



PART I

## Paper ARC02

# Archaeology in Action

*Course Co-ordinator*

Cameron Petrie

*Lecturers*

Rachel Ballantyne, Natasha Dodwell, Corinne Duhig, Charly French, Susanne Hakenbeck, Martin Jones, Preston Miracle, Philip Nigst, Tamsin O'Connell, Roger Palmer, Cameron Petrie, & David Redhouse

*Structure*

**Lectures:** 1 x 1 hour each week (Michaelmas & Lent terms)

**Practicals:** 1 x 2 hour each week (Michaelmas & Lent terms)

**Supervisions:** 8 supervisions (4 in Michaelmas & 4 in Lent)

**Fieldwork:** 4 days (in Easter)

*Mode of examination*

**Assessed written work:** 30% of the final mark

**Final written paper:** 70% of the final mark

*Aims of the course:*

**ARC02: Archaeology in Action** uses taught lectures, practicals, fieldtrips and fieldwork to give a comprehensive introduction to the methods and practices involved in archaeological field and lab research. The sessions have been structured to give you a systematic overview of archaeological field research on the ground (and from the air), including approaches to surveying and mapping landscapes, the reconstruction of the environment, and the investigation of human life-ways in settlements in the past. It also introduces the work that takes place after excavation, particularly the investigation of time and dating, and looking at the analysis of different types of artefacts, including material culture of various types, plant remains, animal remains and human remains. All of these sessions highlight the relationship between the work that archaeologists carry out in the field and the work that they carry out in the laboratory, with the whole being framed around a discussion of the types of questions that archaeologists are interested in, and how they go about answering them.

*Learning outcomes:*

On the successful completion of **ARC02: Archaeology in Action** students will be able produce high quality written work that demonstrates an informed and critical understanding of a range of key archaeological concepts, and themes, the underlying premises and applications of different archaeological methods, and the way that archaeologists address questions by using combinations of analytical techniques and interpretative approaches.

*Assessed coursework:*

<i>Task</i>	<i>Weight</i>	<i>Due</i>
01. Mapping exercise	10%	Mich 05/12/14
02. Stratigraphy and dating exercise (1000 words + images)	10%	Lent 23/01/15
03. Practical workbook	10%	East 01/05/15

**All assessed work must be handed in to Natasha Martindale (Archaeology Division secretary) by 12 noon on the due date.**

**Paper ARC02 Timetable 2012-2013***Michaelmas*

**Module lecturers: Charly French [CAIF], Tamsin O'Connell [TO'C], Roger Palmer [RP], Cameron Petrie [CAP], David Redhouse [DIR], Sean Taylor [ST]**

**Wednesday 8 October – Introduction to Part I HSPS, 9am Arts School Room A, New Museums Site**

**Mondays: 12 noon South Lecture Room**

**Fridays: 2pm West building G2**

*Archaeology in the field*

<i>Date</i>	<i>Lecture Topic</i>	<i>Lecturer</i>	<i>Date</i>	<i>Practical Topic</i>	<i>Lecturer</i>
13 Oct	Archaeology in Action: an introduction	CAP	17 Oct	Excavation field trip I	CAIF/CAP
20 Oct	What is left behind?	CAP	24 Oct	Archaeology from aerial images	RP
27 Oct	Reconstructing the environment	ST	31 Oct	Excavation field trip II	CAIF/CAP
03 Nov	Finding sites - archaeological survey	CAP	07 Nov	Mapping in archaeology: intro to GIS I (IT)	DIR/CAP
10 Nov	Living in ancient landscapes	CAP	14 Nov	Mapping in archaeology: intro to GIS II (IT)	DIR/CAP
17 Nov	Stratigraphy and context	CAP	21 Nov	Sampling landscapes and environments	CAIF
24 Nov	Living in ancient settlements	CAP	28 Nov	Recording artefacts (Keyser)	CAP
01 Dec	Thinking about time and dating	TO'C	05 Dec	Measuring time	TO'C/CAP

*Lent*

**Module lecturers: Rachel Ballantyne [RB], Natasha Dodwell [ND], Corinne Duhig [CD], Susanne Hakenbeck [SH], Martin Jones [MKJ], Preston Miracle [PTM], Philip Nigst [PN], Tamsin O'Connell [TO'C], & Cameron Petrie [CAP]**

