



PART I/IIA

Paper ARC02

Archaeology in Action

Course Co-ordinators

Cameron A Petrie (cap59@cam.ac.uk)

Lecturers

Rachel Ballantyne, Natasha Dodwell, Corinne Duhig, Charly French, 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: 6 supervisions (3 in Michaelmas & 3 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%	Fri 02/12/2016
02. Stratigraphy and dating exercise (1000 words + images)	10%	Fri 20/01/2017
03. Practical workbook	10%	Fri 27/04/2017

All assessed work must be handed in to Anna O'Mahony (Archaeology undergraduate secretary) by 12 noon on the due date.

Contents subject to change. Important: Please always refer to the on-line version of this syllabus for the most up-to-date information.

Paper ARC02 Timetable 2016-2017*Michaelmas*

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

Wednesday 5 October – Introduction to Part I HSPS, 9am [Cockcroft Lecture Theatre](#), 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>
10 Oct	Archaeology in Action: an introduction	CAP	14 Oct	Excavation field trip I	CAIF/CAP
17 Oct	What is left behind?	CAP	21 Oct	Archaeology from aerial images	RP
24 Oct	Reconstructing the environment	CAIF	28 Oct	Excavation field trip II	CAIF/CAP
31 Oct	Finding sites - archaeological survey	CAP	04 Nov	Mapping in archaeology: intro to GIS I	DIR/CAP
07 Nov	Living in ancient landscapes	CAP	11 Nov	Mapping in archaeology: intro to GIS II	DIR/CAP
14 Nov	Stratigraphy and context	CAP	18 Nov	Sampling landscapes and environments	CAIF
21 Nov	Living in ancient settlements	CAP	25 Nov	Recording artefacts (Keyser Room)	CAP
28 Nov	Thinking about time and dating	TO'C	02 Dec	Measuring time	TO'C/CAP

Lent

Module lecturers: Rachel Ballantyne [RB], Natasha Dodwell [ND], Corinne Duhig [CD], Martin Jones [MKJ], Preston Miracle [PTM], Philip R Nigst [PRN], 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>
23 Jan	Learning from making	CAP	27 Jan	Making things	CAP
30 Jan	Technology, economy and pottery	CAP	03 Feb	Looking at pottery	CAP
06 Feb	Lithics, technology and human behaviour	PRN	10 Feb	Learning from lithics	PRN
13 Feb	Material and molecules	TO'C	17 Feb	Under the microscope	TO'C/CAP
20 Feb	From subsistence to globalisation: investigating plant remains	MKJ	24 Feb	What plant is this? Archaeobotany in the laboratory	RB
27 Feb	From kill off patterns to butchery and ritual: investigating animal remains	PTM	03 Mar	Sorting the sheep from the goats: analysing animal remains	PTM
06 Mar	The archaeology of death and burial	CD/ND	10 Mar	Looking at human bones I	CD/ND
13 Mar	Living and dead bodies: scientific approaches	CD/ND	17 Mar	Looking at human bones II	CD/ND

Easter

ARC02 students are to attend four full days (or eight half days) of the Division of Archaeology training excavation

Site director: Charly French [CAIF]

Training Excavation

Week 1

Date *Lecture Topic*

25 Apr Training excavation

27 Apr Training excavation

CAIF/PRN

CAIF/PRN

Week 2

Date *Practical Topic*

26 Apr Training excavation

28 Apr Training excavation

CAIF/PRN

CAIF/PRN

Michaelmas 2016

Archaeology in the field

Lecture 1. 10 October 2016

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. 14 October 2016

Excavation field trip I

CAIF/CAP

For this introductory practical we will visit the *Cambridge Archaeology Unit (CAU)* and an archaeological site in Cambridgeshire.

Lecture 2. 17 October 2016

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. 21 October 2016

Archaeology from aerial images

RP

This session will introduce how, why and which archaeological features can be detected from the air and from satellites, noting how post-depositional process affect this. Photo interpretation, which can be done in GIS, allows us to extract information from aerial images that can then be used in research projects, to provide a guide for field work or for management. Practical work will include photo reading and viewing images in 3D.

