as does the National Careers Service (<https://nationalcareersservice.direct.gov.uk/>). The displays they create contain material uncovered and analysed by academic disciplines, in the case of archaeology through excavation or field survey. The meanings attached to them, and the insight they give on vanished past worlds are the subject of archaeological research and analysis. Visitors have prior knowledge of archaeology though its abundant presence in popular media such as television and the Internet, in part mediated by academic archaeologists or by those initially trained in universities. We might then expect museum displays to share features with academic communications about the Mesolithic.

As noted by Fowler (1981: 63), the process of archaeology ultimately becomes objectified with archaeological research being ‘reduced’ to being objects in museum displays. These displays are mostly static installations containing artefacts which need protection from handling or theft by placing within or behind screens. The curators will often assume a position of authority within a didactic transmission of knowledge or dismiss the ability of the visitor to interpret displays for

themselves (Gaskell 2000: 12). It is tempting to group the objects in some way. The chronological approach is still common and a natural design for museums which deal with deep time. Within periods, the artefacts could be arranged by their place of origin, the archaeological site, or by their situation in the understanding of past technology as determined by the archaeologists, that is, by typology. Not only are artefacts the key object of study of archaeology, but museum displays privilege the object as the prime focus of display. We may call this the default setting of museums. More progressive museum approaches might play a more active authorial role in confronting the visitors' perceptions, or engage in a dialogue with them. They could follow the advice of Roberts (1997: 143) who suggested museums should be open about the museological process, accepting that current knowledge is incomplete and unfinished, derived from ongoing discovery and subject to future revision. Museum display would be part of an ongoing debate rather than a single and final word. For example, Cotton & Wood (1996: 63) pointed to the challenging of stereotypes of the dominance of hunting at the Museum of London by including a figure of a woman holding gathered plant foods. They also directly addressed the visitors to ask them what they thought about the period, and whether they trusted the curators by stepping forward as overt creators within the text panels of the display.

We might expect more traditional displays to concentrate on the artefacts and possible themes of major importance that arise out of the cultural ecology approach to the Mesolithic: such as environmental change, the plants and animals of the natural environment and archaeologically visible activities of hunting and fishing, along with the types of tools and their manufacture. On the other hand, the post-modern turn in archaeology prefers to foreground the contingency of our analyses and places more emphasis on subjective experiences of the past. We might expect this to be reflected in a willingness to invite visitor response to a display, or in the presentation of alternative interpretations in the same display. There might also be a greater willingness to display aspects of past ways of life rather than typological classes of artefacts.

The latest academic approaches to a period might also be in evidence. Key advances in our understandings of the Mesolithic over the last 25 years would include the Storegga slide tsunami, the DNA analysis of Cheddar Man, the recognition of increasing numbers of substantial Mesolithic houses, the revealing of the Doggerland landscapes, increased recognition of Mesolithic burials or treatment of the dead, findings of abstract art from the period, the likelihood of votive deposits at particular places in the landscape and the existence of monumental alignments which may have played a role in calendrical observations of the heavens. Most of these go beyond the traditional cultural ecology of the Mesolithic and stray into the realms of the spiritual and symbolic aspects of hunter-gatherer life.

To sum up, we might be able to distinguish the style of museum displays as either didactic (one-way communication of information) or discovery-based (communication of multiple choices of information or experiential stimuli). We might also identify the contents of the displays as traditional (cultural ecological or culture historical) or as more current and holistic (covering new

discoveries and the less strictly environmental or technological aspects of Mesolithic ways of life).

7.3 Museums visited

A selection of museums was chosen to visit in order to analyse their displays of the Mesolithic and understand how they might approach working with schools on this period. An initial online search through 63 museums in the United Kingdom for Mesolithic displays led to the selection of a small sample which seemed to offer some kind of communication of the Mesolithic. It made sense to include the British Museum as the most prestigious museum in the UK. Beyond this, the Museum of London has major collections and has long had a tradition of innovative display and would form a useful contrast to the British Museum. Other museums were chosen which had obvious Mesolithic displays or collections, or which were known to cover the Mesolithic in their work with schools. Museums were approached by email to see if a visit would be worthwhile. Some museums never replied to the email, while others replied with information that the display was very limited or in the process of being redeveloped and therefore closed: National Museum Cardiff, the Dorman Museum in Middlesbrough, Kingston Museum, Liverpool Museum, Sheffield Museum, National Museum of Scotland, Manchester Museum, Museum of Archaeology & Anthropology in Cambridge and Wakefield Museum. One might have expected the Museum in Cambridge to have an important Mesolithic display as the home of Clark and his excavated finds from Star Carr. However, all that they have on display is one of the antler headdresses. Museums in Britain that responded more positively and were visited were:

- Amesbury History Centre;
- the British Museum;
- Cheddar Show Caves Prehistory Museum;
- the Great North Museum: Hancock in Newcastle;
- Hull and East Riding Museum;
- the Museum of London;
- the Mesolithic Museum (Abinger);
- the Yorkshire Museum (York).

In addition, the West Berkshire Museum provided comprehensive photographs of their Mesolithic display.

Unfortunately, this list of museums ended up covering only England, which was not the original intention. Details of all museums visited in Britain and on the continent are given in Appendix 44.

7.3.1 British Museum

The Mesolithic material is displayed in the gallery devoted to European prehistory up to 800 BC and which leads into a chronological series of galleries devoted to Europe and Britain. The visitor

comes into the gallery on the first floor through the galleries devoted to ancient Mesopotamia and Iran. The Mesolithic is thus not at the beginning of a national story, only of part of one region of the world. The amount of material on display is small; only one display case (Figure 60) which contains a few artefacts from Star Carr, Broxbourne, the River Lea and Howick, and a section of shell midden from the site of Meilgård in Denmark. The gallery itself is a collection of cases rather than a coherent display, in which the cases have little connection with each other, forming discrete units within a sterile environment.

Figure 60: the European Mesolithic display case at the British Museum

7.3.2 Museum of London

The Mesolithic is placed within one gallery devoted to London's prehistory, entitled 'London before London'. The displays of the period are encountered after coming through the Palaeolithic and consist of two main, and contrasting, displays. The first to be encountered is more thematic in nature and has more obvious interpretation to the public (Figure 61). The other is more obviously centred on objects, being a translucent wall with rows of objects above plain text captions (Figure 62). This almost forms an unnoticed wallpaper for a visitor who looks the other way and engages with the more presented Neolithic display opposite. Signage for the Mesolithic display conveys the period as a unity with the Palaeolithic since 38,000 BC. The Mesolithic as a long period of time, unique in its nature and important in the development of settlement in the area could easily be overlooked.



Figure 61: the Mesolithic display at the Museum of London

Figure 62: the river wall display at the Museum of London

7.3.3 Amesbury History Centre

The Amesbury History Centre is not only a museum, but a local history resource and exhibition space. The civil parish of Amesbury contains the well-known site of Stonehenge and its near-by prehistoric landscape and monuments, including the Amesbury Archer of the Early Bronze Age.

Also within its borders, and less than one kilometre away, is the Mesolithic site of Blick Mead. The society volunteers have been involved in excavating the site under David Jacques of the University of Buckingham. Displays of finds from the site, and information about the Mesolithic, are presented as part of the unfolding story of Amesbury. The site forms an important part of its identity, but within the context of millennia of subsequent activity, rather than simply for its own importance as being Mesolithic.

The centre consists of one room in which displays and reference materials have been made available for public gaze and consultation since 2006 (Figure 63). While there is an overall chronological flow to the presentation of information about the town's history, the displays also present the Mesolithic as part of a wider story and elements of information about the period and the site can be found interspersed with information about later periods. The display is largely created by the volunteers, without professional expertise or funding, and so has the appearance of being somewhat home-made. That visitors can trust the display is made plain through the frequent mention of the site director, with his credentials as working for a university and therefore ensuring academic authority. Plans are currently being made to replace the current centre with a new, two storey, building in which there will be greater space in which to create the display of the town's history.

Figure 63: Amesbury History Centre

7.3.4 Cheddar Show Caves Prehistory Museum

Cheddar Gorge is one of the most impressive rock gorges in Britain, important for its geology and natural history as much as for its archaeology. The archaeological remains are associated with the extensive limestone cave system that opens into the Gorge. The main archaeological cave is Gough's Cave, named after Richard Gough, who first explored the inner depths of the cave. The museum of the archaeology is now in the house in which he lived, across the road from the entrance to the cave (Figure 64). Remains of human occupation in the Gorge and its caves are found from all periods of the past. Late Palaeolithic occupation is represented by the finding of human bones fragments with evidence for possible cannibalism. The importance of the cave for the Mesolithic lies in its single human inhumation of a man, dated to around 8200 BC. The burial became widely known nationally when tests on the DNA from the skeleton found a match for a

mitochondrial DNA haplo-group between the buried man and that of a local school teacher.

Figure 64: Cheddar Show Caves Prehistory Museum

Part-way along the gorge towards Gough's Cave is a roadside mural made by primary schools in 2012. This shows the history of the gorge, but only its natural history, with no references to the archaeology (Figure 65).

Figure 65: Cheddar Gorge mural

Gough's Cave seems like an isolated site within the gorge rather than a representative of the wider gorge itself and its concentration of caves. The museum focusses on both the evidence for cannibalism at the site and the burial of Cheddar Man as its two major draws for the public. The current display was created in 2005 in association with major academic figures. It contains high quality displays covering a wide range of topics from early human origins to aspects of human behaviour in the Palaeolithic and Mesolithic, and the discovery, excavation and interpretation of the remains by archaeologists. Outside the museum lies a small demonstration area (figure 66) for showing fire-making and flint knapping to the public, along with a replica Palaeolithic house and a small pond with plants growing around it representative of the Mesolithic.



Figure 66: Cheddar Gorge Museum outside activity area

The route through the museum follows a reverse chronology, with Cheddar Man encountered first, followed by elements representing Mesolithic technology (figure 67), then aspects of the Palaeolithic such as cave art, artistic and artefactual evidence for sex in prehistory and the evidence for cannibalism. The lack of clear differentiation between the periods reflects the marketing poster for the museum, labelling the visitor experience as “Cheddar Man and the cannibals”; thus conflating the two periods in the minds of the visitor.



Figure 67: inside Cheddar Gorge Museum

7.3.5 Hull and East Riding Museum

The displays are organised chronologically, from geology through to archaeology. Gallery space is organic, winding and twisting rather than bounded in a four-walled space. There is no thematic unity between the gallery sections. The Iron Age and Roman sections are displayed as recreations

of an Iron Age village and a Roman town and villa, while the earlier prehistoric displays are more traditional in style. The Mesolithic section appears around a corner from the Palaeolithic and is discrete unto itself rather than a late version of the Palaeolithic or a short precursor to the Neolithic (Figure 68). A great deal of interpretation is packed into a small space. There are few artefacts on display, in two small cases. The display is dominated by two modern reconstructions of a fish trap and a woman gathering plant foods. The bulk of the interpretation is done through text panels and pictorial images.

Figure 68: Hull and East Riding Museum Mesolithic displays

7.3.6 Rotunda Museum (Scarborough)

The Rotunda Museum has a new Mesolithic display, based on the site of Star Carr, which opened in 2016 (Figure 69). It is situated on the first floor among other archaeological displays. The curator was keen that the museum should at last display the finds from Star Carr, an internationally important site only 5 miles (8 kms) from the town and a key part of the local heritage. The new display consists of information panels and a range of flint artefacts and bone, including a deer antler headdress. These are placed against the backdrop of Dominic Andrews' illustration of Star Carr as seen from the lake. There is a side panel giving further information about the site, the soundscape by Ben Elliott and Jon Hughes, and an interactive quiz installation by students from the University of Hull.



Figure 69: Star Carr display at the Rotunda Museum, Scarborough

7.3.7 The Mesolithic Museum (Abinger)

The Mesolithic site at Abinger in Surrey was excavated in 1950 by Louis Leakey, otherwise better known for his work in east Africa (Leakey 1951). At the time, the site was accepted as one of the few Mesolithic houses to be excavated in Britain. More latterly, it has been suggested that the so-called pit dwelling was actually a tree-throw. Nevertheless, there is a significant collection of flint artefacts from the site.

The museum, referred to as the Mesolithic Pit Dwelling Museum, the Mesolithic Pit Museum or simply the Mesolithic Museum, was built over the site of the supposed pit dwelling in 1952 by the owner of the site, and of Abinger Manor, Major Beddington-Behrens. The trench exposing the ‘dwelling’ was left open and the surface consolidated. A small area to one side of the trench was incorporated in the building for a display of finds and information panels (Figure 70). This display was renovated in 1974 (with input from John Wymer) and more recently in 2011 (by the Surrey Archaeological Society). The site lies close to a medieval motte and bailey, partially excavated by Brian Hope-Taylor, and information about this is included in the display. Abinger Manor was sold to the Clarke family in 1959, who took on the custodianship of the museum. The current custodian, Cherry Clarke, took over from her mother-in-law in 1977. Since then, the manor has been sold separately from the museum. As a result, the museum now lies isolated within a field farmed by the manor (Figure 71). The museum is therefore not generally open to the public, only by appointment with (and accompanied by) Mrs Clarke. The display reflects what was found at the site, current understanding of the Mesolithic in Britain and the activity of three major archaeologists at the site.



Figure 70: Inside the Mesolithic Pit Dwelling Museum at Abinger

Figure 71: the Mesolithic Pit Dwelling Museum at Abinger

7.3.8 Yorkshire Museum (York)

A new Mesolithic exhibition was created in 2013, *After the Ice*. This was on display for one year, and brought together materials from the site of Star Carr from other museums. At its end, the exhibition continued, without the loaned artefacts and with material only from the Yorkshire Museum collections. It is thus now part of the permanent displays of the museum. The display itself forms three side of the balcony of an open space (Figure 72). It has a marginal appearance, which reflects its marginality in a Roman and Viking city. One side is a traditional display of artefacts by chronological period from the Palaeolithic to the Iron Age. The middle side has a stair into another room and so has limited display space, mostly taken up with a part reconstruction of a tent. Sounds of flint knapping come from inside this tent to fill the whole display space. The main display is on the far side of the quadrangle and consists of a painted backdrop of Lake Flixton, display cases of animals of the period and archaeological evidence from Star Carr. There are also audio-visual and touch-screen displays. Interspersed among the display is a series of small plaques

using cartoon-like graphics with information about Mesolithic life. Fact cards, are also available with detailed and more academic information for those interested in specific aspects of the Mesolithic.



Figure 72: Mesolithic displays at the Yorkshire Museum

7.3.9 Great North Museum: Hancock

The Great North Museum: Hancock in Newcastle upon Tyne is the natural local museum for the site of Howick in Northumberland. The Mesolithic display is part of the Ice Age to Iron Age gallery within a museum whose major focus is more on palaeontology and the Roman archaeology of Hadrian's Wall. There is only one case of artefacts (Figure 73), but this is contextualised by an animated video display of how the map of Britain and the continent has changed over the last 20,000 years, and by a human figure etched on glass that humanises the display (as is done for the rest of the archaeology displays in the museum).



Figure 73: Mesolithic display at the Great North Museum: Hancock

7.3.10 West Berkshire Museum

In addition to the above, the West Berkshire Museum at Newbury was kind enough to send photographs and text from their displays on the Mesolithic. This is the local museum for the site of Thatcham, one of the major Early Mesolithic sites in Britain. However, the museum display is minimal, consisting of only one case and one wall panel (Figure 74). The display focuses on the site, the role of John Wymer in its excavation and the nature of Mesolithic stone tool technology.



Figure 74: the Mesolithic display at West Berkshire Museum

7.4 Narrative in British museums

I will now look at how the different elements of narrative are treated across the museums visited (Appendices 45 and 46).

7.4.1 Characters

A good example of including the people of the past in museum displays was in the redisplay of the Alexander Keiller Museum at Avebury in the 1990s. A model of a man split down the middle with different interpretations of his appearance on each half stood at the entrance to the display. This was used to both humanise the displays by providing a point of entry to a period unfamiliar to most visitors (the Neolithic), and allowed the open display of different interpretations of the past to challenge visitors to think for themselves about their stereotypes of the past (Stone 1994: 199-200). Such an approach is absent in the Mesolithic displays I visited. All depictions of people were of a single interpretation.

The approach to the portrayal of character in the museum displays varies greatly. Direct representations of people, apart from the occasional skeleton, are rare. A good example of the standard approach is the British Museum. Apart from the usual image by Nicolaes Witsen of a Tungus shaman from 1692 (as used by Clark, 1954: 171), the only references to people are in the

text captions; and even then only to hunter-gatherers, a hunter and the shaman. Even the more extensive display at the Museum of London only has one reference to foragers and another to up to 20 people sitting round a hearth.

In contrast, the display at Cheddar is based around the Mesolithic burial of Cheddar Man. The skeleton of Cheddar Man himself is at the Natural History Museum in London and included there as part of the human evolution gallery. The Great North Museum does have an image of a woman character within the displays, speaking to visitors through a text panel:

“Every autumn, it’s the same: my clan trek here for seals and shellfish. When the snows go, we’re off again after the deer. We spend our lives searching for food and I’m growing tired of constantly roaming around. The old people want to settle down as well. They’re convinced there’s plenty of food and shelter here, but the young men are furious. They won’t give up the excitement of the hunt. Me? I’ll have to do as I’m told.”

Amesbury History Centre has Amie as a character within the displays flitting through time from period to period. Unlike at the Hancock, Amie is written about in the third person as someone whose life is being described rather than speaking directly to the visitor. Her experience of the Mesolithic was resolutely downbeat. She had a short life span and was deeply affected by death and parting from loved ones during the yearly round of moving from one site to another. A different approach is taken at the Yorkshire Museum, in which cartoon-like images of figures or people are included within the small fact panels interspersed among the display.

The Hull and East Riding Museum includes a single, life-sized character within the display. This is the mannequin of a woman gathering plant foods within a woodland (reminiscent of the former approach of the Museum of London, highlighted by Cotton & Wood 1996: 63). The text accompanying her is in the third person and talks about the importance of plants as a direct challenge to the dominance of hunting and of men in the image of the period.

Otherwise, characters are included only as descriptions within the text panels of the displays, or at the Rotunda as the character of John Moore as first person narrator within the interactive quiz. Opportunities to depict character are often missed. The wall painting of Lake Flixton at the Yorkshire Museum has only plants and animals, with no obvious sign of human activity or presence. A later visit to the display did trigger a small projected image of a human in a coracle paddling on the lake, which seemed to be activated on a timer, and was not seen at any previous visit to the same display. In front of the wall are two display cases, one of which has stuffed animals while the other has finds from Star Carr: the human and the natural kept separate. Drawn illustrations of people were placed next to some of the artefacts in the display case.

Characterisation of people within the Mesolithic generally follows the same pattern as that in other media. Most are functional distinctions (in eight of the museums): especially hunter-gatherers (in five museums) and hunters (in three museums). Distinctions by gender and age each occur in five

museums (usually of women and children in three each). However, the use of individualised and recognisable characters as noted above is a strong positive feature of the museum displays which make them more like the fictional and illustrative media.

7.4.2 Settings

Environmental settings are well represented among most of the museum displays: chiefly woodland or forest, lakes and rivers. However, the major setting conveyed at Abinger is not that of the Mesolithic but that of the archaeological excavation of the site, where the museum was built around an open excavation trench. Setting usually occurs as mentions in text panels or two dimensional pictorial illustrations. The major exception to this is at Cheddar Gorge. The Gough's Cave burial has an interpretation panel and representation of the burial in situ in the cave itself. The displays in the museum opposite portray the cave and use a three-dimensional cave-like setting in parts of its displays. One large scale painting of the gorge also conveys the setting of the period. The outdoor interpretation at the museum manages to pack into a small space the setting of a lake and its resources (along with a reconstructed house from the Palaeolithic).

One interesting approach is taken at the Museum of London in which a wall display of stone tools uses lighting and colour to suggest their placement in a river (The River Wall), representing the River Thames. There are also two large photographs of trees as a detached backdrop to other parts of the display. Photographs or paintings also form a major means of representing settings at the Yorkshire Museum where one wall is devoted to a life-size painting of Lake Flixton, and at the Rotunda Museum where an illustration of the site of Star Carr is used as the backdrop to the display case. A wall photograph of a tundra landscape is used as a wall display at the Great North Museum. Colour illustrations of Mesolithic activities in the landscape form an integral part of the displays at the Hull and East Riding Museum. The essence of the Blick Mead site is its warm spring setting, a key factor for the location of Mesolithic activity. However, this is only represented at the Amesbury History Centre through various small scale photographs of the site among the displays.

One innovative approach is that at the Yorkshire Museum which has a digital fly-through recreation of Lake Flixton and the location of the Star Carr site that was created by the University of York. Other senses like sound can be used to convey setting and are employed through soundscapes at the Hull and East Riding Museum, and the Rotunda Museum in Scarborough.

7.4.3 Actions

The range of actions depicted in the museum displays is wide. However, the actions represented largely accord with those depicted in other media. The commonest are the acquiring of food through hunting and gathering, and the making of tools and flint knapping. Also common are mobility in the landscape or between sites, woodworking and the preparation of skins. Less common (but well represented) are the preparation, cooking and eating of food, sourcing of raw materials, trade or exchange, making fire, making clothes, use of dogs in hunting, building houses,

falling trees, wearing jewellery or decoration and carrying out rituals. Where museums have an advantage over other media seems to be in their willingness to occasionally depict less common types of actions, such as using a sweat lodge, leaving the sick behind on site, wearing clothes and jewellery as symbols, blowing a horn, using or preparing medicines, eating human brains, having parties and making toothpicks out of hedgehog spines. Among the less common social actions represented are a woman doing as she is told by the men, and the allocating of tasks, by age, gender, kinship or skill.

The widest range of actions communicated are at the Museum of London, Abinger, the Great North Museum and the British Museum, none of which has the widest range of material on display. While the Cheddar Gorge museum does not have the widest range of Mesolithic actions depicted, it does go into more detail than most to highlight particular actions not usually mentioned elsewhere, such as hunting seals, painting faces, wearing a necklace of teeth to signify courage, storing water in a bladder, symbolising identity in clothing, blowing a horn, trading flint between tribes, making tallow lamps, waterproofing skins, making fastenings, making hurdles for wind-proofing, and making matting and baskets. It thus depicts a wide range of daily life activities.

Some museums employ three-dimensional means of conveying actions. Dioramas are used at the Hull and East Riding Museum (of a woman gathering plants in the forest) and at Cheddar (of the burial of the young man in Gough's Cave). Cheddar also uses live demonstration in its outdoor activity area, while Hull depicts Mesolithic people hunting and fishing in paintings within the displays. Paintings are also used at the Rotunda Museum (of hunting in the woodland) and the Amesbury History Centre (of people moving from one location to another in the landscape). A video screen display of making flint tools is used at the Great North Museum. Cartoon-like wall plaques show a variety of actions at the Yorkshire Museum, which also uses the diegetic sound of flint knapping coming from inside the half-model of the tent set against one wall.

7.4.4 Happenings

The happenings depicted in the museums are what would be expected, entirely environmental: climate change, sea level rise, melting ice sheets, Britain becoming an island, the arrival of new biota and the growth of woodland. Museums that display specific sites have the opportunity to highlight particular happenings at these sites, such as that flints from the spring at Blick Mead turn bright pink when exposed to the air (due to a freshwater algae on the flints), the collapse of the house roof at Abinger Common and the damming of the river by beavers at Thatcham.

7.5 A summary of narrative engagement aspects in the displays

The three main rhetorical aspects of narrative – mimesis, synthesis and themes – are present in varying amounts and in different ways in the British museums studied (Table 16).

Museum	Mimesis	Synthesis	Themes
British Museum	absent	didactic, authority	way of life
Museum of London	Three Ways Wharf	transitional display, wall of artefacts	mobility, tool making, analysis, Thames
Yorkshire Museum	cartoon, house and wall painting	mixed media, confused space	Yorkshire, first settlers, way of life
Mesolithic Museum	absent	original trench for 'atmosphere'	fame, importance, archaeologists
Amesbury History Centre	absent	cheerfully anarchic!	local continuity and ancestry, archaeologist
Cheddar Prehistory Museum	demonstration area, Pepper's ghost, replicas	3-D emphasis, sensational topics	ancestry, science, technology, humanity
Rotunda Museum	illustration backdrop, soundscape	aural and visual, images	living in an environment
Great North Museum	largely absent (wall photo backdrop)	person with written speaking to audience, use of visual animation	landscape change, sea level change and woman's life
Hull and East Riding Museum	pictorial illustrations and figure	text and images	way of life, importance of women
West Berkshire Museum	absent	traditional, authority	tools

Table 16: narrative aspects at each of the British museums

Providing a mimetic representation of the past conflicts with the traditional mode of display in museums, which places objects to be viewed as isolated artefacts inside glass cases or cabinets. Such traditional display is seen at the British Museum and the West Berkshire Museum, where mimesis is absent. It is also absent in the less traditional museums at Amesbury and Abinger. Other museums with traditional style displays provide elements of mimesis as separate components of the display. These include the image of the Mesolithic woman and photograph of a tundra environment at the Great North Museum, and the attempt to display the people sitting around the hearth at Three Ways Wharf in the Museum of London. Nevertheless, the overall impression of these two latter museums is mostly non-mimetic. Greater mimesis is delivered by the use of soundscapes at the Hull and East Riding Museum (along with the woman gatherer in the woodland and the illustrations), the Rotunda Museum (also with the illustrated backdrop to the display case) and the Yorkshire Museum (with the large scale wall painting and section of tent). The greatest degree of mimesis is at Cheddar with the outdoor experimental area, albeit on a small scale, and the use of human figures in the displays.

The synthetic (artificial and aesthetic) aspects of the displays are very varied. Some displays are clean, objective and didactic in nature, where the emphasis is on the objects as carriers of the narrative: the British Museum, Museum of London and West Berkshire Museum. Others are more stylised with a greater aesthetic component, but still mostly didactic in nature: the Rotunda

Museum, Great North Museum, the Hull and East Riding Museum, and the Yorkshire Museum. The most stylised (even theatrical) and the one which attempts to engage the visitors' emotions more is the Cheddar Gorge Museum, which is self-admittedly more of a tourist attraction than a traditional museum. It has the most experiential feel of all the museums visited. The least traditional displays are those at Amesbury History Centre which are the least 'professional', and are almost cheerfully anarchic, being mixed in with the local Amesbury timeline of archaeology and social history. The museum at Abinger stands apart as a bold attempt to display an excavation in situ, and yet now lacking in funding and maintenance with a somewhat run-down feel.

None of the displays has a particularly spectacular 'wow' factor. The closest is perhaps Gough's Cave opposite the Cheddar Gorge museum and the Pepper's ghost figure of the Cheddar Man himself in the museum. The Museum of London River Wall tries to be spectacular but somehow is too understated to avoid being simply a large wall of stone and antler artefacts. Elsewhere, the Mesolithic struggles against bigger or better wows in other parts of the museum that lead into the Mesolithic display, such as the statue of the glacial period elk at the Great North Museum, the reconstructed mammoth at Hull, the Bronze Age Gristhorpe Man at the Rotunda, Stonehenge at Amesbury or Palaeolithic cannibalism at Cheddar.

The main theme highlighted in most of the museum displays seems to be the Mesolithic subsistence and technology, that is, hunting, gathering, mobility or tool-making. Archaeological excavation or analysis is a theme at the Museum of London, Cheddar, Amesbury and Abinger. More resonant themes are somewhat rarer. Local pride or identity is evident at the Museum of London's focus on the Thames, Yorkshire's first settlers at the Yorkshire Museum, local continuity of settlement at Amesbury and genetic connections between present and past at Cheddar. The humanity of early peoples is another important theme at Cheddar. It is the effect of the environment on human behaviour which is foregrounded at the Rotunda and the Great North Museum. Gender is tackled directly at the Great North Museum and the Hull and East Riding Museum, with the life and position of women being highlighted.

7.6 Summary

I will reflect here on the predictions made in section 7.2 above as applied to the British museums visited. Museum displays about the Mesolithic are markedly old-fashioned, reflecting traditional didactic approaches to communication and objectively knowing about the past. There are no alternative or multiple interpretations on display, and almost no opportunities for visitor interaction (and certainly none for visitor response). The only form of genuine interaction is that offered to children through digital screens at the Yorkshire museum where young visitors are invited to complete a jigsaw of various animals, and colour in outline drawings of the same animals. Neither encourages subjective reflection or thought about Mesolithic.

Likewise, the content of displays tends towards the traditional academic knowledge of the period. The Mesolithic is treated as largely ahistorical (as noted by Blinkhorn & Milner 2013: 7) and has an emphasis on artefacts and cultural ecology. Woodland and waterside locations are the usual

settings for the Mesolithic. Climate change and sea level rise are mentioned in most of the displays. However, less than half of the British museums mention Britain becoming an island and none mention the Storegga tsunami. The dominant aspects of Mesolithic ways of life depicted are mobility, obtaining and preparing food, and the making and use of tools. These are the traditional views of Mesolithic life.

Also traditional are some of the judgements on the period. Mesolithic life was hard and uncertain and people fought for survival (Hull and East Riding) or they were surviving in an often hostile environment (Great North Museum and the Museum of London). More up to date judgements are common. Mesolithic people had developed skills (Great North Museum), were resourceful (Museum of London), prospering (Amesbury), expertly made wonderful artefacts with skill and ingenuity (Yorkshire Museum) and understood the local geography and landscape extremely well (the Rotunda Museum). Their tools represented the peak of weapons specialisation (Cheddar) and they had a varied and healthy diet (Hull and East Riding Museum).

While gender stereotyping and imbalance is a feature of academic (and public) communications about the Mesolithic, this is much less the case in museum displays. There is a welcome inclusion of individual characters in some of the displays, and among those which depict or describe gendered individuals there are 15 male and 14 female characters. The individuals used in displays to directly address the visitor (Amie at Amesbury and the woman at the Great North Museum) are both female. Even better, there is a deliberate challenge to male-centred stereotypes at the Great North Museum and the Hull and East Riding Museum. On the other hand, such stereotypes are in evidence at the Yorkshire Museum where men make fire and flint tools while women prepare the animal skins (although men are also depicted cooking). Pictorial imagery in many of the displays also tends to foreground the men as hunters.

Newer ways of imagining the Mesolithic as an enmeshing of nature and culture with a strong spiritual and symbolic life are evident in some of the displays. Mesolithic people made votive or symbolic offerings to the water (British Museum and Museum of London), painted their faces as a spiritual act, wore necklaces of teeth to signify courage and mediated with animal spirits (Cheddar), and carried out rituals (Hull and East Riding Museum, Museum of London, the Rotunda Museum, Yorkshire Museum). Nevertheless, the spiritual and symbolic side of Mesolithic life is only a minor aspect and in less than half of the displays.

Overall, the museum displays are didactic in style, seeking to communicate information to visitors rather than encouraging self-led discovery or exploration. Experiential stimuli are limited to a few sound installations or audio-visual displays. Attempts at mimesis are rare or partial. The contents of the displays deliver a traditional view of the Mesolithic, largely cultural ecological. There is some attempt to go beyond the limits of academic accounts to engage with the more social or symbolic aspects of life, but newer discoveries and ideas about Mesolithic life are largely absent. Museums clearly reflect academic approaches to the period and yet do share some features with popular media such as illustrations and fiction.

The next chapter will undertake a similar analysis of museum displays on the continent, in which the Mesolithic has a more recognised part to play in local heritage.

Chapter 8

The portrayal of the Mesolithic in museums in continental Europe

8.1 Museums in northern Europe

The Mesolithic is a well established part of national stories in northern Europe. As one would expect, the Mesolithic is well presented in its museums. Furthermore, the early Mesolithic of Scandinavia forms part of the cultural continuum that includes the British Isles and the site at Star Carr. As a result, a selection of northern European museums was chosen to visit for comparison with those in Britain. An Internet search for museums in Scandinavia, Germany and the Netherlands was undertaken, along with advice from others about which were the key museums to see. Each of the museums chosen seemed to have the Mesolithic as an important part of its displays. The data and analyses of the continental museums is presented alongside those in Britain in Appendices 45 and 46. The continental museums visited were:

- Göteborg Stadsmuseum (Gothenburg City Museum) in Sweden;
- Nationalmuseet (the National Museum) in Denmark;
- Vedbækfundene (the Vedbæk Finds museum) in Denmark;
- Museet i Stenholt Skov (the old Klosterlund Museum) in Denmark;
- Schloss Gottorf in Schleswig, Germany;
- Archeon living history centre in the Netherlands.

In addition, the innovative Moesgård Museum in Denmark was visited. Their current displays begin with the Bronze Age. However, they intend to extend the displays to earlier periods. The Mesolithic will be part of this. I did speak to the team developing the displays. However, their plans were in a very early stage of development. No specific analysis of the museum could therefore be made.

8.1.1 Göteborg Stadsmuseum, Sweden

The Mesolithic displays are placed in chronological order within one gallery devoted to the whole of prehistory from the Palaeolithic to the Iron Age (Figure 75).

Figure 75: Mesolithic gallery at Göteborg Stadsmuseum

The gallery itself is divided architecturally into zones. Each has its own colour scheme. Visitors enter through the Palaeolithic-Mesolithic zone. This is currently undergoing renovation, which was only partially completed at the time of my visit. Aspects already changed or remaining unaltered include the colour scheme for the raised surfaces onto which the display cases are set. The Palaeolithic is represented only by one case with a single tanged point to represent the reindeer hunters of the time. The rest of the zone is devoted to the Mesolithic. Most of the content for the new display is made up of two parts, highlighting archaeological practice and the evidence from stone tools for the Mesolithic, placed respectively to the left and right of the visitor.

8.1.2 Nationalmuseet, Denmark

The displays are chronological, presenting a timeline of the Danish past leading up to the present. The current displays were created in 2008 and occupy the first three rooms of the museum. Room 1 contains both Palaeolithic and Mesolithic thus emphasising the Mesolithic as a continuation of an existing lifestyle. Room 2 (Figure 76) is devoted wholly to the Mesolithic while Room 3 (Figure 77) looks forward to the future by covering the late Mesolithic and the arrival of farming in the Neolithic.

Figure 76: Room 2 of the Mesolithic galleries at Nationalmuseet

Figure 77: Room 3 of the Mesolithic galleries at Nationalmuseet

The Mesolithic is thus presented as part of the continuity of the Danish past. Although there are headline themes, such as hunting, the growth of the forest, the spirit world and the encounter with farmers, the content and layout of the displays lack any single thematic point of view or coherence. The display cases are focussed on the display of artefacts from various sites throughout Denmark rather than telling a single story. Indeed, the display is somewhat of a compromise between the designer and the archaeologists who wanted more artefacts to be shown (pers comm. Ditte Kroner 2015).

8.1.3 Vedbækfundene, Denmark

Originally known as the Søllerød Museum, it has become known wholly by the name of the main site it displays as Vedbækfundene. There are two separate galleries to either side of the entrance. The smaller is devoted to the processes of archaeology and displaying recent archaeological finds from prehistory. The larger is focussed on the Mesolithic sites of Vedbæk, excavated in the earlier part of the 20th century: mainly Bøgebakken and Maglemosen. The current display was created in 1984, while the archaeology display is more recent. They differ sharply in their style of presentation. The archaeology display is clean and ordered, presenting an impression of disciplinary precision (Figure 78). The Vedbæk gallery is experiential and designed to evoke the environment of a vanished world through a journey from the forest (Figure 79) to the coast (Figure 80). The museum was cited by Walsh (1992: 165) as a good example of an ecomuseum, focussed on a sense of place and putting humans into their ecological context.



Figure 78: the archaeology gallery at Vedbækfundene



Figure 79: the entrance to the Mesolithic gallery at Vedbækfundene



Figure 80: the end of the Mesolithic gallery at Vedbækfundene

8.1.4 Klosterlund, Denmark

The archaeological sites around Bølling Sø (which translates as Boiling Lake) are displayed by the

Midtjylland Museum, a service run jointly by two local authorities, and consisting of various museums and other interpretive facilities. These include the old Klosterlund Museum, now known as Museet i Stenholt Skov (the Museum in Stenholt Wood). This displays the Mesolithic sites at Klosterlund and information about Bølling Sø. The newer Klosterlund Museum is currently being renovated with the aim of having a prehistory gallery, which is not yet in place. The old museum is located within an area of woodland and overlooks a small lake to the north of Bølling Sø (Figure 81). Just downhill from it is a smaller building which is used as a classroom for schools.

Figure 81: Museet i Stenholt Skov

The museum was built by a local landowner and archaeologist in 1933, was given to the National Museum in 1938 and then in turn given to Herning Museum (now Midtjylland Museum), which created the current display in 1989. This consists of one room, in which there is a central display case and two rows of display cases along the long sides of the room (Figures 82 and 83).

The location of the museum itself evokes the landscape of the period, and this context forms a key asset for work with schools. A major initiative of the museum has been to use modern digital technology to disseminate knowledge and understanding of the archaeology of Bølling Sø. There is an e-trail, using QR codes and a smartphone app around the lake itself, which augments the outdoor interpretation panel on a hill above the lake. The museum has also developed a website, *Livet ved Bølling Sø*, for use by schools that focusses on the Palaeolithic, Mesolithic and Neolithic. The museum in the wood is therefore only one part of the communication of the Mesolithic to the public, which is commendably outward looking and seeking to engage a wider audience than the traditional museum visitor.



Figure 82: inside Museet i Stenholt Skov



Figure 83: inside Museet i Stenholt Skov

8.1.5 Schloss Gottorf, Germany

The provincial museum for the German *Land* of Schleswig-Holstein is the Schloss Gottorf in Schleswig. Archaeology currently shares space in the building with art history. The Neolithic and Iron Age are on the 3rd floor and the Palaeolithic and Mesolithic on the 2nd floor, along with the medieval period. The Mesolithic is thus encountered almost divorced from chronological context. There are three rooms which unconsciously echo the arrangement at Nationalmuseet: room 1 covering the Palaeolithic and hunting, room 2 the earlier Mesolithic (Figures 84 and 85), room 3

the later Mesolithic and transition to farming (Figure 86).

Figure 84: Room 2 of the Mesolithic galleries at Schloss Gottorf

Figure 85: Room 3 of the Mesolithic galleries at Schloss Gottorf

Figure 86: Room 3 diorama in the Mesolithic galleries at Schloss Gottorf

The displays in rooms 1 and 2 were created together in 1990-91 by Sönke Hartz, while room 3 was created later by a different curator (although Hartz has contributed a few elements of the display). The current display is something of a compromise between Hartz's wish to present a three dimensional display placing artefacts into a context and the museum director's desire for the more traditional placing of artefacts into display cases (pers. comm. Sönke Hartz 2015).

8.1.6 Archeon, Netherlands

Archeon is not a traditional museum but a living history centre, where ancient buildings and structures have been recreated, based on archaeological evidence from around the Netherlands, and interpreted by costumed living history enactors. Most visitors will come to the site by car, but walking from the railway station entails a walk through a landscape of water, lakeside vegetation and waterfowl that makes a good transition from the modern world into a past world more connected with its environment.

The museum opened in 1994 and is happy to accept description as both a theme park and a museum, with its mission combining education with entertainment (alongside research and experimental archaeology). All the constructions on the site are meant to be as authentic as possible, derived from archaeological excavations across the Netherlands. They cover the periods from the Mesolithic up to the end of the Middle Ages. There are three zones in the park: prehistoric, Roman and medieval. The Mesolithic area (Figures 87 and 88) is the first to be encountered, and is based on excavations of a lakeside settlement at Bergumermeer in Friesland dating to 5500 BC.



Figure 87: the Mesolithic area at Archeon looking towards the lake



Figure 88: the Mesolithic area at Archeon looking back towards the trees

Visitors can then follow a way through the park in chronological order, although each area is a discrete experience in itself. The emphasis is on helping visitors encounter the past through all their senses and have fun while doing so. Much depends on the large team of enactors or guides, many of whom are, or were, archaeologists, and have considerable practical experience in the material culture of the period they interpret. Visitors are encouraged to be active participants through handling, using and trying out technology for themselves.

8.2 Narrative in continental museums

A similar analysis of the narrative content of the continental museums as was done for the British museums will now be presented (Appendix 42), using data from appendix 41.

8.2.1 Characters

The standard approach to portraying character as seen at the British Museum is also represented on the continent at Nationalmuseet. The displays are very object-heavy and the presence of people is restricted to two burials (Vedbæk woman and child, Korsør man) and a human re-enactor in a video

projection of hunting in the landscape. Otherwise, there is only sporadic reference to people in the case captions and wall panels: single references to a man, a woman, shamans and a few references to generic hunters. The reference to a woman is of one who drowned in a lake at Koelbjerg in 10,500 BP and is referred to as the oldest known Dane; an assertion of ethnic continuity befitting the National Museum's historical role in mediating Danish identity.

Likewise, at Vedbækfundene, there are three burials of a woman with a baby, an adult couple and a man, but visual references to people in the displays are limited to one silhouette of a hunter spearing a boar. On the other hand, their presence is implied in other parts of the gallery. A spear coming towards a pike in the river, a bird in flight being hit by an arrow, the fish trap and waste on the beach or the settlement as though they had just been left behind by people, and the partly shaped wooden replicas strongly imply Mesolithic human characters behind the displays. This contrasts strongly with their rigid separation at the Yorkshire Museum.

One interesting approach is that used by Göteborg Stadsmuseum. Characters are represented in the display by the impressions of their feet in the 'sand' which forms the setting for the display cases, and by the invisible presence of the flint knapper sitting on a stone with his/her feet impressed in the sand on either side and the surrounding knapping waste.

A more concerted effort to include people in the displays was made at Schloss Gottorf. At the entrance to the gallery, there is a full-length mirror with depictions of indigenous peoples from around the world in which the visitor can see themselves as part of humanity. Within the displays there is one case of human bones: with the ages and genders of the four individuals that the bones came from. Among the background illustrations in one display case are non-gendered images of a hand fishing from a dugout, the hand of a hunter lining up an arrow on a beaver and the hands of a person picking from a tree. In other cases, there are videos of a member of the museum staff, Harm Paulsen, knapping flint, making a pot and making a fish spear. References in the captions of the displays are to hunters and gathers, and once to a family. The most obvious character in the displays however is the mannequin figure of the kneeling woman archaeologist in the excavation diorama that dominates room two.

Museet i Stenholt Skov at Klosterlund is a further good example of the inclusion of people in the displays. The collections at the museum, and the establishment of it in the first place, were due to local flint collectors, four of whom are highlighted in the displays: Caroline and Martin Anchersen, Søren Holdgård and Søren Jensen. References in the cases of objects are only to generic hunters. It is in the use of illustrations in the displays that people are brought into the museum. In two illustrations, a man is shown flint knapping and a woman is using a bow drill. In another, there are three men with dogs hunting an aurochs. The largest illustration is a painting of a lakeside settlement. This includes the depiction of 12 people: two male hunters with bows, one man knapping, one boy, one woman with a baby, a boy carrying wood, a woman by the hearth, a woman scraping skins, one person by the lake edge and two men in a canoe. In all, there are seven men and three women, and they are carrying out the traditional tasks associated with their gender by most

modern archaeological interpretations of the period. As with many illustrations of the Mesolithic, it is the men who are at the front of picture and dominate the image.

People are at the core of the interpretations at Archeon. As a living history museum, it essential for them to have costumed enactors interacting with visitors. As such, Archeon is different to the more traditional open air museums, in which buildings are gathered together to be presented as structures, with minimal intervention by people. At Archeon, it is the activities that took place in and around the structures which are interpreted for visitors, albeit in the context of archaeologically-based reconstructions of the physicality of the past. The enactors bring their own subjectivity and personality to the visitor experience, but also their archaeological knowledge and skills. The visitor does not encounter Mesolithic people, so much as a simulacrum refracted through modern eyes. At least at Archeon, the inclusion of people allows for interactivity with our interpretations of the past and the ability to question and discuss.

8.2.2 Settings

Setting can be subtly conveyed by the use of the display design. At Göteborg Stadsmuseum, a sandy coloured and textured surface is used, into which the display cases are set. This is meant to suggest the sandy shoreline that was the setting for the Mesolithic settlement in the area. This will be emphasised by new backdrops to the display, which will be geographical maps showing Palaeolithic and Mesolithic sea levels. Inevitably, the construction of the displays is a compromise between the different staff involved. While the main education officer wanted a walk through reconstruction of an excavated Mesolithic house as the centre-point of the display, this would have been too radical a departure from the style of the rest of the museum. Instead, there is a small cut-away model of a reconstructed house in a display case off to one side, which effectively reduces the setting of Mesolithic daily life to that of an object rather than an environment in which life is enacted. The importance of setting will be a major theme of the revamped display: environmental change leading to the adoption of fishing as the human response to climate change.

At Schloss Gottorf, setting is a backdrop to display cases, and conveyed through full scale dioramas. Images of the dominant tree vegetation form a motif used to signal the temporal range of the display cases. Landscape and settlement settings are shown in the cases as pictorial images and described in the text (different kinds of woodland, the beach, lake, the hearth in the settlement and the social settings of contacts with other 'tribes' and with Neolithic farmers). What gives the displays greater power is the use of the dioramas. The shoreline with its dugout canoe and artefacts effectively conveys the context of Ertebølle settlement and way of life. The emphasis in the Maglemose diorama is on the archaeological excavation, and effectively conveys not only how much of Mesolithic life is lost to the archaeologist, but also the setting for archaeological recovery of the period. An unusual aspect of setting is conveyed by the humanity mirror at the entrance to the gallery, in which we see ourselves as part of the human, social setting, and are encouraged to transfer this to seeing ourselves and Mesolithic people as both parts of one humanity. This highlights our own setting as visitors and bridges the gap between the storyworld and our own.

Perhaps the most obvious use of setting is at Vedbækfundene, where the whole display is embedded within a range of Mesolithic environments. The display takes the form of a journey, both spatially and temporally through the seasons. The visitor enters the display in the forest in autumn before moving into the marsh in winter, the fringes of the forest with the lake and stream in spring before emerging into the coastal settlement at the fjord in summer. The colour scheme, nature of the flooring and the architecture of the displays all reflect these different ecological zones and embed the artefacts in a contemporary context. Setting is expressed in a way which enables the visitor not only to see the artefacts of the period, but also to experience the Mesolithic world as it might have been. The setting really enables an imaginative engagement with the storyworld of the time.

If Vedbækfundene brings the Mesolithic landscape into the museum then an alternative approach is that at Klosterlund with the Museum in Stenholt Wood. The displays themselves are traditional in their focus on artefacts and display panels. What enables the museum to deliver a setting for the Mesolithic is its location. Not only is this in the woodland, in which visitors must approach the museum through the wood, but it is also by, and overlooking, a small lake that was a focus for settlement. The walls of the museum are therefore rendered permeable and help to place the internal displays into a believable natural world.

The ultimate expression of this approach is that at Archeon. This living history centre can recreate (or create) a Mesolithic environment in which the setting becomes the main object of display. The path to the Mesolithic settlement is a short walk through trees, which opens out into a settlement by a lake. This is bounded by vegetation and screened from most of the rest of the centre. The screen is not entirely successful though as buildings from the medieval world can be seen through the trees. My visit was in October so the screening effect of the trees may have been greater during the summer. Nevertheless, the settlement successfully creates a feeling of being isolated within a natural setting. There is a bare minimum of display interpretation, which does not intrude into the setting. The result is that the focus for the visitor is not Mesolithic artefacts but the materiality of Mesolithic life, juxtaposed with its environmental context.

On the other hand, setting can be absent from displays and only mentioned as part of the textual discourse in panels and captions. This is especially so when the focus of the museum is on the artefact-rich collections. The National Museum of Denmark is an example of this more traditional approach. There is frequent mention in text accompanying the displays of the forest, wetlands, lakes and rivers. What text allows is also the description of settings that are hard to express in physical form, such as the other world of spirits which forms an important part of the displays of some of the artefacts. Other European cultures are also mentioned as a setting for the Danish Mesolithic to come into contact with.

The relationship Mesolithic people had with the natural world is hard to convey in a traditional museum setting. However, I have come across some non-museum visitor experiences on the continent (not specifically visited as part of this research) which I suggest offer ideas for possible

ways to display the Mesolithic: Bielefeld Tierpark, Slottskogen and Den Haagse Bos. These are all countryside parks.

The Bielefeld Heimat-Tierpark is a woodland animal park in North Rhine-Westphalia in Germany for the indigenous fauna of the local area. This includes brown bears and deer, beavers, wolves, wild cat, birds etc. Although the animals are in fenced enclosures, the whole park gives a good impression of the natural prehistoric environment of the region (the environment which Mesolithic people would have found familiar).

Slottskogen is a woodland park in the city of Göteborg in Sweden. It is a woodland of oak, aspen and conifers with animal enclosures of elk, red deer, Gotland sheep, horse and various other animals native to the area. Unlike Bielefeld it also has exotic species: penguins and seals. However, on a walk through the woodland I came across an unsigned area where people had made shelters out of branches in and against the trees. Not only does this park give an impression of the natural environment but the shelters also give the impression of a human presence.

Den Haagse Bos is forest park in the city of The Hague in the Netherlands. At one end is an animal enclosure for fallow deer and water fowl (the *Koekamp*). Deeper in the woodland is *Het Huttenbos* (the hut forest). This is an area with wooden sculptures of native animals and wooden art installations for play by children, and where people can make their own shelters from branches.

None of these three sites exhibited the Mesolithic. However, they all presented the environment in which Mesolithic people lived and two of them had elements of activity by people within the woodland. Only a small effort would convert them into valuable displays relevant to Mesolithic life.

8.2.3 Actions

The range of actions depicted at all the museums is much as expected. The finding and preparation of food is found in most, as is the making of tools. Also common is the use of dugout canoes and the presence of fighting or violence. As is general in interpretation of the Mesolithic, hunting and fishing are more commonly described or depicted than gathering. The two museums with the widest range of actions are Nationalmuseet and Vedbækfundene. Each of these adopts a radically different style of display, yet both strive to get across a wide range of the activities of Mesolithic life. Nationalmuseet uses its extensive collections of decorative and sculptural artefacts and makes efforts to describe religion and ritual. Vedbækfundene, on the other hand, uses its ecological approach to lay greater stress on human interactions with the environment.

There are also differences between how the museums depict actions. Nationalmuseet's emphasis on the display of artefacts naturally lends itself to the textual description of actions in captions (although it has recently added a wall projection video of hunting to depict one particular action). Static pictorial imagery is the method chosen to illuminate the text panels at Museet i Stenholt Skov in Klosterlund. The Stadsmuseum in Göteborg uses the idea of a moment frozen in time as left for us to find with the knapper's seat and waste.

A similar, but more extensively developed approach, is that at Vedbækfundene where actions are shown through the still lives of objects (real and replica). For example, the actions of making a paddle for a canoe are shown using replicas of timber and tools posed in the act of splitting and shaping the wood. At Schloss Gottorf, the dioramas offer a similar snapshot of a moment in time, but augmented by the use of video within the display cases and by the freezing of action in the display of the artefacts, such as blades being knapped and falling away from the core.

Paradoxically, it is the living history centre of Archeon that a range of actions is hardest to convey. Although actions can be recreated and embodied by a real human being, the range of possible actions is limited. Actions like hunting, gathering and fishing are only present as descriptions in interpretation panels. Other actions must be small scale and involve easily obtained and stored raw materials to be repeatable on a daily basis. Otherwise they can only be staged as one off events. Tool making and food preparation or cooking are the most usual actions that can be undertaken, along with the unusual ability to allow people to actively use a dugout canoe for themselves on the lake.

8.2.4 Happenings

The range of happenings described or depicted in the museums is much the same as in other media: climate change, rising sea levels and rising/sinking of the land, growth of woodland and the arrival of new biota. Vedbækfundene adds speculation about the adoption of farming including Mesolithic over-population or over-exploitation of the environment leading to food shortages. Nationalmuseet has one of the more unexpected textual descriptions of rising sea levels and the drowning of Doggerland with reference to the Old Testament: “perhaps this rising sea was what the Bible calls the Deluge”.

8.3 A summary of narrative engagement aspects in the displays

Each of the continental museums has a different way of conveying the rhetorical aspects of narrative to visitors (Table 17).

Museum	Mimesis	Synthesis	Themes
Göteborg	case setting, knapping case	clean, objective	changing sea levels
Nationalmuseet	low or absent	objective, didactic	hunting, spirituality, farming origins
Vedbækfundene	high, ecological context, journey and settlement	non-traditional, engaging, mystery	dependence on nature
Klosterlund	in the locational setting of the museum	personality of collectors?	relationship with nature
Schloss Gottorf	dioramas	attractive, engaging and informative	humanity, archaeology
Archeon	high and inherent	sensory engagement and human interaction	part of nature

Table 17: narrative aspects at each of the continental museums

In some, these aspects may be less well developed than in others. Mimesis seems particularly hard for some museums, for example, at Nationalmuseet. The conflict between mimesis and traditional display can be seen at Schloss Gottorf and Göteborg Stadsmuseum with their partial inclusion of suggestions of realism to balance the displays of artefacts. At Klosterlund, the mimesis lies in the geographical setting of the museum itself rather than in the displays. The highest degrees of mimesis were seen at Vedbækfundene and Archeon.

The synthetic aspects of display vary between the clean, antiseptic and traditionally objective object displays at Göteborg, Nationalmuseet and the archaeology gallery at Vedbækfundene, and the more emotive use of design, setting and lighting to provide an impression of being in the Mesolithic at Archeon and the Mesolithic gallery at Vedbækfundene.

For some of the museums, the synthesis includes a 'wow factor', such as the aurochs skeleton at Nationalmuseet and the dioramas at Schloss Gottorf. At Klosterlund, the affective engagement of the visitor is instead drawn towards the personalities of the collectors and founders of the museum. It is Archeon, a non-traditional outdoor living history centre that perhaps has the greatest degree of synthesis with its meshing of sensory engagement and physical interaction with the 'display'.

Thematic narrative importance also varies between museums. Themes that resonate with a modern audience are sometimes emphasised directly through the displays, such as human dependence on nature at Vedbækfundene and at Archeon. Others are not directly conveyed in the displays but given in text panels or individual parts of the overall display, like changing sea levels at Göteborg, a common humanity and the nature of archaeology at Schloss Gottorf. At some, the resonant themes are delivered through the educational work with schools rather than in the displays themselves, as at Klosterlund (our relationship with nature). It may be that the larger collections have a more diffuse the focus and find it harder to deliver resonant themes. Nationalmuseet's dominant themes seem to be the origins of farming, the spiritual side of Mesolithic life, the nature of hunting and the practical side of hunter-gatherer lives rather than themes of direct relevance to modern visitors.

8.4 Comparison between continental and British museums

The study I have carried out supports Milner's suggestion that British museums pay only slight attention to the Mesolithic (Milner et al. 2015). Comparison with the much better and more prominent display on the continental museums looked at has been instructive.

The elements and aspects of narrative are well represented in many (although not all) museum displays. Especially important are character, setting and synthetic effects (using visual and sensory design, and three-dimensionality) to deliver mimesis, and visitor engagement or interaction. However, they are not usually connected into a coherent narrative. The main exception is Vedbækfundene with its journey through the seasons from the forest out to the coastal settlement at the inlet. In most cases, the traditional mode of museum display is still dominant: the display of objects, even if in chronological order, with an occasional site-based display and a focus on tool-

making and the relationship of people with their environment. This is especially true in Britain. Exceptions are those museums outside the mainstream. Abinger Mesolithic Museum was a brave attempt at a new kind of display, preserving an open excavation trench within a museum which has remained privately owned and sadly underfunded. The display of deep time and continuity from Blick Mead is within an amateur run local history centre at Amesbury. Cheddar Show Caves Prehistory Museum is run by a private company more as part of the Cheddar Gorge tourist experience. Within mainstream institutions, the Yorkshire Museum has progressive elements within a display along an open balcony that stands apart from the rest of the museum. Occasional elements of character or diegetic sound such those at the Great North Museum, the Hull and East Riding Museum or the Rotunda Museum occur within displays of a traditional nature. It seems rare for museums to transcend their own setting and provide a setting for the Mesolithic which enables visitors to enter the environment of the time. In particular, there is a lack of animals, plants and the social settings of Mesolithic life. These may be hard to deliver in museum galleries, but not impossible, as shown in part by Vedbækfundene and Archeon.

The British museums visited thus contrast with those I visited in the continent. Traditional displays dominate at Nationalmuseet and Göteborg Stadsmuseum but only partly at Schloss Gottorf and not at all at Vedbækfundene and Archeon. Museet in Stenholt Skov is only one part of the interpretation of the Mesolithic at Klosterlund and Bølling Sø which is far less traditional. What is missing from all the displays visited is any hint of post-processual influence, such as multi-voice or the seeking of visitor response. There are no multiple narratives or alternative interpretations within presentations which remain mostly didactic and authoritative.

The continental museums were on the whole better at displaying the Mesolithic than those in Britain. Their displays were more coherent, had more material to show or were more adventurous in going beyond the artefacts to depict Mesolithic ways of life. I would single out three museums that offered lessons on how to communicate the Mesolithic to the public:

- Vedbækfundene, with a coherent display narrative and illuminating ecological approach;
- Archeon, offering an all round sensory and mimetic engagement, and providing interpretation by live enactors in a dialogue with visitors;
- Museet in Stenholt Skov, being placed within its woodland and lakeside setting, and the use of virtual reality by its parent Mid Jutland museum service.

8.5 Conclusion

Here I make some recommendations for the future display of the Mesolithic in Britain. These focus on the synthetic aspects of display to enable greater delivery of the mimetic and thematic elements of narrative. In particular, Mesolithic artefacts and sites should be placed more in their context by:

- making more effort to depict the setting of Mesolithic;
- including more Mesolithic characters as a point of engagement for visitors;

- highlighting themes from the Mesolithic of relevance to visitors;
- using three-dimensional displays and sensory engagement to reduce the alienation between visitors and objects;
- stimulating subjective experience through sensory engagement;
- inviting visitor response to artefacts and interpretation;
- developing outdoor visitor experiences that place the Mesolithic into a more natural setting with plants and animals.

The communication of the Mesolithic to the public is not only through the museum displays. More detailed, and more nuanced communications are often made through the work that museums do with schools. This will be the subject of the next chapter.

Chapter 9

Museum education

9.1 Introduction

Museum displays as a form of discourse employ elements of narrative, yet fail to do so coherently. The content and context of displays depend on the authorial attitude of the museum curators and exhibition designers. It is important to understand that it is the nature of the discourse that will help to determine audience response, rather than the display content: the interplay of mimetic, synthetic and thematic elements which are only partially in evidence in British museum displays. As a result, there is a crucial need for a mediating role to draw out and guide the audience towards a coherent narrative for the period. What is clear from the case studies in the last two chapters is the need for personal mediation of the museum displays. In most cases, this will be by educational staff. Displays are by their nature static. Even if they contain personal characters, these are either mute or deliver set didactic messages to a largely passive audience. Interaction between the audience and a live mediator allows for a full process of communication: the feedback mechanism rather than a one-directional chain. We might expect museum education to play more of a creative role through such means as:

- sensory engagement;
- question-based activities;
- being able to engage in real-time, ongoing dialogue, mediated by a real person;
- the ability to open up the dialogue beyond the artefact.

These are all essential components of museum education. Moreover, although museum visitors tend to be biased towards the white, educated middle class (National Museums 2004), the education services of museums have the capacity to reach every school child across all socio-economic groups.

A focus on artefacts runs through both of Moser's didactic and discovery types of display (Moser 2010: 29). The artefacts themselves form the objects of the visitors' gaze, in which information is encoded for delivery to each visitor. Hein (1995: 21) pointed out that visitors do not only assimilate information. They also recode and develop their own meanings for what they see in light of their own knowledge and experience. This may be a reworking of the messages exhibited in the displays, the labels, guide-books, audio-tours, lectures etc. What they have in common is a one-way flow of information and a recoding of that information at the end of the communication chain. Even discovery displays are ultimately one-way channels.

If archaeologists are to communicate with the public, then surely we have to move beyond simply giving them the results of our research, our present-day archaeological narratives, and try to help people make a direct connection with the people of the past for themselves. Can we claim that the public can perceive the Mesolithic when, in reality, what they perceive are the archaeological

narratives of the Mesolithic, and that these may bear only an uncertain relationship to the Mesolithic itself? Do we not have an ethical duty to be honest about this and include the story of how we know about the period within our narratives? Joyce presents archaeology with Bakhtin's view that this is indeed a moral imperative since communication is an enactive social dialogue (Joyce 2002: 31). This is where museum education steps in. As Roberts (1997: 131) pointed out, educators are needed for the anticipation and negotiation of meanings, and that the ethics of their work involves the negotiation between the value and belief systems of museums and those of the audience.

We might expect museum education to play a role similar to public communications media in developing understandings of the Mesolithic, albeit using different means. This would be through a sensory engagement with artefacts, question-based discussion, and an ability to engage in real-time, ongoing dialogue with pupils. The educator becomes the mediator, opening up the dialogue beyond the artefact to a deeper understanding of Mesolithic life. Museums also play a crucial role in acting as the source of expert knowledge for teachers, most of whom will have little knowledge of prehistory (Stone 1994: 203).

9.2 Museum education in Britain

Here, I will look at the educational offer of the museums whose displays I have studied, beginning with those in Britain. As noted earlier however, this covers only museums in England. Of course, the site of Star Carr (the focus for the school resource that has been produced) lies within England, and there are different school curricula between England, Scotland and Wales. A focus on England within this particular chapter therefore makes sense.

It might be thought that the British Museum would offer learning about the Mesolithic. However, as we have seen, their gallery display is minimal. This is reflected in their learning activities. Among the classroom resources, there is one for prehistoric Britain and specific ones for the Neolithic, Bronze Age and Iron Age but not the Mesolithic. The *Prehistoric Britain* resource has information about the Mesolithic but all the gallery work suggestions are for the Neolithic onwards (http://www.britishmuseum.org/learning/schools_and_teachers/resources/all_resources/resource_prehistoric_britain.aspx). Education sessions in the museum also do not focus on the Mesolithic. The only other learning resource that has Mesolithic content is *Teaching history with 100 objects* (<http://www.teachinghistory100.org/browse/curriculum/2/>). This resource is a simple image and information bank about particular artefacts along with some teaching ideas. This has two Mesolithic artefacts: an antler frontlet from Star Carr and an aurochs bone adze from Hammersmith.

In contrast, the Museum of London offers a much wider range of learning that covers the Mesolithic. The museum lays a lot of stress on teacher training. For prehistory, this includes a timeline activity that encompasses the Palaeolithic through to the Iron Age. To support teachers, they produce various resources. One of these is a storytelling resource that covers the Mesolithic (Museum of London 2014), *Stone Age Storytelling*. This will be included in my analysis of schools

resources in chapter 10. In this, stories are used as a stimulus for work in the classroom, such as making a pretend camp fire to sit round, talk about what would they feel when joining a hunt for the first time or what would it be like to go hungry. They can also create their own stories. The emphasis is on trying to enable children to engage with the Mesolithic subjectively as an experience rather than as a body of knowledge to be learned. The mimetic, synthetic and thematic aspects of the stories are fully explored. Teachers can download the classroom resources from the Museum website (<http://www.museumoflondon.org.uk/schools/classroom-homework-resources/prehistoric-london-resources/>). These include:

- *The River Thames in prehistory*, a set of information sheets about the Thames as a setting for prehistoric settlement and activity;
- a set of 3D objects that can be rotated in the viewer, none of which are specifically Mesolithic;
- a *Prehistory at a glance* timeline information sheet, with the key theme for the Mesolithic being hunting and gathering;
- a *Prehistory glossary*;
- a *Prehistory artefacts class timeline* activity based on photographs of artefacts, those for the Mesolithic being an antler barbed point and a flint scraper;
- a PowerPoint *Hunter-gatherer quiz*;
- an *Archaeology activity pack* for prehistory based on sorting and identifying flint tools, a jigsaw activity, being a news reporter writing about Three Ways Wharf Mesolithic site, making a stone tool out of a bar of soap and a sand tray excavation
- a 3 minute 40 second video of flint knapping.

Sessions are also run in the museum, which cover prehistory:

- *Past detectives: Stone Age life*, a session handling Mesolithic and Neolithic artefacts focussing on daily lives of hunter-gatherers and farmers (<http://www.museumoflondon.org.uk/index.php?cID=7781&eventID=7852>)
- *Prehistoric settlement in the Thames Valley*, involving object handling and a shadow puppet display to cover the whole of prehistory, and including looking at what children's lives would have been like for nomadic hunter-gatherers and what skills they would learn from their elders (<http://www.museumoflondon.org.uk/index.php?cID=7781&eventID=7855>)
- *Prehistoric treasures*: an art workshop based on artefacts in a time capsule (<http://www.museumoflondon.org.uk/index.php?cID=7781&eventID=7856>)

At the opposite end of the spectrum is the small, privately run Abinger Mesolithic Museum, whose

education work is very limited. Nowadays, there is just the one local school who come to the site and have a visit led by the custodian. They see the site and the display cases, can handle a small collection of stone artefacts from the plough-zone in the field and have a show and tell type session led by the site custodian.

Schools visit Amesbury History Centre to study local history or Stonehenge rather than the Mesolithic. Blick Mead will only be included within local history, and as the beginning of the timeline leading up to the present. They can see the artefacts, be told about the excavation and look at a small model diorama of what a Mesolithic settlement might have looked like.

At Cheddar Gorge, schools have a guided tour of Gough's Cave and a session in the Cheddar Man museum. The tour of the cave will be a question and answer session covering the cave's geology, its occupation in the Palaeolithic and Mesolithic, and its excavation in modern times. In the museum, they do a mix of looking at displays and work outside with experimental archaeology. Most schools come to study geology and geography, or leisure and tourism, with only some primary schools coming for prehistory. In the experimental area, they can learn about making fire and how tools were made. Inside the museum, they can have a go at their own cave paintings, and do work looking at the displays. The main aim of the staff on site is to show how clever and able prehistoric people were, well able to survive in their environment (not brutish cave dwellers). The caveman stereotype is common among schools and visitors, and it is difficult to get them to appreciate the distinction between the Palaeolithic and Mesolithic (pers. comm. Phil Hendy 2015). Information for teachers can be downloaded from the Cheddar Gorge website, but this consists only of two information sheets: one on how the caves were discovered in the 19th century and the other on life in the gorge over the last 40,000 years. The only reference to the Mesolithic is in the latter: simply mentioning the burial of Cheddar Man 9,000 years ago and describing it as Mesolithic.

The Yorkshire Museum has a workshop for schools called *Prehistoric progress*. This aims to teach children about archaeological artefacts as evidence for the past. An understanding of chronology and change over time is another aim of the workshop. Real objects are handled and used as a stimulus for discussion of ways of life in prehistory. There are six activities. The first is dressing up and face painting to hear a story and celebrate a successful hunt. Another is inscribing art onto a 'cave wall' with flints. The third Stone Age activity is to make a teepee. The other activities cover the Bronze and Iron Ages. Each period is also the object of work in the displays. Children are invited to place the Mesolithic in the correct order in the timeline, and discuss what the word Mesolithic means. They can also draw a Mesolithic house and work out what different materials might have been used for.

The museum also publishes an online resource for regional prehistory with items from various Yorkshire museums (https://www.google.com/culturalinstitute/exhibit/teaching-prehistoric-yorkshire/gALiBNc44va_Jw). Among the 15 objects are a Mesolithic antler barbed point and birch bark rolls, both from Star Carr. Each is supported by photographic images, short videos of question

and answers about the artefact (what it is made of, how it was made and what it was used for), cartoon video clips of people using or making the artefact, and an animated timeline. The barbed point videos include one of a man using the point to catch fish and a man working antler (thus reinforcing the gender roles of men hunting and tool-making). The birch bark rolls cartoon is of a young girl rolling the birch bark. There is also a video entitled how to make an antler headdress in class using card (actually how to make a deer skull rather than a headdress), which does not really link directly to the barbed point.

The Hull and East Riding Museum has a one-hour education session, *Enter the Stone Age*, developed in 2014 in consultation with teachers. This begins with a walk through the displays to highlight key chronology, which also allows them to tackle the issue of decoupling humans from dinosaurs at the beginning. The class is then divided into four groups to look in more detail at the displays. For the Mesolithic display, the focus is on the model of the woman gatherer and the reconstructed fish trap rather than the stone tools. The class will then move to the education room and work in the same groups on a box of replica objects. Each box covers the whole of the Stone Age instead of being divided by chronology. There are two boxes that cover food and two covering tools and materials. The contents of each box are:

- box 1 – a pot, heating stone, replica joint of meat, birch containers, small bags/boxes with models of food and herbs;
- box 2 – a model fish, fishing line, model of bread, a pot, small bags/boxes of model foods;
- box 3 – a fire making kit, stone hammer, cords of sinew, flax, nettle, bramble and willow bark tied to a board, small bags/boxes of artefacts and tinder;
- box 4 – a bow drill, replica sickle, hand axe, bone harpoon, small bags/boxes of artefacts.

While in the education room, the class will also have a demonstration of a bow drill in use and grinding with querns, including a rotary quern (much later than the Stone Age). The museum is also in the process of developing an online resources website, *The Hull Curriculum*, funded by local schools. This will be a closed resource for these schools, hopefully being completed by September 2016 or January 2017 (it is now online, but arrived too late for inclusion in this thesis). It aims to help schools use history as a basis for the key stage 2 curriculum. The site will be based on 20 key stories from Hull's history, voted for by teachers out of 140 suggested by the museum. It will include one Mesolithic object, a barbed point.

The Great North Museum: Hancock prefers to facilitate child-centred learning rather than impose a particular programme of education. One of the major aims of their approach is to correct the misconceptions and stereotypes that children and teachers bring with them: that archaeologists study dinosaurs, that prehistoric people were all cavemen and that they were brutish and stupid.

One of their main educational approaches is to let the children decide on an artefact they want to know more about as a lead into question, answer and discussion work. The most popular artefacts

chosen are bronze swords and Beaker pots rather than the Mesolithic. One reason for this is that the display was created in 2009, before prehistory was part of the school curriculum and so was designed for an adult audience. The display case for the Mesolithic is horizontal and at a height that makes it difficult for year 3 pupils to see into. However, the nature of the artefacts, being flint, stone, shells or burnt hazelnut shells, does not have the visual impact of the later prehistoric objects on display. Teachers have access to an explorer suitcase of props (<https://greatnorthmuseum.org.uk/whats-on/prehistory-resource-box>). This includes a stratigraphy cloth made by a local artist, word cubes as a spur to vocabulary and discussion, maps and the book *Stone Age Boy* by Satoshi Kitamura, set in the Upper Palaeolithic. Teachers can also download a gallery activity pack for prehistory (<https://greatnorthmuseum.org.uk/files/8240-prehistory-pack.docx>). This includes questions about particular artefacts and the materials they are made from that are on display. The only Mesolithic artefacts included are flint microliths and an antler wedge. It also includes questions about animals displayed in the natural history galleries, including a seal and a deer.

The West Berkshire Museum has a Stone Age session for key stage 2 history. This begins with an introduction to the timeline of prehistory. The rest of the session takes an interesting approach by using a character in the past to look at Stone Age life. This is not, as might be expected, a character from the Stone Age but Ig, a seven-year-old from the Bronze Age. Ig has found some flint tools and wonders what life was like in the time they were made. He also wonders why they used flint and what their tools were used for. The pupils can then do observational drawing and write a museum label for one of the objects. They also look at the major changes in stone tools from the Palaeolithic to the Neolithic. At the end they can tell Ig about the Stone Age and its tools.

Current sessions at the Rotunda Museum focus on fossils and art, but there is a *Stone Age Explorer Box* of real and replica artefacts for use by teachers in the galleries or in school. This includes flint artefacts and a red deer skull. However, new resources will be developed for use with the new Star Carr display, that was installed in 2016.

In addition to looking at the education work at the museums whose displays I have seen, I have a limited and non-randomised sample of other museum education work that covers the Mesolithic. An appeal on the Group for Education in Museums email list produced a few responses giving details of education sessions that cover the Mesolithic. I include these here to illustrate some of the work being done by museum and heritage educators.

York Archaeological Trust runs the Jorvik visitor centre and DIG educational visits centre. Its main displays and collections are Viking and Roman. Nevertheless, it does offer educational activities covering prehistory. It offers a prehistory session in schools, a prehistory workshop at DIG, a loan box covering prehistory and the opportunity for a class to talk to an archaeologist about prehistory over Skype. The school activities involve various props, such as a tabletop 3-D model of a landscape, models of houses of different periods and replica artefacts. The activities are based around questioning and handling of artefacts.

Luton Museums run a prehistory session, *Hunter to Farmer*. This looks at the contrast between hunter-gatherer and farmer lifestyles. Part of the session involves the children doing role-play acting out being hunter and prey. This is meant to demonstrate the difficulties of hunting and the comparative importance of plants in the diet.

The Pitt Rivers Museum in Oxford, has a *Stone Age to Iron Age* session. This involves encouraging pupils to match replica artefacts to the right period of time. As well as looking at the shift from hunting-gathering to farming, they also find out about the everyday challenges of life for prehistoric people.

Gloucester Museum does a *Prehistoric Life* session which covers the Stone Age to the Iron Age. This has a focus on artefacts and ways of life, but also looks at the issue of mobility; the advantages and problems of a mobile lifestyle instead of permanent settlement.

Chiltern Open Air Museum has the advantage of offering open air activities rather than linking their work to museum displays. They offer a workshop (developed with help from freelance educator Kim Biddulph), *How did we live in the Mesolithic Age?* This aims to contrast hunter-gathering and farming lifestyles. The children are met and given pouches and objects to carry as part of being mobile and moving to a new site. They are led to their new home by a pond, around which various food items have been hidden that they have to forage to find. They are also encouraged to list everything they think that might be edible in and around the pond. One of the children will be a shaman and tasked with placing a skull in a tree near the site. They will all then help to rebuild the shelters before sitting around the fire pit where the group will roast nuts and roots, and tell stories about their life and journey to the camp. The whole session involves practical activities and engagement with sites, smells and sounds in a way not usually possible within an indoor museum.

Such activity based work can also be offered directly by educators going into schools. Freelance educator, Vanessa Bunton, has developed a workshop she offers to schools, which has a focus on everyday life in prehistory. She begins with a timeline that goes back 2.5 million years before a rotation of children through five hands-on activities:

- exploring a round house, comparing what is in a prehistoric house to their own house;
- grinding using a saddle quern;
- identifying stone tools;
- spinning yarn and discussion about making clothes;
- wearing prehistoric clothes, comparing Mesolithic, Neolithic and their own modern clothes.

She would also like to create a portable sit-in Mesolithic house that can be compared with a Neolithic one.

One outdoor project was *Mesolithic Footsteps*, run as a public outreach event for the National Trust Scotland at Mar Lodge. Although aimed at adults, this could be adapted for use by schools. This was aimed at families and took the form of a walk with Mesolithic activities along the way. This began with a demonstration of flint knapping. Other activities included a timeline paced out in the landscape (one pace equalled 100 years), an acted out comparison between modern stalking of deer with a rifle and hunting with bow and arrow, making nettle string, cooking venison in a fire pit and making birch bark cups. The whole activity was aimed at getting across the importance of understanding and conserving landscapes.

9.3 Museum education on the continent

At Göteborg Stadsmuseum, the main aim of the education work is to get children to question how archaeologists know the past rather than make judgements about the Mesolithic itself. The staff feel it is important to understand that the displays in themselves are only part of the communication process between the museum and its audiences. Work with schools is a vital aspect of bringing the displays to life and augmenting their message. There is a team of education staff who work with schools. The pupils who come to study the Mesolithic are aged 9-10 years old as this is the school year in which prehistory is taught. The quality of school text books for prehistory is not thought to be very good (pers. comm. Mari Wickerts 2015). The pupils therefore come to the museum with inadequate or simplistic notions; including associating people with dinosaurs or Mesolithic people with mammoths.

At Vedbækfundene, the lone curator also acts as education officer. Most of the children attending through school visits are 9-10 year-olds. The key goal is for them to have a positive and fun experience to make them want to return to a museum, rather than understand about the Mesolithic (pers. comm. Ann Gurlev 2015). Visits normally last for two hours. Visits begin with a pictorial timeline and coloured time stick to take pupils back to the Mesolithic. They then have a session in the archaeology room on artefacts, being able to see and handle both replica and original flint tools, and how to look at the Bøgebakken burial and tell the sex of body from the skeleton. After this, they go into the Mesolithic room to look at the four burials at the far end of the gallery, including the burial of the woman and baby placed on a swan's wing. After a lunch break, they will go back into the Mesolithic room in pairs with worksheets. The final part of the visit is to go outside the museum and use a modern bow and toy arrows to shoot at a wooden target of a wild boar to understand how easy or difficult it was to hunt with a bow. The key part of the activity for understanding the Mesolithic is the use of the worksheets (Appendix 47).

The worksheet is based on asking the children to "go on a hunt in the hunter's world". While the dominant theme of the worksheet is hunting, there is reference to the woodland trees as resources and to social aspects of Mesolithic life. What is missing is reference to the seasonal ecology of the time, which forms the major framing device for the display as a whole. Nevertheless, the school session delivers an understanding of archaeology and of the Mesolithic by using the display as its main stimulus.

There are two sessions offered at Nationalmuseet in Copenhagen that are relevant to the Mesolithic: *The life of the hunter* and *From hunter to farmer*. These are aimed at pupils aged 9 to 10 years old. Each begins with chronological orientation through a landscape timeline and then activities in a special education classroom. Here, they are divided into four or five groups and given replica artefacts that identify each group as hunters, knappers, gatherers, fishers or shamans. An alternative that was formerly used was to have two people dressed as a hunter and a farmer for children to guess which was which. The change to the grouping approach was to enable more children to be actively engaged in learning, although this also enabled a switch from learning about archaeology to learning about Mesolithic life. Other activities used are a fishing game with magnets and 'fishing rod' to catch different kinds of fish, and choosing from among various modern and ancient foods to make a hunters' or farmers' picnic basket appropriate to the period. The class then visits the galleries for work in the displays. In room 1, the emphasis is on mobility and small groups of hunters, with a look at arrowhead styles on display. In room 2, they look at the aurochs skeleton and the signs of it having been hunted, with the story of it escaping into a lake. This will also cover the use of dogs in hunting. They will then discuss what use people made of the different parts of an aurochs. They may also look at the shaman display. In room 3, they look at the oysters, the boat, the fish trap and the axes. All that they look at and discuss in the displays is related to the groups they were in while in the classroom. When talking about making flint tools, they will learn about the evidence for the possibility of Mesolithic children practising knapping. After this, they will then look at the Vedbæk burial of a woman and child, which is too prominent in the display to ignore, even though it does not relate to the classroom activity. They learn how to tell it is a female and how to tell whether a boy or girl is buried by the type of artefacts as grave goods. They will discuss whether they think the female is the mother of the child or not, and the healed head fracture. However, what the children remember most from the displays is the aurochs, which is certainly the most impressive item in the galleries (pers. comm. Ditte Kroner 2015).

The school experience at Klosterlund begins before reaching the museum itself. Schools are met at the road and then taken on a walk through the woods above and around the museum where they are introduced to the woodland and its resources. Only then are they taken to the education room, a short distance below the museum and by the side of the small lake. The original setting of the site in the landscape is the key to working with schools here. Most pupils are aged 9 to 11. At the classroom, they are introduced to replica artefacts, flint knapping and take part in shooting a bow at a target. To supplement the on-site experience, and to provide resources for schools who do not visit the museum, there is now a website, the e-museum of *Livet ved Bølling Sø* (<http://www.nilen.dk/projekter/boellingsoe/index.htm>). This was developed with input from two local teachers. Among its features are an interactive hunting game and the ability to build a populated settlement. It also delivers information about chronology, hunting, the environment and the tools of the time. Elements of the website are also available as a CD along with museum loans boxes. *Livet ved Bølling Sø* has cartoon-like depictions of Mesolithic people in various of its sections. The timeline has two separate drawings of hunters. A pictorial image of the Maglemose

period has four men knapping flint, making a fish spear, and hunting, with one woman scraping a hide. The image for the Ertebølle period has three men making a canoe, making arrows and bringing back a carcass of a deer, with two women butchering a carcass and one boy cuddling an animal. The media workstation part of the site, where users can create their own images of each period, has an example illustration with two men hunting, two women butchering a carcass and one child. People can copy and paste images of Mesolithic characters to make their own scenes of life at the time. Those for the Maglemose period include 12 men carrying out various tasks such as making a fire, making and using a fish spear, flint knapping and hunting, while the three women are shown working hides. Those for the Ertebølle period have nine men hunting, making and using bows and arrows, and making a canoe, with three children and six women butchering a carcass, fetching and preparing fish, cooking and simply sitting.

At Schloss Gottorf, there is only one education session aimed at the Mesolithic, *Hunters of the Stone Age*, aimed at 10-12 year-olds. This has a focus on archaeological methods rather than on Mesolithic life, although they will gain an understanding of this along the way. The session takes place partly in the schools laboratory and partly in the displays. The schools laboratory is a special education space, well equipped for active learning. Here children can work with replicas and undertake tasks such as making necklaces or weapons. They also learn how to analyse animal bones. They will spend one hour in the laboratory and then carry out research in the displays related to what they have just learnt.

Schools are welcome to visit Archeon on their own but they can also have guided visits, either of the whole site, or specialising in one area. For the Mesolithic area, the enactors/interpreters will introduce children to the Mesolithic way of life using replicas and the houses on site. They will look at the kinds of tools used, how they were made, recognise different animal skins and discuss their uses, learn how to make fire and have the chance to paddle a dugout canoe on the lake. There is a public food weekend in the prehistory area once a year, with the cooking and eating of mackerel and mussels. Schools can also book a living history experience in which students are introduced to the Mesolithic with an overnight stay in sleeping bags. The evenings are led by the school itself so that teachers can arrange their own evening programme around the campfire. The pupils will not only learn about prehistory, but also about art, society, nature and technology. The centre also has an Archaeology House, which also incorporates the Roman Museum. Here the schools can watch an introductory video about prehistory. Some of the more religious schools tend to ignore prehistory as they have an issue with a creationist reluctance to tackle the deep time of the past (pers. comm. Lisa Wassenaar 2015).

9.4 Summary

As we have seen, some museums and visitor centres (Cheddar Man, Vedbækfundene, Archeon, Schloss Gottorf) have displays that go beyond the aesthetic or typological display of artefacts. Education work at these can use the displays directly to help pupils understand ways of life in the Mesolithic. It is noteworthy, that at others, the educational activities augment the simple display of

artefacts to deliver a greater understanding of how people lived in the Mesolithic. The education work fulfils various roles in relation to the displays:

- setting the scene for work in the display with a talk or activities at the beginning of the visit (e.g. Vedbækfundene);
- conveying the way of life of the period which amplifies the object-centred nature of the display (e.g. Nationalmuseet or Museum of London);
- providing a more holistic understanding of the period than is possible from small or limited displays (e.g. Göteborg Stadsmuseum, Hull and East Riding Museum);
- providing and demonstrating practical activities for hands-on learning (e.g. Museet i Stenholt Skov and Cheddar Prehistory Museum).