**Mondays: 12 noon South Lecture Room**

**Fridays: 2pm West building G2**

*Archaeology in the lab*

<i>Date</i>	<i>Lecture Topic</i>	<i>Lecturer</i>	<i>Date</i>	<i>Practical Topic</i>	<i>Lecturer</i>
19 Jan	Learning from making	CAP	23 Jan	Making things	CAP
26 Jan	Technology, economy and pottery	CAP	30 Jan	Looking at pottery	CAP
02 Feb	Cognition, technology, and lithics	PN	06 Feb	Learning from lithics	PN
09 Feb	Material and molecules	TO'C	13 Feb	Under the microscope	TO'C/CAP
16 Feb	From subsistence to globalisation: investigating plant remains	MKJ	20 Feb	What plant is this? Archaeobotany in the laboratory	RB
23 Feb	From kill off patterns to butchery and ritual: investigating animal remains	PTM	27 Feb	Sheep, goat or cattle? Analysing animal remains	PTM
02 Mar	The archaeology of death and burial	SH	06 Mar	Looking at human bones I	CD/ND
09 Mar	Living and dead bodies: scientific approaches	SH	13 Mar	Looking at human bones II	CD/ND

*Easter*

**ARC02 students are to attend five full days (or ten half days) of the Division of Archaeology training excavation**

**Site director: Charly French [CAIF]**

*Training Excavation*

**Week 1**

<i>Date</i>	<i>Lecture Topic</i>
22 Apr	Training excavation
23 Apr	Training excavation
24 Apr	Training excavation

**Week 2**

<i>Date</i>	<i>Practical Topic</i>
27 Apr	Training excavation

## Michaelmas 2014

### *Archaeology in the field*

#### Lecture 1. 13 October 2014

#### **Archaeology in Action: an introduction**

#### *CAP*

This lecture will introduce ARC02. It will outline the scope and diversity of the discipline of archaeology and its investigation of the human past and introduce you to the practices and principles of archaeology fieldwork that will be covered in the course.

#### *Reading:*

Carver 2009

Renfrew and Bahn 2012

Drewett 2011

Scarre (ed.) 2013 (also 2006, 2009)

Grant *et al.* 2008

#### Practical 1. 17 October 2014

#### **Excavation field trip I**

#### *CAIF/CAP*

For this introductory practical we will visit the *Cambridge Archaeology Unit (CAU)* and the extensive archaeological site of Over, Cambridgeshire (*Fig. 1*), which has been investigated for more than 25 years by the *CAU* and members of staff from the Division of Archaeology. The fieldtrip to Over will give you a basic introduction to modern archaeological field research, including some of the key elements of a particular type of archaeological excavation ('developer funded archaeology'), drawing attention to some of its realities, benefits and disadvantages.

#### *Reading:*

[http://www-teaching.arch.cam.ac.uk/courses/1213/a10\\_Materials\\_for\\_ask\\_01.zip](http://www-teaching.arch.cam.ac.uk/courses/1213/a10_Materials_for_ask_01.zip)

## Lecture 2. 20 October 2014

### What is left behind?

*CAP*

This lecture will introduce the range of archaeological evidence that is preserved (and that which isn't) and how it makes up the archaeological record. It will also introduce you to the key concepts that will be explored in the course, including archaeological stratigraphy, taphonomic processes, and preservation, and how these factors constrain the evidence that we have for past activities will be emphasised.

*Reading:*

Carver 2009

Grant *et al.* 2008

Drewett 2011

Renfrew and Bahn 2012, Chapters 2 & 3

## Practical 2. 24 October 2014

### Archaeology from aerial images

*RP*

This session will introduce how, why and which archaeological features can be detected from the air and from satellites and will show how photo interpretation allows these to be used in research and to provide a guide for field work.

*Reading:*

<http://www.univie.ac.at/Luftbildarchiv/>

Palmer and Cowley 2010

Beck 2006

Renfrew and Bahn 2012, Chapter 3

Brophy and Cowley (ed) 2005

Riley 1982

Crutchley 2010

Stoertz 1997

Opitz and Cowley (eds) 2013

Wilson 1982/2000

Palmer 1996

Wilson 1987

### Lecture 3. 27 October 2014

## Reconstructing the environment

### CAIF

This lecture introduces various approaches used to investigate landscapes, as well as some of the problems and biases involved. A review of basic methodological techniques is set out, backed up by case studies from the East Anglian fenlands, south-eastern Spain and Cranborne Chase.