Reading:

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

Renfrew and Bahn 2012, Chapter 3
(esp p80-93)

Lecture 3. 24 October 2016
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. 28 October 2016
Excavation field trip II
CAIF/CAP

For this second fieldtrip we will visit another archaeological site in Cambridgeshire.

Lecture 4. 31 October 2016

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. 04 November 2016

Mapping in archaeology: intro to GIS I

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:

Lock 2009

Wright 1988

Lecture 5. 07 November 2016

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. 11 November 2016

Mapping in archaeology: intro to GIS II

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. 14 November 2016

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. 18 November 2016
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 et al. 2011*	French 2003*, Chapters 5, 10 & 12
English Heritage 2004*	French <i>et al.</i> 2007

Lecture 7. 21 November 2016
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 <i>et al.</i> 2009
Grant et al. Chapter 7	Renfrew and Bahn 2012, Chapters 3 & 5
Hastorf 1991	Stone 1987

Practical 7. 25 November 2016
Recording artefacts
CAP

This session will introduce students to the methods used to record artefacts and to draw artefacts using the traditional tools of pen and paper. We will also briefly discuss various digitization methods.

Reading:

Addington 1986

Inizan et al. 1999 (Chapter 7)

Atkins and Atkins 1989 (also 2010)

Steiner 2005

Griffiths et al. 1990

Lecture 8. 28 November 2018

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. 02 December 2016

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 2017

Archaeology in the lab

Lecture 9. 23 January 2016

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. 27 January 2017

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. 30 January 2017

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. 03 February 2017

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. 06 February 2017

Lithics, technology and human behaviour

PRN

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. 10 February 2017

Learning from lithics

PRN

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. 13 February 2017

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 addressed using its methods. It briefly covers the main artefacts and ecofacts that are recovered during excavation. Using case studies, 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. 17 February 2017

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

Weiner 2010

Malainey 2012

Lecture 20. 20 February 2017

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. 24 February 2017

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. 27 February 2017

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. 03 March 2017

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. 06 March 2017**The archaeology of death and burial***CD/ND*

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. 10 March 2017**Analysing human remains I***CD/ND*

This session will introduce the skills of human osteology: basic anatomy and physiology of the hard tissues and the preparation of a skeletal inventory.

Reading:

These classes are supported by a handout, which must be read in advance of the sessions, and reference textbooks are provided. It is, however, 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	Ortner and Putschar 1985
Brickley and McKinley 2004	Steele and Bramblett 1988
Brothwell 1981	

Iscan and Kennedy 1994

Ubelaker 1989

Larsen 1997

White and Folkens 2000

Mays 1998

Lecture 16. 13 March 2017

Living and dead bodies: scientific approaches

CD/ND

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

Mays and Cox 2000

Härke 2000

Prowse *et al.* 2008

Hakenbeck 2009

Schroeder *et al.* 2009

Hakenbeck *et al.* 2010

Sofaer 2006

Katzenberg *et al.* 1995

Stoodley 1999

Lucy 1997

Stoodley 2000

Practical 16. 17 March 2017

Analysing human remains II

CD/ND

This second session will focus on the determination of the 'Big Four' of osteoarchaeology — sex, age and stature — and individuation including the recording of pathologies.

Easter 2016

Archaeological Fieldwork

Students will participate in the Division of Archaeology training excavation. Students are expected to attend 4 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.
- Brickley, M and Mckinley, J.I.(eds), 2004 *Guidelines to the Standards for Recording Human Remains* BABA0/IFA Paper No. 7. <http://www.babao.org.uk/HumanremainsFINAL.pdf>
- 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. <https://historicengland.org.uk/images-books/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: <https://historicengland.org.uk/images-books/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*, 2nd 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. 2007a. *Geoarchaeology: Using earth sciences to understand the archaeological record*. Swindon. <https://historicengland.org.uk/images->

