

# GUEST SPOTLIGHT



## THE IMPORTANCE OF CULTURAL ASTRONOMY

### KATE MAGARGAL

Postdoctoral Research Associate in the University of Utah Anthropology Department

#### A Common and Ancient Human Experience

Imagine yourself on a warm summer night camping far from city lights. The night is dark, but the sky glows subtly with points, veils, and occasional streaks of light. Over the course of a few hours, you watch as these sources of light move across the sky. What do you imagine as you observe these phenomena? Are you pondering possible worlds around distant stars? Do you reflect on constellation stories? Are you simply content to watch and wonder? Regardless of your particular answer to any of these questions, you are engaged with a common and ancient human experience: viewing the cosmos. In this essay, I convey a bit about how I think about this experience as an Anthropologist, or someone who studies humankind. In my research, I focus on how people interact with their environment, but environment as defined by this type of research isn't just plants and animals. Anthropologists think of 'environment' defined broadly to include anything which might inform human behavior, including the surrounding natural resources, but extending also to the social and cultural contexts we all navigate.

A view of the night has informed a rich variety of human thought ranging across cultures and time. Archaeologists, historians, geographers, astronomers, and other scholars have examined the materials left by ancient people in an effort to understand how they viewed the sky. As an

archaeologist, I often want to understand how ancient people saw the world, what informed those ideas, and what the results were for how people lived their lives. However, archaeology faces a great challenge in understanding what was in the mind of ancient people. The materials left behind as a result of these ancient lives is the primary evidence archaeologists use to piece together the stories of our ancestors. These materials – depictions on rocks, tools of daily life, structures, etc. – can be incomplete and difficult to interpret.

#### Archaeoastronomy

Archaeoastronomy – the study of how ancient people observed and thought about the sky – faces this challenge as well. Scholars of archaeoastronomy measure and record astronomical alignments, infer relationships between astronomical and cultural events, and study the interplay of shadow and light created by human constructions. Some of these scholars argue that certain ancient structures and depictions give us a window into how past peoples thought of the night. Such associations with archaeological sites exist all over the world. Ancient Egyptians recorded astronomical observations and associated deities with astronomical objects, as interpreted from hieroglyphs. Prehistoric stone circles throughout Europe are often thought of as having purposes related to observing and





tracking celestial objects. Closer by, the four-corners region has many prehistoric structures, pictographs, and petroglyphs that archaeologists consider to have astronomical purpose. For example, the consistency (over time and space) of structural alignments to the rising and setting of various astronomical objects at Chaco Canyon leads some to argue that power among Chacoans was strongly centralized among an elite that maintained astronomical knowledge. Among archaeologists, however, these conclusions are hotly debated. Many archaeologists prefer instead to focus scientific questions on hypotheses that can be tested (and falsified) using the material record at hand. While these scientific pursuits inform numerous additional ideas and questions about ancient worldviews, they rarely create a direct bridge into the minds of ancient people.

## Ethnoastronomy

Ethnoastronomy – the study of how different cultures across the world today think about astronomical phenomena – provides at least a partial bridge to understanding the broad scope of how humankind reacts to a starry sky. Anyone can be an expert spokesperson for their own experiences and reflect on the relationship between those experiences and how they see the world. In many cultures, specific cultural knowledge is maintained by specialists who practice traditions and train others to do so. Although many cultural systems have suffered gaps in transmission and have been influenced over time by other cultural ideas, many traditional practitioners can trace their cultural knowledge lineages back many generations. In the past, scientists practicing science within a Western tradition did not focus on traditional knowledge and often, sadly, intentionally ignored it with prejudice. Today, however traditional knowledge holders and scientists are increasingly collaborating, bringing diversity and nuance of perspective to our collective knowledge. The practice of ethnoastronomy as an academic discipline is engaged with such a process, where traditional

knowledge holders inform cultural understanding. Studies in ethnoastronomy indicate that concepts of time, change, and cosmology vary across the world and frequently involve astronomical knowledge gathered and passed to between people. Ethnoastronomy is also often coupled with archaeoastronomy, both under the concept of ‘cultural astronomy.’ Archaeologists often draw from a variety of cultural concepts when judging how someone might have reacted to astronomical phenomena, or in some cases may highlight how contemporary traditional knowledge holders may interpret sites from their own heritage.

A view of the universe beyond our planet is part of everyone’s cultural and natural heritage. Today the majority of the world’s population live in urban environments, where light pollution prevents people from having the same experience of the night as our ancestors. We are only just beginning to understand the impact of this radical shift in night time environment on Earth. Cultural astronomy, through the exploration of archaeology and traditional knowledge, offers an avenue for exploring the broad scope of ideas, discoveries, and inspirations the night has informed over the course of human history and prehistory. As collaboration between intellectual communities increases, so too should our ability to successfully protect the night in a way that is relevant to all.

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