#### *Reading:*

Bell and Walker 1992	Evans and O'Connor 1999*
Brown 1997	French 2003*
Chapman 1990	French <i>et al.</i> 2007
Clark 1990	Flannery 1976
Coles and Hall 1994	Hall 1987
Dimbleby 1986	Kenward 1978
Dimbleby and Evans 1979	Plog <i>et al.</i> 1978
Edwards 1982	Rapp and Hill 1998*

### Practical 3. 31 October 2014

## Sampling landscapes and environments

### CAIF

The session will introduce the ways that archaeologists investigate and sample the palaeo-environment, and explore the types of questions that these data can address.

#### *Reading:*

Ayala and French 2005	English Heritage 2007*
Campbell <i>et al.</i> 2011*	French 2003*, Chapters 5, 10 & 12
English Heritage 2004*	French <i>et al.</i> 2007



## **Lecture 4. 03 November 2014**

### **Finding sites: archaeological survey**

*CAP*

Archaeological sites and remains come in many shapes and forms, and this lecture will introduce you to the diverse types of sites, and the methods that archaeologists use to identify sites and examine them before conducting excavation. It will also introduce a range of methodological approaches and the concept of sampling.

*Reading:*

Bintliff *et al.* 2007

Orton 2000

Carver 2009, Chapters 4 & 5

Parcak 2009

Gaffney and Gater 2004

Plog *et al.* 1978

Howard 2007

Wilkinson 2001

## **Practical 4. 07 November 2014**

### **Mapping in archaeology: intro to GIS I (IT lab)**

*DIR/CAP*

This lecture will introduce Geographical Information Systems, how they work and why archaeologists make use of them. Examples will move from simplistic applications to more complicated data interrogation and modelling. The practical will orient students in the use of ArcGIS and the production of basic maps.

*Reading:*

Wright 1988

## **Lecture 5. 10 November 2014**

### **Living in ancient landscapes**

*CAP*

This lecture discusses the nature of space, place and landscape as both physical and cognitive phenomena. It relates these concepts to human perception and highlights that archaeological data is inherently spatial and considers different theoretical and practical approaches to spatial data at various scales.

*Reading:*

Bender 1993

Ingold 2000

David and Thomas (eds) 2008

Tilley 1994

Hirsch and O'Hanlon 1995

Ucko and Layton 1999

Hodder and Orton 1976

Wilkinson 2003

Ingold 1993

**Practical 5. 14 November 2014**

**Mapping in archaeology: intro to GIS II (IT)**

*DIR/CAP*

This lecture will expand the skills learned in the Introduction to GIS I session.

*Reading:*

Gaffney and Stancic 1991

Wright 1988

**Lecture 6. 17 November 2014**

**Stratigraphy and context**

*CAP*

This lecture will focus on the nature of archaeological stratigraphy and will explore the importance of context. It will also highlight practical methods of excavating and recording stratigraphic information and introduce you to a range of sampling techniques.

*Reading:*

Carver 2009, Chapters 6 & 10

Harris 1989

Grant et al. Chapter 7

Renfrew and Bahn 2012, Chapters 3 & 5

**Practical 6. 21 November 2014**  
**Recording artefacts (Keyser Room)**  
*CAP*

This session will introduce students to the methods used to record artefacts and to draw artefacts and pottery using the traditional tools of pen and paper. It is complemented by the computing practicals that introduce students to raster and vector illustration.

*Reading:*

Atkins and Atkins 1989 (also 2010)                      Steiner 2005  
Griffiths et al. 1990

**Lecture 7. 24 November 2014**  
**Living in ancient settlements**  
*CAP*

This lecture will introduce you to the range of evidence that can be recovered from ancient (and modern) settlements. It will introduce the concept of the assemblage, methods for site phasing, and for understanding site status and function, and explore how the data derived from complex settlement sites can be interrogated

*Reading:*

Carver 2009, Chapters 6 & 9                                      Loveluck 2007  
Clarke 1972    Lucy *et al.* 2009  
Grant et al. Chapter 7    Renfrew and Bahn 2012, Chapters 3 & 5  
Hastorf 1991    Stone 1987

**Practical 7. 28 November 2014**  
**Excavation field trip II**  
*CAIF/CAP*

For this second fieldtrip we will visit the CAU excavations at West Cambridge.

