

MODULE CODE: AHAN7043
TITLE: SKYSCAPES, COSMOLOGY AND ARCHAEOLOGY
DATED: 29/09/2017

LEVEL: 7
CREDITS: 20

JACS CODE: V400

AIM(S)

- To introduce students to the theory and development of the discipline of archaeoastronomy as celestial symbolism in the material record, including architecture.
- To become familiar with the use of orientation measurement and astronomical data as a means of establishing evidence for the existence of celestial symbolism or alignment in architecture, whether prehistoric, pre-modern, or contemporary.
- To investigate the nature of the evidence in recent academic literature for astronomical knowledge in a variety of cultures, including prehistoric and non-modern.
- To consider the wider context concerning theories for the meaning and purpose of astronomical knowledge, including for the regulation of agricultural, social, religious and political affairs.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- demonstrate a systematic understanding of methodological issues in the collection of astronomical data in relation to landscape features, the archaeological record and the built environment.
- be able to measure simple orientations of potential archaeoastronomical interest in the archaeological record, built environment or landscape.
- demonstrate a critical understanding of the use of ethnographic material to support quantitative evidence;
- display a sophisticated awareness of current academic debates on archaeoastronomy and skyline archaeology.
- evaluate the nature of the evidence concerning the relations between the archaeological record, the built environment and the skyline of a society.

INDICATIVE CONTENT

1. Introduction

- 1.1 What is archaeoastronomy?
- 1.2 The history of archaeoastronomy
- 1.3 Locating archaeoastronomy within academia

2. Skyscapes

- 2.1 Archaeoastronomy today

- 2.2 Introduction to skylscapes
- 2.3 Landscape, seascape, taskscape
- 2.4 Skyscape archaeology
- 3. Archaeology and Cosmology
 - 3.1 Cosmology in ethnography
 - 3.2 Cosmology in archaeology
 - 3.3 Cosmology in architecture
 - 3.4 The role and importance of the sky in archaeology
- 4. How the Sky Moves
 - 4.1 Basic concepts of positional astronomy
 - 4.2 Celestial mechanics
 - 4.3 Long-term changes in the appearance of the sky
 - 4.4 Stars and star-phases
- 5. Theory & Method
 - 5.1 The study of cultural astronomy
 - 5.2 Green vs brown archaeoastronomy
 - 5.3 The sevens sins of archaeoastronomy
 - 5.4 Processualist vs Interpretative archaeologies
 - 5.5 Alternate and relational ontologies
- 6. Fieldwork Basics
 - 6.1 Introduction to measurement
 - 6.2 Techniques of field survey
 - 6.3 Using a compass, clinometer and GPS unit
 - 6.4 Data reduction and post-processing
- 7. Identification and Interpretation
 - 7.1 Significance and uncertainty
 - 7.2 Celestial object coincidence
 - 7.3 Multi-evidence triangulation
 - 7.4 Cultural contextualization
- 8. Themes in Skyscape Research
 - 8.1 Concepts of space, time and cosmos
 - 8.2 Calendars and astronomy
 - 8.3 Navigation and astronomy
 - 8.4 Astronomy, power and politics
 - 8.5 Ancient observatories?
- 9. Worldwide case studies

LEARNING AND TEACHING STRATEGY

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	200	100%
Independent learning		
Placement learning		
TOTAL	200	100%

ASSESSMENT

Assessment Component 1

(Tick one)

☐ Written exam ✓ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Essay	1500 words	30%

Assessment Component 2

(Tick one)

☐ Written exam ✓ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Essay	3500 words	70%

Assessment Summary

Activity type	Percentage
Written exam	
Coursework	100%
Practical	
TOTAL	100%

READING LIST

Module Code	AHAN7043	
Module Title	SKYSCAPES, COSMOLOGY AND ARCHAEOLOGY	
Classification	Reading List entry	Electronic*
Essential	Silva, Fabio and Nicholas Campion (eds), <i>Skyscapes – The Role and Importance of the Sky in Archaeology</i> (Oxford: Oxbow, 2015).	✓
Essential	Ruggles, Clive, <i>Astronomy in Prehistoric Britain and Ireland</i> (New Haven and London: Yale University Press, 1999).	☐
Essential	Aveni, Anthony, <i>Foundations of New World Cultural Astronomy: A Reader with Commentary</i> , (Denver: University Press of Colorado, 2008).	☐
Essential	Malville, J.McKim, <i>Guide to Prehistoric Astronomy in the Southwest</i> (Boulder: Johnson Books, 2008).	☐
Further	Hutton, Ronald, 'The Strange History of British Archaeoastronomy', <i>Journal for the Study of Religion, Nature and Culture</i> 7(4), 2013, pp. 376-396.	✓
Further	Hoskin, Michael (ed), <i>The Cambridge Concise History of Astronomy</i> , Cambridge: Cambridge University Press 1999.	✓
Further	Ruggles, Clive, 'Pushing back the frontiers or still running around the same circles? Interpretative archaeoastronomy thirty years on' <i>Proceedings IAU Symposium No. 278</i> , 2011, pp 1-18.	✓
Further	Renfrew, Colin and Paul Bahn, <i>Archaeology:</i>	☐

	<i>Theories, Methods and Practice</i> (6th ed), London and New York: Thames and Hudson, 2012.	
Further	Pauketat, Timothy R, <i>An Archaeology of the Cosmos</i> , London and New York: Routledge, 2013.	☐
Further	Ruggles, Clive (ed), <i>Handbook of Archaeoastronomy and Ethnoastronomy</i> , New York: Springer, pp. 459-472.	✓
Further	Silva, Fabio, 'A Tomb with a View: New methods for bridging the gap between land and sky in megalithic archaeology.' <i>Advances in Archaeological Practice</i> 2(1), 2014, pp.24-37.	✓
Further	Iwaniszewski, Stanisław, 'Ancient Cosmologies: Understanding Ancient Skywatchers and their Worldviews', <i>Journal of Cosmology</i> , 2010, Vol. 9.	✓
Further	Hayden, Brian and Suzanne Villeneuve, 'Astronomy in the Upper Palaeolithic?' <i>Cambridge Archaeological Journal</i> 21(3), 2011, pp.331-55.	✓
Further	Drewett, Peter, <i>Field Archaeology: An Introduction</i> (2nd ed), Oxon: Routledge, 2011.	☐
Further	Hodder, Ian and Scott Hutson, <i>Reading the Past: Current Approaches to Interpretation in Archaeology</i> (3rd ed), Cambridge: Cambridge University Press, 2003.	✓
Further	Silva, Fabio, Malville, Kim, Lomsdalen, Tore and Frank Ventura (eds) <i>The Materiality of the Sky</i> . Lampeter: Sophia Centre Press.	☐