



SPACE

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WHO IS AN ARCHAEOASTRONOMER?

Field Astronomy, Culture, Archaeology, History
Type Research
Level of study Bachelor



What is the field about?

Archaeoastronomy is the study of how people have understood, conceptualized and used the phenomena in the sky and what role the sky played in their cultures, by analysing their material remains. According to the historical and ethnographic records, most (if not all) societies have looked up at the sky and related to it. The stories, myths, art, religious beliefs, rituals and symbolism of many cultures are associated with the Sun, the Moon, stars and planets. In most cases where texts and/or academic ethnographic works were found, this is easily verifiable. However, when a study extends further back into prehistory (before writing), researchers have to rely on the remains and ruins left behind. In this case, the research is based on the archaeological record which is used to reveal an ancient society's notion to the celestial sphere and its objects.

Archaeoastronomy therefore focuses on the material elements present in the archaeological record. For instance, it can recognise whether particular structures (houses or monuments) were intentionally built in such a way as to capture sunlight on particularly important days of the year. Famous examples include the passage tomb of Newgrange (Ireland) whose entrance and roof-box captures sunrise on December solstice, and the main axis of Stonehenge (United Kingdom) that aligns with sunset, also at December solstice. The wider archaeological evidence attests to the fact that these sites were used during the winter season and, particularly around Stonehenge, were the centre of large celebrations which might have culminated with the observation of sunset. *Archaeoastronomy, therefore, is one more element that can help us make sense of and understand past societies, their beliefs and world-views.*

Archaeoastronomy is part of a wider field of study known as Cultural Astronomy, and which includes also the study of Ethnoastronomy, as well as the History of Astronomy and the History of Astrology.

What would I do every day?

The archaeoastronomers' job tends to be part archaeologist, part statistician. It involves equal amounts of reading, doing fieldwork, and analysing data. Literature review is a key component in any academic field, particularly so in the Humanities. In archaeoastronomy it is essential to read what other scholars have said about the society under study, as well as about the site(s) or archaeological artefact(s) being researched. Fieldwork is very important – and the most fun part of the job. It involves actually visiting the site(s) to take measurements and/or photograph the site in relation to celestial events at appropriate times. Subsequently, the fieldwork measurements need to be processed and the data analysed in the office, which can entail a combination of statistical, photographic, phenomenological and computational tools and approaches.

How much and what do I need to study?

The current generation of archaeoastronomers has been trained in the exact sciences (astronomy, physics or engineering) so the real task lies in understanding, and coming to terms with, the challenges, pros and cons of research in the humanities. However, there is a new generation of *skyscape archaeologists* that, in tandem with wider cultural astronomers, put the training emphasis on the humanities and cultural studies. Nevertheless, for the near future, archaeoastronomers and cultural astronomers are likely to be placed along a continuous spectrum of backgrounds ranging from the pure humanities to the pure natural sciences.

There are very few places worldwide where one can study this topic in a structured, academically recognized degree. The University of Wales Trinity Saint David is the only place in the world where it is possible to study for a Masters Degree (MA) in Cultural Astronomy and Astrology which covers the entire span of fields mentioned above. In addition, it includes *Skyscapes, Cosmology and Archaeology* course covering everything from the basics of archaeological research, to archaeoastronomical fieldwork, data analysis and interpretation.

Where can I work?

Since this field is quite unique, there are very few jobs in archaeoastronomy. Most are academic researchers and tutors whose main research projects are often in different fields, such as astronomy or anthropology/archaeology. And only a few are lucky enough to do pure archaeoastronomy full time.

This is the job for me, if...

you are interested in both astronomy and ancient cultures and societies.

An archaeoastronomer should be:

Comfortable both **with** the natural and the social sciences;

Motivated to travel for fieldwork (not always under the best climatic conditions);

Have a true passion to immerse him/herself in the culture and period they are studying.

Learn more about archaeoastronomy:

- Archaeoastronomy for Archaeologists: a Guide
- Journal of Skyscape Archaeology
- Sophia Centre for the Study of Cosmology in Culture, University of Wales Trinity Saint David
- European Society of Astronomy in Culture
- International Society for Archaeoastronomy and Astronomy in Culture

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Image: Summer Solstice Sunrise over Stonehenge 2005

Credit: Wikipedia



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