## **Lecture 8. 01 December 2014**

### **Thinking about time and dating**

#### *TO'C*

This lecture will outline the basic principles of scientific dating techniques, discussing the utility of the different methods, the sample types used and the date ranges spanned. The questions of accuracy, precision and errors will be discussed. No prior scientific knowledge required!

#### *Reading:*

Aitken 1990, Chapters on climatic dating, 14C, U-series, luminescence, ESR and amino acid racemization.

Brothwell and Pollard 2004, Section 1 Dating: Overview chapter by REM Hedges

Carver 2009, Chapter 11

Taylor and Aitken 1997, chapters on climatic dating, 14C, U-series, luminescence, ESR and amino acid racemization

## **Practical 8. 05 December 2014**

### **Measuring time**

#### *TO'C/CAP*

This session will introduce students to the practicalities of scientific dating, particularly the concept of decay, and will provide a practical demonstration of how decay takes place and how scientists can use this to measure time. Students will also be given an exercise that brings together the skills and knowledge learned about time and dating in the different practicals they have attended so far in the course.

#### *Reading:*

Bronk Ramsey 2009

Brothwell and Pollard 2004, section on dating, particularly chapters by Hedges (overview), Taylor (radiocarbon) and Latham (U-series)

Renfrew and Bahn 2012, Chapter 12

Stuiver and Reimer 1977

Wheeler 1954

## Lent 2015

### *Archaeology in the lab*

#### Lecture 9. 19 January 2015

#### Learning from making

#### *CAP*

One of the most informative ways to learn about and understand ancient technologies and processes is through experimental reconstruction. This lecture will introduce the principles and practices of experimental archaeology.

#### *Reading:*

Ashbee and Jewell 1998

Rye 1981

Bell *et al.* 1996

Stone and Planel 1999

#### Practical 9. 23 January 2015

#### Making things

#### *CAP*

This session will introduce students to the methods and technological approaches used to produce pottery vessels and other things out of clay. In addition to a broad introduction to the fundamental processes involved, this is a hands-on session where students get a feel for clay as a raw material.

#### *Reading:*

Orton *et al.* 1993

Rye 1981

Rice 1987

Stone and Planel 1999

**Lecture 10. 26 January 2015**  
**Technology, economy and pottery**  
*CAP*

This lecture will introduce archaeological approaches to pottery. It will explore the types of information that can be derived about ancient technology and economics from looking at pottery fragments, and outline the types of methods that archaeologists use in the field to examine pottery.

*Reading:*

Orton *et al.* 1993

Rice 1987

Miller 2009, chapter 4

Rye 1981

**Practical 10. 30 January 2015**  
**Looking at pottery**  
*CAP*

This session introduces students to the types of ceramic material that are recovered by archaeologists in the field and give them an opportunity to have some hands-on experience with the ways that this material is sorted, processed, and analysed.

*Reading:*

Gibson and Woods 1997

Rice 1987

Orton *et al.* 1993

Rye 1981

Miller 2009, chapter 4

**Lecture 11. 02 February 2015**  
**Cognition, technology and lithics**  
*PN*

This lecture will introduce you to different approaches to lithics artefacts and consider particular questions that can be answered by analysing lithic assemblages. Lithics can be used to address problems like the organisation of mobility and technology, occupation duration, site formation, organisation of prehistoric trade, etc.

*Reading:*

Andrefsky 2005

Odell 2004

Odell 2000

Schick and Toth 1993

Odell 2001

**Practical 11. 06 February 2015**

**Learning from lithics**

*PN*

This session will introduce students to stone tool technology and give them an opportunity to have some hands-on experience with lithics and instruction in the types of methods used to sort, process and analyse lithic material.

*Reading:*

Addington 1986

Odell 2004

Andrefsky 2005

Whittaker 1994

**Lecture 12. 09 February 2015**

**Materials and molecules**

*TO'C*

The methods of archaeological science have expanded the range and depth of questions that can be asked of the archaeological record. Increasingly, archaeological science is not only applied in a post-hoc manner but is used to inform and direct the research design and excavation process. Thus, an understanding of its approaches, possibilities and methods is crucial for all archaeologists. The lecture takes a brief look at the historical development of the different facets of archaeological science, and then focuses on the questions that can be addresses using its methods. It briefly covers the main artefacts and ecofacts that are recovered during excavation. Using ceramics as a case study, it will outline the ways that archaeological and scientific techniques can be combined to investigate particular categories of artefacts.