However, in Britain, the marginal position of the Mesolithic within most museum displays is reflected in the education services offered. The Mesolithic is usually offered as part of sessions on prehistory. It only receives detailed coverage at the Museum of London and Cheddar (and Chiltern Open Air Museum), although there is no clear differentiation between Palaeolithic and Mesolithic at Cheddar. In some cases, the session offered covers the Stone Age, potentially confusing the Palaeolithic, Mesolithic and Neolithic. Some teachers seem to be happy to teach the Stone Age as a unit because they think that would be easier with the children (pers. comm. Vanessa Bunton 2016). Specifically Mesolithic sessions and resources are commoner on the continent, where Mesolithic displays are more substantial.

Some of the education offered reflects various stereotypes of the period. Examples, are the use of the word shelters for houses, which implies simplicity of dwelling, or the idea of progress from the Stone Age to the Iron Age as from simple to complex. The prevailing stereotype is of Mesolithic people as hunters who moved around a lot. There is a frequent contrasting of Mesolithic and Neolithic, especially hunter-gatherers versus farmers, reflecting traditional normative ideas about each period.

Many of the education sessions and resources focus on the hunter-gatherer way of life and the environmental setting for it. Much of the content is based on artefacts and raw materials. The main exceptions in Britain are:

- the Museum of London through its story-telling resource which seeks to evoke empathetic understanding of the Mesolithic as lived experience;
- the Hull and East Riding Museum object handling exercise that focuses on prehistoric foods and their use of the woman gatherer in the display;
- the Luton Museum hunter and prey role play;
- the Chiltern Open Air Museum activity and story telling approach.

These museums go beyond the displays of artefacts to bring to life aspects of the Mesolithic as

experienced by its people. This was more commonly observed at the continental museums where educational activities more usually went beyond issues of tool manufacture or chronology, or had displays which went way beyond the display of artefacts (e.g. Vedbækfundene and Archeon). At Klosterlund, the educational work was able to make use of the environmental setting in a way not possible at most other museums (apart from Cheddar Gorge and Chiltern Open Air Museum). How to incorporate an experience or understanding of landscape into educational activities remains a challenge for most museums.

Overall, there is a lack of coverage in Britain of ritual life or burial (apart from Cheddar Man). It may be that this is due to the lack of evidence for these from most Mesolithic sites, or that some educators feel these topics may be too hard or sensitive for 7-8 year-olds (pers. comm. Vanessa Bunton 2016). On the continent, where there is more evidence of Mesolithic burial, spiritual life and burials are featured at Nationalmuseet and Vedbækfundene. Furthermore, in all museums, there are few attempts at getting children to understand the social aspects of Mesolithic life such as family, social organisation or potentially violent confrontations with other groups.

Overall, there is a lack of use of narrative. The Museum of London's storytelling resource, their use of a shadow puppet play and Chiltern Open Air Museum's storytelling around the camp-fire are the exceptions (along with the use of a narrative device in framing the educational activities at West Berkshire). There is instead a reliance on images and artefacts. In most cases the artefacts used will be replicas. Demonstration or participation in Mesolithic activities, such as shooting a bow, paddling a canoe or flint knapping is a feature only at Museet in Stenholt Skov, Archeon and Schloss Gottorf on the continent and at Cheddar Gorge, Hull and East Riding Museum and the Museum of London in Britain.

Museum education on the continent certainly delivers an understanding of the Mesolithic, but usually has good gallery displays to work with. In Britain, the Museum of London offers a wide range of good resources and museum sessions for schools, while Cheddar Gorge can offer an experience on site, together with demonstration of activities rather than a reliance on static displays alone. In most other cases, the educational experience lacks narrative and focuses heavily on artefacts as much as ways of life. Narrative is largely lacking and themes that could form the basis for narrative are also mostly lacking.

9.5 Conclusion

Academic interpretations of the Mesolithic are still dominated by a cultural ecological approach towards north Eurasian temperate woodland hunting and fishing communities. This is largely reinforced by popular communications which portray sophisticated and skilled male hunters in woodland and waterside locations, making tools, working wood and building houses, with a few women who scrape skins, cook food and look after the children, and who occasionally talk with each other, bury their dead and perform ritual dances while keeping an eye open for climate change and sea level rise. Museum displays largely recycle the same images as in academic and popular media, albeit with a better balance between men and women.

Education largely reinforces the museum displays rather than moves significantly beyond them. It provides more detail and amplification of the traditional vision of the Mesolithic, with a greater concern for providing characters with whom children can identify. One of the major weaknesses of the British museum education programmes is their coverage of the Mesolithic as part of the Stone Age or of prehistory, with the potential for glossing over the period or confusing what makes it distinct in children's minds.

This is not to say the sessions or resources deliver bad education. As museum education, they are very good. They are hands-on, enquiry-based and direct children to think about the period, its artefacts and way of life. Children will learn enquiry and thinking skills as well as being able to develop literacy or creative expression. However, what they may not develop is an understanding of the lived experience of the Mesolithic. The task for educators should be to go beyond the limitations of the traditional interpretation of the period and help children engage with the period as one that makes sense to them, with some relevance to their lives and some kind of experiential learning. Children need help to make the deictic shift from sitting in a museum room handling strange artefacts to being part of a family of hunter-gatherers with rich spiritual and social lives in temperate woodlands. Some initial recommendations on how to achieve this would be:

- base learning on coherent narratives involving Mesolithic people;
- provide a way of subjectively 'experiencing' the Mesolithic;
- enable group work;
- encourage debate or alternative thinking about the period;
- deliver understanding of themes relevant to children today;
- link with, but go beyond, the museum displays;
- use artefact handling to reinforce or support learning outcomes rather than be an outcome in itself.

The next chapter will look at educational materials for use in schools to understand the communication of the Mesolithic within the classroom. This is where most education takes places, and is where the teacher can go beyond the day-out experience of the museum.

Chapter 10

School education

10.1 Introduction

If archaeologists are to use education to reach a mass audience then they need to understand the education system. Education has long been important for archaeology. Beginning with Frere & Frere (1942) and Clark (1943), there have been many calls by archaeologists to engage more with education. In this chapter, I will deal with the place of archaeology within the school curriculum and the potential for archaeology to deliver a range of educational outcomes. I will conclude with an analysis of the portrayal of the Mesolithic in past and current school text books and other educational materials.

10.2 The educational context: archaeology in the school curriculum

Archaeology is not, and never has been, a subject taught as such within schools. However, prehistory has often been taught as part of the general topic of history. The new national curriculum of 1988 (taught in English, Welsh and Northern Irish schools from 1990) included history as one its subjects, as did the Scottish 5-14 curriculum guidelines of 1994. This was hardly an innovation, merely a codification of existing practice. History had been taught in schools since the pioneering efforts of the dissenting academies in the 18th century (Armytage 1965: 52). The non-conformist radical philosopher and scientist Joseph Priestley spent much of his life as a school teacher and educational reformer. He introduced modern history at Warrington in 1761 (Sheps 1999: 32-33) and wrote an essay on education in 1765, in which he advocated the teaching of history as “anticipated experience”, meaning learning from the past to help navigate the modern world (Bantock 2012: 32-33).

The bulk of education in the 19th century was provided independently of government by the workhouses, the National Society for Education (set up by the Church of England in 1811) and the non-conformist protestant British and Foreign School Society (established in 1814) using their own curricula and teaching methods. This began to change in 1839 with the setting up of a system of schools inspectors. A government minister for education was first appointed in 1856 and the new education department soon set about trying to guide and mould the school system. The *Revised Code* issued in 1862 linked education grants to pupil attendance and attainment in the three Rs, that is, reading, writing and arithmetic (Armytage 1965, Lawson & Sylver 1973, Evans 1975).

In an echo of modern debates about education, there was a feeling that the *Revised Code* of 1862 had led to too great an emphasis on literacy and numeracy at the expense of a broader education, and the code was amended in 1867 to allow the teaching of subjects such as history and geography to be recognised (Lawson & Silver 1973: 292). The Education Act of 1870 set up a system of state funded schools for all children up to the age 13. However, by 1890 history was taught in only 0.2% of these elementary schools (Cannadine et al. 2011: 19). Funding of schools was changed in 1900, reducing the emphasis on the three Rs (Mackinnon & Statham (1999), with the result that history

was taught in 99% of schools by 1903 (Cannadine et al. 2011: 19). The early history teaching was dominated by the ‘great tradition’ of the didactic presentation of an accepted canon of knowledge about the past (Sylvester (1994: 9). This was in part a response to the first *Code of Regulations and Instructions for Inspectors* issued by the Board of Education in 1900 (Cannadine et al. 2011: 23).

While history teaching was simply the delivery of factual information about dates and events, there were those who advocated a more engaging kind of history. Stories with characters and a strong narrative were identified as ways to make history intelligible to elementary school pupils in 1906 (Cannadine et al. 2011: 34). Very early, the fundamentals of a historical plot were identified as setting up a situation in need of solution and the working out of that solution in stages (Archer et al. 1916: 88). Keatinge in 1910 advocated using original sources (Sylvester 1994: 12), a call mostly ignored at the time. His call was echoed by Price in an influential article in the magazine *History* in 1968 that advocated a new style of history teaching using primary sources (Sylvester 1994: 14). This led to work by the Schools Council which began its *Time, Place and Society* project in 1971, and the formation of the Schools Council History Project in 1972 (becoming an independent association in 1988 as the Schools History Project) to support the teaching of historical skills and activity-based learning in secondary education (Sylvester 1994: 16). This introduced teachers to the idea of using archaeological enquiry with 8 to 13 year-olds (Corbishley & Stone 1994: 387). These moves towards the teaching of skills using historical sources made history teachers more aware of, and sympathetic towards, the inclusion of archaeological evidence and approaches (Planel 1990: 272-273).

However, not many teachers saw archaeology in itself as offering much of value. They needed to be convinced that archaeology had something to offer (Clarke 1986: 11-12). Prehistory was seldom covered in history teaching. Henson (2004b: 29) argued (I would now say wrongly) that prehistory had little to offer the creation of narratives. However, the key educationalist often regarded as the founder of constructivist education, John Dewey, argued for (and practised) the teaching of prehistory in 1899 in the USA (Corbishley & Stone 1994: 385). One of constructivism’s leading theorists, Bruner, explicitly included archaeology (and even prehistory) as a suitable subject for teaching (Corbishley & Stone 1994: 387). However, one early book for teachers which advocated a more active history teaching only mentioned prehistory in passing and only in any detail as a prelude to the Roman invasion and conquest of Britain (Archer et al. 1916: 108-109). The only support for the teaching of prehistory was one soon forgotten pamphlet published by the Historical Association in 1928 (Corbishley & Stone 1994: 386). A study in the 1980s found that only 23% of primary teachers used archaeology as a regular part of their teaching (Corbishley 2011: 85). Where prehistory was taught, it was predominantly in primary schools (Stone 1994: 192), and it was usually as the stereotype of cavemen as a prelude to moving quickly on to ancient civilisations (Richardson 1990: 283-284). As Stone noted, prehistory was rarely taught in secondary schools (Stone 1994: 192). Where it was taught at secondary level, it tended to be in the first year where its status as a prelude to history reinforced an idea that prehistory was to be equated with notion of the primitive (Planel 1990: 271). The archaeology used by teachers was often outdated and little used

for teaching inference, problem solving or interpretation (Planel 1990: 273). Fortunately, an early and powerful advocate for archaeology in education was Mike Corbishley, who noted the ability of archaeology to support a wide range of curriculum work in schools (Corbishley 1986: 5).

Corbishley (1986: 4) argued that the difficulty of interpreting artefacts and features on a site without a solid grounding in archaeology or ethnography should lead to the use of imaginative reconstruction images to guide children's understanding, echoing much earlier advocates of history teaching (e.g. Archer et al. 1916: 104).

One of the most important events in British education was the development of National Curricula and curriculum guidelines for the different nations within the UK from 1988 to 1994, in which the government, for the first time, laid down in law the subjects, along with their content, to be taught in all state-funded schools. Unfortunately, neither archaeology nor prehistory were mentioned in the first version of the National Curriculum in England, taught from 1990. However, it was pointed out by the Council for British Archaeology (CBA) and English Heritage, and others, that the new curriculum did offer opportunities for including archaeology, especially to help teach the nature of historical evidence and the subjectivity of interpretations of the past (Stone 1994: 192-193). The curriculum has been subject to constant criticism and debate over the right kind of content in various subjects. It has therefore been revised at regular intervals, with new orders coming into force in England in 1995, 2000, 2008 and 2014. Changes have also been made by the devolved governments in Wales and Northern Ireland. One of the key drivers for the most recent revision of the national curriculum in England was the government's desire that children know the story of the nation, its historical narrative. This echoed work by the schools inspectorate, Ofsted, which had highlighted the lack of chronological awareness of pupils caused by the teaching of only selected periods of history (Ofsted 2007: 6, 13-14, 21).

The CBA, along with others, lobbied hard for the inclusion of archaeology within the history curriculum at each of the revisions up to 2008, but with only limited success. Archaeology was ignored, even in newer subjects such as citizenship with its coverage of environmental sustainability, a topic that archaeology could easily support (Henson 2004b: 28). The orders for 2008 did at least mention the work of archaeologists as an example teachers might look at under the topic of historical interpretations. It is ironic that the latest revision of the curriculum is the one that has included the compulsory teaching of prehistory. The irony stems from the impetus for revision which came from a conservative view of teaching methodologies that ran counter to the progressive orthodoxy that was friendlier towards archaeology, and from the fact that the CBA no longer had an education officer to lobby for archaeology.

The curriculum orders now stipulate that pupils should be taught about changes in Britain from the Stone Age to the Iron Age. Non-statutory examples are given (Department for Education 2013):

- late Neolithic hunter-gatherers and early farmers, for example, Skara Brae;
- Bronze Age religion, technology and travel, for example, Stonehenge;

- Iron Age hill forts: tribal kingdoms, farming, art and culture.

The use of Late Neolithic to describe the hunter-gatherers is unfortunate and reflects both the lack of archaeological input into the latest curriculum revision and the general lack of awareness of the Mesolithic outside of those who study it. However, prehistory is being taught in most schools now for the first time since the 1980s and teachers are now more aware of their need for archaeology than before. Part of our battle to persuade teachers that archaeology has something to offer is therefore already won. However, we face a generation of teachers who have never taught prehistory, and therefore feel "a bit lost" in the topic and want online resources linked to professional development (King 2015: 1-2). There is a need now for resources to support teachers deliver prehistory to children at key stage 2 (most prehistory is taught to year 3 children, aged 7-8 years-old).

The approach adopted in this thesis is that conveying the Mesolithic is an exercise in narrative. Fortunately, the new national curriculum (like its earlier versions) includes the telling of, and listening to, stories as an essential part of English language teaching. Resources based on narrative should therefore be attractive to primary school teachers who can cover more than just history through the Mesolithic.

For older pupils, the development of a new style of school qualification, the General Certificate of Education at Ordinary and Advanced Levels in 1951 opened up the possibility of including archaeology for the first time at 14+. The University of Cambridge Local Examinations Syndicate offered its O Level in archaeology from 1952, and an A Level was offered from 1977. The numbers taking the combined 14-18 qualifications gradually increased from the 25 of 1970 to 232 in 1980, 700 in 1990, 921 in 1995 and 1,226 in 2000 to reach a peak of 2,222 in 2005. In addition, a mode 3 CSE (a sub-O Level qualification with a flexible, teacher created syllabus) was being taken by around 400 students in the late 1970s (pers. com. Mike Corbishley). Sadly, the GCSE was discontinued in 2006. Changes to the funding of further education have made colleges less willing to offer a subject like archaeology, leaving the current offer of one AS and A Level qualification being taken by around 1,400 students a year. However, the AQA awarding body responsible for the A Level has indicated they will no longer offer it from 2017. Efforts are currently being made to find a way to continue with archaeology at this level of education, but it is as yet unclear whether they will be successful.

The Mesolithic could be included within A Level, as is made clear in the coursebook, widely used as the main textbook (Grant et al. 2008). Mesolithic examples for religion and ritual are given from across Europe and include Bedburg, Star Carr, Lepenski Vir, Ertebølle, Skateholm and Vedbæk (Grant et al. 2008: 154-155). Skills and methods are exemplified by Clark's excavation of Star Carr (Grant et al. 2008: 53-55), by the isotope analysis of diet on human bone in Britain (Grant et al. 2008: 214-215) and the use of ethnographic analogy in understanding organic technologies of the Mesolithic (Grant et al. 2008: 280-281). World archaeology could be supported by the Mesolithic settlement evidence in Trentino in northern Italy (Grant et al. 2008: 209-210), the Ertebølle culture

(Grant et al. 2008: 240-241) and the Vedbæk burials (Grant et al. 2008: 337). The place of archaeology in society could be covered through the consideration of Doggerland as a new frontier in heritage management (Grant et al. 2008: 351-352).

10.3 The importance of teaching archaeology in schools

Education is a key channel of communication for archaeologists. They may hope to persuade their audience of the value of what they do and thereby gain wider support for their profession. Early advocates for archaeology in school education were Sheppard and David Frere, who emphasised that archaeology could deliver understandings and interpretations of the past, of the human condition, that have benefits for pupils and students beyond a simple enjoyment of archaeology. Archaeology can both satisfy our curiosity and help us plan for the future (Frere & Frere 1942: 109). Prehistory offers an understanding of the inevitable and necessary nature of change and the progress of the physical, intellectual and spiritual natures of humankind (Frere & Frere 1942: 98-99). In addition, archaeology could offer training in useful skills like observation and deduction, a synthesis of physical fieldwork, scientific analysis and logical thinking (Frere & Frere 1942: 108).

An equally early and passionate advocate for this role of archaeology in education as the Freres was Clark (1943). Clark highlighted the ability of archaeology (described by him as anthropology and prehistory) to develop an understanding of common humanity and put right many of the ills that were plaguing the modern world. The specific context of his advocacy may have been during the Second World War yet his words still have potency today:

“What is needed above all is an overriding sense of human solidarity such as can come only from consciousness of common origins. Divided we fall victims to tribal leaders: united we may yet move forward to a life of elementary decency.”

(Clark 1943: 113)

He especially advocated the role of archaeology, and prehistory in particular, in overcoming two evils of the modern world: national allegiances and cramped human living space. Archaeology could give to education an understanding of “the biological unity and the cultural inheritance of mankind” (Clark 1943: 115). In this, Clark followed the Freres who also called for archaeology to deliver knowledge of the underlying spiritual unity behind the diverse cultures of humanity, and that syncretism and fusion of cultures was the true basis for human progress (Frere 1942: 102-103). Archaeology could give the complete picture of people in nature and of human society, as well as bridge the gap between art and sciences, therefore integrating the curriculum.

Clark saw the curriculum of his day as a bundle of unrelated subjects with no relevance in real life, which “breeds barbarians possessed of a little knowledge in restricted fields, but unaware of its relation to life in human society” (Clark 1943: 115). He went on to argue that archaeology should be the basis of the curriculum for all ages of education and that primary schools should begin with the teaching of prehistory and what was common to humanity, before teaching the rich diversity of human cultural experiences in secondary schools (Clark 1943: 118-119). His advocacy of

prehistory was grounded in logic, noting that the archaeology of the Palaeolithic had relevance for more of humanity than did the archaeology of ancient Greece (Clark 1943: 118).

In my own work at the Council for British Archaeology between 1994 and 2011, I also tried to influence attitudes towards the place of archaeology in education. I pointed out that archaeologists had important things to say about fundamental issues of human existence, such as the effect of climate change on human societies, the notion of ethnic identities, the nature of human migration and our changing relationship with the environment over thousands of years (Henson 2005: 44, 2011: 220-222). More than this, I unwittingly echoed Clark, in writing:

“in a century which shows every sign of continuing the inhumanity of people towards others that we saw in the 20th century, we can also provide evidence for our common humanity.”

(Henson 2005: 44)

I have previously explored the important place that archaeology could have in school teaching in various publications (Henson 1997: 2004a, 2004b, 2009a, 2011, Henson et al. 2006). Here, I will concentrate on what is relevant to the Mesolithic. In his 1943 article, Clark produced a table showing how an archaeologically-based curriculum could deliver knowledge of all curriculum subjects (Clark 1943: 116-117). I have adapted Clark’s table to show where our knowledge of the Mesolithic could be used (table 18).

Man's place in nature			Links with the Mesolithic
i	The world and the universe	Astronomy	Warren Field pit alignment
ii	The structure and recent history of the earth and its climate	Geology and climatology	Climate change as it affected human settlement in Britain
iii	The antiquity of life and the emergence of man	Biology and natural history	Early human settlement on Britain culminating in the Mesolithic
iv	The human family, the distribution of its principal varieties and the meaning of race	Ethnology, anatomy and psychology	Variation in Mesolithic cultures in Europe
v	The symbiosis of man and nature	Geography and anthropogeography	Mesolithic entanglements with the natural world
Man and society: the development of civilization			Links with the Mesolithic
vi	Modes of subsistence, utilization of natural resources, exchange, measurement and counting	Economics and mathematics	Hunting and gathering in the Mesolithic
vii	The evolution of industrial processes and techniques	Handicrafts, technology, chemistry and physics	Making tools in the Mesolithic of flint, antler, bone and wood
viii	Transport and habitations as functions of economic and social development	Engineering and architecture	Mesolithic boats, houses and settlements
ix	Clothing, personal adornment, decorative and pictorial art, music, dancing	Aesthetics	Evidence for personal adornment and abstract art
x	The power of the unseen in the world of the living and of the dead	Theology	Possibilities for Mesolithic shamanism
xi	Social organization and the traditional regulation of communal life	Sociology, law and linguistics	Hunter-gatherer social structures as a contrast with others
xii	The development of human society – savagery, barbarism and civilisation	History	The Mesolithic as a stage or development or as an alternative lifestyle

Table 18: an archaeologically based school curriculum (based on Clark 1943)

Clark was emphasising what we learnt from prehistory about the human condition, and showing how this could fit into and support a school curriculum. He clearly felt that archaeology was a subject of great relevance not only to understanding the past but towards understanding the modern world. Too much teaching of the past has traditionally been concerned with merely delivering knowledge about ‘what happened when’. My own efforts at the Council for British Archaeology were based around showing the resonance between what we understood about the past and current issues facing us today (Henson 2011b: 222). An example in Table 19, comes from Henson (2004), adapted to cover the Mesolithic.

ARCHAEOLOGICAL UNDERSTANDING		
Strands	Curriculum links	Possible Mesolithic content
Learning from the past		
Humanity	As an ethos underlying citizenship, people in society and humanities subjects	Mesolithic people are just like ourselves but with different way of life contrasting with the modern world
Cultural variety	Underlies geography and citizenship (e.g. diversity of identities) and as a stimulus for expressive subjects like art & design, music, dance	Compare and contrast Mesolithic and Neolithic cultures and reasons for their characteristics
Environmental interaction	Supports science, geography and sustainable development	Environmental-human interactions in hunter-gatherer societies
Change through time	The basis of history but also useful for geography and design & technology	Post-glacial climate and landscape change Early-Late Mesolithic differences
Understanding the present	Helps to understand issues in citizenship, sustainable development and geography	Climate change Environmental sustainability Local, seasonal, wild foods and nutrition
Caring for heritage		
Cultural identity	Can be a stimulus for discussion in citizenship, and be a basis for art & design	Genetic analyses of Mesolithic skeletons Assumptions of continuity with the Mesolithic
Sense of place	Part of geography but could also support science and design & technology	Distinctiveness of local lithic traditions Separation of Britain from the continent
Economic value	Should be part of citizenship and environmental studies	Cheddar Gorge as tourist site Lessons for sustainability
Aesthetics and spirituality	Helps to explore values and attitudes in geography, religious studies, humanities and acts as a stimulus for art & design, and music	Art and decoration in the Mesolithic of Europe The nature of religious experience in hunter-gatherer societies and evidence for Mesolithic spirituality

Table 19: links between archaeology and the school curriculum (based on Henson 2004a)

Archaeology offers real evidence relating to real people in the past, fuels the natural inquisitiveness of young people, provides a mixture of science and imagination, spans academic disciplines, is ideally suited to project work in schools and seems an exciting subject to most young people (Clarke 1986: 9). However, as noted above, prehistory was traditionally taught mostly in primary schools. The current national curriculum has reinforced this by embedding prehistory within Key Stage 2 teaching.

10.4 Analysis of school textbooks and resources

There is little research into the place of archaeology or prehistory in school textbooks. What there

is has been summarised by Corbishley (2011: 125-144). One attempt to analyse children's literature covering the Mesolithic (Cooney 2009) yielded only 32 results and only a few of these were relevant, and found that the two major children's encyclopedias – Dorling Kindersley and Kingfisher – both failed to mention the Mesolithic and only had short mentions of hunter-gatherers. On the other hand, the teaching of A Level archaeology is well supported by a standard textbook, with abundant references to the Mesolithic (Grant, Gorin & Fleming 2008). The following refers to resources produced for teaching at lower levels of education, mostly in primary schools.

Teachers have said that it is difficult to find good resources on prehistory (King 2015: 2). I have conducted my own analysis of school books and printed or online resources. Information was gathered from eight local primary school teachers about where they searched for resources on prehistory. Most used either the local library for printed books, or used the Internet, especially the *Times Educational Supplement*, *Plan Bee* and *Twinkl* websites. These are key sources of downloadable online resources for teachers. There is also a long history of printed books for teachers. An archive of school history textbooks was amassed by Professor Batho and is now held in an archive in the University of Worcester. I went through this to find references to the Mesolithic, as well as finding references online, in the educational literature and from my own previous work at the Council for British Archaeology. Altogether, these yielded 56 individual works, dating from 1921 up to the present. A full list of these is in Appendix 48, their data in Appendix 49 and their analysis in Appendix 50. I should emphasise that I have not analysed a great many school books and resources that generically cover the Stone Age as these have few references to the Mesolithic if at all.

The development of the Mesolithic as a period of study in archaeology largely coincides with the development of modern-style government funded and local authority managed school education following the passing of the Liberal government's Elementary Education Act of 1870. However, school textbooks were slow to catch up with the latest research or archaeological debates, especially as the Mesolithic period was slow to be accepted within the wider archaeological community. Therefore, although there is an excellent early example of using narrative to tell the story of prehistory (Dopp 1906), this did not include any reference to the Mesolithic.

Corbishley (2011) showed how many early 20th century textbooks were used for long periods, often more than 50 years, and could perpetuate out of date stereotypes or even misleading and wrong information. History textbooks would often begin with the Romans. Those that did cover prehistory might begin with the Neolithic, and all would treat prehistory in very little detail. Prehistoric people were usually stereotyped as either cavemen or ancient Britons. An attitude towards them of being crude, stupid and uncivilised continued into the 1960s. Only from the 1970s did accurate portrayals of prehistory appear in school books. However, inaccuracies persist even into current teaching resources.

The first mention of the Mesolithic in a school history textbook occurred in 1921 with a description of the Azilian and references to the Maglemosian and Tardenoisian (Boyle 1921). Not long after

this, there was a good example of teaching the Mesolithic using stories (Rutley 1924a), based on a boy and girl, and their family at different locations in the landscape. The supporting teacher handbook to this (Rutley 1924b) also made a point of emphasising the importance of understanding geography when looking at the past, anticipating Clark's combination of archaeology and environmental study at Star Carr by some 25 years.

One key book for teachers about how prehistory should be taught was also published in the 1920s, being reprinted as late as 1950 (Dobson 1928). This assumed that as "children were primitive beings" then "the primitive will appeal to him" (Dobson 1928: 3). Therefore they would like prehistory, and it was easy to teach. Dobson pointed out that pupils would be able to learn about cause and effect, and the evidence we use to find out about the past. Learning about prehistory would also help them to view "intelligently and sympathetically primitive races today"; a sentiment that now seems somewhat odd, patronising and racist from our post-imperial point of view but was undoubtedly intended at the time to be a progressive use of the past to enlighten the present. Moreover, she maintained that prehistory could be taught successfully to 7 year-olds (Dobson 1928: 3). Sadly, Dobson offered only a meagre survey of the Mesolithic; referring to it only as "the transitional stage from Palaeolithic to Neolithic times" (and using the current cultural labels of Azilian, Maglemosian and Tardenoisian), of which "little need be said" (Dobson 1928: 10). Her opinion echoed that of the more conservative archaeologists of the time:

"Man is tied down to the mere business of getting food, and apparently his standard of living was lowered considerably."

(Dobson 1928: 10)

Thus far, the Mesolithic had been quietly subsumed within the Palaeolithic. Even as late as the 1940s, when there is the first identification by name of the Mesolithic in a school textbook (as the Middle Stone Age), the description in the book is really that of the Upper Palaeolithic; a very old-fashioned definition of the period, which followed Westropp's initial definition way back in 1866 (Wolstencroft 1947).

While popular, accurate accounts of the Mesolithic were available since the 1940s (e.g. Childe 1940), what might be considered up-to-date accounts of the period took a while to filter through into school textbooks. One good factual, if old-fashioned, account of the Mesolithic would appear with Breuil's account in French, which was translated by Boyle in 1949 (herself the author in 1921 of the first account of the Mesolithic for schools). This contained some of the earliest illustrations of Mesolithic life (Breuil 1949). However, the influential Dinah Dobson published an account of early prehistory in 1950, which was still echoing early academic dismissals of the period and her own earlier judgements (and did not actually mention the period by name, simply referring to the Mesolithic as the period of the fishermen).

The first really up-to-date accounts of the Mesolithic in a school book seem to have been those by Titterton (1957), Sellman (1958) and Quennell & Quennell (1959, a partial updating of Quennell &

Quennell 1921). Old stereotypes died hard however. Among the popular books aimed at use in schools were those of the *History of Britain* series published by Penguin in the 1960s. That covering prehistory is notable for completely ignoring the Mesolithic, moving straight from the Upper Palaeolithic to the origins of farming (Skipp 1967). The Ladybird Book on prehistory contained a woefully out of date picture of the period, even mislabelling it as the beginning of the Neolithic (Peach 1961). This was put right in the later Ladybird Book covering prehistory, which was a far more up to date description (Bowood & Lampitt 1966). However, old-fashioned views of the Mesolithic continued to circulate, such as that by Paton Walsh (1975), whose depiction of the period included descriptions of cultural groupings like the Azilians and the use of the term ‘strand-loopers’ that seems to come straight from Childe (1940). Replacing an out of date Mesolithic would come with the recognition of the importance of the excavations at Star Carr, being mentioned belatedly in Doncaster (1962), Bowood & Lampitt (1966), Osborn (1968) and Sauvain (1970), and regularly thereafter.

By the 1970s, teachers were adopting a more active learning style of teaching, especially in primary schools. This is reflected in Sauvain (1970) who based his guide for teachers on questioning rather than simple delivery of information. The same decade saw one film about the Mesolithic being made for secondary schools, *Mesolithic Society* (sadly not available for viewing), produced in 1974 with the help of archaeologist Derek Roe (<http://explore.bfi.org.uk/4ce2b6d1d8b53>). A key book for supporting teachers who espoused the Schools Council History Project approach of enquiry-based learning was that by Dawson (1983), with a similar approach taken by Nichol (1983) and Corbishley (1989). Dawson’s teachers’ guide is notable for concentrating as much on teaching archaeology as it does about the Mesolithic, and was the first to really encourage children to look at and question interpretations based on archaeological evidence (using Star Carr as the case study).

Although the introduction of the National Curriculum after 1988 excluded prehistory, enterprising teachers could include it through a local study, or through a non-history topic. Although text-books and teachers’ guides that would cover the Mesolithic were thenceforward no longer needed, a few were still produced. These were now based on the latest research and included notions of a timescale within the Mesolithic for the first time, giving the period a chronology instead of a single, idealised depiction. Good examples of the new style of resource were Corbishley et al. (2000) and James (2000). The former was produced as a collaboration between educators (Mike Corbishley and Peter Stone) and archaeologists (Tim Darvill). The latter was a simple timeline of events and something of an innovation for coverage of the Mesolithic.

In addition, the 1990s and 2000s had seen the publication of novels for young people set during the Mesolithic, and these could easily be used within the teaching of English literature. Indeed, one set of novels seems to have become very popular, *The Chronicles of Ancient Darkness* by Michelle Paver in 2004 to 2009. No less than three sets of resources based on these have been produced (Lee 2006, Mackay 2013, anon. n.d.).

As well as fictional works, young people have access to various accessible factual guides to the past. One of the most popular of these is the *Horrible Histories* series of books. The volume which would cover the Mesolithic is devoted to the Stone Age (Deary 2008). Unfortunately, this covers the period in world-wide terms, introducing the origins of farming in the Middle East alongside bison stampeding in north America, the burial of dogs in Scandinavia and an excavated site in Belgium, without any reference to the Mesolithic in Britain. Likewise, *Stone Age Boy* (Kitamura 2007) presents a timeline going from Palaeolithic cave paintings and hunting reindeer with spears at 13,000 BC straight to the first pottery at 10,000 BC and then the first farmers at 9000 BC.

The reintroduction of prehistory into the national curriculum in 2014 has led to a revival in the production of resources for teachers that include coverage of the Mesolithic. A good example would be Frith (2015), which includes the Mesolithic in just two pages. It gives the dates for the period as 10,000 to 4,500 years ago, which perpetuates a common mistake using BC dates as equivalent to years ago, being therefore wrong by some 2,000 years. The *Twinkl* online resource bank (<http://www.twinkl.co.uk/>) contains a range of resources such as PowerPoint slides, timelines, displays and activities.

As well as delivering the facts of a little known period, some resources use narrative teaching methods. The use of narrative in history teaching has a long pedigree, but has only occasionally been used in teaching about the Mesolithic. Apart from Rutley (1924), Nichol (1984) used a short story to illustrate the invention of the bow and arrow, with the comment that stories are useful in helping children imagine what life was like in the past. Among the resources available for teachers on the website of the Yorkshire Dales National Park is a short story about an encounter between a boy and a girl of two different clans, based on archaeological finds at Malham Tarn (Griffiths 2003). Suggestions are given on how to link the story to the teaching of citizenship, history, creativity (art and drama) and literacy. A graphical short story was created to go with the Mesolithic display at the Yorkshire Museum as a way of getting children to look for specific items on display (anon. 2013). The Museum of London created a whole resource based on storytelling and poetry covering the Palaeolithic to Neolithic (Museum of London 2014). An alternative use of narrative is the dramatic performance of a story by the children in a class or school assembly based around active performance, as described by Barker (2014) and Ingle (2015).

Outside schools, work to deliver archaeology to a young audience has so far been dominated by the Young Archaeologists' Club. One project to develop resources to educate young people about the period is *Life in the Mesolithic*, an activity resource pack (Hellewell et al. n.d.). This includes practical activities for a timeline, making and hafting replica microliths, making and analysing footprints and looking at rock art.

10.5 Narrative analysis of school textbooks and resources

A comparison between schools resources and popular media is enlightening (appendix 51). Items produced for schools have higher proportions of characterisation: 72% of items compared with 56% of non-fiction popular media. Within those items with characterisation, there is a difference of

emphasis. Schools resources are much more likely to have named individuals, and kinship described, with slightly higher proportions of gender and group affiliation mentioned. Age and function are less important in schools media than in popular media. This suggests the greater importance of describing social context rather than activity as the main identifier of character. Being a hunter is still important, but not enough on its own without a name and a relationship to others.

However, portraying Mesolithic people as hunters is the dominant function. The only other function mentioned is that of shaman (in one item). Among distinctions by gender (occurring in 22 items), male gender is specifically noted in 20 items (91%), and female in 15 (68%). There are 13 named Mesolithic individuals in six resources for schools. These are all fictional persons, either created for the resource, or occurring in novels. Nine of these are male, three are female and one is an ungendered first person narrator.

Settings are commonly defined in the school resources, in 41 out of 56 items (72%). This is a higher proportion than in the non-fiction popular media (56%). In contrast to the characterisation of people, the descriptions of setting are less concerned with social context and are more dominated by the natural environment when compared with how setting is described in public media. Sites mentioned in the school resources are dominated by Star Carr, occurring in 18 items. No other site occurs more than twice: Cheddar, Howick and Öfnet.

Actions by Mesolithic people are described in 91% of the school resources examined, compared with 73% of non-fiction popular media. They cover the same range of activities as in the popular media. Making tools and equipment is the commonest kind of activity depicted, closely followed by the finding of food. Compared with popular media, school resources have even less reference to gathering as opposed to hunting or fishing.

Happenings are much more likely to be mentioned in school resources than in non-fiction popular media: in 77% of items compared with 21%. There is greater mention of climate change, ice melt or glacier retreat, Britain becoming an island, the growth of forests and the arrival of new plants and animals. Less common than in popular media are changes in sea level, the tsunami and demographic factors.

The importance of happenings as framing for the events and lifestyle of the Mesolithic is clear. It may also be that the happenings provide a way of placing the Mesolithic within a timeline that children can understand, albeit at the expense of accuracy: immediately after the end of the Ice Age and the melting or retreat of the glaciers. One peculiarity of the description of Britain becoming an island is that is often expressed as losing the link with France across the English Channel, in spite of the main land link being east-west towards Denmark and northern Germany across the North Sea.

Broadly speaking the value judgements given in schools resources divide into two periods. Those before 1959 are mostly negative and reflect earlier academic attitudes to the Mesolithic. Words

used to describe the Mesolithic include conventional, dependent, indifferent, inferior, miserable, precarious, primitive and weak. At best, the art of the time could be described as competent but without real achievement (Sellman 1958), and their technology as useful rather than cunning (Quennell & Quennell 1921). The one exception in this period (Wolstencroft 1947) described Mesolithic people as a much more dangerous enemy to wild animals than in the Palaeolithic and as skilful and artistic.

From 1959 onwards, resources are much more positive, having caught up with changes in how the Mesolithic was being portrayed in academic writings. They had better, well-made technology, were advanced, intelligent and vigorous, and often skilful. The life they led was a pleasant, loafing life. They were healthy and had an understanding of their environment. In short, they had a “great time” (Ingle 2015). The only negative judgements in this period are that their huts were flimsy (Nichol 1983) and that in contrast to the Maglemosians, the Azilians were impoverished with less well-worked artefacts (Paton Walsh 1975). This latter resource is noteworthy for a relatively late usage of old-fashioned cultural labels to describe the Mesolithic.

10.6 Summary

The Mesolithic clearly has a place in teaching history at primary level (key stage 2), and could have a place in any successor to A Level Archaeology. It has potential for being included in teaching in other subjects and other levels. However, to achieve this there would need to be a radical change in attitudes to the period and the place of archaeology in teaching in general. It is unfortunate that Clark’s advocacy of archaeology in education was not really followed up in the way he would have wished. Archaeology is stuck as the hand-maiden of history in school education and the Mesolithic has to accommodate itself to that fact. Its potential for supporting other subjects must remain a long-term goal.

What may be taught in schools is only a partial reflection of academic communications about the Mesolithic. Teachers seem to have access to some aspects of current academic approaches to the period. These include the nature of hunting and gathering lifestyles, the importance of describing the physical environment as a setting for human action, the description of technological and food-related activities, the long-term climatic and environmental happenings and largely positive judgements of Mesolithic people as skilful and leading a relatively easy life. The key site for the period remains Star Carr.

On the other hand, school teaching is not likely to reflect the forefront of academic thinking. Out of date stereotypes will be perpetuated, such as the people being portrayed as wandering hunters living in caves. In many of the resources available for download, the Stone Age is often treated as one period with a lack of distinction between Palaeolithic, Mesolithic or Neolithic. There continue to be inaccuracies and misunderstandings of the dating of the period. The nature of the continental links is likely to be misidentified as north-south across the Channel instead of east-west across the North Sea. There is also a lack of mention of the most recent finds from the period, such as the Goldcliff and other footprints, the Warren Field pit alignment, the sites at Blick Mead or Langley’s

Lane, the Maerdy decorated post, the Greylake skulls, Cheddar Man, the Howick or Echline houses, Bouldnor Cliff, the reconstruction of Doggerland or the Storegga tsunami.

Schools clearly expect some kind of narrative content in their resources. There is a greater willingness to have named individuals as part of the narrative, along with a greater amount of description of family relationships and social networks. However, they still tend to privilege males over females and give precedence to hunter-gather-fisher identities rather than anything more rounded. Settings are very similar to those described in academic and popular media, and do not redress the shortcomings already identified: the generic nature of descriptions of the physical environment, the lack of human emotional and spiritual experience of the natural world, the lack of description of the nature of settlements or the social setting for Mesolithic life. Actions carried out by individuals are well represented and cover the expected range, with obtaining food and making tools the dominant activities. Hunting is still privileged over gathering and fishing, and there is a relative lack of representations of daily life or social interactions. Happenings are also very similar to those of popular and academic discourse: usually generic and long-term rather than immediate and with a lack of conveying their effects on individuals. The value judgements conveyed to schools are mostly positive and this enables a view of the period as potentially engaging.

10.7 Conclusion

There is clearly scope for presenting the Mesolithic to schools. Such presentation would be greatly improved by being based on narrative. Aspects of narrative, such as individual, recognisable characters are a feature of current school resources and are clearly welcomed by teachers. However, many resources available online have been produced by teachers themselves and often contain out of date, or inaccurate information. There is a need for archaeologically authoritative educational resources, produced by archaeologists at the forefront of Mesolithic research, that contain up-to-date ideas and information about the period. These should:

- incorporate stories of the lives of Mesolithic people;
- include their daily lives and activities within settlements (e.g. sleeping, waking, making fire, arguing, cooking, eating, playing, talking, learning);
- cover their social and spiritual lives and relationships with nature;
- provide up-to-date period information;
- redress the balance from hunting towards gathering and plants;
- include specific events as triggers for narrative (such as the tsunami, or hunger or sickness).

The Internet now makes it possible to provide teachers with resources directly and engage in a dialogue with them. Star Carr is well placed to deliver exciting content to the teaching of prehistory, as is the Mesolithic as a whole, with many new discoveries in recent years enhancing

our interpretation of the period and giving it greater visibility in the media. The next chapter will describe the attempt to do just this, by the production of a resource that has been made available on the Star Carr website.

Chapter 11

Rebuilding the narrative

11.1 Introduction

A major output of this thesis is a set of school resources, designed to be used in the classroom. These exemplify the themes of this thesis about the presentation of the Mesolithic, and show how a set of resources can be constructed using principles derived from narrative and learning theory. The resource is thus quite large and consists of multiple sections and activities. It therefore differs from other schools resources which tend to be produced as single activities, or have a much tighter focus.

Although the resource is available for schools to use, it is not expected that teachers will use the whole of the resource at any one time. The amount of time available for teaching the Mesolithic in the curriculum simply does not allow this. Teachers will however be able to select individual elements of the resource to use.

This chapter describes the resource that I created, based on the site of Star Carr, and also how it fulfils basic criteria for constructivist learning and the archaeological use of narratives. The principles used in the creation of the resource are explained, along with how it fits into the educational context. There is also an analysis of the use of different narrative elements in the resource. The strengths and weaknesses of the resource are also examined.

11.2 Some basic principles

Maddison (2014: 6), the Ofsted lead Inspector for history, has written that effective primary history teaching will be the result of well-structured enquiry, helping pupils think for themselves by using investigation and problem-solving. The goal should be to develop pupils' skills in research, analysis, evaluation and communication.

The opinion of teachers gathered by the Yorkshire Museum (King 2015: 2-3) was that prehistory was difficult to teach as a traditional classroom history topic. They were instead looking at hands-on activities, out-of-classroom learning, making visits to museums and having archaeologists come into the classroom. However, none of these is easy and appropriate. Mesolithic off-site opportunities, museums or specialists will not be available to most schools. There is clearly a need for resources than can be delivered in the classroom by teachers themselves. Teachers identified good on-line content that could be used in the classroom as a key objective (King 2015: 3). This is backed up by a survey undertaken by a group of freelance archaeology educators, *Schools Prehistory*, which yielded responses from 38 teachers (Schools Prehistory 2013). Only half of the teachers who responded had qualifications in history (15) or archaeology (4), leaving half with no background in either. Of 29 teachers who responded to a question about what support they wanted to teach prehistory, 25 wanted an outline of the prehistory of Britain, especially with information about prehistory that was local to their school. They also wanted to know how archaeologists

derived their knowledge of prehistory. Twenty-four wanted downloadable resources for the classroom and 20 wanted digital images.

Of course, a schools resource must also meet the needs of the school curriculum. The curriculum for key stage 2 history in England has various attainment targets that should be delivered by the schools resource. The curriculum order states that pupils:

“should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods studied”.

(Department for Education 2013: 177)

The resource thus includes background information about the Mesolithic, setting it in its chronological framework in relation to British prehistory and history. The resource also makes reference to Doggerland and connections to the east of present-day Britain.

The curriculum also states that pupils:

“should ... develop the appropriate use of historical terms.”

(Department for Education 2013: 177)

A section of the resource is clearly based on archaeological skills and contains the use of archaeological terms.

The curriculum orders continue with the stipulation that pupils:

“should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.”

(Department for Education 2013: 177)

Many of the suggested activities in the resource ask children to compare people’s daily lives in the Mesolithic (including age and gender roles, the nature of families etc.) and those of today. This allows them also to explore important themes like evaluating positive and negative stereotypes applied to prehistory.

The orders further state that pupils:

“should construct informed responses that involve thoughtful selection and organisation of relevant historical information”

(Department for Education 2013: 177)

This is achieved by encouraging and supporting pupils to carry out research in order to devise a display, create artwork or their own imagined stories or descriptions of the period.

Finally, the attainment targets direct that pupils:

“should understand how our knowledge of the past is constructed from a range of

sources”

(Department for Education 2013: 177)

The use of archaeological and ethnographic evidence is explained at various points in the teachers’ notes within the resource.

We also have some idea of what pupils want to know about the past. The questions they ask were identified in Chapter 2 and fell into clear categories:

- daily life (toilet, clothes, houses, washing, make-up, lighting, language, food, transport);
- existential issues (death, birth, marriage, age, physical appearance, what they thought);
- comparison with their own modern lives (school, toys, birthdays, shops);
- way of life (hunting, weapons, art).

I have argued in this thesis that a key component of engaging people with the past (in this case the Mesolithic) is the use of narrative. Narrative provides a way for people to enter a storyworld and identify with characters and meaningful themes that enable a better understanding the past. The narrative I have used is based on notions of relevance and understanding of what archaeology has to offer today’s world, similar to Clark’s plea for archaeology in education (Clark 1943).

In earlier chapters, I offered various recommendations for providing better narratives of the Mesolithic. These can be summarised as:

- have identifiable characters, redress the balance between male and female, place characters within family relationships;
- describe the intimate experience of setting, explore the advantages and disadvantages of settings, show settlement, social and spiritual settings;
- show the sensory and emotional aspects of actions, make hunting less dominant, explore actions of daily life, social and spiritual actions;
- have a wider variety of specific happenings and show their impacts on people;
- provide up-to-date period information, encourage debate and alternative thinking.

The elements of narrative structure have been identified as characters, settings, actions and happenings, while the aspects of narrative that affect audience response are the mimetic, synthetic and thematic. Examples of how these narrative elements could be organised are given in table 20.

Element	Mimetic	Synthetic	Thematic
Character	Identify with named characters	Realistic people with recognisable characteristics	Like or unlike modern people Are we better or worse? (Rousseau v Hobbes)
Setting	Emphasise recognisable features of both nature and family	Sensory and evocative exploration of place	In harmony with or exploiting landscape? Peaceful or antagonistic towards each other?
Action	Focus on shared experiences of daily life	Realistic and contrasted with the modern as element of revelation	Technical, social, spiritual: contrast with modern
Happening	Similar to now and therefore recognisable	Detail of description and the impact	At the mercy of nature: just like today?
<i>Outcome</i>	<i>Emotive engagement, enabling a deictic shift</i>	<i>Aesthetic engagement, enabling acceptance of story</i>	<i>Ideological engagement, enabling reflection on the modern world</i>

Table 20: organisation of narrative aspects in the schools resource

11.3 Application to the Mesolithic and Star Carr

The resource is divided into three sets, each designed to answer a question:

- a) what is archaeology?;
- b) what do we know of the Mesolithic?;
- c) what can we learn from the Mesolithic?.

The first question provides a way for pupils to engage with the authorial voice and is answered through an archaeological skills log (Appendix 52). This is based on an underlying narrative that attempts to engage pupils with archaeological processes, and for us as archaeological authors to be overt about how we construct our narratives. The skills log has five separate lessons, with 13 classroom activities.

The second question is based on a set of overt fictional narratives (short stories) about the daily lives and experiences of named characters (Appendix 53). The stories allow for the exploration of various aspects of Mesolithic life, while the use of named characters should enable greater pupil engagement with the period. There are nine short stories, with 28 suggested classroom activities.

The third question highlights the thematic resonances between the Mesolithic and the present. It is dealt with through providing background knowledge and ideas to help pupils develop their own narratives about a few key aspects of the period (Appendix 54). It will also introduce them to the idea of debate or uncertainty about our understandings of the past. There are seven sections, with 19 activities for the classroom.

These are all supported by a set of background information about the Mesolithic and Star Carr (Appendix 55). The whole resource is designed to be used in the classroom and as stand-alone

resources without access to artefacts or museum displays. Its elements could though be easily adapted to be used with both.

Overall, these resources are designed to show that stereotypes of the Stone Age are wrong, that people were skilled and sophisticated in using their environment. They also show that archaeologists don't always know the answers, and that there is a lot of room for disagreement about the past. They will encourage children to develop and express their own ideas about the period.

It is important to note that the resources form a coherent package where each element contributes to the whole, but that teachers in practice have only limited time available for teaching what is a small part of the Stone Age to Iron Age topic in the history curriculum. They are likely to pick individual elements of the resources rather than use the whole.

11.3.1 Archaeology skills log (Appendix 52)

This introduces pupils to the idea of becoming an archaeologist through developing skills along five steps, each involving a higher order skill than the last: finding out, identifying, recording, analysing, communicating (and therefore meets the requirements of Maddison 2014 for good primary history teaching). The activities are embedded in a narrative of becoming an archaeologist over a period of years. As the pupil progresses they gradually move from being an imagined 16 year-old interested in archaeology, through being a university student to being a Masters student and then doing a PhD before becoming a professional archaeologist. The narrative characterisation thus underlies the resource rather than being explicit within the resource activities.

As well as classroom activities, the skills log contains sets of information (fact checks) about the period and information on disagreements about what we think the period was like or where there is more than one possible interpretation of the archaeological evidence (debating points).

The learning outcomes for the skills log are to develop an understanding of some basic archaeological skills and to support the teaching of historical skills, literacy, numeracy and art.

The five steps of the classroom activities are:

1. *Finding out*: two sets of questions to be answered by doing some research which tells pupils what the Mesolithic is and when it was, and what archaeological sites belong to the period.
2. *Identifying objects*: three activities to teach pupils how to identify key stone tools, animal bones and trees that were important in the Mesolithic. They will learn about which stone tools belong in which prehistoric period, which bones belong where on an animal skeleton, and how to identify the leaves of different trees.
3. *Recording objects*: one activity designed to teach children how to look carefully at an object. They will draw, measure and describe the object in words. Photographs of objects will be provided to work from.

4. *Analyse how people lived*: activities to help pupils use evidence to understand how Mesolithic people lived and how different their life was to the present day. The activities cover uses of plants, the nature of houses and homes, the Star Carr antler headdresses, the Star Carr pendant and life in camp.

5. *Telling others about Star Carr*: activities to encourage pupils to express what they have learnt about the Mesolithic, through writing a report on the excavations or creating a classroom display about the Mesolithic.

Two of the activities were developed to stand alone as separate activities on the Star Carr website. This was done to coincide with the publication of papers on specific finds from the excavation. The two sets are:

- the headdresses: two activities about the possible uses for the headdresses and thinking about which animal spirits pupils might want to communicate with;
- the pendant: three activities based on the inscribed pendant found at Star Carr in 2015 and aimed at interpreting abstract and representational symbols, and artistic recreation of the pendant.

11.3.2 11,000 Years Ago (Appendix 53)

This is a set of short stories about a Mesolithic family: Neska (a girl, 9 years old), Mutil (a boy, 6 years old), Aita (their father, 31 years old), Ama (their mother, 28 years old), Osaba (Aita's brother, 26 years old) and another closely related family. Each story illustrates an aspect of Mesolithic life and is backed up by a short section on what and how archaeologists know about this. Classroom activities are suggested for each story, based on guided questioning, discussion, quizzes or creative activities.

The learning outcomes of the stories are to develop children's knowledge of key aspects of life in the Mesolithic and to rebalance and extend the narrative of the period away from a narrow focus on the traditional themes of man the hunter (the boys and arrows theme identified by Finlay 2000a). The stories will also support not only the history curriculum, but art and design, design & technology, English, geography, maths.

There are nine stories.

1. *Moving home*: where the family move to Star Carr for the summer from their winter home on the coast. The activities focus on issues of mobility, the nature of a Mesolithic settlement compared with a modern home and creative re-imagining of the story.

2. *Making things*: in which the family make various tools that they need. The activities with this story deal with making and using tools, and situating oneself within the story.

3. *Food*: which focusses on the hunting, gathering, preparation and cooking of food. The classroom activities get the pupils thinking about how to identify plants and animals, which are beneficial or

hazardous for humans, and about comparisons between Mesolithic and modern foods.

4. *Friends and strangers*: where another family, related to theirs, comes to the lake to reside nearby. Pupils will use this story to help role play social situations in class and create a cartoon strip based on the story.

5. *A hint of winter*: as the season changes, the family have to make a decision whether to move to the coast or stay at Star Carr. One of the activities is creative writing to finish the story and resolve the decision the family has to make. Other activities involve looking at the local geography and making a drawing of the story.

6. *The bad old days*: in which a tale is told about the old ones in the distant past and a climatic catastrophe that led to the development from the Upper Palaeolithic to the Mesolithic. In the classroom, the pupils will be exploring the changeability and characteristics of different weather, working with maps and thinking about or doing storytelling.

7. *Boy or girl, animals or plants?*: which shows the dilemma for boys and girls (and their parents) who do not want to fulfil their expected gender roles. The activities focus on exploring gender roles and characteristics, and imagining what life would be like for them in the Mesolithic.

8. *Coming of age*: one of the teenage boys is initiated into being an adult, and taught about the hunting of deer. The activities with this story are designed to encourage thinking about the transition to adulthood, about how a girl's initiation might be different and writing a first person account of the story from the boy's point of view.

9. *A new life*: the experience of childbirth for a young woman having her first child. With this story, the activities help children explore the feelings of the characters and encourage creative expression, especially drawing.

11.3.3 Lessons from the Middle Stone Age (Appendix 54)

This is a set of activities that highlight why the Mesolithic is an important period to study. It shows that we can learn useful lessons to help us both live better lives today and understand the world we live in. The lessons will have as their learning outcomes an understanding that the Mesolithic has a relevance to modern life (and that relevance will make the period less remote and more interesting to study). They will also support personal, social, health and economic education (PSHE), spiritual, moral, social and cultural development (SMSC) as well as history in the curriculum.

The activities are based around research, discussion and writing to produce one of:

- a museum display;
- a website or webpage;
- a newspaper article;
- or a TV programme outline.

The activity is based around structuring a narrative using a series of questions. This is based on Finn's explanation of how journalists structure their stories and therefore how archaeologists need to deliver their information about the who?, what?, why?, where?, how? and when? of the project, period, artefact or site (Finn 2001: 264).

There are six lessons.

1. *The origins of ourselves*: four activities designed to show that Mesolithic people are the earliest ancestors in Britain of people living here today, but they are not our only ancestors. The British people are the result of various migrations of people mixing together ever since. The unit is aimed at deconstructing simple notions of ethnicity and challenging stereotyped responses to migration.
2. *Change is inevitable*: three activities which aim to show that people lived in a changing world and had to adapt and accommodate themselves to it over time. It helps to show that ways of life and culture never stay the same.
3. *The living environment*: three activities on Mesolithic people's close relationship with their environment, based on a deep knowledge of plants, animals and weather. They saw it as alive, animated by spirits and gave it respect in return for taking what they needed from it. This delivers a basis for understanding issues of sustainability.
4. *Human diversity*: two activities designed to show that Mesolithic people may have had a different way of life, but are really just like us. People can live with different ways of life and belief, and still live successful and meaningful lives. It is normal for human beings to build different cultures and each is worth treating with respect. This builds on Clark's appeal for the use of archaeology to teach greater respect for human diversity (Clark 1943).
5. *Healthy eating*: three activities which show that the hunter-gatherer diet was well-balanced and nutritious, and avoided many of the foods that can cause health problems for modern people. The principle of eating local, seasonal and fresh foods is one we could follow ourselves. This does not aim to create a 'Meso-diet' but does aim to get children thinking more about what they eat.
6. *What makes us happy*: three activities which explore the idea that having a lot of material things is not essential for making us happy. Instead, what is important is to be valued by family and friends, and know that you are contributing to their happiness in return. This would form a counterpoint to the materialism of the modern consumer society.

An additional resource within this set of activities is the *great debate*. This is an activity based on the Rousseau v. Hobbes paradigms of prehistoric people: the romanticised Garden of Eden as opposed to a nasty, brutish and short existence. This is designed to get pupils to think about and evaluate life in the Mesolithic. It introduces the idea of seeing the past through the mind of the present, and guarding against overly simplistic ways of valuing the past.

11.3.4 Background information (Appendix 55)

This is a set of summary background information to support the different activities. It provides

information about the Mesolithic, why the site of Star Carr is special, and details about the discovery and investigation of the site, as well as what has been found. It also looks at the reinterpretation of Clark's ideas about the site and about what aspects of Mesolithic life might be missing from the archaeological evidence. The text document is supported by various image and information files:

- a) a list of finds from Star Carr;
- b) drawings of flint artefacts from Star Carr;
- c) a simple location map of Star Carr and other Mesolithic sites in Britain;
- d) a timeline of Britain since the last Ice Age (Palaeolithic to Modern), drawn to scale to show where the Mesolithic fits and its length;
- e) a PowerPoint slide showing 1,000 year steps back in time;
- f) a timeline of Palaeolithic and Mesolithic Britain to show key sites and events, and that the Mesolithic was a time of change, supported in turn by various image files.

11.4 The creation of the resource

The resource has been framed by the principles of interpretation derived from Tilden (2007), of narrative content derived from Chatman (1978) and Phelan and Rabinowitz (2012), and of narrative style derived from Young (2003) and Fagan (2006). The archaeological use of narrative is informed by Hodder (1989) and Holtorf (2007). Educational tasks have been framed by the principles of Peterman (1997), Tishman (1997) and Mayer (1998).

These principles can be summarised under five headings:

Authorship

- a) be open about our authorship and role in analysing the past;
- b) set out to challenge popular stereotypes about the past;
- c) invite children's opinions about our interpretations;

Message

- d) use meaningful themes that relate the past to the present;
- e) deal with the questions children have about the past, e.g. aspects of daily life;
- f) provoke children to challenge their thinking about the period;

Encoding

- g) support education work in both the museum and the classroom;
- h) ensure there is a range of cognitive, affective and psycho-motor tasks;
- i) make sure that tasks appeal to a range of intelligences;

Decoding

- j) enable revelation of new information or ideas;
- k) allow children to question, solve problems and make links;
- l) encourage children to do their own research;
- m) stimulate children's creative expression;

Narrative style

- n) incorporate fully the elements of narrative;
- o) ensure the narrative has a Mesolithic temporal sequence;
- p) use imaginative reconstruction.

Authorship

Mayer (1998) suggested that there should be a link between narrative and historical sources. Mayer's links with historical evidence would cover the creation and biases of the evidence, corroboration of that evidence among multiple sources and understanding the context of the evidence within a particular time and place. This link is provided by our role as archaeologists and making this apparent throughout the resource.

The *Archaeology Skills Log* is the main vehicle for delivering understanding of the authorial role of the archaeologist as well as challenging stereotypes (like the dominance of hunting) and inviting pupil's opinions about our interpretations. The stories in *11,000 Years Ago* allow for creative writing activities that also deliver an understanding of authorship and interpretation.

As well as providing accurate and up-to-date information and ideas about Star Carr and the Mesolithic, we also have a responsibility (Hodder 1989) to enter into a dialogue with others. The resource does this by enabling debate and argument over interpretation as part of the constructivist learning approach in the suggested classroom activities. The resource thus balances the education and democratic models of archaeological communication described by Holtorf (2007: 108-123), in which our position as university-based 'experts' provides a stamp of authority for teachers to trust the resources produced and yet allows pupils to think for themselves and propose their own interpretations of evidence.

Message

Using meaningful themes that relate the past to the present and provoke children to challenge their thinking about the period are key aspects of both *11,000 Years Ago* and *Lessons from the Middle Stone Age*. All the sections of the resource also set out to deal with the questions children have about the past, e.g. aspects of daily life.

The messages in the resource this conform to Tilden's first principle (Tilden 2007: 34) that the interpretation of heritage should relate to something in the personality or experience of the

audience. This is similar to the identification of thematic aspects of stories, which resonate with readers and enable them to find meaning in a narrative (Phelan & Rabinowitz 2012: 7).

However, we are also trying to educate the children; to broaden their horizons and develop deeper understanding. It is therefore entirely legitimate to provide themes that we think are of wider importance, or that children may not have thought of due to unfamiliarity with the period. It is here that Tilden's fourth principle applies (Tilden 2007: 35): that of provoking the audience. An example of these is the treatment of gender in *11,000 Years Ago* which makes children question stereotypical assumptions of gender roles.

Encoding

Making sure the message is delivered in an engaging way lies at the heart of creating an educational resource. This is related to the synthetic aspect of narrative, in which the medium itself has to be accessible (Phelan & Rabinowitz 2012: 7). Overall, the resource contains a range of cognitive, affective and psycho-motor tasks (Bloom et al. 1964). If the balance tends towards the cognitive and affective rather than the psychomotor, this is because the aim of the resource is to improve cognitive perception of the Mesolithic. The use of named characters within a narrative allows for an affective engagement that should help in delivering information and ideas about the period. Likewise, there is a range of stimuli and activities to suit most multiple intelligences (Gardner 1999).

Examples of cognitive tasks in the resource are placing objects on a timeline, completing a narrative, comparing and contrasting Mesolithic and modern ways of life or asking questions about the kinds of archaeological evidence that survives. Affective tasks include imaginative writing or drama, deciding on which spirit animals a pupil would identify with or rewriting a piece of fiction from the point of view of one of the characters. Other tasks are more attuned to psycho-motor skills, for example, making replica artefacts, designing a display or measuring and drawing objects to record them in detail.

Decoding

Two of Tilden's principles apply to the intended decoding of the message. His second was that interpretation should be a process of revelation based on information (Tilden 2007: 34). Simply delivering knowledge of the Mesolithic is not enough. The resource not only provides new knowledge about the Mesolithic, but stimulates new ways of thinking about the world and about the past. The suggested activities have been chosen to allow children to question, solve problems and make links between aspects of the period, and between the period and their own lives today. Teachers can also use the resource to encourage children to do their own research using the background materials supplied or search elsewhere. There are various activities that will stimulate children's creative expression.

How we help children to decode our messages in a meaningful way relates to Tilden's sixth principle (Tilden 2007: 35), that a different approach is required for interpreting heritage to

children. The resource is based on the guidance by Peterman (1997) and Tishman (1997) on how to create educational tasks based on constructivist learning theory.

Narrative style

Bruner (1996) described engagement with narrative as entering into a personal world (the storyworld) in which we have a place and identity (setting and character). Narrative should be more than a descriptive account of the period. Archaeologists who show how good narratives can be created include Young (2003) and Fagan (2006). The resource uses imaginative reconstruction to create narratives that are based on but go beyond the evidence and become more than mere description (Stone 1994: 195).

While narrative elements are present throughout the resource, coherent narrative is used in the stories about Neska and Mutil and their family, which form the core of *11,000 Years Ago*. Within this, there is some attempt at short term temporal sequence and one attempt to provide a longer term temporality (in *The bad old days*). The descriptions of the Mesolithic world within the stories are themselves a form of imaginative reconstruction, but this has been enhanced by the contribution of pictorial illustrations (thanks to Robyn Croft).

Roberts (1997: 143) noted how Bruner suggested the use of subjective protagonists in a narrative, provoking surprise and recruiting the reader's imagination to bring out the implicit meanings of a text. Egan (1995) showed how children use both logic and imagination in narratives to make new knowledge meaningful. He suggested harnessing that imagination through the use of polar opposites like good and evil, bravery and cowardice, survival and defeat (Egan 1995: 302). Subjective narrators (apart from in *The bad old days*) do not form part of the narratives used in the resource, although some of the suggested activities do involve pupils using a first person perspective in re-imagining the Mesolithic. Neither have I structured the stories through the use of binary oppositions. This would have merit in a literary exploration of the Mesolithic, but fell more naturally into the lessons to be drawn, especially in *The great debate*. Binary oppositions tend to be better explored in the novel format, e.g. *The Chronicles of Ancient Darkness* (Paver 2004 to 2009) or *The Gathering Night* (Elphinstone 2009).

11.5 Applying narrative within the resource

In this section, I provide an overview of the use of narrative and how it compares in this to other media.

Each section of the schools resource (Appendix 56) includes references to all the narrative elements: characters, settings, actions and happenings (Appendix 57). Analysis of the occurrence of these elements is in Appendix 58 and a comparison with the other media in Appendix 59. Each element appears to a different extent, according to the nature of the section. *Background information* contains a great deal of information about settings and actions, while the *Archaeology Skills Log* concentrates more on characters and actions. *11,000 Years Ago* also concentrates on characters and actions, and to a greater extent than in the Skills Log. This is, of course, in large part

due to the use of two named families in the stories. *Lessons from the Middle Stone Age* also highlights characters and actions, with references to the characters from the stories in *11,000 Years Ago*.

Where characters are identified, they are more likely to be named individuals or given identification by gender, age or kinship and less likely to be distinguished by function or group than in the popular or academic media. Gender identification is almost equal with 91% of mentioned of characters across all sections of the resource being male and 87% being female. Overall, the characters are more individualised and recognisable as individual human beings. One identification of individuals that is seldom given notice in academic or popular media is that of the spirits of the dead, mentioned three times in *11,000 years Ago*.

The usual setting for the Mesolithic is the natural environment, and this is the focus for much of the background (especially wetland and woodland) and the skills log. However, *11,000 Years Ago* depicts the social and spiritual settings more than most of the academic or popular media. The inclusion of two Mesolithic families of named individuals with ages and family relationships allows for a social setting to be depicted in ways not possible when only writing about generalised groups or functional individuals. Neska and Mutil have social lives where ‘communities of hunters’ cannot. What is harder to convey in a simple set of short story narratives is the large scale geographical setting in which people have connections with others over a wide area. Some effort to convey this has been made in *The bad old days*. The more regional scale of setting is portrayed in *11,000 Years Ago* as the contrast between Lake Flixton and the coast as the home bases for Neska’s family and the link between Lake Flixton and farther inland for Lagun’s family. Also conveyed in the stories are the interactions with the specific environment around Lake Flixton and the setting of the settlement with its houses and activity spaces.

The traditional actions such as getting and processing food, actions within settlements, making tools and moving in the landscape are all well represented. However, they are less dominant than in most academic or popular media, having more in common with the imaginative media (illustrations and fiction). On the other hand, social and religious actions are more widely represented than the other actions. They are also more represented (especially in the stories and lessons) than in most other popular media. The use of conscious narrative allows for the depiction of more specific actions than is possible in most other media (except in fiction). Examples cover the kinds of actions involved in daily life, such as waking up, entering a house, closing down a camp, leaving objects behind, adopting a wild cat, carrying things, naming a baby and discovering a new food source. Other actions depicted are part of an expanded list of social actions (only a few of which are found in other media): showing status, initiation rites, looking after people or helping others, sharing food, being humble, meeting and greeting others, warning others, teasing others, treating others harshly, behaving properly, living together, loving someone and working together. There are also highly personal actions such as the conscious putting on of clothes, using medicine, washing, making decisions, using ‘toothpaste’, burning a light, counting days, making a map, snoring,

disturbing the surface of the lake, picking up a flake, falling in the lake, the act of looking, dreaming, watching the weather, thinking and grieving. Detailed aspects of belief or religious practice are also depicted: human spirits being reborn, showing respect to animals and the actions involved in going into trance. Intra-group interactions are another feature of Mesolithic life that is brought to the fore by the short stories, including references to age and the questioning of gender roles. The questioning of gender comes through three stories. One is where Neska's father, Aita, is injured and her mother, Ama, then goes out hunting in his stead (being the better hunter anyway). Another is when Neska is grown up and giving birth to her first child, where her husband, Lagun, is expected not to be present at the birth and this then allows a discussion in the classroom about whether this is right or not. The third is the atypical responses of Gazte and Mutil as a girl who loves hunting and a boy who prefers plants. Inter-group interactions are touched on in *Friends and strangers*. The existential aspects of personhood are dealt with through a description of the birth of Neska's first child, and the reference to the deaths of the young child Gorri and the 'old ones'. All these actions help make the Mesolithic a more realistic time in which real people lived, and which modern people can empathise with.

Environmental happenings are present across the different sections of the resource. They include the expected long-term changes over time: climate change and migration of people, along with changes in foods and material culture. These are less prominent in the resource than in academic and popular media. While seasonality is often mentioned in academic media, the resource deals with specific seasonal events or characteristics. Other happenings, such as hunger or disease are commoner than in other media. The resource depicts more short term events than only the expected tsunami or seasonality: particular instances of bad weather, forest fires, animal attacks and meeting strangers. Spiritual events are also used as happenings, such as the anger of the spirits of nature.

11.6 Reactions to the resource

In the course of the research and in outreach work for the POSTGLACIAL project, various teachers and educators were kind enough to comment on the resources. These were uniformly positive and relevant extracts are given below (appropriate permissions have been sought and granted by those listed below).

Anonymous (primary school teacher)

"I think your activities are good and the children loved comparing their lives to that of Stone Age ones."

Kim Biddulph of Schools Prehistory and Archaeology (archaeology educator)

"I've finally looked at your excellent resources on Star Carr's website.

... I love the illustrations

... I really like the activities to accompany the chapters

... I love how you have them apologising for bringing back not very good deer etc... Fantastic touch!"

Vanessa Bunton (archaeology educator)

“I really like the idea of using a story to tell about the past and to make the cross curricular link with guided/shared reading. ... Great scope to move the topic forward and the discussion points would be helpful to the teachers.”

Julie McLaughlin (former teacher)

“First of all, I really enjoyed it all. Most of my teaching years were focused on 8-10-year-olds, and I would have loved using this stuff. ... You did a really good job, I think. The background info is especially good in all cases – just as I got a question ready you answered it.”

Sandra Reid-Frow (primary school teacher)

“We have been enjoying your resources as last half term was our Stone Age theme. I printed off the two booklets and bound them for each ks2 class to use. The children thoroughly enjoyed the stories, which we extended into play writing in literacy and my TA was able to pick up your planning and teach your activity sessions like the measuring out of the house and the clan living too. The footprints and the eating sheets were activities for the children and the parents to do together on parents morning. ...

I have looked at your website and again this will be excellent next time, I am looking forward to using the pendant information (I will keep you posted) and the website is very accessible for schools. ... Many thanks for all help it makes the subject real for the children being such a local link which inspires them.

I have had a look at your plans they are very comprehensive and will give teachers confidence in knowledge of the topic. The Stone Age is a key stage 2 topic, so the activities designed are appropriate for that age group. I particularly enjoyed reading your Living in the Mesolithic text and activities.

... at the moment any class can pick the information they need and differentiate it accordingly.

They have inspired me personally and I can see next year a more in-depth Stone Age term. I can include numeracy with area and perimeter, shape and space and problem solving with your demo of generations at Star Carr as well as literacy. In art I will be replicating flints from their sketches to make from clay and make a frontlet using paper and mod rock.”

11.7 Strengths and weakness of the resource

No resource is perfect and the whole of the Mesolithic cannot feasibly be covered in one school resource. However, I have attempted to give the resource many strengths as a medium for recalibrating perceptions of the Mesolithic: through authorship, thematic resonance, provocation, appeal to various learning styles and constructivist learning.

The role of archaeological authorship, and the limitations of archaeological evidence are made plain. What is offered through the stories is one particular imagining of Mesolithic life, and the

resource is open about the debt archaeology owes to both ethnography and the imagination as well as archaeology.

The inclusion of the *Lessons from the Middle Stone Age* makes it easier to explore themes of great resonance for the present day. Most of these are better delivered as a stand-alone resource instead of being linked directly with a short story. For example, the themes of our origins, human diversity and healthy eating would need an extensive literary narrative treatment that goes beyond the short story format used in the resource.

The resource has much new information and insights about the Mesolithic, challenging the simplistic stereotypes of hairy, cavemen hunters. It encourages children to think about the period in new ways, by showing possible details of an alien way of life that make hunter-gatherer lifestyles both familiar and strange. The dissonance between familiarity and strangeness should provoke fresh thinking both about the Mesolithic and about wider issues, such as gender roles in society.

The suggested classroom activities cover a wide range of learning tasks and intelligences. There are tasks that involve analytical thinking, recording, creative writing or art. For example, the skills log has a task that involves pupils identifying which flint tools belong to the Mesolithic rather than another period. There is another task which asks pupils to draw and describe a flint or antler artefact. Other tasks involve recognition of animal bones or the different uses of plants. The short stories are the stimulus for various creative tasks such as writing their own accounts of the events described, making illustrations to go with a story or developing a cartoon strip based on events in a story. Practical tasks include making microliths out of everyday materials, making a copy of the Star Carr pendant and measuring out the space for a Mesolithic house in the classroom in which activities can take place. The *Lessons* sections offer the chance to be creative through producing a display or newspaper article but at the same time to think carefully about the issues highlighted by the particular lesson.

The approach adopted is constructivist in that the resource is not only a delivery of new information but is also a stimulus for child-centred learning through questioning, problem-solving and research. The background notes provide the up-to-date and accurate information that teachers would otherwise find hard to obtain, and which enables them to scaffold the learning. The different sub-sections within the skills log, short stories and lessons are all designed to be used as a basis for classroom activities. As such, they empower teachers and learners, allowing the teacher to be the essential mediator between the children and the Mesolithic, albeit based on sound archaeology.

The focus on specific people and the small scale location, the site at Star Carr, tie the Mesolithic to a specific landscape and notion of home, in which the existential issues of life, intra-group relations and activities of daily life can be explored. This helps to redress the balance away from the established narratives towards a more holistic and realistic view of the Mesolithic period.

The use of narrative has allowed the resource to go beyond the usual generic descriptions of characters and actions. For example, placing the characters in social situations in which they have

to make choices humanises the action by making it more detailed and particular.

However, tying the resource to Star Carr and to the teaching of 7 and 8 year-olds in the national curriculum in England serves to restrict the nature of the resource. There are areas where the resource could be developed further in the future.

The resource could easily be developed for older ages through making more effort to invite children's opinions about archaeologists' interpretations (with more archaeological data being presented, such as the faunal evidence for seasonality at Star Carr).

The Mesolithic temporal sequence from Early to Late Mesolithic in Britain and the relationship of the British Mesolithic to that on the southern and eastern sides of Doggerland could be explored through a longer literary narrative (moving away from the focus on only one family over a very few years, and on the one site of Star Carr). Inter-group or inter-cultural interactions could then also be explored, such as in *Stone Spring* (Baxter 2011).

A resource could be created that focuses not on history but English and literacy by using alternative subjective narrators in the Mesolithic as a basis for story-telling and creative writing. This would also allow the exploration of different ages and genders. This could also allow for an exploration of personal identity, appearance, language and possible genetic links between Mesolithic people and the people today.

Chapter 12

Conclusions

12.1 Introduction

In this last chapter of the thesis, I will present some conclusions and suggestions arising out of the research. I will summarise the key findings of the research and show how the research has fulfilled its original aims. These were to identify ways in which the communication of archaeological knowledge of the British Mesolithic to the wider public could be improved, and to suggest good practice for improving public understanding of the period.

The first step was to understand the academic context for the portrayal of the past through archaeology as an act of communication, and as an act situated in the wider public context in which archaeologists operate (Chapter 2). The academic transmission of information and ideas about the period is the beginning of the chain of communication in archaeology. We need to understand how the Mesolithic has been portrayed before we can think about how public perception of the period could be improved. A historical overview of academic writings in Chapter 3 therefore continued with a narrative analysis of a selection of these (Chapter 4). The next step was to understand which popular media contained portrayals of the Mesolithic period (Chapter 5) and then carry out a narrative analysis of these media, both separately and in comparison with each other (Chapter 6).

This thesis was originally conceived as a collaborative project with York Archaeological Trust, which runs visitor attractions in York. Moreover, the Star Carr project has worked with the Yorkshire and Rotunda Museums in York and Scarborough to help develop significant new displays on the Mesolithic. It seemed useful therefore to look at museum displays separately as a form of communication (Chapter 7) and to make a comparison between those in Britain and on the continent, where approaches to the Mesolithic are different and yet cover the same broad cultural grouping as at Star Carr (Chapter 8). The research identified education as a key area of communication that could affect perceptions of the period among the largest and most wide-ranging group among the public: school children. Consideration of education began with a summary of relevant museum education work in England and the continent (Chapter 9). The focus on England arose out of the place of Star Carr within England, and the existence of separate and different school curricula in England, Scotland and Wales. The educational context in England was then explored to see where the Mesolithic would fit within formal education (Chapter 10). The result of all this research led to the development of principles and ideas for how to create a set of educationally and archaeologically meaningful educational resources for schools. The creation of the resource, which is now available through the Star Carr website (www.starcarr.com), and a summary description of what it contains is covered in Chapter 11.

12.2 The portrayal of the Mesolithic

The research revealed that academic accounts of the Mesolithic passed through three phases:

- the 1860s to the 1930s, in which it was contrasted unfavourably with the preceding Palaeolithic and succeeding Neolithic, and described as primitive and degenerate with a rude or poor material culture;
- the 1930s to the 2000s, dominated by a cultural ecological approach at the expense of the personal, subjective experience of living in the world, but with a more positive view of Mesolithic people as skilled, affluent and successful;
- since the 2000s, with a move towards a cognitive interpretation of personal experience in the Mesolithic, seeing the people of the time as innovative and intrepid pioneers living in a close mutual relationship with their environment.

Out of date attitudes and stereotypes can live on in popular media long after they have disappeared from academic writings. Current popular portrayals of the Mesolithic have more in common with the older, cultural ecological approach of academic writings. Although the Mesolithic is often depicted as a sophisticated, skilled and complex way of life, its people are often portrayed only as hunter-gatherers whose lives were dominated by the quest for food. As with academic writings, there is little attempt to draw out the thematic relevance of the period for the present day.

The study of popular media has highlighted the role of novelists and illustrators in providing greater definition of the period in terms of characters acting out their lives in a believable storyworld. It is only in fiction and some illustrations that echoes of the newer approaches of post-processual archaeology appear to any great extent.

Old-fashioned attitudes towards the Mesolithic were also in evidence among the British museums studied. The cultural ecological approach dominates and the period is treated as largely ahistorical, with a restricted focus on the traditional views of Mesolithic life: mobility, obtaining and preparing food, and the making and use of tools. The continental museums studied were more adventurous in going beyond the artefacts to depict ways of life. The best of them made use of narrative to structure a display, offered an all round sensory and ‘realistic’ engagement with the period, made good use of a woodland and lakeside setting, and used virtual reality in the landscape to go beyond the walls of the museum.

Museum education provides a hands-on, enquiry-based approach to the period, its artefacts and way of life. However, it largely reinforces the museum displays by providing more detail and amplifying the traditional vision of the Mesolithic. Its main weakness is potentially glossing over the period by treating it as part of the Stone Age or of prehistory in general.

Likewise, resources produced for schools tend to recycle the accepted and traditional understandings of the Mesolithic: the functional aspects of a hunter-gatherer lifestyle dependent on the natural environment. Mesolithic people are seen as skilful and leading a relatively easy life. Star Carr seems to be the best known site for the period. However, out of date stereotypes are also in evidence (e.g. being cave-dwelling hunters often indistinguishable from the Palaeolithic). The dates given for the period are often wildly inaccurate. There is a general lack of awareness of the

most recent finds from the period made over the last 20 years. On the other hand, there is a greater willingness to use some kind of narrative content in the resources, such as named individuals and descriptions of family relationships. However, in spite of this, there is a lack of representation of human emotional and spiritual experience of the world, of representations of daily life or social interactions, or short term events and their impacts on individuals.

One issue that occurred across all channels of communication was that of the unequal and stereotypical representation of gender. The Mesolithic as portrayed in all media is predominantly male, with depictions of men occurring more commonly and prominently than those of women. Moreover, gender roles are assumed and assigned, which privilege hunting and tool-making as male activities over the assumed female actions of cooking, scraping skins and looking after children.

12.3 The wider contexts of the research

Archaeology could benefit from having audiences who are more aware of our work, while modern society could benefit from the insights we can bring to bear from our understandings of the past. This research has demonstrated the utility of using narrative to analyse the portrayals of the past as a way of understanding how those portrayals focus on particular aspects of past life, and whether they can resonate or not with modern public audiences. We now have a tool that can help us to recalibrate our depictions of the past to make them more appreciated and more relevant.

The analysis of museums in Britain and on the continent has only scratched the surface of a much wider issue: how the place of the Mesolithic in the national consciousness differs between Britain and other parts of Europe. This partly depends on the differing survival of evidence in different countries, but seems to go deeper than that. The Mesolithic in Britain still struggles to escape being merely an inconvenient filler between the Palaeolithic and Neolithic. We can learn lessons from the continent on how to overcome this. While archaeologists who study the Mesolithic are well connected across Europe and aware of each others' work, there is less awareness of how the period is portrayed in different countries. This research is a tentative first step in that direction and has shown the utility of comparing British and continental approaches.

It was apparent at the outset that a wide variety of channels of communication would have to be studied in this research in order to understand the portrayal of the Mesolithic. These covered traditional and modern media: divided into academic, informative, imaginative and educational types of channel. The different channels have different modes of discourse, partly reflected in the aspects of narrative which they contain. By looking at these, we can see that it is hard for archaeologists who are used to academic discourse to adapt to the other modes. This highlights the relationship that archaeologists have with the other authors of the different media, who play the mediating role between the archaeologists and the public. We have seen that the fullest narratives of the Mesolithic are those created by authors of fiction and illustrators. This backs up the work by Wickham-Jones and Elphinstone who showed the necessity for, and benefits of, a productive partnership between archaeologists and novelists. Such partnership illustrates Collingwood's

dictum that “the history of thought, and therefore all history, is the re-enactment of past thought in the historian's own mind” (Collingwood 1994: 215). Archaeologists could themselves learn to use the elements of narrative to reorient their own discourse for non-academic channels and bring the past to life as something enacted by real people.

The research has also demonstrated the opportunities and difficulties in working with schools. The new curriculum in English schools offers an opportunity to increase awareness of the Mesolithic among the widest possible segment of the population. The school resource that I have produced shows how teachers could be supported in ways that deliver a meaningful understanding of the Mesolithic. The principles behind it could easily be adapted to supporting similar work in the Scotland and Wales.

12.4 The outputs of the research

The main outcomes of the research have been:

- a historical overview of the development of Mesolithic studies since the 1860s;
- a comprehensive database of media items communicating the Mesolithic;
- a narrative analysis of communications about the Mesolithic, identifying the weakness of the current narratives;
- suggested recommendations for augmenting the narratives to make them more representative and accurate, and to make the Mesolithic more engaging;
- a template, based on narrative principles, for the creation of resources that can be easily adapted for other periods;
- a resource for schools based on Star Carr, available for free download on the Star Carr project website.