books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/

- English Heritage. 2007b. *Understand the archaeology of landscapes: a guide to good recording practice*. Swindon. <https://historicengland.org.uk/images-books/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.
- Flannery, K. 1976. (ed.) *The early Mesoamerican village*. New York, Academic Press. [Haddon – 363 F]
- Gaffney, C. and Gater, J. 2004. *Revealing the Buried Past: Geophysics for Archaeologists*, Tempus, Stroud.
- Gaffney, V.L. and Stancic, Z. 1991. *GIS Approaches to Regional Analysis: A Case Study of the Island of Hvar*, Filozofska fakulteta, Ljubljana. [Download from [http://iaps.zrc-sazu.si/sites/default/files/Gaffney Stancic GIS approaches to regional analysis.pdf](http://iaps.zrc-sazu.si/sites/default/files/Gaffney_Stancic_GIS_approaches_to_regional_analysis.pdf)]
- Gaudzinski, S., and W. Roebroeks 2000. Adults only. Reindeer hunting at the Middle Palaeolithic site Salzgitter Lebenstedt, Northern Germany. *Journal of Human Evolution* 38:497–521.
- Gibson, A. & Woods, A. 1997. *Prehistoric Pottery for the Archaeologist*, Leicester University Press, Leicester.
- Grant, J., Gorin, S. and Fleming, N. 2008. *The Archaeology Coursebook: An Introduction to Themes, Sites, Methods and Skills*, Routledge, London [+ online materials].
- Griffiths, N., Jenner, A. and Wilson, C. 1990. *Drawing Archaeological Finds: A Handbook*, Occasional paper of the Institute of Archaeology, University College London, Archetype Publications, London.
- Hakenbeck S. 2009. 'Hunnic' modified skulls: Physical appearance, identity and the transformative nature of migrations. In: Williams H, and Sayer D, editors. *Mortuary Practices and Social Identities in the Middle Ages*. Exeter: Exeter University Press. p 64-80.
- Hakenbeck S, McManus E, Geisler H, Grupe G, and O'Connell TC. 2010. Diet and mobility in Early Medieval Bavaria: a study of carbon and nitrogen stable isotopes. *American Journal of Physical Anthropology* 143(2): 235–249.

- Hall, D, 1987. *The Fenland Project. No.2: Fenland landscapes and settlement between Peterborough and March Cambridge, Cambridgeshire*, EAA 35 [Haddon - LARGE VOLUME NAA 28Feaa 35]
- Härke H. 1994. Data types in burial analysis. In: Stjernquist B, editor. *Prehistoric Graves as a Source of Information*. Stockholm: Kungliga Vitterhets Historie och Antikvitets Akademien/Almqvist & Wiksell International, pp 31-39.
- Härke H. 2000. Social analysis of mortuary evidence in German protohistoric archaeology. *Journal of Anthropological Archaeology* 19:369-384.
- Harris, E.C. 1989. *Principles of Archaeological Stratigraphy, 2nd Edition*. Academic Press: London and San Diego.
- Hastorf, C.A. 1991. 'Gender, space and food in prehistory' in J. Gero and M. Conkey (eds) *Engendering Archaeology*, 132-62.
- Hather, J. 1993. *An Archaeobotanical Guide to Root and Tuber Identification. Vol. 1, Europe and South West Asia*, Oxford, Oxbow Books.
- Hillman, G.C. 1984. 'Interpretation of archaeological plant remains: The application of ethnographic models from Turkey', pp.1-41 in W. van Zeist and W.A. Casparie (eds.) *Plants and Ancient Man: Studies in palaeoethnobotany*. Rotterdam, Balkema.
- Hillson, S. 1996. *Mammal Bones and Teeth. An Introductory Guide to Methods of Identification*. UCL.
- Hirsch, E. and O'Hanlon, M. 1995. *The Anthropology of Landscape: Perspectives on Place and Space*. Oxford: Oxford University Press.
- Hodder, I and Orton, C. 1976. *Spatial Analysis in Archaeology*. Cambridge: Cambridge University Press.
- Howard, P. 2007. *Archaeological Surveying and Mapping: Recording and Depicting the Landscape*, Routledge, London.
- Ingold, T. 1993. The temporality of the landscape. *World Archaeology* 25:152-174.
- Ingold, T. 2000. *Perception of the Environment*. London: Routledge.
- Inizan, M. L., Roche, H. and Tixier, J. 1999. Technology of knapped stone. CREP, Meudon.
[http://www.mae.u-paris10.fr/prehistoire/IMG/pdf/Technology and Terminology of Knapped Stone.pdf](http://www.mae.u-paris10.fr/prehistoire/IMG/pdf/Technology_and_Terminology_of_Knapped_Stone.pdf)
- Iscan, M. Y. & K. A. R. Kennedy (eds). 1994. *Reconstruction of life from the skeleton*. 2nd edition. New York: Wiley-Liss
- Jones, M.K. 2007. *Feast: Why Humans Share Food*, OUP, Oxford.
- Katzenberg, M. A., Schwarcz, H. P., Knyf, M., and Melbye, F. J. 1995. Stable isotope evidence for maize horticulture and paleodiet in southern Ontario, Canada. *Am. Antiquity* 60, 2, 335-350.
- Kenward, H. 1978. The value of insect remains as evidence of ecological conditions on archaeological sites, in Brothwell, D.R., Thomas, K.D and Clutton-Brock J. (eds) *Research Problems in Zooarchaeology* (Occasional publication of the University of