*Reading:*

Brothwell and Pollard 2001, intro sections to Sections 3, 4, 5, 6, 8

**Practical 12. 13 February 2015**

**Under the microscope**

*TO'C/CAP*

This session will introduce students to the range of microscopic techniques used in analysis of different categories of archaeological material and assemblages. Students will use low and high power microscopes, as well as scanning electron microscopy to examine a range of archaeological samples.

*Reading:*

Brothwell and Pollard 2001

Malainey 2012

**Lecture 13. 16 February 2015**

**From subsistence to globalisation: investigating plant remains**

*MKJ*

This lecture will consider the four principal categories of macroscopic preservation of food remains, wet, dry, burnt and mineralised, the different combinations that are found in archaeological sites, the kinds of analyses that are conducted upon them, and how this informs different kinds of field methods.

*Reading:*

Brothwell and Pollard 2001, section 5

Pearsall 1989

Jones 2007

Wilkinson and Stevens 2003, section 3

**Practical 13. 20 February 2015**

**What plant is this? Archaeobotany in the laboratory**

*RB*

This session introduces students to the range of botanical remains that can be recovered from archaeological contexts, gives them an opportunity to have some hands-on experience with various types of botanical material and explores the ways in which these data can be used to reconstruct the past.



*Reading:*

Campbell *et al.* 2011

Hather 1993

Evans and O'Connor 1999

Hillman 1984

**Lecture 14. 23 February 2015**

**From kill off patterns to butchery and ritual: investigating animal remains**

*PTM*

In this lecture we consider the particular problems and opportunities presented by the recovery and analysis of animal remains from archaeological sites. Animal remains can address the essential questions of any archaeological "Who-dunnit" - who, what, when, where, and why?

*Reading:*

Bunn and Kroll 1986

Miracle and Milner 2002

Davis 1987

O'Connor 2000

Gaudzinski and Roebroeks 2000

O'Day *et al.* 2004

**Practical 14. 27 February 2015**

**Sorting the sheep from the goats: analysing animal remains**

*PTM*

Students will be introduced to the types of animal remains that are preserved in the archaeological record, give them an opportunity to have some hands-on experience with the approaches used by zooarchaeologists, and the types of questions that animal bones can be used to investigate.

*Reading:*

Davis 1987

Reitz and Wing 2008

Hillson 1996

Schmid 1972

O'Connor 2000

**Lecture 15. 02 March 2015****The archaeology of death and burial***SH*

Do the dead have to be buried? Do we have to bury the dead? Is burial part of what makes us human? This lecture will introduce mortuary archaeology as a central component of the discipline of archaeology. It will give an account of the way in which archaeologists have in the past thought about funerary evidence, and it will provide an overview over some contemporary theoretical approaches.

*Reading:*

Ariès 1981	Pader 1982
Binford 1971.	Parker Pearson 1982
Bradley 2002	Parker Pearson 1999
Chapman 2003	PAHO/WHO 2004
Chamberlain and Parker Pearson 2001	Rak <i>et al.</i> 1994
Härke 1994	Saxe 1970
Lindenschmit and Lindenschmit 1848	Solecki 1971
Nilsson Stutz 2008	Tarlow 1999

**Practical 15. 06 March 2015****Analysing human remains I***CD/ND*

This session will introduce the skills of human osteology: basic anatomy and physiology of the hard tissues, the preparation of a skeletal inventory and determination of the 'Big Four' of demography, and recording of pathological changes. Excavation and handling of human remains is covered and the ethical aspects of osteoarchaeology are considered.

*Reading:*

This is the basic reading list. The volumes by Mays, and White and Folkens are the essential textbooks, the latter dealing with anatomy and identification as well as interpretation. These classes are supported by a handout and textbooks are provided, but it is worth reading at least the introductions to the books below and skimming through to see the different ways in which basic osteological recording and analysis can be done.