Many archaeological resources for schools are produced. These often begin with a find or site and develop ways of informing pupils about these. What this thesis does is examine the reasons for producing resources and find a way of developing them in a way that delivers accurate and relevant perceptions of the period.

12.5 The importance of the research

The Mesolithic is an important part of the continuing story of human occupation of the British Isles. It was a long period, more than 5,000 years, in which the modern contours of Britain were established and the founding stock of the human population of Britain arrived, settled and made Britain their home. However, it is a period which is relatively unknown or misunderstood and has a minimal presence in heritage or public media. Moreover, although the Early Mesolithic site of Star Carr is of international importance, both for its archaeological investigation and for what it tells us about its Mesolithic inhabitants, it remains relatively unknown outside academic circles (even to the local community at Scarborough).

The research is the first attempt to understand the portrayal of one period of the past across a range of public media. It is also the first attempt at a large scale narrative analysis of the depiction of a period of prehistory. As a result, I have been able to clarify and identify the portrayal of the Mesolithic across these media and over time. This has both confirmed the period's marginal position in communications about heritage, but also that there are more media items that describe the period than previously thought. I have been able to establish the image of the period that is portrayed across the various media. This has shown how limited and stereotypical this image is, as well as inaccurate in some instances. I have further shown how this image could be enhanced by using the principles of narrative. I have shown how the period has resonance with various issues of concern in the present. It is therefore important that the Mesolithic be more prominently and imaginatively communicated.

Of all the channels of communication that were investigated, school education was chosen as the primary vector for a renewed communication of the period. A school resource was produced, based on principles derived from the research and existing academic literature on education and heritage interpretation. Teachers can gain access to the resource through the Star Carr website, and they form an academically sound and comprehensive set of information and activities that can now be used in education. They go a long way towards correcting the deficiencies in the portrayal of the Mesolithic and make the period more accessible and relevant.

12.6 Future research

No research is complete in itself. This particular research could easily be extended and augmented by further work.

There is need for more in-depth analysis of the portrayal of the Mesolithic in particular media. A greater range of academic writings could be investigated, or a closer focus on particular popular media. Specific media could be targeted, for example, websites like *Megalithic* and *Modern Antiquarian*, or school resources covering generic prehistory or the Stone Age. Other media that could be explored could be artistic works, non-archaeological magazines (such as *Country Life*), site reconstructions, re-enactment events and the Festival of British Archaeology. The work of various organisations could be examined, such as the National Trust, Historic England, Historic Environment Scotland, Cadw or the Young Archaeologists' Club. There are also new media only recently appearing that I have not had time to examine – the computer game *Far Cry Primal*, the second series of the *10,000 BC* series on television or the newly published graphic novel *Mesolith: Book 2*. More specific aspects of the Mesolithic could also be explored, such as the Mesolithic-Neolithic transition and the contrast between different ways of life. The analysis of museum displays and education focussed on England, and one obvious area for future work would be to extend this to Scotland and Wales.

The thesis has demonstrated the potential for narrative analysis of archaeological depictions of the past. Similar analysis could be applied to the depictions of other periods. For example, how are the Anglo-Saxons portrayed in public media, compared with depictions of the Vikings? The analysis

could also be extended to other places. There could be more research into how the Mesolithic is depicted across a range of media in other European countries. One interesting area of research would be to compare the depiction of the Mesolithic in Britain with that of the Japanese Jomon period in illustrations, in schools or in museum displays.

Various issues about the portrayals of the Mesolithic have been identified by the research and could form the basis for further work. One example would be the gender stereotyping of the Mesolithic present in many media. The boys and arrows narrative trope is only the most obvious, and seems to be alive and well. More work could be done to look at gender portrayals in other periods of prehistory or later. Likewise, the portrayal of people of different ages could be a topic for further work.

While interesting for itself, one of the arguments of the thesis is that the Mesolithic is a period with themes of great relevance to modern society. These themes could be developed further through future research. The three most obvious are human responses to climate change, how humans and the natural environment exist together as a living system and the connection between the foods we eat and human health. Greater research into evidence for Mesolithic foods and potential foods could allow comparisons to be made with modern diets.

Although the schools resource is comprehensive, it is unlikely to be used as a whole. The Mesolithic only forms a small part of teaching prehistory. The time available for it is limited and many schools seem to cover the history curriculum over a two-year cycle with prehistory being taught to combined years 3 and 4 (7-8 and 8-9 year-olds). Most schools in contact with the Star Carr project were therefore teaching the Mesolithic in the Autumn terms of 2014 and 2016. This made it hard to test the application of the resource within the time-frame of this research. There is a need to test the resource in the classroom and evaluate its practical usefulness for teachers. Ideally, this would involve a longitudinal approach whereby pupils' perceptions of the Mesolithic could be tracked over time, during and after their learning in years 3 or 4 of primary school.

The existing resource could also be extended to other parts of the UK and augmented with greater provision of classroom resources, such as information on new discoveries, reconstruction drawings, images of finds, and 3D printing of artefacts for the classroom.

To conclude, my research has done much to identify and challenge the stereotypes in our depictions of the Mesolithic. It also goes beyond seeking to improve public understanding of Mesolithic ways of life, by asking why we should investigate the period in the first place. I show that the Mesolithic has a perspective to offer on our lives today. Interpreting the period to the public can be part of an archaeological ethic in which we accept our responsibilities as a contemporary enterprise, embedded in modern society and politics. The Mesolithic has lessons to teach us and a perspective to offer that helps us better understand the present. The advances over the last 15 years in the archaeology of the period at last allow us to fulfil Clark's wish from 1943 that prehistory can find a place in educating new generations to create a better world.

Appendix 1
Summary of communication channels analysed by decade

Channel	Items	1860s	1870s	1880s	1890s	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
Academic	58	3	1	6	4	3	5	8	6	9	3	1	4	6	2	4	0
Web-pages	50															5	27
Blogs	50															1	45
YouTube videos	50															9	41
Popular books	42									5	5	4	7	4	3	7	7
Newspapers	158		1	1		1			7	3	8	4	11	7	19	37	59
BBC News	51															17	34
Magazines	176												7	15	30	52	72
Television	25														1	11	14
Images	131									5	2	11	4	4	4	20	24
Fiction	18														1	13	4
School books	57							5	1	2	4	4	5	4		5	27
Museums	16										1			3	3	3	4
TOTAL	882	3	2	7	4	4	5	13	14	24	23	24	38	43	63	184	358
%		0.4	0.2	0.9	0.5	0.5	0.6	1.6	1.7	3.0	2.8	3.0	4.7	5.3	7.8	22.7	44.3

APPENDIX 2

ACADEMIC WRITINGS PROVIDING VALUE-LADEN WORDS TO DESCRIBE THE MESOLITHIC

The foundational works chosen are:

- A01 Lubbock, Sir J 1865 (1st ed.) *Prehistoric times as illustrated by ancient remains, and the manners and customs of modern savages*, London: Williams and Norgate
- A02 Westropp, H M 1866 "XXII. On the analogous forms of implements among early and primitive races", *Memoirs read before the Anthropological Society of London. 1865-6. Volume II*, London: Anthropological Society of London: 288–293
- A03 Westropp, H M 1867 "On the sequence of the phases of civilisation, and contemporaneous implements", *Journal of the Anthropological Society of London* 5: 192-200
- A04 Westropp, H 1872 *Prehistoric phases; or, introductory essays on prehistoric archaeology*, London: Bel & Daldy
- A05 Geikie, J 1881 *Prehistoric Europe: a geological sketch*, London: Stanford
- A06 Law, R & Horsfall, J 1882 "On the discovery of flint implements on the hills between Todmorden and Marsden", *Proceedings of the Yorkshire Geological and Polytechnic Society* 8: 70-76
- A07 March, H C 1883 *Ancestral man, or Flints, and who fashioned them*, London: J C Heywood
- A08 Rau, C 1884 *Prehistoric fishing in Europe and North America*, Smithsonian Contributions to Knowledge 509, Washington: Smithsonian Institution Press
- A09 Cotton, W A 1886 *Notes on flint chips and pre-historic phases at Tutnall, near Bromsgrove*, Bromsgrove: Messenger Office
- A10 Rendall, G H 1889 *The cradle of the Aryans*, London: Macmillan & Co.
- A11 Taylor, I 1890 (1st ed.) *The origin of the Aryans: an account of the prehistoric ethnology and civilisation of Europe*, London: Walter Scott
- A12 Clodd, E 1895 *The story of primitive man*, London: George Newnes
- A13 Gatty, R A 1895 "Pigmy flints", *Science Gossip* 2: 36-37
- A14 Abbot, W J L 1896 "Notes of some specialised and diminutive flint implements from Hastings kitchen midden and Sevenoaks", *Journal of the Anthropological Institute of Great Britain and Ireland* 25: 137-145
- A15 Taylor, I 1906 (3rd ed.) *The origin of the Aryans: an account of the prehistoric ethnology and civilisation of Europe*, London: Walter Scott
- A16 Carus, P 1907 *The rise of man: a sketch of the origin of the human race*, Chicago: Open Court Publishing

Works from the period of full acceptance of the Mesolithic and its early description are:

- A17 Johnson, W 1908 *Folk-memory: or, The continuity of British archaeology*, Oxford: Clarendon Press

- A18 Sollas, W J 1911 (1st ed.) *Ancient hunters and their modern representatives*, London: Macmillan & Co.
- A19 Munro, R 1912 *Palaeolithic Man and the Terramara settlements in Europe*, Edinburgh: Oliver and Boyd
- A20 Bishop, A H 1914 “An Oransay shell-mound - a Scottish pre-Neolithic site”, *Proceedings of the Society of Antiquaries of Scotland* 48: 52-108
- A21 Osborn, H F 1915 *Men of the Old Stone Age*, New York: Charles Scribner's Sons
- A22 Sollas, W J 1915 (2nd ed.) *Ancient hunters and their modern representatives*, London: Macmillan & Co.
- A23 Burkitt, M C 1921 (1st ed.) *Prehistory*, Cambridge: Cambridge University Press
- A24 Macalister, R A S 1921 *A text-book of European archaeology, volume 1: the Palaeolithic period*, Cambridge: Cambridge University Press
- A25 Simpson, J Y 1922 *Man and the Attainment of Immortality*, London: Hodder & Stoughton
- A26 Burkitt, M C 1925 “The Transition between Palaeolithic and Neolithic times, i.e. the Mesolithic period”, *Proceedings of the Prehistoric Society of East Anglia* 5 (1): 16-34
- A27 Burkitt, M C 1926 *Our early ancestors*, Cambridge: Cambridge University Press
- A28 Peake, H J E 1927 “Presidential address. The beginning of civilization”, *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 57: 19-38
- A29 Peake, H J E & Fleure, H J 1927 *Hunters & artists*, Oxford: Clarendon Press
- A30 Childe, V G 1929 (2nd ed.) *The dawn of European civilisation*, Oxford: Clarendon Press
- A31 Forde, C D 1930 “Early cultures of Atlantic Europe”, *American Anthropologist* 32 (1): 19-100
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- A33 Clark, J G D 1932 *The Mesolithic age in Britain*, Cambridge: Cambridge University Press
- A34 Peake, H J E 1933 *Early steps in human progress*, London: Sampson Low, Marston & Co
- A35 MacCurdy, G G 1935 *The coming of man: pre-man and prehistoric man*, New York: The University Society
- A36 Clark, J G D 1936 *The Mesolithic settlement of northern Europe*, Cambridge: Cambridge University Press
- A37 Childe, V G 1940 (1st ed.) *Prehistoric communities of the British Isles*, London: W & R Chambers
- A38 Gracie, H S 1945 “The Mesolithic cultures of Britain”, *South African Archaeological Bulletin* 1: 19-22

- A39 Hawkes, J 1945 *Early Britain*, London: William Collins
- A40 Childe, V G 1947 (4th ed.) *The dawn of European civilization*, London: Kegan Paul, Trench, Trubner & Co.
- A41 Hawkes, J & Hawkes, C 1947 (2nd ed.) *Prehistoric Britain*, London: Chatto & Windus
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- A43 Piggott, S 1949 *British prehistory*, Oxford: Oxford University Press
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- A45 Clark, J G D 1952 "How the earliest peoples lived", in M P Charlesworth (ed.) *The heritage of early Britain*, London: Bell 35-38

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- A46 Roe, D 1970 *Prehistory: an introduction*, London: Macmillan & Co.
- A47 Clarke, D L 1976 "Mesolithic Europe: the economic basis", in G de G Sieveking, I H Longworth & K E Wilson (eds.) *Problems in economic and social archaeology*, London: Duckworth: 449-481
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- A50 Rowley-Conwy, P 1986 "Between cave painters and crop planters: aspects of the temperate European Mesolithic", in Zvelebil, M (ed.) *Hunters in transition: Mesolithic societies of temperate Eurasia and their transition to farming*, Cambridge: Cambridge University Press, 17-32
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- A52 Price, T D 1987 "The Mesolithic of Western Europe", *Journal of World Prehistory* 1 (3): 225-305
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- A55 Mithen, S J 2003 *After the Ice: a global human history 20,000-5000 BC*, Harvard: Harvard University Press
- A56 Bailey, G 2008 "Mesolithic Europe: overview and new problems", G Bailey & P Spikins

(eds.) *Mesolithic Europe*, Cambridge: Cambridge University Press: 357-371

A57 Spikins, P 2008 “Mesolithic Europe: glimpses of another world”, in G Bailey & P Spikins (eds.) *Mesolithic Europe*, Cambridge: Cambridge University Press: 1-17

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Appendix 3
List of value-laden words and phrases in academic writings

Author	Date	Page	Refer to	Description	Words	Theme	Value
Lubbock	1865	173	Danish kitchen middens	primitive population	primitive	Primitive	neg.
Lubbock	1865	173	Danish kitchen middens	rude flint implements	rude	Primitive	neg.
Westropp	1867	194	hunting	precarious mode of subsistence	precarious	Precarious	neg.
Westropp	1872	8	Mesolithic in general	dependent on the seasons	dependent	Passive	neg.
Westropp	1872	8	Mesolithic in general	sustenance being few and precarious	precarious	Precarious	neg.
Westropp	1872	103	Mesolithic in general	primitive population	primitive	Primitive	neg.
Westropp	1872	8	Mesolithic in general	living in a wild and uncultivated state	uncultivated	Primitive	neg.
Westropp	1872	8	Mesolithic in general	nomadic and warlike	nomadic	Scattered	neg.
Westropp	1872	8	Mesolithic in general	No houses, nomadic following the game	nomadic	Scattered	neg.
Westropp	1872	9	Mesolithic in general	he lives as the tiger lives, catching his prey by his superior cunning, strength and pluck	cunning	Skilled	pos.
Westropp	1872	9	Mesolithic in general	his intellect was dormant	dormant	Stagnant	neg.
Westropp	1872	8	Mesolithic in general	Dominated by natural instincts, making no progress	no progress	Stagnant	neg.
Westropp	1872	9	Mesolithic in general	stationary and unprogressive	stationary	Stagnant	neg.
Westropp	1872	9	Mesolithic in general	stationary and unprogressive	unprogressive	Stagnant	neg.
Westropp	1872	8	Mesolithic in general	scarcely less savage than the beasts of the forest	beasts	Wild	neg.
Westropp	1872	8	Mesolithic in general	scarcely less savage than the beasts of the forest	savage	Wild	neg.
Westropp	1872	8	Mesolithic in general	nomadic and warlike	warlike	Wild	neg.
Westropp	1872	8	Mesolithic in general	living in a wild state	wild	Wild	neg.
Westropp	1872	8	Mesolithic in general	A wild man chasing wild game, a companion of wild beasts with no arts other than how to catch and kill	wild	Wild	neg.
Westropp	1872	8	Mesolithic in general	living in a wild and uncultivated state	wild	Wild	neg.
Geikie	1881	368-369	Danish kitchen middens	skill and courage, and probably no small degree of cunning	courage	Character	pos.
Geikie	1881	368-369	Danish kitchen middens	skill and courage, and probably no small degree of cunning	cunning	Skilled	pos.

Geikie	1881	368-369	Danish kitchen middens	skill and courage, and probably no small degree of cunning	skill	Skilled	pos.
Law & Horsfall	1882	76	microliths	delicately chipped flints (quoting Evans)	delicate	Skilled	pos.
March	1883	19	Mesolithic in general	a distinct advance in culture becomes apparent	advance	Advanced	pos.
March	1883	22	Mesolithic in general	people adapted to a changing environment	adapted	Passive	neg.
March	1883	23	artefacts	Acquiring, in time, a considerable skill	skill	Skilled	pos.
March	1883	23	Mesolithic late survival	feeble folk who camped and clustered on the summits of hills	feeble	Struggling	neg.
Rau	1884	35	Danish kitchen middens	compelled to subsist entirely on the spoils of the sea and the forest	compelled	Passive	neg.
Rau	1884	35	Danish kitchen middens	led a very rude life	rude	Primitive	neg.
Cotton	1886	7	Mesolithic in general	bound to follow the track of his prey	bound	Passive	neg.
Rendall	1889	52	Danish kitchen middens	ruder implements mingle with others of superior form and finish	superior	Advanced	pos.
Rendall	1889	52	Danish kitchen middens	ruder implements mingle with others of superior form and finish	rude	Primitive	neg.
Rendall	1889	52	Danish kitchen middens	a self-developing transition, not of mere importation, as elsewhere in Europe, at the hands of a more gifted invading race	self-developing	Successful	pos.
Taylor	1890	242	Danish kitchen middens	mere nomad hunter, without fixed abode	mere	Primitive	neg.
Taylor	1890	239	Danish kitchen middens	rudeness of the stone implements	rude	Primitive	neg.
Taylor	1890	242	Danish kitchen middens	mere nomad hunter, without fixed abode	nomadic	Scattered	neg.
Taylor	1890	239	Danish kitchen middens	made little progress in the arts of life	little progress	Stagnant	neg.
Taylor	1890	242	Danish kitchen middens	repulsive savage	repulsive	Unpleasant	neg.
Taylor	1890	242	Danish kitchen middens	his animal propensities	animal	Wild	neg.
Taylor	1890	239	Danish kitchen middens	a race of savages	savage	Wild	neg.
Taylor	1890	242	Danish kitchen middens	repulsive savage	savage	Wild	neg.
Clodd	1895	94	shell mounds and coastal sites	rudely worked flints	rude	Primitive	neg.
Gatty	1895	37	microliths	delicate tools	delicate	Skilled	pos.

Gatty	1895	37	microliths	handicraftsmen of no mean order	no mean order	Skilled	pos.
Abbot	1896	145	British kitchen middens	not warlike	not warlike	Passive	neg.
Taylor	1906	60-61	Danish kitchen middens	rude civilisation	rude	Primitive	neg.
Taylor	1906	60-61	Danish kitchen middens	sparse population	sparse	Scattered	neg.
Carus	1907	76	Mesolithic in general	rude tools (quoting Woodruff)	rude	Primitive	neg.
Johnson	1908	32	British Mesolithic	retrogression	retrogression	Degeneration	neg.
Johnson	1908	43	Azilian	struggling towards a settled state of existence	struggling	Struggling	neg.
Sollas	1911	390	Azilian	by no means certain that they represent the highest culture of the time	not highest	Primitive	neg.
Sollas	1911	384	Azilian	rudely chipped flints	rude	Primitive	neg.
Sollas	1911	390	Azilian	rude hunters and fishermen	rude	Primitive	neg.
Munro	1912	285-286	Mesolithic in general	domestic economy was of a low order	low	Primitive	neg.
Munro	1912	285-286	Mesolithic in general	a primitive population	primitive	Primitive	neg.
Munro	1912	278	Mesolithic in general	ignorant of agriculture	ignorant	Unskilled	neg.
Munro	1912	285-286	British Mesolithic	only roughly formed implements	rough	Unskilled	neg.
Bishop	1914	102-103	Oronsay	skill in seamanship	skill	Skilled	pos.
Osborn	1915	470	Mesolithic in general	decline in the art of fashioning flints	decline	Degeneration	neg.
Osborn	1915	456	Mesolithic in general	flint industry continues the degeneration	degeneration	Degeneration	neg.
Osborn	1915	470	Mesolithic in general	industrial degeneration	degeneration	Degeneration	neg.
Osborn	1915	470	Mesolithic in general	marked deterioration	deterioration	Degeneration	neg.
Osborn	1915	470	Mesolithic in general	very great deterioration	deterioration	Degeneration	neg.
Osborn	1915	463	Mesolithic in general	impoverished	impoverished	Degeneration	neg.
Osborn	1915	456	Mesolithic in general	inferior workmanship	inferior	Degeneration	neg.
Osborn	1915	486	Mesolithic in general	animal figures crude inferior	inferior	Degeneration	neg.
Osborn	1915	456	Mesolithic in general	artistic spirit entirely disappears	no artistic spirit	Primitive	neg.
Osborn	1915	486	Mesolithic in general	animal figures crude inferior	crude	Unskilled	neg.
Sollas	1915	522-523	Mesolithic in general	deterioration, partial in industry and complete in art	deterioration	Degeneration	neg.

Sollas	1915	522-523	Mesolithic in general	retrogression	retrogression	Degeneration	neg.
Sollas	1915	524	Mesolithic in general	not so retrograde as their relics would seem to imply	retrogression	Degeneration	neg.
Sollas	1915	522-523	Mesolithic in general	rude attempts at geometric or generalised representations	rude	Primitive	neg.
Burkitt	1921	145	Mesolithic in general	inferior flat harpoons of rough antler	inferior	Degeneration	neg.
Macalister	1921	531	Azilian art	degeneration	degeneration	Degeneration	neg.
Macalister	1921	532	British Mesolithic	deteriorated bone implements,	deterioration	Degeneration	neg.
Macalister	1921	523	Azilian	a peculiar culture	peculiar	Odd	neg.
Macalister	1921	54-560	Danish kitchen middens	poverty-stricken existence	poverty	Primitive	neg.
Simpson	1922	148	art	degenerated into rude outlines	degeneration	Degeneration	neg.
Simpson	1922	148	artefacts	deterioration in design and craftsmanship	deterioration	Degeneration	neg.
Simpson	1922	148	Mesolithic tools	made "with less skill"	less skill	Degeneration	neg.
Simpson	1922	148	art	degenerated into rude outlines	rude	Primitive	neg.
Burkitt	1925	16-20	artefacts	developed or degenerated	developed	Advanced	pos.
Burkitt	1925	16-20	artefacts	developed or degenerated	degeneration	Degeneration	neg.
Burkitt	1925	16-20	artefacts	elusive era	elusive	Odd	neg.
Burkitt	1925	28-30	Danish shell middens	dustbins of primitive folk, poorly made pottery	primitive	Primitive	neg.
Burkitt	1925	16-20	artefacts	antler harpoons with poorly cut barbs	poorly made	Unskilled	neg.
Burkitt	1925	28-30	Danish shell middens	dustbins of primitive folk, poorly made pottery	poorly made	Unskilled	neg.
Burkitt	1925	16-20	artefacts	rough	rough	Unskilled	neg.
Burkitt	1926	43	Danish kitchen middens	rich if primitive culture	rich	Complex	pos.
Burkitt	1926	8	Mesolithic in general	dreary industries and cultures	dreary	Empty	neg.
Burkitt	1926	20	Mesolithic in general	unsatisfying objects as the painted pebbles	unsatisfying	Empty	neg.
Burkitt	1926	43	Danish kitchen middens	rich if primitive culture	primitive	Primitive	neg.
Burkitt	1926	47	Mesolithic in general	perhaps rather unprogressive and present scenes of primitive culture little relieved by either wealth of industries or beauty in art	primitive	Primitive	neg.

Burkitt	1926	47	Mesolithic in general	perhaps rather unprogressive and present scenes of primitive culture little relieved by either wealth of industries or beauty in art	unprogressive	Stagnant	neg.
Burkitt	1926	10-14	Mesolithic in general	poorly made flints	poorly made	Unskilled	neg.
Burkitt	1926	10-14	Mesolithic in general	poorly cut barbs	poorly made	Unskilled	neg.
Burkitt	1926	10-14	Mesolithic in general	rough bone awls	rough	Unskilled	neg.
Peake	1927	20	Mesolithic in general	its industries poor, its art moribund, its people apparently degenerate	degeneration	Degeneration	neg.
Peake	1927	20	Mesolithic in general	most of them had further degenerated into mere collectors of food	degeneration	Degeneration	neg.
Peake	1927	20	Mesolithic in general	miserable descendants and successors of Magdalenian man	miserable	Misery	neg.
Peake	1927	20	Mesolithic in general	gaining a miserable subsistence from clams and limpets	miserable	Misery	neg.
Peake	1927	20	Mesolithic in general	perplexing period	perplexing	Odd	neg.
Peake	1927	20	Mesolithic in general	forced to hunt lesser game	forced	Passive	neg.
Peake	1927	20	Mesolithic in general	backward and unprogressive people	backward	Primitive	neg.
Peake	1927	20	Mesolithic in general	eking out this meagre fare with nuts and berries in the autumn and at other times with edible roots	meagre	Primitive	neg.
Peake	1927	20	Mesolithic in general	its industries poor, its art moribund, its people apparently degenerate	poor	Primitive	neg.
Peake	1927	20	Mesolithic in general	its industries poor, its art moribund, its people apparently degenerate	moribund	Stagnant	neg.
Peake	1927	20	Mesolithic in general	backward and unprogressive people	unprogressive	Stagnant	neg.
Peake	1927	20	Mesolithic in general	eking out this meagre fare with nuts and berries in the autumn and at other times with edible roots	eking	Struggling	neg.
Peake & Fleure	1927	96	Azilian	reduced to poverty by the inclement climate and the dearth of game	reduced	Degeneration	neg.
Peake & Fleure	1927	114	kitchen middens	leading a precarious existence and feeding on fish, shell-fish, nuts and berries, with very occasional meals of flesh-food	precarious	Precarious	neg.
Peake & Fleure	1927	96	Azilian	reduced to poverty by the inclement climate and the dearth of game	poverty	Primitive	neg.

Childe	1929	24-25	Mesolithic in general	eking out a bare existence	bare	Primitive	neg.
Childe	1929	20	Mesolithic in general	merely hunters	mere	Primitive	neg.
Childe	1929	24-25	Mesolithic in general	eking out a bare existence	eking	Struggling	neg.
Forde	1930	21	Azilian	degeneration	degeneration	Degeneration	neg.
Herskovits	1930	75	Mesolithic in general	the short and unsatisfactory Mesolithic	unsatisfactory	Primitive	neg.
Burkitt in Clark	1932	xiii	artefacts	not so brilliant as those of the Upper Palaeolithic	not so brilliant	Degeneration	neg.
Burkitt in Clark	1932	xiii	artefacts	perhaps more miserable they are not at all despicable	miserable	Misery	neg.
Clark	1932	9	way of life	parasitical or food-gathering	parasitical	Passive	neg.
Clark	1932	12	Mesolithic people	laggard survivors of a more primitive civilisation in a backward region	backward	Primitive	neg.
Clark	1932	12	Mesolithic people	laggard survivors of a more primitive civilisation in a backward region	laggard	Primitive	neg.
Clark	1932	10	Mesolithic in general	a poor culture	poor	Primitive	neg.
Clark	1932	9-10	Mesolithic in general	rather poverty-stricken folk	poverty	Primitive	neg.
Clark	1932	12	Mesolithic people	laggard survivors of a more primitive civilisation in a backward region	primitive	Primitive	neg.
Clark	1932	12	Mesolithic people	laggard survivors of a more primitive civilisation in a backward region	survivors	Surviving	neg.
Peake	1933	45	Mesolithic in general	low civilization was declining and the people were becoming poorer and more miserable	declining	Degeneration	neg.
Peake	1933	45	Mesolithic in general	remnant left behind, lacking initiative at the beginning, degenerated fast	degeneration	Degeneration	neg.
Peake	1933	78	art	degenerated into apparently meaningless symbols	degeneration	Degeneration	neg.
Peake	1933	45	Mesolithic in general	low civilization was declining and the people were becoming poorer and more miserable	miserable	Misery	neg.
Peake	1933	45	Mesolithic in general	in the miserable conditions under which they were compelled to live	miserable	Misery	neg.
Peake	1933	93	subsistence	eked out a miserable existence on fish, shell-fish, roots and berries	miserable	Misery	neg.
Peake	1933	103	Mesolithic in general	miserable and hungry	miserable	Misery	neg.

Peake	1933	46	Mesolithic in general	wretched conditions	wretched	Misery	neg.
Peake	1933	79	Mesolithic in general	wretched inhabitants	wretched	Misery	neg.
Peake	1933	45	Mesolithic in general	in the miserable conditions under which they were compelled to live	compelled	Passive	neg.
Peake	1933	79	Mesolithic in general	compelled to hunt .. to keep from starvation	compelled	Passive	neg.
Peake	1933	78	Mesolithic in general	stress of hardship	hardship	Precarious	neg.
Peake	1933	45	Mesolithic in general	time of poverty and hunger	hunger	Precarious	neg.
Peake	1933	103	Mesolithic in general	miserable and hungry	hunger	Precarious	neg.
Peake	1933	79	Mesolithic in general	compelled to hunt .. to keep from starvation	starvation	Precarious	neg.
Peake	1933	147	Baltic	living in a backward Mesolithic condition	backward	Primitive	neg.
Peake	1933	45	Mesolithic in general	low civilization was declining and the people were becoming poorer and more miserable	low	Primitive	neg.
Peake	1933	90	subsistence	meagre supplies of food	meagre	Primitive	neg.
Peake	1933	103	Mesolithic in general	meagre fare	meagre	Primitive	neg.
Peake	1933	45	Mesolithic in general	low civilization was declining and the people were becoming poorer and more miserable	poor	Primitive	neg.
Peake	1933	45	Mesolithic in general	time of poverty and hunger	poverty	Primitive	neg.
Peake	1933	147	Baltic	primitive people	primitive	Primitive	neg.
Peake	1933	45	Mesolithic in general	remnant left behind, lacking initiative at the beginning, degenerated fast	lacking initiative	Stagnant	neg.
Peake	1933	93	subsistence	eked out a miserable existence on fish, shell-fish, roots and berries	eking	Struggling	neg.
Peake	1933	81	subsistence	small items laboriously collected	laborious	Struggling	neg.
Peake	1933	45	Mesolithic in general	remnant left behind, lacking initiative at the beginning, degenerated fast	remnant	Surviving	neg.
MacCurdy	1935	61	Mesolithic in general	Dark Ages of prehistory	Dark Ages	Primitive	neg.
MacCurdy	1935	61	Mesolithic in general	cultural evolution had to await the coming of the Neolithic	awaiting	Stagnant	neg.
Clark	1936	127	art	proress as hunters and fishers earned them sufficient leisure to be bored	proress	Skilled	pos.

Childe	1940	29	Mesolithic late survival	conservative groups in cultural backwaters, obstinately clinging to an obsolescent economy	obsolescent	Degeneration	neg.
Childe	1940	29	Mesolithic late survival	conservative groups in cultural backwaters, obstinately clinging to an obsolescent economy	backwater	Marginal	neg.
Childe	1940	29	Mesolithic late survival	conservative groups in cultural backwaters, obstinately clinging to an obsolescent economy	clinging	Marginal	neg.
Childe	1940	24-25	Tardenoisian	perhaps wrongly as “minute groups eking out a precarious existence with unpractical equipment and largely isolated from one another “	precarious	Precarious	neg.
Childe	1940	19	Epipalaeolithic survivors	poor flint industry	poor	Primitive	neg.
Childe	1940	24-25	Tardenoisian	perhaps wrongly as “minute groups eking out a precarious existence with unpractical equipment and largely isolated from one another “	isolated	Scattered	neg.
Childe	1940	29	Mesolithic late survival	conservative groups in cultural backwaters, obstinately clinging to an obsolescent economy	conservative	Stagnant	neg.
Childe	1940	24-25	Tardenoisian	perhaps wrongly as “minute groups eking out a precarious existence with unpractical equipment and largely isolated from one another “	eking	Struggling	neg.
Childe	1940	29	Mesolithic late survival	conservative groups in cultural backwaters, obstinately clinging to an obsolescent economy	obstinate	Struggling	neg.
Childe	1940	19	Epipalaeolithic survivors	made shift as best they might	made shift	Unskilled	neg.
Childe	1940	24-25	Tardenoisian	perhaps wrongly as “minute groups eking out a precarious existence with unpractical equipment and largely isolated from one another “	unpractical	Unskilled	neg.
Hawkes & Hawkes	1945	11	Mesolithic in general	scattered and isolated hunting groups wresting a living	isolated	Scattered	neg.
Hawkes & Hawkes	1945	11	Mesolithic in general	scattered and isolated hunting groups wresting a living	scattered	Scattered	neg.
Hawkes & Hawkes	1945	11	Mesolithic in general	scattered and isolated hunting groups wresting a living	wresting	Struggling	neg.
Childe	1947	13	Mesolithic in general	independent invention	invention	Advanced	pos.
Childe	1947	1	Mesolithic in general	dependent on what the environment offered them	dependent	Passive	neg.

Childe	1947	3	subsistence	a bare livelihood	bare	Primitive	neg.
Childe	1947	3	Mesolithic in general	poorly equipped	poor	Primitive	neg.
Childe	1947	4-5	Azilian	equipment seems poor	poor	Primitive	neg.
Childe	1947	3	Mesolithic in general	isolated	isolated	Scattered	neg.
Childe	1947	4-5	Azilian	small and isolated communities	isolated	Scattered	neg.
Childe	1947	48-49	technology	efficient kit of wood-working tools	efficient	Skilled	pos.
Childe	1947	13	Mesolithic in general	well equipped	well equipped	Skilled	pos.
Childe	1947	4-5	Azilian	harpoons are flat and clumsy	clumsy	Unskilled	neg.
Childe	1947	6-8	Tardenoisian	flimsy huts	flimsy	Unskilled	neg.
Hawkes	1947		Mesolithic in general	decline	decline	Degenerate	neg.
Hawkes	1947		Mesolithic in general	possible lack of genius or lack of plenty	lack of genius	Degenerate	neg.
Hawkes	1947		Mesolithic in general	degeneration	degeneration	Degenerate	neg.
Hawkes	1947		Mesolithic in general	feebly barbed	feeble	Struggling	neg.
Hawkes	1947		Mesolithic in general	poor	poor	Primitive	neg.
Hawkes	1947		Mesolithic in general	neat fingered	neat	Skilled	pos.
Sauer	1948	72	technology	innovations	innovation	Advanced	pos.
Sauer	1948	77	Mesolithic in general	innovation increased	innovation	Advanced	pos.
Sauer	1948	77	Mesolithic in general	bright days of cultural youth for the most progressive branch of mankind	progressive	Advanced	pos.
Sauer	1948	72	Mesolithic in general	far colonial fringe	fringe	Marginal	neg.
Sauer	1948	72	artefacts	poorer tools	poor	Primitive	neg.
Gracie	1949	19	Mesolithic in general	edge of the forest	edge	Marginal	neg.
Gracie	1949	19	Mesolithic in general	pushed out	pushed out	Marginal	neg.
Piggott	1949	55	Mesolithic in general	forced to adapt	forced	Passive	neg.
Piggott	1949	55	Mesolithic in general	forest as challenge	challenge	Struggling	neg.
Clark	1952a	35	artefacts	more elaborate	elaborate	Complex	pos.
Clark	1952a	36	Mesolithic in general	compelled to move with the seasons	compelled	Passive	neg.
Clark	1952a	37	Mesolithic in general	parasitical	parasitical	Passive	neg.

Clark	1952a	36-37	Mesolithic in general	“Preoccupation with the bare necessity of maintaining life”	bare	Primitive	neg.
Clark	1952a	36	Mesolithic in general	limited social life	limited	Primitive	neg.
Clark	1952a	37	Mesolithic in general	limited	limited	Primitive	neg.
Clark	1952a	37	Mesolithic in general	satisfying	satisfying	Successful	pos.
Clark	1952a	36	Mesolithic in general	light huts only	light huts	Unskilled	neg.
Clark	1952a	37	Mesolithic in general	predatory	predatory	Wild	neg.
Clark	1952a	37	Mesolithic in general	savagery	savage	Wild	neg.
Roe	1970	99	Azilian	sadly impoverished	impoverished	Degeneration	neg.
Roe	1970	86	northern Mesolithic	uninspired	uninspired	Stagnant	neg.
Clarke	1976	458-459	Mesolithic in general	primitive and marginal or affluent and low work both extreme stereotypes	marginal	Marginal	neg.
Clarke	1976	458-459	Mesolithic in general	primitive and marginal or affluent and low work both extreme stereotypes	primitive	Primitive	neg.
Clarke	1976	480	subsistence	well adapted	well adapted	Skilled	pos.
Clarke	1976	480	technology	well designed	well designed	Skilled	pos.
Clarke	1976	458-459	Mesolithic in general	primitive and marginal or affluent and low work both extreme stereotypes	affluent	Successful	pos.
Palmer	1977	192-193	Mesolithic in general	cease to think of them as miserable strandloopers	miserable	Misery	neg.
Clark	1978	7	Mesolithic in general	rich conceptual and ceremonial life	rich	Complex	pos.
Clark	1978	3-4	Mesolithic in general	achievement in living in new environmental conditions	achievement	Successful	pos.
Clark	1978	3-4	Mesolithic in general	laid the foundations for later periods	foundations	Successful	pos.
Wood	1979	43-46	Mesolithic in general	bleak way of life	bleak	Empty	neg.
Clark	1980	7	Mesolithic in general	essential prelude to fundamental advances in the development of culture	advance	Advanced	pos.
Clark	1980	60-62	subsistence	sophisticated hunting and gathering	sophisticated	Advanced	pos.
Clark	1980	40	Mesolithic in general	complex food procurement	complex	Complex	pos.
Clark	1980	title	Mesolithic in general	prelude	prelude	Degeneration	neg.
Clark	1980	7	Mesolithic in general	essential prelude to fundamental advances in the development of culture	prelude	Degeneration	neg.

Clark	1980	40	Mesolithic in general	effectively adapting to environmental change	adapted	Passive	neg.
Clark	1980	45	subsistence	adaptation and ingenuity	adapted	Passive	neg.
Clark	1980	40	Mesolithic in general	effectively adapting to environmental change	effective	Skilled	pos.
Clark	1980	45	subsistence	adaptation and ingenuity	ingenious	Skilled	pos.
Clark	1980	40	Mesolithic in general	devised well adapted technology	well adapted	Skilled	pos.
Clark	1980	102	Mesolithic in general	not merely an adequate but frequently a gratifying way of life	adequate	Successful	pos.
Clark	1980	102	Mesolithic in general	not merely an adequate but frequently a gratifying way of life	gratifying	Successful	pos.
Morrison	1980	114	Epipalaeolithic	degree of deterioration or 'impoverishment'	deterioration	Degeneration	neg.
Morrison	1980	114	Epipalaeolithic	degree of deterioration or 'impoverishment'	impoverished	Degeneration	neg.
Price	1987	229	Mesolithic in general	dynamic	dynamic	Advanced	pos.
Price	1987	226	Mesolithic in general	evolved rapidly	evolved	Advanced	pos.
Price	1987	226	Mesolithic in general	greater complexity	complex	Complex	pos.
Price	1987	293	Mesolithic in general	complex	complex	Complex	pos.
Price	1987	226	subsistence	diverse	diverse	Primitive	neg.
Price	1987	226	technology	efficient	efficient	Skilled	pos.
Price	1987	226	subsistence	specialised	specialised	Skilled	pos.
Thomas	1988	60	Mesolithic in general	developed	developed	Advanced	pos.
Thomas	1988	60	technology	efficient	efficient	Skilled	pos.
Dyer	1990	28	Oronsay	living in squalor	squalor	Unpleasant	neg.
Dyer	1990	28	Oronsay middens	unpleasant life	unpleasant	Unpleasant	neg.
Mithen	2003	140	Mesolithic in general	intimacy with the natural world	intimacy	Skilled	pos.
Bailey	2008	370	Mesolithic in general	radical change and innovation	innovation	Advanced	pos.
Bailey	2008	370	Mesolithic in general	synthesis that made farming possible	made possible	Successful	pos.
Spikins	2008	7-8	technology	innovation	innovation	Advanced	pos.
Spikins	2008	7	Mesolithic in general	hardy explorers	explorers	Adventure	pos.
Spikins	2008	7	Mesolithic in general	pioneers	pioneers	Adventure	pos.

Spikins	2008	2	Mesolithic in general	hardy and intrepid colonisers	hardy	Character	pos.
Spikins	2008	7	Mesolithic in general	hardy explorers	hardy	Character	pos.
Spikins	2008	2	Mesolithic in general	hardy and intrepid colonisers	intrepid	Character	pos.
Spikins	2008	20	Mesolithic in general	rich tapestry	rich	Complex	pos.
Kozłowski	2009	517	Mesolithic in general	boring stability	boring	Empty	neg.
Kozłowski	2009	4	Mesolithic in general	quarantine	quarantine	Odd	neg.
Kozłowski	2009	519	Mesolithic in general	petrified	petrified	Stagnant	neg.
Kozłowski	2009	517	Mesolithic in general	stagnation	stagnation	Stagnant	neg.
Kozłowski	2009	4	Mesolithic in general	waiting	waiting	Stagnant	neg.

Appendix 4
Narrative elements found in academic writings

ID	Characters	Settings	Actions	Happenings
A01	population, men, man, fishermen, mound builders, hunters	shore, coast	feed on shellfish and the chase, catching fish and hunting game, cooking dinners, producing salt, split bones, for marrow, residing for two thirds of the year, frequently moved from spot to spot, made tents from skins, kept domestic dog	
A02	man, men		make tools to hunt and clothe, hunting, attack enemies, defence, construct habitation, form boats	
A03	men, population		feed on shellfish and the chase, driving animals into woodland, killing animals, making bows	
A04	man, nomadic hunter and fisher, population, hunters	wooded peninsula	fabricating arms and implement for the chase, dispute with others, nomadic, fed on shellfish and the chase, driving animals into woodland, killing animals, strife and contests, cutting timber, construct habitation, form boats, attack enemies	
A05	men, shell-mound builders	coast, shore	making tools, making pottery, chipping flints, killing animals in the chase, using shellfish for bait, fishing from boats, trapping, hunting, fishing, ate dogs, split bones for marrow, coiled up under tents, squatting around fires, toasting fish, roasting bones	
A06	men	hills	making flint implements, selecting sunny side of hill	
A07	men, folk	hills	making tools, camping on hills	
A08	population, people, man, people	shore, coast	chase, catching fish and shellfish, built huts, made pottery, making tools, making salt by burning eel grass, break bones for marrow, making boats, fishing from boats, using nets, keeping domestic dog	
A09	man, nomadic huntsman and fisherman, hunter, family		making tools, following prey, not staying on one place long	
A10	dolicho-cephalic race		advance into southern Scandinavia from the north	

A11	fishermen, hunters, race of savages, nomad hunter, shell-mound people	coast	keeping domestic dog, fishing and the chase, eating dogs	changing vegetation from fir to oak
A12	men	coast	making implements, fishing, hunting, splitting marrow bones, burning plants for salt, domesticating dog, fishing from boats with nets	
A13	inhabitants, people, dwarfs, fairies		making implements, fixing flints in handles	
A14	man	rivers, coasts	cutting up animals, making and using tools, throwing old tools on the refuse heap, chase, fishing	
A15	fishers, hunters, race of savages, nomad hunter, shell-mound people	coast	keeping domestic dog, fishing and the chase, eating dogs	changing vegetation from fir to oak
A16	savage		domesticated dog	
A17	man		making antler weapons, hunting deer	climate change, change of fauna
A18	Azilians, child, adult man 5ft 4in, hunters, fishermen	cave, beach	burial rituals (Ofnet), wearing necklaces, hunting, walking, climbing hills or squatting cross-legged	melting ice, new wooded landscape, new fauna, rising and sinking of land
A19	man, men, women, children, troglodyte hunters, inhabitants, people, races, community, population	caves, shores, bay, lake, land in the English Channel	manufactured harpoons, painted pebbles, practised sepulchral rites, digging pit, arranged skulls, applied ochre, wearing necklets, breaking bone for marrow, making tools, feasting on marine and land fauna, wandering the shores, using limpet hammers, boring needle eyes, engraving bone, tattoos, placing huts on platforms, domesticated dogs	climate change, storms, changing flora and fauna
A20	inhabitants, hunter, fisher, fowler, man	island, beach	eating fish and shellfish, seasonal abandonment of site, bringing flint nodules, flaking, breaking shells, making bone pins, gouging limpets from their shells, throwing away used tools, dressing skins, clothing in skins, hunting animals, personal decoration with shells and pigments, travel by boat, fishing, using traps, snaring birds, using dogs in hunting, roasting food	

A21	<p>racers, fishermen, tribes, fisherfolk, women, young children, males, people, woman of 25, physical characteristics of races, man</p>	<p>forested, caverns, rivers, estuaries</p>	<p>hunting stags, making harpoons, fishing, invasion, burial practices, painting pebbles, using the pebbles for teaching, using fish hooks, fishing, making flints, preparing hides, fashioning bone, decorating with ornaments, arrival or migration of new races, making tools, ornamenting tools</p>	<p>climate change, change of fauna, land subsidence, forestation</p>
A22	<p>hunters</p>		<p>domesticated dogs for hunting, hafting flints, burials</p>	
A23	<p>folk, old women, young women, young men, peoples, tribes</p>	<p>coast, hills, caves</p>	<p>painting pebbles, breaking pebbles, making harpoons and awls, making stone tools, deliberate burial, wearing ornaments and decorations, migrating, domesticated the dog, engraving bones</p>	<p>advent of Neolithic peoples pushing others north and south</p>
A24	<p>man, hunter, fisher, fowler, 5 men, 9 women, 19 children, 12 under-5s, 5 boys and 2 girls aged 7-18, racial types, people, adult, child, inhabitants</p>	<p>cave, shore, lake</p>	<p>opening kernels for seeds, making a drink from sloes, making harpoons and bone pricklers, burying human bones painted in ochre, perforating shells as ornaments, painting pebbles with symbols of men and women as houses for the souls of the dead, painting on walls, trapping for food and fur, using animals and shellfish for food, feasting, decorated themselves, clothed in hides, chipping and mounting flints, digging pits, placing skulls in pits, wearing stings of deer teeth, sewing shells onto a coif, depositing flints with burials, killing and butchering animals, fishing, trapping, throwing out refuse, going out to see in boats for fishing, keeping dogs, living on a floating raft, ornamenting weapons and tools, weaving fishing nets, making and reworking tools, colonising settlement</p>	<p>retreating ice, change of fauna, Neolithic immigration, land rise and fall, warmer climate</p>
A25	<p>race, people</p>	<p>cave, lake, shore, coast</p>	<p>working flints, made harpoons, adorning pebbles, painting cave walls, pebbles as soul houses, burials stained with ochre, lining pits with skulls, stringing deer teeth, depositing ornaments and flints in burials, fashioning flints, making fishing nets, living on rafts, migration of people, clash of cultures, conflict of peoples</p>	<p>changed climate, fauna and flora, warmer climate</p>
A26	<p>folk, man, hunters, round-heads</p>	<p>river, cave, lakes, sea shore, damp climate</p>	<p>painting pebbles, breaking pebbles, rare cave painting, shaping flints, absorbing or exterminating other folk, making composite tools, burning body for burial, moving into area, making antler tools, decorating tools, subsist on shellfish, making pottery, burying bodies, invasion of people</p>	<p>climate change, new fauna, break through Straits of Dover, pressure of Neolithic people in the east</p>

A27	peoples, folk, man, old women, young women, young men, child, grieving parent, hunters	cave, river, forests, coasts, warmer or damper climate, lakes, upland hillocks, sandy areas	made tools and harpoons, painted pebbles, breaking pebbles, shaping flints, digging pits for burial of decapitated skulls, placing shells by skull, heaping a tumulus for a burial, burying bodies, making ornaments, throwing rubbish, making bone picks, coming up from the south, live on rafts, hafting tools, making bone chisels, antler harpoons and adzes, decorating tools, carved animals in amber, casting refuse aside, consuming shellfish, making pottery	change of climate, pressure of oncoming Neolithic, rise and fall of land, ice retreat, change in trees, cultures to the east
A28	descendants, successors, people, hunters, collectors	forest, limestone hills, sandy heaths, rivers, lakes, seashore	hunting game, subsist on shellfish, roots, nuts and berries	
A29	folk, invaders, hunters, men, feeder	caves, coast, forest, loess soils, chalk downs, sandy soils	hunting, invasion of people, shelter in caves, making harpoons, painted pebbles used as idols, fed on shellfish and vegetable food and fish, fed on animals, gather wild barley, wandered far, making collars of teeth, come into contact with others, interchange of ideas and products, flaking spearheads, use of bone tools, making engravings, migrate, casting away shells, chipping or flaking axes, collecting, kept dogs, had boats, dig up roots, introduction of pottery	climate change, tree cover, land rising and sinking, contact with Neolithic
A30	tribes, hunters, small groups, fisher-folk, fishers, population	cave, sandy soils, lagoons, coast, shore, forest	making camp, moving from the east	post-glacial warming, forestation
A31	folks, survivors	shores, coasts	contact between folks, making composite tools, migration, making harpoons, making axes, using domestic dog, making pots, borrowing or copying objects	arrival of vanguard of Neolithic, warming climate
A33	man, folk, small social groups, brachycephals, races	lakes, coasts, sandy wastes, cave, hills, forests	modifying equipment, migrating/invading, hunting, creating microliths (inventing), making picks, collecting shellfish, fishing, collecting roots and berries, painting pebbles and engraving, making necklaces, using ochre for adornment, practising burial, decapitating skulls, venerating the skulls, placing burials near hearths, striking flint, exploiting flint sources	withdrawal of ice sheet, converting steppe to forest, onset of mild and humid conditions, climate change, intrusive Neolithic cultures
A34	small groups, people, folk, food collectors, hunters, predecessors, men	limestone areas, sand dunes, sea shore, lakes, rivers	groups separated, people enter from the south and east, used implements, setting flints in wood, folk departed, hunting, splitting wood, dig up roots, scraping limpets off rocks, using receptacles for water and food, use skins for clothing and tents and bags, weave baskets, sow wild grass seeds	ice sheet passed away, climate warmer, woodlands spread

A35	man, dwellers, people	rivers, shorelines, sea	carry shells into caves, consuming shellfish, change in blood	change of climate, change in blood
A36	food-gathering peoples, folk, small social groups, family groups, communities, (generic) man, adult, child	sandy regions, uplands, North Sea as land, coasts, island, peninsula, bog, fen, lakes, rivers, sandy soils, high ground, cave, rock shelter, forest	hunting, fishing, fowling, collecting, migrate seasonally, laying flooring, making a hearth, returning to a site, making microliths, flint working, making tools with microliths, making bone and antler objects and axes or adzes, working pebbles, using pebbles as hammers, sharpening axes, hardening wood with fire, carpentry, making canoes, making fishing nets, making pendants and beads, perforating teeth for adornment, engraving antler objects, making fish hooks and barbed points, using points as fish spears and bird catchers, use of fertility amulets, cannibalism, making innovations in tools, making art, digging pits for dwellings, making huts and windbreaks of tree branches and reeds, trading quartzite, movement of people, burial	contracting ice sheets, replacement of steppe by forest, climatic, floral and faunal change, rise in sea level and rise of land, contact with other cultures including Neolithic
A37	people, immigrants, groups, strand-loopers	caves, sandy soils, marsh, forest, lakes, rivers, streams, springs	hunting, migration, absorb or expel migrants, made pit dwellings, working flint, hunting, fowling, fishing	forest spread, changes in climate and sea level, contact between cultures
A38	man strandloopers	sea shore, rivers, lakes, sandy patches, forest edge, caves, coasts	hunting, fishing, collecting shellfish, nuts and fruits, manufacture of tools, resharpen axes, painting pebbles, kept dogs, engraving bone	ice retreat, forests, new animals and vegetation, sea breaking through Straits of Dover, Neolithic invasions
A39	men, small population, tribes	forest, lakes, rivers, sandy country, sea shore, stormy winter night, scattered and isolated hunting grounds	collect shellfish, walk from France to Britain, wresting a living, hunting	temperature rise, forest encroached, fauna changed, isolation from continent, wave smashing the chalk ridge
A40	man, strandloopers, huntsmen, invaders, immigrants, colonists, hunters, groups of hunters, fisherman, population, carpenter, forest folk, food-gatherers	forests, shallow broads, fen, summer camps, cave, sandy soils, shore, lakes, meres, streams, springs	canoe voyage, learn new techniques, catch small game, fishing, fowling, collecting nuts, berries and shellfish, hunting, infiltration by migrants, making and hafting microliths, retire to lower ground in winter, dig shelters, travel by boat, using dogs in hunting, working flint, migration, wood working, making and resharpening axes, sail or paddle	melting glaciers, trees spread, land sinking and elevation, marine transgression cutting Britain off, whale stranding

A41	human stocks, fishers and fowlers, women, strandloopers, people, little groups	Mere-studded fens, river valleys, low plains, sandy lands, open uplands, coastal fringe, caves	hafting tools, wood cutting, immigration, paddling canoes, losing a prong from fish spear, hunting, fowling, fishing, collecting shellfish, fell timber, make canoes and paddles, make summer excursions, using dogs, making huts, crouch in rocks dislodging limpets, lying in wait with arrow, fishing from a canoe	climate changed, glaciers retreated, animals and plants changed, rising sea separating Britain
A42	people, man, woodland folk, fishing people	coastal lowlands, water margins, bay, lake, stream	worked with plants, people or ideas coming from the south east, use of bow and arrow, developed new fishing gear, used boats, developed the axe, wood working, working stone by grinding, domesticated dog, made pottery, hunting, fishing, making cordage, making boats, digging, hewing, using digging stick	ice retreat, sea level rise, isostatic upwarp, plant succession, climatic optimum
A43	immigrant colonists, small communities, forest folk, hunter, fisher folk, folk, hunting folk	scrub, woodland, marshes, rivers, shores, mere, campsite, small village, spring, winter camp, summer camp	hunting game, wild fowl and fish, collecting shellfish, cutting down trees, evolving new tools, food gathering, colonisation, crossing Channel in boats, making sea voyages, beachcombing, losing a fish spear, carpentry, making canoes, making huts, fishing, making windbreak, interchange of ideas and population, moving across Britain	ice retreat, changing vegetation and fauna, climate change, spread of forests, sea incursion, separation from continent, land rising
A44			hunting, gathering, blood feuds, food, clothing, shelter, revenge against witchcraft, retaliation against trespass	
A45	peoples, communities, man, groups of hunter-fishers	coastal, lakes	food gathering, marine hunting, fishing, fishing from boats, move with the seasons, scooping out huts, gathering	whales stranding, glaciers melted
A46	hunter-fishers, deer hunters	marshy edge of lake, North Sea land	making microliths, working bone and antler, making tools, felling trees, using resin, using ceremonial masks or hunting disguise, decorating objects	increasing warmth, ice sheets withdraw, growth of forests, English Channel forming
A47	hunter-fishers, gatherer-hunter-fisher	springs, deltas, estuaries, marshes, swamps, lagoons, sea coasts, lakes, rivers, montane valleys, sandy soils	seasonal mobility and staying in one place, gathering plant foods; moving in winter to coasts, rivers, marshes or lakes; autumn gathering, preparing and storing foods; using winter base camp, treating and eating bracken roots, eating roots and nuts; taking mammal, fish, shellfish and wildfowl; setting fire to open woodland, pruning, clearing; domesticated dog	colonisation by forest and plants
A48	inhabitants, communities, people, man, men	forest	fishing	climate changes, contraction of ice sheets, spread of forests

A49	groups, hunter-fisher communities, four nuclear family units, hunters, single nuclear family, groups without women, one-man (windbreaks), hunter/gatherers, inhabitants	forest, southern North Sea, lake, reed swamp, river, lowland, gravel terrace, coast, upland, sandy heath, natural hollows, freshwater streams, lagoon, estuary, sand dunes	hunting, collecting, fishing, collecting shellfish, using bow and arrow, felling birch, fixing arrowheads with resin, using frontlets in ritual or hunting, working bone and skins, walking one or two hours from site, occupying site in winter, moving with the seasons, making axes or spears and arrows, decorating pebbles, flint knapping, burning the forest, consuming vegetable foods, making microliths, sleeping, making a dwelling, holding hammer stones, cooking, clearing vegetation by burning, food preparation, storing hazelnuts, shelter in natural hollows, drying or smoking fish, gathering shellfish, seal hunting, collecting stone raw materials, butchering, changing windbreaks with the wind, using weeds as food, offshore fishing from a boat, making dugout canoe	deglaciation, vegetation and faunal change, land/sea level fluctuation, changing climate, seasonal movement of deer, drowning of the North Sea and coastal areas, marine transgression, stranding of whales
A50	groups, hunter-gatherer groups, individuals, man, men, households, bands	uplands, lowlands, mating network, inland, coastal, woodland, coasts, social units, social relations (meshing social and ecological)	burning of forest, hunting, storing resources, exploiting plant foods, moving, settling – sedentism, storage	change in forest composition, increase in ungulate biomass and variety, increase population, change in group size and mobility, seasonality, Neolithic
A51	hunter-gatherers	northern Old World	storage, sedentism, producing surpluses	Neolithic
A52	hunter-gatherer societies, hunter-gatherers, small group	western Europe, coasts, lake shore	retouching flints, using the bow, making arrowheads, taking fish, antler and hide working, hunting, butchering, collecting shellfish, taking fish in deep water, exchange of raw materials	transgression of the Channel, climate shift, rising sea level, changing vegetation, growth of woodland, natural forest fires, replacement of animals, Neolithic
A53	communities, fishermen, hunters and gatherers	woodland, coast, upland	hunting, processing plants, firing woodland areas, storage of food, deep sea fishing in boats, feasting, pay bridewealth, increase production (aspiration towards more involved social relations), exchange and marriage with farmers	glacial melt, eustatic rise, loss of land, rise of the English Channel separating Britain, contact with continental farmers, declining productivity possible

A54	aborigines, hunter-fisher folk, people (Maglemosians), hunting groups, people, families, male, individuals, children, men, women, baby	forests, rivers, marshes, lakes, plains, crags, streams, shoreline	transport by water, food gathering, hunting, clearing trees with axes, making boats, burning clearings, making flint tools and arrows and harpoons, killing an elk, using bows, building shelters or huts, spreading across Britain, moving back and forward across North Sea plain, eating deer etc., keeping dogs to help in hunting, sewing skins, pinning clothes, getting flint from beaches, build lakeside platform, fishing, gathering wild plants, working skins, working antler, wearing hunting masks as decoys in hunting or for ceremonies, wearing clothes of skins, using decoration, use fungus for tinder, make containers and resin, move to high moors in summer, following herds of deer, camping by crag and streams, following traditional paths, exploiting sources of raw materials, exchange of materials, discarding waste, using bait for fishing, butchering seals, burying people	ice sheets retreated, forest spread, new animals, rise in temperature, changes in trees, sea level and land changes, break through straits of Dover to separate England from Europe
A55	hunter-gatherers, inhabitants, children, hunters, people, babies, small group, hunting party	forest, lake, estuaries, valleys, hills, Doggerland, lagoons, marshes, beaches, mud flats, dunes, islands, shore, beach	hunting, gathered plants, caught birds, fished from canoes, burning reeds, make and repair tools, cleaning skins, making clothing and harpoons, gather and cache antlers, experimenting with the design of barbed points, chasing wildfowl and animals, danced and sung, using intoxicant herbs, using masks in hunting dance, sleeping, leaving the site, travel by canoe, walk to the hills, discarding masks with other rubbish, harvesting hazelnuts, using masks as hunting disguise, abandon site, develop new technology, spearing fish, grating vegetables, making wooden tools, paddling canoes, breaking a failed bow in frustration, collecting and roasting hazelnuts, collecting eggs and samphire and seaweed and limpets, chipping beach pebbles, hunting seal, hauling nets, playing on beach, sleeping, making exploratory visits, travelling north into Scotland, learning to make tools, burning trees and reeds, exploiting flint raw materials, watching for birds, roasting hazelnuts, harvesting hazelnuts, using shellfish as bait, making necklaces, making clothes, people died, belief in spirits, myths and stories, exchange goods, marry with farmers	trees expanding northwards, changes in trees and animals, melting ice sheets, sea level rise, Storegga tsunami, land uplift, arrival of immigrant farmers

A56	hunters and gatherers, people, communities, hunter-gatherers, populations, males, females, children, corpses	inshore waters, indented coastlines, offshore islands, lake edges, rivers, forests, uplands	making stone tools, use of bow and arrow, working timber, digging the ground, processing carcasses, fishing, hunting, shell gathering, collecting plants, processing fish, using and discarding shells and refuse, collecting limpets possibly as fish bait, making axes and blades, specialist craft production, using pottery, processing nuts, eating fruits, domestication of animals possible, pollarding trees, clearing woodland, taming bear and pigs, adopting pottery or cereals, abandoning territory, scraping blubber from carcasses, building dwellings, building boats, storing food in pits, importing obsidian, crossing seas, engraving and painting, defleshing, decapitation, cannibalism, excarnation, removing a corpse, burial, ritual feasting, violent death, moving into new territory, exchange or trade, lighting, displaying identity	warming, sea level rise, breaching connection between Britain and mainland Europe, changing fauna and flora, climatic optimum, stabilising sea levels, creating mud flats, melting ice sheets, climatic amelioration, population growth
A57	people, hunters and gatherers, colonisers, communities, hunter-gatherers, hunters, small groups, local society, inhabitants, populations, task groups, societies, men, women, children, individuals, shamans	forests, mountains, seas, islands, lake basins, plains, archipelagos, river systems, coast, estuary, salt marsh, interior, inland	make and use flint tools, ate, moved around, population movement, colonisation, exploration, righting a boat in cold sea, hunting, processing plant foods, using sea-going vessels, constructing houses, ritual, aggregation, exchange, carving figurines, burying neonates beneath floors, moving the residential base, foraging, treating the dead, building mortuary houses, marking out graves, disarticulating, burying with grave goods, removing skulls, digging graves, bludgeoning to death, cannibalism, marking differences between societies, deference to show respect or social standing, flint knapping, story telling, copy and praise prestigious others, dominating others through fear, listening to or avoiding others, marking out social status or skills, wearing antler frontlets	changing environments, floods, tsunamis, rising and falling seas
A58	he, hunter, fisher, she, enlarged family, hunter-gatherer-fisher	forest, camp	gathering snails and mushrooms, hunting, fishing, cooking, seasonal change of hunting niche, seasonal gatherings, procuring raw materials	

Appendix 5
Analysis of communication channels: academic writings
A: characters

ID	Named	Gender	M	F	Age	Kin	Function	Group	Other	Individual
A01		x	x				x	x	x	
A04							x			
A05									x	
A08										
A09		x	x				x	x		
A10									x	
A11		x	x				x		x	
A13									x	
A15							x		x	
A16									x	
A18		x	x		x		x			x
A19		x	x	x	x		x	x	x	
A20							x			
A21		x	x	x	x		x	x	x	x
A22							x			
A23		x	x	x	x			x		
A24		x	x	x	x		x	x	x	x
A25									x	
A26							x		x	
A27		x	x	x	x		x			x
A28							x		x	
A29							x		x	
A30							x	x		
A31									x	

A33								X	X	
A34							X	X	X	
A36					X	X		X		
A37								X	X	
A38									X	
A39								X		
A40		X	X				X	X	X	
A41		X		X			X	X	X	
A42							X			
A43							X	X	X	
A45							X	X		
A46							X			
A47							X			
A48								X	X	
A49		X	X			X	X	X	X	
A50							X	X		
A51							X			
A52							X	X		
A53		X	X				X	X		
A54		X	X	X	X	X	X	X	X	
A55							X	X	X	
A56		X	X	X	X		X	X	X	
A57		X	X	X	X		X	X	X	
A58		X	X	X		X	X			X
TOTAL	0	17	16	10	10	11	34	25	28	5
%	0	35.4	33.3	20.8	20.8	22.9	70.8	52.1	58.3	10.4

Appendix 5
Analysis of communication channels: academic writings
B: settings (1)

ID	forest	wet	sea	coast	estuary	river	lake	spring	marsh	pen.	island
A01				x							
A04	x									x	
A05				x							
A06											
A07											
A08				x							
A11				x							
A12				x							
A14				x		x					
A15				x							
A18				x							
A19				x	x		x				
A20				x							x
A21	x				x	x					
A23				x							
A24				x			x				
A25				x			x				
A26				x		x	x				
A27	x			x		x	x				
A28	x			x		x	x				
A29	x			x							
A30	x			x			x				
A31				x							
A33	x			x			x				
A34				x		x	x				

A35			x	x		x					
A36	x			x		x	x		x	x	x
A37	x					x	x	x	x		
A38	x			x		x	x				
A39	x			x		x	x				
A40	x			x		x	x		x		
A41				x		x	x		x		
A42		x		x	x	x	x				
A43	x			x		x	x		x		
A45				x			x				
A46							x		x		
A47				x	x	x	x	x	x		
A48	x										
A49	x			x	x	x	x		x		
A50	x			x							
A51											
A52				x			x				
A53	x			x							
A54	x			x		x	x		x		
A55	x			x	x		x		x		x
A56	x		x	x		x	x				x
A57	x		x	x	x	x	x		x		x
A58	x										
TOTAL	22	1	3	39	7	20	26	2	11	2	5
%	45.8	2.1	6.3	81.3	14.6	41.7	54.2	4.2	22.9	4.2	10.4

Appendix 5
Analysis of communication channels: academic writings
C: settings (2)

ID	inland	lowland	upland	cliff	open	downs	plain	light soils	cave	valley	Dogger-land	settlement	people
A01													
A04													
A05													
A06			x										
A07			x										
A08													
A11													
A12													
A14													
A15													
A18									x				
A19									x		x		
A20													
A21									x				
A23			x						x				
A24									x				
A25									x				
A26									x				
A27			x					x	x				
A28			x					x					
A29						x		x	x				
A30								x	x				
A31													
A33			x					x	x				

A34													
A35													
A36			x					x	x		x		
A37								x	x				
A38								x	x				
A39								x					
A40								x	x			x	
A41		x	x		x		x	x	x				
A42													
A43												x	
A45													
A46											x		
A47								x		x			
A48													
A49		x	x					x			x		
A50	x	x	x										x
A51													
A52													
A53			x										
A54				x			x						
A55			x							x	x		
A56			x										
A57			x				x						
A58												x	
TOTAL	1	3	14	1	1	1	3	13	16	2	5	3	1
%	2.1	6.3	29.2	2.1	2.1	2.1	6.3	27.1	33.3	4.2	10.4	6.3	2.1

Appendix 5
Analysis of communication channels: academic writings
D: actions (1)

ID	Finding food					Food preparation and use					In settlements					Animals	
	hunt	gather	fish	farm	bring food home	butcher	prepare	cook	eat	store	make camp or house	build things	make fire	sleep	midden	control animals	use dogs
A01	x		x				x	x	x		x						x
A02	x										x						
A03	x								x								
A04	x								x		x						
A05	x		x				x	x									
A06											x						
A07											x						
A08	x		x				x				x						x
A09	x																
A10																	
A11	x		x						x								x
A12	x		x				x										x
A13																	
A14	x		x			x									x		
A15	x		x						x								x
A16																	x
A17	x																
A18	x																
A19							x		x		x						x
A20	x		x					x	x						x		x

A21	x		x														
A22																	x
A23																	x
A24	x		x			x	x		x					x			x
A25																	
A26																	
A27									x					x			
A28	x																
A29	x	x							x					x			x
A30										x							
A31																	x
A33	x	x	x														
A34	x	x															
A35					x				x								
A36	x	x	x							x							
A37	x		x							x							
A38	x		x														x
A39	x																
A40	x	x	x							x							x
A41	x		x							x							x
A42	x	x	x														x
A43	x	x	x							x							
A44	x	x							x		x						
A45	x	x	x							x							
A46	x																
A47	x	x	x				x		x	x							x
A48			x														

A49	x	x	x			x	x	x	x	x	x			x			
A50	x									x							
A51										x							
A52	x		x			x											
A53	x		x				x		x	x							
A54	x	x	x			x			x		x	x	x		x		x
A55	x	x	x				x	x						x	x		
A56	x	x	x	x		x	x		x	x	x				x	x	
A57	x	x					x		x		x						
A58	x	x	x					x									
TOTAL	41	16	28	1	1	6	12	6	18	6	19	1	1	2	8	1	19
%	71.9	28.1	49.1	1.8	1.8	10.5	21.1	10.5	31.6	10.5	33.3	1.8	1.8	3.5	14.0	1.8	33.3

Appendix 5
Analysis of communication channels: academic writings
E: actions (2)

ID	Making tools									Landscape		Movement								
	raw material	make tools	invent new	knap flint	work wood	work skins	make canoes	make pots	make clothes	make clearing	fell trees	mobile	sail or boat	walk	migrate	explore	stay	leave	return	gather
A01												x								
A02		x					x		x											
A03		x																		
A04		x			x		x					x								
A05		x		x					x											
A06																				
A07		x																		
A08		x					x	x												
A09		x										x								
A10															x					
A11																				
A12		x																		
A13		x																		
A14		x																		
A15																				
A16																				
A17		x																		
A18														x						
A19		x																		
A20	x	x		x		x			x				x					x		

A21		x				x									x				
A22		x																	
A23		x													x				
A24		x		x					x				x		x				
A25		x		x											x				
A26		x		x					x						x				
A27		x		x					x						x				
A28																			
A29		x							x				x		x				
A30															x				
A31		x							x						x				
A33	x	x	x	x											x				
A34		x			x				x						x			x	
A35															x				
A36	x	x	x	x	x		x					x			x				x
A37				x											x				
A38		x																	
A39															x	x			
A40		x	x	x	x							x	x		x				
A41		x			x		x				x	x			x				
A42			x		x		x	x					x		x				
A43			x		x		x				x		x		x				
A44											x								
A45													x						
A46		x										x							
A47										x			x					x	
A48																			

A49	x	x		x		x	x			x	x			x						
A50										x		x						x		
A51																		x		
A52		x		x		x														
A53										x			x							
A54	x	x				x	x		x	x	x	x	x		x					
A55	x	x	x	x		x			x	x			x	x	x	x		x		
A56	x	x			x		x	x		x	x		x		x			x		
A57		x		x								x	x		x	x				x
A58	x											x								x
TOTAL	8	35	6	14	8	6	10	8	7	7	6	13	10	4	24	2	3	4	1	2
%	14.0	61.4	10.5	24.6	14.0	10.5	17.5	14.0	12.3	12.3	10.5	22.8	17.5	7.0	42.1	3.5	5.3	7.0	1.8	3.5

Appendix 5
Analysis of communication channels: academic writings
F: actions (3)

ID	Social								Religion					Art	Other
	fight	marry	teach or learn	tell stories	network	music	play	die	ritual	spirits	wear charm	burial	dance	decorate	
A01															make salt
A02	x														
A03															
A04	x														
A05															sitting round fires, squatting under tents
A06															choosing sunny side of hill
A07															
A08															make salt
A09															
A10															
A11															
A12															make salt
A13															
A14															
A15															
A16															
A17															
A18												x		x	sitting cross legged
A19												x		x	
A20														x	

A21			x									x		x	
A22												x			
A23												x		x	
A24												x		x	
A25	x											x		x	
A26	x											x		x	
A27												x		x	
A28															
A29														x	
A30															
A31															
A33												x		x	
A34															groups separating, sow grass, use receptacles
A35															
A36												x	x	x	cannibalism
A37															absorb or expel migrants
A38														x	
A39															
A40															
A41															
A42															making cordage
A43														x	beachcombing
A44	x														revenge against witchcraft
A45															
A46														x	using ceremonial masks
A47															
A48															

A49									x					x	
A50															
A51															produce surplus
A52					x										
A53		x			x										increase production
A54					x				x			x		x	wearing hunting masks
A55		x	x		x	x	x	x		x			x	x	burn reeds, cache antlers, use intoxicant herbs, use masks, break bow
A56	x								x			x		x	cannibalism, lighting, display identity
A57	x			x	x				x			x		x	righting a boat, cannibalism, marking difference/status/skills, showing deference, copy/praise others, dominate others, listen to or avoid others, wear frontlets
A58															
TOTAL	7	2	2	1	8	1	1	1	8	1	1	14	1	19	19
%	12.3	3.5	3.5	1.8	14.0	1.8	1.8	1.8	14.0	1.8	1.8	24.6	1.8	33.3	33.3

Appendix 5
Analysis of communication channels: academic writings
G: happenings

ID	Environment										People		
	Climate change	Melting ice	Sea level	Land rise	Tsunami	Island	Woodland	New biota	Seasons	Other	Pop. rise or fall	Neolithic	Other
A11								x					
A15								x					
A17	x							x					
A18		x		x			x	x					
A19	x							x		storms			
A21	x			x			x	x					
A23												x	
A24	x	x		x				x				x	
A25	x							x					
A26	x					x		x				x	
A27	x	x		x			x					x	
A29	x			x			x					x	
A30	x						x						
A31	x											x	
A33	x	x					x					x	
A34	x	x					x						
A35	x												
A36	x	x	x	x			x	x				x	
A37	x		x				x						
A38		x				x	x	x				x	
A39	x					x	x	x					

A40		x	x	x		x	x			whale stranding			
A41	x	x	x			x		x					
A42	x	x	x	x				x					
A43	x	x	x	x		x	x	x					
A45		x								whale stranding			
A46	x	x				x	x						
A47							x						
A48	x	x					x						
A49	x	x	x	x		x		x		whale stranding, seasonal movement of deer			
A50								x	x		x	x	change in group size
A51												x	
A52	x		x			x	x	x		forest fires		x	
A53		x		x		x				declining productivity		x	
A54	x	x	x	x		x	x	x					
A55		x	x	x	x		x	x				x	
A56	x	x	x			x		x			x	x	
A57			x		x								
TOTAL	25	19	12	13	2	12	19	20	1	6	2	15	1
%	65.8	50.0	31.6	34.2	5.3	31.6	50.0	52.6	2.6	15.8	5.3	39.5	2.6

Appendix 6
List of web-pages analysed

ID	Website	Webpage	Creator	URL	Search order	Date modified	Date analysed
Wp01	Wikipedia	Mesolithic	Wikipedia	http://en.wikipedia.org/wiki/Mesolithic	1	01/12/14	05/01/15
Wp02	Simple English Wikipedia	Mesolithic	Wikipedia	http://simple.wikipedia.org/wiki/Mesolithic	2	30/06/14	05/01/15
Wp03	Scotland's History	Early People > Mesolithic	Education Scotland	http://www.educationscotland.gov.uk/scotlandshistory/earlypeople/mesolithic/	3	unknown	05/01/15
Wp04	British Archaeology at the Ashmolean Museum	British Collections by Archaeological Period: Mesolithic (9600 - 4000 BC)	Ashmolean Museum	http://www.ashmolean.org/ash/britarch/collections/mesolithic.html	4	01/01/12	05/01/15
Wp05	From Dot to Domesday	Prehistory > In the beginning	Stephen J. Murray	http://www.dot-domesday.me.uk/migrate.htm	5	21/10/12	05/01/15
Wp06	Encyclopaedia Britannica	Mesolithic Period	Encyclopaedia Britannica	http://www.britannica.com/EBchecked/topic/376759/Mesolithic-Period	6	04/08/14	05/01/15
Wp07	Orkneyjar	History > A brief history of Orkney > The Mesolithic - c9000-4000BC	Sigurd Towrie	http://www.orkneyjar.com/history/mesolithic.htm	7	30/03/11	05/01/15
Wp08	The Lost Lands of Our Ancestors	Mesolithic Wales	Dyfed Archaeology	http://www.dyfedarchaeology.org.uk/lostlandscapes/mesolithic.html	8	17/01/13	05/01/15
Wp09	Islay Info	History > Mesolithic Project	Web – Ron, Project – Steve Mithen & Karen Wicks	http://www.islayinfo.com/east-islay-mesolithic-project.html	9	27/08/14	05/01/15
Wp10	Museum of the Stone Age	Galleries > Mesolithic Gallery	Richard Milton	http://www.stoneagetools.co.uk/mesolithic-tools.htm	10	26/08/14	05/01/15
Wp11	Young Archaeologists' Club	About Archaeology > Archaeological Periods	YAC (Seren Langley)	http://www.yac-uk.org/timeline/mesolithic	11	06/07/09	05/01/15

Wp12	Oxford Dictionaries	Mesolithic	Oxford Dictionaries	http://www.oxforddictionaries.com/definition/english/Mesolithic	12	unknown	05/01/15
Wp13	Time Traveller Kids	Stone Age > The middle stone age (mesolithic)	Time Traveller Kids	http://timetravellerkids.co.uk/time-travel/stone-age/mesolithic/	13	unknown	05/01/15
Wp14	Tees Archaeology	Projects > North East Yorkshire Mesolithic Project	Tees Archaeology	http://www.teesarchaeology.com/projects/Mesolithic/Mesolithic.html	14	24/04/03	05/01/15
Wp15	History, Landscape, Timedepth	Exploring > Timeline > Mesolithic	Cranborne Chase and West Wiltshire Downs AONB	http://www.historiclandscape.co.uk/timeline_mesolithic.html	15	27/08/14	05/01/15
Wp16	Children's British History Encyclopedia	Periods of History > Prehistory > Mesolithic	Simon Haughton	http://history.parkfieldict.co.uk/pre-history/mesolithic	16	17/12/04	05/01/15
Wp17	Collins English Dictionary	Mesolithic	Collins	http://www.collinsdictionary.com/dictionary/english/mesolithic	17	unknown	05/01/15
Wp18	Infoplease	Social Sciences and the law > Anthropology and Archaeology > Human Evolution > Mesolithic period	Pearson Education	http://www.infoplease.com/encyclopedia/society/mesolithic-period.html	18	2012	05/01/15
Wp19	Wales Prehistory.org	Mesolithic Wales	sbmetalmn	http://www.walesprehistory.org/mesolithic-wales	19	17/12/14	05/01/15
Wp20	Out of Oblivion	Timelines > Mesolithic	Yorkshire Dales National Park	http://www.outofoblivion.org.uk/mesolithic.asp#	20	unknown	05/01/15
Wp21	Severn Estuary Levels	Goldcliff	Severn Estuary Levels Research Committee	http://www.selrc.org.uk/maplocation.php?location_id=38	21	unknown	05/01/15
Wp22	Cambridge Dictionaries Online	Mesolithic	Cambridge University Press	http://dictionary.cambridge.org/dictionary/british/mesolithic	22	unknown	05/01/15
Wp23	Ancientcraft	Mesolithic and Neolithic Tools	James Dille	http://www.ancientcraft.co.uk/Tools/mesolithic_neolithic_tools.html	23	26/03/14	05/01/15
Wp24	Leicestershire Revealed	100 Museum Objects > Mesolithic Flint Tool (Microlith)	Leicestershire County Council	http://www.leics.gov.uk/revealed_objects_microlith.htm	24	22/08/14	05/01/15
Wp25	Exploring Surrey's Past	Mesolithic	Surrey County Council	http://www.exploringsurreyspast.org.uk/the_mes/times/periods/2_mesolithic/	25	2012	06/01/15

Wp26	Museum of Liverpool	Prehistoric Merseyside > The Mesolithic period 8500-4000 BC	National Museums Merseyside	http://www.liverpoolmuseums.org.uk/mol/collections/archaeology/field/projects/prehistoric/	26	unknown	06/01/15
Wp27	Horley Local History Society	Haroldslea Mesolithic site	Horley Local History Society	http://www.horleyhistory.org.uk/haroldslea-mesolithic-site.html	27	May 2012	06/01/15
Wp28	The Free Dictionary	Mesolithic	Farlex Inc.	http://www.thefreedictionary.com/Mesolithic	28	unknown	06/01/15
Wp29	The Museum of Thanet's Archaeology Virtual Museum	Museum Guide > Mesolithic	Trust for Thanet Archaeology	http://www.thanetarch.co.uk/Virtual%20Museum/2_Galleries/G2%20Content/Gallery2_Intro.htm	29	21/10/06	06/01/15
Wp30	A Town Unearthed	Folkestone before 1500> Palaeolithic and Mesolithic Periods: Overview	Community Archaeology Project	http://www.atownunearthed.co.uk/folkestone-before-1500/1-palaeolithic-and-mesolithic-c-500000-4000-bc/the-palaeolithic-and-mesolithic-periods-overview/	30	21/02/11	06/01/15
Wp31	Cliffe-at-Hoo Historical Society	History > Mesolithic	Cliffe-at-Hoo Historical Society	http://www.cliffehistory.co.uk/mesolithic.html	31	15/06/12	06/01/15
Wp32	Biggar Archaeology Group	Research Projects > Mesolithic Biggar	Biggar Archaeology Group	http://www.biggararchaeology.org.uk/rp_mesoBiggar.shtml	32	unknown	06/01/15
Wp33	Clwyd-Powys Archaeological Trust	Windows on the Past > Mesolithic - earlier Neolithic, 8000 - 3000 BC	Clwyd-Powys Archaeological Trust	http://www.cpat.org.uk/cpat/past/meso/meso.htm	33	19/06/12	06/01/15
Wp34	About.com	About Education > Archaeology >> Mesolithic - Life in Europe Before the Curse of Farming	About.com	http://archaeology.about.com/od/mesolithicarchaic/qt/Mesolithic.htm	34	unknown	06/01/15
Wp35	Scottish History Online	Scottish Timeline > The Mesolithic Period	Robert Gunn	http://skyelander.orgfree.com/prehist1.html	35	26/07/09	06/01/15
Wp36	Dictionary.com	Mesolithic	Dictionary.com	http://dictionary.reference.com/browse/mesolithic	36	unknown	06/01/15
Wp37	Teaching history with 100 objects	Mesolithic woodworking tool	British Museum	http://teachinghistory100.org/objects/mesolithic_tool	37	unknown	06/01/15

Wp38	Archaeoart	Gallery > Stone Ages > Mesolithic camp or Mesolithic hunt > How the image was created	Dominic Andrews	http://www.archaeoart.co.uk/landscape/mesolithic_methods.htm	38	22/08/08	06/01/15
Wp39	Chiltern Archaeology	Projects > Downley > Archaeology > Palaeo to Neolithic	Chiltern Archaeology	http://www.chilternarchaeology.com/palaeo_to_neolithic.htm	39	09/10/11	06/01/15
Wp40	National Museums Northern Ireland	Ulster Museum > Collections > Archaeology > Stone Age > Middle Stone Age Ireland	National Museums Northern Ireland	http://www.nmni.com/um/Collections/Archaeology/Stone-Age/Mesolithic-Ireland-%288000-BC---4500-BC%29	40	unknown	06/01/15
Wp41	British Museum	Explore > Highlights > Red deer antler head-dress	British Museum	http://www.britishmuseum.org/explore/highlights/highlight_objects/pe_prb/r/red_deer_antler_head-dress.aspx	41	unknown	06/01/15
Wp42	Scapa Flow	Archaeology and History > The Mesolithic	Scapa Flow Landscape Partnership Scheme	http://www.scapaflow.co/index.php/history_and_archaeology/the_mesolithic/sites	42	2011	06/01/15
Wp43	Art Encyclopedia	History of Art > Prehistoric Art > Mesolithic Art	Visual Arts Cork	http://www.visual-arts-cork.com/prehistoric/mesolithic-art.htm	43	10/12/14	06/01/15
Wp44	Belfast Hills	History & Culture > Time Periods > Mesolithic Hills	Belfast Hills Partnership	http://belfasthills.org/history-culture/time-periods/mesolithic-hills/	44	unknown	06/01/15
Wp45	Past Perfect	Sites > Low Hauxley > Archive > Mesolithic Flint tools	Past Perfect	http://www.pastperfect.org.uk/sites/lowhauxley/archive/flints.html	45	18/04/05	06/01/15
Wp46	Festival of Archaeology	News > Go Mesolithic	CBA	http://www.archaeologyfestival.org.uk/news/go-mesolithic-young-archaeologists-activity-1373756868	46	14/07/13	06/01/15
Wp47	Sussex Past	Learning > Lewes Castle > Prehistory Timeline > Mesolithic	Sussex Archaeological Society	http://sussexpast.co.uk/learning/learning-at-lewes-castle/prehistory-time/mesolithic	47	unknown	06/01/15
Wp48	Merriam-Webster	Mesolithic	Merriam-Webster	http://www.merriam-webster.com/dictionary/mesolithic	48	unknown	06/01/15