- London. Institute of Archaeology 3), pp 25-38. [Haddon – Periodicals; University Library - L468.b.56.3]
- Larsen, C.S. 1997. *Bioarchaeology. Interpreting behavior from the human skeleton*. (Cambridge Studies in Biological Anthropology). Cambridge: Cambridge University Press
- Lindenschmit W, and Lindenschmit L. 1848. *Das Germanische Todtenlager bei Selzen in der Provinz Rheinhessen* (ed). Mainz: Victor von Zabern.
- Lock, G.R., 2009, Human activity in a spatial context. In Gosden, C., Cunliffe, B., and Joyce, R.A. (eds), *The Oxford Handbook of Archaeology*. Oxford: Oxford University Press. <http://dx.doi.org/10.1093/oxfordhb/9780199271016.013.0007>
- Loveluck, C.P. 2007. *Rural Settlement, Lifestyles and Social change in the later first millennium AD. Anglo-Saxon Flixborough in its wider context. Excavations at Flixborough, Volume 4*. Oxbow.
- Lucy S. 1997. Housewives, warriors and slaves? Sex and gender in Anglo-Saxon burials. In: Moore J, and Scott E, editors. *Invisible People and Processes*. London and New York: Leicester University Press, 150-168.
- Lucy, S.J., Tipper, J. and Dickens, A. 2009. *The Early Anglo-Saxon Settlement and Cemetery at Bloodmoor Hill, Carlton Colville, Suffolk*. East Anglian Archaeology 131.
- Malainey, M.E. 2012. *A Consumer's Guide to Archaeological Science: Analytical Techniques*, Springer, New York <http://link.springer.com/book/10.1007/978-1-4419-5704-7/page/1>
- Mays, S. 1998. *The archaeology of human bones*. London: Routledge.0-415-17407-4
- Mays, S. and Margaret Cox, 2000. *Human Osteology: In Archaeology and Forensic Science*. Cambridge University Press.
- Miller, H.M-L. 2009. *Archaeological Approaches to Technology*, Left Coast Press, Walnut Creek.
- Miracle, P.T. and Milner, N. eds. 2002. *Consuming Passions and Patterns of Consumption*, McDonald Institute for Archaeological Research, Cambridge.
- Nilsson Stutz, L. 2008. More than Metaphor: Approaching the Human Cadaver in Archaeology, in *The Materiality of Death: Bodies, Burials, Beliefs*. Edited by F. Fahlander and T. Oestigaard, pp. 19-28. Oxford: Archaeopress.
- O'Connor, T. 2000. *The Archaeology of Animal Bones*. Sutton Publishing.
- O'Day, S. J., W. van Neer, and A.Ervynck, eds. 2004. *Behaviour Behind Bones. The Zooarchaeology of Ritual, Religion, Status and Identity*. Oxbow Books, Oxford.
- Odell, G.H., 2000. Stone Tool Research at the End of the Millennium: Procurement and Technology. *Journal of Archaeological Research*, 8(4): 269-331.
- Odell, G.H. 2001. Stone Tool Research at the End of the Millennium: Classification, Function, and Behavior. *Journal of Archaeological Research*, 9(1): 45-100.
- Odell, G.H. 2004. *Lithic Analysis. Manuals in Archaeological Method, Theory, and Technique*. Kluwer Academic/Plenum Publishers, New York.