Bass 1987

Brothwell 1981

Iscan and Kennedy 1994

Larsen 1997

Mays 1998

Ortner and Putschar 1985

Steele and Bramblett 1988

Ubelaker 1989

White and Folkens 2000

## **Lecture 16. 09 March 2014**

### **Living and dead bodies: scientific approaches**

**SH**

The application of scientific techniques, such as osteology, palaeopathology and isotope analysis, to the study of human remains has greatly expanded what we can say about people's lives in the past. In combination with other archaeological evidence, such as burial practice and grave goods, they can open a window into people's circumstances, from childhood to death. This lecture will explore the way in which these techniques have changed and expanded our thinking about the social role of past dietary and subsistence practices and about population movements in the past.

#### *Reading:*

Crawford 2000

Härke 2000

Hakenbeck 2009

Hakenbeck *et al.* 2010

Katzenberg *et al.* 1995

Lucy 1997

Mays and Cox 2000

Prowse *et al.* 2008

Schroeder *et al.* 2009

Sofaer 2006

Stoodley 1999

Stoodley 2000

## **Practical 16. 13 March 2015**

### **Analysing human remains II**

**CD/ND**

This session will expand on the analysis of the human body begun in Analysing Human Bones I. The skeletal remains are put in the context of cultural and

environmental factors (funerary archaeology and taphonomy) and methods of comparison are suggested.

## Easter 2015

### *Archaeological Fieldwork*

Students will participate in the Division of Archaeology training excavation. Students are expected to attend 5 full days on-site, which can be made up of several half-day sessions.

Details to follow

### Consolidated reading list

- Addington, L. R. 1986. *Lithic illustration: drawing flaked stone artifacts for publication*. University of Chicago Press, Chicago.
- Aitken, M.J. 1990. *Science-Based dating in Archaeology*. London: Thames and Hudson.
- Andrefsky, W. 2005. *Lithics: macroscopic approaches to analysis*. Second Edition. Cambridge University Press, Cambridge.
- Ariès, P. 1981. *The hour of our death*. London: Allen Lane
- Ashbee, P. and Jewell, P. 1998. The experimental earthwork revisited, *Antiquity* 72: 485-504.
- Atkins, L. and Adkins, R. 1989. *Archaeological Illustration*, Cambridge Manuals in Archaeology, CUP, Cambridge.
- Ayala, G. and French, C. 2005. Erosion modelling of past land use practices in the Fiume di Sotto di Troina valley, *Geoarchaeology* 20 (2), 149-67.
- Bass, W. M. 1987. *Human osteology: a laboratory and field manual* (Missouri Archaeological Society Special Publication No. 2). Columbia, Miss.: Missouri Archaeological Society
- Beck, A., 2006. Google Earth and World Wind: remote sensing for the masses? *Antiquity* 80: <http://antiquity.ac.uk/ProjGall/beck/>
- Bell, M., Fowler, P.J., and Hillson, S.W. (eds.). 1996. *The Experimental Earthwork Project 1960-1992*, Research Report 100, Council for British Archaeology, York.
- Bell, M and Walker, M, 1992. *Late quaternary environmental change: physical and human perspectives*. Harlow: Longman Scientific & Technical. [Haddon - 645 bel (a)]