Wp49	John Moore	A History of Hele > Mesolithic (Middle Stone Age)	John Moore	http://www.johnhmoore.co.uk/hele/mesolithic.htm	49	06/04/13	06/01/15
Wp50	Unst Heritage	Heritage Centre > Through the Ages > Mesolithic	Unst Heritage Trust	http://www.unstheritage.com/web/unst-heritage-centre/through-the-ages/mesolithic/	50	2012	06/01/15

Appendix 7
List of blogs analysed

ID	Blog title	Post title	Poster	URL	Search order	Entry date	Date analysed
B01	Microburin	Mesolithic Silly Season: seals in the Tees	Spencer Carter	http://microburin.com/2014/12/04/mesolithic-silly-season-seals-in-the-tees/	1	04/12/14	12/01/15
B02	Dieneke's Anthropology Blog	Europeans = Neolithic farmers, Mesolithic hunter-gatherers and "Ancient North Eurasians" (etc.)	Dienekes Pontikos	http://dienekes.blogspot.co.uk/2013/12/europeans-neolithic-farmers-mesolithic.html	2	24/12/13	12/01/15
B03	Building Mesolithic	collapse, but not failure ...	University College Dublin	http://www.ucdblogs.org/buildingmesolitic	3	04/11/13	12/01/15
B04	Oxford Archaeology	CNDR: The Mesolithic period at the Stainton West site, Carlisle	Oxford Archaeology	http://oxfordarchaeology.com/blogs/7-top-level-pages/158-cndr-the-mesolithic-period-at-the-stainton-west-site-carlisle	4	2014	12/01/15
B05	Eurogenes Blog	Analysis of Mesolithic Swedish forager StoraFörvar11	Davidski	http://eurogenes.blogspot.co.uk/2014/07/analysis-of-mesolithic-swedish-forager.html	5	05/07/14	12/01/15
B06	Eurogenes Blog	Mesolithic genome from Spain reveals markers for blue eyes, dark skin and Y-haplogroup C6	Davidski	http://eurogenes.blogspot.co.uk/2014/01/mesolithic-genome-from-spain-reveals.html	6	27/01/14	12/01/15
B07	Irish Archaeology	Mount Sandel, a Mesolithic Campsite	Colm Moriarty	http://irisharchaeology.ie/2013/07/mount-sandel-a-mesolithic-campsite/	7	22/07/13	12/01/15
B08	The Writer's Forensics Blog	Blue-eyed Mesolithic Caveman?	D P Lyle	https://writersforensicsblog.wordpress.com/2014/11/16/blue-eyed-mesolithic-caveman/	8	16/11/14	12/01/15
B09	British Library Sound and Vision Blog	Sonic Horizons of the Mesolithic: Sounding out Early Prehistory in the Vale of Pickering	Ben Elliott	http://britishlibrary.typepad.co.uk/sound-and-vision/2014/04/sonic-horizons-of-the-mesolithic-sounding-out-early-prehistory-in-the-vale-of-pickering.html	9	01/04/14	12/01/15
B10	Aggsbach's Paleolithic Blog	Microlithic tools during the late Mesolithic of Europe	J L Katzman	http://www.aggsbach.de/tag/mesolithic/	10	14/04/14	12/01/15

B11	A Blog about history	Archive Mesolithic	Sevaan Franks	http://www.ablogabouthistory.com/tag/mesolithic/#sthash.txLsMllo.dpbs	11	n/a	12/01/15
B12	Stonehenge and the Ice Age	Was Rhosyfelin a Mesolithic site?	Brian John	http://brian-mountainman.blogspot.co.uk/2014/09/was-rhosyfelin-mesolithic-site.html	12	15/09/14	12/01/15
B13	Tips.FM	History of Scotland: Mesolithic and Neolithic Scotland: Mesolithic: (c.8000 – 4000BC)	Matthew	http://tips.fm/entry.php?2636-History-of-Scotland-Mesolithic-and-Neolithic-Scotland	13	17/09/14	12/01/15
B14	Eurogenes Blog	Southwest Eurasians + Northwest Eurasians + Mesolithic survivors = modern Europeans	Davidski	http://bga101.blogspot.co.uk/2012/03/north-west-urasians-southwest-urasians.html	14	07/03/12	12/01/15
B15	A New Nature Blog	Mesolithic	Miles King	https://anewnatureblog.wordpress.com/category/mesolithic/	15	n/a	12/01/15
B16	Prehistoric Archaeology Blog	Mesolithic settlement found in North Yorkshire	David Beard	http://prehistoricarch.blogspot.co.uk/2014/06/mesolithic-settlement-found-in-north-yorkshire.html	16	16/06/14	12/01/15
B17	Life in the Mesolithic	Engaging young people with the Mesolithic period	Emily Helliwell	http://lifesthemesolithic.wordpress.com/	17	30/07/12	12/01/15
B18	Digital Dirt Virtual Pasts	Mesolithic Man: a weekend spent eyebrow-wrangling	Alice Watterson	http://digitaldirtvirtualpasts.wordpress.com/2014/02/03/mesolithic-man-a-weekend-spent-eyebrow-wrangling/	18	03/02/14	12/01/15
B19	Prehistoric Shamanism	Journey into Darkness: A Newly Discovered Mesolithic Lunar Calendar	Mike Williams	http://blog.prehistoricshamanism.com/498/journey-into-darkness-a-newly-discovered-mesolithic-lunar-calendar/	19	15/07/13	12/01/15
B20	Welcome Trust Blog	Echoes in the sand	Josh Davis	http://blog.welcome.ac.uk/2013/12/16/echoes-in-the-sand/	20	16/12/13	12/01/15
B21	Dispatches from Turtle Island	Was mtDNA haplogroup H present in Mesolithic Iberia?	Andrew Oh-Willeke	http://dispatchesfromturtleisland.blogspot.co.uk/2014/11/was-mtdna-haplogroup-h-present-in.html	21	19/11/14	12/01/15
B22	Our Learning Blog	Our Mesolithic Trip to the Woods	Port Ellen Primary School (Abbie Morris)	http://blogs.glowscotland.org.uk/ab/OurLearningBlog/2013/10/25/our-mesolithic-trip-to-the-woods/	22	20/10/13	12/01/15

B23	Year of Natural Scotland 2013	Mesolithic Johnny Appleseeds	Historic Scotland	http://yearofnatural.historic-scotland.gov.uk/index.php/mesolithic-johnny-appleseeds/	23	14/02/13	12/01/15
B24	Frog Blog	London's Oldest Foreshore Structure!	Thames Discovery Programme (Gustav Milne)	http://www.thamesdiscovery.org/frog-blog/london-s-oldest-find-discovered-at-vauxhall	24	06/01/11	12/01/15
B25	Digital Digging	The Stonehenge Car Park Mesolithic Timbers – Digital Model	Henry Rothwell	http://digitaldigging.net/stonehenge-car-park-mesolithic-timbers-digital-model/	25	04/12/13	12/01/15
B26	Arbannig	Mesolithic/Mesolithique (8800-5400 BC) part 1	Jimmy Groen	http://arbancollection.blogspot.co.uk/p/mesolithic.html	26	15/09/14	12/01/15
B27	Testimony of the Spade	A visit to Hästholmen a villa forensis in Östergötland, Sweden	Magnus Reuter Dahl	http://inventerare.wordpress.com/tag/mesolithic/	27	01/06/13	12/01/15
B28	Bensozia	The Mesolithic Tombs of Tévéc, Brittany, France	John Bedell	http://benedante.blogspot.co.uk/2014/05/the-mesolithic-tombs-of-tevéc-brittany.html	28	02/05/14	12/01/15
B29	Spearthrower	The Mesolithic Menu from Star Carr	Neal Matheson	http://spearthroweruk.blogspot.co.uk/2012/01/mesolithic-menu-from-star-carr.html	29	18/01/12	12/01/15
B30	Allison Bruning	Mesolithic #Ireland - The Legends: Fomorians, People of the Dann and Werewolves #Irish #history #celtic #culture	Allison Bruning	http://allisonbruning.blogspot.co.uk/2014/02/mesolithic-ireland-legends-fomorians.html	30	27/02/14	12/01/15
B31	Explore the Past	Treasures from Worcestershire's Past: ~4~ Mesolithic Flints	Worcestershire Archive and Archaeology Service (Rob Hedge)	http://www.explorethepast.co.uk/2013/12/treasures-from-worcestershires-past.html	31	20/12/13	12/01/15
B32	Arbannig	Mesolithic finds near Bruisterbosch (Limburg)	Jimmy Groen	http://arbannig.blogspot.co.uk/2012/11/a-mesolithic-site-near-bruisterbosch.html	32	13/11/12	12/01/15
B33	Racial Reality	Mesolithic Nubians Probably Weren't Negroid	?	http://racialreality.blogspot.co.uk/2010/01/mesolithic-nubians-probably-werent.html	33	14/01/10	12/01/15
B34	TYWKIWDBI	A mesolithic fish trap (9000 years old)	Minnesota Stan	http://tywkiwdbi.blogspot.co.uk/2012/06/mesolithic-fish-trap-9000-years-old.html	34	05/06/12	12/01/15

B35	Woodsmith	Replica Mesolithic dugout canoe in Durham	The Woodsmith's Store	http://woodsmithexperience.co.uk/blog/post/replica-mesolithic-dugout-canoe-in-durham	35	29/11/14	12/01/15
B36	Gastropoda	Mesolithic bites	Regina Schrambling	http://gastropoda.com/2007/08/mesolithic-bites/	36	n/a	12/01/15
B37	These Bones of Mine	Mesolithic Musings and the Howick Home	David Mennear	http://thesebonesofmine.wordpress.com/2012/12/22/mesolithic-musings-and-the-howick-home/	37	22/12/14	12/01/15
B38	Mathilda's Anthropology Blog	Mesolithic mortuary ritual at Franchthi Cave, Greece	Mathilda	http://mathildasanthropologyblog.wordpress.com/2009/02/11/mesolithic-mortuary-ritual-at-franchthi-cave-greece/	38	11/02/09	12/01/15
B39	History in an Hour	The Stone Age: The Mesolithic Period	Stella Milner	http://www.historyinanhour.com/2013/07/21/the-stone-age-the-mesolithic-period/	39	21/07/13	12/01/15
B40	Schools Prehistory	Wolf Brother's Wildwoods, a Forestry Commission Scotland resource	Kim Biddulph	http://www.schoolsprehistory.co.uk/tag/mesolithic/	40	06/04/14	12/01/15
B41	Allison Bruning	Mesolithic #Ireland: Irish Hunter-Gatherers #archeology #Irish #burial #life	Allison Bruning	https://www.goodreads.com/author_blog_posts/5863989-mesolithic-ireland-irish-hunter-gatherers-archeology-irish-burial	41	06/03/14	12/01/15
B42	Ossamenta	Archive Mesolithic	Lena Strid	http://ossamenta.dreamwidth.org/tag/mesolithic	42	n/a	12/01/15
B43	York Museums Trust	Mesolithic Music	York Museums Trust	http://www.ymtblog.org.uk/2013/06/04/mesolithic-music/	43	04/06/13	12/01/15
B44	Eclectic Pleasures	More on Tranchet axes	Nicky Moxey	http://nickymoxey.com/tag/mesolithic/	44	22/10/13	12/01/15
B45	Ian Visits	A trip with the archaeologists on the River Thames	Ian Mansfield	http://www.ianvisits.co.uk/blog/2011/02/20/a-trip-with-the-archaeologists-on-the-river-thames/	45	20/02/11	12/01/15
B46	Dr Caitlin R Green, Personal website and blog	The flooding of Mesolithic Doggerland and the emergence of Lincolnshire	Caitlin Green	http://www.caitlingreen.org/2014/08/the-flooding-of-mesolithic-doggerland.html	46	17/08/14	12/01/15
B47	Everything Dinosaur	A Fox is Man's Best Friend?	Mike	http://blog.everythingdinosaur.co.uk/blog/_archives/2011/01/29/4737914.html	47	29/01/11	12/01/15

B48	Guerilla Archaeology	Mesolithic Shamanism?	Ffion Reynolds	https://guerillaarchaeology.wordpress.com/resources/mesolithic-shamanism/	48	11/09/12	12/01/15
B49	Prehistoric Shamanism	Shamans, Shapeshifting, and a Fisher God	Mike Williams	http://blog.prehistoricshamanism.com/category/prehistory/mesolithic/	49	13/06/14	12/01/15
B50	Filey Parish Blog	Starr Carr and Flixton Island, Mesolithic Site, Wetland Projects and a great day out	Margaret Rowling	http://fileyparish.blogspot.co.uk/2013/08/starr-carr-and-flixton-island.html	50	24/08/13	12/01/15

Appendix 8
List of YouTube videos analysed

ID	Title	Posted by	URL	Search order	Created	Uploaded	Date analysed
V01	Mesolithic Age - CBSE NCERT Social Science	Success CDs	https://www.youtube.com/watch?v=YG6zQCtv3d8	1	?	20/08/13	19/01/15
V02	Paleolithic, Mesolithic Neolithic Age, Farming, Animal Husbandry, Agriculture	Enki35 Productions	https://www.youtube.com/watch?v=FARYmB_SQKY	2	?	29/03/13	19/01/15
V03	The Late Glacial and Mesolithic in the UK	Bamburgh Research Project	https://www.youtube.com/watch?v=voADVKvr7L4	3	?	30/01/11	19/01/15
V04	How to make an Ancient Mesolithic style arrow for Primitive Archery Hunting	Shawn Woods	https://www.youtube.com/watch?v=NhRbGG_0kzc	4	?	03/05/14	19/01/15
V05	A story of a Mesolithic hunter	High Weald AONB	https://www.youtube.com/watch?v=nramanQfZbU	5	?	14/10/10	19/01/15
V06	Battle of the flint axes: mesolithic versus neolithic	Time Team	https://www.youtube.com/watch?v=sT99CvsSt1Q	6	2006	08/10/11	19/01/15
V07	Land use and management during the Mesolithic period	Jan Oosthoek	https://www.youtube.com/watch?v=VkaeMnFEkoo	7	2009	24/01/14	19/01/15
V08	Mesolithic Society - Preview Clip (c)	Viewtech Educational media	https://www.youtube.com/watch?v=sGd1QgIcuwg	8	?	19/05/14	19/01/15
V09	Mesolithic Cooking of Acorns, Sloes and Nettle Crisps	Woodlands TV	https://www.youtube.com/watch?v=Gppd4K15_n4	9	?	12/03/11	19/01/15
V10	Mesolith - Building the First House _ IADT/UCD Short 2013	UCD Research	https://www.youtube.com/watch?v=2O22LMgS4V4	10	2013	18/11/13	19/01/15
V11	Mesolithic fish trap	Stenalderdotse	https://www.youtube.com/watch?v=uVBRGKoEYkk	11	2010	16/11/10	19/11/15
V12	The Mesolithic Period	Mometrix Academy	https://www.youtube.com/watch?v=2P6WkJClbM	12	?	16/02/14	19/01/15
V13	Eddie from Ohio - "Let's Get Mesolithic"	MB7rock	https://www.youtube.com/watch?v=zJKguazhPvw	13	2001	19/03/12	19/01/15
V14	Replica of 10,000 year old mesolithic dwelling built by UCD experimental archaeologists	UCD	https://www.youtube.com/watch?v=WKYPLffs748	14	2013	25/07/13	19/01/15

V15	Building the Mesolithic	Headwave	https://www.youtube.com/watch?v=25jntbLJ-	15	2007	20/11/07	19/01/15
V16	Thatching a Mesolithic House	High Weald AONB	https://www.youtube.com/watch?v=rmwVML4SXbk	16	2010	27/10/10	19/01/15
V17	Mesolithic Ireland	Miss Stout's History Class	https://www.youtube.com/watch?v=w63UwPTn2s4	17	?	09/10/14	19/01/15
V18	East Islay Mesolithic Project	Reading University	https://www.youtube.com/watch?v=XSWx9Zk8gBk	18	2012	20/12/12	19/01/15
V19	Wild Food in a Mesolithic Hut	Woodlands TV	https://www.youtube.com/watch?v=2j8tdH64XkY#	19	?	14/02/11	19/01/15
V20	Mesolithic life before Stonehenge found at Amesbury	Newsrock 62	https://www.youtube.com/watch?v=qW3BLjYczD4	20	?	18/04/13	19/01/15
V21	Occupying the North Atlantic: Mesolithic middens & Viking diaspora	Archaeosoup Productions	https://www.youtube.com/watch?v=Hk4wo7w9s94	21	?	19/09/14	19/01/15
V22	Mesolithic North African Style Arrowheads	Edbo 23	https://www.youtube.com/watch?v=h12YPY_83mo	22	?	10/12/10	19/01/15
V23	How to make a mesolithic pit oven	Forrester Bushcraft	https://www.youtube.com/watch?v=MPWDp2DMMOo	23	?	17/01/13	19/01/15
V24	UCD students build mesolithic house	RTE News	https://www.youtube.com/watch?v=FfgahGp8F6w	24	?	25/07/13	19/01/15
V25	Sea Level Rise: 13,000 bp to 5,000 bp in the British Mesolithic	Temporal Mapping	https://www.youtube.com/watch?v=_WYZmFmgb7U	25	?	16/06/11	19/01/15
V26	Mesolithic Man	Andrew Slackta	https://www.youtube.com/watch?v=7wf3OY0Ep-4	26	?	12/03/14	20/01/15
V27	Beyond the Grave - Tracy Collins, Early Mesolithic Burial at Hermitage	Limerick Museums	https://www.youtube.com/watch?v=R_epPjk710	27	2014	01/07/14	20/01/15
V28	Mesolithic Mull, Creit Dhu Excavations Spring 2014	Reading University	https://www.youtube.com/watch?v=W-lJp7gla1I	28	?	25/09/14	20/01/15
V29	The Stone Age (World History)	Tom Richey	https://www.youtube.com/watch?v=-qq_1lcMrDM	29	?	12/09/13	20/01/15
V30	primitive yew bow rawhide backed to a mesolithic pattern	Macrolithic	https://www.youtube.com/watch?v=2ODQ1LRcqk	30	?	05/11/14	20/01/15

V31	mesolithic movie 8.mov	indiv	https://www.youtube.com/watch?v=mqQMdceNVCU	31	2011	21/03/12	20/01/15
V32	Trwyn Du Mesolithic and Bronze Age Site Aberffraw Anglesey	Tim P	https://www.youtube.com/watch?v=aeG4WTU9Y7Y	32	?	23/04/07	20/01/15
V33	Lunt Meadows Mesolithic Excavation	Alan D'Henin	https://www.youtube.com/watch?v=kniVY4qV-K4	33	?	20/11/12	20/01/15
V34	Mesolithic bone point	Stenalderdotse	https://www.youtube.com/watch?v=GcFwmw9qsic	34	2008	09/08/08	20/01/15
V35	Mesolithic Mull 2014	Sarah Lambert-Gates	https://www.youtube.com/watch?v=-WZFMtm2nHM	35	?	05/09/14	20/01/15
V36	IAS video notes GS History CH - Pre history - Paleolithic mesolithic neolithic	Kaushal Academy	https://www.youtube.com/watch?v=cooLVKAD100	36	?	25/05/14	20/01/15
V37	Seldom southern European Mesolithic axe	Biface	https://www.youtube.com/watch?v=LzwDmLr1XO4	37	?	29/11/14	20/01/15
V38	Agent-Based Modelling of Mesolithic Society: A Pilot Study	Uob Vista (Birmingham University)	https://www.youtube.com/watch?v=MKz57BOdocM	38	?	03/11/11	20/01/15
V39	Mesolithic (Original Mix) – Sexitright	Erick Conde	https://www.youtube.com/watch?v=ukmECH8vH_4	39	?	21/08/11	20/01/15
V40	Mesolithic Stone Age skeleton in Malaysia A.K.A - Ganu Man	NaNo Y2008	https://www.youtube.com/watch?v=g2l0zSJ6eS4	40	2010	07/02/10	20/01/15
V41	Reflections of Lower Palaeolithic, Middle Palaeolithic and Mesolithic Period	Wild Films India	https://www.youtube.com/watch?v=rQ1sEifntIA	41	?	25/06/13	20/01/15
V42	Mesolithic Age	Sunflower 13579 (students at McMurray University, Texas)	https://www.youtube.com/watch?v=r83y6A2Pz-c	42	?	07/09/14	20/01/15
V43	Letter cutting in Portland stone with a piece of mesolithic chert	Michael Goldberg	https://www.youtube.com/watch?v=76lKvVIgQeE	43	?	14/09/14	20/01/15
V44	810 Radiocarbon Dates of the British Upper Paleolithic/Mesolithic	Temporal Mapping	https://www.youtube.com/watch?v=WR2B_DVcgp4	44	?	13/12/11	20/01/15
V45	3D visualization of the #mesolithic Strøby Grave	Kristoffer Buck Pedersen	https://www.youtube.com/watch?v=R2w0B4xFe_Q	45	?	02/07/14	20/01/15

V46	John Lord makes a Mesolithic Tranchette	Carolyn Hailstones	https://www.youtube.com/watch?v=rZBvteYR1HQ	46	?	26/07/12	20/01/15
V47	The First Neighbors: Mesolithic Sharing	Neighbors for Neighbors	https://www.youtube.com/watch?v=i8231hi36Uo	48	?	07/08/09	20/01/15
V48	1/32 scale Model of a Mesolithic Dwelling Place	Jasta 35b	https://www.youtube.com/watch?v=XAFUGCpH3VQ	49	?	20/01/07	20/01/15
V49	All About – Mesolithic	All About	https://www.youtube.com/watch?v=RyERcQuU7u4	50	?	03/12/14	20/01/15
V50	Mesolithic Housemate	Headwave	https://www.youtube.com/watch?v=RZrNQC5NJxE	51	?	09/11/07	20/01/15

Appendix 9
List of popular archaeology books analysed

ID	Authors	Year	Edition	Title	Series	Part	Place	Publisher
PB01	Childe, V G	1940		Prehistoric Scotland			London	Historical Association
PB02	Childe, V G	1942	1st	What Happened in History			Harmondsworth	Pelican
PB03	Hawkes, J & C	1943	1st	Prehistoric Britain			Harmondsworth	Pelican
PB04	Winbolt, S B	1943		Britain B.C.			Harmondsworth	Pelican
PB05	Childe, V G	1944		Progress in archaeology			London	Watts & co.
PB06	Hawkes, J	1951		A Land			Harmondsworth	Pelican
PB07	Childe, V G	1954	2nd	What Happened in History			Harmondsworth	Penguin Books
PB08	Coon, C S	1957		The history of man			Harmondsworth	Penguin
PB09	Childe, V G	1958		The Pre-History of European Society			Harmondsworth	Pelican
PB10	Stone, J F S	1958		Wessex before the Celts	Ancient Peoples and Places		London	Thames & Hudson
PB11	Clarke, R R	1960		East Anglia	Ancient Peoples and Places	14	London	Thames & Hudson
PB12	Kenyon, K	1961		Beginning in archaeology			London	J M Dent & sons
PB13	Wood, E S	1963	1st	Archaeology in Britain	Collins Field Guide to		London	Collins
PB14	Clark, J G D	1967		Stone Age Hunters	Library of the Early Civilizations		London	Thames & Hudson
PB15	Jessup, R	1970		South East England	Ancient Peoples and Places	69	London	Thames & Hudson
PB16	Marsden, B M	1970		Central England	Discovering Regional Archaeology		Princes Risborough	Shire Publications
PB17	Marsden, B M	1971		North-eastern England	Discovering Regional Archaeology		Princes Risborough	Shire Publications
PB18	Dyer, J	1973		Southern England: an archaeological guide, the prehistoric and Roman remains			London	Faber & Faber
PB19	MacKie, E W	1975		Scotland: an archaeological guide			London	Faber & Faber
PB20	Bonsall, C, Jackson, R, Kinnes, I & Wilson, G	1979		Man before metals			London	British Museum

PB21	Wood, E S	1979	5th	Archaeology in Britain	Collins Field Guide to		London	Collins
PB22	Dyer, J	1981		Guide to Prehistoric England and Wales			London	Penguin
PB23	Ritchie, G	1981		Scotland: Archaeology and Early History	Ancient Peoples and Places	99	London	Thames & Hudson
PB24	James, S	1986		Archaeology in Britain: new views of the past			London	British Museum
PB25	Coles, B	1989		People of the Wetlands: Bogs, Bodies and Lake-Dwellers	Ancient Peoples and Places	106	London	Thames & Hudson
PB26	Wymer, J J	1991		Mesolithic Britain	Shire Archaeology	65	Princes Risborough	Shire Publications
PB27	Bewley, R	1994	1st	Prehistoric settlements			London	Batsford
PB28	Wickham-Jones, C	1994		Scotland's first settlers				Batsford
PB29	Dyer, J	2001	2nd	Prehistoric England	Discovering		Princes Risborough	Shire Publications
PB30	Bewley, R	2003	2nd	Prehistoric settlements				Tempus
PB31	Pryor, F	2004		Britain B.C.			London	Harper Perennial
PB32	Finlayson, B	2005	2nd	Wild Harvesters: The First People of Scotland	Making of Scotland	1	Edinburgh	Birlinn
PB33	McKie, R	2006		Face of Britain			London	Simon & Schuster
PB34	Oppenheimer, S	2006		The origins of the British			London	Robinson
PB35	anon.	2009		Ancient Britain	I-Spy		Watford	I-Spy Books
PB36	Wickham-Jones, C	2010		Fear of farming			Oxford	Windgather Press
PB37	Milner, N; Taylor, B; Conneller, C & Schadla-Hall, T	2012		The Story of Star Carr			York	Council for British Archaeology
PB38	Oliver, N	2012		A history of ancient Britain			London	Phoenix
PB39	Cunliffe, B	2013		Britain Begins			Oxford	Oxford University Press
PB40	Dinnis, R & Stringer, C	2013		Britain: One Million Years of the Human Story			London	Natural History Museum

PB41	Milner, N; Taylor, B; Conneller, C & Schadla-Hall, T	2013		Star Carr: life in Britain after the Ice Age			York	Council for British Archaeology
PB42	Pryor, F	2014		Home: A time traveller's tales from Britain's prehistory			London	Allen Lane

Appendix 10
List of newspaper article analysed

ID	Author	Year	Article	Newspaper	Date	Page	Type	Source
N01	Plant J	1870	The "Stone Age" in Leicestershire	Leicester Chronicle	19 Mar 1870	3	review	Gale Group
N02	anon.	1886	Notes on flint chips and pre-historic phases at Tutnall, near Bromsgrove. By Wm. A. Cotton, Bromsgrove	Berrow's Worcester Journal	17 Apr 1886		article	Nexis
N03	anon.	1907	The pygmy flint age in Lincolnshire	Lincolnshire Echo	05 Dec 1907	3	article	Nexis
N04	anon.	1932	Photographs from the air	Times	01 Aug 1932	13	article	Nexis
N05	anon.	1933	England in the Boreal period	Times	28 Jul 1933	12	article	Nexis
N06	anon.	1935	Norfolk Excavations. The flint pits of Neolithic times	Manchester Guardian	09 Sep 1935	12	article	Nexis
N07	anon.	1937	Dwellings of 3000 B.C.	Times	20 Jul 1937	13	article	Nexis
N08	anon.	1938	Sinking coast of the Fenlands	Times	22 Aug 1938	17	article	Nexis
N09	anon.	1938	Mesolithic pottery in Kent	Times	26 Nov 1938	17	article	Nexis
N10	anon.	1938	Earliest English houses	Times	17 Dec 1938	9	article	Nexis
N11	anon.	1940	Busman's holiday	Manchester Guardian	24 Jun 1940	3	article	Nexis
N12	A G Wade	1942	Army archaeologists	Times	17 Jul 1942	5	article	Nexis
N13	anon.	1949	A Middle Stone Age culture	Times	28 Oct 1949	6	article	Nexis
N14	anon.	1950	New Material for the British Museum	Manchester Guardian	30 Jan 1950	5	article	Nexis
N15	anon.	1950	10,000-year-old pit dwelling	Times	09 Oct 1950	2	article	Nexis
N16	anon.	1951	The first home built in Britain?	Manchester Guardian	11 Apr 1951	3	article	Nexis
N17	anon.	1951	Early Surrey Man	Times	26 May 1951	8	article	blog
N18	anon.	1955	Traces found of two early occupations	Times	06 Jun 1955	4	article	Nexis
N19	anon.	1956	Abinger Manor for sale	Times	27 Apr 1956	7	article	Nexis
N20	anon.	1957	Mesolithic implements found in Hampshire	Times	31 Aug 1957	8	article	Nexis
N21	A G Wade	1957	A missing link?	Times	14 Nov 1957	13	article	Nexis

N22	Jacquetta Hawkes	1960	Band of hunters in the pine trees	Observer	19 Jun 1960	11	article	Nexis
N23	anon.	1961	Mesolithic flints in uplands of Wales	Times	24 Jan 1961	12	article	Nexis
N24	Harry Godwin	1966	Flora down the millennia	Times	25 Apr 1966	ii	article	Nexis
N25	anon.	1967	Seaside 'resort' for Stone Age man	Times	16 Mar 1967	16	article	Nexis
N26	anon.	1970	Skeleton of elk is 10,000 years old	Guardian	05 Aug 1970	18	article	Nexis
N27	Norman Hammond	1973	Dorset sites reveal new Mesolithic background	Times	06 Apr 1973	17	article	Nexis
N28	Norman Hammond	1973	Flint winkle pickers at Bronze Age site	Times	22 Aug 1973	16	article	BNA
N29	David Keys	1975	Mesolithic man given status boost	Guardian	21 Jan 1975	6	article	BNA
N30	David Keys	1975	First of the animal-tamers	Observer	26 Jan 1975	8	article	Nexis
N31	Philip Howard	1975	Evidence of settlement in London before the Romans	Times	01 Oct 1975	1	article	Nexis
N32	Martin Walker	1977	Home was where the heath is	Guardian	11 May 1977	24	article	Nexis
N33	Philip Howard	1977	Early traces of intelligent life at Hampstead	Times	12 May 1977	2	article	Nexis
N34	anon.	1978	First Scots camp site unearthed	Guardian	30 Aug 1978	4	article	Nexis
N35	anon.	1978	Workmen find remains of camp from 4000 BC	Times	30 Aug 1978	14	article	Nexis
N36	Martin Wainwright	1978	England's oldest house found	Guardian	08 Nov 1978	3	article	Nexis
N37	Norman Hammond	1983	Flints problem	Times	20 Jul 1983	10	article	Nexis
N38	Derek Sloan	1985	Shellfish sites reveal clues to early Scots	Times	30 Dec 1985	10	article	Nexis
N39	anon.	1986	Early drinkers were on Rhum	Times	11 Apr 1986		article	Nexis
N40	John Ardill	1986	Digging in to save Stone Age remains	Guardian	08 Sep 1986	4	article	Nexis
N41	Norman Hammond	1987	Widespread threat to Britain's important sites	Times	25 May 1987		article	Nexis
N42	Paul Mellars	1987	Isle's fish families puzzle researchers	Times	28 Nov 1987		article	Nexis
N43	Norman Hammond	1988	Early riverside footsteps for mankind	Times	19 Aug 1988		article	Nexis
N44	Norman Hammond	1990	Study sheds new light on megalith builders	Times	01 Dec 1990		article	Nexis
N45	anon.	1990	Stone Age settlement unearthed by pipeline	Independent	07 Dec 1990		article	Nexis
N46	Norman Hammond	1990	First hunting dogs thrived on fish	Times	29 Dec 1990		article	Nexis
N47	Norman Hammond	1991	When tidal wave hit Scotland	Times	03 Jan 1991		review	Nexis
N48	Norman Hammond	1991	Pipeline to Mesolithic period	Times	23 Aug 1991		review	Nexis

N49	anon.	1992	Mesolithic find on Orkney	Times	04 Sep 1992		article	Nexis
N50	Norman Hammond	1992	New techniques pinpoint date of early British settlement	Times	21 Dec 1993		article	Nexis
N51	Norman Hammond	1994	Homes from the Mesolithic era found	Times	15 Aug 1994		article	Nexis
N52	Lindsay Allason-Jones	1994	Curator's Choice	Independent	28 Sep 1994		article	Nexis
N53		1995	Professor Sir Grahame Clark	Times	14 Sep 1995		article	Nexis
N54	Paul Mellars	1995	Sir Grahame Clark	Independent	19 Sep 1995		article	Nexis
N55	Martin Jones	1995	Sir Grahame Clark. Hunter-gatherer of	Guardian	28 Sep 1995	18	article	Nexis
N56	Adrian Lee	1996	Prehistory Work on Newbury bypass unearths Stone Age village	Times	09 May 1996		article	ProQuest
N57	Martin Wainwright	1997	Mesolithic ravers absolve Wrigley of introducing gum	Guardian	04 Feb 1997	6	article	ProQuest
N58	Norman Hammond & Nigel Hawkes	1997	Stone Age teenagers cut their teeth on smoky chewing gum	Times	04 Feb 1997		article	ProQuest
N59	Stuart Wavell	1997	It's all been downhill since we invented the plough	Sunday Times	09 Feb 1997		article	ProQuest
N60	Chris Mihill	1997	Face to face with an ancestor	Guardian	08 Mar 1997	1	article	ProQuest
N61	Hannah Pool	1997	Tar babies	Guardian	28 Oct 1997	16	article	ProQuest
N62	Trevor Lawson	1999	Of mammoths, mice and men	Guardian	01 Apr 1999	B4	obituary	ProQuest
N63	Mark Rowe	2000	Divers find submerged village from Stone Age	Independent	09 Jul 2000		article	ProQuest
N64	Tina Dawson	2001	Traces of the first Scots	Daily Mail	26 May 2001		article	ProQuest
N65		2002	A wave of alarm	Express	19 Aug 2002	22	article	ProQuest
N66	Mark Henderson	2002	Stone Age woman ate like a wolf	Times	30 Aug 2002	7	article	ProQuest
N67		2002	House is the oldest	Daily Mirror	21 Nov 2002	13	article	ProQuest
N68	Mike Pitts and Lewis Smith	2002	Oldest home put up 10,000 years ago	Times	21 Nov 2002	5	article	ProQuest
N69	Lucy Adams	2002	Scotland's first settlers had Nordic origins	Sunday Times	22 Dec 2002		article	ProQuest
N70	Mark Henderson	2003	Stone Age cook is trouble for Delia	Times	17 Jun 2003	11	article	Nexis
N71		2003	'Atlantis' of the North Sea is found by diver	Daily Mail	12 Sep 2003		article	Nexis

N72	Jeremy Armstrong	2003	Stoonhenge	Daily Mirror	12 Sep 2003	29	review	Nexis
N73	Paul Stokes	2003	Divers find Stone Age site in North Sea	Daily Telegraph	12 Sep 2003	10	article	Nexis
N74	Mark Blacklock	2003	Move over Indiana Jones. . .	Express	12 Sep 2003	23	review	Nexis
N75	Peter Hetherington	2003	Stone Age prehistoric settlements found under North Sea	Guardian	12 Sep 2003	10	article	Nexis
N76	Matthew Beard	2003	Stone Age site found by trainee diving team	Independent	12 Sep 2003		article	Nexis
N77	Robin Perrie	2003	Whyaye man from Atlantis	Sun	12 Sep 2003		article	Nexis
N78	Andrew Norfolk	2003	Divers find Stone Age 'Atlantis'	Times	12 Sep 2003	8	article	Nexis
N79		2003	Fred Flintstone was 5ft tall and he had arthritis	Daily Mail	24 Sep 2003		article	Nexis
N80	David Derbyshire	2003	10,000-year-old cemetery shows ancient nomads putting down roots	Daily Telegraph	24 Sep 2003	9	article	Nexis
N81		2003	Cave reveals grave secret	Express	24 Sep 2003	18	obituary	Nexis
N82	Maev Kennedy	2003	UK's oldest cemetery identified	Guardian	24 Sep 2003	8	article	Nexis
N83	Tim Radford	2003	How Stone Age man ditched the fish diet	Guardian	25 Sep 2003	17	article	Nexis
N84	Jonathan Brown	2004	Lawyer who turned to children's books earns record £3 million advance	Independent	02 Sep 2004		article	Nexis
N85		2005	Cave discovery	Times	08 Feb 2005	2	article	Nexis
N86	Simon de Bruxelles	2005	Somerset cavemen knew a thing or two about fishing	Times	16 Jul 2005	28	article	Nexis
N87	Dalya Alberge	2005	Stone axes highlight 10,000 years of commuting in the stockbroker belt	Times	25 Aug 2005	31	article	Nexis
N88	Peter Bowler	2005	Country Diary: North Yorkshire	Guardian	27 Aug 2005	24	article	Nexis
N89	Stewart Payne	2006	Stone Age dig at sea	Daily Telegraph	03 Jan 2006	5	article	Nexis
N90	Amanda Craig	2006	No more Mr Big Bad!	Times	26 Aug 2006	15	article	Nexis
N91	Adam Nicolson	2006	Country Diary How to build a shelter with hazel and birch	Daily Telegraph	07 Oct 2006	16	article	Nexis
N92	Robin McKie	2006	Dig uncovers Britain's hunter-gatherer past	Observer	05 Nov 2006	10	TV guide	Nexis
N93	Norman Hammond	2006	Lost land under the north Sea	Times	04 Dec 2006	61	article	Nexis
N94	Karl Grafton	2006	How to enjoy a Stone Age Christmas dinner	Sunday Express	17 Dec 2006	45	article	ProQuest

N95	Richard Gray	2007	Settlement under the sea shows our ancestors were a crafty lot	Sunday Telegraph	19 Aug 2007	14	article	ProQuest
N96	Stephen Moss	2007	Queen of the stone age	Guardian	06 Sep 2007	14	article	ProQuest
N97	John Lichfield	2009	The watery grave of Europe's monsters	Independent	14 Jul 2009		article	ProQuest
N98	Adam Thorpe	2009	Love in the Mesolithic era	Guardian	25 Jul 2009	8	article	ProQuest
N99	anon.	2009	Cave bone hints at prehistoric Devon cannibals	Guardian	07 Aug 2009	online	article	ProQuest
N100	anon.	2010	DNA of extinct giant wild cattle is analysed	Daily Telegraph	19 Feb 2010	34	article	Nexis
N101	Eric Brown	2010	Stone Spring	Guardian	03 Jul 2010	9	article	Nexis
N102	Graham Ball	2011	Secrets of the stones	Sunday Express	29 May 2011	50	article	Nexis
N103	anon.	2011	Ancient communities hidden under Isles, say archaeologists	Times	14 Jul 2011	7	article	Nexis
N104	anon.	2011	Professor Marek Zvelebil	Times	15 Aug 2011	44	article	Gale Group
N105	Yvonne Cook	2011	You never know what you might unearth	Independent	04 Oct 2011		article	Gale Group
N106	Richards Brooks	2011	Grade I listing for Lloyd's building	Sunday Times	18 Dec 2011		article	Gale Group
N107	Mark Brown	2011	Inside out: 'heroic' Lloyd's building joins the Grade I elite - at tender age of 25	Guardian	20 Dec 2011		article	Gale Group
N108	Rob Waugh	2012	'Britain's Atlantis' found at bottom of North sea - a huge undersea world swallowed by the sea in 6500BC	Mail Online	03 Jul 2012	online	article	Gale Group
N109	Norman Hammond	2012	Discovery of Mesolithic camp sheds light on origins of Stonehenge	Times	15 Sep 2012	109	article	Gale Group
N110	Richard Gray	2012	Prehistoric home unearthed in Scotland	Daily Telegraph	18 Nov 2012		letter	Gale Group
N111	Mark Macaskill	2012	Ancient home will be buried by brute Forth	Sunday Times	18 Nov 2012		article	Gale Group
N112	Susie Measure	2012	Stone Age home found	Independent	18 Nov 2012	online	article	Gale Group
N113	anon.	2012	Pad find is 'oldest'	Sun	18 Nov 2012	24	article	Gale Group
N114	Maev Kennedy	2012	Archaeology: Flints show stone age nomads settled down	Guardian	19 Nov 2012		article	Gale Group
N115	Nick Draine	2012	Scotland's 'earliest house' found during bridge works	Times	19 Nov 2012	12	announcement	Gale Group

N116	Claire Bates	2012	Archaeologists discover 10,000 year-old home - and reveal residents were partial to hazelnuts	Mail Online	20 Nov 2012	online	article	Gale Group
N117	Damien Gayle	2012	Care taken over prehistoric axes was about 'trust, not lust'	Mail Online	23 Nov 2012	online	letter	Gale Group
N118	anon.	2013	Real-life Fred Flintstone lives like a caveman... in Suffolk	Mail Online	16 Mar 2013	online	article	Gale Group
N119	Matt Nicholls	2013	Yabba dabba daddy	Daily Star	18 Mar 2013	24	article	Gale Group
N120	Nick Collins	2013	History of Stonehenge dates back another 5,000 years	Daily Telegraph	19 Apr 2013	6	article	Gale Group
N121	Mark Prigg	2013	Stonehenge was occupied by humans 5,000 years earlier than we thought	Mail Online	19 Apr 2013	online	article	Gale Group
N122	Shari Miller	2013	Ahead of their own time: How Stone Age Britons were the first to invent a calendar with rocks in a pit	Mail Online	14 Jul 2013	online	article	Gale Group
N123	Richard Kerbaj	2013	Stone Age Scots 'first to master time'	Sunday Times	14 Jul 2013		article	Gale Group
N124	Victoria Woollaston	2013	World's oldest calendar dating back more than 10,000 years discovered in Scotland	Mail Online	15 Jul 2013	online	article	Gale Group
N125	David Keys	2013	Found after 10,000 years: the world's first calendar	Independent	15 Jul 2013	online	article	Gale Group
N126	Nick Drainey	2013	Scottish Stone Age settlement may be the place where time began	Times	15 Jul 2013	4	article	Gale Group
N127	anon.	2013	'Oldest' calendar found	Daily Telegraph	16 Jul 2013	7	article	Gale Group
N128	Victoria Woollaston	2013	Sign of the times: Britain's oldest 'No Entry' post is discovered after 6,000 years	Mail Online	18 Jul 2013	online	article	Nexis
N129	Adam Aspinall	2013	'No entry' sign is 6,000 years old	Daily Mirror	19 Jul 2013	34	article	Nexis
N130	Jonathan Paige, Nick Clark	2013	Crossrail tunnel project uncovers ancient burial ground - including Bedlam patients	Independent	08 Aug 2013	online	article	Nexis
N131	anon.	2013	Rail works uncover traces of capital's ancient history	Daily Telegraph	09 Aug 2013	9	article	Nexis
N132	John Ingham	2013	Dug up...the lost souls of Bedlam	Express	09 Aug 2013	22	article	Nexis

N133	Mark Brown	2013	Wiltshire dig reveals frogs' legs eaten by British 8,000 years before French	Guardian	15 Oct 2013		article	Nexis
N134	anon.	2013	We ate frogs' legs 8,000 years before the French!	Daily Mail	16 Oct 2013		article	Nexis
N135	Sarah Griffiths	2013	Were our ancestors more cordon bleu than we think?	Mail Online	16 Oct 2013	online	article	Nexis
N136	Mark Brown	2013	Frogs' legs on the menu in Mesolithic age	Guardian	16 Oct 2013		article	Nexis
N137	John Hall	2013	Zut alors!	Independent	16 Oct 2013	online	article	Nexis
N138	Luke Heighton	2013	British ate frogs' legs 8,000yrs before French	Sun	16 Oct 2013	29	article	Nexis
N139	Tom Whipple	2013	Frogs' legs were British, not French	Times	16 Oct 2013	4	obituary	Nexis
N140	Aaron Sharp	2013	'Stonehenge's secret revealed at last'	Mail Online	19 Oct 2013	online	article	Nexis
N141	Simon de Bruxelles	2013	Stonehenge's hidden secret leaks out	Times	19 Oct 2013	3	article	Nexis
N142	Mark Macaskill	2014	Cold link to prehistoric deaths	Sunday Times	02 Mar 2014	13	article	Nexis
N143	Sarah Griffiths	2014	7,000-year-old footprints made by animals - and possibly humans - are exposed on a Northumberland beach	Mail Online	06 Mar 2014	online	article	Nexis
N144	Edward Malnick	2014	Stonehenge discovery rewrites history books	Daily Telegraph	01 May 2014	online	article	Nexis
N145	Jonathan O'Callaghan	2014	'Britain's Atlantis' and its tribes were wiped out by a tsunami triggered by a landslide off the coast of Norway 8,200 years ago	Mail Online	02 May 2014	online	article	Nexis
N146	Victoria Woollaston	2014	Britain's oldest town revealed: Amesbury - near to Stonehenge - is found to date back more than TEN millennia	Mail Online	02 May 2014	online	article	Nexis
N147	Justin Cash	2014	Tsunami created North Sea 'Atlantis' 8,000 years ago	Independent	02 May 2014		article	Nexis
N148	Sarah Griffiths	2014	Stonehenge was the 'London of the Mesolithic'	Mail Online	09 May 2014	online	article	Nexis
N149	Richard Smith	2014	Family of rabbits unearth ancient cavemen tools dating back 8,000 years	Daily Mirror	21 May 2014	online	review	Nexis
N150	Sarah Griffiths	2014	Discovered: The evidence that the A1 is ten thousand years old	Mail Online	12 Jun 2014	online	article	Nexis
N151	Hannah Furness	2014	100 objects that can teach children about history	Daily Telegraph	02 Sep 2014	online	article	Nexis

N152	Andrew Levy	2014	The 100 objects that will help bring history to life	Mail Online	02 Sep 2014	online	obituary	Nexis
N153	Andrew Levy	2014	The 100 things you must see to know Britain	Daily Mail	03 Sep 2014		article	Nexis
N154	Ellen Jones	2014	Behold: the Porsches of the Mesolithic age. Top-quality flint!	Independent	12 Sep 2014		article	Nexis
N155	Sarah Knapton	2014	Stonehenge tunnel 'threatens link to 4,000BC'	Daily Telegraph	20 Dec 2014	15	article	Nexis
N156	Hannah Perry	2014	Building a tunnel under Stonehenge could 'wreck chances of unlocking secrets of ancient site' after discovery of new settlement in path of dual carriageway	Mail Online	20 Dec 2014	online	article	Nexis
N157	anon.	2014	Stonehenge tunnel could damage encampment;	Independent	20 Dec 2014		article	Nexis
N158	Simon de Bruxelles	2014	Stonehenge tunnel 'will destroy links to Ice Age Britons'	Times	20 Dec 2014	35	article	Nexis

Appendix 11
List of BBC News Online articles analysed

ID	Article	Webpage	URL	Author	Date posted
BN01	Meet the ancestor's ancient house	England	http://news.bbc.co.uk/1/hi/england/2801695.stm		26/02/2003
BN02	Undersea Stone Age site found	Tyne & Wear	http://news.bbc.co.uk/1/hi/england/tyne/3099016.stm		11/09/2003
BN03	Researchers date 'oldest cemetery'	Somerset	http://news.bbc.co.uk/1/hi/england/somerset/3131700.stm		23/09/2003
BN04	Earliest British cemetery dated	Science & Environment	http://news.bbc.co.uk/1/hi/sci/tech/3130348.stm		23/09/2003
BN05	Ancient flints found on Cairngorms	Scotland	http://news.bbc.co.uk/1/hi/scotland/3581355.stm		30/03/2004
BN06	Engravings found in county cave	Somerset	http://news.bbc.co.uk/1/hi/england/somerset/4243787.stm		07/02/2005
BN07	Cave reveals 10,000-year-old art	Somerset	http://news.bbc.co.uk/1/hi/england/somerset/4159190.stm		17/08/2005
BN08	Flint remains show Stone Age life	England	http://news.bbc.co.uk/1/hi/england/southern_counties/4264902.stm		20/09/2005
BN09	Stone Age man was at sewage site	Berkshire	http://news.bbc.co.uk/1/hi/england/berkshire/6098888.stm		30/10/2006
BN10	Fight on to save Stone Age Atlantis	Hampshire & Isle of Wight	http://news.bbc.co.uk/1/hi/england/hampshire/6928293.stm	Eleanor Williams	08/08/2007
BN11	Prehistoric find at burial mound	Sussex	http://news.bbc.co.uk/1/hi/england/sussex/7392396.stm		09/05/2008
BN12	'Oldest' human settlement found	Dorset	http://news.bbc.co.uk/1/hi/england/dorset/8062513.stm		21/05/2009
BN13	Soil tells secret of ancient life	North East Wales	http://news.bbc.co.uk/1/hi/wales/north_east/8102450.stm		16/06/2009
BN14	Cannibal theory over early Briton	Science & Environment	http://news.bbc.co.uk/1/hi/sci/tech/8188601.stm	Judith Burns	07/08/2009
BN15	Cannibalism theory over bone find	Devon	http://news.bbc.co.uk/1/hi/england/devon/8188406.stm		07/08/2009
BN16	Thatcham - the oldest in Britain?	Berkshire	http://news.bbc.co.uk/local/berkshire/hi/people_and_places/history/newsid_8327000/8327303.stm	Nick Young	27/10/2009
BN17	Farmers protect Stone Age land	York & North Yorkshire	http://news.bbc.co.uk/local/york/hi/people_and_places/nature/newsid_8344000/8344426.stm		05/11/2009
BN18	A History of the World: Your objects	Cambridgeshire	http://news.bbc.co.uk/local/cambridgeshire/hi/people_and_places/history/newsid_8944000/8944373.stm		06/09/2010
BN19	Scarborough wetlands being restored	York & North Yorkshire	http://news.bbc.co.uk/local/york/hi/people_and_places/nature/newsid_8972000/8972954.stm		06/09/2010

BN20	Items found in Monmouth shed light on Mesolithic man	Wales	http://www.bbc.co.uk/news/uk-wales-11710978		08/11/2010
BN21	Prehistoric Ilkley Moor carvings to be preserved in 3D	Bradford & West Yorkshire	http://news.bbc.co.uk/local/bradford/hi/people_and_places/history/newsid_9167000/9167130.stm		08/11/2010
BN22	Surrey's Stone Age past on display at Guildford Museum	Surrey	http://news.bbc.co.uk/local/surrey/hi/people_and_places/history/newsid_9392000/9392055.stm	Nick Tarver	11/02/2011
BN23	The moment Britain became an island	Magazine	http://www.bbc.co.uk/news/magazine-12244964	Megan Lane	15/02/2011
BN24	Tentsmuir Reserve offers 9,000-year history trek	Edinburgh, Fife & East Scotland	http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-13347611		10/05/2011
BN25	Mesolithic 'rest stop' found at new Sainsbury's site	Highlands & Islands	http://www.bbc.co.uk/news/uk-scotland-highlands-islands-14189794		19/07/2011
BN26	UK's 'oldest' open-air cemetery discovered in Somerset	Somerset	http://www.bbc.co.uk/news/uk-england-somerset-14239742		22/07/2011
BN27	Skull from 'oldest cemetery' on display in Bridgwater	Somerset	http://www.bbc.co.uk/news/uk-england-somerset-14332346		29/07/2011
BN28	Hundreds queue outside Nairn's new Sainsbury's store	Highlands & Islands	http://www.bbc.co.uk/news/uk-scotland-highlands-islands-14391011		03/08/2011
BN29	Solent's Stone Age village 'had modern high street links'	Hampshire & Isle of Wight	http://www.bbc.co.uk/news/uk-england-hampshire-17046338		16/02/2012
BN30	Hampshire archaeologists discover Stone Age boatyard	Hampshire & Isle of Wight	http://www.bbc.co.uk/news/uk-england-hampshire-17060174		16/02/2012
BN31	Scottish dig unearths '10,000-year-old home' at Echline	Edinburgh, Fife & East Scotland	http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-20376243	James Crook	18/11/2012
BN32	Mesolithic man find could rewrite Stone Age history	England	http://www.bbc.co.uk/news/uk-england-20344575		19/11/2012
BN33	Digging into 2012's archaeology	Science & Environment	http://www.bbc.co.uk/news/science-environment-20795347	Louise Iles	26/12/2012
BN34	Severn Estuary fossils reveal Stone Age fire starting	South East Wales	http://www.bbc.co.uk/news/uk-wales-south-east-wales-20914482		06/01/2013
BN35	Didcot dig: A glimpse of 9,000 years of village life	Oxford	http://www.bbc.co.uk/news/uk-england-oxfordshire-21294884	Eleanor Williams	14/02/2013
BN36	Stonehenge occupied 5,000 years earlier than thought	Wiltshire	http://www.bbc.co.uk/news/uk-england-wiltshire-22183130		19/04/2013

BN37	Mesolithic life before Stonehenge found at Amesbury	England	http://www.bbc.co.uk/news/uk-england-22019089		19/04/2013
BN38	'World's oldest calendar' discovered in Scottish field	North East Scotland	http://www.bbc.co.uk/news/uk-scotland-north-east-orkney-shetland-23286928		15/07/2013
BN39	Stone Age carved wooden post found at Rhondda wind farm	Wales	http://www.bbc.co.uk/news/uk-wales-23349783		17/07/2013
BN40	Crossrail unearths evidence humans lived on Thames in 7,000 BC	London	http://www.bbc.co.uk/news/uk-england-london-23609994		08/08/2013
BN41	Low Hauxley dig reveals evidence of ancient tsunami	Tyne & Wear	http://www.bbc.co.uk/news/uk-england-tyne-23779202		21/08/2013
BN42	Amesbury dig 'could explain' Stonehenge history	Wiltshire	http://www.bbc.co.uk/news/uk-england-wiltshire-24488759		12/10/2013
BN43	English 'beat French to frogs legs' claim after Wiltshire dig finds	Wiltshire	http://www.bbc.co.uk/news/uk-england-wiltshire-24522240		15/10/2013
BN44	10 extraordinary sacred sites around Britain	Magazine	http://www.bbc.co.uk/news/magazine-25465210		28/12/2013
BN45	Storms uncover ancient trees at Newgale, Pembrokeshire	South West Wales	http://www.bbc.co.uk/news/uk-wales-south-west-wales-25716974		13/01/2014
BN46	Prehistoric North Sea 'Atlantis' hit by 5m tsunami	Science & Environment	http://www.bbc.co.uk/news/science-environment-27224243	Paul Rincon	01/05/2014
BN47	Amesbury in Wiltshire confirmed as oldest UK settlement	Wiltshire	http://www.bbc.co.uk/news/uk-england-wiltshire-27238503		01/05/2014
BN48	Mesolithic objects found during Land's End excavation	Cornwall	http://www.bbc.co.uk/news/uk-england-cornwall-27538136		25/05/2014
BN49	Storms reveal hunter-gatherer footprints and animal remains	Wales	http://www.bbc.co.uk/news/uk-wales-28104756		01/07/2014
BN50	Solent's Stone Age village 'washing away'	Hampshire & Isle of Wight	http://www.bbc.co.uk/news/uk-england-hampshire-29610179		20/11/2014
BN51	Stonehenge dig finds 6,000-year-old encampment	Wiltshire	http://www.bbc.co.uk/news/uk-england-wiltshire-30540914		19/12/2014

Appendix 12
List of popular archaeology magazine articles analysed

ID	Authors	Year	Title	Journal	Volum	Part	Issue	Month	Pages	Type
PM01	Selkirk, A	1975	The Mesolithic	Current Archaeology	5	1	48	Jan	5	Diary
PM02	Selkirk, A	1976	Mesolithic or Neothermal?	Current Archaeology	5	7	54	Jan	206	Feature
PM03	Woodman, P	1976	Mount Sandel	Current Archaeology	5	12	59	Nov	372-376	Feature
PM04	Selkirk, A	1978	Hunters, Gatherers and First Farmers beyond Europe	Current Archaeology	6	3	62	June	90	Books
PM05	Selkirk, A	1978	Mesolithic cultures of Britain	Current Archaeology	6	4	63	Sep	115	Books
PM06	Selkirk, A	1978	Broom Hill, Braishfield, Mesolithic dwelling	Current Archaeology	6	4	63	Sep	117-120	Feature
PM07	Selkirk, A	1979	Broomhill, Braishfield	Current Archaeology	6	10	69	Nov	317-319	Feature
PM08	Cane, T R	1980	Mesolithic Prelude	Popular Archaeology	2	3		Sep	4	Books
PM09	O'Malley, M	1980	Prehistoric prelude	Popular Archaeology	2	4		Oct.	40-43	Feature
PM10	Selkirk, A	1981	Early man in Britain and Ireland	Current Archaeology	7	5	76	May	154	Books
PM11	anon.	1981	The oldest "house" in Europe?	Popular Archaeology	2	9		Mar	43-44	Spoilheap
PM12	anon.	1981	Early man in Britain and Ireland	Popular Archaeology	3	1		Jul	46	Books
PM13	Searight, S	1984	The Mesolithic on Jura	Current Archaeology	8	7	90	Jan	209-214	Feature
PM14	Andersen, S	1984	Tybrind Vig	Current Archaeology	8	10	93	Aug	314-317	Feature
PM15	Musty, J	1984	Mesolithic arable?	Current Archaeology	8	11	94	Oct.	344	Science
PM16	Faulkner, P	1985	After the dig is over ...	Popular Archaeology	6	7		May	30-33	Feature
PM17	Musty, J	1986	Mesolithic sheep	Current Archaeology	9	4	99	Feb	120	Science
PM18	Sloan, D	1986	Shell middens of Scotland	Popular Archaeology	7	1		Feb	10-15	Feature
PM19	anon.	1986	The Archaeologist's Handbook	Popular Archaeology	7	6		Jul	34-35	Books
PM20	anon.	1986	Archaeology in Britain	Popular Archaeology	7	8		Oct/Nov	14	Mention
PM21	Searight, S	1988	The French suffer too ...	Current Archaeology	10	1	108	Feb	31	Letter
PM22	Musty, J	1988	Meso to Neo	Current Archaeology	10	2	109	Apr	56	Science
PM23	Mithen, S	1990	Gleann Mor: a Mesolithic site on Islay	Current Archaeology	10	12	119	Mar	376-377	Feature

PM24	Selkirk, A	1991	Thoughtful foragers	Current Archaeology	11	3	123	Feb/Mar	141	Books
PM25	Musty, J	1991	Star Carr dogs	Current Archaeology	11	4	124	May	183	Science
PM26	Selkirk, A	1992	Mesolithic Britain	Current Archaeology	11	8	128	Mar	336	Books
PM27	Ritchie, A	1992	Rhum: Mesolithic and later sites at Kinloch	Current Archaeology	11	11	131	Oct.	450	Books
PM28	Selkirk, A	1993	Late Stone Age Hunters of the British Isles	Current Archaeology	12	2	134	May/Jul	58	Books
PM29	Denison, S	1995	Mesolithic food industry on Colonsay	British Archaeology			5	June		News
PM30	Ivory, C	1995	Mesolithic food	British Archaeology			6	July		Letter
PM31	Addyman, P	1995	Grahame Clark	British Archaeology			8	Oct.		Obituary
PM32	Toomey, R	1995	Past vegetarians	British Archaeology			10	Dec.		Letter
PM33	Musty, J	1995	Footprints in time	Current Archaeology	12	10	142	Mar/Apr	393	Science
PM34	Selkirk, A	1995	Scotland's First Settlers	Current Archaeology	12	11	143	June	443	Books
PM35	Tolan-Smith,	1996	Few advances in Mesolithic Scotland	British Archaeology			18	Oct.		Books
PM36	Åveling, E	1997	Chew, chew, that ancient chewing gum	British Archaeology			21	Feb		Feature
PM37	Rowley-Conwy, P	1997	In sorrow shalt thou eat all thy days	British Archaeology			21	Feb		Feature
PM38	Willis, K	1997	Moorland and its Mesolithic causes	British Archaeology			21	Feb		Books
PM39	Planel, P	1997	Reasons to chew	British Archaeology			23	Apr		Letter
PM40	Denison, S	1997	Three Mesolithic houses discovered near Avebury	British Archaeology			28	Oct.		News
PM41	Denison, S	1997	Oldest occupation site in East Scotland	British Archaeology			28	Oct.		News
PM42	Musty, J	1997	At what season was Star Carr occupied?	Current Archaeology	13	9	153	Jul	343	Science
PM43	Selkirk, A	1997	Sir Grahame Clark	Current Archaeology	13	11	155	Dec.	416	Diary
PM44	Denison, S	1998	Mesolithic pet bear	British Archaeology			31	Feb		In brief
PM45	Young, R	1998	No carefree life for Mesolithic people	British Archaeology			33	Apr		Feature
PM46	Musty, J	1998	Mesolithic trepanation	Current Archaeology	14	1	157	May	28	Science
PM47	Selkirk, A	1998	Wild Harvesters	Current Archaeology	14	6	162	Apr/May	233	Books
PM48	Fagan, B	1998	Grahame Clark	Current Archaeology	14	6	162	Apr/May	238	Letter
PM49	Selkirk, A	1998	In Search of Cheddar Man	Current Archaeology	14	7	163	June	272	Books
PM50	Denison, S	1999	Early Scotland	British Archaeology			43	Apr		In brief

PM51	Mellars, P	1999	Revising the Mesolithic at Star Carr	British Archaeology			48	Oct.		Feature
PM52	Mithen, S	1999	Islay and Colonsay: Mesolithic hunter-gatherers in the Hebrides	Current Archaeology	14	10	166	Dec.	390-394	Feature
PM53	Thorpe, N	2000	Origins of war: Mesolithic conflict in Europe	British Archaeology			52	Apr		Feature
PM54	Lewis, J	2000	Hunters in the cold	British Archaeology			55	Oct.		Feature
PM55	Denison, S	2001	Mesolithic hunting camp found on Scottish mountain	British Archaeology			57	Feb		News
PM56	Denison, S	2001	Prestige feasting 'dates back to hunter-gatherer era'	British Archaeology			59	June		News
PM57	Coles, J	2001	Man and Sea in the Mesolithic	Current Archaeology	15	4	172	Feb	161	Books
PM58	Lillie, M	2001	Stone Carr: a Late Mesolithic flint production site	Current Archaeology	15	4	172	Feb	166	Feature
PM59	Coles, J	2001	Star Carr in Context	Current Archaeology	15	4	172	Feb	160-161	Books
PM60	Denison, S	2002	Mesolithic camp found at bottom of the Solent	British Archaeology			64	Apr		News
PM61	Denison, S	2002	The 7,700-year-old woman who ate like a wolf	British Archaeology			66	Aug		News
PM62	Smith, D E	2002	The Storegga disaster	Current Archaeology	15	11	179	May	468-471	Feature
PM63	Wickham-Jones, C	2002	In search of squashed Mesolithic people	Current Archaeology	15	11	179	May	472-473	Feature
PM64	Musty, J	2002	A Neolithic revolution in eating?	Current Archaeology	15	12	180	Jul	527	Science
PM65	Denison, S	2003	Mesolithic houses in both Scotland and the North East	British Archaeology			69	Mar		News
PM66	Young, R	2003	Grahame Clark	British Archaeology			69	Mar		Books
PM67	Wickham-Jones, C	2003	The tale of the limpet	British Archaeology			71	July	23	Feature
PM68	Barker, G	2003	After the Ice: a Global Human History 20,000-5,000 BC	British Archaeology			73	Nov		Books
PM69	Selkirk, A	2003	Grahame Clark	Current Archaeology	16	6	186	June	267	Books
PM70	May, J	2003	Britain's earliest cemetery revealed	Current Archaeology	16	8	188	Oct.	327	News
PM71	Moore, J	2003	Howick and East Barns	Current Archaeology	16	9	189	Dec.	394-399	Feature
PM72	Mears, R	2004	A passion for ancestors	British Archaeology			76	May	50	Personal

PM73	May, J	2004	Scientists reveal a lost world discovered under the North Sea	Current Archaeology	16	11	191	Apr	478	News
PM74	Pitts, M	2005	The tsunami that hit Britain	British Archaeology			81	Mar/Apr		News
PM75	Pitts, M	2005	Hunters respect white magic	British Archaeology			82	May/June		News
PM76	Selkirk, A	2005	Mesolithic Scotland and Its neighbours	Current Archaeology	17	3	195	Jan	131	Books
PM77	Mullan, G & Wilson, L	2005	Mesolithic engravings at Cheddar Gorge	Current Archaeology	17	7	199	Sep/Oct	360-361	Feature
PM78	Pitts, M	2006	Oldest houses in Scotland	British Archaeology			88	May/June		News
PM79	Pitts, M	2006	Sensational new discoveries at Bryn Celli Ddu	British Archaeology			89	Jul/Aug		News
PM80	Pitts, M	2007	“Why did hunter-gatherers dig row of pits in Scotland?”	British Archaeology			93	Mar/Apr	7	News
PM81	Pitts, M	2007	Oldest cremation burials	British Archaeology			93	Mar/Apr		News
PM82	Milner, N	2007	“Fading Star”,	British Archaeology			96	Sep/Oct	10-14	Feature
PM83	Mithen, S	2007	“Return to Staosnaig”	British Archaeology			97	Nov/Dec	28-31	Feature
PM84	Faulkner, N	2007	Doggerland	Current Archaeology	18	3	207	Jan/Feb	12-19	Feature
PM85	Pitts, M	2008	Orkney mesolithic radiocarbon dated	British Archaeology			98	Jan/Feb		In brief
PM86	Dark, P	2008	Dating Star Carr	British Archaeology			98	Jan/Feb		Letter
PM87	Wickham-Jones, C	2008	Mesolithic Miscellany	British Archaeology			99	Mar/Apr		Web
PM88	Pitts, M	2008	Orkney discovery	British Archaeology			100	May/June		In brief
PM89	Bell, M	2008	The Severn Estuary: addressing the ecological footprint	British Archaeology			101	Jul/Aug		Feature
PM90	Wickham-Jones, C	2008	The Clan	British Archaeology			101	Jul/Aug		Web
PM91	Westcott, L	2008	Charred hazelnut confirms presence of Mesolithic people in Orkney	Current Archaeology	18	10	214	Jan	5	News
PM92	Westcott, L	2008	Boatyard beneath the Solent waves	Current Archaeology	18	12	216	Mar	4	News
PM93	Catling, C	2008	Eat like a hunter-gatherer	Current Archaeology	19	4	220	Jul	11	Sherds
PM94	Westcott, L	2008	Mapping Doggerland	Current Archaeology	19	4	220	Jul	46	Books

PM95	Birch, S	2008	High Pasture Cave	Past Horizons	n/a	n/a	n/a	Mar	n/a	Feature
PM96	Pitts, M	2009	Britain's oldest string found off Isle of Wight	British Archaeology			104	Jan/Feb		News
PM97	Pitts, M	2009	Isle of Man house is one of Britain's first	British Archaeology			108	Sep/Oct		News
PM98	Hardy, K	2009	Tracking Hunters and Gatherers on the Continental Limits	British Archaeology			109	Nov/Dec		Feature
PM99	Cochrane, J	2009	Mesolithic mystery	Current Archaeology	20	1	229	Apr	49	Letter
PM100	Cunliffe, B	2009	The land between the oceans: the Mesolithic crisis	Current Archaeology	20	1	229	Apr	16-21	Feature
PM101	Westcott, L	2009	Europe's Lost World	Current Archaeology	20	3	231	Jun	47	Books
PM102	Westcott, L	2009	Mesolithic dwelling unearthed at Isle of Man airport	Current Archaeology	20	7	235	Oct.	8	News
PM103	Westcott, L	2009	Birmingham's prehistoric past	Current Archaeology	20	8	236	Nov	8	News
PM104	Westcott, L	2009	"Early farmers replaced hunter-gatherers"	Current Archaeology	20	8	236	Nov	9	News
PM105	Pitts, M	2010	Roger Jacobi	British Archaeology			111	Mar/Apr		Requiem
PM106	Pitts, M	2010	Rare prehistoric finds at major Carlisle dig	British Archaeology			112	May/Jun		News
PM107	Pitts, M	2010	Puzzle of mesolithic campsite in Co Londonderry	British Archaeology			113	Jul/Aug		News
PM108	Payne, S	2010	The dark secrets of ancient peat	British Archaeology			114	Sep/Oct		Science
PM109	Taylor, B; Conneller, C & Milner, N	2010	"Little house by the shore",	British Archaeology			115	Nov/Dec	14-17	Feature
PM110	Westcott, L	2010	Mesolithic camp found in Leicestershire	Current Archaeology	20	11	239	Apr	11	News
PM111	Westcott, L	2010	Hunting in Britain from the Ice Age to the Present	Current Archaeology	20	11	239	Feb	43	Books
PM112	Westcott, L	2010	British men descended from ancient farmers	Current Archaeology	21	1	241	Apr	7	News
PM113	Momber, G	2010	"Diving into the Mesolithic"	Current Archaeology	21	1	241	Apr	32-36	Feature
PM114	Catling, C	2010	Men are descended from farmers; women from hunter-gatherers	Current Archaeology	21	2	242	May	46-47	Sherds
PM115	Clapham, P	2010	Dogger Bank archaeology at risk?	Current Archaeology	21	3	243	Jun	5	Letter
PM116	Westcott, L	2010	"Britain's oldest house"	Current Archaeology	21	8	248	Nov	7	News

PM117	Pitts, M	2011	Connemara	British Archaeology			116	Jan/Feb		In brief
PM118	Paterson, H	2011	Cooked	British Archaeology			116	Jan/Feb		Letter
PM119	Pitts, M	2011	Thames Discovery Programme	British Archaeology			117	Mar/Apr		News
PM120	Pitts, M	2011	6 threatened sites, incl. Low Hauxley	British Archaeology			118	May/June		Feature
PM121	Pope, M	2011	Hunting History on the Edge of the North Sea	British Archaeology			119	Jul/Aug		Feature
PM122	Pitts, M	2011	Greylake skulls	British Archaeology			120	Sep/Oct		In brief
PM123	Momber, G; Satchell, J & Gillespie, J	2011	“Bouldnor Cliff”	British Archaeology			121	Nov/Dec	30–35	Feature
PM124	Catling, C	2011	“Fear of farming”	Current Archaeology	21	11	251	Feb	43	Books
PM125	Westcott- Wilkins, L	2011	“To the islands”	Current Archaeology	21	11	251	Feb	43	Books
PM126	Catling, C	2012	“Bouldnor Cliff: a glimpse into the Mesolithic”	Current Archaeology	22	10	262	Jan	30-37	Feature
PM127	Symonds, M	2012	“Mesolithic Muscovites”	Current Archaeology	23	1	265	Apr	9	News
PM128	Symonds, M	2012	“Following in Mesolithic footprints”	Current Archaeology	23	1	265	Apr	10	News
PM129	Symonds, M	2012	“Fishing first”	Current Archaeology	23	7	271	Oct.	9	News
PM130	Jacques, D, Phillips, T & Lyons, T	2012	“Vespasian's Camp: cradle of Stonehenge?”	Current Archaeology	23	7	271	Oct.	28-33	Feature
PM131	McHale, C	2012	Ten facts about the Mesolithic	Past Horizons	n/a	n/a	n/a	Jul	n/a	Feature
PM132	Pitts, M	2013	“Scottish hunters left wolf pelt at home”	British Archaeology			128	Jan/Feb	6	News
PM133	Pitts, M	2013	Hunter-gatherer flint axe is first from North	British Archaeology			131	Jul/Aug	7	News
PM134	Pitts, M	2013	Sea Wolf Brother's Wildwoods	British Archaeology			131	Jul/Aug	56	Books
PM135	Pitts, M	2013	6,000-year-old carved wooden post found on Welsh mountain	British Archaeology			132	Sep/Oct	7	News
PM136	Pitts, M	2013	Crathes, Aberdeenshire	British Archaeology			132	Sep/Oct	9	In Brief
PM137	Pitts, M	2013	Star Carr: Life in Britain after the Ice Age	British Archaeology			132	Sep/Oct	57	Books
PM138	Pitts, M	2013	Low Hauxley tsunami	British Archaeology			133	Nov/Dec	13	In brief
PM139	Morrissey, H	2013	Aveline's Hole	British Archaeology			133	Nov/Dec	14	Letter

PM140	Symonds, M	2013	“Scotland's first house?”	Current Archaeology	23	10	274	Jan	6	News
PM141	Symonds, M	2013	“Mesolithic Merseyside”	Current Archaeology	23	10	274	Jan	6	News
PM142	Symonds, M	2013	“Longer in the tooth”	Current Archaeology	23	11	275	Feb	10	News
PM143	Symonds, M	2013	“Star Carr's star finds”	Current Archaeology	23	11	275	Feb	10	News
PM144	Symonds, M	2013	“Fishing in the Jomon”	Current Archaeology	24	4	280	Jul	9	News
PM145	Catling, C	2013	“Return to Star Carr”	Current Archaeology	24	5	282	Sep	12-19	Feature
PM146	Symonds, M	2013	“Maerdy's Mesolithic masterpiece”	Current Archaeology	24	7	283	Oct.	6	News
PM147	Symonds, M	2013	“Mesolithic timelords”	Current Archaeology	24	7	283	Oct.	12-19	Feature
PM148	Symonds, M	2013	“Thames Valley tool-making, 7,000 BC”	Current Archaeology	24	7	283	Oct.	6-7	News
PM149	Symonds, M	2013	“Really old spice”	Current Archaeology	24	8	284	Nov	9	News
PM150	Thompson, M	2013	“Memories of Star Carr”	Current Archaeology	24	8	284	Nov	4-5	Letter
PM151	Buckoke, A	2013	“Social circles”	Current Archaeology	24	9	285	Dec.	4-5	Letters
PM152	Philippsen, B	2013	Fish based diets cause archaeological dating problems	Past Horizons	n/a	n/a	n/a	Mar	n/a	Feature
PM153	Storemyr, P	2013	Burning rock: Fire setting at the Stone Age Melsvik chert quarries	Past Horizons	n/a	n/a	n/a	Nov	n/a	Feature
PM154	Pitts, M	2014	Before Farming: Life in Prehistoric Wales	British Archaeology			134	Jan/Feb	57	Books
PM155	Pitts, M	2014	Early campsite and rare necklaces at Dunragit	British Archaeology			137	Jul/Aug	6-7	News
PM156	Pitts, M	2014	A1 Mesolithic site	British Archaeology			138	Sep/Oct	6	In brief
PM157	H, C	2014	“Before farming”	Current Archaeology	24	10	286	Jan	46	Books
PM158	Symonds, M	2014	“Submerged Sweden”	Current Archaeology	25	2	290	May	9	News
PM159	Symonds, M	2014	“London's Mesolithic moments”	Current Archaeology	25	4	292	Jul	9	News
PM160	Symonds, M	2014	“New dates for Vespasian's Camp”	Current Archaeology	25	4	292	Jul	8-9	News
PM161	Symonds, M	2014	“Dunragit: 7,000 years of Scottish prehistory”	Current Archaeology	25	5	293	Aug	10	News
PM162	Jacques, D, Phillips, T & Lyons, T	2014	“Return to Blick Mead”	Current Archaeology	25	5	293	Aug	24-29	Feature
PM163	Catling, C	2014	“Rocks and aurochs”	Current Archaeology	25	5	294	Sep	54	Sherds

PM164	anon.	2014	Mesolithic shamanistic meteorite talisman unearthed	Past Horizons	n/a	n/a	n/a	Jul	n/a	Feature
PM165	anon.	2014	Mesolithic sanctuary reveals constellation	Past Horizons	n/a	n/a	n/a	Sep	n/a	Feature
PM166	Gaffney, V; Garwood, P & Momber, G	2015	Middle Mesolithic wheat	British Archaeology			142	May/June	22-27	Feature
PM167	Pitts, M	2015	Blick Mead	British Archaeology			142	May/June	28-35	Feature
PM168	Waddington, C	2015	“Saved from the sea”	Current Archaeology	25	10	298	Jan	12-19	Feature
PM169	Fagan, B	2015	“Barchaeology: the wolf by your side”	Current Archaeology	26	1	301	Apr	42-44	Feature
PM170	Durrani, N	2015	“Mesolithic grains of truth”	Current Archaeology	26	2	302	May	9	News
PM171	Durrani, N	2015	“Britain's earliest cremation burial”	Current Archaeology	26	3	303	June	8-9	News
PM172	anon.	2015	Fish could be key to innovation of pottery by hunter gatherer societies	Past Horizons	n/a	n/a	n/a	Feb	n/a	Feature
PM173	anon.	2015	Hunter gatherers had wheat 2,000 years before farming in the UK	Past Horizons	n/a	n/a	n/a	Mar	n/a	Feature
PM174	anon.	2015	Late Mesolithic finds in the Scottish Borders	Past Horizons	n/a	n/a	n/a	Mar	n/a	Feature
PM175	anon.	2015	Mesolithic cremated human bone discovery is a first for Britain	Past Horizons	n/a	n/a	n/a	Apr	n/a	Feature
PM176	anon.	2015	Mesolithic hunters moved through Cairngorm glens 8,000 years ago	Past Horizons	n/a	n/a	n/a	Jul	n/a	Feature

Appendix 13
List of fictional stories analysed

ID	Authors	Year	Title	Series	Part	Place	Publisher	Type
F01	Lesley Howarth	1996	The Pits			London	Walker Books	novel
F02	Penny Spikins	2002	Prehistoric People of the Pennines			Leeds	West Yorkshire Archaeology Service	factual illustration
F03	Karen Griffiths	2003	Raven's Wing, son of True Arrow			Bainbridge	Yorkshire Dales National Park	short story
F04	Michelle Paver	2004	Wolf Brother	The Chronicles of Ancient Darkness	1	London	Orion	novel
F05	Michelle Paver	2005	Spirit Walker	The Chronicles of Ancient Darkness	2	London	Orion	novel
F06	Bill Finlayson	2005	Wild Harvesters (2nd ed.)	Darkness		Edinburgh	Birlinn	factual illustration
F07	Michelle Paver	2006	Soul Eater	The Chronicles of Ancient Darkness	3	London	Orion	novel
F08	Michelle Paver	2007	Outcast	The Chronicles of Ancient Darkness	4	London	Orion	novel
F09	John Barrett	2007	The Man and the Forest	The Whitestone Stories	1	Lincoln, Nebraska	iUniverse	short stories
F10	John Barrett	2007	How the Boy Found His Name	The Whitestone Stories	2	Lincoln, Nebraska	iUniverse	short stories
F11	John Barrett	2007	Kindness and Strangers	The Whitestone Stories	3	Lincoln, Nebraska	iUniverse	short stories
F12	Michelle Paver	2008	Oath Breaker	The Chronicles of Ancient Darkness	5	London	Orion	novel
F13	Michelle Paver	2009	Ghost Hunter	The Chronicles of Ancient Darkness	6	London	Orion	novel
F14	Margaret Elphinstone	2009	The Gathering Night	Darkness		Edinburgh	Canongate	novel
F15	Ben Haggarty & Adam Brockbank	2010	Mezolith	Mezolith	1	Oxford	David Fickling Books	graphic novel
F16	Stephen Baxter	2011	Stone Spring	Northland Trilogy	1	London	Gollancz	novel
F17	John Hearle	2011	Mellor through the Ages			Mellor	Mellor Arch. Trust	factual illustration
F18	anon.	2014	Hunt the Magic			York	Yorkshire Museum	graphic short story

Note: *Raven's Wing, son of True Arrow* was published online, at http://www.outofoblivion.org.uk/story_mesolithic.asp#

APPENDIX 14

REVIEWS OF FICTION

This is a random selection of reviews of Wolf from GoodReads.com. They are sorted to show the oldest reviews first and taken from only the first 100 reviews of each novel.

Wolf Brother

Esti, May 25, 2007 (Esti rated it 4 of 5 stars)

well described setting of a boy who lived thousands years back in north european jungle. i love the way the author described the culture of the inuit ancestor. still waiting for the 4th volume though

Julie, Aug 09, 2007 (Julie rated it 4 of 5 stars)

I was hesitant about picking this book up. The back made it sound rather cheesy, but I enjoyed the read and I found the setting in the ancient world to be quite believable.

Fabz, Sep 25, 2007 (Fabz rated it 5 of 5 stars)

Recommends it for: Children- young Adults- some Adults

Its a book set in the old days of hunters, with tribes and magic. Its an unreal world thats totally believable.

READ IT!

Julie Christensen, Dec 05, 2007 (Julie Christensen rated it 4 of 5 stars)

Recommends it for: boys (and girls) 8+

Involves magic and supersititions of European indians. Interesting and full of adventure. Could be a bit scary for those with active imaginations. I like the series.

Brian, Jan 24, 2008 (Brian rated it 3 of 5 stars)

I enjoyed this children's fantasy set in a neolithic world of hunter-gatherers, mainly because of the setting, the characterisation and the relationships, particularly that between the central character, a young boy, and a wolf cub, who is the real star of the book. The plot is a bit random - one set of events after another with no real organic unity - but there's plenty of very good story-telling here - cliff-hangers at the end of every chapter and an emotionally satisfying ending.

Ian Korpel, Jan 20, 2008 (Ian Korpel rated it 5 of 5 stars)

Pretty simple reading but really good! What a cool way to build off of the ideals of the Native American people.

Tiffany, Jun 10, 2008 (Tiffany rated it 4 of 5 stars)

Here's a good referral to the boy who is reluctant to read. Starts off with a good kill in the first 10-20 pages or so. Middle school girls who like sci-fi or fantasy may also grab onto this one. Good intro to a new genre for the others...That is, those who won't have nightmares about the slayings. Paver did an amazing piece of work in telling what the world may have been like 2,000 years ago with giant animals, savage clans and ancient spirituality.

Nikki, Jun 14, 2008 (Nikki rated it 3 of 5 stars)

Recommends it for: People into fantastic adventures

a pretty good book about a boy around his teens who must stop the amazing forces of a monster you could say came from hell. It is action packed and very realistic for if our world was as primitive as there's. It's a good book and it's a book that passes the time.

Scor, Jul 03, 2008 (Scor rated it 5 of 5 stars)

A tale set in the stone age, it evokes the beliefs and feel of the time excellently.

Eve, Jul 26, 2008 (Eve rated it 3 of 5 stars)

I liked Wolf Brother alot, because it is set in the past but gives you a really good look at what life was probably like then. It's good-versus-evil, the main boy, Torak being good and saving the forest from an evil demon bear. It's exciting and has some really good characters.

Simon, Aug 28, 2008 (Simon rated it 4 of 5 stars)

This tale is set thousands of years ago in the Neolithic Age. A demon bear is stalking the land killing all in its path, and only 12-year-old Torak and his wolf-cub can stop it. This is an exciting and original adventure that I found thoroughly engrossing. The literary re-creation of a Neolithic world is handled well by the author, and one can easily imagine oneself in it. Definitely recommended.