- Opitz, R.S, and Cowley, D. C. (eds), 2013. *Interpreting Archaeological Topography: 3D data, visualisation and observation*. Oxbow, Oxford.
- Ortner, D. J. & W. G. J. Putschar. 1985. *Identification of pathological conditions in human skeletal remains*. Vol. 28. (Smithsonian Contributions to Anthropology). Washington & London: Smithsonian Institution Press
- Orton, C. 2000. *Sampling in Archaeology*, Cambridge Manuals in Archaeology, CUP, Cambridge.
- Orton, C., Tyers, P. and Vince, A. 1993. *Pottery in Archaeology*, First Edition, Cambridge University Press, Cambridge.
- Pader, E.-J. 1982. *Symbolism, Social Relations and the Interpretation of Mortuary Remains*. BAR British Series 130. Oxford: British Archaeological Reports.
- PAHO/WHO 2004. *Management of Dead Bodies in Disaster Situations*. Disaster Manuals and Guidelines Series, N° 5 Washington, D.C.
<http://www.paho.org/english/dd/ped/deadbodiesbook.pdf>
- Palmer, R. 1996. Integration of air photo interpretation and field survey projects. *Archaeological Prospection 2*, 167-176.
- Palmer, R and Cowley, D. 2010. Interpreting Aerial Imagery – developing best practice, in Stefano Campana, Maurizio Forte and Claudia Liuzza (eds), 2010. *Space, Time, Place. Third International Conference on Remote Sensing in Archaeology, 17th-21st August 2009, Tiruchirappalli, Tamil Nadu, India*. BAR -S2118, 129-135.
- Parcak, S. 2009. *Satellite Remote Sensing for Archaeology*, Routledge, London.
- Parker Pearson, M. 1982. Mortuary practices, society and ideology: an ethnoarchaeological study. In I. Hodder (ed.) *Symbolic and Structural Archaeology*, pp. 99-113. Cambridge: Cambridge University Press.
- Parker Pearson M. 1999. *The Archaeology of Death and Burial* (ed). Stroud: Sutton.
- Pearsall, D.M., 1989, *Palaeoethnobotany. A Handbook of Procedures*. Academic Press
- Plog, S., Plog, F. and Wait, W. 1978. Decision making in modern surveys. In Schiffer, M.B. (ed.) *Advances in Archaeological Method and Theory*. Vol. 1. New York, Academic Press, 383-421 [Haddon - RESTRICTED ACCESS 650 SCH 1/12]
- Prowse TL, Saunders SR, Schwarcz HP, Garnsey P, Macchiarelli R, and Bondioli L. 2008. Isotopic and dental evidence for infant and young child feeding practices in an imperial Roman skeletal sample. *American Journal of Physical Anthropology* 137(3):294-308.
- Rak Y, Kimbel WH, Hovers E. 1994. A Neandertal infant from Amud Cave, Israel. *Journal of Human Evolution* 26: 313–324.
- Rapp, G and Hill, C, 1998. *Geoarchaeology: the earth-science approach to archaeological interpretation*. New Haven - London: Yale University Press. [Haddon - LA 8DG [rap]]
- Reitz, E.J., and Wing, E.S. 2008. *Zooarchaeology*, Second Edition. Cambridge University Press, Cambridge.