- Bender, B. 1993. Introduction: Landscapes – Meaning and Action. In Bender, B. (ed). *Landscapes: Politics and perspectives*. Oxford: Berg.
- Binford L. 1971. Mortuary practices: their study and their potential. In: Brown JA, editor. *Approaches to the Social Dimensions of Mortuary Practices*. Washington DC: Society for American Archaeology, pp. 6-29.
- Bintliff, J. Howard, P. and Snodgrass, A. 2007. *Testing the Hinterland: The work of the Boeotia Survey (1989-1991) in the Southern Approaches to the City of Thespiiai*, McDonald Institute for Archaeological Research, Cambridge.
- Bradley, R. 2002. *The Past in Prehistoric Societies*. Routledge.
- Bronk Ramsey, C. 2009. *OxCal*, <http://c14.arch.ox.ac.uk/embed.php?File=oxcal.html>
- Brophy, K. and Cowley, D. (ed), 2005. *From The Air: Understanding Aerial Archaeology*. Tempus, Stroud.
- Brothwell, D. R. 1981. *Digging up bones*. 3rd edition. Oxford: Oxford University Press and British Museum (Natural History)
- Brothwell, D. & Pollard, A.M. 2004. *Handbook of Archaeological Science*, Wiley.
- Brown, A G, 1997. *Alluvial geoarchaeology: floodplain archaeology and environmental change*. Cambridge: Cambridge University Press. [Haddon - LAB ZS bro]
- Bunn, H. T., and E. M. Kroll 1986. Systematic Butchery by Plio-Pleistocene Hominids at Olduvai Gorge, Tanzania. *Current Anthropology* 27(5):431-442.
- Campbell, G., Moffett, L. and Straker, V. 2011. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (second edition). Portsmouth: English Heritage. <http://www.english-heritage.org.uk/publications/environmental-archaeology-2nd/>
- Carver, M. 2009. *Archaeological Investigation*, Routledge, London. [+ online materials].
- Chamberlain, A. and Parker Pearson, M. 2001. *Earthly Remains: the history and science of preserved bodies*. London: British Museum Press.
- Chapman, R, 1990. *Emerging complexity: the later prehistory of south-east Spain, Iberia and the west Mediterranean*. Cambridge: Cambridge University Press. [Haddon - 188 cha]
- Chapman, R. 2003. Death, society and archaeology: the social dimensions of mortuary practices. *Mortality*, 8(3): 305-312.
- Clark, A, 1990. *Seeing beneath the soil: prospecting methods in archaeology*. London: Batsford. [Haddon – 646 cla]
- Clarke, D. L., 1972. A provisional model of an Iron Age society and its settlement system, in *Models in Archaeology*, ed. D. L. Clarke, London: Methuen, 801-85.
- Coles, J and Hall, D, 1994. *Fenland survey: an essay in landscape and persistence*. (English Heritage archaeological report 1) London: English Heritage. [Haddon - 46 hal -- LARGE VOLUME]
- Crawford S. 2000. *Childhood in Anglo-Saxon England*, Stroud: Sutton.

- Crutchley, S. 2010. *The Light Fantastic: using airborne lidar in archaeological survey*. English Heritage. Free download: <http://www.english-heritage.org.uk/publications/light-fantastic/>
- David, B. and Thomas, J. (eds) 2008. *Handbook of Landscape Archaeology*. Walnut Creek, CA: Left Coast Press.
- Davis, S.J.M. 1987 *The Archaeology of Animals*. Yale University Press, New Haven.
- Dimbleby G W, 1986. *The palynology of archaeological sites*. London: Academic Press. [Haddon - 649.1 dim]
- Dimbleby, G W and Evans, J G, 1979, Pollen analysis and land snail analysis of calcareous soils, *Journal of Archaeological Science* 1, 117-133. [Haddon – Periodicals]
- Drewett, P. 2011. *Field Archaeology: An Introduction*, 2<sup>nd</sup> edition, Routledge, London.
- Edwards, K, 1982, Man, space and the woodland edge, in M Bell and S Limbrey (eds) *Archaeological aspects of woodland ecology*, (BAR International Reports 146), Oxford: British Archaeological Reports, pp 5-22. [Haddon - 650 BAR(S) 146]
- English Heritage. 2004. *Geoarchaeology: Using earth sciences to understand the archaeological record*. Swindon. <http://www.english-heritage.org.uk/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/>
- English Heritage. 2007. *Understand the archaeology of landscapes: a guide to good recording practice*. Swindon. <http://www.english-heritage.org.uk/publications/understanding-archaeology-of-landscapes/>
- Evans, J G and O'Connor, T, 1999. *Environmental Archaeology – Principles and Methods*. Stroud: Sutton. [Haddon LA9 T8E eva]
- Foley, R. A. 1981. Off-site archaeology: An alternative approach for the short-sighted. pp. 152-84. in Hodder, I., Isaac, G. and Hammond, N. eds. *Patterns of the Past: Essays in Honour of David Clarke*. Cambridge: Cambridge University Press.
- French, C. 2003. *Geoarchaeology in Action*. London: Routledge. [Haddon: LA 8DG [fre(b)]]
- French, C. 2003. *Geoarchaeology in Action*. London: Routledge. See Chaps 5, 10 & 12.
- French, C., Lewis, H., Allen, M., Green, M., Scaife, R. and Gardiner, J. 2007. *Prehistoric landscape development and human impact in the upper Allen valley, Cranborne Chase, Dorset*. Cambridge: McDonald Institute.
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