Spirit Walker

Vivian, Dec 13, 2009 (Vivian rated it 5 of 5 stars)

Trying to refresh my memory on what happened in Spirit Walker, I read it again so that I could read the last two books without any confusion since they finally came out. Although it wasn't as suspenseful as the first time I read it, it still was an amazing book to read. It is unbelievable that this story might have occurred 6000 years ago since Paver used actual facts to base her story upon.

Soul Easter

Lars Guthrie, Oct 25, 2008 (Lars Guthrie rated it 5 of 5 stars)

I've been giving glowing reviews to the "Ranger's Apprentice" series by John Flanagan here, but this series by Paver is just as good. Placed in prehistory, it also provokes thought as to how far we

may really have "advanced," and gives great insight and perspective on the natural world that our ancestors occupied and that we still find around us, if we care to notice (and protect). Paver's notes on her research at the end of each book are fascinating. Beyond those benefits, the series is chock full of action and adventure, and in *Torak*, offers a great hero, while Renn, his friend, is a strong female character. I read #2, "Spirit Walker," nearly two years ago, but still had no trouble picking up where it left off. Highly recommended.

Brian, Mar 02, 2009 (Brian rated it 3 of 5 stars)

Once again, I liked it but it wasn't anything special. The stories don't seem to be moving along and are a little bit predictable. However the realistic settings are interesting.

Shelly, Mar 19, 2009 (Shelly rated it 3 of 5 stars)

The kids and I just finished reading this book and are dying to read *Outcast*. Loved all the descriptions of the way the "northern" people live.

Eileen, Feb 01, 2010 (Eileen rated it 5 of 5 stars)

This series just gets better and better. *Torak* is awesome and Renn always comes through when mage knowledge is needed. Michelle Paver knows how to seamlessly sneak in lessons about prehistoric life and survival all in the name of adventure. Can't wait to read the next installment, *Outcast*.

Kelly, Jun 30, 2012 (Kelly rated it 4 of 5 stars)

Whilst out hunting with Renn, somebody snatches Wolf, and takes him to the Far North. *Torak* cannot abandon his pack brother, so they follow through unknown territory, but can they make it in time to save Wolf?

Again, another fantastic addition to the series. I'm really enjoying these books, you can tell the amount of research the author has done because it's so realistically detailed for that time. The stories have started to get darker in tone as *Torak* and Renn get closer to fighting the Soul Eaters, and with the end of every book, you never know where the next one will go, so it's always unexpected and interesting. A really enjoyable series so far, and I'm already thinking ahead and wondering what will happen in the last book, so I cannot wait to read the next three and find out!

Cheryl Landmark, Nov 07, 2010 (Cheryl Landmark rated it 5 of 5 stars)

Torak's adventures continue with his quest to find and destroy the Soul Eaters and, with each successive book in the series, these adventures are getting darker and more dangerous. *Torak's* bond with Wolf and Renn is also growing and we see the boy maturing. Ms. Paver has obviously done a lot of research on prehistoric times and cultures, as well as the lands in which she sets *Torak's* story. It makes for an incredibly delightful, enjoyable read. I will continue to faithfully follow *Torak's* quest to the end.

Outcast

Bryнна, Jun 21, 2009 (Bryнна rated it 3 of 5 stars)

A fun, quick read (I started it four hours ago and have now finished it) much like the rest of the series. I like the originality and consistency of the world Michelle Paver has created.

Faeryl., Apr 28, 2010 (Faeryl. rated it 5 of 5 stars)

Brilliant, just like the rest of them.

I love how it's a really good adventure book and everything but you also learn so much about ancient history, so it's also an educational book.

I'm going to be verrrrry sad when the series finishes.

Matthew.c, Apr 23, 2010 (Matthew.c rated it 3 of 5 stars)

This review has been hidden because it contains spoilers. To view it, [click here](#). Great book.

Brilliant insight and description into the ancient WORLD. Some parts of it were quite exciting, especially the fight scene at the river and when they killed the soul eater, the viper mage. (couldn't believe Renn Killed her own mother)

AnQi, Dec 22, 2010 (AnQi rated it 4 of 5 stars)

The beginning of Outcast continues a few months after the ending of Soul Eater. The main plot of the entire series, called Chronicles of Ancient Darkness, is Torak's struggles with the Soul Eaters, a group of mages/magicians/shamans, who summon demons to do their bidding and wreck havoc amongst the land. The story is set 6000 years ago in prehistoric times, and Torak's peoples are ones we might call Indians, Natives, or Aborigines. Although the plot sounds morbid, this is a book for children, and I think that that's a right time, considering that there are no gory descriptions and only a few hints at romance. I do believe, however, even though this is a children's book, that it's a wonderful step up from Michelle Paver's Soul Eater, the previous book to this one.

Again, Paver gives us luscious details and prose that add so much to your sensory detail, and switching the perspectives from time to time from Torak to his best friend Wolf (a real wolf,) brought out nice detail, as Wolf had an interesting way of describing things. (He describes fire as 'the Bright Beast that Bites Hot.) Not only that, but it never takes away from the plot of the story and nicely contributes to it.

The plot itself is an original one, especially for this particular book in the series. Along the way, Torak learns more about himself, and his friends, and goes through a huge leap from boy to man in this book, showing Paver's excellent way of writing character development.

All in all, this was a great book, and I'm very excited to read the next book in this series. I would recommend it to anyone who wants a light read, or to just anyone who wants to learn more about Torak's world.

Ji Mei, Jul 31, 2012 (Ji Mei rated it 4 of 5 stars)

I didn't like this one as much as the others. There was a section where Torak loses himself and that part I didn't like. The rest of it, the idea of the clan law, the further development of Renn's character, and experiencing the more wild part of Torak's world, was interesting and researched well.

Oath Breaker

Mary, Apr 23, 2009 (Mary rated it 4 of 5 stars)

Not having read the first four books in this series, I still enjoyed the fifth book, Oath Breaker. Ms. Paver inserted past information in a subtle but effective way that brought important points from previous books into this story.

Getting a glimpse into possible ways of life 6,000 years ago, the book is full of adventure beginning with Chapter One and continuing to the end of the book. Definitely a recommended book for kids who enjoy a fast-paced story along with animal speak, spirits and mysticism.

Cindy, May 11, 2009 (Cindy rated it 5 of 5 stars)

Recommends it for: any kid with a curious and adventure loving spirit

This is the best book so far in this very good series! It is packed full of adventure, literally from page one! Torak suffers yet another great loss in life, and this time, not being a small child, he swears revenge. He drags those who love him - Wolf, Renn, Fen-Keddin - along on his quest, and often, in spite of the evidence directly in front of him, he allows his oath of vengeance to lead him down paths that are not in his best interests. Like any kid feeling grown while not yet being grown, he takes on too much blame for things not really his fault and not enough for things that are - and still, Renn and Wolf stick with him. They all grow and learn edge towards a better life. There is much else I'd like to write, but one thing leads to another, and I don't want to give anything away.

I'd recommend this series to kids of any age, only pausing to phrase my recommendation with a disclaimer that this series takes place in an imagined world, 6000 years ago. We don't really know how folks lived, or what they thought supplied the life force that obviously surrounds them - if your own belief structure is so shaky you can't contemplate a world of clans, bonded to animal spirits and living lives filled with mysticism and inexplicable events without endangering your own spiritual well being - - - then sorry. Go re-read the Chronicles of Narnia (yawn).

Megan, Jun 20, 2009 (Megan rated it 4 of 5 stars)

Oath Breaker is about a boy who lived in prehistoric times and had to learn to survive on his own. His father has died and he has been outcast from any clan. When Torak's best friend is killed, he swears vengeance and goes after the killer along with another best friend and her uncle. I loved how

the author enabled us to see what life was like back then and to see how people saw and interpreted their world. It was fascinating how well they could communicate with the animals--both human and animal understood & befriended one another. But, at the same time, I had a hard time wrapping my mind around the idea that humans could actually learn and speak the audible language of animals. However, it was easy to believe you were actually there, in the wild, having to fight to survive. The names that the author used in the book were a bit confusing, at times. Was that a person's name? Was that the name of a Clan? Or was that the name of something in nature? But I eventually caught on to the system. I thoroughly enjoyed this book and I'd recommend it to anyone who loves to read about prehistoric cultures. And even though I was able to understand everything in this book, I think reading the first four books would help you learn about the naming system and how the humans & animals could communicate, among other things about this culture.

Eva Mitnick, Nov 24, 2009 (Eva Mitnick rated it 3 of 5 stars)

As my 15-year-old daughter (a reader of this series since it began) said after reading this most recent installment, you REALLY don't want to have lived 5000 years ago. In Oath Breaker, our heroes get involved with some really creepy tribes - almost as creepy as the hideous Soul Eater himself. I found this tale interesting but grim as all get out - not my favorite of the bunch.

CaroleHeidi, Aug 31, 2010 (CaroleHeidi rated it 5 of 5 stars)

What I liked: Where to start? I have loved this series of books since I first opened Wolf Brother in 2004. Michelle Paver's beautiful writing creates an ancient world that instantly draws you in and makes you believe in it so much you can almost feel the breeze and hear the Forest leaves rustling around you.

I love her detail. She has obviously done a lot of research and truly immersed herself in the world of post-ice age Europe and this reflects in every single line of the book. You can tell she has spent days at the UK Wolf Conservation Trust watching how the wolves move and act around each other, you can tell she's visited Polish forests untouched by human hands and all of that adds up to make these some of the best young teen novels I have ever read in terms of world building and realism.

Her characters are brilliant also. Surprisingly easy to relate to despite living lives so different from our own, just a few pages in it feels 'normal' to leave a scrap of food in a tree fork as a 'thank you' to the Forest for providing or making sure your bow is carefully oiled and always ready to use.

Torak is strong-willed and one of my favourite characters in any book, partly because of his close relationship to Wolf and partly because he is so very human in his doubts, passion and fears.

The story is fast paced and exciting, keeping you turning the pages long after you should have switched off the light and gone to sleep or stopped reading to do your homework.

What I didn't like: This is much harder to answer because there is nothing I can come up with to dislike. Which means Michelle must be doing something very right indeed.

Ghost Hunter

Amelia, Jan 30, 2011 (Amelia rated it 5 of 5 stars)

I really enjoyed reading this book. It gave me chills and scares at times, but also smiles of nostalgia. The way this story is written, makes you feel like your really there 6,000 years ago. A very satisfying end to a great series.

Sarah, Jan 09, 2011 (Sarah rated it 5 of 5 stars)

Liked the ending, shame its all over. I loved this series, it was a cool book about life 6,000 years ago, which really fascinates me.

Phoebe, Jun 16, 2010 (Phoebe rated it 5 of 5 stars)

Sadly, the final volume in this truly great series. Unnatural winter and sickness, sent by Eostra, the scary Eagle Owl Mage, are killing the tribes, and Torak realizes he must venture out and fight Eostra, who seeks Torak, the last Soul Eater, to gain ultimate power. Compelling, creepy, and just plain good storytelling. Recommended for adventure fans, unique for its post-Ice Age, pre-farming time setting. Paver did meticulous research and traveled extensively to write her books.

Andrea, Jul 29, 2014 (Andrea rated it 4 of 5 stars)

I don't know why this series isn't more popular! It's like Harry Potter-meets-Lord of the Rings in Stone Age Europe! I loved the ending to the series, it was emotional and satisfying, and I even shed a few tears at the end.

My only complaint--and this goes for the other books too--is that it should have been longer! While the characters are well developed for the length of book, imagine how much more character depth you could get from a longer story. Also, the final battle in this one seemed a little anti-climatic, as opposed to the more intense final battles in the previous books. I expected an epic battle, but it wasn't so much. Hence, the four star rating.

However, the book was very satisfying. I was especially touched by the story of Wolf and his family. Yes, they are a bit predictable, but I don't mind; I just like a good story. A lot of good stories are "predictable" because they follow a universal formula that resonates with readers. I think Michelle Paver's excellent writing and descriptions of setting make these books really stand out. It definitely made me more interested in European prehistory, primeval forests, and the way of life for Stone Age people. I think she should write another series of Torak, Renn and Wolf's adventures in the new forest. That would be really awesome.

Suki, Aug 30, 2013 (Suki rated it 5 of 5 stars)

I have read all six books of the series and loved them all. Even if they may appear childish at a first glance, you cannot brush away the feeling that the writer did a lot of research and her love of nature, animals and our past as human race can be felt in every page.

Patty Smith, Jun 24, 2012

Even though this series is young adult. I was intrigued by the story line and the world as it was 1000s of years ago.

The Gathering Night

Paul, Feb 17, 2011 (Paul rated it 5 of 5 stars)

It's been a while since I gave a book 5 stars, but I just couldn't put this book down. I read the last 100 pages in one day at work when I should have been working. (and I'm not a fast reader) The story was just that compelling. Today I hope to be a more studious employee. The descriptions of events were so rich it felt like I was there. With this type of story it could have easily felt contrived, fake or even new age'ish in it's dealing with spirituality, but there was none of that feeling at all.

How do you take a time period with so little information and tell it like things were certainly that way? The Authors Afterword does a good job of explaining this, "My premise, as a story writer, is that wherever there are people there will be emotions, rituals, metaphors, stories, art... in other words, a constant search for meaning. Hunter-gatherer cultures all over the world share remarkably similar spiritual practices that express deep affinity with the land to which they belong."

I would highly recommend this book. As has already been mentioned it is a better written and more "real" feeling Clan of the Cave Bear.

Jim, Nov 28, 2010 (Jim rated it 3 of 5 stars)

I've found myself becoming more and more impressed by the lengths that historical novelists go to research their subjects. What if your subject is set in the middle of the Mesolithic period though? That was the problem the author had here and yet although there is a lot of guesswork in this book it is very much educated guesswork and she deserves credit for that. The story is handled well enough but I'd be lying if I said this was my cup of tea. I was sent a review copy and so I read it. It wasn't a hard read although the book contains far more detail that personally interested me; others may well appreciate her attention to detail. The star rating is only 3 because that's how much I enjoyed it: it's not an assessment of what I think others will think because I think most people will rank it higher.

Fiona Hurley, Nov 20, 2014 (Fiona Hurley rated it 5 of 5 stars)

A geologically-documented tsunami, a scattering of archaeological evidence, the shamanistic beliefs of hunter-gatherer societies: Elphinstone has used these ingredients to recreate a prehistoric world. Her research is admirable, but even more so is her talent for conjuring up the distant past.

This is a story told around a campfire by people whose relationship to nature is elemental. They have rituals for communicating with the spirits of animals, on whom they depend for survival. They joke with each other. They are capable of tenderness one moment and brutality the next. They seem very different from us and yet, in the end, not so different after all.

Sharon, Mar 09, 2012 (Sharon rated it 4 of 5 stars)

Margaret Elphinstone has written a convincing account of what life might have been like in the Mesolithic era in Scotland. This era encompassed six thousand years of human occupation from the last Ice Age until the agricultural revolution of around 4000BC. Not much is known of Scotland's hunter-gatherers, but Elphinstone drew parallels from Inuit, Native American and Sami traditions. Hunter-gatherer cultures share spiritual practices which show their deep relationship to their land. "People could make decisions about their lives, just as we do, based on social and spiritual considerations, and not just the material imperatives of where and how to find the next meal." The one definite historic event of the time was a tsunami that struck the east coast of Scotland following an underwater landslide off the coast of Norway in about 6150BC. The plot of the story is woven from this event as the people try to make sense of it. This was an interesting historical read.

Laurent, Jan 04, 2013 (Laurent rated it 3 of 5 stars)

I read this after I heard that the author had approached an acquaintance of mine for research purposes (he's not actually a paleolithic Scottish hunter-gatherer, but not that far off either), because many years ago I'd read "The Sea Road", and because "Margaret Elphinstone" is such a great name. The story is gripping, and the recreation of prehistoric life both practical and social credible and engaging. If nothing else, it's a great adventure story, and if you have a particular interest in how to gather seabird eggs from a cliff or ambush geese in their muddy roosts, it's even better.

Robert, Feb 27, 2013 (Robert rated it 4 of 5 stars)

The Gathering Night is a novel set in pre-history. We listen to a bunch of people telling a story about a decisive time in their community, over the course of several evenings. They tell the story of how one young man disappeared without a trace, how his mother mourned and changed, and how a stranger arrived, displaced by the total destruction of his own tribe through a tsunami. I read the entire novel vaguely assuming it was set in the Pacific Northwest. Only after reading the afterword did I realise it was set in Scotland...

The novel sets up mysteries, but, like real lives, people cannot dedicate everything to resolving those mysteries. Lives go on - answers are not always found straight away, if ever. It is not a very plot-driven novel.

The prose is elegant and the speech rhythm - and prehistoric humour - is well-thought-out and compellingly believable. The level of detail about hunting/gathering is comparable to Jean M Auel novels, but there is no single (superheroic) protagonist here. This is a story of a community, and no one gets to dominate. (No Ayla in this book)

I enjoyed reading the book and found it quite absorbing even though it is not very plot-driven. It is a mellow, but satisfying read. The only issue I take with this (and, of course, Auel's work) is the persistent reliance on the supernatural / spirits. It detracts from the ability of such novels to truly convince that they treat spirits and the supernatural as real.

Still, it's quite a bit more literary (and subtle) than Auel's series - and a good novel, on the whole.

Emily Johnson, Jan 03, 2014 (Emily Johnson rated it 4 of 5 stars)

An excellent and extremely rare example of fiction set in Prehistoric Britain - very few people (especially archaeologists) are brave enough to give it a go. This book is very well researched and the world-view that Elphinstone has created for the Mesolithic inhabitants of the Scottish Isles is brilliantly and realistically formed. I particularly admire her abandonment of and optimistic and ultimately feminist tendency to create an egalitarian Eutopia in which both genders existed in equality within prehistory.

Jade, Jul 13, 2014 (Jade rated it 2 of 5 stars)

This book has some really nice historical input from the 400BC Scottish era (apparently, from the afterword), which basically reminds us all how useless we are now in not being able to hunt for ourselves etc. However, and I am saddened to say, it was quite boring at times. The narrative used was that of a camp fire storytelling, but it was quite annoying at stages, with characters sounding almost childlike and detached.

Eventually points within the story hit at some excitement at around 70% of the book! but this was far too late for me to thoroughly enjoy. This gave a good 20% to the book! before dragging the ending out again.

Ultimately I did start to like the characters in this book and connected with their feelings, but it was just all a bit far too late in the day. I wouldn't recommend, unless you are really interested in how to hunt certain animals or make a good winter camp.

Jim, Dec 27, 2014 (Jim rated it 4 of 5 stars)

It's not fast-paced but it is really engaging. The story is told from the viewpoint of several narrators sitting round the camp fire during the Mesolithic era in Scotland. And these are indeed different people but they speak with a collective voice which illustrates the communal nature of their existence. There is a little repetition of scenes from these different viewpoints but it all builds quite nicely. They depend on one another, on their Go-Betweens, and the animals that provide for them.

These early hunter-gatherers are depicted as being surprisingly sophisticated, civilised, caring and thoughtful. They have their laws and their religion. It's amusing the way they all refrain from being boastful, so as not to upset their spirit gods. Brutishness between people is a rarity and violence is permitted only to address serious crimes. But what happens when laws are broken and their Spirits are upset?

The story is well-rounded, detailed, carefully constructed and absorbing. I really enjoyed the trip into this one quite plausible construction of the distant past.

Mezolith

Sophie, Feb 03, 2011 (Sophie rated it 4 of 5 stars)

A beautiful comic about a boy's journey to adulthood, set in the Neolithic Age. While I didn't really connect to the main character or any character, really, I loved the stories the clan told each other. And the art is simply gorgeous.

Stone Spring

David Marshall, Jan 18, 2012 (David Marshall rated it 3 of 5 stars)

Although I find most of the prehistory/stone age novels more or less unreadable, this proved to be a modern novel wrapped up in the discarded skins of dead mammoths. It's enjoyable.

Alice Sabo, Mar 12, 2012 (Alice Sabo rated it 3 of 5 stars)

This was marked as Science Fiction in my library. I don't know what I would call it. The story revolves around a village and spans generations. Since it happens in prehistoric times, I suppose it could be fantasy. Although, the traditional hallmarks of fantasy - magic, good vs evil, non-humans - are not there.

If you want to know about the life of hunter-gatherers, this is the book for you. The setting, traditions and rituals of their lives is richly laid out. The characters are bit thinner. There were a few things that felt anachronistic to me. But having no knowledge of the time period, I could be completely wrong.

It was an interesting journey.

John, Oct 04, 2012 (John rated it 4 of 5 stars)

Excellent story, and some great ideas, but I find it hard to buy the key theme of a stone age society building the necessary structures. However, their real-world equivalents DID build Stonehenge, so who knows what might have been possible? The use of real archaeological information added credibility.

Bradley, Nov 27, 2012 (Bradley rated it 3 of 5 stars)

Shelves: alternate-history, ebook, fiction

...

Baxter has clearly done his homework, including a fairly accurate map of what the region called Northland would have likely looked like around 10,000 BC. Though the cultures are fictitious, they are based on historical records to generate something believable and identifiable for readers. The peoples of the book are generally hunter-gatherers, relying on the world around them to provide them what's needed. The Etxelur people--the primary culture of the book--have much in common

with Native Americans, in that they thank the creatures for their sacrifice, and waste nothing.

...

Sam, Jan 19, 2013 (Sam rated it 4 of 5 stars)

As an archaeologist myself, I must say I enjoyed this book. Some of the social phenomena were (to my mind) a little advanced for the Mesolithic, but it was nonetheless a valiant and well-researched effort for a science fiction book! Well done, Mr. Baxter! The only thing I didn't like was the allusion to Atlantis...but it was only one single one. I will read the next book in the series!

Chris, Feb 15, 2013 (Chris rated it 5 of 5 stars)

I enjoyed this a lot more than I thought I might. Baxter creates a prehistoric world of rich and sophisticated Stone Age cultures that go far beyond the standard 'cave man' trope. The peoples he has living in prehistoric Europe remind me of an alternate world National Geographic.

Gaston Prereth, Jun 30, 2013 (Gaston Prereth rated it 2 of 5 stars)

...

The start of the novel is fairly slow and it spent a lot of time trying to convey the size of the world for these early civilisations and to add a cultural richness to a part of history that is often painted in broad 'they lived in huts' type brush strokes. I didn't mind the slow pace, however, because I felt that we were building to something and I was willing to take the time to get to know the characters. It felt like we were doing a lot of the leg work early on so that we could understand the characters and their motivations once the big decisions and events started to happen. I trusted the author... and then it all fell apart.

...

Paul Hufton, Aug 19, 2013 (Paul Hufton rated it 1 of 5 stars)

Stone Spring in theory:

Set in the paleolithic as the English channel is starting to form, a fourteen year old girl can inspire her people to raise a wall and keep the sea out, changing the fate of the world. To do so, she'll have to not only convince her own tribe to do something that no one has tried before, but also navigate a world of increasing trade and conflict.

Stone Spring in practice:

Jumps in time mean that none of the potentially interesting events are covered. The characters are totally inconsistent between one part of the story and the next. Inter-tribe conflict is simultaneously put centre stage and yet reduced to a hilariously bad attempt of one tribe to invade another.

tl;dr:

The characters are awful, the plot clearly of little interest even to the author, the obsession with

bodily functions offputting and the realisation of the world bizarre and unintentionally hilarious.

Randi, Jun 03, 2013 (Randi rated it 4 of 5 stars)

I bought this book on amazon because "Stone Spring" was the only fiction book that came up when I searched on "Doggerland", one of my new interests. It was written by Stephen Baxter, whom I considered a fantasy/science fiction author. But I would say it's an historical novel, set in a land that really did exist about 7,000 years ago.

This novel is set in an area that is now under the North sea in Europe. 7000 years ago the sea level of the earth was hundreds of feet lower, and supported a large human population.

I really enjoyed Baxter's writing style and the plot was engaging. So much so, I order the second of the series "Bronze Summer" which I'm reading now.

Stephanie Ricker, Oct 17, 2013 (Stephanie Ricker rated it 2 of 5 stars)

I finished Stone Spring at last; the book covers several decades, and I sort of felt like it took me decades to read since I left off reading it in the middle while I went out of town. The story is set 10,000 years ago, at the time when the seas were rising and changing the landscape, making an island out of the region of Britain. Baxter clearly did a lot of research and his premise was intriguing, but I admit I despised his characters. Definitely a concept writer and not a character writer. Inconsistent and unlovable cast aside, I was also disturbed by the gratuitous violence. I understand that he was trying to depict an uncivilized and brutal era, but at times I felt like he just threw in some brutality whenever he ran out of plot ideas.

Kevin Orrman-Rossiter, Dec 07, 2013 (Kevin Orrman-Rossiter rated it 2 of 5 stars)

Mesolithic setting with modern characters - not convincing.

William, Dec 30, 2013 (William rated it 3 of 5 stars)

Overall, I enjoyed this book, though not as much as much of the author's earlier work.

I have quibbles over a couple of points. The first was that a neolithic culture would have enough excess labor to undertake such grand projects without an agricultural base.

The second was that there was an arboreal society that did not have any communication between its members and a dog eat dog mentality that for no apparent reason kidnaps toddlers as a means of procreating their society. The story would have been better served with a more believable society like a remnant tribe of tree dwelling Homo habilis.

Benjamin Rothman, Jul 28, 2014 (Benjamin Rothman rated it 4 of 5 stars)

It took a little to get into, but once I was in, I was absolutely hooked. It literally took me over half the book to realize it was an alternate-history. I found the story to be much deeper than I expected and surprisingly human. More than just an alternate look at paleo-lithic Europe, it was very much a story about human emotions and how they can tear people apart and bring them together. It sticks

with you once you close the book.

And on a totally separate note, I loved the archaeology the author used as a starting point for the story. Absolutely fascinating and well documented!

Lisa, Oct 17, 2014 (Lisa rated it 2 of 5 stars)

This book had much potential but it was unrealized. I gave two stars merely because I liked the premise and I didn't quit the book partway through, though I was tempted. I like the idea of settled land on the English channel and the promise of a rich historical mystery. The characters I did not like, even ones who started out likeable or at least understandable did not develop in a good manner. There was an ugliness and hatefulness to each.

I always dislike how authors tend to portray primitive peoples as though they were so very stupid and really did no development for thousands of years and generations. Yet at the same time he alludes to lost Atlantis which would have anything but stupid people. I found the character motivations shallow and I hope unrealistic. The portrayal of Jericho was also shallow and petty. It seems that the author is supremely disapproving of humanity in general, especially a humanity that seeks progress. That progress portrayed as either naive or somewhat the result of nefarious motives. The reader is left thinking humanity lame and useless that only seems to hurt the environment. I'm also sick of the always same "mother-goddess" religions and the crude made up rituals that this author uses but he is not alone in this stereotypical description.

Betsey, Nov 03, 2014 (Betsey rated it 3 of 5 stars)

More like a long essay imagining Mesolithic life in Britain. It was the style of Baxter where his characters are just pawns for exposition and plot, not flushed out or developed. I found it really interesting but not emotionally engaging.

Daniel, Jan 07, 2015 (Daniel rated it 3 of 5 stars)

An alternate history of the Mesolithic era Reads like a better clan of the cave bear. The book isn't bad it's just not great. The settings are well done and historically accurate, the cultures are believable and well thought out my problem is with the actual characters in the book. They are caricatures of people and not filled out and the dialog is jarring in its stilted-ness. So buy the book for the really well thought out alternate history not the characters.

Appendix 15
List of pictorial illustrations analysed

ID	Artist	Year	Title	Source	Filename	Figure
I01	Henri Breuil	1949	The shell-fish eaters of the sea shore	Breuil, H (tans. M Boyle) 1949 Beyond the Bounds of History, London: P R Gawthorn	Breuil01	
I02	Henri Breuil	1949	The Azilians at Mas d'Azil	Breuil, H (tans. M Boyle) 1949 Beyond the Bounds of History, London: P R Gawthorn	Breuil02	
I03	Henri Breuil	1949	Red deer hunting in Mesolithic days	Breuil, H (tans. M Boyle) 1949 Beyond the Bounds of History, London: P R Gawthorn	Breuil03	
I04	Henri Breuil	1949	Hunting the elk in south Scandinavia	Breuil, H (tans. M Boyle) 1949 Beyond the Bounds of History, London: P R Gawthorn	Breuil04	
I05	Henri Breuil	1949	Mesolithic settlements near the mouth of the Tagus	Breuil, H (tans. M Boyle) 1949 Beyond the Bounds of History, London: P R Gawthorn	Breuil05	
I06	Alan Sorrell	1951	Men of the Middle Stone Age at Star Carr	Google Image > http://guerillaarchaeology.wordpress.com/resources/mesolithic-shamanism/ , published in the Illustrated London News 3 Feb 1951	Sorrell01a	
I07	Alan Sorrell	1958		Sellman, R R 1958 Prehistoric Britain, Methuen's Outlines, London: Methuen	Sorrell03	
I08	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney01	
I09	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney02	
I10	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney03	
I11	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney04	
I12	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney05	
I13	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney06	

I14	John Kenney	1961		Du Garde Peach, L 1961 Stone Age man in Britain: an adventure from history, Ladybird History 561, Loughborough: Ladybird Books	Kenney07	
I15	Ronald Lampitt	1966	Lakeside dwellings of Mesolithic period	Bowood, R & Lampitt, R 1966 (1st ed.) Our land in the making: earliest times to the Norman Conquest, Loughborough: Ladybird Books	Lampitt01	
I16	John Pearson	1968		James, S 1986 Archaeology in Britain: new views of the past, London: British Museum	Pearson01	
I17	Alan Sorrell	1968	Star Carr, Yorkshire	Green, B & Sorrell, A 1968 Prehistoric Britain, Guildford: Lutterworth Press	Sorrell01b	41
I18	Alan Sorrell	1968	A Mesolithic hunter stalking deer	Green, B & Sorrell, A 1968 Prehistoric Britain, Guildford: Lutterworth Press	Sorrell02	
I19		1970		Sauvain, P A 1970 Lively history 1. Lord and peasant (old stone age to 1485 AD), Amersham: Hulton Educational Publications	Sauvain01	
I20	M Maitland Howard	1971		Marsden, B M 1971 North-eastern England, Discovering Regional Archaeology, Princes Risborough: Shire Publications	Howard01	
I21		1976		Sauvain, P A 1976 Prehistoric Britain, Imagining the Past, London: Macmillan	Sauvain02	
I22		1979		Freeman-Grenville, G S P 1979 Atlas of British History from prehistoric times until 1978, London: Rex Collings	FGrenville01	
I23		1979	Visualisation of Mesolithic activities by the sea at Nab Head, Wales	Google Image > http://microburin.com/2013/08/24/storegga-mesolithic-tsunami-is-there-evidence-in-the-tees-area/ and Google Image > http://www.archaeoleg.org.uk/paleo.html	NMW01	
I24	Nancy Bryce	1983	n/a	Dawson, I 1983 Prehistoric Britain, Studies in Evidence 1, Edinburgh: Holmes McDougall	Bryce01	35
I25	Nancy Bryce	1983	n/a	Dawson, I 1983 Prehistoric Britain, Studies in Evidence 1, Edinburgh: Holmes McDougall	Bryce02	36
I26		1983		Nichol, J 1983 Prehistoric Britain, Oxford: Basil Blackwell	Nichol01	
I27	David Salariya or Shirley Willis	1984		Branigan, K 1984 Prehistory, History as Evidence, London: Kingfisher	Branigan01	
I28		1985	A Stone-Age hunter's camp	Atkins, S 1985 From Stone Age to Conquest, Amersham: Hulton	Atkins01	

I29	Amanda Balfour	1989	n/a	Corbishley, M 1989 Prehistoric Britain, London: British Museum Press	Balfour01	
I30	Alan Braby	1990	Reconstruction drawings based on the remains at Rum	Warren, G 2005 Mesolithic lives in Scotland, Stroud: Tempus	BrabyW124a	39
I31	Alan Braby	1990	Reconstruction drawings based on the remains at Rum	Warren, G 2005 Mesolithic lives in Scotland, Stroud: Tempus	BrabyW124b	40
I32	Tim Taylor	1991		Wymer, J J 1991 Mesolithic Britain, Princes Risborough: Shire Publications	Taylor01	
I33	Alan Braby	1994	House building in the	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ06	
I34	Alan Braby	1994	Mesolithic Things that do not survive	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ08	9
I35	Alan Braby	1994	Scotsraig Burn	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ17	
I36	Alan Braby	1994	The occupation site at Morton, Fife	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ53	
I37	Alan Braby	1994	The hunter	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ55	25
I38	Alan Braby	1994	Evening in a cave dwelling	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ68	
I39	Alan Braby	1994	Out in the boat	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ73	
I40	Alan Braby	1994	Grave 22 Vedbaek, Denmark	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ82	30
I41	Alan Braby	1994	A community on the move to the next camp-site	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ91	
I42	Alan Braby	1994	The hunt	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ97	
I43	Alan Braby	1994	Working on the shore	Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ98	
I44		1994	Mesolithic Hunters	Google Image >	St Edmundsbury01	
I45	Harry Bland	1998	At work and play	http://www.stedmundsburychronicle.co.uk/wstowhis.htm Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland01	
I46	Harry Bland	1998	Hide working	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland02	
I47	Harry Bland	1998	Canoe and coracle manufacture	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland03	
I48	Harry Bland	1998	Gathering hazels	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland04	

I49	Harry Bland	1998	Microlith manufacture	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland05	
I50	Harry Bland	1998	A gathering	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland06	
I51	Harry Bland	1998	Burial	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland07	29
I52	Harry Bland	1998	Mesolithic landscape	Finlayson, B 2005 (2nd ed.) Wild harvesters: the first people of Scotland, Making of Scotland 1, Edinburgh: Birlinn	Bland08	
I53	Mary Kemp-Clarke	1998	meat smoking in early autumn?	Google Image > Wickham-Jones, C R & Dalland,M 1998 "A small mesolithic site at Fife Ness, Fife, Scotland", Internet Archaeology 5, http://dx.doi.org/10.11141/ia.5.1	KempClarke01	37
I54	Mary Kemp-Clarke	1998	a mesolithic fishers' camp, or a bird hunters' butt?	Google Image > Wickham-Jones, C R & Dalland,M 1998 "A small mesolithic site at Fife Ness, Fife, Scotland", Internet Archaeology 5, http://dx.doi.org/10.11141/ia.5.1	KempClarke02	38
I55		2000	Artist's impression of prehistoric hunter-gatherers at Wood Hall.	Google Image > http://www.cridling-stubbs.co.uk/wood%20hall/mesoandneo.htm	WoodHall01	
I56	Jon Prudhoe	2002	An Early Mesolithic scene at Lominot	Spikins, P A 2002 Prehistoric people of the Pennines. Reconstructing the lifestyles of Mesolithic hunter-gatherers on Marsden Moor, Leeds: West Yorkshire Archaeology Service	PrudhoeS75	6
I57	Jon Prudhoe	2002	Late Mesolithic scene	Spikins, P A 2002 Prehistoric people of the Pennines. Reconstructing the lifestyles of Mesolithic hunter-gatherers on Marsden Moor, Leeds: West Yorkshire Archaeology Service	PrudhoeS77	7
I58	Jon Prudhoe	2002	A Terminal Mesolithic scene at March Hill Top	Spikins, P A 2002 Prehistoric people of the Pennines. Reconstructing the lifestyles of Mesolithic hunter-gatherers on Marsden Moor, Leeds: West Yorkshire Archaeology Service	PrudhoeS79	8
I59	Chrissie Harrison	2003	The clay floor structure at Ven Combe	Gardner, A 2007 "The past as playground: the ancient world in video game representation", in T Clack & M Brittain Archaeology and the media, Walnut Creek: Left Coast Press: 255-272	HarrisonG93	11
I60	Jane Brayne	2004	Mesolithic encampment	Google Image > http://www.mikeladle.com/tackle/tackle124.html , published in Ladle, L 2004 Bestwall: pits, pots and people. The archaeology of Bestwall Quarry, Wareham, Dorset, Bestwall Archaeology Project	Brayne01	

I61	James Innerdale	2004		Google Image > Griffiths, K 2003 Raven's Wing, son of True Arrow, Bainbridge: Yorkshire Dales National Park, http://www.outofoblivion.org.uk/story_mesolithic.asp	Innerdale01	28
I62		2004	Daily life at the Howick Mesolithic house	Google Image > http://research.ncl.ac.uk/howick/schools/mesolithic/	Newcastle01	
I63	Alan Braby	2005	A mesolithic plant processing area	Warren, G 2005 Mesolithic lives in Scotland, Stroud: Tempus	BrabyW104	
I64	Alan Braby	2005	A mesolithic landscape at the Sands of Forvie, Aberdeenshire	Warren, G 2005 Mesolithic lives in Scotland, Stroud: Tempus	BrabyW117	10
I65	Alan Braby	2005	A mesolithic stone working area based on material recovered from the Sands of Forvie, Aberdeenshire	Warren, G 2005 Mesolithic lives in Scotland, Stroud: Tempus	BrabyW140	
I66	Steve Rigby	2005	It shows a mesolithic hunting group, who lived in the period just after the last Ice Age.	Google Image > http://mitchtemparch.blogspot.co.uk/2010/05/publication-of-mesolithic-age-in.html	Rigby01	
I67	Jenny Bidgood	2006		Google Image > http://www.witheridge-historical-archive.com/mesolithic.htm	Bidgood01	
I68	Karen Nichols	2006	Mesolithic activity adjacent to a silted up stream channel in a forest clearing, on Wessex Arch. site as Reconstruction by Karen Nichols of a mesolithic hunting camp site, based on an archaeological site beneath Terminal 5 Heathrow Airport.	Google Image > http://www.framearch.co.uk/t5/tag/mesolithic/	Nichols01	
I69		2007	n/a	Bell, M 2007 Prehistoric coastal communities: the Mesolithic in western Britain, Research Report 149, York: Council for British Archaeology	Bell01	
I70	Alan Braby	2007	Mesolithic hunters tracking red deer (caption on Peebles website)	Google Image > http://spearthroweruk.blogspot.co.uk/2012/01/mesolithic-menu-from-star-carr.html also Google Image > http://www.peeblesearch.co.uk/html/panel_3.htm	BrabyP01	
I71	Alan Braby	2007	The main stages in making an arrowhead tipped with microliths	Google Image > http://www.peeblesearch.co.uk/html/panel_3.htm	BrabyP02	

I72	Alan Braby	2007	A mesolithic activity area in the Scottish Borders	Google Image > http://www.peeblesarchsoc.org.uk/html/manor_bridge.htm	BrabyW15	
I73	Christine Clerk	2007	There is a new creature in the forest	Barrett, J 2007a The man and the forest, The Whitestone Stories 1, Lincoln, Nebraska: iUniverse	Clerk 01	
I74	Christine Clerk	2007	And there is fat pork roasting on his fire	Barrett, J 2007a The man and the forest, The Whitestone Stories 1, Lincoln, Nebraska: iUniverse	Clerk 02	
I75	Christine Clerk	2007	The Man's bright campfire was drenched	Barrett, J 2007a The man and the forest, The Whitestone Stories 1, Lincoln, Nebraska: iUniverse	Clerk 03	
I76	Christine Clerk	2007	The boy liked his Summer home	Barrett, J 2007b How the boy found his name, The Whitestone Stories 2, Lincoln, Nebraska: iUniverse	Clerk 04	
I77	Christine Clerk	2007	The boy liked his Winter home	Barrett, J 2007b How the boy found his name, The Whitestone Stories 2, Lincoln, Nebraska: iUniverse	Clerk 05	
I78	Christine Clerk	2007	The boy's father stared at his son aghast	Barrett, J 2007b How the boy found his name, The Whitestone Stories 2, Lincoln, Nebraska: iUniverse	Clerk 06	
I79	Christine Clerk	2007	"Oh do not hurt me, sir!"	Barrett, J 2007b How the boy found his name, The Whitestone Stories 2, Lincoln, Nebraska: iUniverse	Clerk 07	
I80	Christine Clerk	2007	... a fat brown hare – freshly killed and good eating	Barrett, J 2007b How the boy found his name, The Whitestone Stories 2, Lincoln, Nebraska: iUniverse	Clerk 08	
I81	Christine Clerk	2007	And then the great bear came	Barrett, J 2007b How the boy found his name, The Whitestone Stories 2, Lincoln, Nebraska: iUniverse	Clerk 09	
I82	Christine Clerk	2007	The people of the cliff-foot	Barrett, J 2007c Kindness and strangers, The Whitestone Stories 3, Lincoln, Nebraska: iUniverse	Clerk 10	
I83	Christine Clerk	2007	He owned a fine log boat	Barrett, J 2007c Kindness and strangers, The Whitestone Stories 3, Lincoln, Nebraska: iUniverse	Clerk 11	
I84	Christine Clerk	2007	... a splash of water gurgled into the boat	Barrett, J 2007c Kindness and strangers, The Whitestone Stories 3, Lincoln, Nebraska: iUniverse	Clerk 12	
I85	Christine Clerk	2007	... the prow of a great dark boat broke from the mist	Barrett, J 2007c Kindness and strangers, The Whitestone Stories 3, Lincoln, Nebraska: iUniverse	Clerk 13	
I86	Christine Clerk	2007	"The strangers are burning the forest!"	Barrett, J 2007c Kindness and strangers, The Whitestone Stories 3, Lincoln, Nebraska: iUniverse	Clerk 14	
I87	Dominic Andrews	2008	Mesolithic hunter	Google Image > http://www.archaeoart.co.uk/stonage_menu.htm	Andrews01	26

I88	Dominic Andrews	2008	Mesolithic hunt	Google Image > http://www.archaeoart.co.uk/stonage_menu.htm , Milner et al. 2013	Andrews02	24
I89	Dominic Andrews	2008	Mesolithic camp	Google Image > http://www.archaeoart.co.uk/stonage_menu.htm , Milner et al. 2013	Andrews03	5
I90	Tom Goskar & Karen Nichols	2008	River Arun Mesolithic scene	Google Image > http://www.flickriver.com/photos/wessexarchaeology/tags/graphics/ , still from a video animation http://www.wessexarch.co.uk/projects/marine/alsf/seabed_prehistory/computermodels.html	GoskarNichols01	
I91	David Simon	2008		Google Image > http://www.archaeologyhebrides.com/events/view/11?ARCHHEB	Simon01	
I92	Phil Austin	2009	Reconstruction of the Mesolithic settlement at Sand, Applecross in Wester Ross	Google Image > http://www.scottishheritagehub.com/content/421-cave-and-rock-shelter-sites	Austin01	
I93	Tracey Croft	2009	Star Carr	Google Image > http://mythicmysteriesmiscellany.devhub.com/blog/498829-star-carr/ , website no longer online 21 Jun 15, original from Dyer 1990	Croft01	
I94		2009		Google Image > http://blogs.wessexarch.co.uk/ttbw/tag/free-resources/	Wessex01	22
I95		2010	Mesolithic settlers were hunter-gatherers	Google Image > http://www.bbc.co.uk/news/uk-wales-11710978	BBC02	
I96		2010	Mesolithic man, gathering around fire in family groups and building dwellings	Google Image > http://www.gettyimages.co.uk/detail/illustration/mesolithic-man-gathering-around-fire-in-royalty-free-illustration/75490622	Getty01	
I97	Shane Phillips	2010	Helfeydd	Google Image > http://www.clwydianrangeanddeevalleyaonb.org.uk/hillforts-timeline/	Phillips01	21
I98	David Ace	2011	Illustrated depiction of Cheddar Man, a caveman unearthed at Cheddar Gorge in Somerset. The body, believed to be that of a Mesolithic hunter, was buried, age 23, at the mouth of his cave in 7150 BC following a violent death.	Google Image > http://www.dailymail.co.uk/sciencetech/article-1359346/Cheddar-Gorge-bones-Why-ancient-Britons-cannibals.html	Ace01	19

I99		2011		Google Image > http://newsadmin.manchester.ac.uk/newsimages/156/7805_large.jpg	Manchester01	
I100	Eoin Ryan	2011		Google Image > http://www.spaceavalanche.com/2011/07/11/mesolithic-life/	Ryan01	18
I101		2012		Google Image > http://www.bbc.co.uk/news/uk-england-20344575 (still from a video news report)	BBC01	
I102	Alan Braby	2012	Resource gathering in Mesolithic Orkney	Google Image > http://www.scottishheritagehub.com/content/61-mesolithic-lifestyles	BrabySSH01	
I103	Alan Braby	2012	Loch Scresort, Rum, with the settlement site at the head of the loch	Google Image > http://www.scottishheritagehub.com/content/61-mesolithic-lifestyles , Wickham-Jones, C 1994 Scotland's first settlers, London: Batsford	BrabyWJ37	
I104	Liz James	2012	Children through Ages	Google Image > http://www.flickrriver.com/photos/wessexarchaeology/tags/graphics/	JamesL01	20
I105	Alexander Maleev	2012	8000 B.C.: After retreating inland from a storm, a group of hunter-gatherers in Doggerland return to find their camp flooded	Google Image > http://ngm.nationalgeographic.com/2012/12/doggerland/clark-photography	Maleev01	
I106	Karen Nichols	2012	Mesolithic coastal scene	Google Image > http://www.flickrriver.com/photos/wessexarchaeology/tags/graphics/	Nichols02	
I107		2012	Reconstruction of Mesolithic life at Holyrood Park, Edinburgh	Google Image > http://www.scottishheritagehub.com/content/61-mesolithic-lifestyles	SHH01	27
I108		2012	Mesolithic house unearthed by the River Forth	Google Image > http://www.urbanrealm.com/news/3865/Mesolithic_house_unearthed_by_the_River_Forth.html	UrbanRealm01	
I109		2012	Mesolithic scene	Google Image > http://www.woodlife.co.uk/about-tracking/	Woodlife01	
I110	Dominic Andrews	2013	People living at Star Carr	Milner, N; Taylor, B; Conneller, C & Schadla-Hall, T 2013 Star Carr: life in Britain after the Ice Age, York: Council for British Archaeology	Andrews04	

I111	Dominic Andrews	2013	Archaeology Data Service	Google Image > http://archaeologydataservice.ac.uk/archives/view/scarr_eh_2013/images/intro.jpg , Milner, N; Taylor, B; Conneller, C & Schadla-Hall, T 2013 Star Carr: life in Britain after the Ice Age, York: Council for British Archaeology	Andrews05	
I112	Arro	2013	“Did you check the best before date? They taste a bit Mesolithic.”	Google Image > http://heritageaction.wordpress.com/category/ancient-britain/	Arro01	33
I113	Henry C.	2013		Google Image > http://pencil-guy.deviantart.com/art/Mesolithic-Hunters-409967764	HenryC01	
I114	S E James	2013	Mesolithic camp site	Google Image > http://wessexarchaeology.photoshelter.com/image/I0000My3HOVv3aH	JamesS01	32
I115	Ian Kirkwood	2013	Raven camp	Mackay, E 2013 Wolf Brother's wildwoods, Edinburgh: Forestry Commission	Kirkwood01	
I116	Ian Kirkwood	2013		Mackay, E 2013 Wolf Brother's wildwoods, Edinburgh: Forestry Commission	Kirkwood02	23
I117	Ian Kirkwood	2013	Making use of every part of the deer	Mackay, E 2013 Wolf Brother's wildwoods, Edinburgh: Forestry Commission	Kirkwood03	
I118		2013	A flint knapper	Google Image > http://www.mellorarchaeology-2000-2010.org.uk/archaeology/periodbyperiod/mesolithic.htm , Hearle 2011	Mellor01	
I119	Eugene Ch'ng	2013	a camp in Doggerland	Google Image > http://oisf.org/portfolio-items/doggerland/?portfolioID=1721 (still from a Wolverhampton University computer animation)	Orkney01	12
I120	Eugene Ch'ng	2013	a camp in Doggerland	Google Image > http://oisf.org/portfolio-items/doggerland/?portfolioID=1721 (still from a Wolverhampton University computer animation)	Orkney02	13
I121	Thomas Small	2013	Artist's impression of the mesolithic house	Google Image > http://www.johngraycentre.org/learning/exhibitions/footprints-in-the-landscape-exhibition/footprints-in-the-landscape-online-exhibition/early-settlers/ and Google Image > http://www.smallfindsdesign.co.uk/feature_archive/mesolithic.html	Small01	

I122	Helen Williams	2013	Who lives in a hut like this?	Google Image > https://helenrachelstokeswilliams.wordpress.com/category/illustrations/	Williams01	14
I123	Helen Williams	2013	Can you find the 15 flints scattered around the camp?	Google Image > https://helenrachelstokeswilliams.wordpress.com/category/illustrations/	Williams02	15
I124		2014	Groups of Mesolithic hunter/gatherers come together at a site behind the present Angel Hotel. Here the river flows wide, swift and deep.	Google Image > http://www.halesworth.net/timeline/1.php	Halesworth01	
I125	Alan Wilson	2014	Mesolithic hunter gatherers	Google Image > http://www.voodoochilli.net/artwork/illustration/mesolithic-hunter-gatherers/	Wilson01	
I126	Gary Larson	1980/95		Google Image > http://www.pinterest.com/pin/141863456983167262/	Larson01	16
I127	Jagdeep Lall	2006/07	Mesolithic people crossing the English Channel	Google Image > http://harmsworth.net/scottish-history-heritage/mists-of-time.html	Harmsworth01	
I128	Jagdeep Lall	2006/07	Charcoal burning destroys the Caledonian Forest	Google Image > http://harmsworth.net/scottish-history-heritage/mists-of-time.html	Harmsworth02	33
I129	Jagdeep Lall	2006/07	Mesolithic people lived in caves and make-shift shelters	Google Image > http://harmsworth.net/scottish-history-heritage/mists-of-time.html	Harmsworth03	
I130			“You know what's holding us back, don't you? It's our bloody regional accent!”	Zvelebil, M 1986 “Mesolithic prelude and Neolithic revolution”, in M Zvelebil (ed.) Hunters in transition: Mesolithic societies of temperate Eurasia and their transition to farming, Cambridge: Cambridge University Press: 5-15	Punch01	17
I131			Human communities have started to travel great distances and are starting to link with other tribes and groups.	Google Image > http://whenintime.com/EventDetails.aspx?e=2b0edb01-77d4-4010-a57f-61ac12d9e5ee&t=/tl/Shadow13297/Age_Of_Treasure/	When01	31

Appendix 16
List of television programmes analysed

ID	Series title	Episode title	Channel	Series	Episode	Transmitted	Presenters
TV01	Time Team	Cheddar	C4	6	4	24/01/1999	Tony Robinson
TV02	Meet the Ancestors	Britain's Oldest House	BBC2	6	5	26/02/2003	Julian Richards
TV03	Landscape Mysteries	Secrets of the Flood	BBC2	1	4	23/10/2003	Aubrey Manning
TV04	Time Team	Goldcliff	C4	11	8	23/02/2004	Tony Robinson
TV05	Bushcraft	Aboriginal Britain	BBC2	1	1	09/09/2004	Ray Mears
TV06	Wild Food	Australia	BBC2	1	1	04/01/2007	Ray Mears & Gordon Hillman
TV07	Wild Food	Coast	BBC2	1	2	10/01/2007	Ray Mears & Gordon Hillman
TV08	Wild Food	Wetlands	BBC2	1	3	17/01/2007	Ray Mears & Gordon Hillman
TV09	Wild Food	Summer Harvest	BBC2	1	4	24/01/2007	Ray Mears & Gordon Hillman
TV10	Wild Food	Woodland	BBC2	1	5	31/01/2007	Ray Mears & Gordon Hillman
TV11	Time Team Special	Britain's Drowned World	C4	10	2	24/04/2007	Tony Robinson
TV12	A History of Ancient Britain	Age of Ice	BBC2	1	1	09/02/2011	Neil Oliver
TV13	Time Team Special	Britain's Stone Age Tsunami	C4	16	1	30/05/2013	Tony Robinson
TV14	10,000 BC	n/a	C5	1	1	02/02/2015	n/a
TV15	10,000 BC	n/a	C5	1	2	03/02/2015	n/a
TV16	10,000 BC	n/a	C5	1	3	09/02/2015	n/a
TV17	10,000 BC	n/a	C5	1	4	10/02/2015	n/a
TV18	10,000 BC	n/a	C5	1	5	16/02/2015	n/a
TV19	10,000 BC	n/a	C5	1	6	17/02/2015	n/a
TV20	10,000 BC	n/a	C5	1	7	23/02/2015	n/a
TV21	10,000 BC	n/a	C5	1	8	24/02/2015	n/a
TV22	10,000 BC	n/a	C5	1	9	02/03/2015	n/a
TV23	10,000 BC	n/a	C5	1	10	09/03/2015	n/a

TV24	Digging for Britain	North	BBC2	3	3	17/02/2015	Alice Roberts & Matt
TV25	Horizon	First Britons	BBC2	51	15	19/08/2015	Williams n/a

Appendix 17
Narrative elements found in web-pages
Part A: characters, settings, actions and happenings

ID	Pages	Words	Characters	Settings	Actions	Happenings
Wp01	1	703			intensive hunting, initial stages of domestication, making composite tools with microliths	
Wp02	1	235			carpentry with an adze, domestication of dog	
Wp03	1	138	hunter-gatherers	forests	hunted,fished, gathered	rising sea levels and temperatures, Britain cut off from Europe
Wp04	1	266	hunter-gatherers	woodland, river valleys	storing in pits, mobile, excavations, dating	increasing woodland, melting ice made Britain an island by
Wp05	1	499	nomadic hunter-gatherers	camp	making tools of bone and antler, skins for clothing and containers, microliths for tools, burning lakeside reeds, making a trackway, building and rebuilding a house, nomadic, analysis, dating	6000 BC sea level rise made Britain an island by 6000 BC
Wp06	1	248	hunter	Neolithic farmers	making tools with microliths, hunting	
Wp07	1	327	hunters, small groups	wooded, lower sea level	moved elsewhere when food ran out, living in temporary shelters that could be easily dismantled and transported between sites, hunting, gathering, excavations, dating	lower sea level
Wp08	1	401	hunter-gatherers	coastal areas, river valleys and uplands, settlements	hunting, adapt to new environments, processing food, making tools, seasonal mobility, excavations	warming climate, rising sea level and isolation of Britain
Wp09	6		Steve Mithen, Karen Wicks and other archaeologists		hunting, gathering, finding of sites, analysis of finds, undertaking an evaluation, excavations, dating	
Wp10	1	133	hunting parties		making hunting weapons of flint, inventing new tools, making fishing platforms, boats and houses	

Wp11	2	468	other families	land bridge, woodland, competed with other families	hunting and gathering, making tools of bone and antler and flint, making houses of light shelters, sailing across the Channel, competing with others for hunting land, seasonal mobility	warmer climate, rising sea level creating Britain as an island
Wp12	1	72			domestication of dog, hunting, fishing, gathering	
Wp13	1	285	hunter-gatherers	forests	working flint, hunting, taking part in rituals or ceremonies, burial with grave goods, violence, staying one place for longer periods of time	sea level rise cutting Britain off from Europe, forests grew
Wp14	13	105				
Wp15	1	178		scrub and hazel, deciduous woodland with large clearings		
Wp16	1	191	hunter-gatherers	water-source, woodland, camp	making tent-houses, hunted animals, gathered plants, digging with antler tools, fishing from canoes, moving camps	climate warmer, growing woodland, sea level made Britain an island
Wp17	1	28				
Wp18	6	400	settled communities	rivers, lake shores, dunes, sandy areas, contact with Neolithic peoples, settlements	using bows, making hafted axes and bone tools, hunting, fishing, gathering, left middens	growth of forests and loss of large game
Wp19	1	1,431	hunter-gatherers	woodland, rivers, wetlands	making new types of smaller tools, axes, harpoons, spears with microliths, using hunting dogs, clearing woodland for hunting, hunting, gathering, seasonally mobile, left middens, excavations, dating	warmer, wetter, growth of woodland, rising sea levels, new prey, Doggerland submerged 6500-6000 BC, changes to coastline of Wales, rising
Wp20	1	532	hunter-gatherers	woodland with upland lakes, camps	hunting with bow and arrow, camping on raised ground by lakes, burning woodland for open ground and hazel, summer upland hunting camps move to east coast in winter, excavation	warming climate, growth of woodland with different animals

Wp21	1	329	children, community	oak forest, island, intertidal zone, settlement	defecation at edge of site, seasonal occupation, human footprints, hunting	changes to the estuary sea levels
Wp22	1	31			domestication of dog	
Wp23	1	270			making a spear and a harpoon, fishing	
Wp24	1	171		woodland with river valleys as routes	lived in temporary homes similar to tents, making microlithic tools, nomadic, hunting, fishing, gathering	
Wp25	1	460	hunter-gatherers	woodland, dry ground, by lakes and sea, camps	develop new tools for hunting among trees, following herds and looking for good flint, hunting with arrows and spears, making microlithic weapons, gathered plants and fruits, caught fish, left middens, set up camp on open ground, made tent-like shelters, upland hunting and lowland winter camps, scraping animal skins, cleared woodland by burning to attract game, left middens, excavation	climate warming, sea level rise, became an island, growth of woodland
Wp26	1	435	single family or group of families	upland forest, camps	hunting animals and gathering plants, moving to new camps, burning woodland to make open areas for hunting, mobility	warmer, wetter climate, increasing woodland, rising sea levels and loss of land
Wp27	1	428	two hunters, local archaeologists	close to a stream	site found and identified by particular individuals, a couple of hunters stopped to light a fire and repair their weapons, using microliths as barbs for arrows, excavation	
Wp28	1	245				
Wp29	4	566		co-existence with Neolithic people, camps	new hunting and survival strategies in woodland, adopting the Neolithic as a new way of life, late Mesolithic living a more settled lifestyle and were beginning to experiment with stock raising, highly	warmer climate, growth of woodland, rising sea levels isolating Britain 6500-5500 BC
Wp30	1	277	hunter-gatherers	camp, settlement	hunting, gathering, seasonal camps, excavation	glaciers retreated, climate warmed, became forested, tsunami 6100 BC inundated the land bridge with the Low Countries – devastating

Wp31	1	571		woodland, coastal marshes, camps	new technologies based on blades, manufacture of a tranchet axe, hunting, gathering, excavation	increasing woodland
Wp32	1	261	BAG	rivers as routes, woodlands, camps	BAG finding sites almost annually, need to understand this period in a new way – distribution and dating conflict with current understandings, reasons for setting up temporary camps, dating	
Wp33	1	359	hunters	rocky coastline, camps	may have been taking some steps towards ... animal control, mobile, hunting, excavation	changes to the coastline
Wp34	5	669		forest, competition with Neolithic farmers, camps	learned to hunt and fish, and domesticate plants and animals, burning swamps and wetlands, felling trees for fire, houses and boats, making microlithic tools and nets, wooden tracks, pottery and ground stone tools, making art objects, warfare competing for resources, seasonal mobility, burial	unstable climate, warming, rising sea levels, growth of forests
Wp35	1	701	families of 2-25, hunter-gatherers, rival groups	forest, skirmishes between rival groups, campsites	move north and west away from drowned coastal plains, making fire, hunting, preparation of skins, small skirmishes between rival groups, gathering, mobile, burial, dating	rising sea level, Britain an island 5500 BC, afforestation, warming, new animals, growing population
Wp36	1	209	settled communities	forest, lakeside,	hunting, collecting, fishing	
Wp37	1	112		seashore	hunt, make things from all parts of an animal, decorating objects	
Wp38	1	1,615	people just like us, hunters, lean, athletic, compare to Aborigines or N American Indians, western Britain & Ireland facial type	lime wildwood, streams, camps	hunting, making all manner of objects, making clothing, making different arrows for different prey, making skin tents and temporary shelters, hunting deer	
Wp39	1	508	fishers, hunting parties	woodland, camps	making temporary settlements, people following the animals post-glacially, hunting parties moving up from the river valley, making clearings to entice and corral animals, use of fishing nets and microlithic spears, hunting, fishing, gathering	warming climate and growth of forest, sea level rise cutting Britain off from continent

Wp40	1	200	hunter-gatherers	forests, rivers, sea, settlements	hunted, fished, gathered, collected various foods, excavation	
Wp41	1	223	hunters	lake edge in woodland	making a head-dress as hunting disguise or for religious ceremonies, excavation	
Wp42	3	453	hunter-gatherers, small groups	scrub with trees, lower sea level	moved with the seasons after the food, stopping for a short time to hunt in the marshes, Naomi Woodward finding flints, Caroline Wickham-Jones finding a site, temporary shelters, excavation, dating	
Wp43	1	1,586		settlement	making outdoor rock paintings of stylised humans, excavations, dating	warmer climate
Wp44	1	138	hunters, fishers and gatherers, small extended family groups	settlements	moved around the landscape according to the seasonal availability of food, tool making	
Wp45	3	186	someone		making flint tools while stopping to rest or take shelter, specific tools for different actions	
Wp46	1	241	children, 4 teenage boys		children playing, teenagers following a deer to hunt, dating	
Wp47	4	296	hunting and foraging parties	trees, clearings, camps	burning off scrub to keep it open for animals, felling trees for woodworking, hafting of axes, making microlithic arrows and spears, hunting and foraging	warming climate, trees, plants and animals, sea level rise covering Doggerland making Britain an island
Wp48	1	35				
Wp49	1	247		open heath turning to woodland	clearing of forest using fire, use of bow and arrow, dating	sea level rise, Britain an island by 4500 BC
Wp50	1	125	hunter-gatherers		making temporary wooden dwellings or skin-covered tents, mobile	sinking land, rising sea levels

Appendix 17
Narrative elements found in web-pages
Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites
Wp01				Aveline's Hole, Cramond, Howick House, Newbury, Star Carr
Wp02		transitional period, more varied tools, microliths and wooden handles		
Wp03			beginning to domesticate cattle and sheep	
Wp04		Early 9600-6000 BC, Later 6000-4000 BC, high logistical mobility		
Wp05			SC – earliest built trackway in Europe	Howick, Star Carr
Wp06	greater innovation and diversity, greater hunting efficiency	diverse local adaptations to environments, microliths, polished		
Wp07	evidence is scant, left little trace for the modern archaeologist	nomadic hunter-gatherers, living in small groups, lived off the land, gathering roots, berries and shellfish and hunting birds and animals	hazelnut dating earliest occupation of Orkney 6820-6660 BC	Longhowe
Wp08		seasonal hunting sites, task sites, transient nature of Mesolithic life		Howick, Llyn Brenig, Nab Head, Star Carr, Waun Figen Felin
Wp09	little understood economy and environment	lived by hunting and gathering before the arrival of Neolithic communities,	bones and hazelnuts rarely found	Rubha Port an t-Seilich, Storakaig
Wp10				
Wp11		moved over large territories following where the food was at different seasons, more people and smaller territories in the Late Mesolithic		Aveline's Hole, Broom Hill, Howick, Star Carr
Wp12		people lived by hunting, gathering, and fishing, and the period is characterized by the use of microliths	first domestication of an animal	

Wp13	making proper houses, an easier place to live, strange things			Echline, Star Carr
Wp14	Know relatively little about it			
Wp15				Down Farm
Wp16		nomadic, rarely settled, temporary camp sites		
Wp17		characterised by the use of microliths		
Wp18		variety of hunting, fishing and food gathering techniques, microliths, pottery, bow, middens		
Wp19		hunter-gatherers living nomadically in a wooded landscape, later seasonal or permanent occupation, local exhaustion of resources, middens		Bryn Celli Ddu, Gwernvale, Llyn Aled, Llyn Brenig, Nab Head, Prestatyn, Rhuddlan, Tandderwen, Waun Fygen Felen
Wp20		hunter-gatherer		Chapel Cave, Malham Tarn,
Wp21		hunter-gatherer, children were fully involved in the life of the community	the earliest evidence for human intestinal parasites	Semenwater Goldcliff
Wp22		used tools and weapons of stone		
Wp23		strongly associated with fishing		
Wp24		nomadic lifestyle, hunting game, fishing, and gathering plants		in the Wreake Valley, Melton Mowbray
Wp25		had to adapt to their changing environment,, had to learn how to look after their resources so that they did not have to keep moving around.		Bletchingley, Leatherhead, North Park Farm
Wp26		lived in a mobile way because these resources are available in different places at different times of the year		
Wp27				Haroldslea
Wp28		use of microlithic tools, a transitional period of the Stone Age, beginnings of settled communities		

Wp29		hunter-gatherer way of life, insular development of flint previously shared with the continent, highly mobile		Chilton, Cliffsend, Nethercourt, QEOM Hospital, Quex Park, Stone Bay, Thanet Reach Business Park,
Wp30	ideal environment for hunter-gatherers, adept hunter-gatherers	exploiting both land-based and marine resources through seasonal camps		Westwood Bay
Wp31	sophisticated hunting and gathering		in situ evidence rare	Cliffe Creek, Cliffe Marshes, Grain-Shorne pipeline, High Rocks, Lower Halstow
Wp32			offers new perspective	
Wp33	passive user of his environment	mobile hunters		Gwernvale, Llyn Aled, Prestatyn, Tandderwen, Waun Figen Felen
Wp34		moved seasonally, large coastal camps and inland hunting camps	first steps in land management, first wooden tracks, pottery and ground stone, first megalithic tombs in	Skateholm, Star Carr
Wp35	primitive Stone Age people	marked by the use of the bow and cutting tools, camps only used seasonally, hunter-gatherers surviving on the wild animals; fruits, berries, and shell-clad creatures that could so easily be caught in nets	Portugal camps rare	Caisteal nan Gillean, Lussa River, Morton
Wp36		transitional period, intermediate, microliths	beginning of settled communities	
Wp37				Hammersmith
Wp38	mysterious and dangerous woodland, highly skilled, profound knowledge, moving with grace, “Physically, they would have been like gymnasts or ‘Free-Runners’; spiritually they were wild and free, and at one with their	hunting and semi-permanent camps,		Holmegaard, Horsham, Star Carr
Wp39		hunter-gathering and fishing, semi-nomadic winter and summer, fishing as a mainstay of the diet		Bourne End, Cadmore End, Fawley, Hedsor, Marlow, Medmenham, Taplow

Wp40				Cushenden, Larne, Mount Sandel, Newferry
Wp41				Star Carr
Wp42		lived in small groups, in temporary shelters	hazelnut dating earliest occupation of Orkney 6820-6660 BC, largest collection in Orkney	Links House, Longhowe
Wp43		interim period, bridge between periods		
Wp44	made basic tools		the first settlers to come to Ireland	
Wp45				Low Hauxley
Wp46			earliest evidence for children playing	Goldcliff
Wp47		more settled than earlier, base camps for hunting and foraging parties to return to		Star Carr
Wp48		transitional period		
Wp49				Kentisbury Down, Kent's Cavern, Westward Ho!
Wp50		temporary dwellings, often on the move		

Appendix 18
Narrative elements found in blogs
Part A: characters, settings, actions and happenings

ID	Words	Comments	Characters	Settings	Actions	Happenings
B01	56	0	Clive Waddington		publishing a book about Low Hauxley	
B02	627	199	specific hunter-gatherers		movements of peoples into Europe, three genetic lineages in Europe (ANE, WHG, EEF)	
B03	815	1	modern archaeologists		building of a Mesolithic house	collapse of the house after 3 months
B04	713	n/a	Oxford Archaeology North	settlement	discovery of the site, sieving of 270,000 litres of sediment	
B05	1,527	85	a Scandinavian forager		movements of peoples into Europe, genetic ancestry WHG with high ANE (20%), most like Baltic	
B06	1,355	210	an Iberian hunter-gatherer		movements of peoples into Europe, genetic WHG group, most like Baltic, homogenous Mesolithic gene pool from Iberia to central Siberia	
B07	861	8	small band of hunter-gatherers, a small extended family group, Peter Woodman	woodland clearing on a ridge over the river, rich in boar and fish, campsite	chose a site as home, built tent-like houses, discovery of the site in the 1970s, fishing with harpoons, nets, lines & traps, drying or smoking fish, hunting birds and boar, flint knapping, making tools, harvesting hazelnuts	
B08	86	1	an individual hunter-gatherer			
B09	783	0	Ben Elliott & Jon Hughes, fictional Mesolithic characters Jack and Amber	archaeological sites at Lake Flixton, wetland, forest	making sound recordings of natural and human task sounds, transforming Yorkshire Museum gardens, giving residents at Flixton a sense of the Mesolithic	
B10	497	0	hunter-gatherers		change in lithic technology, communication networks across Europe, making tools, one or multiple invention?	
B11		n/a		settlement, camp site		
B12	143	3	hunters		tool making, seeking raw material	

B13	258	0	hunter-gatherers, groups	woodland, warmer than today	fishing with hooks, marriage between different groups	
B14	1,223	14		incoming Neolithic groups	admixture with incoming Neolithic groups	
B15		n/a				
B16	112	0	archaeologists, experts	settlement	discover a settlement, people travelling needing an overnight shelter	
B17	108	0	we (archaeologists)		activity day at King's Manor, creating resource pack for teacher	
B18	1,001	8	illustrator, male portrait		CGI character modelling inspired by Star Carr, scrambling around the undergrowth hunting for days	
B19	583	6	hunter-gatherers, shamans, women, community	settlement	determining the moon's progress, dividing month into three ten-day weeks, calibrated on midwinter solstice, living a nocturnal rather than diurnal existence, predicting tides, observations a community event	
B20	809	1	archaeologist Alison Burns, local like Gordon Roberts, men, women, children, disabled, community	reed marsh and sand bar	finding red deer and human prints, feeling an intimate connection, determining height, sex and speed, men following or managing deer herds, men fishing at sea, women and children gathering food in the marsh, children playing	baked by the sun, covered in river silt
B21	515	0	hunter-gatherers		integration with frontier farmers – especially women, substantial Mesolithic ancestry of modern Europeans	
B22	105	0	school children, Mesolithic man	camp	trip to a wood to create a shelter and mini-camp	
B23	495	0			recolonising Scotland after the Ice Age, use of hazel for shelters and weapons, and food, burning hazelnuts	
B24	547	n/a	archaeologists		finding of six timber piles, recorded, analysed, dated	threatened by planned riverside developments
B25	65	0	illustrator		3 large posts excavated while creating car park, created digital images	
B26	232	0	hunter-gatherers, archaeologists		defining it based on lithics	

B27	791	4				
B28	394	0	archaeologists, hunter-gatherers, two women 25-35, museum curators		deposit shell middens, bury the dead, violence done to some (one shot in spine by arrowhead, two women battered), disputing interpretation of one burial, decorated bodies with shell jewellery, roofing burial with red deer antlers, burial restored for museum display, people leaving Doggerland, competing with others for coastal resources, possibility of farmers pushing hunter-gatherers westwards	rising sea levels
B29	906	6	hunters, John Lord, broadcasters	un-neotonised un-poisoned un-civilised Britain that lurks in every tuft of grass poking up between the flagstones	periodic burning to encourage growth, building wooden platforms, a site of ritual, eating animals and plants	
B30	1,407	0		wasn't full of forest, thick patches of hazel scrub and lakes		sea levels rose, Ireland drifted to current position
B31	681	2	hunter-gatherers, Worcestershire YAC, small group	small base camp	discovery by field walking, making stone tools, working wood and hide, initial knapping at source, making hunting and fishing trips, "a small group of people gathered, ate, slept and worked"	Britain separated from continent by rising sea levels after 8000 years ago, growth of woodland
B32	514	0		hazel-alder bush then lime trees, camp	hunting, making a short term camp, making and using tools, surface mining of flint	
B33	1,746	25	Nubians			
B34	178	2	divers	Verke river valley	inspecting a fish trap, making a trap out of hazel	exposed by wave action and erosion, river later flooded by the sea
B35	180	n/a	student Jake Newport	lime log	make a replica Mesolithic canoe	
B36		n/a				

B37	681	5	University team		finding and excavating Howick, building a house 7800 BC, eating hazelnuts and seals, processes of excavation and analysis	
B38	257	3	cave inhabitants		hunting, fishing, collecting, greater use of plant foods	
B39	567	n/a			staying longer in one place, began agriculture 8500 BC, gradual processes of change such as domesticating dog and developing fishing tools, built bigger and stronger houses, nomadic lifestyle	warmer climate, greater range of food
B40	594	2	Michelle Paver, Torak (the hero who can save the world), Forestry Commission	Mesolithic Scotland	writing of the Chronicles of Ancient Darkness books, creation of resources for schools, people return to Scotland after 8500 BC, live in skin tents, kill animals with arrows, plot points from Wolf Brother, using every part of a deer	melting ice sheets
B41	994	0	hunter-gatherers, archaeologist Sarah McCutcheon	clan-based kinship system of hunter-gatherers	came in boats from Scotland and England, finding of site by a test trench, placing a male and stone axe cremation in a pit around a wooden post, placing partial cremated remains and fish in a pit without a post	
B42		n/a				
B43	287	0	Jon Hughes & Ben Elliott, two hunter-gatherers		creating sounds of the Mesolithic and broadcasting them in the Museum gardens, wild boar hunt, shaman ritual, trip in a coracle, flint knapping	
B44	86	0	Will Lord		making an axe	
B45	339	17	archaeologists	wider shallower Thames a mile farther south	wooden piles driven into the ground, finding more posts and flints	
B46	303	n/a	Caitlin Green		her book Origins of Louth	sea level rise drowning Doggerland, Lincolnshire coast appears
B47	738	0	Mesolithic people		having a fox as a pet, one buried with a human in Jordan	

B48	870	3		edge of a lake surrounded by open woods of birch and pine trees	processing deer for food and tools, skins for clothing, sacks, water carriers, making microlithic tools, fire to clear reed beds, hunting fish and game, collecting berries, seeds, nuts and fruit, using moon as guide in night hunting, burying bodies in a cave, making antler head-dresses, use in hunting or ceremonies, shamans using costume, shamans becoming deer	
B49	1,055	n/a	Nikolaj Tarasov		finding a Bronze Age wooden idol while fishing, using a Mesolithic site to shed light on the later find, LV catching fish in summer, making human-fish carvings on stone in each house, burying people under the house altar, burying new-borns as foundations for the house, aligning other burials with the river, role of shamans and the life cycle of humans and fish	
B50	243	0	Tim Burkinshaw, Nicky Milner		site open day, talks and tours, knapping flints, eating horse and red deer, sit in Mesolithic soundscape	

Appendix 18
Narrative elements found in blogs
Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites
B01	lovingly written, celebrates the community venture, beautifully illustrated, bargain			
B02		Mesolithic darker skins than Neolithic		Loschbour (Lux), Motala (Swe)
B03				
B04				Stainton West
B05				Stora Förvar (Swe)
B06		dark skin and hair, blue eyes, lactose intolerant		La Braña-Arintero (Spa)
B07	adept at exploiting the natural world, sturdy huts	had to rely totally on the natural world for sustenance.	a unique insight into the lives of Ireland's very first inhabitants, the only definite Mesolithic houses discovered in Ireland	Mount Sandel
B08	an ancient Marlboro Man, cool, swarthy, handsome	dark skin and hair, blue eyes, lactose intolerant	DNA revealing sex, race, hair and eye colour	
B09	Star Carr famed for incredible levels of preservation, and the rare and unusual artefacts		broken new ground in exploring the everyday character of sound in early prehistory	
B10				
B11				n/a
B12				Rhosfelyn

B13		primarily hunter-gatherer societies, probably living in small groups, followed the seasons, moving as food supply dictated, population was probably sparse, all modern Britons descended from them		Morton, River Lussa
B14				
B15				n/a
B16	stunned to discover, in use for a staggering 10,000 years	like a modern motorway service station		near Catterick
B17	huge success, exciting activities			
B18		scrappy, sweaty and grubby		Star Carr
B19	sophisticated calendar, sophistication of early hunter-gatherers	world of our ancient ancestors may have been very different to our own		Crathes
B20	amazing echoes of the past	a community in stasis, unchanging, able to support the disabled		Formby
B21				
B22	challenges, great day, enjoyed it, but tired			
B23				
B24	one of the most significant ever foreshore finds, structures of this date very rare		oldest structure on the foreshore of the Thames	Vauxhall
B25				Stonehenge
B26		truncated narrow blades fit for hunting-gathering		
B27				
B28	wonderful site, scholarly jackdaws out to render everything boring, people just being savage?			Teviec

B29	disparages some interpretations of the period as to simplistic or primitive - "our island blah blah blah heritage blah blah total bollocks drone whine",	wildwood Mesolithic, lists the plants and animals used	useful for bushcraft and survival, and those who want a "meaningful and harmonious relationship with non-humans"	Star Carr
B30				
B31	period is notoriously ephemeral, little archaeological trace, complex society, varied and rich	small populations living a hunter-gather lifestyles		Broadway
B32				Bruisterbosch
B33				
B34	a very cool find			
B35				
B36				n/a
B37	museum displays not expansive but are interesting, stimulating to look at the evidence on display		one of the earliest houses in Britain	Howick, refers to Star Carr
B38				Franchthi cave
B39	transitional period, houses as light structures unable to withstand harsh weather, evolved significantly in tools	stepping stone connecting Palaeolithic and Neolithic, agriculture introduced during the Mesolithic		
B40	a fantastic read, exciting all the way through, refers to The Gathering Night for adults as very insightful and beautifully written	world full of demons and spirits, books most appropriate for years 5 and 6 (8-10)	poster on using every part of a deer, bring up discussions of sustainability, reducing waste, contrasts with modern day hunting in the UK, and many other issues	
B41	sophisticated burial practices and belief system	two burial pits that each contained the cremated remains of an adult, a third later pit with possible human or animal bone	earliest cemetery in Ireland	Castleconnell
B42		n/a		n/a
B43	weird and wonderful sounds	creating sounds to transport the aural senses back 10,000 years		Star Carr

B44		tranchet axes from 8500 BC		Star Carr
B45	things got exciting as another small post was discovered,	nomadic and unlikely to build many structures, two archaeologists got very animated, a cry of excitement, as a possible artefact was found	finding things as the blogger watched, Time-Teamesque	Vauxhall
B46				Doggerland
B47				Uyun al Hamamm
B48		antlers stretching into the upper world as channels to the spirits, “Many archaeologists have suggested that the supernatural was important during this period with natural places such as hills, waterfalls, rivers and caves thought to be powerful animistic entities.”	night time was very significant to their lives	Star Carr, Aveline's Hole
B49				Lepenski Vir
B50			highlight - holding an axe fashioned from flint from the Wolds, last used by a man or woman with serious intent to acquire food and dug from the ground this week.	Flixton Island

Appendix 19
Narrative elements found in YouTube videos
Part A: characters, settings, actions and happenings

ID	Length	Comments	Views	Characters	Settings	Actions	Happenings
V01	02:53	2	4,092	hunters, gatherers, fishers	caves, coasts, rivers	hunting, gathering, fishing, domesticating dog and then farm animals and plants, improving and making tools, inventing bow and arrow, building houses, living in rock shelters and caves, moving with the seasons, painting items, making red and white paint, making sculpture, burying people with grave goods, making pottery for storage	warmer climate, greater variety plants and animals
V02	14:19	18	8,365	man/he			
V03	48:13	0	2,757		contemporary with Neolithic and Bronze Age farther south east, lakes, rivers	developed bow, making arrows & harpoons, microliths, settling by the side of lakes and rivers, use of antler frontlets in ritual dancing, moving with the seasons, arch. analysis of teeth for seasonality, votive offerings of elk in lakes and burial of humans in lakes on continent, disarticulation of bodies, suggests locations where archaeologists should be looking for sites based on Star Carr location	climate change, warmer temperature, growth of woodland
V04	07:14	52	28,721	hunters		making an arrow using microliths, hazel, resin and feathers, knapping obsidian to make blades	
V05	03:37	2	2,304	Tarneg, grandmother the wise woman head of clan, uncle the knapper	open chalk land and woodland, riverside	hunting aurochs, preparing tools, butchering the animal, wearing charm for luck, using slingshot and spears, making shelter by rock outcrop, giving thanks after the hunt	
V06	03:09	11	10,143	archaeologists	woodland	experimental tree felling with axes	
V07	03:40	2	738	hunters, small groups of hunters	riverside, coastal, upland, woodland, camps	clearing woodland by burning, hunting animals, collecting shellfish, moving camps, creating a patchwork of clearings, damming streams, dating of charcoal, clearing for fuel and hunting	

V08	02:00	1	409	man, ancestors	marshes, landbridge	making tools of flint	ice retreat, warmer climate, sea level rise
V09	05:50	5	4,357	archaeologists and children	inside replica house with fire	cooking and tasting sloes, acorn cakes, nettles, processing acorns	
V10	06:48	3	2,138	students	university experimental archaeology centre	selecting stone, making tools of stone and wood, using digging sticks, making string, building house, making decisions based on the archaeology	
V11	05:23	3	11,228	divers	lake	inspecting a fish trap	
V12	05:28	0	419			evolving and learning, catching fish, carving canoes, using stone tools, bows, first stages of farming, hunting	
V13	04:08	33	1,611	hunter and gatherer	cave, tree	man pulling woman by hair, man to hunt, obedient wife, take punch	
V14	02:03	12	5,737	archaeologists	university experimental archaeology centre	building a house, experimenting to understand better	
V15	03:09	8	4,748	house maker, hunters	woodland	building a house of wood and rushes	
V16	01:45	1	1,532	archaeologist		thatching a house, tying knots	
V17	02:06	n/a	52	hunter-gatherers		hunting, gathering, moving around as nomads, making stone tools, bone needles, skin clothes, making houses	
V18	04:12	0	453	archaeologists	excavation	excavating a site, rained off site	
V19	05:06	3	2,970	archaeologists with children	inside replica house with fire	preparing food by roasting	
V20	02:25	2	1,287	archaeologists,	excavation	excavating, using dating to prove early settlement	
V21	08:09	1	343	ancestors archaeologist, hunter-gatherers	ocean and coasts	taking samples from eroding coastal sites, studying ecofacts to understand how people lived, arriving in boats, may be bringing deer, using shellfish as bait for saithe, use our understanding of past climate change to inform current debates	climate change, coastal erosion revealing sites
V22	04:15	8	2,803	knapper		knapping flint, using a leg bone pressure flaker	
V23	16:27	7	676	bushcrafter (modern)	woodland	make digging stick, dig hole, line with stones, selecting stones, place fire in pit, add meat, cover and cook	
V24	01:55	3	471	archaeologists		making a house, understanding Mesolithic life and houses	

V25	00:48	n/a	2,386				sea level rise and drowning of land connection with continent
V26	03:04	0	149	man		make electric tools, clone a fool with words on TV, learn about wind and sea, fight temptation	
V27	18:19	1	60	archaeologists, hunter-gatherers	riverside	fishing, nomadic, recurrent use of seasonal base camps, excavating recognising burials, expecting later dates, pit in a post with axe and cremated bone, analysis of bones – whole or partial body deposition, cremation labour and time intensive and skilled, rebuilding of hut	
V28	05:19	1	101	owner, archaeologists, Karen Wicks	excavation	finding flints while digging potatoes, excavation, fire pits for cooking, building windbreak, flotation for organic remains, sieving	
V29	11:28	22	13,992	hunter-gatherers		tamed dogs, made canoes, hunting, gathering, fishing, nomadic chasing food	
V30	09:33	3	31	hunter-gatherers, bushcrafter	woodland	using a bow, how to make bow and bowstring, taking bow out of yew tree	
V31	05:55	0	186				
V32	01:24	0	1,607				
V33	11:00	1	394	Environment Agency, Ron Cowell archaeologist, hunter-gatherers, several groups of families	coast, excavation	discovering flints and timber when digging out a pond for a nature reserve, RC been looking for this kind of site all his career, moving from place to place, being first person to hold it for thousands of years, analysing soil profile, making tools of stone	sea once reached here, 2 miles inland, coastal erosion exposing sites
V34	03:56	6	2,666	archaeologists		excavation of bone point	
V35	05:17	0	21	owner, archaeologists, Karen Wicks	excavation	finding flints while digging potatoes, excavation, fire pits for cooking, building windbreak, flotation for organic remains, sieving	
V36	09:17	1	417	Carlyle, groups		hunting, food gathering, fishing, domestication 7-6000 BC, making microlithic tools, first microliths found 1867, fighting between groups, burial	climate change, change in flora and fauna
V37	01:09	0	9				