- Renfrew, C. and Bahn, P. 2012. *Archaeology: Theory, Methods and Practice*, 6th edition, Thames and Hudson, London.
- Rice, P.M. 1987. *Pottery Analysis: A Sourcebook*, University of Chicago Press, Chicago.
- Riley, D. N., 1982 (or 2nd edition). *Aerial Archaeology in Britain*. Shire, Princes Risborough.
- Rye, O.S. 1981. *Pottery Technology: Principles and Reconstruction*, Manuals on Archaeology, Taraxacum, Washington.
- Saxe A. 1970. *Social Dimensions of Mortuary Practices*. Ann Arbor: University of Michigan.
- Scarre, C. (ed.). 2013. *The Human Past: World Prehistory and Development of Human Society*, 3rd edition, Thames and Hudson, London (there are also 2006 and 2009 editions).
- Schick, K. & Toth, N. 1993. *Making Silent Stones Speak: Human Evolution and the Dawn of Technology*. Simon & Schuster, New York.
- Schmid, E. 1972, *Atlas of Animal Bones*. Elsevier, Amsterdam.
- Schroeder H, O'Connell TC, Evans JA, Shuler KA, and Hedges REM. 2009. Trans-Atlantic slavery: isotopic evidence for forced migration to Barbados. *American Journal of Physical Anthropology* 139(4):547-557.
- Sofaer, J. 2006. *The body as material culture: a theoretical osteoarchaeology*. Cambridge: CUP.
- Solecki, R.S., 1971. *Shanidar, the First Flower People*. New York (NY): Knopf, Inc.
- Steele, D. G. & C. A. Bramblett. 1988. *The anatomy and biology of the human skeleton*. College Station: Texas A & M University Press
- Steiner, M. 2005. *Approaches to Archaeological Illustration: A Handbook*, Practical handbooks in archaeology, Council for British Archaeology
- Stoertz, C., 1997. *Ancient landscapes of the Yorkshire Wolds*, RCHME, Swindon
- Stone, E. 1987. *Nippur Neighborhoods*, SAOC 44, Oriental Institute, Chicago.
- Stone, P. and Planel, P. 1999. *The Constructed Past: Experimental archaeology, education and the public*, Routledge: One World Archaeology Series
- Stoodley N. 1999. *The Spindle and the Speared*, Oxford: British Archaeological Reports.
- Stoodley N. 2000. From the cradle to the grave: age organization and the early Anglo-Saxon burial rite. *World Archaeology* 31(3):456-472.
- Stuiver, M. & Reimer, P.J. 1977. Discussion: Reporting of 14C Data, *Radiocarbon* 19: 355-363. http://digitalcommons.library.arizona.edu/objectviewer?o=http%3A%2F%2Fradiocarbon.library.arizona.edu%2FVolume19%2FNumber3%2Fazu_radiocarbon_v19_n3_355_363_v.pdf
- Tarlow, S. 1999. *Bereavement and Commemoration. An archaeology of mortality*. Wiley.
- Taylor & Aitken (1997), *Chronometric Dating in Archaeology*. Plenum: Advances in Archaeological & Museum Science, Vol. 2. Chapters on climatic dating, 14C, U-series, luminescence, ESR and amino acid racemization

- Tilley, C. 1994. *A phenomenology of landscape: Places, Paths and Monuments*. Oxford: Berg.
- Tuan, Yi-Fu 1974. *Topophilia: A study of environmental perception, attitudes, and values*. London: Prentice-Hall.
- Ubelaker, D. H. 1989. *Human skeletal remains: excavation, analysis, interpretation*. (Manuals on Archeology 2). Washington: Taraxacum for Smithsonian Institution
- Ucko, P.J. and Layton, R. (eds) 1999. *The Archaeology and Anthropology of Landscape*. London: Routledge.
- Wagstaff, J.M. (ed) 1987. *Landscape and Culture: Geographical and Archaeological perspectives*. Oxford: Blackwell.
- Weiner, S. 2010. *Microarchaeology: Beyond the Visible Archaeological Record*. Cambridge: CUP.
- Wheeler, R.E.M. 1954. *Archaeology from the Earth*, Pelican, London.
- White, T. & P. A. Folkens. 2000. *Human osteology*. 2nd edition. San Diego & London: Academic Press
- Whittaker, J. C. 1994 *Flintknapping: making and understanding stone tools*. University of Texas Press, Austin.
- Wilkinson K. and Stevens C. 2003. *Environmental Archaeology. Approaches, Techniques & Applications*. Tempus. Section 3: Palaeoeconomy
- Wilkinson, T.J. 2001. *Surface collection techniques in field archaeology: theory and practice*. pp 529-541. In Brothwell, D. and Pollard, A.M. (eds). *Handbook of archaeological sciences*. Chichester: Wiley.
- Wilkinson, T.J. 2003. *Archaeological Landscapes of the Ancient Near East*, University of Arizona Press, Tuscon.
- Wilson, D. R. 1982/2000. *Air Photo Interpretation for Archaeologists*. London: Batsford.
- Wilson, D. R. 1987. Reading the palimpsest: landscape studies and air photography. *Landscape History* 9, 5-26.
- Wright, J. 1988. The Plain Fellow's Guide to Geographic Information Systems. *The Geographical Journal* 154: 161–168. <http://www.jstor.org/stable/633843>