V38	03:51	3	1,723	digital humans	CGI landscape, grassland, trees, beach	moving around the landscape, seeming to build houses, collecting shellfish, in a circle dancing	
V39	07:25	5	2,325				
V40	05:59	0	1,826	archaeologists, a youth, male, 157 cms tall and in his 50s		excavation of a skeleton, analysis of DNA (no results), finds to be kept on site under glass	
V41	01:12	0	442				
V42	05:25	n/a	33	students, nomadic settlers		invention of bow and arrow, tools made of microliths, invention of stone axe, hunted, gathered, went fishing, invented flint sickle, farming	
V43	02:06	1	37	artist		cutting letters with a Mesolithic tool	
V44	00:39	0	1,005				drowning of
V45	00:18	2	82				Doggerland
V46	00:51	0	307			making a flint axehead	
V47	03:53	1	304	3-4 family groups or non-kin groups (neighbours)		living in the first small villages, sharing tasks between neighbours needing help	
V48	01:06	2	1,994		scrub, woodland, riverside	gathering plants	
V49	01:26	n/a	1				
V50	00:51	4	616			sleeping on wild boar skins, eating eels, berries	

Appendix 19
Narrative elements found in YouTube videos
Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites
V01	transition of hunter-gatherer to farmer		the first pottery, domestication and farming, first pottery	in Mysore and Adamgarh
V02				
V03		theme of continuity across the end of the Ice Age		Cramond, East Barns, Dryburgh, Star Carr, Thatcham a. o.
V04	appears crude but simple for minimal effort			
V05	never-ending wood, thick heavy ground, cold damp air			
V06	polished axe more durable, cleaner cut			
V07		environmental impact, semi-sedentary, foreshadowing the coming of		
V08		agriculture, temperate climate, earlier prey animals extinct	unique tool making	
V09	before sour, bitter, after really nice, sweet			
V10	importance of group work, community spirit developed, surprised how well it worked		challenged people's ideas	Mt Sandel
V11				Haväng
V12		some lived in villages, some in walled cities, between the Palaeolithic and Neolithic, some hunting, some farming		
V13	obedient, submissive, knuckle dragging	moody, broody, hairy	no stress when food and love are free	
V14			the first large scale construction at	Mt Sandel
V15			UCD	

V16				
V17				Mt Sandel
V18	amazing, loved it, highlight – the team and the view			Storakaig
V19		no pots but pot boilers found, roasting sweetens bitter food, hawthorn for good health		Mt Sandel
V20	very excited archaeologist, fantastic dates, incredibly significant			Vespasian's Camp
V21			relevant to today	
V22				
V23				
V24				
V25				
V26				
V27	people knew what they were doing and not the first time done, sophistication of ritual, skilled cremation	difference between Early and Late	issues – cremation skill, significance of places, ritual significance, seasonality, territory, memory in place	Hermitage, Mt Sandel, Ferriter's Cove, Killuragh Cave
V28				Creit Dhu
V29	transitional period, content to be better hunter-gatherers			
V30		would be difficult in wet weather, rawhide wrapping to prevent splintering, marking the arrows with ochre to find them more easily		
V31		visit to the reconstructed Howick house and the landscape		Howick
V32				
V33	significant, Mesolithic finds extremely rare here, one of the most important or significant in the country	working in all weathers, may have three buildings		Lunt, Formby, Goldcliff

V34		really beautiful, perfect		Rönneholms Mosse
V35				Creit Dhu
V36		transitional		Vindhya, Bagor, Adamgarh, Bhimbeta, Langhraj, Sarai Nahar Rai, Teri, Birbhanpur
V37				
V38				
V39				
V40		a youth, male, 157 cms tall and in his 50s		Bewah Cave
V41				
V42	getting food tedious and slow, varied by season			
V43	bigger, hairier hands			
V44				
V45				
V46				
V47				
V48		skin covered houses, open hearth, dog, canoe, drying racks		
V49		post-Pleistocene – pre-agricultural		
V50	food not very nice			

Appendix 20
Narrative elements found in popular archaeology books
Part A: characters, settings, actions and happenings

ID	Characters	Settings	Actions	Happenings
PB01	food gatherers, strand-loopers	by the sea, by estuaries in the east, on sandy patches	hunting game, catching fish, collecting molluscs, nuts and berries, came up from French coast – only a few surviving, coming from the east also, coming from northern England	
PB02		open glades in forest, by seas, meres and rivers	hunting and snaring game, wildfowl and fish	
PB03	Maglemosian fishers and fowlers, men, women, Tardenoisians, Azilian strandloopers, little groups, Azilian woman, modern visitor	sandy soils, camps	adjusting to new conditions, reducing tool size, making composite tools, wood cutting, three migrations of peoples encountering indigenous, men hunting, fishing and fowling, women gathering plants and shellfish, domesticated and using dogs in hunting	warming, new forest and animals, separation from continent
PB04	community to two dozen, flint knapper, craftsmen	mild and damp forests, plateaus or rising ground, near spring, by lakes, sandy ground	hunting food, eating, sleeping and propagating and slight intercourse with other families, migrations into Europe, making flint and antler tools, setting pygmies in wood as sickles or saws or harpoons, polishing of stone, burial of decapitated skulls and sprinkled with red ochre, defending against invaders, wearing armlets/anklets, using bow for hunting, ceremonial dances, making habitations, using tools, domesticated dog, used boats, rafts or canoes, making hearths, hunting	increasing population, Scotland rising, England sinking, separated from continent 7000 BC
PB05	hunters, fishers, bowmen, man and woman	forest, camps	collecting, catching or hunting, gathering prominent, hunting with bow and dog, nomadic, later permanent settlement, fishing, invented fish hooks and nets, trading shells and flint, combat, burials in refuse or skulls with red ochre – also extended and flexed, man and woman laid side by side	
PB06	food gatherers, hunters, fishermen, communities, tribes, savages	encampment, forest edge, sea coast, lakes, rivers	push up coast, already adapted to woodland and came to Britain, visit summer hunting grounds in Pennines, felling and shaping timber, devised hunting and fishing equipment	retreat of the ice, encroaching of forest, isolation of Britain with junction of North Sea and Channel
PB07				

PB08	bowman, hunters		introduced bow, domesticated dog, pampering the dog	
PB09	Azilians, huntsmen, bands of archers, hunters, food gatherers, food producers, communities, hunter-fishers, hunters and fowlers, savages, 4 households, strandloopers	novel and sterner environment, sandy tracts in forest, windswept coasts, patriarchal family, Northsealand, birch and pine forest, lakeside, three climate phases, lakes, deciduous woods, encampments	new equipment, adaptation through hunting, fishing and collecting, domesticated dogs, immigration, homicide, voyages in boats, some kept sheep or goats, developed equipment, spear fish, chop wood, dropping refuse, temporary camps, hunting fur bearing game with specialised bow and arrows, fishing with line, net, trap or spear, carpenters' kit, grinding to sharpen tools, mounting flint, built sledges, paddles and canoes, heating birch for adhesive, shifting seasonal camps, handing down culture by oral tradition, adapting to environment, made pottery	glaciers retreated, forests invaded, fauna and vegetation changed, ocean level rise separating Britain from continent, climate change
PB10	groups, Sauveterrian and Maglemosian groups	open downs and heavy woodland, coast, rivers, sandy areas	hunting, trapping, fishing, avoiding the chalk downs, seasonal movements, bring back raw materials	
PB11	small groups of hunters, few families, 3-4 people households, food-gatherers	North Sea freshwater fens and lagoons, birch and pine forest, river valleys, eminences, low plains, shores and lakes, sandy heath, fenland sand dunes, camps	Maglemosian immigration, setting microliths in wooden hafts, boring, cutting, wood working, mobile using seasonal camps, hunting with dogs, fishing with equipment, using canoes, shooting birds with bow and arrow, using snares, hunting for fur, built flimsy tents and substantial shelters	milder climate, rise in temperature, new forest animals, Britain an island by 5000 BC, changes in climate and forest, denser forest impeding movement
PB12	hunter, food-gatherer		adapting to environment and changing climate, excavation, study of stone tools, botany and animal bones	
PB13	Grahame Clark, Rankine	higher open moors and sandy heaths, near the sea, forest	adaptation, mounting microliths on wooden hafts, Sauveterrian settlers from France, making microliths, Maglemosian settlers from the east, excavation, hunting, fishing, grubbing up roots, cutting timber, developed axe/adze	glaciation receded, different conditions, climate and woodland change, separated from continent 5000 BC
PB14	hunters, hunter-fishers	sea shore, forest glades, lake margins, river valleys, upland zones	adapted, hunting, fishing, gathering, use of the bow, hunt wider range and smaller game and sea shore, build brushwood platform, spearing fish, using lines and nets, gathering fruits and nuts, kept dogs, making huts, cut down trees, making axes, made handles, bows, paddles and canoes, making antler and bone tools, decorated implements, carved amber, using pebbles as sacred stones, practised ceremonial burial, gathering molluscs, colonised areas, discovered natural resources, began settled way of life, invented sledge and ski, used boats, burial in Morbihan in skin cloak and antler crown, preparing the way	temperature rise, ice sheets contracted, changes in sea level, exposing new land, spread of forest, new animals

PB15	communities, Hopper, Rankine, Lacaille	sandy areas, forest, contemporary Neolithic communities and even Bronze Age, camp	hunting and fishing, Maglemosian coming from south and east, use of canoes, boat building, tree felling, nomadic food gathering, hunting, trapping and fishing, travel over wide areas, work by archaeologists, constant search for subsistence, Tardenoisians crossed Channel, selection of raw material, making blades and tools, flints set into wooden shafts, possible use of flint slings missiles against birds, transport on seas and rivers, preserving for display as museum, seasonal sites, replacement of hazel woodland by heath	ice recede, climate change, growth of forests and fauna, sea incursion separating Britain from continent
PB16				
PB17				
PB18				
PB19	hunters and fishers	dense forest	colonisation, nomadic, microliths attached as barbs	ice retreat, sea level, environment and climate change
PB20	hunters and gatherers	forest, coastal areas	adapt new hunting methods, setting microliths into hafts to make specialised tools, hunting animals, gathering wild plants, burning forest to improve grazing	ice retreat, forest replaced tundra, new animals
PB21	Creswellian people	lakeside, moors, sandy heaths, coasts, sea and shore	Creswellians adapting, adopting microlithic tools like saws, population increase, new people from rest of Europe bringing Maglemosian, hunting, fishing, living on rafts of branches, developed Thames pick and tranchet arrowheads, microburin method making geometric microliths, becoming more sedentary but with seasonal movement, ceremonial burial, Mesolithic survival well into the Neolithic – microlithic copies of barbed and tanged arrowheads in Scotland	climate change, woodland new fauna, separated from continent 6400 bc isolating people, warmer and wetter Atlantic
PB22	small groups of men	small lakes, clumps of birch trees	hunted and fished, nomadic way of life following herds of deer	English Channel formed separating Britain from continent 6000-5000 BC
PB23	hunters and fishers, communities, John Mercer, Paul Mellars, hunting bands	sea, mountain, river, forest, calm fjords, sheltered bays, camp site	hunting, gathering, fishing, moving into Scotland, navigation in boats, sea travel, excavations, building sequence of artefacts, radiocarbon dating, preparing skins, bone and wood, hafting microliths, prepare vegetable foods, cooking, temporary camp, cutting up whale carcass, following game up river, changing view on hunting and that plants, fish and shellfish more	stranding whale

PB24			hunting deer	
PB25			eating mollusc, sea bird, fish, land animals, leaving footprints	ice retreat, land rise in north, sea level rise in south

PB26	3-4 families, women, men, young adult male, specialists, shamans, hunting groups	open landscape, thick forest, Early pine-birch-hazel, cool and dry, Late thick deciduous, rivers lakes, sandy soils, caves, shelters, coasts, islands, tidal, possible overlap with Neolithic, incoming Neolithic settlers, camps	adapt to changing environments, adapting environment to themselves, groups moving into Britain, defining territories to avoid conflict, hunting, foraging, sites chosen with forethought, inherited experience, overnight stays at temporary camps, daily routine of collecting and hunting, 2 hours walk radius from base camp, seasonal movement of camps, communication between groups, collecting hazelnuts in autumn, sitting round the fire chewing nuts and casting the shells into the fire, cutting grasses for bedding, digging roots, making sickles, using ethnography, men hunting, women foraging, men helping with foraging, isotope analysis, preparing seeds with stone rubber, chance encounters with brown bears, vipers, charge by aurochs or boar, making microliths used for spears or arrows as barbs with resin, possible use of poison, adder venom of deadly nightshade, using bone or antler barbed points in hunting and fishing, intentional burning of scrub and forest to create open areas, domesticated dog employed in hunting, managing herds by culling, clearing vegetation, ivy fodder and tethering, fishing, fowling, carrying shellfish inland, excavation, cooking shellfish, prizing out chert for tool-making, importing meat and antler from mainland, fishing by line or net from boats, making dugouts by burning and scraping, butchering whale, drying and smoking meat and fish, constantly collecting firewood and water, repairing equipment, cooking with potboilers, story-telling, music, singing and dancing, meetings with other groups, exchanging presents and marriage partners, finding Aveline's Hole, exposing of bodies, laying paving, brushwood and birch bark floor, quarrying flint, training specialists, flint working, restrictions or taboos on use of good flint, expeditions to flint sources, making blades, making microliths and axeheads, felling trees, working timber, antler, bone and leather working, scraping hides, netting, basketry, personal decoration with necklaces and on clothes, wearing frontlets during hunting or ceremonial dancing, contacts by sea along the Atlantic,	sea level encroaching, change from open landscape to thick forest, change in animals, occasional disasters, tragedies and lean times, stranding of whale, air raid, an island 6500 bc
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PB27	hunter-gatherers, family of 8, John Wymer, Paul Mellars, Roger Jacobi, communities of 25	areas of open water, woodland, rivers, ridges, valley tops, sandy soils near streams, rivers and coasts, camp	resettling, establish open sites, fishing, hunting and gathering, excavation, revise concepts of hunter-gatherer mobility, using abstract statistics and extrapolation, eating fish and shellfish, using catchment analysis, using sites at different seasons, killing, flint knapping, finding sites, excavating to answer questions, studying rubbish, using boats, using bow and arrow, trapping, processing skins, analysis of faunal remains to estimate time of year at site, radiocarbon dating, reinterpretation of Star Carr, bone analysis methods, watching deer from heights, burning trees to clear view, driving deer towards archers in summer, exploring new areas to colonise, sewing animal skin tents, houses in forest clearance, drying fish and hides, wood working, making arrows, making boats, finding site during pipelaying, changing explanations with	glaciers retreat, separation from continent 6000 BC, climate ameliorated, growth of woodland and animals, sea level rise
PB28	hunters, families of 1-12 with grandparents, uncles and aunts, hunting bands, women, adolescents	caves, lakeside, coast, highland, moorland, woodland with scrub and open areas, defined territories, rivers, heads of lochs, well drained bluffs above rivers, differentiation within and between communities, fluid group membership within territories and rivalries, camps	hunted, fished, gathered, built wooden frame shelters, made tools of antler, wood, bone and stone, nomadic, harnessing nature without depleting it, following new animals, families coming together, groups leaving and coming back, return to known locations, exploring new locations, making clearings using fire, gatherings for celebrations, exchanging news, goods and partners, travel by boat, drying and curing, stretching hides, animal fat lamps, constant fire, move through lack of firewood, transporting stone, archaeological methods, radiocarbon date, hafting blades in arrowheads, settlers from south and other directions, making fire, cooking, tool making, religion as part of daily life, burial in rest of Europe	climate warming, vegetation back, unstable sea level, growth of woodland, wetter climate, changes to coastline and impact on memory, tsunami 7,000 years ago, whale strandings, slow increase in population
PB29	small bands of hunters, food gatherers, fishermen	light soils, caves	forest clearance	warming climate, sea level rise, forming English Channel 8000 BC
PB30			tool making	tent burnt to ground

PB31	hunters, Grahame Clark, Legge, Rowley-Conwy, Maisie Taylor, Schadla-Hall, Mellars, John Wymer, John Coles, Cheddar Man	rivers, lakes, edge, birch woodland, open oak-elm woodland, shoreline, camps	hunting, gathering, fishing, making microliths, working bone and leather, environmental analysis, making antler spearheads, bone analysis, stalking – aiming at heart – missing – hitting shoulder – animal escapes, using dog for hunting and round up, wood analysis, woodworking, wedging wood with antler, small scale seasonal movement, reinterpretation of SC, using headdresses in shamanistic dance or in hunting, platform built for ceremonies, meetings, gift exchange, knapping, finding by amateurs, excavation, repeated settling at one spot, making a house, use-wear analysis, harvesting shellfish, collecting beach pebbles for making tools, squatting in midden to shelter from wind, building up midden as territorial marker, fishing from boats, taking birds from cliffs, people carrying clear maps of the landscape in their heads, discovery of Doggerland, intermarriage between bands, DNA analysis	rapid climate warming, melting ice, sea level rise, waterlogging preserving remains, population increase, gravel extraction, population growing to 5,500, drowning of Doggerland 6500-6000 BC
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PB32	hunter-gatherers, women, groups of men, antiquarians, Paul Mellars, archaeologists, Tony Pollard, work parties, Caroline Wickham-Jones	social relationships within and between families, population pressure, small groups of people never know more than a few hundred, Scottish latitude, camps	excavation, study of tools, botany, zoology, anthropology, looking at other parts of Europe, ethnographic analogy, getting food from the wild, moving at different times of year, women gathering plants, meeting, having families, arguing, grieving, rejoicing, mobile, predicting the weather, sending out task teams, modifying their environment, burn and prune trees, large gatherings to harvest hazel nuts, catching using traps, nets, lines, spears or bows and arrows, butchering the carcass, processing the meat by drying or smoking, big animals hunted by groups of men, smaller prey by women, fishing, using stereotypes to describe them, making bone and antler tools, made baskets and fish traps, lined floors with bark, built canoes with decorated paddles, sieving for fish bones, shellfish as fish bait, otolith studies, different interpretations of Oronsay and arguments over bevel ended tools, scooping meat out of shells or leather working, dating techniques, looking beyond middens, travel by coracles and dug-outs, deliberate management of woods, making clearings, arguments over use of microliths, microscopic analysis of microliths, various uses of microliths, roasting nuts for storage or paste, coppicing and pollarding trees, groups congregate for harvest, analysis of tools, design a seasonal round with structured wanderings through the landscape, scattering into small groups in the hills in summer, moving to coast in winter, home camp where some people lived all year, using up firewood, arguments in camp, decorating clothing with shells, making inferences, exposure of bodies, placing finger bone on seal flippers, belief in spirits inhabiting natural world, rules for sharing resources, marry outside the band, meeting up with others for parties, gift-giving and ritual,	
PB33	hunter-gatherers, Cheddar Man		women hunting small game also processing kills and looking DNA analysis, local matches with an adult and two children, finding musical instruments, campfire singsongs, treating piles with lesser celandine, over-exploitation of hazel woodland	rising sea level, loss of Doggerland cutting off Britain, population expansion
PB34	hunter-gatherers, Saami	coastal	innovation in stone tools	
PB35				

PB36	hunter-gatherers, archaeologists, communities	wooded land with open clearings, grassland, moorland and mountain, also a lot of water – bog, marsh, streams, lakes, rivers, fluid group structure	learning lessons from our past, highlight the contribution of the Stone Age to modern debates about lifestyle to stimulate thought, hunting, gathering, fishing, neighbourly and domestic violence, use knowledge of the past the think in different ways and open up new possibilities, struggle to cope with flooding of Doggerland, water transport, fishing, spears adapted to harpoons, adopting bow and arrow, analysis of sites, move from place to place, manipulation of environment, taboos, personal whims, setting controlled fires, over-exploitation, reductions of tree cover, decorating with shells, using haematite for colour, reinforcing group identity, cultural contact and spiritual connection, managing pit alignment, walking in the landscape, music and dance, people entering Britain from various	rising sea level and land bounce back, becoming an island, flooding of Doggerland, earth tremors, sea levels rising and falling, moon rise, spring tides, equinoctial winds and seasonal floods
PB37	John Moore, Grahame Clark, several families	lake edge	people settling by lake, sites found, excavation, reconstructing environment, return to Britain after Ice Age, hunting, gathering, fishing, foraging, visiting in winter for several year, making head-dresses, worn by shamans, making barbed points and beads, making tools of flint, making timber platform, using boats on lake, using reeds for matting, maintenance of house, change in view of length of time occupied, auguring, designation as scheduled monument	climate change, preservation in peat, peat drying and shrinking damaging site, lake filled in by peat, deterioration of site, acids dissolving bone
PB38	hunters, gatherers, fishers, families and communities, children, archaeologists, David Smith geologist, Gary Momber, divers, lobster, craftsmen, Serge Cassen, Peter Woodman, Neil Oliver as first person	marshy bridge of land, coast, bays and rivers, rich woodland, swampy marshland	nomadic roaming coast and interior, tending net and traps, collecting shellfish, moving in boats, children playing in the shallows, dropping gear and getting to high ground or standing and staring, families strolling by the sea, excavation, finding underwater site, first person account of diving at Bouldnor Cliff, crossing into the past, cooking over roaring fires, harvesting wild foods, moving to fresh ground	land disappearing beneath the waves, dance between sea levels and land rising, Storegga slide, tsunami 6100 BC, tide going out then a roar and wind, describes the effects of the tsunami, climate decline becoming wetter, woodland giving way to marsh, anaerobic conditions preserving remains, seasonal shortages

PB39	pioneer hunter-gatherer communities, the first Britons, ancestors, Ahrensburgian horse hunters, sailors, young adult male, spirits, gods, ancestors, inner selves, Cheddar Man, foragers, men, women, children, 4ft 9 to 5ft 5 tall, lightly muscled	dense wildwood, open upland, wide river valleys, estuaries, open coasts with intertidal zones and seas, Doggerland low rolling hills, lake edge, world inhabited by spirits and gods, camps	adapting to woodland, smaller hunting bands in more limited territories, use of plant foods, new tool-kits of microliths set in wooden hafts with axes and adzes for carpentry or grubbing up roots, bone and antler harpoon heads and points for leather-working, mobility, interaction sharing ideas, technologies and beliefs, traditional model of winter forest base camps with summer upland and coast sites, aged and young staying in base camp all year, specialist camps for making and repairing tools and working skins, gatherings of larger groups – more complex than this, hunting, collecting hazelnuts, working bone and antler, butchery, eating, deliberate felling of hazel, ivy as fodder, using dog in hunting, taboo on fish eating, using frontlets to stalk deer, deposition in lake as an act of respect to propitiate the animal's spirit to ensure a fruitful season, size of foraging groups would have varied and changed with over-exploitation, population pressure and local hostility, using fire to clear vegetation, settlers coming from the east cross Doggerland and from the south up the Atlantic coast, alternative interpretations of Oronsay as foragers from mainland at different times of year or as one community moving around the island, transport by sea, long distance journeys for rare resources, social intercourse with other communities, exploring, reaffirm relationships, exchange gifts such as food, furs, skins, feathers and wives and agree marriages, analysing raw materials to trace movement, placating the spirit of the beast for the hunt, building middens as territorial monuments, exposure of the dead, depositing bones in the middens like fingers on seal flipper, inhumation of dangerous or malign people or unclean, reverence of special places, setting up posts in clearing for ceremonies or as totems, communicate with spirits ancestors and inner selves. walking after prey, women collecting shellfish and shrimps, men hunting, disputes and warfare, carving out territories, study of DNA – maternal haplotype H from north Iberia coming up Atlantic and into and across Doggerland, paternal R1b-9 from Basque country and I1a and c from Balkans and Ukraine,	rise in temperature, climate and vegetation phases, cold spells 6200 and 4500 BC, unpredictability, growth of woodland, new animals, sea level rise inundating Doggerland 6500-5500 BC making Britain an island, poor nutrition or ill health in childhood, population growing
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PB40		woodland, coasts, estuaries	bow and arrow hunting, exploit and manipulate the environment, actively managing environment	
PB41	humans, hunter-gatherers, people, communities, small groups, 4 people, 3-5 year-old child, 10-11 year-old child, shamans, 4 or 5 families, large group, first visitors	lake, Vale of Pickering, birch woodland, Doggerland rivers and wetlands, significant places, reed swamp, lake edge vegetation zones, settlement, islands, promontory	settle by lake, stalk prey, hunted animals, gathered plants, made tools, ate foods, fishing, working timber, built houses, made beads, had dogs, dumping rubbish in middens, use dog in hunting, special relationship with dogs, taming animals like bear, knapping, sharing tools and food, learning knapping, using tools, straightening arrow shafts, hafting microliths, scraping hides, scoring grooves, making boats, making buildings, carving idol, making rope, twine, containers, coppicing, burning vegetation, digging up roots, sewing, ornamenting clothes making jewellery, seasonal move from place to place, follow animals, building and maintaining/rebuilding house, link to particular places, giving gifts in trade, walking, playing, cooking food, smoking or drying meat, having a feast, treating the dead – burying or cremating or defleshing or dismembering, veneration of ancestors, nurture supernatural beings, disposal of remains, have trances, building structures, marking special places, gathering together, having ceremonies, fell trees to clear paths, make antler frontlets for hunting or ceremonies or dances, make wooden trackway, burning reed beds, making votive offerings or throwing rubbish in the lake, collaboration between people, working around a fire, cooking, placing offerings in pits, killing and butchering an aurochs, caching flint, using boat to go to islands, cutting plants, sharpening axes, establish camp, hide processing, working plants, soaking antler to make barbed points, making hunting journeys away from site, rules on disposal of remains, using paths and trails, walking to gather good flint, good understanding of local geography people built hearths and fires, prepared food, sat around to eat, tell stories and exchange news, sounds of people shouting greetings, excitement as hunters return with a kill, laughter at	climatic and environmental changes, Storegga tsunami, Britain becoming an island, lake becoming smaller and shallower, rapid warming, growth of grassland and woodland, climate oscillation, sea level rise inundating territories, submerging woodland, poisoning water sources, change from reed swamp to fen and carr, change in woodland, peat growing

PB42	Bryony Coles, family, Clive Waddington, archaeologists, vandals, family of 2 parents and children, Nicky Milner, Maisie Taylor, 10-50 households, specialists, Brian Fagan, men, women, Francis Pryor as first person, fishermen, craftsmen, digger driver, Martin Bell	uninhabited landscape, Doggerland, coast, inland, Lake Flixton, families extending beyond the household, relations between men and women, communication and mutual support among people	moving into landscape, discovery of bone spearhead in North Sea, revealing of Doggerland, coining of term, looking west at Britain, hunting and foraging inland, new evidence of houses not so flimsy, underestimating the past, people coming from south and west Atlantic coast and later from France and farther east, new ideas about Mesolithic life, creation myths and tales of ancestors, frequent revisits to sites, challenging earlier archaeological assumptions, shifting short term settlement, first person account of encountering Mesolithic houses, repair of houses, rebuilt by archaeologists, burnt down by vandals, reconstruction as experiment, first person pilgrimage to Star Carr, establishing ancestral claims to site, building houses, questioning assumptions and preconceptions, wood working, made wooden platform, test pit and topsoil survey, radiocarbon dates, writing a book by SC team, excavation, plotting find spots, finding and analysis of digging stick, men hunt, women tasks close to home, SC undermining long held beliefs, first person account of meeting NM, geophysics, staying at site with small parties moving away at times, changing population estimates, herding animals and fish, gathering plants, herbs to flavour food, experimental archaeology, coppicing, pruning, transplanting seedlings, fire to manage environment, boat building, use of head-dresses by shamans, treating natural places as special, aligning post on highest point in landscape, burying dead by settlement as ownership and protection by ancestor, finding of Echline, using wolf pelt as blanket, smoking meat and fish, communing with the past, first person	warming climate, trees, oil prospecting, threats from wolves and bears, drainage destroying SC, importance of seasonality, flooding of Doggerland, growth of population
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Appendix 20
Narrative elements found in popular archaeology books
Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites
PB01		assisted by dogs, sparse settlement, no widespread population		Oban, Oronsay, Risga
PB02	impression of extreme poverty, scope for progress was very small, taking tedious steps constrained by environment	small groups scattered in the forest	dogs for help in hunting, first tools for carpentry, first sledges	
PB03	retardation in cultural standards, loss of art a sad decline, poor indigenous population, lack of economic plenty, shadowy Tardenoisians, degeneration of feebly barbed harpoons, “poor little groups of hunters and food-gatherers scattered round the fringes and in the clearings of the dripping forests”, modern visitor “would not think that the foundations of his civilization were being laid”	tolerably well provided with material comfort, lack of leisure or genius or fear of representational magic	oldest boat in western Europe, initiated the canine friend, oldest dwellings in Britain	Perth, Farnham
PB04	industries modified for the worse by Spanish immigrants, flint working in decline but some skill making pygmy flints, queer symbolic designs, decline of art, more of a struggle to live, little leisure for art, bows and advance on spears, elementary crude religion	intermediate, transition, Red Deer Age, live on floating platforms – the first houseboats, open to magic and religion, skulls facing west as the home of the dead, belief in rebirth, sand a holy thing with religious significance		MacArthur Cave, Druimvargie, Settle, Farnham, Hastings, Horsham, Peacehaven, Scunthorpe, Aberystwyth, Marsden, Rochdale, West Harting, Henfield, Hassocks, Albury, Leith Hill, Reigate, Redhill, Seaford, Rowberrow Cavern, Selmeston, Thatcham, Victoria Cave, Warcock Hill, March Hill
PB05	lived parasitically on nature			

PB06	limited impact on environment, diminutive and weakly held human world, faint flickering of mind, backward, stagnant, passive	scattered groups, small population		
PB07				
PB08	formidable hunter, did not differ from other animals	no traps, seaworthy boats or fishing gear		
PB09	needed more arduous tactics, Azilians lingered on sheltering in caves, meagre subsistence, highly efficient equipment, well stocked & generous diet, ingenious equipment, flimsy huts, excellence of adaptation to	differences of rank within bands	birch adhesive oldest artificial substance in Europe, Ertebølle oldest pottery in northern Europe	Star Carr
PB10	savages, precarious means of			Oakhanger, Iwerne Minster, Nab Head
PB11	livelihood			Kelling, Thetford, Hockham, Wretham, White Colne
PB12	poor struggling stage			
PB13	somewhat bleak way of life	living on rafts of branches		Star Carr, Lower Halstow, Farnham, Selmeston, Oakhanger, Iwerne Minster, Abinger
PB14	harder conditions with more dispersed and fewer animals, northern Europe richer than Palaeolithic, southern Europe inferior, vigorous culture, inventive and adaptive, in no way inferior to peasant neighbours	familiar world	ethnic base for later communities, prepared the way for farming societies	Star Carr
PB15	flint workmanship of a high standard, flimsy structures	windbreaks and pit dwellings, pigmy flints		Oakhanger, Broxbourne, Clacton, Swanscombe, Sewardstone, Walton, Addington, Downton, Chestnuts, Farnham, Lower Halstow, Pulborough, Deer Leap Wood, Balcombe, High Rocks, Selmeston, Abinger, Iping Common, Halstow Creek

PB16				King Arthur's Cave
PB17				Star Carr
PB18				King Arthur's Cave, Wildernesse Barrow, Abinger Common, High Rocks, with two ascribed to Palaeolithic only - Aveline's Hole and
PB19				Dryburgh, Inveravon
PB20	perhaps not so different to the farmers who replaced them			Star Carr
PB21		core axes distinctive of Boreal, winter and summer sites		Star Carr, Broxbourne, Thatcham, Deepcar, Lower Halstow, Horsham, Farnham and Selmeston, Oakhanger, Iwerne Minster, Farnham, Abinger
PB22				Aveline's Hole, King Arthur's Cave, Abinger Common, High Rocks, Victoria Cave, Trwyn Du, Brenig, Cat Hole Cave, Goat's Cave (Paviland)
PB23	skilled navigation, too easy to emphasise the squalor and uncertainty of the way life and to contrast unfavourably with the Neolithic but may have met their needs more readily leaving more time for leisure, "hunters keep bankers' hours', was one assessment of the hunting and gathering communities of the 'original		earliest stone settings in Scotland	River Lussa, Oronsay, Low Clone, Barsalloch
PB24				Oronsay, Star Carr
PB25				Morton, Oronsay, Westward Ho!, Newport

PB26	vast knowledge of plants and animals, simple shelters, flimsy tents, flint-working never clumsy always skilled, microliths ingeniously made	animals provide meat + hides + bone + antler + sinew + stomachs and bladders + whiskers + teeth, also pelts, flint working the most important craft essential to whole economy and lifestyle	relationship with deer herds not far short of domestication	Star Carr, Thatcham, Morton, Oronsay, Oban, White Gill, Oakhanger, Winfrith Heath, Hockham Mere, Westward Ho!, Blashenwell, Culver Well, Jura, Robin Hood's Cave, Pin Hole Cave, Gough's Cave, Flint Jack's Cave, Langwith Cave, Gough's Cave, Aveline's Hole, Paviland, Kent's Cavern, Badger Hole, Prestatyn, Three Holes Cave, River Yare, Broom Hill, Downton, Mount Sandel, Broomhead Moor, Dunford Bridge, Deepcar, Barsalloch, Greasby, Eskmeals, Farnham, White Colne, Wakeford's Copse, Selmeston, Abinger, Stoney Low, Stonewall Park, High Rocks, Nab Head, Newferry, Hammersmith, Hungerford
PB27	supermarket of the Stone Age, an easy place	20,000 people in Britain	Star Carr excavation a forerunner of others, its reinterpretation an good example of archaeology with no final answers, importance of site evaluation to discover sites	Culver Well, Oronsay, Morton, Star Carr, Broom Hill, Bowmans Farm
PB28	structures flimsy but warm, good knowledge of the land, slow increase in population, technical skill, society sophisticated and complex with rich diversity, very different to our own	shelter with walls of poles covered in hide, brushwood, turf, bark with clay or mud packing and stone, turf or boulder bases, some small but can be up to 6m across, stones, bark, vegetation or skins could cover the floor		Arran, Oban, Redkirk Point, Loch Doon, Inverness, Star Carr, Starr Cottage, Smittons, Morton Farm, Islay (Kilellan, Newton, Gleann Mor, Bolsay Farm), Jura (Lusssa Wood, North Carn), Oronsay (Cnoc Coig and 4 others), Colonsay (Staosnaig), Ulva (Ulva Cave), Rum (Kinloch)
PB29		transition from nomadic to more settled, small, scattered temporary	first tentative attempts at forest clearance	Star Carr
PB30		settlements		Dunbar

PB31	transitional between ice ages and postglacial, between hunting/gathering and farming, Clark one of the greatest and most innovative prehistorians of the 20th century but lecture very dry, more hunting than gathering, not enough plant food in British climate, remarkable having dogs, SC provides the liveliest and most interesting debates of any prehistoric site in Britain, great John Wymer, meticulous excavation with a motivated crew, society changed very little in the	less mobile and smaller territories over time	SC the most famous Mesolithic site in Britain, earliest worked wood in the world	Star Carr, Thatcham, Morton, Cramond
PB32	rich understanding of their environment, they were not primitive savages grubbing out an existence close to the subsistence margin, very successful economy, rich culture, carefully established strategies, complex, elegant paddles, controversial discovery of environmental management, spectacular finds, exciting discoveries, clearly not small groups struggling for survival, a difficult period to study, hard to interpret, winters without houses and danger of travel in primitive open boats, dangerous and efficient predators, way of life a great success	concept of ownership by a people, different groups with access rights to different middens	the first people to live in Scotland, microliths as world's first plug-in parts for tools	Oronsay, An Corran, Risga, Staosnaig, East Barns, Kinloch
PB33	teeth better than modern, healthy way of life, sophisticated and clever, life harsh but with leisure and less authoritarian, egalitarian	isolated gene pool, 5000 people at 9,000 years ago, hazelnuts as pot noodles	quotes Miles “the original communists”, founding ancestors of modern Britons	

PB34	most sophisticated flourishing of the hunter-gatherer lifestyle, golden age, striking and rich novelty, post-glacial springtime of environmental rebirth and cultural efflorescence	analogous to NW Coast Pacific		
PB35				Creswell Crags, Cheddar Gorge
PB36	sophisticated knowledge of the land, and a detailed understanding of the way the world worked, made few lasting changes to the world, did not live in a garden of Eden, not happy hippies living in harmony with their environment	nomads, society becoming more complex	survival of hunter-gatherer traits: predilection for fish and shellfish, hunting and fishing as activities, TV programmes about wild foods, evening classes on middens, composting, organic farming as closer to nature, wilderness survival skills, no clear distinction between people and nature, long-lived memory of landscape, human communities an integral part of the landscape, depth and complexity of feeling for the land, resonances with present day	Creswell Crags, Cheddar Gorge, Aveline's Hole, Broom Hill, Crathes, Deepcar, East Barns, Ferriter's Cove, Fife Ness, Gough's Cave, Howick, Kinloch, Mount Sandel, Nab Head, Oronsay, Pass of Ballater, Sand, Staosnaig, Star Carr, Thatcham, Ulva Cave
PB37	SC amazing discoveries, wonderful artefacts		resonances with modern life, earliest evidence of carpentry in Europe and house in Britain, SC unique, amazing discoveries, rare and wonderful artefacts, SC as a special place	Star Carr
PB38	a hellish moment, technologically sophisticated, sophistication and complexity of way of life, rich, comfortable and satisfying, high mobility kept people lean and it but hard on the elderly and disabled	Doggerland as another lost Atlantis, low fat diet, Britain's destiny shaped, connection to Europe severed, the end of infancy in Britain, of their helpless forgetting, now remembered things about themselves, flood became a fixed point, floods haunt the earliest folk memories as cleansing cataclysms that usher in everything else that exists, less risk of disease and less iron deficient than farmers	oldest boat building yard in the world, idea of Carnac as Mesolithic and masculine symbol compared to feminine passage graves, survivors made separate and a little bit special as islanders	Goldcliff, Bouldnor Cliff

PB39	living at environmental extremes but broader basis for subsistence, more reassuring, had leisure to enjoy varied diet, Atlantic facade a highly congenial environment, competent sailors, complex belief systems	diverse mosaic of different environments, population may have been several hundred thousand	ancestors of a significant component of the present-day British population, Star Carr a special place where they could mediate with the powers who controlled the natural world, first stage of domestication	Thatcham, Star Carr, Cramond, Oakhanger, Oronsay, Gough's Cave, Aveline's Hole, Goldcliff, Formby
PB40		dependency on seafood for some	foreshadowing the Neolithic	Star Carr, Goldcliff
PB41	exciting, air of mystery, fascinating period	rustling branches and reeds by the wind, water lapping the lakeshore, air thick with smell of smoke and cooking food, dampness and woodland undergrowth, a place people experienced with their senses	one of the most important archaeological sites in Britain, iconic, Stonehenge of the Mesolithic, rare insight, rare artefacts, tells a story no other site can, earliest carpentry evidence, What was Star Carr?, earliest house, unequalled diversity of finds	Star Carr, Nab Head, Howick, Shigir, Holmgaard, Severn estuary, Thatcham, Staythorpe, Oronsay, The Hermitage, Gough's Cave, Aveline's Hole, Greylake, Vedbæk, Warren Field, Flixton, Seamer, No Name Island
PB42	highly structured life, rich conceptual realms, beauty and drama of landscape, exposed and bleak, remarkably robust houses, SC sensational and astonishing, has special magic, extraordinary numbers of flints, remarkable revelations about the Mesolithic since 1990s, meticulous excavation, life was good, highly efficient, fine boat-builders, expert fishermen, superb craftsmen in bone and flint, excellent hunters, remarkably high standard of living, cleaner houses, diseases rarer, not an inferior lifestyle, proper family	50,000 population at end	revolution in archaeology with evidence for early housing, SC an icon of the period, one of the first and best examples of archaeological teamwork, iconic-verging-on-the-supernatural, where everything seems to have begun – return to Britain after the Ice Age and modern archaeology after the war, the most famous prehistoric site in Britain,	Star Carr, Howick, Thatcham, Stonehenge posts, Greylake, Sefton, Echline, Severn footprints

Appendix 21
Narrative elements found in newspaper articles
Part A: characters, settings, actions and happenings

ID	Words	Characters	Settings	Actions	Happenings
N01	323	William Cotton	forest	hunting, discovery and research	
N02	153	settlers, archaeologists, hunters	encampment	uncovered remains of an encampment, travelled the coastline eating fish, shellfish, wildfowl, berries and nuts as well as venison and boar, items to be displayed	
N03	285	archaeologists, Penny Spikins, hunter-gatherers	sea level lower, connected across the North Sea, settlements	found by chance when diving, scraping animal hides	rising sea level making Britain an island
N04	113	adults 5ft tall under 50, Rick Schulting	cave	used canoes, spears and slings to hunt, dating	
N05	271	archaeologists, David Jacques	spring, settlement	eating frogs' legs, excavation, uncovered charred toad salmon and aurochs, eating toads' legs, aurochs, wild boar, red deer, hazelnuts, salmon, trout, blackberries	
N06	988				
N07	41	archaeologists, Alan Savile		finding house remains	
N08	192	archaeologists, Penny Spikins, hunter-gatherers	settlements	found an underground city, found by sheer fluke diving	sea level rise submerging the settlements
N09	168	archaeologists, Richard Scott Jones		discovery, uncovered building wind farm, mark a tribal boundary, hunting ground or sacred site, warning outsiders to stay away	
N10	699	three experts archaeologist, Dean Paton, Joanne Kirton, Eddie Williams, cavemen	woodland, sea	unearthing, rabbits digging warrens uncovering artefacts, excavation, flint tool making, living off woodland in winter then living off sea in spring, built tents, made spears, catch fish, investigations, finding of the flints, set up heritage trail	
N11	110	dad, builder, Will Lord		wearing animal skins, hunt with bow and arrow, teaching survival skills, advises on films, live a Stone Age life	

N12	338	divers, Penny Spikins	prehistoric Atlantis beneath the North Sea, settlements	found by chance when diving, making knives from a core	sea level rise submerging the sites
N13	391	hunters, Peter Marshall, two 18th century teenagers, Rick Schulting, nomads, children, adults	cave	laid dead to rest, discovered in 18th century by two teenagers chasing a rabbit, remains now dated, challenged long held views, remains excavated, stored and destroyed by German bombing, analysis, staking claim to land	rising sea levels, died young, poor nutrition and illness in childhood, iron
N14	57	archaeologists	sea bed off Isle of Wight, settlement	operation to recover items from sea bed, hope to find well preserved artefacts	covered by mud
N15	638	archaeologists	campsites	building a sun shelter of hazel and birch, finding shelters on Mesolithic campsites, come with sticks, make a house, leave with sticks bundled	
N16	139	scientists, Cerridwen Edwards	cave	analyse DNA of aurochs using new technology	
N17	421	archaeologist, Rod McCullough, Scotland's first settlers, Ed Bailey, Minister Keith Brown		excavation, uncovered building new Forth Bridge, laboratory analyses, radiocarbon dates, building a house, occupied seasonally in winter, charring hazelnuts as food, build a picture of lifestyle	
N18	207	experts, archaeologist, David Jacques, hunter-gatherer groups	spring, settlement	finding settlement, carbon-dating, erected large wooden posts, revealed on TV, earlier than previously thought	
N19	74	archaeologists		excavation, mimic phases of moon and track lunar months	
N20	95	archaeologist, Jay Carver		uncovered during Crossrail, tool making, test, divide and prepare cobble, humans returning to England after the Ice Age	
N21	571	David Jacques, researchers, Bill Dunn		making discovery, uncovering clues, eating frogs' legs, explain why Stonehenge was built, staying put, clearing land, building and presumably worshipping monuments, people coming from many miles way, carbon dating aurochs	
N22	993				

N23	486	archaeologists, experts, hunter-gatherers, David Jacques, Tim Darvill, Andy Rhind-Tutt	still connected to continent, natural spring, encampment, settlement	tunnel to destroy site, call to rethink plans, discovery, returning to Britain, rewriting British prehistory, dating charcoal	becoming an island, flints changing colour from brown to pink
N24	67	geologists, hunter gatherers, David Smith		finding evidence	tidal wave battered the coast, flattened coastal camps
N25	354	archaeologist, Penny Spikins, hunter-gatherers	cliff, settlements	discovering a long kept secret, stumbled across while learning to dive, rewriting the history books	sea level rise submerging the sites
N26	68	Rick Schulting	cave	dating bones, mass burial	
N27	84	engineers, archaeologists, Jay Carver		Crossrail, come across finds, tool making, preparing river cobbles for tools, humans returning, sourcing materials	
N28	1,051	savage races	river valley, dense forest, teeming with fish, water fowl and mammals	hunting, fishing	
N29	232			making of pygmy flints, migrating through Asia and Europe	
N30	735	divers, science teams, Richard Bates	Doggerland, hills, valleys, swamps, lakes, rivers, coastline	discovery of drowned world, recreate the land, work with oil companies, modelling flora and fauna, build up picture of ancient people living there, public exhibition, work out carrying capacity of the land, finding artefacts and submerged features, possible human burial	land swallowed by waves, rising sea level, tsunami, massive climate change
N31	635	first settlers in Scotland, experts, hunter-gatherers, Ed Bailey, family group, Rod McCullough, archaeologist, Minister Keith Brown		found building new Forth Bridge, building house, ate birds, fish, wild boar, deer, charring hazelnuts, using tools for skinning, hunting and food processing, understand how people lived, specialist analysis, subsist of wild food, hunting animals for hide, sinew, bones, lived in during winter, radiocarbon dates, preserving the artefacts	
N32	128			unearthed, building new Forth Bridge, building a home, using tools for hunting, skinning and food processing	

N33	288	Will Lord, expert		hunting with bow and arrow, trapping small animals, fishing for food, wear reindeer hide and furs, forages for nuts and berries, lights fires, builds shelters, runs prehistoric weekends, make tools, butcher animals, cook in earth ovens, see through the eyes of ancestors, explore how they felt, empowering people, rediscover a more harmonious existence, advised documentaries, live Stone	
N34	393	archaeologists, David Jacques, hunter-gatherer groups, Josh Pollard	spring, settlement	earlier than previously thought, finding settlement, revealed on TV, erected large wooden posts, repeated visits	
N35	512	ancient Britons, archaeologists, Vincent Gaffney, hunter-gatherers	in forest, close to river, settlement	finding evidence, tracking lunar months and changing seasons, track midwinter sun, analysed previous excavation, corrects the lunar and solar years	
N36	518	hunter-gatherer societies, Vince Gaffney, archaeologists, Richard Bates, Shannon Fraser		discover, track lunar months, analysed 2004-6 excavation, align on midwinter sunrise, correct the calendar, seen in aerial survey crop marks, excavated	
N37	398	archaeologists, Richard Scott Jones, experts		discovery, mark a tribal boundary, hunting ground or sacred site, warning people to stay away, exposed building a wind farm, carving decoration, cleaning, preservation and laser scanning, conservation, display at museum	
N38	439	archaeologists, David Jacques, specialist Simon Parfitt, Andy Rhind-Tutt	constant temperature spring by river Avon, settlement	eating frogs' legs, excavation, uncovered charred toad salmon and aurochs, eating toads' legs, aurochs, wild boar, red deer, hazelnuts, salmon, trout, blackberries, solving puzzle of Stonehenge	
N39	512	scientists, Andy Rhind-Tutt, archaeologists, David Jacques	warm water spring, series of shallow pools	discovery of charred toad, fish and aurochs bones, excavation, eating aurochs, wild boar, red deer, hazelnuts, salmon, trout, blackberries	
N40	466	archaeologist, Barry Mead, hunter-gatherers	peat bed	unearthing archaeology, prints by animals and may be humans, excavation, follow migrating animals, form settled communities, radiocarbon dating	recent wet weather, tidal surge

N41	731	researchers, Jon Hill, inhabitants, Vince Gaffney	Doggerland, under busy sea lanes in murky water	computer modelling, palaeobathymetry, discoveries in North Sea since 1931, finds by fishermen	Storegga slide, tsunami, wiped out inhabitants, Doggerland connecting
N42	711	archaeologists, David Jacques, Bill Dunn	ancient spring, seasonal lake, settlement	dismiss previous theories, finding Mesolithic material, huge feasts, eating aurochs, blows the lid off the Neolithic revolution, staying put, clearing land, building monuments, worshipping, people coming from many miles way, explain why Stonehenge was built, carbon dating bones, excavation	
N43	730	ancient Britons, archaeologists, David Jacques, hunters, homemakers, indigenous	River Avon, warm spring, settlement	people coming from far and wide, seeing pink flint, having feasts, tour guiding, travelling in log boats, established community, carbon dating, cleared land, persistent use of the site, visited for a long time, use of domestic tools, building monuments, worshipping, feasting	
N44	771	Steve Sherlock, Neil Redfearn	settlement	travelling north, overnight shelter, making tools, A1 road scheme work	
N45	1,355				
N46	571	archaeologists, hunter-gatherers, David Jacques, Tim Darvill, Andy Rhind-Tutt	still connected to continent, natural spring, encampment, settlement	discovered site, unlocking mysteries, call to rethink plans, tunnel to destroy site, excavation, unearthed settlement, return to Britain, feasting, searching for the answer to Stonehenge	
N47	902	Jacqui Wood, archaeologist, world authority, hunter-gatherers		researching delicacies, cooking foods, experimental archaeology, eating sorrel and gorse, be inspired by ingenuity of ancestors, lose weight, clay baking, slow baking meat in stone pit	
N48	1,208	archaeologist, Robert Langdon	estuary leading to the sea	explored the site, puzzled by contradictions in the official explanations, turning conventional history on its head, dating of the posthole in the car park, ignoring of important facts, placing Stonehenge in the Mesolithic, seafaring to Egypt whose engineering had its roots in Stonehenge	fell under the spell of Stonehenge, emerging from the Ice Age, much of the land under water

N49	831	historians, British ancestors, skilled craftsmen, divers, experts, Garry Momber, hunter-gatherers, Penny Spikins	under 36ft of sea, valleys and rivers, dense forest valley, settlement	found by chance, burrowing lobster, finding items, tapping sap, making canoes and permanent structures, excavating using metal boxes, making makeshift ovens, heating stones to soften wood in making canoes with stone tools	rising seas submerging the land, layers of peat preserving organic remains, flooding of valley 7,000 years ago creating the Isle of Wight, currents and trawling eroding sea
N50	701	Peter Rowley-Conwy, hunter-gatherers, women, Steve Mithen		never wanted to farm, jettisoned, return to mobile lifestyle, group fighting	sharp climatic change
N51	405	archaeologists, John Atkinson, hunter-gatherers	mountains inland, settlement	early Nordic settlers from Norway and Doggerland, site discovered by accident, excavating, nomadic, adapt to freezing highlands, repairing tools, hunting deer, came from the coast, getting flint	
N52	45	hunters	camp	discovery and excavation	
N53	366	Scottish government, Minister Keith Brown, Green leader Patrick Harvie, Scotland's first settlers, archaeologist Rod McCullagh		uncover remains, found in excavation, analysis of finds, burying site under concrete, urge to protect the site, building a home, carbon dating, building new Forth Bridge	global warming, melting ice sheets
N54	835	hunter-gatherer tribes, Vincent Gaffney, archaeologists	in forest, close to river, settlements	finding evidence, inventing a time measuring system, creating annual calendar, tracking lunar months and seasons, prepare for changes in food supply, analysed previous excavation, align on midwinter sunrise, reset the clock, new views of archaeologists, build settlements with	

N55	482	prehistoric tribes, hunter-gatherers, archaeologist, Karen Wicks, US Defence Department		radiocarbon dating of bones and tools, seafarers perishing in storms, drop in birth rate, fishing, crossing open water in boats, use as model to assess modern climate change, catalyst for irrigated farming	decimation of tribes, population crash up to 90%, sudden climate change, cooler and drier, temperature fell by 2 C, release of North American meltwater into the Atlantic, slow down Gulf Stream, raise sea levels, arid conditions in Middle East
N56		Tony Scholey local householder	linked to Europe still	hunting and fishing, hunting of an elk, making a barbed bone spearhead, accidental discovery then excavation, treating the bones at home, hoping to keep the find locally	
N57		Richard Sims, Geoffrey Dimbleby, hunters and gatherers	lake side	clearing forest and domesticating wild animals, new and complex analytical techniques, taking and analysing core samples, pollen analysis, partial domestication of red deer	
N58		Desmond Collins	low ridge	pollen analysis, site being eroded by walkers, liked hazelnuts, made useful tools and made home in an area	birch and pine forest replacing tundra
N59		Frances Murray	foreshore below a cliff, camp	discovered by refinery workers, moved from camp to camp, seasonally, ate shellfish, keep photographic record for posterity	
N60		Michael O'Malley retired	settlement	discovered by O'Malley while walking, seven year excavation	English Channel cutting of England from continent
N61	409	archaeologists, Vale of Pickering Research Trust, Mike Griffiths, hunters and gatherers, Geoffrey Wainwright	Vale of Pickering, lake shore	made important discoveries, raising money, excavation, tool making, hunting and gathering, kill animals for food, one archaeologist cautioning another	land drainage and intensive arable farming, destruction of sites

N62		G Clark	Peterhouse College, Cambridge University	laid foundations of world archaeology, reinvigorate prehistoric studies, explorations in economy and ecology, Fenland research, Prehistoric Society, Star Carr project, world prehistory, pioneered the ecological approach	
N63		archaeologists, under-15s, Elizabeth Aveling		spat out pellets of birch tar, introducing chewing gum to Europe, giving children birch tar as pacifier sweets, or chewed for narcotic effect in rave parties, reconstructed and tasted by archaeologists	
N64		caveman, mild-mannered history teacher Adrian Targett, experts, scientists, Cheddar Man, hunter-gatherer, Brian Sykes	Cheddar caves	found during drainage work, recovering DNA from Stone Age skull, establish genetic link between the two, took samples at a school	
N65				chewing birch bark tar as gum perhaps to relieve sore throats or press herbs onto aching teeth or dental hygiene reducing plaque or for taste	
N66				burning reeds and moorland to lure game	
N67	310	archaeologists, Penny Spikins, hunter-gatherers, experts	settlement	unveiling artefacts, change our understanding, discover by chance	sea level rise submerging the sites
N68		two boys, Peter Marshall, men, women and children	narrow cave	scientific tests, sealed and abandoned, found by two boys chasing a rabbit in 1797, tourists flocked to site, bones were scattered, stored at Bristol University, destroyed by bombing, people creating a cemetery, ate meat	
N69		ancient Britons, Michael Richards		abandoned fish and shellfish diet for meat and cereals, measure C isotope ratios in bones, adopted farming from across the channel	
N70	296	amateur archaeologist Grahame Clark (correction – John Moore)	modern farmed landscape, open water reed beds	set fire to the reeds to drive prey or make hunting easier	

N71	1,538	Michelle Paver, 12 year-old Torak, wolf, Renn, hunter-gatherers	hostile environment, northern Scandinavia, complex clan system	interviews, book signings, author tours, publication of novel, optioned by Ridley Scott, advance by publisher, boy meets wolf, get close to what Torak goes through, quest for authenticity, swum with killer whales, peered into the mouth of a large brown bear, and eaten elk heart and fish eyes, change regarding hunter-gatherers as Flintstones, carefully engineered clothes, handling snakes, studying elk and wolf cubs, deal with big themes in children's books, meeting fans, change story from medieval to Mesolithic	
N72	694	Margaret Elphinstone, family of Bakar, Kemen the outsider	rival kin groups	writing novel, making the novel convincing, cope with climate and sea levels, tsunami, love loyalty, betrayal, hunts, shamanistic ceremonies, reincarnation, appearance and disappearance, moving camp, making a shaman's drum, daily chores, building own coracle	warming climate, rising sea levels, seasonal change
N73	394	scientists, human adult, Rick Schulting, curator Barry Chandler	cave	cutting bone, cannibal, excavated, stripping flesh or chopping body into pieces, help the body decompose and speed up joining the ancestors, spotted in museum store, radiocarbon date, display of bone	
N74	122	Stephen Baxter, hunter-gatherer people, Ana		writing novel, pitching humanity against nature, build a great wall	tsunami, country sinking into the ocean
N75	64		settlement	making Star Carr a scheduled monument	
N76	271	archaeologists, hunter-gatherers, Ron Cowell	family groups in a settlement	settled down, built permanent dwellings, discovered during work for Environment Agency, carbon dating, working flint, importing chert, using tools, subject of a film to be broadcast on BBC	
N77	443	archaeologists, David Jacques, Mesolithic man and woman, Andy Rhind-Tutt	constant temperature spring by river Avon, settlement	overturning received wisdom, eating frogs' legs, excavating, discovering charred bones, eating aurochs, wild boar, red deer, hazelnuts, living at site all year, solving puzzle of Stonehenge	
N78	267	archaeologists, David Jacques, Mesolithic man and woman, Andy Rhind-Tutt	constant temperature spring by river Avon, settlement	overturning received wisdom, eating frogs' legs, excavating, discovering charred bones, eating aurochs, wild boar, red deer, hazelnuts, solving puzzle of Stonehenge	
N79	185	Frank Green, Arthur ApSimon	settlement	discovery during pipe laying, excavation, burning down of the settlement, cleaning skins, cutting wood and meat	

N80	268	Walker Featherstonehaugh, person who made the harpoon	kinship and neighbouring groups, caves	finding a harpoon on the beach, make from red deer antler using flint, use for fishing, move seasonally, hunting, religious festivals, wife exchange	
N81	869	G Clark	Peterhouse College, Cambridge University	Fenland research, economic intertwined with environment, established economic prehistory, laid foundations of Mesolithic studies, Star Carr excavations, Prehistoric Society	
N82	636	burrowing lobster, Garry Momber, hunter-gatherers, hunting party, archaeologists	sea bed off Isle of Wight, oak hazel forest then marsh and salt flats, settlement, village	discovered a village on the sea bed, dating by carbon-14 and tree rings, camping by the coast to follow seasonal migrations of fish and birds, found intact hazelnuts	climate and sea level movements
N83	263	team of academics, experts, hunter-gatherers, Penny Spikins	coast, settlements	inadvertent discovery while diving, nomadic, changing our understanding	site lost to the sea
N84	654	Michelle Paver, 12 year-old Torak, wolf cub	forests of northern Europe	writing a novel, earning a world record advance, made weapons out of owl feathers, ate seal blubber, face to face with bears slept of fur rugs, skinned a rabbit, h-gs battled with wild beasts, research in Finland, Lapland, Greenland, made knives of slate, bows and arrows	
N85	1,798	palaeontologists, Vincent Gaffney, Simon Fitch and David Smith	Doggerland	mapping a vanished world, computerised seismic survey data from the oil industry, tracing the land	
N86	1,162	experts, students, hunter-gatherers, David Jacques, 100 people eating the aurochs, Tom Lyons, archaeologists, Barry Bishop specialist	Salisbury Plain, spring	excavation by students, feast, radiocarbon dating tooth, uncovering finds, catching cooking and eating an aurochs, nomadic, analysing the flints, returning to site over time, making historic tourist trail for regeneration, engaging the public, giving talks, need for more funding and seek funding to create local museum	
N87	178	archaeologists		unearth ruins, building new Forth Bridge, radiocarbon dates, building house, roasting hazelnuts for food	

N88	732	Britons, hunter-gatherer communities, archaeologists, communal leaders, shamans, Vincent Gaffney, specialists		discovery, analysis, represent lunar months, observe midwinter sunrise, recalibrate calendar, periodically recut, represent the passing of the lunar month with 3 ten-day weeks, pairing of adjacent months in dualistic cosmology, pinpoint herd migration or salmon run, give appearance of ability to control seasons, specially written analytical	
N89	56	archaeology experts		tool making, Crossrail tunnelling, testing and preparing river cobbles to make tools, take to another site for	
N90	490	archaeologists, David Jacques, Andy Rhind-Tutt	constant temperature spring by river Avon, settlement	finishing, eating frogs' legs, excavating, discover cooked frog leg, fish and beef feast, eating aurochs, wild boar, red deer, hazelnuts, salmon, trout, blackberries, turn into a TV documentary, solving puzzle of Stonehenge	
N91	422	Jon Hill, researchers, Martin Bell	Doggerland	computer models, carbon dating, finding Neolithic axes	tsunami wiping out landmass connecting Britain to mainland, sub-sea slide
N92	377	David Jacques		hunts of giant cows	
N93	115	experts, David Jacques	encampment	hit out at plans, tunnel could damage site, testing charcoal	
N94	428				
N95	213	munitions worker		searching for Mesolithic flints	
N96	58				
N97	258	L Leakey	high ground near a spring, settlement	cutting bracken for bedding and thatching, chemical attempts to preserve the soil, site scheduled, may be open to	
N98	632	small communities, hunters, John Wymer	Britain still connected to Europe by low-lying lakes and swamps, site pine covered buff between lake and marsh, encampment	the public, hunting, fishing and fowling, local finding of microliths, making light shelters, flint knapping, making tools with microliths, domesticated dog, excavation of site	sea levels rising
N99					
N100	141	ancient hunter-gatherers, archaeologists, Roy Entwistle	still connected by land to Europe	uncovering of site, finds at dig, leaving flints behind, installing new pit at sewage works, fish and hunt	

N101	261	archaeologists, Penny Spikins	once land connecting to continent, settlements	spotted while diving, not expecting to find, control excitement, lived in portable shelters made from animal skins and fed themselves by hunting and foraging, proving everyone was wrong	water level rise flooding the site
N102	79	archaeologists, Rod McCullough, Scotland's first settlers		discovery, building new Forth Bridge	
N103	185	ancient Brits, experts, David Jacques, archaeologists		eating frogs' legs, discovery of charred toad, eating toads' legs, aurochs, wild boar, red deer, hazelnuts, salmon, trout, blackberries	
N104	66			fishing, hunting	
N105	276	Hazzledine Warren, squatters		discovery and collection of flints	
N106	200	Grahame Clark, W F Rankine	settlement	discovered by Rankine, excavated by Clark	
N107	331				
N108	277				
N109	379	Rankine, Clark, men	settlement	discovered by Rankine, excavated by Clark, hunting, making temporary shelters, seasonally nomadic	
N110	274	Priv. W Scott	settlement	finding flints	
N111	586	John Moore, Grahame Clark		hunting, fishing, found by Moore, excavated by Clark, finding of animal remains, making tools of antler, spearing fish, making brushwood flooring, using birch bark	ice melted, before separation from continent
N112	260	L Leakey			
N113	367	Maj. Behrens, L Leakey		discovery and excavation, taking into care, may be open to public	
N114	133	C E Holder	settlement	discovery and excavation	
N115	200	Maj. Behrens, L Leakey		protected by museum being built	
N116	323	A G Wade, hunters, fishermen		hunting and fishing	flood as a natural catastrophe between two phases of occupation, changes of

N117	232			efforts to fill the hiatus, writer can fill the gap	
N118	149	S Price a retired roadman, hunter-fishers	uplands	finding of flints	
N119		hunter-fisher and collector	forest		
N120		Geoffrey Stevens		go to sea side in summer, fishing, hunting, survey of stone tools	
N121		hunters and gatherers, S Palmer	CW hollow near a spring by the shore, WH sandy hill over a valley, possibly separate populations between inland and coast, settlements	CW throwing away industrial debris and food waste, making a stone floor, building shelters, cooking in a pit, use of pick on shellfish, seasonal movement between coast and inland, WH making a hut floor with clay brought from below, knapping, using ivy as winter fodder, clearance of forest, may be agricultural activity	
N122					
N123			settlement		
N124		local arch soc member, small family group, hunter-gatherers, Desmond	camp site	stumbling on the site, rescue dig on eroding site, knapping and use of tools in different areas where they ate and worked, building fire and windbreak	
N125		Collins Murray	camp	found by workmen laying a pipe, moved from camp to camp, seasonally, ate shellfish,	
N126		archaeologists, hunters	living in the open	taking TL dates to resolve site chronology	
N127		hunter-fishers	estuaries	leaving middens as debris, yearly exploitation of estuaries	
N128	49		camp	making or drinking alcohol	
N129	254	Tim Schadla-Hall	Vale of Pickering	need funding to record sites before they are destroyed	destruction of sites by drainage
N130	495	small groups of 3-4 families		seasonal movement around the coast, harvesting fish, shellfish, seals, birds, analysis of otoliths, camping for a few weeks with shelters and hearths, grey seals in the autumn, hunting expeditions for deer and boar to Colonsay and Jura, displaced by Neolithic colonists or adopting farming themselves?	advent of farming

N131	540	one person 5ft 6 tall and barefoot, Derek Upton, Stephen Green, hunters, fishers, plant gatherers	warm climate, intertidal mudflats in reed swamp	discovery by Upton and excavation by Green, converting radiocarbon date to calendar date, walking in the mud searching for wildfowl, analysis, preservation as casts and display	gale stripping away mud
N132	617	Andrew Sherratt, hunting and foraging communities		new theory on megaliths, megaliths built by Mesolithic groups who adopted horticulture	
N133	517	hunting and fishing community	camp	hunting, fishing, commute between coastal base and lakeside hunting camp, domesticating and keeping large numbers of inbred dogs, analyse carbon isotopes, hunting animals for skins, antlers and bones as well as meat, feeding dogs scraps of fish, visiting the lake throughout the	
N134	284		camp	excavated 1985 but only recently recognised	tidal wave 8 metres high and Storegga landslide
N135	274		settlement	discovered during pipe laying, felling of trees, coppicing oak for housebuilding, making flint tools	
N136	137	Caroline Wickham-Jones		finding sites	
N137	346	Grahame Clark, Paul Mellars	wetland, camp	excavation of Star Carr, making temporary hunting and fishing camp, new excavation, making a platform of split and worked timbers	
N138	247			children accompanying tool making, knapping beach pebbles to learn	
N139	978	G Clark – archaeologist, prehistorian and expert	Peterhouse College, Cambridge University	develop understanding of how societies exploited their environment, universal traits of human behaviour, Prehistoric Society, publications, excavation of Star Carr guaranteed Disney Professor position, world archaeology	
N140	508	archaeologists, Andrew Lawson	flat river floodplain, camp	unearthing Stone Age settlement, protecting the site under the bypass, finds to go to a museum in the area	bypass construction leading to discovery of the site
N141	508	teenagers, 6-15, one 30-something, Elizabeth Aveling		smoke flavoured chewing gum of birch tar, used as a glue, may have helped remove milk teeth, reconstructed, may be pain killing toothache, waterproofing, sticking axe blades to hafts, perhaps ritual significance, method of analysis, spat out when done with	

N142	264	woman 5ft 2, scientists, Glyn Davies	community of 10-25	eating almost as much meat as a wolf, chemical analysis, butchery of deer and wild cattle, seasonal move between hill and coast, hunting with spears	
N143	304	archaeologists, John Gooder		reassessment of the lifestyle, seasonal occupation, returning to site regularly, eating animals, staying for weeks or longer, burnt down by hearth fire setting light the walls	
N144	175	archaeologists, cook Andy Shelley		finding flint knives, knives used by a cook, butcher animals, prepare food, digging, delay building football stand, losing revenue	
N145	185	scientists, archaeologists, Penny Spikins	sea cliffs, settlements	discovery of sites by chance, revolutionise our understanding	
N146	52	two members of caving society		crosses inscribed on wall	
N147	424	Richard Brunning, hunters and gatherers, cavemen	tidal inlet	found in excavation, trapping fish in weir, making the trap out of branches, did not stay in one place for long	site remained waterlogged
N148	588	Andrew Josephs, Mesolithic man, Jonathan Last	woodland, stream for water	excavation in advance of quarrying, cooked meals, campfires, shaping tools of flint, visiting site for 4,000 years, passing tradition down generations, shaping wood, public open days, refit pieces of flint, hunting and gathering, mobile, followed herds, caught fish, made shelters and clothes from skins and plants, made tools of	
N149	1,050	Michelle Paver, Torak, wolf, Renn, Ridley Scott, 10 year-old girl in Oxford	background in Malawi and UK school, alive and conscious forest, cooperating or living apart clans	how to make friends with a wolf, £1.5 million advance, buying the film rights, redefined views of wolves, making up stories, change story from medieval to Mesolithic when people weren't against wolves, patron of UK Wolf Conservation Trust, complex research, swimming with killer whales, driving huskies, living a character's adventures with them, explore childhood fantasies, makes readers perceive the world differently, Oxford girl made cord from nettle fibre, publication of novel	
N150	299	archaeologists, hunters and fishers, Vincent Gaffney	lost land beneath North Sea, swarming with game, great estuaries	exploring unseen country, tracing rivers, lakes and coastline, collaboration between oil explorers and archaeologists, asked for seismic data, making detailed maps, runner up in Awards, dredging up bone harpoon	land drowned at end of Ice Age

N151	211	Jonathan Benjamin and Andrew Bicket	under the sea in the lochs	gave presentation to local council	transformed from peninsula to island, sea level rise covering land off the Outer Hebrides, Storegga tsunami creating North Sea and Channel
N152	605	Marek Zvelebil, hunter-gatherers	exile, Prague, Oxford, Sheffield, Cambridge, South Carolina	provided courses, love of good food and wine, personal experience of exile, integrating approaches, championed hunting and gathering as an alternative to farming, collaboration with others, mastery of languages	
N153	697	hunters, David Jacques, Tony Legge	spring, camp	excavations, home base, identified a spring, making tools, working antler and bone, cutting sinews, stripping bark, making baskets, movement of people and ideas, from wide area gathering at spring, feasting on aurochs, lighting	
N154	255	archaeologist, Rod McCullough, Scotland's first settlers		discovery, building new Forth bridge, use as a base in winter, remains removed and preserved, radiocarbon dates, use of tools, charred hazelnuts for food	
N155	464	archaeologists, Vincent Gaffney	in forest, close to river, settlement	found evidence, track lunar cycles, predict availability of food, reanalysis, align on midwinter sunrise on horizon, settled if food plentiful, reset calendar	
N156	226	archaeologists		eating frogs' legs, feasting, eating hazelnuts, juniper berries, wild boar, red deer, aurochs, place of pilgrimage	
N157	865	archaeologists, hunters, Andy Rhind-Tutt, David Jacques, expert, Barry Bishop	shallow pools, warm spring, settlement	solving puzzle of Stonehenge, radiocarbon dating, eating frogs' legs, discovery of flint tools, excavating since 2005, bandaging fingers from sharp flints, bones and tools thrown in as offerings, people returning to British Isles over land	
N158	507	archaeologists, David Jacques, hunter-gatherer groups, Tim Darvill, Andy Rhind-Tutt	natural spring, joined to the mainland	call to abandon plans, excavations, uncover, ritual feasting, butchered aurochs, gathering place, return to Britain	becoming an island, fear tunnel will destroy site

Appendix 21
Narrative elements found in newspaper articles
Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites
N01				Tutnall
N02	the most important for the prehistory of Scotland			Cramond
N03	just so very exciting, tremendously exciting discovery		evidence of the British 'Atlantis', a stepping stone to an unknown world	Tynemouth
N04	fascinating clues, enigmatic Mesolithic		Britain's oldest cemetery, earliest recorded osteoarthritis, breakthrough in knowledge	Aveline's Hole
N05	a Heston Blumenthal style menu		Britain's oldest settlement, earliest evidence for cooked frog or toad in the world, significant	Blick Mead
N06				7 Mesolithic woodworking tool 8 Mesolithic headdress - Scarborough Collections
N07			one of the best in Britain for showing how people lived, extremely significant	Dunbar
N08			first evidence of a 'prehistoric Atlantis', a stepping stone to an unknown world	Tynemouth
N09	like winning the lottery, oldest of its kind in Europe, priceless	five foot long carved wooden post	Britain's oldest no entry sign, rare	Maerdy
N10	treasures, amazing, stunningly beautiful, lost for words, thrilled, rudimentary spears, dream location for human survival	tool making factory, like Willy Wonka's factory of flint, like something out of an Indiana Jones film		Lands End
N11		refers to Fred Flintstone		

N12	very exciting	2 sites, one early and one late	first evidence of settlements in the North Sea, may be the oldest underwater site off the coast	Tynemouth
N13	modern, civilised behaviour, had a sense of home	precursor of ... our culture and civilisation	oldest cemetery in Britain, first example of modern, civilised behaviour, international significance	Aveline's Hole
N14				off Isle of Wight (Bouldnor Cliff)
N15	“Nothing is more life-enhancing than making a place slightly more of a place”	refers to rings of hazel-sized holes on Mesolithic campsites		
N16				in Derbyshire
N17	important, exciting	large pit with post holes, hearths	one of Britain's earliest homes, oldest in Scotland, rare type of site	Echline
N18				near Stonehenge (Blick Mead)
N19		12 pits	world's oldest calendar	Warren Field
N20			unique and exciting	N Woolwich
N21	landmark discovery, special	settled communities	oldest town in continuous settlement in Britain, largest haul of worked flints from the Mesolithic period	Blick Mead
N22				7 Mesolithic woodworking tool British Museum 8 Mesolithic headdress Scarborough Collections
N23	critically important, most important discovery at Stonehenge in 60 years		earliest settlement in Britain, latest dated Mesolithic in Britain, longest continually occupied place in Britain	Blick Mead
N24				
N25	tremendously exciting	Geordie Atlantis	refers to a 'prehistoric Atlantis', a stepping stone to an unknown world, unique find	Tynemouth
N26	revealing insight		Britain's earliest cemetery	Aveline's Hole
N27	exciting find, important location			Woolwich

N28	savage, barbarous, more enterprising or progressive			Barrow
N29	beautifully made, extraordinary keen sight			Scunthorpe
N30	devastating, vast and complex landscape, dramatic past, painstaking	hidden underwater world	once the real heartland of Europe, pioneering scientific research	
N31	fieldwork important, exciting	large pit with post holes, hearths	rare site, unique opportunity, one of the oldest homes in Britain, oldest in Scotland, rare type of site	Echline
N32		large pit with post holes, hearths	one of the oldest homes in Britain	Echline
N33		refers to Fred Flintstone		
N34	pivotal site			near Stonehenge (Blick Mead)
N35	simple but ahead of the times	set of pits for large posts, had something of a settled existence	world's first ever calendar	Warren Field
N36	important step towards the formal construction of time, sophistication, remarkable, enriches our understanding	12 pits		Warren Field
N37	like winning the lottery, priceless, sophistication, tremendous discovery of real historical significance	five foot long carved wooden post, oldest decorative carving in Europe, 12 lengths of timber	Britain's oldest no entry sign, rare	Maerdy
N38	a Heston Blumenthal style menu		oldest continuous settlement in the UK, earliest evidence for cooked frog or toad in the world, biggest collection of flints and cooked animal bones in north-western Europe, greatest, oldest and most significant Mesolithic home base ever found in Britain, unique and special area, significant	Blick Mead
N39	a Heston Blumenthal style menu		earliest evidence of cooked frog in the world, significant	Blick Mead
N40	archaeological treasure, quite incredible	animal footprints		Druridge Bay, refers to Low Hauxley

N41	devastating Doggerland, suffered dramatically	wave 5 metres high	the most accurate computer model ever made of the tsunami, first to discover dissymetry, what to expect in future	
N42	delighted, special, amazed		oldest continuous settlement in the UK, birthplace of the history of Britain (confirmed by Guinness Book of Records), largest haul of worked flints from the Mesolithic period	Blick Mead
N43		London of the Mesolithic with its own visitor centre	Britain's oldest settlement, birthplace of the history of Britain (confirmed by Guinness Book of Records), largest haul of worked flints from the Mesolithic period, unique	Blick Mead
N44	staggering, tantalising	compared to modern day service	A1 used for 10,000 years	Catterick
N45		station		7 Mesolithic woodworking tool - British Museum 8 Mesolithic headdress - Scarborough Collections
N46	most important discovery at Stonehenge in 60 years			Blick Mead
N47	seriously delicious and healthy food	clay-baked whole salmon, duck in grass with blackberries, then wheat and fruit cakes cooked in honey, high grade fuel for the body	world authority of prehistoric cookery, appeals to survival types and foodies	
N48	most amazing place in the world, incredible place, most important archaeological site in the world		place where civilisation began, home to the first and most significant civilisation on earth	
N49	extraordinary settlement, revolutionising conventional thinking, remarkably well preserved, skilled craftsmen rather than ruthless hunters, sophisticated manufacturing,	likened to Yahgan Indians of Tierra del Fuego	oldest site of human occupation found below sea level in Britain, vital clues that cannot be found on land	off Isle of Wight (Bouldnor Cliff)

N50	obdurate, women would be happier without farming	agriculture forced on them by climate, women lost most of their political power	consequences detailed – loss of women's power, work harder, stress, road rage, claustrophobia, crime, resistance to home-working and Internet, lack of hair making us shiver	
N51	exciting	flint tools at BL identical to Norway	earliest indication of people inland after the glaciers receded, first highland site	Ben Lawers
N52		base camp	the most significant Mesolithic site in Britain, the earliest building in Britain	Star Carr
N53	irreplaceable, important, exciting	23 feet long pit, internal hearths and wooden posts	earliest in Scotland, significant	Echline
N54	civilisation's late starters, unsuspected sophistication	set of pits for large posts, seat of a Scottish civilisation, where food was plentiful could settle	world's first system for measuring time, among the first humans to form a concept of time	Warren Field
N55		population at sites studied fell from 2,400 to 250	most severe cold event since the Ice Age	west of Scotland
N56			first evidence of the Maglemosian in the north west	Little Carleton, refers to Star Carr
N57		considerably more advanced than previously believed		Hockham Mere
N58			first real evidence of such early settlement in London	Hampstead Heath
N59			Mesolithic people as the first settlers in Scotland	Grangemouth
N60		house with hazelnut shells and carbonised seeds	oldest house yet found in England	Romsey, refers to Mount Sandel
N61	area one of the most important in NW Europe, unsuspected degree of specialisation in tool making, sophistication		discoveries show a much larger population than supposed	Vale of Pickering
N62				
N63	taste cannot be described as pleasant	found among sherds of cooking pots		Star Carr

N64	extraordinary that the DNA survived, Targett astonished, a bit overwhelming		oldest complete skeleton found in Britain	
N65		no narcotic effects		
N66				
N67	very exciting		refers to a 'prehistoric Atlantis', a stepping stone to an unknown world, could be the earliest underwater sites in the UK	Tynemouth
N68		small and strong, rarely lived beyond 50, bad teeth, rheumatic pains and osteoarthritis	oldest cemetery in Britain, unique in Britain	Aveline's Hole
N69		seafood diet in Mesolithic bones but not in Neolithic		
N70	one of the most important sites in the country			Flixton Carr, Star Carr
N71	child reading an intense experience	sparkier, less diffident, sensible, sophisticated hunter-gather clothes	"What I'm trying to do is make the world I write about real. Everything could have happened.", present as accurate a picture of the Stone Age as possible	
N72	vivid tale, shades of the hippy commune	transitional period, seen as a falling of, but people had wit and suppleness, animist and quasi-egalitarian, poised between benign and cruel	invested with convincing emotional landscape and trivial chat, we accept an entirely different value system without qualm, we regret swapping the hunter's spear for the tiller's spade	
N73	shocked at date of the bone		highlight complexity of mortuary practises, cave was one of the sites that helped demolish biblical accounts	Kent's Cavern
N74	epic scope, impeccably researched			
N75	detail		the earliest building in Britain	Star Carr
N76	fascinating, substantial	3 houses up to 6 metres across	challenging traditional view of nomads	Lunt Meadows

N77	shock revelation, completely taken aback, a Heston Blumenthal style menu, entertaining discovery	fast food, different food resources to allow all year occupation	oldest continuous settlement in the UK, site cradle to Stonehenge, greatest, oldest and most significant Mesolithic home base found in Britain, unique and special area	Blick Mead
N78			oldest continuous settlement in the UK, greatest, oldest and most significant Mesolithic home base found in Britain	Blick Mead
N79		4 houses found, may be up to 12 in all	the oldest houses in Britain	Romsey
N80		didn't really have settlements		Whitburn
N81	one of the most influential			
N82			oldest site of human occupation found below sea level in Britain, could be a new chapter in our understanding of the people of the Stone Age, sit preserved as a time capsule, extremely	Bouldnor
N83	tremendously exciting		may be Britain's earliest underwater Stone Age site	Tynemouth
N84		everything factually possible and real	world record advance for a children's book	
N85	paradise lost			
N86		continuity of human presence in a sacred spot, mysterious spring, landscape as spiritual place	oldest carved figurines found in the UK (700 BC), nationally important, gargantuan feast, astonishingly early, rare hoard, boost for local town	Vespasian's Camp
N87		large pit 7 metres long, internal hearths and wooden posts	one of Britain's oldest homes, oldest in Scotland	Echline
N88	sophisticated, step towards the formal construction of time	50 metre long row of 12 pits in an arc facing dip in horizon, shallower at the end and biggest in the middle	world's oldest calendar	Warren Field
N89				N Woolwich

N90	shocked, a Heston Blumenthal style menu, significant		first people in human history to eat frogs, oldest continuous settlement in the UK, one of the largest collections of flints and cooked animal bones in north-western Europe, unique and special area, significant	Blick Mead
N91	catastrophic event		three hundred times more sediment than all the rivers in the world hold in a	
N92	engaging enthusiasm, dismally untelegraphic, porsche of the Mesolithic, top quality flint	theories about glowing pink rocks	year	Blick Mead
N93				Blick Mead
N94				
N95		modern munitions worker searching for ancient munitions		
N96	finest site of the Mesolithic Age in England			
N97				Abinger Common
N98		bones of domesticated dog	the most important Mesolithic site in the south of England	Thatcham
N99				
N100	one of the country's richest sites			Kintbury
N101	thrilled, stunned, very exciting, proud for controlling excitement		refers to a 'prehistoric Atlantis'	Tynemouth
N102			oldest ever found in Scotland	Echline
N103	shock discovery, sensational find, a Heston Blumenthal style menu		earliest evidence of cooked frog in the world	Blick Mead
N104				Settle, Kirkcudbright, Battersea, Wandsworth, east Yorkshire
N105	primitive	industry representing a primitive forest culture, squatters	sealed by Boreal peat	Broxbourne

N106	not such destitute savages as has been generally supposed	remarkable dwellings, principal authority on the Mesolithic, lived a comparatively settled life		Farnham
N107				
N108				
N109			the earliest house other than the cave, the earliest yet found in England	
N110	Mesolithic as one of the mysteries of the Stone Age, obscure	transition period		
N111			for some time hope to find a site like those on the continent, 10 times more than existing remains of Maglemosian, 60 antler points	Star Carr
N112				Abinger Common
N113		parallels between Mesolithic and modern primitive African hunters	oldest known human dwelling in Britain	Abinger Common
N114				Trwyn Du
N115				Abinger Common
N116	period is still poorly illustrated by archaeological research, remarkable site, delightful specimens	a midway folk, filled a hiatus		Woolmer Forest
N117			claims the so-called Mesolithic is really the early Neolithic	Henfield, Wolmet Forest
N118			first clear evidence for Mesolithic in uplands of Wales	Craig y Llyn
N119	subject to the forest and affected it scarcely more than the animals in it			
N120				Lancashire coastal site

N121			may have practised agriculture, presence of picks at C W shows them to be earlier than thought, WH evidence of possible agriculture shows Mesolithic – Neolithic differences may be less significant than thought	Culver Well, Whitcombe Hill, refers to Oakhanger
N122				Ardnave, refers to Luce Bay, Morton
N123				London
N124				Hampstead Heath
N125	fantastic discovery		the first known settlers in Scotland	Grangemouth
N126		lower level Palaeolithic		Hengistbury Head
N127		assumption of Mesolithic date for some of the middens	continuous occupation into the Neolithic	Grangemouth
N128				Kinloch
N129				Vale of Pickering
N130		bones of human hands and feet found		Oronsay
N131			earliest footprints in Britain	near Uskmouth
N132		megaliths as symbol of common descent in land and labour		
N133		dogs eating marine foods, similar to modern Inuit		Star Carr, Seamer Carr
N134				Inverness, Broughty Ferry, Morton
N135			one of Britain's earliest settlements	Bowman's Farm, refers to Mount
N136			incidence of blood group B on Orkney an outpost of an earlier population	Sandel Orkney, Caithness, Sutherland
N137			first excavation of an extensive Mesolithic occupation, opened a new window to life at the time	Star Carr
N138		3 rectangular buildings and a burnt mound	some of the largest Mesolithic houses in Britain, belies the view of them as nomads in tents	Kirkhill, Loch Doon, Elginhaugh, Coulererach

N139	austere manner, honest and accurate appraisal of others	foremost authority on the Mesolithic		
N140	one of the best six such sites in the country	finding settlement of this is rare		Newbury, Star Carr
N141	neither pleasant nor entirely unpleasant	strange smoky flavour, needs heating 80 C and unknown how this was done, not addictive		cakes at Star Carr
N142			extremely rare	Staythorpe
N143		similar to teepee, 4.8m across	part of the earliest known village in Britain	Dunbar
N144	important discoveries		earliest evidence of settlement in the	
N145			area refers to a 'prehistoric Atlantis'	Tynemouth
N146			site of earliest known cemetery in	Aveline's Hole
N147	simple but ingenious, left very little evidence behind	nine stakes, causeway and trackway – part of fish weir	Britain oldest manmade structures in Britain	in Somerset
N148	important site, invaluable opportunity, unusual	"The Mesolithic period doesn't get the publicity it deserves. It was the tail end of the Ice Age, the first people living in Britain in the postglacial period. But it is often seen as just a period where you're waiting for other things to	one of the most important Mesolithic excavations in Britain	North Park Farm (Bletchingley)
N149	electrified adults and children, excellent plotting, vivid characterisation, deep feeling for the natural world, Paver elegant and modest, compelling adventures and world, master story-teller, novel is really frightening, meticulously imagined, researched and described	Torak brave, loyal, proud and clever, Wolf simple, intelligent, funny, has to feel real, everything could have happened	record advance, the power of stories against being picked on	
N150	inspired collaboration	Maglemosian hunters		Doggerland
N151		remains of communities hidden under the sea		

N152	innovative, inspiring, world class prehistorian	larger than life character	one of the last students of Sir Grahame Clark	
N153	enigmatic postholes		only prehistoric slate tool in the UK, spring the original focus of veneration in the locality, special place, one of the pivotal places, cradle of Stonehenge	Blick Mead
N154		large pit, similar to wigwams	one of Scotland's earliest homes	Echline
N155	more sophisticated than thought	image has been improved, series of pits holding posts	birthplace of the concept of time, earliest known calendar	Warren Field
N156	extravagant feasting, a Heston Blumenthal style menu, really rich diet	30-40,000 people in the whole of Britain		Blick Mead
N157	special area, one of the most important and productive Mesolithic sites in north west Europe, a Heston Blumenthal style feast, huge potential	oasis in a frozen landscape	longest continuously inhabited settlement in Britain, the first 'boil in the bag' meal, waterlogged conditions perfect for preservation	Blick Mead
N158	most important discovery at Stonehenge in 60 years		only untouched Mesolithic landscape in the country, perfectly preserved, repository of the earliest British stories	Blick Mead

Appendix 22
Narrative elements found in BBC News Online articles
Part A: characters, settings, actions and happenings

ID	Words	Characters	Settings	Actions	Happenings
BN01	242	John Davies and Jim Hutchison – amateur archaeologists, archaeologists, researchers		finding flints eroding from cliff edge, detailed investigation, excavation	erosion of site
BN02	520	archaeologists, Penny Spikins, hunter-gatherers, David Miles	coastal resources and River Tyne, settlements	finding two settlements while diving, spotting flints on sea bed, withholding location to protect the sites	submerged by sea level rise
BN03	300	researchers, scientists, Peter Marshall, Rick Schulting	cave	dating, excavation, new analysis, burial in cemetery, revise ideas about Mesolithic society, analysis using scientific methods, found 1797	
BN04	595	scientists, David Miles, Rick Schulting, adults 5 feet tall and slightly built, young children, two infants	cave, 80-100km from sea, landscape of tough grasses, birch and pine, land corridor with France and could walk north to Wales	21 individuals' bones removed from cave to Bristol Museum, destroyed in bombing raid, burying dead in cemetery, revise ideas about Mesolithic society, found 1797, excavated 1914, ceremonial burial with goods, Sr analysis, nomadic	periods of poor nutrition or chronic illness in childhood, oceans rising
BN05	356	archaeologists, experts, Shannon Fraser, Caroline Wickham-Jones	challenging highlands	finding during footpath conservation, moving in seasonal cycles, gathering and hunting food, fishing, collecting useful materials, making and using tools at the site	footpath conservation
BN06	335	Jill Cook, Graham Mullan and Linda Wilson	cave	inscribed crosses on cave wall, burials in cave, studying cave art, systematic study of caves, dating by context and style	
BN07	142	scientists, caving society members, Graham Mullan	cave	engraving in caves, dating by style	
BN08	298	Becky Lambert, archaeologist, hunters		gathering in dwellings, plotting exact location of finds to where people sat, made tools, cooking meals, making campfires, found in advance of quarrying	mineral quarrying
BN09	320	hunter-gatherers, Duncan Coe, Roy Entwistle archaeologist	camp	take artefacts to museum, finding evidence, set up temporary camp and move on, making tools	extending sewage works

BN10	756	divers, Gary Momber, hunter-gatherers	woodland criss-crossed by rivers	found by chance, race against time to save, found by lobster, excavation, bring up from sea bed, build houses and canoes, catching fish, hoping to secure funding before all washed away	washed away by tidal currents, melting ice and sea level rise swamping the land
BN11	268	archaeologists, 30 diggers, hunter-gatherer groups, volunteers		finding prehistoric tools, excavating, hunted animals foraged nuts and berries	coastal erosion
BN12	269	archaeologists, hunter-gatherers, Martin Papworth	over a mile inland, settlement	finds by dog walker, excavations, work hides, cut meat and scrape fat from animal skins, finds in County Museum	being eroded into the sea
BN13	338	experts, Samantha Williams	uplands	analysis of soil and pollen, carbon dating, hunting, burning clearings to help with hunting and growth of hazel for nuts	
BN14	566	archaeologists, researchers, scientists, Barry Chandler, Rick Schulting, Silvia Bello, William Pengelly		dismembering a body in complex burial ritual and possibly cannibalism, stored in museum, notice cut marks, removing the lower arm, carbon dating, dug 1866	
BN15	357	William Pengelly, researchers, Rick Schulting		identified by staff, ritual cutting or cannibalism, found in 1866, stored in museum, dismembering for transport	
BN16	913		river, lake shore	people settling or visiting, found 1920, camped by lake, transport along river, nomadic but staying for extended periods	work on sewage works
BN17	466	farmers, hunter-gatherer humans, Tim Burkinshaw	Lake Flixton	protecting buried landscape, worked wood, antler and butchered animal bone	
BN18	799	Stan Hedges, hunter-gatherers, Anne Taylor		found axe in garden, posted on website	earth warming, sea levels rising
BN19	423	Tim Burkinshaw	wetland	found by chance 1947	
BN20	543	Steve Clarke archaeologist, Elizabeth Walker curator, Jane Bray	River Wye, riverside, tree covered with deer, wolves, horses	transport and food along river, hafting flint barbs for fishing or hunting, scraping skins or bark and twigs, making tools, keeping an eye on town excavation work, nomadic, winter by river, summer in hills hunting, following herds	gas main excavation, improved climate, trees and plants came back

BN21	552	archaeologists, Gavin Edwards, hunter-gatherers		make 3-D record of the carvings, exploiting the landscape, surviving, training volunteers	
BN22	404	Mary Alexander, small family groups		made saws of flint, hunting animals, butchering animals, cutting wood, collecting nuts and berries, eating plants, following herds but visiting same places every year, made microliths	Britain became an island
BN23	1,192	hunter-gatherers, David Smith, Gary Momber, Neil Oliver		finding relics under the sea, building logboats, ate red deer, fish and hazelnuts	warmer and wetter climate, sea level rise, Became an island 6100 BC, tsunami, 10 m waves dismembering anyone on the mudflats
BN24	313	hunter-gatherers	low-lying tidal island	making sculpture trail on local history, diet of shellfish, fish, fowl and local plants	tsunami with 70 foot wave
BN25	398	archaeologists, nomadic hunter-gatherers		radiocarbon dating a hearth, built fire for heat, a temporary rest stop, fishing, finding flints at Culbin Sands	building supermarket, Britain became an island, tsunami travelling 25 miles inland
BN26	303	hunter-gatherer group, Richard Brunning	island in the levels	radiocarbon dating of skulls found in 1928, skulls held in museum, burying dead, more analysis will be done	
BN27	209			skull on display in museum, 5 skulls found in 1928, radiocarbon dating, creating permanent display at museum on the Mesolithic, 3 skulls destroyed in London in WW2	
BN28	130			finding of site when building a supermarket, a rest stop	
BN29	577	divers, Gary Momber	on riverbanks and sand bars, woods, freshwater lakes, rivers	excavation, finding 'boatyard', village found by lobster clearing its burrow, boat building, collecting reeds, doing a bit of fishing, hunting game, working wood, eating food at site	tidal erosion of site, sea level rise flooding site
BN30	73	archaeologists		discovery of site, boat building	

BN31	514	archaeologist, Rod McCullagh, Scotland's first settlers, one family, Ed Bailey, Minister Keith Brown		uncovered during construction work, radiocarbon dates, laboratory analysis, eating meat and roasted hazelnuts, excavation, house built of posts and turf roof, flint used for tools and arrowheads, occupied in winter	building new Forth crossing, new forests after the Ice Age
BN32	96	historians, several families	settlements	building settlements, living in one place instead of nomadic, changing how historians think about the period	
BN33	139	several families	lakeside	finding of structures, occupation in winter, new research at existing site, 30m long wooden platform, post-built house	
BN34	424	hunter-gatherers, children as young as four, researchers, Martin Bell		finding evidence, shaping the environment, using fire to promote plant growth, children helping gather food, eating hazelnuts, crab apples, raspberries, continued using same site as the environment changed	old woodland to reedswamp, to saltmarsh and back to fen woodland, Severn tidal barrage planned having consequences for the site
BN35	1,055	hunter-gatherers, Steve Lawrence	ridge	stalking prey, camping, finding flints	
BN36	586	volunteers, Josh Pollard, David Jacques, hunter-gatherer groups	natural spring, nook at bottom of a hill with river, settlement	excavation funded with redundancy money, finding site on aerial photos, survey area, carbon dating, repeated visits during the Mesolithic	animals coming to drink at spring
BN37	102	archaeologist Ben Robinson, David Jacques	settlement	excavation	
BN38	531	Vince Gaffney, expert, archaeologists, hunter-gatherers, Dave Cowley, Richard Bates, Shannon Fraser		discovery of calendar, excavations 2004, tracking lunar months, annual correction on midwinter sunrise, analysis of site, discovered as cropmark in aerial photo	
BN39	269	experts, Alan Baker		unearthing of post, marking tribal boundary or hunting round or sacred site, 3D laser scanning, excavations, policy of protecting sites of historic interest	installing wind-farm sub-station
BN40	346	archaeologists, Jay Carver, early Londoners	Thames estuary islands	making tools, preparing river cobbles, humans returning to Britain after Ice Age, hunting, sourcing materials	building crossrail tunnel

BN41	378	archaeologist, Clive Waddington, Philippa Cockburn		excavations finding material from the wave	coastal erosion, tsunami cut Britain off from rest of Europe, wave travelled 25 miles inland, rising sea
BN42	329	archaeologists, David Jacques, experts, Andy Rhind-Tutt	settlement	excavation, trying to find older evidence than Thatcham at 7700 BC, being filmed for the BBC, treated as special	
BN43	429	experts, David Jacques, Simon Parfitt, Andy Rhind-Tutt	constant temperature spring by River Avon, settlement	excavation, eating food, eating frogs' legs, salmon, nuts, being filmed by BBC, treated as special	
BN44	203	hunter-gatherers, men, women, children, hunters		footprints	tides and changes to river route revealing site
BN45	405	hunter-gatherers	forest	looking for game and collecting edible plants, nuts and berries	storms uncovering ancient trees
BN46	904	Jon Hill, hunters, Vince Gaffney, researchers, Bernhard Weninger	Doggerland, freshwater basin, marshes, lagoons, mudflats, less than 5m high	abandon after tsunami, computer simulation analysis, could walk from Germany to East Anglia, hunting, fishing, fowling, axe brought from North Sea by Dutch trawler 1988, intensified competition for resources	tsunami could have wiped out the people, sea level rise, wave 14m high hit north-east Scotland, 5m high in eastern England
BN47	408	David Jacques, Simon Parfitt, Andy Rhind-Tutt	River Avon, constant temperature spring, settlement	excavation, eating frog legs, people staying put, clearing land, building, and presumably worshipping, monuments, people coming from many miles away, travelling along river, local guides, feasting, filmed by BBC, treated as special	
BN48	110	archaeologists, wild rabbits		excavation, finds by burrowing rabbits, making tools	
BN49	241	Phil Bennett, archaeologist		tracking aurochs	storms uncovering site
BN50	651	divers, archaeologists, Gary Momber, lobster		found by lobster, could walk from Britain to France, use of flint tools, heating flints to cook with water, woodworking	washing away of site, covered by melting of Ice sheets, storms ripping apart the site
BN51	375	archaeologists, David Jacques, hunter-gatherers, Andy Rhind-Tutt	encampment	finding site, rewrite British history, carbon dating, feasting, eating aurochs, continuous occupation 7500-4000 BC	damage by building road tunnel

Appendix 22

Narrative elements found in BBC News Online articles

Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites
BN01		three phase Mesolithic hut, five graves – 4 child, 1 adult	best preserved Stone Age home ever found in the UK, one of the most detailed Mesolithic excavations ever undertaken anywhere in Europe	Howick
BN02		Stone Age civilisation, luxury of resources, prehistoric Atlantic linking Britain to continent	sites could change understanding of the earliest occupation of Britain, first find from North Sea since harpoon last century, very exciting flints, tremendously exciting discovery	Tynemouth
BN03			largest group of Mesolithic remains in Britain, one of the most significant burial sites from this era in Europe, Britain's earliest recorded osteoarthritis	Aveline's Hole
BN04		the bodies had lived closed by, did not live to ripe old age	earliest scientifically dated cemetery in Britain, important European site	Aveline's Hole
BN05		80 flints	first find from such an early date in the Cairngorms, gives evidence of what was going on in the interior, excited	Glen Dee
BN06			exciting and important	Aveline's Hole
BN07		abstract engravings		Long Hole
BN08			important site, undisturbed, exciting	Bletchingley
BN09			continual occupation through to a Roman village, finding undisturbed prehistoric remains is rare	Kintbury
BN10	far more sophisticated than we give credit for	village under the sea, Britain linked to continent	only site of its kind in Britain shedding light on little-known period	Bouldnor Cliff
BN11				Peacehaven

BN12			West Dorset's oldest human settlement	Doghouse Hill
BN13				Moel Famau
BN14			human remains of period extremely rare, surprise at date	Kent's Cavern
BN15	complexity		oldest Scheduled Ancient Monument in Britain	Kent's Cavern
BN16				Thatcham
BN17		undesignated, little known outside archaeology	European importance, preservation of organic material as well as flint	Star Carr
BN18			shivered when he found it, you can relate directly, by holding it, to the person who made it 10,000 years ago, hows me the contrast between what man's technology was like then and what it's like today, finds such as these	Cambridge
BN19			one of very few Early Mesolithic sites known in Britain, exceptional survival of organic materials and environmental evidence	Star Carr
BN20		heavily dependent on fish	important evidence	Monmouth
BN21			highest concentration of Mesolithic sites in the world, the first people to live the area	Ilkley
BN22				Farnham
BN23	fragile and scattered population	population of 5,000		
BN24			the first people to arrive in the area	Tentsmuir
BN25				Nairn, Culbin Sands
BN26		2 skulls, heritage plays part in attracting visitors	country's oldest open air cemetery, amazing news	Greylake
BN27			oldest cemetery in the UK	Greylake
BN28		campfire		Nairn

BN29	painstakingly slow excavation	clear parallels with modern high street, Stone Age village	using technology 2,000 years ahead of its time, international importance, the only site of its kind in the UK,	Bouldnor Cliff
BN30			international importance	Bouldnor Cliff
BN31	cosy inside the house	7m oval pits with flints, hearth	one of Scotland's earliest homes, oldest of its type in Scotland, important and exciting discovery	Echline
BN32				Lunt Meadows
BN33			overturn view of people always on the move in only temporary shelters	Echline, Lunt Meadows, Star Carr
BN34	adept at manipulating environment, highly adaptable		exceptional evidence, footprints of animals and people, especially children, unparalleled glimpse of Stone Age life, extremely exciting	Goldcliff
BN35				Didcot
BN36		shoestring budget	settlement 3,000 years before Stonehenge was built, potentially the most important Mesolithic site in north-west Europe	Blick Mead
BN37			settlement 3,000 years before Stonehenge was built, international importance	Blick Mead
BN38	sophistication	12 pits mimic moon phases and track months	world's oldest lunar calendar, the place where time was invented, step towards formal construction of time, exciting new evidence, remarkable, unique, fascinating glimpse	Warren Fields
BN39		intricately carved timber, oval motif at one end	one of the oldest of its kind in Europe, tremendous discovery of real historical significance, exciting, international significance	Maerdy
BN40		150 pieces of flint	rare evidence, unique and exciting	Woolwich

BN41			most southerly evidence in Britain for the tsunami, staggering find, impressive new evidence	Low Hauxley
BN42			oldest continuous settlement in the UK, biggest collection of flints and bones in north-west Europe, explaining why Stonehenge is where it is, could be one of the greatest Mesolithic sites in the country, something really special about the area	Blick Mead
BN43	a Heston Blumenthal style menu		could be UK's oldest continuous settlement, could help explain why Stonehenge was built, biggest collection of flints and cooked animal bones in north west Europe, significant, something unique and special about the area, the greatest, oldest and most significant Mesolithic home base ever found in Britain	Blick Mead
BN44	most ephemeral traces of humanity imaginable		while not sacred the site and feel affect deeply, eavesdropping on a moment in time	Goldcliff
BN45				Newgale
BN46	paradise in the Mesolithic, Garden of Eden	alternative view that Doggerland had already been abandoned by the time of the tsunami	first ever modelling of the tsunami on Doggerland, one of the richest areas in Europe	Doggerland
BN47	a Heston Blumenthal style menu	forerunner of Stonehenge	oldest, longest continuous UK settlement, blows lid off Neolithic Revolution, knowing why Stonehenge is where it is, unique and rather special area	Blick Mead
BN48				Land's End
BN49		human and animal footprints		Newgale
BN50			unique site, Stone Age 'Atlantis'	Bouldnor Cliff

BN51			latest dated Mesolithic encampment in Britain, answer to the story of Stonehenge	Blick Mead
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Appendix 23

Narrative elements found in popular archaeology magazine articles

Part A: characters, settings, actions and happenings

ID	No.	Words	Characters	Settings	Actions	Happenings
PM01	pages		Roger Jacobi, Mr & Mrs Taylor, 4-5 families, single family		lecture to Prehistoric Society, tie down the dates of the period, analysing bone and antler tools, making tools, finding upland summer site	submerging land bridge
PM02	1		Paul Mellars, Mike Wilkinson		examining otoliths, occupying shell middens at different times of year, radiocarbon dating	
PM03	5		Pat Collins, collectors, Mme Wyngaarden Bakker	above River Bann	excavations, discovering middens, survey, fieldwalking, placing postholes around a cut hollow, building huts, flint working, tossing bones onto fire as fuel, removing samples and sieving, fishing, examine fauna, C14 dating	purchase of land for house building, later building, agricultural activity, tree roots
PM04	1					
PM05	1				putting forward a theory, giving a catalogue of sites, see regional variation, abandoning a theory, provide a simple introduction	
PM06	4		Irishman, Michael O'Malley, Roger Jacobi, Nicholas Johnson	hilltop	excavation, radiocarbon dating, sort and label flints, wet sieving, building triple sieve, recovering flints, digging pit, building house, froth flotation, abandon house, reoccupy site, exchange with groups to the west	
PM07	3		Michael O'Malley, Roger Jacobi, Grahame Clark	transit camps	discovery, excavation, publication of report, fieldwalking, wet sieving, making model of house, radiocarbon dating, casual visiting of transit camps	
PM08	1		Grahame Clark		acquiring knowledge, give history of Mesolithic study, adapting to change, establish social and economic networks, manipulate environment	sea level, afforestation, new fauna

PM09	4		amateur archaeologist, ancestor, craftsman, men, women, hunter/gatherer, 6-7 person family, children, young boys		excavating, hunting, using bow and arrow, making microliths, study, interpret, piece together story, discovery of pit dwellings, adapting to change, learn to tackle pollution by understanding past, gather fruit and nuts, support a family, live alone, congregate at times of year for exchange of news and marriage, giving presents, piercing wood and bone, engraving, making needles, hafting tools, holding in hand, crushing ochre into past, decorating body, making necklaces, emulating adults, learning to hunt, <u>imagining life at the time, dream of this life to escape</u>	
PM10	1				aiming book at a target audience, provide overall survey of period	
PM11	2				excavation, radiocarbon dating	
PM12	1					
PM13	6		John Mercer, Paul Mellars	island, shoreline, valley, landing place, camping ground, pass through interior, cliff, lagoon, woodland,	finding flints and sites, constructing three stone rings, cooking, excavation, dating, making camps, wet sieving, establish sequence of microliths, seal hunting, deer stalking, fishing, hunting, bringing flint and ochre from elsewhere, stay all year round	death of John Mercer, glaciers withdraw, land rise, sea level rise
PM14	4		frogmen, hunter-gatherers, man, young woman	cove, forest, shallow sea	using air pressure pumps, fishing, excavation, making fireplace in boat for eel fishing at night, making dugout canoe, radiocarbon dating, decorating oars, making fishing line of sinew, using fish hooks and leisters, stunning birds, eating, wearing, hunting at sea, catching birds, poleaxing and skinning fur animals, finding grave, standing in boat eel fishing	Denmark tilting, coast sinking, erosion by sea
PM15	1				enacting of cereal cultivation by native Mesolithic peoples, finding cereal grains, radiocarbon dating, revising interpretation	
PM16	4		Desmond Collins	stream, two geologies	discovery, excavation, walking to flint source 2 miles away, plotting and recording, sieving soil, experimental heating of flint, studying the flint and wear, preparing skins, cutting up carcasses, removing broken arrow points, knapping flint, making tools, refitting, dating by typology, TL dating	erosion by weather and walkers

PM17	1				hunting-gathering, undertaking animal husbandry, animal herding, finding bones, dating	
PM18	6		Frances Murray, Paul Mellars, David Devereux, Robert Gourlay, hunters and scavengers	estuary	discovering shell middens, rediscovering, radiocarbon dating, finding dog, excavation, processing samples, changing interpretation, controlling wild animals, survey, hope for scheduling, fishing, fowling, disseminate information, raising funds, obtain sponsorship and television coverage, giving lectures, produce displays, sell	pipelaying
PM19	2		Grahame Clark, hunters, 3-4 families	lake, swamp	examined an area, revealed a site, made platform of branches and moss, recording flint distribution, making tools, modifying antler skulls as camouflage when hunting, fixing spears and arrow heads to shafts, radiocarbon dating	ice melt, warming climate
PM20	1		communities, hunting band	small island	hunting, gathering, excavations, move from one locality to another	seasonal waxing and waning of resources
PM21	1				excavating, visitors making comments, recording the comments	
PM22	1		Paul Mellars		excavations, harvesting sea foods, occupying sites at different seasons, analysing otoliths, burying bodies and retrieving hands and feet	
PM23	2		small group of hunters, Paul Mellars, John Mercer, Frank Newall, Bill Finlayson	island, woodland, camp	making microliths, microwear analysis, making camp, shooting arrows, repair arrows and spears, hunt red deer, finding and excavating sites, sitting to knap flint, studying the flint, survey of beaches for flint sources, doing radiocarbon and TL dating, pollen analysis	
PM24	1		hunter		stalking, computer analysis, ethnographic analogy	
PM25	1		Juliet Clutton-Brock, Nanna Noe-Nygaard, dogs	by the sea	stable isotope analysis, hunting	
PM26	1		leading authority			
PM27	1		Caroline Wickham-Jones		excavations, pushing back evidence for settlement in Scotland	
PM28	1		hunters, lecturer	forest/woodland	radiocarbon dates, treating the period as one phase instead of two, taking an environmental approach	climate warming

PM29		384	community, Steve Mithen	island	nut processing, temporarily become vegetarian, excavation, roasting, storing or dumping, radiocarbon dating, calibration	lack of deer on the island forcing use of nuts
PM30		152			attacking interpretation, setting up false dichotomy between vegetarian and carnivorous, persist with outmoded	
PM31		491	Grahame Clark	Cambridge	paradigm, established frameworks, published, excavations, recognised importance of environment, interpret past as living societies, helped form Prehistoric Society, edited Proceedings, despatching graduates abroad, photo interpretation in war, served on CBA executive	
PM32		190			questioning interpretation, interpretation and analysis of sites	taphonomic non-preservation of bone
PM33	1				AMS dating, leaving footprints	
PM34	1		Caroline Wickham-Jones		excavations	
PM35		323	leading archaeologists, Armand Lacaille		commemorate Lacaille, assess advances over last 40 years, radiocarbon dating, beginnings of human settlement in Scotland, disruption to vegetation, establishing Mesolithic presence on west coast, challenge to explore inland not taken up	
PM36		842	children 6-15		chewing tar, analysis of the tar, heating birch bark, waterproofing, hafting, tar cakes found at Star Carr, experimental chewing and heating, chewing to relieve sore throat or cavity or for hygiene, or taste, or teething	
PM37		809	hunter-gatherers, archaeologists, fisher	surrounded by farmers	replanting collected seeds, searching for earliest farming, burying the dead, reversion to hunting and fishing	drought, sea level rise drowning early evidence
PM38		368	groups and sub-groups	gently undulating mixed woodland, coasts, river valleys	conflicting hypotheses, argue for human activity - small-scale clearances, animal grazing, burning, hunt deer	climate change, increased population density
PM39		128			offering an alternative hypothesis, chewing as a way of preparing tar for hafting or waterproofing, using teeth to cut, hold and work leather, giving tasks to children	

PM40		484	postgraduate students, Ian Dennis	hill top near Avebury	found by students, dated, flint knapping, clean up taking debris to tip, excavation	
PM41		489	small band of hunter-gatherers, Stephen Carter, Magnar Dalland, 2 or 3 people, Caroline Wickham-	temporary camp	excavations, radiocarbon dating, knapping, making temporary camp, repairing tools, catch fish, seabirds or mammals, smoking meat, using hazel shells as tinder	
PM42	1		Richard Carter	lakeside	seasonal visiting, hunting, challenge to previous views, X-ray roe deer teeth, determine month of death	
PM43	1		Grahame Clark, Gordon Willey		publishing, invited to America, visited New Zealand and Australia, reinterpretations of Star Carr, fostering students, TL dating	
PM44		89	Louis Chaix, archaeozoologist		keeping bear as pet or performer, fitting bear with muzzle, ritual slaying	
PM45		1,477	Steve Mithen, Chris Tolan-Smith, archaeologists, Penny Spikins, Ian Simmons, groups, Rick Schulting, Mike Richards	islands, uplands, coast, lowlands, rivers	research challenging traditional view, computer analysis using GIS, making finds, pollen and charcoal analysis, refining techniques, analysing bones, new projects, studying landscapes, field walking, forest clearance with fire, using same sites again and again, shelling, roasting and storing hazelnuts, storing lesser celandine roots, finding cereals, experiments with cereal growing, exploiting plants, meat fixation by archaeologists, analysis of viewsheds, observing game, mapping vegetation cover, moving upriver, sense of place and territory, stable isotope analysis	seasonal availability of plants and animals
PM46	1		Malcolm Lillie, 50 year-old male		excavated, doing trepanation, AMS dating	
PM47	1					
PM48	1		Grahame Clark		writing a biography, appeal for correspondence	
PM49	1		Larry Barham, Adrian Targett, Philip Prestisley, Cheddar Man		claiming direct genetic link, extract DNA	
PM50		100	volunteer archaeologists	birch and cherry scrub	radiocarbon dates	

PM51		2,326	Grahame Clark, 4-5 families, 20-25 people, Seamus Caulfield, Tim Schadla-Hall, Petra Dark, Maisie Taylor, recent hunter-gatherer groups	lake, birch forest, dry land in North Sea	excavations, finds of spearheads and other artefacts, disposing rubbish, studies of the antler, killing deer Nov-Apr, building brushwood platform, radiocarbon dating, colonising from the east, site debated in essays and exams, revising interpretations of the site, new excavations, pollen and sediment analysis, reed burning, calibrating radiocarbon dates revising site date and length of occupation, repeated visits to site, laying timber platform, analysis, splitting timber into planks, microexcavation in lab, combining new theories and techniques, social centre for ritual and ceremony, disperse to hunt red deer in	growth of peat, low sea level
PM52	5		hunter-gatherers, Paul Mellars, John Mercer, Susan Searight, amateur collector, Frank Newall, Gilbert Marshall, Alistair and Sue Dawson, Kevin Edwards, residents, Sue Campbell, Angus Kerr, Nyree Finlay, Bill Finlayson, Wendy Carruthers, Sarah Mason, Jon Hather, Stephen Carter, children, foragers, Paddy Woodman, Mark Lake	islands, tidal inlet, wooded, loch, coast, hills, spring	excavation, finding sites, piece together sites for the picture, fishing, gathering shellfish, survey, reconstruct past environments, survey of flint sources, taking sediment cores, foraging, pollen analysis, flint collecting, fieldwalking, test pitting, cataloguing, microwear study, burning hazelnuts, preparing lesser celandine for food or medicine, AMS radiocarbon dating, flint knapping, learning to knap, sitting and watching animals, hunting, doing experimental archaeology, computer modelling, predict site location, abandoning the large islands for Oronsay at 5700 BC, overnight camping, go to replenish flint supplies	ploughing
PM53		1,787	small community, men, women, children, scholars, Pia Bennicke, small hunter-gatherer communities, warrior	everyone related	challenging view of period, massacre of a small community in S Germany, Stone clubs flew against skulls. Women screamed; children cowered in shocked silence, hunting, burial of skulls and bodies, head-hunting, axe blow to head, drawing battles on cave walls, spears and arrows in bodies, using wooden clubs, sacrifice wife and child, chasing or killing an outcast, scalping, cannibalism, taking teeth for adornment	

PM54		2,272	about a dozen people, hunter-gatherer, anthropologists, archaeologist, Lewis Binford, James Rackham, elderly woman, children, senior groups members	woodland	tell stories, extract marrow, woodworking, making canoe or stretcherpoles, eventually move on, interpreting patterns, knowing modern behaviour, butchery by skinning and quartering, using stomach as bag, guts as twine, cutting off antler and horn for tools, analysis of bones and flint distribution, sitting side on to wind around fire, refitting flints, whittling away antler or bone, resharpening and throwing away tool, flint knapping, making tools, taking tools away, boring leather, microwear analysis, storing bones, eating hazelnuts, making boots, practising craftworking, imbuing tools with meaning	
PM55		314	John Atkinson, archaeologists	hilltop, mountain route, hunting camp	excavated, finding quartz and flint, knapping, tool making, radiocarbon dating, made fire, carried firewood, hunting deer, survey, discovering new sites	
PM56		535	Sarah Cross, archaeologists, prehistorian, Peter Woodman, expert		feasting to show off wealth, skill and power, groups coming together, holding communal events to exchange knowledge, resources and marriage partners, hunting and gathering, challenge interpretation	
PM57	1					
PM58	1		hunter-gatherers	island in floodplain	found, fieldwalking, excavations	
PM59	2		Grahame Clark		site worked on and published, brought into mainstream	
PM60		332	divers, lobsters, flint knapper	cliff foot, forest, camp	excavated, making finds, excavated by lobsters, knapping, throw over shoulder onto heap, radiocarbon dating	melting ice, rising sea levels drowning land
PM61		320	Mike Richards, Glyn Davies, archaeologists, woman		undermining ideas, never saw the sea, and never ate a shellfish or perhaps even a hazelnut in her life, eating nothing but meat, stable isotope analysis, excavated, burial in rivers on raft or thrown in, butchering animals	
PM62	4		geographer, hunter-gatherers	coast	finding deposits, radiocarbon dating, excavations	underwater landslide, tsunami, flooding, erosion, disruption, leaving mark on minds

PM63	2		Graeme Warren, Clive Bonsall	coast, river valleys	fieldwork, identifying sediments, excavated, recognise significance, venture out to the bare sea bed while others move away	tsunami, sea drawback, disruption of life, settlements disappeared, families never seen again, shape of land altered, leaving mental images
PM64	1				recovering skeletons, stable isotope analysis, eating marine foods	
PM65		487	Clive Waddington, John Gooder, family group		discovery, excavations, making and repairing tools, rebuilding house, radiocarbon dates, hunting, butchering, repair and alter house, covering house with turf, bark or skins, Howick to feature in Meet the Ancestors	
PM66		671	Grahame Clark, Harry Godwin, Margaret Godwin, Eric Higgs	public school, Oxbridge	research, excavations, teaching, lecturing, developing concepts, encourage students to go abroad	
PM67	1	897			eating limpets, cooking limpets, looking at modern and historical uses, use in medicine, as fish bait, as jewellery, drilling holes in limpet shells	
PM68		1,422	archaeologists, John Lubbock		expand population, colonise new territories, sending modern person back in time to observe, read Prehistoric Times, compare progress in archaeology, use archaeological and ethnographic evidence	global warming
PM69	1				inventing the Mesolithic, excavations, using environmental evidence, writing biography	
PM70	1		hunter-gatherers	cave, open landscape of birch, pine and grass	ceremonial burial, radiocarbon dating, discovered in 18th century, analysis, Sr analysis, tooth analysis, hunting	bombing raid destroying most, iron deficiency

PM71	6		amateur archaeologists, John Davies, Jim Hutchinson, lecturer, Clive Waddington, Alan Biggins, students, volunteers, archaeological groups, John Gooder, businessman Peter Forrester, Brian Hope Taylor, Julian	cliff edge, forest	discovering houses, collecting flints, dig test pit, geophysical survey, reconstructing the house, digging sunken floor, eating hazelnuts and animals, drying nuts to store, radiocarbon dating, relaying the house floor, recovering flints, collecting flint off beach, woodworking, hide working, excavation, modifying natural hollow, making houses, repair or rebuilding of house, creating heritage trail	erosion of cliff, warming climate, coming of forest, limestone quarrying
PM72	1	673	ancestors as scientists, children, mothers		making cordage from nettle, wanting to know the past, making flint tools, reconstructing tools, laughing at interpretation, trading, partying, working with aborigines, exploring cave, children climbing rock, mothers say come down, living with stone tools	
PM73	1		scientists, archaeologists, geologists, engineers, Fred Shotton, Bob Stone, Vincent Gaffney	large plain, River Shotton, maritime	analysis of seismic data, reconstructing North Sea plain, hunted, gathered, developing tactile interface	melting glaciers
PM74		234	archaeologist, Caroline Wickham-Jones, David Smith, Sue Dawson	shore, settlements	hunting, gathering, loss of life, damage to settlements, finding sand layer, analysis of cherry seeds and fish bones	Storegga slide tsunami, ice melt, Scotland rising, south sinking
PM75		192	hunters, Paul Davies, Jodie Lewis	tufa	discovery of flint, fieldwalking, excavations, shaping tufa ball, digging pits at edge of tufa, making votive deposits, thinking tufa to be magical	
PM76	1					
PM77	2		E K Tratman		finding engravings, investigating caves, engraving with stone tools, attributing dates, digging trial trenches	
PM78		261	Helen Holderness, archaeologist, Mary Macleod		excavations, revealing houses, removing peat, suspects the structures are Mesolithic, will be radiocarbon dated, funding excavations	road improvement

PM79		363	hunter-gatherers		radiocarbon dating	
PM80	1	433	archaeologists, hunter-gatherers		radiocarbon dating, digging row of pits, sectioning pits, excavation, revising previous assumptions	
PM81		296	Tracy Collins, Frank Coyne, archaeologists, hunter-gatherers		radiocarbon dating, finding cremations, cremating body, turning perceived notions on their head, challenging our prejudices	building a rising main
PM82	5	2,018	archaeologists, hunter-gatherers, Nicky Milner, Grahame Clark, Richard Chatterton, Joshua Pollard, Chantal Conneller, Tim Schadla-Hall, Maisie		archaeologists revisiting site, excavation, reinterpreting site, writing articles, auguring peat, digging test pits, discovering new sites, new interpretations, ritual deposition, attribute social significance to animals, working wood, investigating palaeoenvironment, fieldwalking, finding bigger site, burning reeds, antler working, asking questions of the site, looking for specific evidence	lake turning to peat, drainage shrinking the peat, disappearance of bone and antler
PM83	4	?	Ray Mears, Gordon Hillman, Nyree Finlay, Steve Mithen, Darko Marecevic, Karen Wicks, students, Sam Smith, hunter-gatherer, foragers, family or group, Chantal Conneller, Nicky Milner, Penny Spikins, Graeme Warren	island, above cove, sheltered, near freshwater	excavation, rethink Mesolithic lifestyle, revisit site, fieldwalking, test pitting, revising ideas on open water travel and plant use, confirming hunch on site location, travel by boat, roasting nuts for storage, burning kernels as fuel or smoking fish, being stumped for explanation, doing experiments, walk in woods, jumping to conclusions, ethnographic analogy, engaging with the Mesolithic experience, conveying to the public on television	making of TV series
PM84	8		geologist and palaeobotanist, Clement Reid, Grahame Clark, prehistorian, Bryony Coles, hunter gatherers, Vince Gaffney, Ken Thomson, Simon Fitch	estuaries, river, salt marsh, plains, rolling hills, wetlands, maritime	guessing at existence of land, dredging up antler point, excavating, coining term Doggerland, systematic survey, geophysics, mapping sea bed and Mesolithic landscape, seismic survey, computer processing, producing VR images, model settlement, testing models	flooding breaking land bridge to continent, farming transforming the land, earth warming, ice melting, Storegga landslide, tsunami, rising sea levels, vegetation and animal change
PM85		41			dating hazelnut shell	

PM86		194	Nicky Milner		pollen and charcoal analysis, correcting Milner article, later adjusting dates, applying advances in analytical techniques, new ideas on chronology of site, burning reed beds, occupy, abandon and return to site	
PM87		21				
PM88		67	Naomi Woodward, hunter-gatherer site		excavations, finding flints, confirming suspicions	
PM89		1,677	amateur archaeologist, Derek Upton, geologist, John Allen, hunter-gatherer-fishers, Petra Dark, 11 year old, Rachel Scales, children, 3 or 4 year olds, Alex Brown	island, estuary, oak woodland	walks finding remains, recognising significance, examining sedimentary sequence, excavation, cooked fish, butchered aurochs, cooking with heated stones, reconstructing shelters at Butser, defecating at edges of areas, finding footprints, returning to film for television, analysis of prints, burning of trees and reeds, most visits in late summer and autumn but also at all times of year	plans for Severn barrage, low tide exposing sites, sea level rise eroding sites, draining wetland for farming, climate warming, creation of estuary, flooding, development pressure
PM90		158	Michele Paver		posting on the web	
PM91	1		hunter-gatherer bands, students, Caroline Wickham-Jones		excavation, finding remains	melting glaciers
PM92	1		divers, Gary Momber	sand bar in estuary, underwater	investigating site, found evidence, building log boat, digging evaluation trenches, sampling peat, mapping artefacts, constructing log boats and walkway	currents scouring site
PM93	1		hunter-gatherer, volunteers		publish research, abandon farmed foods, eat meat, fish, fruit, nuts, berries, experiment	
PM94	1			Doggerland	map submerged landscapes	submerged, global warming, mineral exploration
PM95		1,729			fieldwork, post-excavation analysis	
PM96		479	hunter-gatherers, Gary Momber, divers, Karen Hardy	cliff, stream, forest, camp	finding string, making string from plant fibres, excavation, finding Mesolithic camp, cutting blocks of sediment, analysis, BBC News film made at site	flooding, surface eroding

PM97		317	hunter-gatherers, Fraser Brown, Peter		burying burnt hazelnut shells, excavation, finding flints, interpretation of site	airport improvement
PM98		1,943	Woodman hunter-gatherers, Caroline Wickham-Jones, archaeologists	coast, islands, peninsula	finding Mesolithic material and sites, losing hunter-gatherer way of thinking, test pitting, excavation, using middens as territorial markers, reconstruct Mesolithic life, asking questions, using ethno-historical record, hunting gathering fishing, compare Scotland to Patagonia and Senegal, research objectives, working in teams, using computer methods, studying historical hunting and gathering, seeking new insights	climatic and environmental upheaval, flooding Doggerland, Storegga tsunami, land rising, shell middens preserving organics
PM99	1			chalk downland	solicit readers' opinions, uncovered post holes, dated, recreating monuments of elsewhere, bringing in pine from elsewhere	
PM100	6		foragers, Grahame Clark	woodland, rivers, lakes, deltas, estuaries, seashores, Atlantic littoral, marshy lake fringe	storing food, hold out against Neolithic temptation, excavation, hunting, working antler, occupied late spring and summer, stalking by a few hunters, wood working, building platform	ice melt, climate change, flooding breaking land bridges, replacement of tundra by woodland, warming Gulf stream
PM101	1		Bryony Coles	Doggerland, marshy	naming Doggerland, reuse seismic data, reconstruct landscape, describing landscape	oil and aggregates exploration, global warming, Gulf stream switch off
PM102	1		Andrew Johnson, archaeologists		finding shelter and artefacts, carbon dating, constantly moving through landscape, gathering food, constructing building, cooking, staying for prolonged period or revisiting at intervals	airport extension
PM103	1		Mike Hodder	woodland, bog, damp grassland	excavations, found land surface, finding tools, radiocarbon dating, clearing by burning, take soil samples	
PM104	1		geneticists		aDNA analysis, reopen debate	
PM105		121	Roger Jacobi	school, university, museum, project	cataloguing finds, pursuing interest, studying, writing PhD, teaching	
PM106		248	archaeologists	river terrace, estuary	excavation, sieving, recovering 200,000 flints	road development

PM107		172	Christina O'Regan	campsite	excavation, making finds, radio-carbon dating	new roads and buildings
PM108		606	Grahame Clark, Paul Mellars, Nicky Milner, Chantal Conneler, Barry Taylor		excavation, finding site bigger than thought, asking questions, assess decay rates and ways to stop decay	Valletta Convention, planning policies, peat preserving remains, preservation getting worse, field drainage, chemical changes
PM109	4	1,888	John Moore, archaeologist, Grahame Clark, Tim Schadla-Hall, Paul Mellars, Andy Needham, Steve & Julie Boreham	reeds swamp, lake shore, wooded peninsula	excavating, finding antler point, camping on shore, hunting, collecting, discovered by Moore, making discoveries, splitting planks, building platform, survey, mapping lake shore, finding other sites, deliberate deposition at special place, fieldwalking, test pitting, finding bigger site than thought, radiocarbon dating, geochemical analysis, finding house, begin to schedule site	build up of peat, preservation deteriorating
PM110	1		archaeologists, Patrick Clay, hunter-gatherers, Wayne Jarvis	near hill crest, camp	finding site, follow migrating animals, collecting artefacts, using boulders to anchor skins for shelter, getting flint from stream beds and tree throws, obtain more precise date	
PM111	1		Barry Lewis, archaeologist		argue for a view, making a statement about beliefs by hunting today	
PM112	1		geneticist, Mark Jobling, hunter-gatherers, men, women			
PM113	5		community (Meso), fishermen, archaeologist, David Tomalin, palaeoenvironmentalist, Rob Scaife, lobster	coastal valley, sand bar by stream, shelf at foot of cliff	excavation, uncovering features, discovered by chance, race to save finds, overturning long held perception of underwater landscapes, diving, analysis of samples, radiocarbon dating, dendrochronology matching, visiting sandbar regularly, working wood, preparing string, plotting finds, recording timbers, making dugouts, reassess	sea level rise severing Britain from continent, currents eroding site, marine boring organisms, trawler damage
PM114	2		geneticists, Mark Jobling, Patricia Balaresque, Chris Tyler-Smith		study DNA, transmitting their own genes, impressing the local girls, revising an accepted view	
PM115	1		politicians		migration, settlement, asking questions	wind farm proposal

PM116	1		Grahame Clark, students, Chantal Conneller, first settlers, Nicky Milner	Lake Flixton	uncovering house, building house, excavated, burning vegetation, wood working, geophysics, auger survey, mapping shoreline, keeping secret pending date, repair, rebuild and extend house, moving back into Britain,	
PM117		85	Michael Gibbons		out walking, believing structures to be Mesolithic	
PM118		86	Tim Schadla-Hall		20 years work work at Seamer Carr	
PM119		103	archaeologists		finding timber piles, radiocarbon dating, continue research	
PM120		336	hunter-gatherers, archaeologists, Clive Waddington, skilled volunteers, local community, professional archaeologists, amateur archaeologist, Jim Nesbitt	coastline	record and save remains, finds should be made, recommend recording and excavation, seeking funds, monitoring site, help locals to take part	warming climate, eroding cliff, peat preserving site, washing out to sea
PM121		1,317	hunter-gatherer, specialist, prehistorians, archaeologists		trying to understand h-g psychology, using standard Mesolithic tropes, drawing on folklore and myth, interpreting the evidence using ethnography, seeking representations of the Mesolithic technology, crafting a narrative, challenge the authors, revisit primal myths, dream about reaching an audience	
PM122		163	Harold St George Gray, archaeologist, Richard Brunning	island	radiocarbon dating, recovering remains, finding flints, display in museum, proving earlier interpretation wrong	

PM123	6	2,629	hunters, fishers, archaeologists, fishermen (modern), lobster, David Tomalin, Mike Jones (trawler), Andy Butler, Michael White, Cyril Lucas (fishermen), John Cross, Rob Scaife, divers, Justin Dix, Brian Sparks, Gary Momber, Julie Satchell, Roy Harold, hunter-gatherers	plains with rivers, streams and marsh, cliff	searching for food, dredging timber and harpoon from North Sea, finding artefacts, recording footprints, raising flints, lobster excavating, Oyster trawling, underwater fieldwalking, analyse pollen, radiocarbon date, discovering trees, inspect, sample and record deposits, bathymetric survey, record and map forest, palaeoenvironmental analysis, camped on edge of stream, filling pit with hot stones, woodworking, pushing post into ground, soil analysis	rising sea submerging land, coast erosion damaging sites, tidal movement of flints, climate warming, woodland spread, replace by salt marsh and mud flat, animals boring into remains, tidal erosion, lobster pots displacing remains
PM124	1				digging, interpreting, teach about the future, hunting, gathering, live in better balance with nature	
PM125	1		hunter-gatherer		study of prehistoric cultures, imagine the past	
PM126	8		fisherman Mike Jones, archaeologist David Tomalin, David Motkin, collectors, divers, volunteers, professionals, lobster, Garry Momber, Rob Scaife, community, Maisie Taylor	brackish lagoons, salt marsh, mud flats, woodland, underwater, temporary settlements	fixing microliths into shafts, making skull caps of red deer for ritual use or stalking prey, creating temporary settlements, discovery of landscape, publication of excavation report, excavation, race against time to rescue evidence, trawling for oysters, finding flints, underwater fieldwalking, mapping finds, carbon dating, diving, collect and analyse data, lobster excavating burrow, taking sediment blocks, auguring, finding remains, work to persuade need for protection, develop underwater archaeology techniques, radiocarbon dating, gathering plants, visiting fixed places over and over again, wood working, uncovering finds, fishing, scale and clean fish	seasonality, erosion of site, rising sea levels forming Solent, tides covering site in sediment and now scouring it, drowning by sea, scouring by lobster pots, attack by worms and molluscs
PM127	1					
PM128	1		members of public, Gordon Roberts, expert, 3 well-built males 6ft tall, volunteers, Fiona	beach	monitor beaches, finding footprints, recording, report sightings	exposed on beach, high tide, strong wind, tidal movement burying or eroding
PM129	1		archaeologists		finding fish traps, fishing, weaving fish trap	

PM130	6		landowners Sir Edward and Lady Antrobus, custodian Mike Clarke, geologist Peter Hoare, Nick Branch, Tim Darvill, expert, Barry Bishop, families, Tony Legge, students, local residents	ancient spring, near Stonehenge, River Avon, seasonal lake	excavations, identify site for investigation, recovering flints, making tools, working bone and antler, cutting sinews, stripping bark, making baskets, people gathering from a wide area, repeated visits, having feasts, cooking, heating water, analysed animal bones, obtain radio-carbon dates, raising questions about continuity in the area, marking a special location, veneration at springs, treat as special	
PM131		885	Hodder Westropp, Sir John Evans		coining the term Mesolithic, recognising the Azilian, domesticating dog, pulling up barbed point in fishing net	
PM132	1		archaeologists, hunter-gatherers, Ed Bailey	slope, underwater	excavation, built house, working, sleeping, eating, collecting deadwood, storing wood, radiocarbon dating, search for resources, settling down	Forth Replacement Crossing project
PM133	1		Aart Wolters, Luc Amkreutz, Louwe Kooijmans, amateur archaeologists, collectors	North Sea	fishing (modern), finding axe, showing to museum, finding bone and antler tools	
PM134	1		hunter-gatherers, historians, educators	rivers, shores, woods, camp	seeking to engage wide public, giving a more realistic date for the novel, help children understand, deliver curriculum outcomes, identify trees, build camp, make cord, prepare food, tools canoe, butcher boar and deer, dismiss as primitive and irrelevant	
PM135	1		archaeologists, Richard Scott Jones, entomologists		research, decorating a post, marking boundary, hunting ground or sacred site, analysis, tree ring dating	building new windfarm
PM136	1		Vince Gaffney, Simon Fitch, hunter-gatherers		digging pits to mimic moon phases and align on midwinter sunrise, calibration	
PM137	1	162	hunter-gatherers	lake edge	should send to education department, managing landscape with fire, show research, show ideas changing and being questioned, describe history and archaeology	
PM138	1	75	archaeologists, Clive Waddington		found tsunami evidence, excavation	tsunami hit Britain

PM139	1		Chris Binding		visit site, discovered chasing rabbit, excavations, destroyed by bombing, finding, making engravings on wall, homage to fertility figure	
PM140	1		archaeologists, settlers	estuary, hill	uncovered remains, digging house, seasonal occupation, stay warm, wearing wolf pelt or lining floor or walls, hunting, preparing food, eating hazelnuts, radiocarbon dating	Forth replacement crossing work
PM141	1		hunter-gatherers, archaeologists, Ron Cowell	promontory by reed beds	discovering 3 houses, building homes, radiocarbon date, importing chert, coming back to places	creation of wetland reserve
PM142	1		David Jacques		excavation, repeated visits, recovering artefacts, radiocarbon dates	
PM143	1		Grahame Clark, archaeologists, Chantal Conneller, Nicky Milner, Barry Taylor, Maisie Taylor	lakeside	excavated, revising size of site, fieldwalking, test pitting, finding flint, uncovered platform, working timber, revising interpretation	
PM144	1		hunter-gatherers, Sven Isakkson		study of pots, cooking fish, isotope analysis	
PM145	8		Grahame Clark, settlers, John Moore, small bands or 2-3 families, Nicky Milner, Chantal Conneller, Barry Taylor, Tim Schadla-Hall, pioneer groups, inhabitant, amateur archaeologists, Harry Godwin, Roy Clapham, geologists, botanists, zoologists, 4-5 families, Nicky Milner, Chantal Conneller, Barry Taylor, Mortimer	woods, lake, open water, swamp, settlement	excavated, new understanding overturning ideas, handing down stories, built homes, staying, discovered site, found settlement, long-lasting or repeated occupation, taking borings, finding sites, taking pollen cores, study vegetation, (communication between scholars and Moore), mapping Lake Flixton, bringing together specialists, working deer skulls as masks or headdresses for ritual dances or stalking prey, visiting seasonally, fieldwalking, discovering house, building house, wood working, making platform, challenging Clark's conclusions, burning reeds, carbon dating, staying all year or visiting repeatedly, antler working, cutting plants, making baskets, hunting, making handles, sewing, fastening clothes, digging, splitting wood, scraping hides, making clothes and shoes, eating animals, throwing away rubbish or votive offerings, having different interpretations, using at different seasons, task groups to bring flint and shale, attaching emotional and spiritual	earth warmed, trees grew, peat growth remaking landscape, landfill construction, peat drying, groundwater acidifying

PM146	1		archaeologist, Richard Scott Jones, palaeoentomologists	stream edge on plateau	carved wood, discovered, marking significant site, sacred site, hunting ground or tribal border, representing votive offering, radiocarbon dating, putting bets on age,	building wind farm
PM147	8		hunter-gatherers, Vince Gaffney, researchers, Alexander Marshack, hunter-gatherers, hunting bands, groups, Ron Yorston, Richard Bradley	sloping ground, River Dee valley, mountain pass, birch and hazel woodland with heath	preserving the past, predicting future time, hunting, anticipate seasonal change, seasonal congregation, party, networking through marriage and alliances, keep track of the moon, add or subtract month or reset, build monument, Bayesian radiocarbon dating, reinterpretation, creating calendar, special materials placed in the pits, modelling the monument, rewriting software, watching midwinter sunrise over many years, using pits to mark phases of the moon as well as month, developing monument over time, more sedentary than usually accepted, hunting for similar sites	annual fish runs, rising sun at midwinter
PM148	2		Jay Carver	islands, estuary	hunting, fishing, making tools, excavating, finding flint, testing, preparing and dividing river cobbles, transporting cobbles elsewhere, sourcing materials	Crossrail project
PM149	1		Hayley Saul		detecting spice in pottery, residue analysis	
PM150	2		Grahame Clark, 10-12 people		spent time at the excavations, found barbed heads, hunting, moving tents every year	
PM151	2		hunter-gatherers		challenging interpretation, social authority, delegation of responsibility	
PM152		782	Sönke Hartz, Felix Riede, archaeologist		excavation, discovered sherd, carbon 14 dating, examining modern fish, cooking modern fish to date	
PM153		1,809			fire setting, experiments, excavation	building new highway
PM154	1	44	hunter-gatherers		moving from one site to another	
PM155	2		archaeologists, hunter-gatherers, Declan Hurl, Warren Bailie, Kevin Mooney, hunters, fishers	coastal, gravel plain, estuary, campsite	post-excavation, fieldwork, finding remains, dig evaluation trenches, making camp, finding features and finds, digging drainage gullies, radiocarbon dates	new bypass, land rising on rebound, melting glaciers, waterlogging
PM156	1		Steve Sherlock	settlement	excavation, finding settlement, moving through the area, Daily Mail interpreting site	A1 roadworks

PM157	1		hunter-gatherers, adults, children		ethnographic analogy, following footsteps, shaking assumptions of nomadism	
PM158	1			underwater, wooded coast, settlement	investigating, uncovered	
PM159	1		Kasia Olchowska, communities		uncovered remains, excavations, hunting, fishing	USA embassy building work
PM160	2		David Jacques	river channels, gravel islands	radiocarbon dates, revealing, feasting, setting flint in handle	
PM161	1		hunter-gatherers, Warren Bailie	estuary	excavation, uncovered finds, making necklaces, building structure, hunting, knapping flint, woodworking, radiocarbon analysis	building bypass
PM162	6		Daniel Young, Simon Parfitt, Barry Bishop, Chantal Conneller, expert, specialist, Mike Smith, Kevin Williams, Mike Clarke, Peter Rowley-Conwy, Tony Legge, communities, visitors, denizens, Mike Allen, Clare Moggeridge	springs, lush bog surrounded by woodland	erecting pine posts, discovering sites, rewriting understandings, exploding perceptions, excavations, flint knapping, analysing sediments, identifying bones, analysis of flints, making clothes, cutting reeds, XRF analysis, process animal skins, paddle down river, feasting, making tools, hunting, butchering, cooking, eating, exchange knowledge, resources, genes, share stories, gathering, tracking and killing aurochs, returning to place, fording stream, ambush animals, radiocarbon dates	spring water giving pink hue to flints, constant warmth extending growing season
PM163	1		David Jacques, Phil Bennett, Geoff Wainwright		giving lecture, conservation, putting horns on display	storms stripping beach sand
PM164		313	archaeologists, Tadeusz Galinski		discovering meteorite in house, brought as a special object, excavated, determining object's origin	
PM165		461	archaeologists, Tadeusz Galinski, shamans		uncovering, discovering artefacts, investigating remains, burying bundles of bark grass and bones, sticking stakes into ground in pattern of constellation Ursa major, marking time and lunar months	

PM166	6		researchers, scientists, archaeologists, Peter Rowley-Conwy	underwater, forest, streams, Neolithic farmers, social networks	research on origins of farming, remote sensing to map Doggerland, form new team, do pilot project, aDNA analysis, working wood, radiocarbon dating, burning wood to make boat, finding of einkorn DNA, importing wheat, criticism by others, laboratory procedures, travel by boat, recover and analyse genetic material, re-evaluate early farming data, rethink early contacts	inundation of Solent, sea level rise isolating Britain, erosion of site
PM167	8		local people, students, David Jacques, Mike Clarke, volunteers, archaeologists, specialist Barry Bishop, Tom Lyons, Tom Phillips, hunters and gatherers, communities, Tony Legge, Peter Rowley-Conwy, Simon Parfitt, Ben Chan, local community, Andy	hollow in woodland, warm spring, river	excavating, finding flints and other things, radiocarbon dating, meeting, being mobile, dumping debris into pond or channel, cooking with heated stones, making microliths and fitting them to handles. moving with the seasons, smashing bones for marrow, getting flint from afar, return to spring over generations, eating salmon and toad, wash, drink, take wetland foods, make bedding and thatch, local council build museum, people pay more tax, get involved in project, founding a heritage trust, celebrate identity	
PM168	8		researchers, Steve Speak, Clive Bonsall, Jim Nesbit, volunteer archaeologist, volunteers, archaeologists, Brian Cosgrove (teacher), students, refugees	cliff, beach, settlements	record, rescue, evaluation, excavation, contacting archaeologist, obtain radiocarbon dates, obtain permissions, secure funding, working out how to excavate, making videos, recovering flints, collecting and eating hazelnuts, collecting shellfish and flint from beach, building settlements, leaving drowned lands, walk coastline and monitor	coastal erosion, sediment deposition, climate warming, sea level rise
PM169	3		hunters	lakeside	hunting, stalking prey with dogs, training dogs, dogs retrieving birds, giving directions to dogs, burying dogs	
PM170	1		hunter-gatherers, archaeologists, Robin Allaby, Vincent Gaffney	continental farmers, underwater	aDNA analysis, reveal presence of einkorn, publish findings, maintain trading networks with farmers, moving by boat	

PM171	2		archaeologists, researchers, Nick Gilmour Louise Loe		uncovered, placing portion of cremation in pit, radiocarbon dates, analysis of bone	new pipeline construction
PM172		409	archaeologists, hunter-gatherers		cooking, storing, eating fish	
PM173		791	researchers, Britons, Robert Allaby, Vincent Gaffney, Mark Pallen, hunter-gatherer societies, scientists, archaeologists, Gary Momber	submerged, S Europe farmers	maintain social and trading networks, find evidence of wheat, collecting DNA, metagenomic analysis	melting glaciers, land submerging
PM174		889	Chris Barrowman, Torben Ballin, hunter-gatherers, small task group of 1 or 2 hunters	rivers, streams	discovering site, radiocarbon date, encounter prey, gather plants, fishing, hunting, gathering, flint knapping, producing microliths, retooling, making or repairing tools, exchanging flint	
PM175		499	Louise Loe, one adult, Nick Gilmour, Barry Bishop, hunter-gatherers		excavations, finding cremation, dated, radiocarbon dates, placing remains of pyre in pit, analysing bone, study flint	pipeline
PM176		570	archaeologists, hunter-gatherer groups, Shannon Fraser, small group, travellers, Bruce Mann, Graeme	mountainous landscape, sandy beach, mountain pass	excavations, radiocarbon dates, revisiting sites, discovered, stopping for night or two, repairing equipment, travel through mountain pass, gathering by riverside, salmon fishing, providing story for visitors	footpath repair, climatic deterioration, ice retreating

Appendix 23

Narrative elements found in popular archaeology magazine articles Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Site
PM01	outstanding			Star Carr, Helmsley
PM02				Cnoc Sligeach, Cnoc Coig, Priory Midden
PM03	Mesolithic as poor relation of Irish prehistory, breakthrough		oldest dwelling in Great Britain	Mount Sandel
PM04				
PM05	misleadingly titled, pity out of step with mainstream, little support		misses chronological distinctions	
PM06			2nd oldest house in the UK, largest Late Mesolithic assemblage in Britain	Broom Hill, Mount Sandel, Wakeford's Copse, Morton
PM07	important site for chronology of microliths		largest Late Mesolithic assemblage in southern lowland Britain, sealed assemblage	Broom Hill
PM08	one of the most eminent of world prehistorians, excellent introduction, thought provoking, useful			
PM09	at one with environment, balanced diet, primitive, contented	men were strong, lean, larger brain capacity than now, intelligent	oldest timber dwelling in Britain	Broom Hill
PM10	admirably succeeded, major achievement, straightforward, seemingly simple		nothing original but first publication using the Early and Late chronology	
PM11			oldest house in Europe?	Mount Sandel
PM12	very useful			

PM13			among the earliest stone structures in the British Isles	Lussa Bay, Lussa Wood, Lealt Bay, North Carn, South Carn, Glengarrisdale, Glenbatrick, Oronsay
PM14	spectacular find of boat, surpassed all expectations		one of the oldest boats in the world, finding complete range of fishing equipment	Tybrind Vig
PM15				
PM16			choice of settling at boundary of two geologies with different flora and fauna	West Heath, Hampstead
PM17				in France
PM18	exciting, squalid hunters and scavengers			Grangemouth, Inveravon, Polmonthill
PM19			landmark in modern archaeology, pioneering study	Star Carr
PM20			first site to demonstrate how to build up a picture of way of life	Star Carr, Oronsay
PM21			Comment - "La Mesolithique, c'est avant la Guerre?"	in Brittany
PM22				Oronsay
PM23			first people to settle the Hebrides	Gleann Mor, Bolsay Farm
PM24				
PM25			dogs having a marine diet	Star Carr, Seamer Carr
PM26	excellent account			
PM27	important contribution			Kinloch
PM28	surprisingly late Oronsay			Star Carr, Mount Sandel, Broom Hill, Oronsay
PM29	unusual insight	pit of burnt hazelnut shells		Staosnaig
PM30				Staosnaig

PM31	colossus of 20th century archaeology, classic excavation at Star Carr, landmark in archaeological publication, intellectual elitist, trenchant commentator, reminder of social purpose of archaeology still timely			
PM32				Staosnaig
PM33				Newport – Uskmouth and Magor Pill
PM34	important excavations, too elementary, tried hard to make it accessible, written in archaeologese, patronising, does not quite jell			
PM35	advances have been limited, useful accounts of current work but lack of index, multiple bibliographies a waste of space			
PM36		most teeth impressions of children aged 6-15		Star Carr, Bökeberg (Sweden)
PM37	simple nomadic and egalitarian then more complex sedentary, socially hierarchical, using cemeteries			Muge, Sado (Portugal), Ertebølle middens
PM38	fascinating book, well reasoned			
PM39				
PM40		10 x 15 m flint cobble floors, hill top with good view and drainage	Mesolithic buildings of substance exceptionally rare, remarkable still visible	Golden Ball Hill, Kirkhill, Bowman's Farm, Mount Sandel
PM41		used in autumn	oldest human occupation in Scotland	Crail, Kinloch, Oban, Lussa Wood, Morton
PM42				Star Carr
PM43	one of the finest site reports ever			Star Carr
PM44	written			French-Swiss border

PM45	worked hard for their living, complex, organised and intensive, outstanding finds, innovative archaeology			Staosnaig
PM46				Vasilyeuka (Ukraine)
PM47		good account of the Obanian		
PM48	one of the greatest prehistorians of the 20th century, pioneering			Star Carr
PM49	meaningless claim, annoying, mish mash, breathless, marvellous			Cheddar
PM50		pits, stakeholes	earliest evidence for human occupation of Scottish mainland	Daer
PM51	spectacular discoveries, surprising lack of fish, SC a major meeting place, extraordinary carpentry skills, enterprise and positive approach to land management		earliest evidence of trackway in Europe, unsuspected carpentry skills	Star Carr
PM52				Gleann Mor, Oronsay, Bolsay Farm, Staosnaig, Coulererach, Oradeh
PM53	not a golden age of harmony with nature and peaceful coexistence			Oradeh, Møllegabet, Cueva del Roure, Les Dogues, El Molino de las Fuentes, Vedbæk, Teviec, Dyrholmen
PM54	remarkable new evidence, one of the most important hunter-gatherer sites in Britain	sitting in two facing arcs		Uxbridge, Staines
PM55			highest Mesolithic camp in Britain	Aberfeldy
PM56	easy and healthy lifestyle			
PM57				
PM58				Stone Carr
PM59	crucial site, memorable work by Clark			Star Carr

PM60			first fully-submerged stratified prehistoric site to be investigated within British waters	Bouldnor Cliff
PM61		thighbone of woman		Staythorpe
PM62	spectacular event, valuable benchmark			
PM63	something out of the ordinary			Morton, Broughty Ferry, Inverness, Fife Ness, Sands of Forvie, Low Hauxley, Howick
PM64				
PM65			immensely rare discoveries, possibly earliest Mesolithic house in Scotland	Dunbar, Howick
PM66	seminal figure, pioneering, book disappointing, serious failing, aloof, withdrawn, intimidating, 'private', 'austere', 'forbidding', 'conservative', 'rude', 'single minded', 'not gregarious', 'elitist'			Star Carr
PM67	famine food			
PM68				
PM69	one of the greatest British archaeologists of the 20th century, pioneering, book a triumph			Star Carr
PM70	little understood period, one of the most important Mesolithic burial sites in Europe	5 ft tall, slightly built	earliest scientifically dated cemetery in Britain, transforming our ideas, largest assemblage in Britain, malnutrition or sickness in childhood	Aveline's Hole
PM71				Howick, East Barns
PM72				
PM73	exciting, challenging			Doggerland
PM74				
PM75				Langley's Lane

PM76	finely produced			
PM77				Aveline's Hole, Long Hole
PM78			earliest activity, amongst the oldest in Britain	North Uist
PM79		row of five postholes		Bryn Celli Ddu
PM80	astonished, tremendously exciting, surprised			Warren Field, Stonehenge, Thornborough, Bryn Celli Ddu
PM81	controversial, expert cremation		burials rare, no cremations found	
PM82	truly great site, enigmatic flints, outstanding finds	range of activities, networks of connections with other sites	before type site, earliest carpentry in Europe, unique	Star Carr
PM83	ideal place to camp, Mears inspiring, new energy and ideas in Mesolithic studies		hazelnuts in pit	Staosnaig
PM84	GC great, tantalising possibility, akin to a Mesolithic Pompeii, massive research challenge, Europe's Garden of Eden	Britain marginal, Doggerland rich and teeming, sparse, small groups often on the move, few permanent settlements or well built structures		Star Carr
PM85			first Mesolithic date for Orkney	Tankerness
PM86			first evidence for a direct effect of the occupation on the environment	Star Carr
PM87	Specialised but quality, up-to-date, serious and informal, invaluable, a model for others?			
PM88				Stronsay
PM89	importance as heritage resource, challenging working environment, outstandingly preserved	prints made during summer, print by red deer, aurochs, wolf, birds	earliest evidence of intestinal parasites, human and animal footprints, most prints by children, prints of no longer native crane, balance between nature and heritage conservation	Goldcliff
PM90		Paver and Torak websites		
PM91	slim chance of finding their slight impact on the earth	nomadic, wandering in search of food	pushing back date of settlement on Orkney	Long Howe

PM92	importance cannot be overstated, significant	a period we know little about		Bouldnor Cliff
PM93	h-g diet healthier than modern			
PM94	academic, not for the scientifically challenged, cutting edge, fascinating, Mesolithic Pompeii		a new kind of archaeology	Doggerland
PM95				High Pasture Cave (Skye)
PM96			rare find, Britain's oldest string, unique in Britain	Bouldnor Cliff, Tynemouth
PM97			one of Britain's first houses, oldest and best preserved	Ronaldsway, Cass ny Hawin, Howick, East Barns
PM98	one of the most significant periods		extensive, undisturbed record	Sand
PM99				Stonehenge
PM100		some nomadic, some more sedentary	earliest worked wood in the world	Star Carr
PM101	significant warning			Bouldnor Cliff
PM102	astonished			Ronaldsway
PM103				
PM104			two separate lineages, no interbreeding, Mesolithic line died out	in eastern Europe
PM105	passionate, analytical insight, generous personality			
PM106				Carlisle
PM107		2 huts and a fence	rare	Eglinton
PM108	key site, SC raising questions of wide significance		quality of organic preservation	Star Carr
PM109	most iconic site, spectacular discoveries, site under dire threat, considerable investment, communal effort		earliest carpentry in Britain, site dominates understanding of the period, earliest known house in Britain	Star Carr
PM110		nomadic, we know very little		
PM111	rich topic			

PM112		men descend from Neolithic farmers, women from Mesolithic hunter-gatherers		
PM113	advanced and sophisticated wood working, importance cannot be overstated, site of great significance		one of the oldest boat building sites in the world, first UK stratified underwater Mesolithic site, international rarity, marker for climate	Bouldnor Cliff
PM114		men descend from Neolithic farmers, women from Mesolithic hunter-gatherers		
PM115	treasure trove of information			
PM116	substantial, sophisticated, celebrated site	attached to particular places	oldest dwelling in Britain, earliest carpentry in Europe	Star Carr, Howick
PM117		stone river fish capture features		Errislannan (Ireland)
PM118				Seamer Carr
PM119			Mesolithic structures are rare, oldest known group in the country	Thames
PM120	unprecedented find, international significance	footprints of animals and people		Low Hauxley
PM121	compelling narrative, engaging, evocative, original, beautiful, stunning, inspiration			Star Carr
PM122			UK's first open air Mesolithic cemetery	Greylake
PM123	difficult conditions, poor visibility, exquisitely preserved, cute lobster, national significance	possible logboat and raised living area	first time in UK found stratified under water, first known mesolithic archaeological excavation by a member of the lobster community, oldest string in Britain, extremely rare in situ	Bouldnor Cliff, Pett Level
PM124	eloquent argument			
PM125	thoroughly recommended			
PM126	sophisticated lifestyle	real 'dark age' of British archaeology		Bouldnor Cliff, Star Carr, Howick, East Barns
PM127		fishing equipment	oldest yet found	Zamostje 2 (Russia)
PM128		footprints		Sefton, Formby

PM129			oldest yet discovered	in Sweden
PM130	the most important discovery at Stonehenge in many years, highly significant, exciting, pivotal place	slate from Wales perhaps, Horsham Points from Sussex	only Mesolithic slate tool in the UK	Blick Mead, Stonehenge car park
PM131	ineffable waffle			Ferriter's Cove, Star Carr
PM132				Echline
PM133				Brown Bank (North Sea)
PM134	not substantial but significant, ingenious, sophisticated			
PM135	curious marks	oak past		Maerdy
PM136			earliest evidence for time reckoning, 5,000 years before the first formal calendars	Warren Field
PM137	sophisticated kit, clear prose, inspiring		unique site	Star Carr
PM138			the most southerly evidence	Low Hauxley, Howick
PM139	fascinating, thought provoking			Aveline's Hole
PM140			oldest house in Scotland	Firth of Forth
PM141	new and surprising ideas	nomadic		Lunt Meadows, Howick
PM142	thrilling		link up Mesolithic and Neolithic, where two cultures merged	Blick Mead, Stonehenge car park, Coneybury
PM143				Star Carr
PM144			earliest evidence for how ceramic vessels were used	in Japan
PM145	almost mythical Clark, immense importance of site, sophisticated carpentry	substantial settlement	Britain's earliest known house, site bigger than thought, earliest evidence for carpentry in northern Europe	Star Carr, Seamer Carr, Howick
PM146			oldest known carved wood in Europe, unique discovery	Maerdy

PM147	remarkable, in use for astonishing length of time, exciting time for Mesolithic studies, one of the most important conceptual breakthroughs	50 metre long pit alignment, gently curving, smallest at ends and biggest (pit 5) in middle, pit 6 out of alignment, pits 5 and 6 holding posts	oldest time reckoner in the world, pits recut in Neolithic	Vespasian's Camp, Star Carr, Warren Field, Stonehenge car park
PM148	exciting find, exceptionally important location		UK's largest archaeological programme, Crossrail	North Woolwich
PM149		garlic mustard	first evidence for spicing prehistoric food	in Denmark & Germany
PM150				Star Carr
PM151				Warren Field
PM152			reservoir effect fish ages older than true	River Trave (Germany)
PM153		experimental firesetting		Melsvik (Norway)
PM154				
PM155	national significance		houses rare	Dunragit, Echline
PM156				between Leeming and Barton
PM157	accessible, useful			Lydgate Haven
PM158			one of the earliest permanent settlements in Sweden	Hanö Bay (Sweden)
PM159		fish trap		
PM160			largest concentration of Mesolithic flint in Europe, longest chain of dates in UK	Blick Mead, Stonehenge car park
PM161			SW Scotland's earliest house	Dunragit
PM162			greatest concentration of Mesolithic flint in Europe, non-local tools and materials, unique red sandstone tool	Blick Mead, Stonehenge car park, Downton
PM163		aurochs finds, tracks and footprints at Newgale	more aurochs bones than any other site in NW Europe	Blick Mead, Whitesands Beach, Newgale
PM164				Bolkow (Poland)
PM165				Bolkow (Poland)

PM166	controversial discovery		unique site, oldest boat building site in the world	Bouldnor Cliff
PM167	one of the least familiar eras, important, remarkable amount of material		community proud of its archaeology and contributing to research	Blick Mead, Cherhill, Downton, Kintbury, Thatcham, Newbury, Countess Farm, West Amesbury, Stonehenge pits
PM168		animal and human foot prints		Low Hauxley, Howick, East Barns, Echline, Cramond
PM169			earliest known British dog	Star Carr, Vedbæk, Skateholm
PM170	simple British hunting societies			Bouldnor Cliff
PM171	surprise	largely nomadic lifestyles	Britain's earliest known human cremation	Langford
PM172				in North America
PM173	simple British hunting societies, significant, sophisticated, more advanced than recognised		einkorn 2,000 years before the Neolithic	Bouldnor Cliff
PM174		mobile		Garvald Burn, Howick, Low Clone, Barsalloch, Glentaggart, Climpy, Starr, Smittons
PM175	surprised, significant, mobile hand to mouth existence	nomadic	first and earliest cremation from Mesolithic and Britain	Langford
PM176				Glen Geldie, Glen Dee

Appendix 24
Narrative elements found in fictional stories
Part A: characters, settings, actions and happenings

ID	Pages	Characters	Settings	Actions	Happenings
F01	202	Brod, Anna Needcliff, Arf	lakeside, woodland, mountain	too many to list	slow drowning of Doggerland, incursion of a rival group
F02	3	men, women, children, boy, elder	hill, forest, upland, valley	pointing to the distance, collecting roots, trapping hares, searching for medicinal plants, knapping flint, making windbreak, driving game, mending arrows, talking, hunting, clearing trees, revering place, cooking boar, roasting nuts, scraping hide, working sinew, making bone point, heat treating flint, sharing meat, exchange with other group, make fire, marking territory, eating meat, catching birds, return to camp,	others living new way of life affecting the forest and deer
F03	3	Raven's Wing, True Arrow, girl, hunters	stream, tarn, valley, open hills, woodland, spring	hunting, chased away, dropping core, burn off clearing, tend fire, gather, wood, butcher kill, collect water, exchange core with kin, set up camp, make tools	hard winter
F04	242	Torak, Renn, Hord	Norway, woodland, mountain	too many to list	bear attack
F05	275	Torak, Renn, Bale, Tenris	Norway, woodland, sea, island	too many to list	sickness, orca attack
F06	2	boy, sister, uncle, aunt, men, women	bay, island, valley, woodland	fish, collect and eat shellfish, smoke fish, collecting and roasting nuts, play, discuss decisions, move, split up, come together again, burial	death, lack of game
F07	257	Torak, Renn	Norway, woodland, ice, mountain, caves	theft of wolf, others too many to list	
F08	259	Torak, Renn, Bale	Norway, woodland,	outcasting by the clan, others too many to list	
F09	12	Earth, Water, trees, wolf, bear, buzzard, boar, aurochs	lake forest	man taking from the forest and animals, nature beating down on man, learning to respect nature	

F10	14	boy, mother, father, brothers	wildwood, stream, rock shelter	hunting, making clothes, p18 women's work	
F11	14	Lightfoot, father, mother, wiseman	sea shore, cliff, sea, forest	hunt, gather, make clothes, fishing, make boat, collect shellfish, killing a hunter, burning the forest	marooned at sea, sickness
F12	238	Torak, Renn, Bale	Norway, forest	quarrel over Renn, vengeance, others too many to list	
F13	240	Torak, Renn, Dark	Norway, mountains, cave	too many to list	
F14	368	Haizea, Alaia, Amets, Nekane, Kemen, Osane, Hodei, Itzal,	Scotland, river, beach, island	killing of Bakar by Basajaun, enmity of two Auk families, healing through reincarnation, too many to list	tsunami
F15	82	Estika	forest, lake, river, cave	hunting aurochs, respecting the carcass, healing a wound, eating eggs, setting traps, crossing clan boundary, capture, telling stories, collecting nuts and honey, exchanging captive for crystal, right of passage in cave	wounded by aurochs, forest fire, abandoned baby
F16	494	Ana	Doggerland, coast, sea, town, woodland, river, open land	too many to list	tsunami, sea level rise
F17	2	girl, brother, old lady, leader, eldest son, mother, father	Mellor, stream, hill, river, pool, waterfall, wood, clearing, coast, camp, family	making flint tool, cooking fish, cutting reeds, scraping a skin, catching fish, hunting a hare, trapping birds and fish, smoking food, moving to new site	weather colder and days shorter (season change)
F18	4	Carr	lake, woodland	searching for heating stones, eating berries, collecting bracket fungus, finding antler, making flint tool, fishing, paddling coracle, using headdress in hunting ceremony	

Appendix 24
Narrative elements found in fictional stories
Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites	GoodReads Rating	GoodReads Rated by	GoodReads Reviews	Amazon Rating	Amazon Reviews
F01		set in 7650 uncal bc	mountain as barrier threshold to a new life		3.4	5	n/a	n/a	n/a
F02	doubt over new way of life, preserving the old ways			Lominot, March Hill	n/a	n/a	n/a	n/a	n/a
F03					n/a	n/a	n/a	n/a	n/a
F04		set in 6000 BP			4.1	13,699	1,004	4.8	183
F05		set in 6000 BP			4.2	8,689	268	4.8	78
F06					n/a	n/a	n/a	n/a	n/a
F07		set in 6000 BP			4.3	6,436	211	4.9	66
F08		set in 6000 BP			4.3	5,420	172	4.7	61
F09		set 10,000 years ago			4.5	2	n/a	n/a	n/a
F10					n/a	n/a	n/a	n/a	n/a
F11		set 7,000 years ago	contrast with Neolithic artefacts and food		n/a	n/a	n/a	n/a	n/a
F12		set in 6000 BP			4.3	5,136	134	4.9	59
F13		set in 6000 BP			4.4	4,435	166	4.8	71
F14		set in 6150 BC			3.5	104	24	4.5	12
F15					4.3	47	7	5.0	10
F16		set in 7300 BC			3.5	578	77	3.7	14
F17		set in the Late Mesolithic			n/a	n/a	n/a	n/a	n/a
F18					n/a	n/a	n/a	n/a	n/a

Appendix 25
Narrative elements found in pictorial illustrations
Part A: characters, settings, actions and happenings

ID	Characters	People	M	F	Settings	Actions	Happenings
I01	men, women, children, fishers, gatherers	40	1	2	coast, rock shelters, group	fishing, collecting shellfish, carrying baskets of food home, cooking, eating, playing, talking, women cook, men hunt	
I02	men, women, children	23	2	5	cave with a river, group	cooking, carrying firewood, using painted stones, fishing, petting or feeding dog, carrying home a carcass, painting cave wall, playing, talking	
I03	hunter	1			woodland clearing	hunting with bow	
I04	hunters	3			edge of woodland, group	hunting with bow	
I05	men, women, children, fishers	16	2	4	open riverside, group	returning with fish, greeting the return, making tools, holding baby, dancing, fishing, boating, men fish, women dance	
I06	men, women, children	13	4	2	lakeside in woodland, group	felling tree, stripping bark, working antler, butchering elk, nursing baby, scraping hide, playing	
I07	men, women, hunters	8	3	2	lakeside in woodland, group	felling tree, working antler, cuddling baby, paddling boat, bringing back carcass, greeting	
I08	men, hunters	2	2		rock outcrop, group	hunting a bear with a bow	being attacked by a bear?
I09	men, women, children, hunters	11	2		open grassland, group	hunters returning with a kill, squatting by a fire	
I10	old man, women, baby	4	1	2	settlement of stone-walled houses, group	stretching hide, cooking meat, holding baby, talking	
I11	man	1	1		outside stone-walled house	flint knapping	
I12	women	2		2	outside stone-walled house, group	making clothing	

I13	man and boy, fishers	2	1		lake, group	fishing	
I14	men	2	2		lake or river, group	making and paddling dugout canoes	
I15	men and others, fishers	15	1		lake in woodland, group	sitting on platform, fishing from a boat, making a fish spear	
I16	men, hunters	5	3		lakeside, group	hunting deer, wearing headdress	
I17	men, women, children	15	4	1	lakeside in woodland, group	poling raft, felling tree, stripping bark, nursing baby, scraping hide, working antler	
I18	man, hunter	1	1		woodland	hunting deer in headdress	
I19	man, woman, girl	3	1	1	group	going fishing?	
I20	man, hunter	1	1		woodland	hunting deer, wearing headdress	
I21	men, women, fishers	12	7	2	lakeside, group	boats coming back, landing fish, carrying carcass,	
I22	men, child, others, fishers	6	3	1	camp by lake, group	fishings in boat, butchering deer, cutting timber, smoking fish	
I23	old man, men, women, child, hunters	18	5	3	coastal camp, group	making canoe, making spears, practising hunting, smoking fish, eating, carrying fish trap, tending a hide, cooking, at sea in boats, caring for child, talking, men make boat, tools and hunt, women cook and work skins	
I24	men, hunters	2	2		woodland, group	hunting a red deer wearing headdress using spears	
I25	old men, men, women, children	22	10	1	woodland settlement, group	watching a hunter dance, dance by fire miming a hunt wearing headdress	
I26	men, women, children, fishers, hunters	13	6	2	riverside camp, group	paddling canoe, fishing with spear, tending baskets, bringing home bird, donning face mask, sewing skins, scraping hide, flint knapping, working antler, making fire, men knap, make fire, hunt, make tools, women work skins, make clothes and deal with plants	
I27	man, others, hunters	4	1		lake in woodland, group	hunting elk with bows	
I28	men, women, children, baby	10	4	2	camp, group	tending fire, pounding food, nursing baby, carrying carcass, talking	
I29	men, hunters	3	3		woodland, group	hunting a red deer with bows and spear	
I30	men, women	5		1	camp, group	carrying prey home, scraping hide, weighting down tent, carrying basket	

I31	men, women	6			camp, group	carrying prey home, scraping hide, making spear, tending fire	
I32	adults, children, hunters	10			riverside clearing in woodland, group	hunter coming home, making a canoe, hunters going out, preparing fish	
I33	men, women	5	2	2	coast, group	building a house, setting posts, fixing the covering of bark, bringing wood	
I34							
I35	adults, hunters	2			riverside in woodland, group	hunters bringing home prey	
I36	generic	3			offshore island, group	paddling boat at sea	
I37	man	1	1			preparing to throw a harpoon	
I38	adults, children	12	2		cave, group	leaving to go hunting, scraping hides, sitting by fire	
I39	man	1	1		on water	paddling coracle with fishing net	
I40	woman	1		1	grave	artist reconstruction, burial	
I41	men, women, children	12	3	2	coastal plain group	moving camp, carrying possessions, walking	
I42	men, hunters	2	1		open riverside, group	hunting wild boar with bows	
I43	men, woman, gatherers	10	2	1	coast, group	collecting shells, carrying fish, fishing with spear, paddle boat	
I44	adults, hunters	2			group	hunting elk with bow and spear	
I45	men, women, children	22	6	3	coastal camp, group	tossing shells on midden, making fishing net, launching boat, working skins, cooking food, returning with bird, smoking fish, talking round fire, holding doll	
I46	women	3		2	group	talking, scraping hide	
I47	men	4	3		group	making canoe, hauling coracle	
I48	men, women, children, gatherers	17	3	5	woodland, clearing, group	hauling wood, collecting hazelnuts, talking	
I49	old man and boy	2	1		group	teaching flint knapping, talking	
I50	men and women	15	6	4	camp, group	greeting, cooking, eating, dancing, wearing headdress, peeking out of house, talking	

I51	men, women, children	17	6	6	grave, group	burying woman and baby, mourning, comforting, shaman ritual, wearing headdress	
I52	men and others	4	2		woodland, islands, sea, group	hunters looking back at home, talking	
I53	woman, adult, child, fisher	3		1	coast, group	plucking bird, bringing back fish	
I54	woman, adult, child, fisher	3		1	coast, group	plucking bird, bringing back fish	
I55	men, fishers	3	1		river, group	fishing with spears	
I56	men, women, children	11	5	6	open upland, group	making tools, talking, men and women sitting apart	
I57	old man, old woman, men, women, child	8	2	3	open upland, group	sitting by fire, scraping skin(other actions hard to tell), talking?	
I58	men hunting party	2	2		open upland	warming hands, talking	
I59					open land		
I60	old man, man, women, children	8	2	1	camp in woodland, group	working hide, making tools?, hard to make out	
I61	men and boys, Raven's Wing, True Arrow	4 – 6	3		open land with trees, group	father and son running away from angry other group	
I62	men, women, children, hunters, fishers	19	3	4	camp, group	cooking, sitting by fire, returning with fish, scraping hide, plucking bird, bringing home carcass, butchering, playing, others hard to make out, talking	
I63	women	2		2		processing plant fibres	
I64					estuary		
I65	men,women	3?	2	1	campfire	knapping and tool making	
I66	men, women, children	12	1		camp in clearing in woodland, group	sitting round fire, cooking, talking	
I67	man, fisher	1	1		woodland stream	fishing with spear	
I68	man, boy and others	12	1		woodland clearing, riverside, group	sitting by fire, playing with dog, crouching in reeds	
I69	men, women, child	9	3	2	coast, group	preparing food, checking fish trap, butchering, smoking fish	

I70	men, hunters	4	2		generic landscape, group	hunting deer	
I71	men	2	2		group	knapping, making microliths, hunting with bow or	
I72	men, women, fishers	5	1		riverside camp, group	scraping hide, carrying firewood, fishing and other, women cook, men hunt	
I73	man, woman, baby, children	5	1	1	woodland, group, spirits	children talking, looking after baby	
I74	man?, children	3			woodland, group,	roasting boar on the fire, talking	
I75	man, woman, children	4	1	1	spirits woodland, group,	making a fire	
I76	boy and other	2	1		spirits camp, group	sleeping	
I77	boy, adults, children	9	1		house interior, group	sleeping	
I78	father & son	2	1	1	group	teaching hunting with bow	
I79	boy	1	1		beaver trap	refusing to kill the beaver	
I80	boy	1	1		woodland	waking up under leaves	
I81	boy	1	1		cave	warmed by bear	
I82	men, women, children, gatherers, hunters	26	2	3	cliff foot settlement, group	playing with dog, smoking fish, looking after baby, collecting birds eggs, hunting birds, butchering seal, making tools? or cracking nuts?, talking?	
I83	man, father & daughter, fishers	3	2	1	sea, group	paddling, fishing with net	
I84	girl	1		1	sea boat	bailing	
I85	girl and adults	9	2	2	sea, group	rescued by other boat	
I86	father, mother, daughter	3	1	2	woodland clearing, group	watching the new farmers, talking	
I87	men	4	1		woodland, group	scraping hide, mending arrow, hanging meat, talking	
I88	man	1	1			firing bow	
I89	men, hunters	4	1		woodland, group	hunting red deer with bows	
I90	adult, woman, children, fishers	4	1		river, group	fishing in boat, sitting watching, playing?	

I91	men, women, children, fishers, gatherers	11	3		camp, group	cracking nuts, bringing back fish, cooking, coming back after collecting, practising bow	
I92	adults, child	11 – 13		1	open, coast, rock outcrop, group	returning with firewood, scraping hide	
I93	men, women, children	14	3	3	lakeside in woodland, group	felling tree, stripping bark, hunters heading off in headdresses, warming hands by fire, making antler and flint tools, scraping hide, watching hunters leave, maintaining bow, carrying spear, women scraping, men tool-making	
I94	boy, hunter	1	1		in boat at sea	hunting red deer	
I95	men, women, children	8	1	1	settlement, group	making boat, cooking, holding baby (other tasks hard to make out)	
I96	old man, men, women, children	21	9	5	camp, group	telling tales, bring home deer, building house, bringing firewood, tending fire, making tools, mending clothing, men carry game, make tools, women tend fire	
I97	man/boy called Helfeydd	1	1				
I98	man, Cheddar Man	1	1				
I99	men, women, children, hunters	16	1		lakeside in woodland, group	bringing home carcass, playing, flint knapping, wearing headdress, carrying baby, talking	
I100	men, women	5 – 8	4	3	group	hunting, bathing, talking	having penis drawn on forehead
I101	father, mother, daughter	3	1	2	shore, group	walking	
I102	men, women, children, gatherers	11	2	2	coast or estuary, group	collecting shellfish, attending fishing boat, in boat on water, carrying baskets, talking	
I103	man	1			loch	paddling back home in boat	
I104	boy, fisher	1	1			fishing with spear	
I105	men, women, child	12	4	2	coast, settlement, group, Doggerland	bailing, talking, staring	flooding of settlement
I106	children, others	6	1	3	coast, group	in boat, collecting on shore?	

I107	men, women, children, hunters	33	9	3	camp in woodland, group	knapping, making arrows, carrying baskets back to camp, scraping hide, butchering deer, bringing back carcass, making house, sitting talking, men make tools, bring game, women scrape skins	
I108	man and others	6	1	2	camp in clearing near coast, group	scraping hide, may be playing a whistle	
I109	men, woman, children, hunters	9	2	1	camp in open, group	scraping hide, bringing back animal, hunting deer, talking	
I110	too vague to identify	4 – 8			lakeside in woodland, group	too vague to tell apart from standing in boat	
I111	man and child	2	1		lakeside camp	looking at viewer, wearing headdress	
I112	man, woman	2	1	1	camp, group	eating, talking	
I113	man and others	3	1		woodland camp, group		
I114	men, boys, girl	7	3	1	open upland, group	flint knapping, repairing spear, tending fire, gazing out, returning with fish?	
I115	old man, men, women, children, fishers	25 – 28	5		riverside clearing in woodland, group	flint knapping, making canoe, smoking fish, butchering, paddling coracle, fishing, preparing food, talking, women cook, men make boat, knap and butcher	
I116	Torak	1	1			posing with bow	
I117	old man, old woman, men, women, children	18	3	2	woodland clearing, group	butchering deer, scraping hide, smoking meat, working fibres	
I118	man	1	1			knapping flint	
I119					low plain with hill slopes, Doggerland		
I120					estuary with low hills, Doggerland		
I121	man, woman, baby, other, hunters	4	1	1	coast, group	scraping hide, carrying basket, hunting birds with bow	
I122					camp		
I123					inside house		

I124	man, women, children	5	1	2	camp by river, group	making tool, scraping hide, others hard to make out – may be hunter bringing small animal, women scraping, men hunt	
I125	men, women (1 pregnant), child, gatherers	6	1	3	woodland camp, group	flint knapping, collecting berries, holding child, men knap, women gather	
I126	men, women?	8	2		cave, group	standing talking, being naked	
I127	men, women, children	10	2	2	open, group	walking	
I128	generic	1			camp	tending charcoal burning	
I129	generic	6	1	1	open, group	sitting by fire, standing talking	
I130	men, women, baby	6	3	2	cave overlooking farm, group	nursing baby, gazing at farmers, talking	
I131	man, adults, child	17	2		camp in open in snow, group	butchering, cooking, playing with dog, carrying meat or hides, making tool or paint?, talking	

Appendix 25
Narrative elements found in pictorial illustrations
Part B: items described, special features and Mesolithic sites

ID	Clothes	Houses	Tools	Special features	Sites
I01	loincloth, naked, barefoot	rock shelter	bow, spear, bowl, fishing line	men shown with hunting gear, gathering being done by women and children, fishing by boys	Sierra de Sintra
I02	loincloth, naked, barefoot	cave, domed	spear, fishing rod, bowl, painted pebbles	old man? and woman watching the scene	Mas d'Azil
I03	naked, barefoot		bow, quiver	gender ambiguous, depicted from the rear	
I04	naked, barefoot		bow		
I05	loincloth, naked, barefoot	domed	fishing rod, logboat, basket		Muge
I06	loincloth, skins, naked, barefoot		axe		Star Carr
I07	loincloth, skins, naked, barefoot	lean-to	axe, spear, logboat		
I08	loincloth, barefoot		bow	little clothing unless skin loincloths	
I09	loincloth, barefoot		bow, spear, axe	little clothing unless skin loincloths	
I10	loincloth, skin dress, barefoot	stone wall, pitched roof		little clothing unless skin loincloths	
I11	loincloth, barefoot	stone wall		little clothing unless skin loincloths	
I12	tailored, barefoot	stone wall			
I13	loincloth, barefoot		fishing line	little clothing unless skin loincloths	
I14	loincloth		logboat, adze	little clothing unless skin loincloths	
I15	tailored, shoes	upright wall domed roof	logboat, spear, axe	others too small to make out gender and age	based on Star Carr?
I16	skins, barefoot		spear, headdress		Star Carr
I17	loincloth, skins, naked, barefoot	A-frame	axe, raft	a variant of Sorrell01a, good example of marginality of women, discussion of this image by Catling in CA 285: 37	Star Carr
I18			spear, headdress		
I19	skins, shoes, barefoot		axe, net, spear, satchel		

I20	loincloth, barefoot		spear, headdress		
I21	skins, barefoot		logboat, net		Star Carr
I22	loincloth, tunic, barefoot	lean-to ridge tent, skins	axe, logboat, spear		Star Carr
I23	tailored, barefoot	conical, skins	bow, spear, logboat, basket, adze, knife, quiver, fish trap, plate		Nab Head
I24	tailored, barefoot		spear, headdress, pouch	presented as alternative interpretation to Bryce	
I25	tailored, shoes, barefoot		spear, headdress, knife	presented as alternative interpretation to Bryce 01, most of the watchers are male	
I26	loincloth, skins, barefoot	domed	bow, spear, logboat, basket, net, headdress		
I27	tailored, shoes		bow, axe		Poulton?
I28	skins, barefoot	domed, branches	bowl		
I29	tailored, shoes		bow, spear, axe		
I30	tailored	A-frame, skins	basket, bow		Kinloch
I31	tailored	domed, branches, skins			Kinloch
I32	tailored	domed, skins	bow, quiver, spear, logboat, adze		
I33	tailored, shoes	oval A-frame, bark	axe		
I34			bow, spear, basket, cup		
I35					Scotsraig
I36		one domed, one conical	logboat		Burn Morton
I37	tailored		spear		
I38	tailored	cave			
I39	tailored		coracle, net, spear, satchel		
I40	tailored, shoes		bow, paddle	woman but shown with bow and arrows	Vedbaek
I41	tailored, shoes		spear, bow, satchel, basket, carry frame		Morar
I42	tailored, shoes		bow, quiver		Morningside

I43	tailored, shoes		logboat, spear, satchel, fish		Firth of Forth
I44	tailored		bow, spear	good example of assumption of man	
I45	tailored, patterned	domed, skins	spears, net, logboat, toy, basket		
I46	tailored, patterned, shoes				
I47	tailored, patterned		coracle, logboat, adze		
I48	tailored		basket	men seem to collect the wood while women collect the nuts	
I49	tailored, shoes			assume boy but could be girl	
I50	tailored		headdress		
I51	tailored, patterned		bow, headdress, casket		
I52	tailored		satchel	small figures in camp could be interpreted as woman and child	
I53	tailored	windbreak			Fife Ness
I54	tailored	windbreak			Fife Ness
I55	tailored		spear		Wood Hall
I56	tailored	windbreak	bow, satchel		Lominot
I57	tailored, shoes		bow, satchel, quiver		March Hill Carr
I58	tailored		bow, quiver		March Hill
I59		domed, skins			Top Combe
I60	tailored, barefoot	domed, branches, skins	basket		Bestwall
I61	tailored, shoes		bow		Malham Tarn
I62	tailored	conical, thatch, porch	spear		Howick
I63	tailored, patterned, shoes				Sands of
I64					Sands of
I65	tailored, patterned, shoes		satchel, bowl	a woman knapping	Sands of
I66	tailored	domed, skins	spear, basket		Broadway
I67	tailored		spear		

I68	skins		basket, fish trap?		Heathrow
I69			logboat, fish trap		
I70	tailored, patterned, shoes		bow, spear, quiver		
I71	tailored, patterned, shoes		bow, spear, quiver		
I72	tailored, shoes	conical, skins	bow, quiver, basket		Scottish Borders
I73	tailored, patterned, shoes		crib		
I74	tailored, patterned, shoes		spear		
I75	tailored, patterned, shoes		bow, quiver		
I76	tailored	conical, skins	plate, bowl, cup		
I77	tailored, patterned	round pitched roof	basket, quiver		
I78	tailored, patterned, shoes		bow, quiver, knife		
I79	tailored, patterned		axe		
I80	tailored				
I81	tailored, patterned		bow, net, quiver, spear, snare		
I82	tailored, patterned, shoes	conical skins, pitched roof	snare, basket, bow, crib, quiver		
I83	tailored, patterned		logboat, spear, net		
I84	tailored, patterned		logboat, pail		
I85	tailored, patterned		logboat, pail		
I86	tailored, patterned, shoes		bow, satchel, rucksack, quiver, knife		
I87	tailored, patterned, shoes	(partial view) branches	arrow		Horsham
I88	tailored		bow		
I89	tailored, patterned, shoes		bow, quiver		Horsham
I90	cloak, barefoot		logboat, basket		River Arun
I91	skins, shoes, barefoot	domed	satchel, bow		
I92	tailored	lean-to	basket, satchel		Sand
I93	tailored, loincloth, barefoot		bow, headdress		Star Carr

I94	skins		bow		
I95	skins, barefoot	domed, skins	logboat, adze		
I96	tailored, patterned, shoes, barefoot	conical, skins	spear, digging stick		
I97	tailored		spear, axe		
I98	loincloth		bow, spear, knife		
I99	skins, barefoot	A-frame	headdress		Star Carr
I100	tailored	cave	spear		
I101	tailored, barefoot		knife		Lunt Meadows
I102	tailored, barefoot	domed	logboat, basket, spear, net, pouch		Orkney
I103			logboat, spear	probably male but from behind	Loch Scresort
I104	loincloth, barefoot		spear		
I105	tailored	conical	spear, basket		
I106	tailored, barefoot		spear, logboat		
I107	tailored, shoes, barefoot	domed	bow, basket, hoe/adze, quiver		Holyrood
I108	tailored	conical, porch			River Forth
I109	loincloth, skins	conical	spear		
I110		conical	logboat		Star Carr
I111	tailored, patterned	conical, rushes	headdress		Star Carr
I112	tailored, barefoot	pitched roof			
I113	tailored	conical with porch			
I114	loincloth, barefoot		spear, pouch, logboat	rare woman hunting	
I115	tailored, shoes, barefoot	domed	logboat, coracle		fictional Raven camp
I116	tailored, shoes, barefoot		bow, axe		
I117	tailored, shoes		tub		
I118	tailored				

I119		conical, porch, skins			Doggerland
I120		conical, porch, skins			Doggerland
I121	tailored	conical, porch	bow, logboat, basket	Artist - "a family engaged in various everyday activities that would have occurred at just such a coastal settlement during this period"	East Barns
I122		domed, skins	logboat, coracle, fish trap		
I123			basket, fish trap, spear, shelf, plate		
I124	tailored	pitched roof, bridge	spear, bowl		Halesworth
I125	loincloth, skin dress, barefoot	domed, skins	satchel, net		
I126	tunic, naked, barefoot	cave			
I127			basket, satchel		
I128		domed, branches?			
I129		cave	basket		
I130	naked, barefoot	cave			
I131	tailored, shoes	conical, bone and skins	spear	seems more Upper Palaeolithic with mammoth tusk houses	

Appendix 26

Narrative elements found in television programmes

Part A: characters, settings, actions and happenings

ID	Length	Characters	Settings	Actions	Happenings
TV01	60 mins	hunter-gatherers, cavemen	cave, gorge	making smaller tools and setting flints in bone and wood	
TV02	50 mins	nomads, settlers not wanderers, hunters, hunting group, men, women and children, family and may be neighbours, settled community	fresh water stream, woodland, coast, cliff edge, house	people returned to Britain, wandering, search for food, building tents, leaving rubbish behind, roasted hazelnuts, make decisions, perform tasks, scraping fat off hide or boring hole in wood, use of bow and arrow, hunting, stalking, inventing new weapons, firing the woodland to modify it, create clearings, people heading out into salt marsh, gathering eggs, reach Denmark by dugout canoe, making art on bone, shaman contacting spirit world, carving amber figurines, wearing headdress for hunting rituals, bringing back hides, fur from animals, staying all year round, eating food, storing food, build house, marking place with burials, covering shelters with hides, returning to same spot, equipping burials for next world?, killing a man, sacrificing others to go with the burial, domestic violence, territoriality, strangers seen as threats, make string for tying timbers from plant fibre, harvest wood, chop it, plan ahead to coppice, harvest grass for roof, sleep by the wall of the house, people walking along the rocky shore, people entering and in the house, making fire and string	climate warming, ice melted, seas rose, forests grew, animals returned, rising waters changing the shape of Britain
TV03	30 mins	hunters	oak forest, salt marsh	making tools, hunting animals, walking across the land	ice melting, flooding, oak forest replaced by salt marsh, land rising – rebound in north and sinking in south

TV04	60 mins	hunter-gatherers, fishers, families, a family, children	campsite, island between rivers, salt marsh, reed beds, trees, rivers	moving about nomadic, woodworking, chopping down trees, hunting, working flints, getting raw materials for tools, carrying everything, throw away waste from tool making, making and resharpening tools, hunt, cut, drill, woodworking, butchery, scraping, engraving, walking across landscape in mud, moving following game, using canoes, standing in animal dung, children playing running around, eat hazelnuts and throw away in fire, spitting seeds into fire, cooking, hunting	climate warming, rising sea levels
TV05	60 mins	hunter-gatherers, bands, child	river, forest, shelters, caves, camps	walking banks of river, hunting, nomadic seasonally, child being born, using sphagnum moss to wipe off the birthing, as absorbent and antiseptic dressing, as sanitary towel, as nappy, as bubble wrap, making tools, use fungus for tinder, making fire, dig up and bake celandine root, hungry child crying, hunting with bow, using canoes, tracking prey, treating prey with respect, antlers, eyeball juice glue, bones, skins for clothing and bags and ropes, flint blade for skinning the deer, tendons for sinew thread, butchering with flint, cooking food, collecting shellfish, carrying fire in fungus, throw shells onto midden, using caves and shelters, making headdress for use in hunting or dancing and religion, calling up stag's masculinity	
TV06	60 mins	women, men, hunter-gatherers, child, elders, ancestors	swamp	eating wild foods, digging for roots, eating insects, gather, hunt, singing and dancing of plants and gathering, learn from elders, knowing the right time and place for plants, making links with ancestors, gathering and cooking water lilies, making bags, using dyes and medicines, keeping fire alight, burning the forest, butchering, processing poisonous foods, using shell slicer, handing down knowledge through stories and spiritual traditions, men hunting, women gathering	
TV07	60 mins	hunter-gatherers	coast, woodland, rock shelter	eating plants and snails, knapping flint, preparing food, walking the coast, making fire, trading pyrites inland, catch and cook fish, moving to resources, fishing with spear and trap, prepare fish, butcher animals, respect the animals, picking berries, adding honey to juice, making pestle, processing and cooking roots, collect and cook shellfish, make fire, throw away shells, testing for poisonous food, make clothes, make lanterns, repeat visiting shelter	

TV08	60 mins	hunter-gatherers	waterways, marsh, swamp, lake, trees at edge, estuaries	paddling canoe, spearing and cooking fish, gathering – preparing – cooking – eating cat tails and nettles and water lily, boiling water with rocks, making string, carrying tinder, making fire, burning reeds, cooking eggs, having mental map of resources in the landscape, hunting, fishing, teaching children, hearing ancestors voices in echoes, concentrating, making and mending spears	changing water levels, beavers felling trees and flooding forest, rainfall sediment clouding river
TV09	60 mins	forebears, hunter-gatherers	woodland	tracking game, hunting, gather prepare and cook foods, knapping flint, making bow and arrows, following animal, using dogs to hunt, learn from wolves, working together, reading the landscape through the mind of the deer, becoming at one with the animal and respecting it, butchering deer, taking carcass to camp, process meat, waking up in morning sun, gather, process and eat berries, gather and eat ants, hearing animals, make connection with the places they spent time in,	
TV10	60 mins	hunter-gatherer ancestors, 13 year old, uncle	woodland, chalk stream	camping, feasting, make cordage, baskets and use for medicine, gather process and cook food, move to resources, making boats, make string, preserve fruit for storage, making baskets, learn to tell poisonous mushrooms and plants, roasting hazelnuts to eat or store, scraping arrowshaft, travel in boats, walk through forest, making skewers, cooking boar and crayfish, celebrating shooting first boar	
TV11	60 mins	hunter-gatherers, parents, children, ancestors	Doggerland, lake edge, rivers, lake, hills, fly-ridden marsh, forest	walk to Denmark and towards chalk cliffs, people return to Britain, working antler, sitting on wooden platform, make tools, clothes and shelter, shaping macehead, pushing flint and charcoal on ashes of fire, retreat from the sea, burning woodland, intensify land use, social interaction, witness environmental change, wood-working, push post into ground	climate warming ice melt, lobster digging out burrow, rising sea level, becoming British

TV12	55 mins	group of hunters, men, women and children, hunter-gatherers, hunters, Cheddar Man in his 20s, recolonisers, small communities	forest	nomadic, understanding and connecting to environment, return to Britain, working flint, making fish spear, born and live and die in one area, having infection or injury or disease, fever and death, flint knapping, making tools, make shelter, make tools make fire, fishing, butcher animal, sew clothes, bring animal bone, move island to island, roasting hazelnuts for storage, collect and discard shellfish, using medicines, moving with the seasons, hunting disguise, ritual ceremony, transform into deer or hybrid	subject to natural hazards – bad winter, hard year, times of extreme pressure and difficulty, ice melt, sea level rise, new animals and plants, cut Britain off as an island, tsunami (tide going out then a wind then noise), dismembered by the wave killing indiscriminately
TV13	60 mins	hunter-gatherers, hunters	lakeside, Doggerland, rivers, lakes, delta, woodland, shallow islands	nomadic, building house, being born and brought up in a place, identifying with the land, cook salmon children learning, heating water, washing with soapwort, gnawing bone, sit round fire, hunt animals, make needles, nets and clothes, working together, wood-working, making planks, organising work, changed their view of nature and the sea, make headdress, use hallucinogens, enter spirit world, wearing headdress, stalking, becoming deer, change way of life, managing woodland by burning, intensifying land use, seeing cousin disappear	tsunami, making Britain an island, glaciers melt, climate warms, climate change, crustal uplift, earthquake, melting ice caps, rising sea level, Lake Agassiz emptying
TV14	45 mins	caveman, hunter-gatherers	forest, camp, group	butcher deer, make fire, gather water, dig latrine pit, dig roots, cook meat, taking leadership role, initial training	bitten by midges/mosquitoes, fly infestation of the meat
TV15	45 mins		forest, camp, group	work as team, plan ahead, get firewood, group meeting and discussion, need to compromise for the group, prepare acorns and cordage, setting traps for animals, cleaning meat, make ladder, roofing hut, resting, eating, catching poisonous animal, arguing, foraging plants, making bed, getting lost, collecting animal bones for tools, trying to strip birch bark, cleaning camp, defecating in camp, evening meals, sleeping	rain coming into hut, bitten in night, fire going out overnight
TV16	45 mins		forest, camp, lake, group	thinking of food, washing in lake, expedition to lake, making line and hook to fish, eating earthworm, cracking nuts, foraging food, collecting firewood, making fish traps, catching crayfish, marking route, arguing, preparing acorns, making cord, sitting around, sleeping	being exhausted by day 6, cold night hard to sleep, falling ill

TV17	45 mins		forest, camp, lake, group	taking charge of a task, working or not for the group, prioritise, avoid wasting effort, take embers for a fire, check and make traps, line fishing, walking to lake, catch crayfish by hand, catching mouse, throw up with food poisoning, carving spoons, illness, make cordage, improving and making shelters, arguing, sleeping	heavy rain, poor hygiene, malnourishment, getting bitten
TV18	45 mins		forest, camp, group	warm hands with hot rock, better training in skills, killing rabbit, make fire, work as a team or work alone, one disrupting team	early winter, snow
TV19	45 mins		forest, camp, lake, group	leadership – manage, plan and strategise, make fire, process willow bark, process deer meat, group decision against leader, respect experience, stash meat joints in tree, exercising natural versus assumed leadership, work together, making food last, getting lost, catching crayfish, expedition to lake, feeling wanted, contributing to the group, losing a hunter imperils group, catching and killing turtle, collect wood and water, forage for roots, feeding dog	falling ill, disharmony affecting group
TV20	45 mins	hunters, gatherers	forest, camp, lake, group	go to lake, forage, digging roots, hunting, build communal bed, making mattress and bedding, setting snares, getting up at night to tend fire, staying in bed rather than working, stocktaking and rationing food, spilling the honey, checking traps, hearing animals nearby camp, training in archery, burning bed by accident, going on first hunt with bow, following tracks, wanting to be the man he wants his daughter to see, getting disheartened, women being miserable	mouse eating their nuts
TV21	45 mins		forest, camp, lake, group	setting snares, making cordage, hunting, setting snares, foraging roots and sloes, discussing rations, rationing food, digging roots, eating earthworms, making pemican, eating, go to lake, catch crayfish and fish	losing weight, tiredness, exhaustion
TV22	45 mins		forest, camp, group	eating worms, build ambush hide, make torch, dispute over sexual assault, group tribunal decision to expel, sleeping	falling ill, exhaustion
TV23	45 mins	caveman	forest, camp, lake, group	collect firewood, forage, clean camp, picking mushrooms, making cave paintings, trip to lake, eat feast around bonfire	ice overnight
TV24	6 mins	ancestors	lake edge, island	hunting, killing horses, coming in boats, taking away meat joints, piercing hide, cutting meat, holding tool in leather cloth	changing climate and environment

TV25	60 mins	settlers, hunter-gatherers, families and extended networks, aged 10, first Britons	Doggerland, rivers, lakes, woodland, spring	thinking ahead, planning, walking, importing wheat, social networks, making harpoon, making bead, dressing up, burning woodland clearings, piercing clothing, scraping skins, hunting, corral animal into water to trap it, coming to site from wide area, returning to site, women marrying into farming groups, adapt to farming, hunted, gathered, feasted, made jewellery, traded, managed the landscape	sea level rise, melting ice, temperature rise, growth of vegetation and forest, flints turning pink, changing environment, constant change, climatic cooling, flooding, tsunami, sever link with continent
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Appendix 26

Narrative elements found in television programmes

Part B: judgements, descriptions, special features and Mesolithic sites

ID	Judgements	Descriptions	Special features	Sites	IMDB rating
TV01	beautifully made tools		mostly Palaeolithic, only a short mention of the Mesolithic	Cheddar – Gough's Cave	7.8 by 5 users
TV02	a violent time not all peaceful, had a good life well fed and nourished but . . . , use of bow and arrow revolutionised hunting		nothing like this found before in Britain or NW Europe, remarkable for being so old, oldest intact settlement found in Britain, fascinating insight, new, important discovery, not only live within the environment but changing it well before agriculture	Howick, Severn estuary, Vedbæk	n/a (series 8.2 by 20 users)
TV03				Bouldnor Cliff	n/a (series 8.1 by 17 users)
TV04	way of life unlike any other, not unsophisticated, evocative, remarkable, incredible, leaving little impact on environment, not savages living on the verge of starvation but sophisticated hunter-gatherers in tune with their environment, liking the	no permanent structure			8 by 6 users
TV05	highly sophisticated tools, incredible craftsmen, spiritual and artistic, not eking out a living on the edge, highly practical lifestyle	smells and sounds		Star Carr	n/a (series 8.5, by 162 users)
TV06	acute memory and attention to detail	men hunting, women gathering, fire giving sense of place and social focus	ethnography of relevance to British Mesolithic		n/a (series 8.5 by 90 users)

TV07	complex way of life, living with and alongside nature without destroying it, a lot to teach us	importance of smell and taste			n/a (series 8.5 by 90 users)
TV08		tastes	special atmosphere of place, water important for spiritual renewal and contemplation		n/a (series 8.5 by 90 users)
TV09	diet very healthy and fitting our physiology, not scraping a living, using all of a rich environment	hunting as male part of life, taste			n/a (series 8.5 by 90 users)
TV10	sense of community, people thriving	flavours, sounds of laughter			n/a (series 8.5 by 90 users)
TV11				Star Carr, Bouldnor Cliff, Goldcliff, North Sea	n/a
TV12	defying the odds in a hostile world, intrepid, finely worked, delicate, lived close to nature lightly on the land, leading isolated lives, astonishing, feeling a part of nature, enveloped and depending on it spiritually, cataclysmic, people surviving against odds, poignant and intimate footprints		smell of hide and burning antler ripping the veil aside, people different and special	Cheddar, Coll, Colonsay, Oronsay, Islay	7.8 by 5 users
TV13	phenomenally destructive, horrific, sophisticated, defining moment in history, complex, astonishingly rich, sensational find, fascinating, fantastic land of plenty, enjoyable lifestyle, finely craft and more advanced gadgets, more spirituality than today, greater awareness of the natural world, culture full of magic and mysticism	people suffering trauma, hard to imagine		Montrose, Star Carr, Inverness, Severn estuary (Goldcliff), North Sea	n/a
TV14	better at exploiting environment, efficient, organised	hostile landscape, extreme weather			n/a (series 6.3 by 30 users)

TV15					n/a (series 6.3 by 30 users)
TV16					n/a (series 6.3 by 30 users)
TV17	Mes man no moans and in equilibrium with their environment which we've lost				n/a (series 6.3 by 30 users)
TV18					n/a (series 6.3 by 30 users)
TV19	may be modern day man can't do living as a group				n/a (series 6.3 by 30 users)
TV20	no proper relationships, women must have been miserable, all work work work, can't looked very nice, gruelling work				n/a (series 6.3 by 30 users)
TV21	have total respect for the Stone Age ancestors, more intelligent than us, failure feels like letting everyone down and being a burden to	first hunt as rite of passage			n/a (series 6.3 by 30 users)
TV22	the group				n/a (series 6.3 by 30 users)
TV23	sloes as “caveman crack”, all work and no play due to the incessant search for food and firewood				n/a (series 6.3 by 30 users)
TV24	important, exciting, rare, unique		rewriting the record	Flixton Island	n/a (series 8 by 28 users)

TV25	sophisticated, intelligent and adaptable manipulating the environment, in touch with landscape, hardy and adaptable, thrived, respect for them, just like us just as intelligent, coping with environmental change, surviving, flourished, ancient, culturally complex, laid the foundations for the modern age		game changing evidence of wheat	Bouldnor Cliff, Blick Mead, Goldcliff, Montrose, North Sea	n/a (series 8.7 by 675 users)
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Appendix 27
Analysis of communication channels: web-pages
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individual
Wp03					x			
Wp04					x			
Wp05					x			
Wp06					x			
Wp07					x	x		
Wp08					x			
Wp10					x	x		
Wp11						x		
Wp13					x			
Wp16					x			
Wp18						x		
Wp19					x			
Wp20					x			
Wp21			x	x		x		
Wp25					x			
Wp26						x		
Wp27					x			
Wp30					x			
Wp33					x			
Wp35					x	x		
Wp36						x		
Wp38					x		x	yes
Wp39					x	x		

Wp40					x			
Wp41					x			
Wp42					x	x		
Wp43					x	x		
Wp45							x	
Wp46		x	x	x				yes
Wp47					x	x		
Wp50					x			
TOTAL	0	1	2	2	24	12	2	2
%	0.0	3.2	6.5	6.5	77.4	38.7	6.5	6.5

Appendix 27
Analysis of communication channels: web-pages
B: settings

ID	woodland	wet	coast	river	lake	island	marsh	dry	upland	open	people	camp
Wp03	x											
Wp04	x			x								
Wp05												x
Wp06											x	
Wp07	x											
Wp08			x	x					x			x
Wp11	x										x	
Wp13	x											
Wp15	x											
Wp16	x	x										x
Wp18			x	x	x			x				x
Wp19	x	x		x								
Wp20	x				x							x
Wp21	x		x			x						x
Wp24	x			x								
Wp25	x		x		x			x				x
Wp26	x											x
Wp27				x								
Wp29											x	x
Wp29											x	x
Wp30												x
Wp31	x						x					x
Wp32	x			x								x

Wp33			x									x
Wp34	x										x	x
Wp35	x			x							x	x
Wp36	x		x		x							
Wp37	x			x								x
Wp39	x											x
Wp40	x		x	x								x
Wp41	x				x							
Wp42	x											
Wp43												x
Wp44												x
Wp47	x											x
Wp49	x									x		
Total	25	2	7	10	5	1	1	2	1	1	6	22
%	69.4	5.6	19.4	27.8	13.9	2.8	2.8	5.6	2.8	2.8	16.7	61.1

Appendix 27
Analysis of communication channels: web-pages
C: actions (1)

ID	Finding food					Food preparing		In settlements				Use dogs
	Hunt	Gather	Fish	Farm	Control animals	Make food	Store food	Make camp or house	Fire	Defecate	Midde n	
Wp01	x			x								
Wp02												x
Wp03	x	x	x									
Wp04							x					
Wp05								x				
Wp06	x											
Wp07	x	x						x				
Wp08	x					x						
Wp09	x	x										
Wp10	x	x										
Wp11	x	x						x				
Wp12	x	x	x									x
Wp13												
Wp16	x	x	x					x				
Wp18	x	x	x								x	
Wp19	x	x									x	x
Wp20	x							x				
Wp21	x									x		
Wp22												x
Wp23		x										
Wp24	x	x	x					x				

Wp25	x	x	x					x			x	
Wp26	x	x						x				
Wp27	x							x	x			
Wp29	x				x							
Wp30	x	x						x				
Wp31	x	x										
Wp32								x				
Wp33	x				x							
Wp34	x		x	x					x			
Wp35	x	x										
Wp36	x	x	x									
Wp37	x											
Wp38	x							x				
Wp39	x	x	x					x				
Wp40	x	x	x									
Wp41	x											
Wp42								x				
Wp43												
Wp44												
Wp45								x				
Wp46	x											
Wp47	x	x										
Wp49	x											
Wp50								x				
Total	33	20	10	2	2	1	1	16	2	1	3	4
%	73.3	44.4	22.2	4.4	4.4	2.2	2.2	35.6	4.4	2.2	6.7	8.9

Appendix 27
Analysis of communication channels: web-pages
D: actions (2)

ID	Making tools			Make clearing	Movement					Social actions			Ritual	Art Make art
	Make tools	Work wood	Work skins		Mobile	Walking	Return	Sail	Stay	Fight	Burial	Play		
Wp01	x													
Wp02		x												
Wp03														
Wp04					x									
Wp05	x	x		x	x									
Wp06	x													
Wp07					x									
Wp08	x				x									
Wp09														
Wp10	x	x												
Wp11	x				x			x						
Wp12														
Wp13	x								x	x	x		x	
Wp16					x									
Wp18	x													
Wp19	x			x	x									
Wp20				x	x									
Wp21					x	x								
Wp22														
Wp23	x													
Wp24	x				x									

Wp25	x		x	x	x									
Wp26				x	x									
Wp27	x													
Wp29					x									
Wp30					x									
Wp31	x													
Wp32														
Wp33														
Wp34		x		x	x					x	x			x
Wp35			x		x					x	x			
Wp36														
Wp37	x													x
Wp38	x													
Wp39	x			x	x									
Wp40														
Wp41	x												x	
Wp42					x									
Wp43														x
Wp44	x				x									
Wp45	x													
Wp46												x		
Wp47	x	x		x			x							
Wp49				x										
Wp50		x			x									
Total	21	6	2	9	20	1	1	1	1	3	3	1	2	3
%	46.7	13.3	4.4	20.0	44.4	2.2	2.2	2.2	2.2	6.7	6.7	2.2	4.4	6.7

Appendix 27
Analysis of communication channels: web-pages
E: happenings

ID	Sea level	Land rise	Warming	Melting	Woodland	Island	New animals	Tsunami	Population rise
Wp03	x		x			x			
Wp04	x		x	x		x			
Wp05	x				x	x			
Wp07	x	x							
Wp08	x		x			x			
Wp11	x		x			x			
Wp13	x				x	x			
Wp16	x		x		x	x			
Wp18					x		x		
Wp19	x		x		x	x	x		x
Wp20			x		x		x		
Wp21	x								
Wp25	x		x		x	x			
Wp26	x		x		x				
Wp29	x		x		x	x			
Wp30			x		x			x	
Wp31					x				
Wp33	x								
Wp34	x		x		x				
Wp35	x		x		x	x	x		x
Wp39	x		x		x	x			
Wp43			x						

Wp47	x		x			x	x		
Wp49	x					x			
Wp50	x								
Total	20	1	16	1	14	14	5	1	2
%	80	4	64	4	56	56	20	4	8

Appendix 28
Analysis of communication channels: blogs
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individuals
B02					x			
B05					x			
B06					x			
B07					x	x		
B08					x			
B09	x							yes
B10					x			
B12					x			
B13					x	x		
B18		x						
B19		x			x	x		
B20		x	x	x		x		
B21					x			
B22		x						
B26					x			
B28		x	x		x			yes
B29					x			
B31					x	x		
B38							x	
B40	x							yes
B41					x			
B43					x			
B47							x	
Total	2	5	2	1	16	5	2	3
%	8.7	21.7	8.7	4.3	69.6	21.7	8.7	13.0

Appendix 28
Analysis of communication channels: blogs
B: settings

ID	woodland	sandbar	river	lake	wet	marsh	dry	open	people	camps
B04										x
B07	x		x							x
B09	x			x	x					
B11										x
B13	x									x
B14									x	
B16										x
B19										x
B20		x				x				
B22										x
B29										
B30				x				x		
B31										x
B32	x							x		x
B34			x							
B35										
B40										
B41									x	
B45							x			
B48	x			x						
Total	5	1	2	3	1	1	1	2	2	9
%	25.0	5.0	10.0	15.0	5.0	5.0	5.0	10.0	10.0	45.0

Appendix 28
Analysis of communication channels: blogs
C: actions (1)

ID	Finding food				Food preparation			In settlements			Use dogs	Making tools					
	Hunt	Gather	Fish	Farm	Dry or smoke	Roast	Eat	Make camp or house	Make fire	Midden		Make tools	Invent new	Raw material	Knap	Work wood	Skins
B02																	
B05																	
B06																	
B07	x	x	x		x			x				x			x		
B10												x	x				
B12												x		x			
B14			x														
B14																	
B16								x									
B18	x																
B19																	
B20		x	x	x													
B21																	
B22								x									
B23						x		x				x					
B28										x							
B29							x									x	
B31	x		x				x					x		x	x	x	x
B32	x							x				x		x			
B37							x	x									

B38	x	x	x														
B39				x				x			x		x				
B40	x							x									
B41																	
B43	x															x	
B44												x					
B45																	
B47				x													
B48	x	x	x						x			x					x
B49																	
B50								x								x	
Total	8	4	6	3	1	1	4	8	1	1	1	8	2	3	4	2	2
%	25.8	12.9	19.4	9.7	3.2	3.2	12.9	25.8	3.2	3.2	3.2	25.8	6.5	9.7	12.9	6.5	6.5

Appendix 28
Analysis of communication channels: blogs
D: actions (2)

ID	Make clearing	Move				Social actions						Religion			Make art	Other
		Mobile	Migrate	Stay	Boat	Fight	Compete	By gender	Network	Marry	Play	Ritual	Burial	Calendar		
B02			x													
B05			x													
B06			x													
B07																
B10									x							
B12																
B14										x						
b14										x						
B16		x														
B18																
B19												x		x		
B20								x			x					
B21										x						
B22																
B23																
B28			x			x	x						x		x	
B29	x											x				
B31																
B32																
B37																
B38																

B39		x		x												
B40			x													
B41			x		x							x				
B43					x						x					
B44																
B45																driving posts into the ground
B47													x			
B48	x											x	x			
B49												x	x		x	
B50																
Total	2	2	6	1	2	1	1	1	1	3	1	5	5	1	2	1
%	6.5	6.5	19.4	3.2	6.5	3.2	3.2	3.2	3.2	9.7	3.2	16.1	16.1	3.2	6.5	3.2

Appendix 28
Analysis of communication channels: blogs
E: happenings

ID	Sea level	Warming	Melting	Woodland	Island	New food
B28	x					
B30	x					
B31	x			x	x	
B34	x					
B39		x				x
B40			x			
B46	x					
Total	5	1	1	1	1	1
%	71.4	14.3	14.3	14.3	14.3	14.3

Appendix 29
Analysis of communication channels: YouTube videos
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individual
V01					x			
V02		x						
V04					x			
V05	x	x	x	x	x			yes
V07					x	x		
V08		x					x	
V13					x			
V15					x			
V17					x			
V20							x	
V21					x			
V22					x			
V26		x						
V27					x			
V29					x			
V30					x			
V33					x	x		
V36						x		
V38							x	
V40		x	x					yes
V42							x	
V47						x		
Total	1	5	2	1	13	4	4	2
%	4.5	22.7	9.1	4.5	59.1	18.2	18.2	9.1

Appendix 29
Analysis of communication channels: YouTube videos
B: settings

ID	woodland	coast	river	lake	marsh	upland	open	caves	people	camp
V01		x	x					x		
V03			x	x					x	
V05	x		x				x			
V06	x									
V07	x	x	x			x				x
V08					x					
V11				x						
V13	x							x		
V15	x									
V21		x								
V23	x									
V27			x							
V30	x									
V33		x								
V38	x	x								
V48	x		x							
Total	9	5	6	2	1	1	1	2	1	1
%	56.3	31.3	37.5	12.5	6.3	6.3	6.3	12.5	6.3	6.3

Appendix 29
Analysis of communication channels: YouTube videos
C: actions (1)

ID	Finding food				Food prep./ use			In settlements			With animals		Making tools					
	Hunt	Gather	Fish	Farm	Butcher	Cook	Eat	Make camp or house	Make fire	Sleep	Control animals	Use dogs	Make tools	Invent new	Raw material	Knap	Canoes	Pottery
V01	x	x	x	x				x				x	x	x				x
V03								x					x	x				
V04													x			x		
V05	x				x			x					x					
V06																		
V07	x		x															
V08													x					
V09						x	x											
V10								x					x		x			
V11			x															
V12	x		x	x									x				x	
V13	x																	
V14								x										
V15								x										
V16								x					x					
V17	x	x						x					x					
V19						x												
V21			x								x							
V22																x		
V23						x	x		x				x					
V24								x										

V26																		
V27			x					x										
V28						x		x	x									
V29	x	x	x									x	x				x	
V30													x					
V31													x					
V35						x		x	x									
V36	x	x	x	x									x					
V38			x					x										
V42	x	x	x	x									x	x				
V46													x					
V47																		
V48		x																
V50							x			x								
Total	9	6	10	4	1	5	3	13	3	1	1	2	16	3	1	2	2	1
%	25.7	17.1	28.6	11.4	2.9	14.3	8.6	37.1	8.6	2.9	2.9	5.7	45.7	8.6	2.9	5.7	5.7	2.9

Appendix 29
Analysis of communication channels: YouTube videos
D: actions (2)

ID	Movement		In the landscape			Social actions				Religion				Art	Other Mesolithic
	Mobile	By boat	Tree fell	Clearing	Make dams	Violence	Gender action	Sharing	Dance	Ritual	Charm	Burial	Votive	Art	
V01	x											x		x	
V03	x									x		x	x		
V04															
V05										x	x				
V06			x												
V07	x			x	x										
V08															
V09															
V10															
V11															
V12															
V13						x	x								
V14															
V15															
V16															
V17	x														
V19															
V21		x													
V22															
V23															
V24															

V26																learn about wind and sea
V27	x											x				
V28																
V29	x															
V30																
V31																
V35																
V36						x						x				
V38	x								x							
V42																
V46																
V47								x								
V48																
V50																
Total	7	1	1	1	1	2	1	1	1	2	1	4	1	1	1	1
%	20.0	2.9	2.9	2.9	2.9	5.7	2.9	2.9	2.9	5.7	2.9	11.4	2.9	2.9	2.9	2.9

Appendix 29
Analysis of communication channels: YouTube videos
E: happenings

ID	Sea level	Warming	Woodland	Island	New biota
V01		x			x
V03		x	x		
V08	x	x			
V21		x			
V25	x			x	
V33	x				
V36		x			x
V44	x			x	
Total	4	5	1	2	2
%	50	62.5	12.5	25	25

Appendix 30
Analysis of communication channels: popular archaeology books
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individual
PB01					x		x	
PB03		x			x	x	x	
PB04					x	x		
PB05		x			x			
PB06					x	x		
PB08					x			
PB09					x	x	x	
PB10						x	x	
PB11					x	x		
PB12					x			
PB14					x			
PB15						x		
PB19					x			
PB20					x			
PB21							x	
PB22		x				x		
PB23					x	x		
PB26		x	x		x	x		yes
PB27					x	x		
PB28		x	x	x	x	x		yes
PB29					x	x		
PB31					x			

PB32		x			x	x		
PB33	x				x			yes
PB34					x			
PB36					x	x		
PB37						x		
PB38			x	x	x	x		
PB39	x	x	x	x	x		x	yes
PB41			x	x	x	x	x	
PB42		x	x	x	x	x		yes
TOTAL	2	8	6	5	26	19	7	5
%	6.5	25.8	19.4	16.1	83.9	61.3	22.6	16.1

Appendix 30
Analysis of communication channels: popular archaeology books
B: settings

ID	woodland	wet	coast	estuary	river	lake	spring	marsh	island	inland	upland	open	plain	sandy	cave	valley	Dogger -land	people	spirits	camps
PB01			x	x										x						
PB02	x		x		x	x						x								
PB03														x						x
PB04	x					x	x				x			x						
PB05	x																			x
PB06	x		x		x	x														x
PB09	x		x			x								x			x	x		x
PB10	x		x		x							x		x						
PB11	x		x		x	x		x			x	x	x	x		x				x
PB13	x		x								x	x		x						
PB14	x		x		x	x					x									
PB15	x													x				x		x
PB19	x																			
PB20	x		x																	
PB21			x			x					x	x		x						
PB22	x					x														
PB23	x		x	x	x						x									x
PB26	x		x		x	x			x			x		x	x			x		x
PB27	x	x	x		x									x						x
PB28	x				x	x					x	x			x			x		x
PB29															x					
PB31	x		x		x	x														x

PB32																		X		X
PB34			x																	
PB36	x				x	x		x			x	x						x		
PB37						x														
PB38	x		x	x	x			x						x						
PB39	x		x	x	x	x					x					x	x		x	x
PB40	x		x	x																
PB41	x	x			x	x		x	x									x		x
PB42			x			x				x								x	x	
Total	23	2	19	5	14	16	1	4	2	1	9	8	1	12	3	2	4	7	1	14
%	76.7	6.7	63.3	16.7	46.7	53.3	3.3	13.3	6.7	3.3	30.0	26.7	3.3	40.0	###	6.7	13.3	23.3	3.3	46.7

Appendix 30
Analysis of communication channels: popular archaeology books
C: actions (1)

ID	Finding food				Food prep./use					In settlements						Use dogs	Making tools (a)		
	Hunt	Gather	Fish	Farm	Butcher	Prepare	Cook	Eat	Store	Make camp or house	Make fire	Collect resources	Sleep	Make bed	Midden		Make tools	Invent new	Raw material
PB01	x	x	x																
PB02	x		x																
PB03	x	x	x													x	x	x	
PB04	x							x					x						
PB05	x	x	x													x		x	
PB06	x														x			x	
PB08																x			
PB09	x	x	x	x												x	x	x	
PB10	x		x															x	
PB11	x		x							x						x	x		
PB13	x	x	x														x		
PB14	x	x	x							x						x	x	x	
PB15	x	x	x														x	x	
PB19																	x		
PB20	x	x															x		
PB21	x		x							x								x	
PB22	x		x																
PB23	x	x	x		x		x			x							x		
PB24	x																		
PB25								x											

PB26	x	x	x	x	x		x	x		x	x	x		x		x	x		x
PB27	x	x	x			x		x		x							x		
PB28	x	x	x			x	x			x	x	x					x		
PB29																			
PB30																	x		
PB31	x	x	x							x						x	x		x
PB32	x	x	x		x	x			x			x					x		
PB33																			
PB34																		x	
PB36	x	x	x															x	
PB37	x	x	x							x		x		x			x		
PB38	x	x					x												
PB39	x	x		x	x			x								x	x	x	
PB40	x																		
PB41	x	x	x		x	x	x	x		x	x	x			x	x	x		x
PB42	x	x	x			x				x									
Total	29	20	22	3	5	5	5	6	1	11	3	5	1	2	2	10	18	9	6
%	82.9	57.1	62.9	8.6	14.3	14.3	14.3	17.1	2.9	31.4	8.6	14.3	2.9	5.7	5.7	28.6	51.4	25.7	17.1

Appendix 30
Analysis of communication channels: popular archaeology books
D: actions (2)

ID	Making tools (b)					Landscape		Movement								Social (a)			
	Knap	Work wood	Skins	Canoes	Pots	Make clearing	Fell trees	Mobile	Explore	Migrate	Stay	Return	Gather	Walk	Sail or boat	Fight	Mark territory	Special place	Gender action
PB01										x									
PB02																			
PB03		x								x									x
PB04																			
PB05								x								x			
PB06		x					x		x	x									
PB08																			
PB09		x		x	x			x		x				x	x				
PB10								x											
PB11		x		x						x									
PB13		x								x									
PB14				x			x			x									
PB15				x		x	x	x		x					x				
PB19								x		x									
PB20						x													
PB21								x		x									
PB22								x											
PB23		x	x							x					x				
PB24																			
PB25														x					

PB26	x	x	x	x		x	x	x		x	x			x	x		x		x
PB27	x	x	x	x		x		x	x	x					x				
PB28			x			x		x	x	x		x	x		x				
PB29						x													
PB30																			
PB31	x	x						x							x		x		
PB32			x	x		x	x	x					x		x	x			x
PB33																			
PB34																			
PB36						x		x		x				x	x	x			
PB37										x					x				
PB38								x						x	x				
PB39		x	x			x	x	x	x	x	x		x	x	x	x	x	x	x
PB40																			
PB41	x	x	x	x		x	x	x				x	x	x	x				x
PB42		x		x		x	x	x		x	x	x					x	x	x
Total	4	12	7	9	1	11	8	17	4	18	3	3	4	6	13	5	4	3	5
%	11.4	34.3	20.0	25.7	2.9	31.4	22.9	48.6	11.4	51.4	8.6	8.6	11.4	17.1	37.1	14.3	11.4	8.6	14.3

Appendix 30
Analysis of communication channels: popular archaeology books
E: actions (3)

ID	Social (b)							Religion						Art	Other
	Marry	Reproduce	Hand down	Tell stories	Network	Music	Play	Ritual	Spirits	Taboo	Burial	Votive	Dance	Decorate	
PB01															
PB02															
PB03															
PB04		x													
PB05					x						x				
PB06															
PB08															
PB09			x												
PB10															
PB11															
PB13															
PB14								x			x			x	
PB15															
PB19															
PB20															
PB21											x				
PB22															
PB23															
PB24															
PB25															
PB26	x		x	x	x	x				x	x		x	x	sitting round fire

PB27															
PB28	x				x						x				
PB29															
PB30															
PB31	x				x			x					x		carrying mental maps
PB32	x	x			x				x		x			x	predicting weather, looking after children
PB33						x									treating piles
PB34															
PB36					x	x			x	x			x	x	
PB37															
PB38							x								dropping gear
PB39	x				x			x	x	x	x	x			
PB40															
PB41			x	x	x		x	x	x		x	x	x	x	make trackway, clear paths, shout greetings, laugh at jokes, sit around fire
PB42				x				x			x				looking west, using wolf pelt blanket
Total	5	2	3	3	8	3	2	5	4	3	9	2	4	5	7
%	14.3	5.7	8.6	8.6	22.9	8.6	5.7	14.3	11.4	8.6	25.7	5.7	11.4	14.3	20.0

Appendix 30
Analysis of communication channels: popular archaeology books
F: happenings

ID	Sea level	Land rise	Climate change	Melting ice	Woodland	Island	New biota	Seasons	Tsunami	Pop. rise	Hunger	Disease	Other
PB03			x		x	x	x						
PB04		x				x				x			
PB06				x	x	x							
PB09	x		x		x		x						
PB11			x		x	x	x						
PB13			x		x	x							
PB14	x		x	x	x		x						
PB15	x		x	x	x	x	x						
PB19	x		x	x	x		x						
PB20				x	x		x						
PB21			x		x	x	x						
PB22						x							
PB23													stranding
PB25	x	x		x									
PB26	x				x	x	x						stranding
PB27	x		x		x	x	x						
PB28	x		x		x				x	x			stranding
PB29	x		x			x							
PB30													burning tent
PB31	x		x	x						x			
PB33	x					x				x			
PB36	x	x				x							earth tremors

PB37			x										
PB38	x	x	x					x	x				
PB39	x		x		x	x	x			x	x	x	
PB41	x		x		x	x	x		x				lake shrinking
PB42			x		x			x		x			threat from wolves and bears
Total	15	4	17	7	16	15	12	2	3	6	1	1	7
%	62.5	16.7	70.8	29.2	66.7	62.5	50.0	8.3	12.5	25.0	4.2	4.2	29.2

Appendix 31
Analysis of communication channels: newspapers
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individuals
N02					x		x	
N03					x			
N04			x					yes
N08					x			
N10							x	
N13			x	x	x			yes
N17							x	
N18					x	x		
N23					x			
N24					x			
N25					x			
N28							x	
N31					x	x	x	
N34					x	x		
N35					x		x	
N36					x			
N40					x			
N41							x	
N43					x		x	
N46					x			
N47					x			
N49					x		x	
N50		x			x			
N51					x			

N52					x			
N53							x	
N54					x	x		
N55					x	x		
N57					x			
N61					x			
N63			x					
N64	x	x			x		x	yes
N67					x			
N68		x	x	x				yes
N69							x	
N71	x				x			yes
N72	x					x		yes
N73			x					
N74					x			
N76					x			
N77		x						
N78		x						
N80					x			yes
N82					x	x		
N83					x			
N84	x							yes
N86					x	x		
N88					x	x	x	
N98					x	x		
N100					x			
N102							x	
N103							x	
N105							x	
N109		x						

N116					x			
N118					x			
N119					x			
N121					x			
N124					x	x		
N126					x			
N127					x			
N130						x		
N131					x		x	yes
N132					x	x		
N133					x	x		
N141			x					yes
N142		x						yes
N147					x		x	
N148		x						
N149	x							yes
N150					x			
N152					x			
N153					x			
N154							x	
N157					x			
N158					x	x		
Total	5	8	6	2	52	15	19	12
%	6.6	10.5	7.9	2.6	68.4	19.7	25.0	15.8

Appendix 31
Analysis of communication channels: newspapers
B: settings

ID	woodland	wet	coast	estuary	river	lake	spring	marsh	upland	cliff	open	cave	valley	Dogger -land	people	camp
N01	x															
N02																x
N03														x		x
N04												x				
N05							x									x
N08																x
N10	x		x													
N12																x
N13												x				
N14																x
N15																x
N16												x				
N18							x									x
N23							x							x		x
N25										x						x
N26												x				
N28	x				x											
N30			x		x	x		x	x				x	x		
N34							x									x
N35	x				x											x
N38							x									x
N39						x	x									

N40																
N41															X	
N42						X	X									X
N43					X		X									X
N44																X
N46							X								X	X
N48			X	X												
N49	X				X								X			X
N51									X							X
N52																X
N54	X				X											X
N56															X	
N57						X										
N58									X							
N59			X							X						X
N60																X
N61						X										
N62																
N64												X				
N67																X
N68												X				
N70																
N71															X	
N72															X	
N73												X				
N75																X
N76															X	X

N126											x					
N127				x												
N128																x
N129																
N131			x					x								
N133																x
N134																x
N135																x
N137		x														x
N139																
N140					x											x
N142														x		
N145			x													x
N147				x												
N148	x				x											
N149	x														x	
N150				x										x		
N151																
N152																
N153							x									x
N155	x				x											x
N157						x	x									x
N158														x		
Total	13	1	8	4	9	7	17	4	5	2	1	8	3	13	6	54
%	13.1	1.0	8.1	4.0	9.1	7.1	17.2	4.0	5.1	2.0	1.0	8.1	3.0	13.1	6.1	54.5

Appendix 31
Analysis of communication channels: newspapers
C: actions (1)

ID	Finding food				Treating food				In settlements					Use dogs	Making tools (a)			
	Hunt	Gather	Fish	Farm	Store	Cook	Butcher	Eat	Make camp or house	Build monument	Cut bracken	Fire	Midden		Make tools	Knap	Raw materials	Wood work
N01	x																	
N02								x										
N03																		
N04	x																	
N05								x										
N09	x																	
N10			x						x						x			
N11	x																	
N12															x			
N13																		
N15									x									
N17						x			x									
N18										x								
N19																		
N20															x		x	
N21								x		x								
N23																		
N25								x										
N26																		
N27															x	x	x	
N28	x		x															

N109	x								x									
N111	x		x												x			
N116	x		x															
N120	x		x															
N121				x		x			x				x				x	
N124									x				x				x	
N125									x									
N127														x				
N128						x												
N130	x		x						x									
N131	x																	
N132				x							x							
N133	x		x												x			
N135																x		
N137	x		x						x									x
N138																x	x	
N141																x		
N142	x						x	x										
N143								x										
N144						x	x											
N146																		
N147			x															
N148	x	x	x			x		x	x			x			x			x
N153								x				x			x			
N154						x			x									
N155																		
N156								x										

N157								x										
N158							x	x										
Total	29	4	17	4	1	12	5	26	22	7	1	4	2	2	21	5	3	4
%	27.9	3.8	16.3	3.8	1.0	11.5	4.8	25.0	21.2	6.7	1.0	3.8	1.9	1.9	20.2	4.8	2.9	3.8

Appendix 31
Analysis of communication channels: newspapers
D: actions (2)

ID	Making tools (b)			In the landscape			Movement									Social (a)		
	Canoes	Clothes	Skins	Coppice	Tap sap	Make clearing	Mobile season	Stay	Migrate	Gather	Return	Leave	Visit	Walk	Sail or boat	Fight	Mark territory	Treat special
N01																		
N02							x											
N03			x															
N04																		
N05																		
N09																	x	
N10							x											
N11		x																
N12																		
N13																	x	
N15												x						
N17							x											
N18																		
N19																		
N20									x									
N21						x		x		x								
N23									x									
N25							x											
N26																		
N27									x									
N28																		

N29									x									
N31																		
N32			x															
N33		x																
N34												x						
N35																		
N36																		
N37																	x	
N38																		x
N39																		
N40							x	x										
N42					x		x		x									
N43					x				x			x		x				
N44							x											
N46									x									
N47																		
N48																	x	
N49	x					x												
N50							x										x	
N51							x		x									
N53																		
N54																		
N55																	x	
N56																		
N57							x											
N58																		
N59								x										

N61																		
N63																		
N65																		
N66						x												
N68																		
N69																		
N70						x												
N73																		
N76								x										
N77								x										x
N78																		x
N79			x															
N80																		
N82								x										
N83								x										
N86								x			x		x					
N87																		
N88																		
N89								x										
N90																		x
N92																		
N97																		
N98																		
N100																		
N101																		
N103																		
N104																		

N109							x											
N111																		
N116																		
N120							x											
N121						x	x											
N124																		
N125							x											
N127							x											
N128																		
N130							x											
N131																	x	
N132																		
N133							x										x	
N135						x	x											
N137																		
N138																		
N141																		
N142							x											
N143							x											
N144																		
N146																		
N147							x											
N148	x						x											
N153																		
N154																		
N155																		
N156																		

N157									x									x
N158									x	x								
Total	2	2	4	1	1	7	25	6	9	5	2	1	5	1	3	1	3	6
%	1.9	1.9	3.8	1.0	1.0	6.7	24.0	5.8	8.7	4.8	1.9	1.0	4.8	1.0	2.9	1.0	2.9	5.8

Appendix 31
Analysis of communication channels: newspapers
E: actions (3)

ID	Social (b)			Religion			Art	Other
	Dying	Hand down	Marry	Calendar	Sacred	Burial	Decorate	
N01								
N02								
N03								
N04								
N05								
N09					x			
N10								
N11								
N12								
N13						x		
N15								
N17								
N18								
N19				x				
N20								
N21					x			
N23								
N25								
N26						x		
N27								
N28								

N29								
N31								
N32								
N33								
N34								
N35				x				
N36				x				
N37					x		x	
N38								
N39								
N40								
N42						x		
N43						x		
N44								
N46								
N47								
N48								
N49								
N50								
N51								
N53								
N54					x			
N55	x							
N56								
N57								
N58								
N59								

N61								
N63								chewing tar
N65								chewing tar
N66								
N68						x		
N69								
N70								
N73						x		cannibalism
N76								
N77								
N78								
N79								
N80			x			x		
N82								
N83								
N86								
N87								
N88				x				
N89								
N90								
N92								
N97								
N98								
N100								
N101								
N103								
N104								

N109								
N111								
N116								
N120								
N121								
N124								
N125								
N127								
N128								
N130								
N131								
N132								
N133								
N135								
N137								
N138								
N141					x			chewing tar
N142								
N143								
N144								
N146							x	
N147								
N148		x						
N153								
N154								
N155				x				
N156					x			

N157					x			
N158								
Total	1	1	1	6	9	4	2	4
%	1.0	1.0	1.0	5.8	8.7	3.8	1.9	3.8

Appendix 31
Analysis of communication channels: newspapers
F: happenings

ID	Sea level	Climate change	Melting	Woodland	Island	Tsunami	Population fall	Malnutrition	Disease	Other
N03	x				x					
N08	x									
N12	x									
N13	x							x	x	
N23					x					
N24						x				
N25	x									
N30	x	x				x				
N41						x				
N48	x		x							
N49	x									
N50		x								
N53		x	x							
N55		x					x			
N58				x						
N60					x					
N67	x									
N72	x	x								
N74						x				
N82	x	x								
N91					x	x				
N98	x									

N111			x		x					
N116	x									
N130										farming
N134						x				
N150	x									
N151	x				x	x				
N158					x					
Total	15	6	3	1	7	7	1	1	1	1
%	51.7	20.7	10.3	3.4	24.1	24.1	3.4	3.4	3.4	3.4

Appendix 32
Analysis of communication channels: BBC Online News
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individual
BN02					x			
BN04			x	x				yes
BN08					x			
BN09					x			
BN10					x			
BN11					x	x		
BN12					x			
BN17					x			
BN18					x			
BN21					x			
BN22						x		
BN23					x			
BN24					x			
BN25					x			
BN26					x	x		
BN31							x	
BN32						x		
BN33						x		
BN34			x		x			yes
BN35					x			
BN36					x	x		
BN38					x			

BN44		x	x		x			
BN45					x			
BN46					x			
BN51					x			
Total	0	1	3	1	21	6	1	2
%	0.0	3.8	11.5	3.8	80.8	23.1	3.8	7.7

Appendix 32
Analysis of communication channels: BBC Online News
B: settings

ID	woodland	wet	coast	river	lake	spring	marsh	island	inland	upland	caves	Doggerland	Camp
BN02			x	x									x
BN03											x		
BN04	x								x		x	x	
BN05										x			
BN06											x		
BN07											x		
BN09													x
BN10	x			x									
BN12									x				x
BN13										x			
BN16				x	x								
BN17					x								
BN19		x											
BN20	x			x									
BN24								x					
BN26								x					
BN29	x			x	x								
BN32													x
BN33					x								
BN35										x			
BN36				x		x							x
BN37													x

BN40								x					
BN42													x
BN43				x		x							x
BN45	x												
BN46			x		x		x					x	
BN47				x		x							x
BN51													x
Total	5	1	1	7	5	3	1	3	2	3	4	2	9
%	17.2	3.4	3.4	24.1	17.2	10.3	3.4	10.3	6.9	10.3	13.8	6.9	31.0

Appendix 32
Analysis of communication channels: BBC Online News
C: actions (1)

ID	Finding food			Food prep./use			In settlements				Making and using tools					Make clearing
	Hunt	Gather	Fish	Butcher	Cook	Eat	Make camp or house	Fire	Build monument	Cut plants	Make tools	Raw material	Work wood	Skins	Canoes	
BN03																
BN04																
BN05	x	x	x								x	x				
BN06																
BN07																
BN08					x			x			x					
BN09							x				x					
BN10			x				x								x	
BN11	x	x														
BN12														x		
BN13	x															x
BN14																
BN15																
BN16							x									
BN17				x							x		x			
BN20	x		x								x			x		
BN21																
BN22	x	x		x		x					x		x			
BN23						x									x	
BN24						x										

BN25			x				x	x								
BN26																
BN28							x									
BN29	x		x			x				x			x		x	
BN30															x	
BN31					x	x	x				x					
BN32							x									
BN33							x						x			
BN34		x				x										x
BN35	x						x									
BN36																
BN38																
BN39																
BN40	x										x	x				
BN42																
BN43						x										
BN44																
BN45	x	x														
BN46	x		x													
BN47						x			x							x
BN48											x					
BN49	x															
BN50					x								x			
BN51						x										
Total	11	5	6	2	3	9	9	2	1	1	9	2	5	2	4	3
%	25.0	11.4	13.6	4.5	6.8	20.5	20.5	4.5	2.3	2.3	20.5	4.5	11.4	4.5	9.1	6.8

Appendix 32
Analysis of communication channels: BBC Online News
D: actions (2)

ID	Movement							Social			Religion			Art	Other
	Mobile	Stay	Migrate	Visit	Leave	Walk	Sail or boat	Mark territory	Treat special	Compete	Calendar	Ritual	Burial	Decorate	
BN03													x		
BN04	x												x		
BN05	x														
BN06													x	x	
BN07														x	
BN08															
BN09	x														
BN10															
BN11															
BN12															
BN13															
BN14													x		cannibalism
BN15													x		cannibalism
BN16	x	x		x			x								
BN17															
BN20	x						x								
BN21															exploit, survive
BN22															
BN23															
BN24															
BN25															

BN26													x		
BN28															
BN29															
BN30															
BN31															
BN32		x													
BN33															
BN34		x													
BN35															
BN36				x											
BN38												x			
BN39								x							
BN40			x												
BN42										x					
BN43										x					
BN44						x									
BN45															
BN46					x						x				
BN47		x		x			x			x			x		
BN48															
BN49															
BN50															
BN51		x													
Total	5	5	1	3	1	1	3	1	3	1	1	1	6	2	3
%	11.4	11.4	2.3	6.8	2.3	2.3	6.8	2.3	6.8	2.3	2.3	2.3	13.6	4.5	6.8

Appendix 32
Analysis of communication channels: BBC Online News
E: happenings

ID	Sea level	Climate change	Melting ice	Woodland	Island	New biota	Tsunami	Hunger	Disease	Other
BN02	x									
BN04	x							x	x	
BN10	x		x							
BN18	x	x								
BN20		x				x				
BN22					x					
BN23	x	x			x		x			
BN24							x			
BN25					x		x			
BN29	x									
BN31				x						
BN34						x				
BN36										animals at spring
BN41	x				x		x			
BN46	x						x			
BN50			x							
Total	8	3	2	1	4	2	5	1	1	1
%	50.0	18.8	12.5	6.3	25.0	12.5	31.3	6.3	6.3	6.3

Appendix 33
Analysis of communication channels: popular archaeology magazines
A: characters

ID	Named	Gender	Age	Kin	Function	Group	Other	Individual
PM01						x		
PM09		x	x	x	x	x	x	
PM14		x	x		x			yes
PM18					x			
PM19					x	x		
PM20					x	x		
PM23					x			
PM24					x			
PM28					x			
PM29						x		
PM36			x	x				yes
PM37					x			
PM38						x		
PM41					x	x		
PM46		x	x					yes
PM49	x							yes
PM52			x	x	x			
PM53		x	x	x		x	x	
PM54		x	x	x	x	x	x	
PM58					x			
PM60					x			yes
PM61		x						

PM62					x			
PM65						x		
PM70					x			
PM72			x	x				yes
PM75					x			
PM79					x			
PM80					x			
PM82					x			
PM83					x	x		
PM84					x			
PM88					x			
PM89			x	x	x			yes
PM91					x			
PM93					x			
PM96					x			
PM97					x			
PM98					x			
PM100					x			
PM110					x			
PM112		x			x			
PM113						x		
PM116							x	
PM120					x			
PM121					x			
PM123					x			
PM124					x			
PM125					x			

PM128		x						yes
PM130						x		
PM132					x			
PM134					x			
PM136					x			
PM137					x			
PM140							x	
PM141					x			
PM144					x			
PM145						x	x	
PM147					x	x		
PM150						x		
PM151					x			
PM154					x			
PM155					x			
PM157			x	x	x			
PM159						x		
PM161					x			
PM162						x	x	
PM165					x			
PM167					x	x		
PM169					x			
PM170					x			
PM172					x			
PM173					x			
PM174					x	x		yes
PM175					x			yes

PM176					x	x		
Total	1	8	10	8	58	21	7	10
%	1.3	10.3	12.8	10.3	74.4	26.9	9.0	12.8

Appendix 33
Analysis of communication channels: popular archaeology magazines
B: settings

ID	woodland	wet	coast	estuary	river	lake	spring	marsh	island	upland	cliff	open	downs	plain	cave	valley	Doggerland	people	camp
PM03					x														
PM130					x	x	x												
PM128			x																
PM50	x																		
PM126	x		x					x											x
PM25			x																
PM107																			x
PM70	x											x			x				
PM99													x						
PM71	x										x								
PM60	x										x								x
PM168			x								x								x
PM96	x				x						x								x
PM62			x																
PM98			x						x										
PM63			x		x											x			
PM113			x		x						x					x			
PM155			x	x										x					x
PM120			x																
PM170																		x	
PM14	x		x												x				
PM94								x									x		

PM143						x													
PM169						x													
PM73					x									x					
PM176			x							x						x			
PM110										x									
PM123					x			x			x				x				
PM141										x									
PM109	x					x		x											
PM160					x					x									
PM106				x	x														
PM134	x		x		x														x
PM174					x														
PM92			x	x															
PM156																			x
PM74			x																x
PM147	x				x					x		x						x	
PM20										x									
PM162	x							x	x										
PM146					x						x								
PM16					x														
PM173																			x
PM37																			x
PM41																			x
PM07																			x
PM166	x				x														x
PM158	x																		x
PM54	x																		

PM103	x							x				x							
PM100	x		x	x	x	x		x											
PM145	x					x		x											x
Total	25	2	21	10	20	13	4	10	13	11	7	3	1	5	2	6	2	5	15
%	31.6	2.5	26.6	12.7	25.3	16.5	5.1	12.7	16.5	13.9	8.9	3.8	1.3	6.3	2.5	7.6	2.5	6.3	19.0

Appendix 33
Analysis of communication channels: popular archaeology magazines
C: actions (1)

ID	Finding food				Food preparation and use					In settlements							
	Hunt	Gather	Fish	Farm	Butcher	Prepare	Cook	Eat	Store	Making camp or house	Fire	Building monument	Collect resources	Sleep	Make bedding	Defecate	Make midden
PM01																	
PM02																	
PM03			x							x							
PM06										x							
PM07																	
PM08																	
PM09	x	x															
PM13	x		x				x			x		x					
PM14	x		x		x			x									
PM15				x													
PM16					x												
PM17	x	x		x													
PM18			x														
PM19										x							
PM20	x	x															
PM22		x															
PM23	x									x							
PM24	x																
PM25	x																
PM29						x			x								
PM33																	

PM35																	
PM36																	
PM37	x		x	x													
PM38	x																
PM39																	
PM40																	x
PM41			x			x				x	x						
PM42	x																
PM44																	
PM45				x		x			x								
PM46																	
PM51	x									x							x
PM52	x	x	x			x											
PM53	x																
PM54					x	x		x	x								
PM55	x										x			x			
PM56	x	x						x									
PM60																	x
PM61					x			x									
PM63																	
PM64								x									
PM65	x				x					x							
PM67			x				x	x									
PM68																	
PM70	x																
PM71						x		x	x	x							
PM72																	

PM73	x	x															
PM74	x	x															
PM75																	
PM77																	
PM80																	
PM81																	
PM82																	
PM83						x			x								
PM86																	
PM89					x		x									x	
PM92										x							
PM93								x									
PM96																	
PM97																	
PM98	x	x	x														
PM99																	
PM100	x								x	x							
PM102		x					x			x							
PM103																	
PM109	x	x								x							
PM110										x							
PM113																	
PM114																	
PM115																	
PM116										x							
PM123										x							
PM124	x	x															

PM126	x	x	x							x							
PM127			x			x											
PM129			x														
PM130							x	x									
PM131																	
PM132								x	x	x			x	x			
PM134					x	x				x							
PM135																	
PM136												x					
PM137																	
PM140	x					x		x									
PM141										x							
PM142																	
PM143																	
PM144								x									
PM145	x							x		x			x	x			x
PM146																	
PM147	x											x					
PM148	x		x														
PM150	x																
PM151																	
PM153																	
PM154																	
PM155										x							
PM156																	
PM159	x		x														
PM160								x									

PM161	x									x							
PM162	x	x			x		x	x				x	x				
PM164																	
PM165												x					
PM166																	
PM167						x	x	x							x		x
PM168		x						x		x							
PM169	x																
PM170																	
PM171																	
PM172							x	x	x								
PM173																	
PM174	x	x	x														
PM175																	
PM176			x														
Total	35	16	16	4	8	11	9	17	8	24	2	5	4	1	1	1	5
%	29.9	13.7	13.7	3.4	6.8	9.4	7.7	14.5	6.8	20.5	1.7	4.3	3.4	0.9	0.9	0.9	4.3

Appendix 33
Analysis of communication channels: popular archaeology magazines
D: actions (2)

ID	Animals		Making tools							Landscape		Movement							
	Control animals	Use dogs	Make tools	Raw material	Knap	Work wood	Skins leather	Canoes	Clothes	Make clearing	Strip bark	Mobile seasonal	Stay	Migrate	Gather	Return	Leave	Walk	By boat
PM01			x																
PM02												x							
PM03					x														
PM06																x	x		
PM07												x							
PM08																			
PM09			x												x				
PM13				x									x						
PM14								x											
PM15																			
PM16			x	x	x		x											x	
PM17																			
PM18	x																		
PM19			x			x													
PM20												x							
PM22												x							
PM23			x		x														
PM24																			
PM25																			
PM29																			
PM33																		x	

PM73																			
PM74																			
PM75																			
PM77																			
PM80																			
PM81																			
PM82			x			x				x									
PM83																			x
PM86										x						x		x	
PM89										x			x						
PM92																			
PM93																			
PM96			x																
PM97																			
PM98																			
PM99																			
PM100			x			x							x						
PM102													x		x				x
PM103																			
PM109						x													
PM110																			
PM113						x													x
PM114																			
PM115																			x
PM116						x													x
PM123						x													
PM124																			

PM126			x			x		x								x			
PM127																			
PM129																			
PM130			x								x					x	x		
PM131		x																	
PM132				x															
PM134			x					x											
PM135																			
PM136																			
PM137										x									
PM140												x							
PM141				x														x	
PM142																			x
PM143						x													
PM144																			
PM145			x	x		x	x		x	x		x	x					x	
PM146																			
PM147																			
PM148			x	x															
PM150												x							
PM151																			
PM153																			
PM154												x							
PM155																			
PM156												x							
PM159																			
PM160			x																

PM161			x		x	x													
PM162			x		x		x		x							x			x
PM164																			
PM165																			
PM166						x		x											x
PM167			x	x							x				x	x			
PM168				x													x		
PM169		x																	
PM170																			x
PM171																			
PM172																			
PM173																			
PM174			x		x														
PM175																			
PM176			x								x				x	x			
Total	2	2	25	12	12	15	6	7	3	10	1	17	3	5	5	14	6	2	4
%	1.7	1.7	21.4	10.3	10.3	12.8	5.1	6.0	2.6	8.5	0.9	14.5	2.6	4.3	4.3	12.0	5.1	1.7	3.4

Appendix 33
Analysis of communication channels: popular archaeology magazines
E: actions (3)

ID	Social								Religion				Art	Other
	Fight or kill	Mark territory	Treat special	Gender action	Marry	Hand down	Tell stories	Network	Calendar	Ritual	Burial	Votive	Decorate	
PM01														
PM02														
PM03														tossing bones on fire as fuel
PM06								x						
PM07														
PM08								x						
PM09						x		x					x	support family
PM13														
PM14													x	making fire in boat for fishing, wearing clothes
PM15														
PM16														
PM17														
PM18														
PM19														
PM20														
PM22														
PM23											x			
PM24														
PM25														
PM29														

PM33														
PM35														
PM36														chewing tar, waterproofing, teething, using medicine
PM37										x				
PM38														
PM39														waterproofing, chewing tar, giving work to children
PM40														
PM41														
PM42														
PM44										x				
PM45		x												
PM46														trepanation
PM51										x				
PM52						x								medicine, watching
PM53	x										x			sacrifice
PM54						x	x							
PM55														
PM56								x						showing off
PM60														
PM61											x			
PM63														
PM64														
PM65														
PM67													x	medicine
PM68														
PM70											x			

PM71														
PM72								x						
PM73														
PM74														
PM75												x		
PM77														engraving cave wall
PM80														digging pits
PM81											x			
PM82										x				
PM83														
PM86														
PM89														
PM92														
PM93														
PM96														
PM97														burying burnt shells
PM98		x												
PM99														import pine, recreate monuments
PM100														hold out against Neolithic
PM102														
PM103														
PM109			x											
PM110														
PM113														prepare string
PM114				x	x									
PM115														
PM116														

PM123															filling pit with hot stones
PM124															
PM126										x					
PM127															
PM129															
PM130			x							x					
PM131															
PM132															
PM134															
PM135		x												x	
PM136										x					
PM137															
PM140															wearing pelt to keep warm
PM141															
PM142															
PM143															
PM144															
PM145			x			x	x			x				x	
PM146		x	x											x	x
PM147							x	x							
PM148															
PM150															
PM151															authority and delegation
PM153															fire setting
PM154															
PM155															dig drainage gullies
PM156															

PM159														
PM160														
PM161														
PM162					x		x	x						
PM164														bring special object
PM165									x			x		
PM166														
PM167														wash, drink
PM168														
PM169														
PM170								x						
PM171											x			
PM172														
PM173								x						
PM174								x						
PM175											x			
PM176														
Total	1	4	4	1	2	4	3	10	3	6	8	4	5	23
%	0.9	3.4	3.4	0.9	1.7	3.4	2.6	8.5	2.6	5.1	6.8	3.4	4.3	19.7

Appendix 33
Analysis of communication channels: popular archaeology magazines
F: happenings

ID	Environment								People		Other
	Sea level	Land rise	Climate change	Melting ice	Woodland	New biota	Seasons	Tsunami	Pop. rise	Hunger	
PM01	x										
PM08	x				x	x					
PM100	x		x	x	x						
PM101			x								
PM113	x										
PM120			x								
PM123	x		x		x						
PM126	x						x				
PM13	x	x		x							
PM138								x			
PM14	x	x									
PM145			x		x						
PM147											fish run, midwinter sun
PM155		x		x							
PM162											warm spring
PM166	x										
PM168	x		x								
PM173	x			x							
PM176			x	x							
PM19			x	x							
PM20							x				

PM28			x								
PM29											lack of deer
PM37	x										drought
PM38			x						x		
PM45						x					
PM51	x										
PM60	x			x							
PM62								x			
PM63								x			
PM68			x								
PM70										x	
PM71			x		x						
PM73				x							
PM74		x		x				x			
PM84	x		x	x	x	x		x			
PM89	x		x								
PM91				x							
PM94	x		x								
PM96	x										
PM98	x	x	x					x			
Total	19	5	16	11	6	2	3	6	1	1	4
%	46.3	12.2	39.0	26.8	14.6	4.9	7.3	14.6	2.4	2.4	9.8