

ORATION FOR CLIVE RUGGLES

Graham Shipley

FRIDAY 16 JULY 2026, 10 A.M.

Pro-Vice-Chancellor and Head of the College of Life Sciences, as Public Orator, may I, Professor Graham Shipley, present Clive Ruggles, a candidate for an honorary degree.

Clive Ruggles is a member of our School of Heritage & Culture and, as far as we know, the only person anywhere to hold the title Professor of Archaeoastronomy. His inter-disciplinary work over half a century has had real-world impacts on a scale few academics can boast of.

While still a mathematics undergraduate at Cambridge, Clive with four fellow-students published a paper in the top journal *Nature* that pointed the way to his future path. It presented new data on possible astronomical alignments of three megalithic sites in western Scotland.

By 1977, Clive had completed his Oxford doctorate on the physics of variable stars, but he was still interested in stone circles and the like. By 1981, he had co-edited a book of papers on astronomy and society in prehistoric Britain. Three years later, he was appointed to Leicester's new Department of Computing Studies, and published a volume of data on three hundred sites in Scotland. In 1990, he helped found what became the world-leading School of Archaeology & Ancient History, pioneering the teaching of archaeoastronomy and especially the use of digital images and software in teaching.

Until the 1980s, what became known as archaeoastronomy had been a largely mathematical exercise, often seen by *archaeologists* as an eccentric amateur pursuit. It had long been known that the orientations of *some* prehistoric monuments, like Greek and Roman temples and Christian churches, bore *some* relation to the cardinal directions north, east, south, and west and to the movements of the Sun and Moon. Prehistoric circles of standing stones were a popular subject for television programmes and magazines, especially when engineers claimed that they were designed as astronomical observatories, proving how sophisticated our distant ancestors were. This, however, was a largely mistaken reading of the monuments. If you take an imaginary line between two standing stones and project it to the horizon, you will very likely find that *some* object in the night sky used to rise or set in that place at *some* date in the past. That does not prove that the people who put up the stones had that celestial object in mind. Their sophistication was of another kind.

Clive took things in a new direction, for which he and a colleague coined the term 'cultural astronomy', no longer limited to the distant past. He defines cultural astronomy as 'the study of beliefs and practices relating to the sky [. . .] and the uses to which people's knowledge of the skies [is] put'. Using both mathematical and archaeological evidence within an anthropological framework, he has revolutionized our understanding of monuments and landscapes shaped by humans in relation to the sky. Rather than observatories, they were structures meant to convey meanings.

Clive's fieldwork has taken him many times round the world, investigating sites that illuminate the cosmological beliefs of a wide range of societies, for example in Hawai'i, South-east Asia, and Peru. So often, and so far afield, did Clive travel that a colleague once suggested, tongue in cheek, that the department should run a weekly 'Where's Clive?' competition, based on the *Where's Wally?* children's books. The only problem was that it was quite likely that in any given week no one knew where Clive was.

Seriously, though, Clive's work involves not only mapping monuments and landscapes, but also learning from the people who live alongside them to see what they believe about the cosmos, and how their ancestors expressed their relationship to the sky. Just this month, he has been in south-eastern Taiwan working with the indigenous 'Atolan people, whose homeland is the birthplace of the Austronesian language group that extends across Peninsular South-east Asia and the Pacific islands. Knowledge of the skies and navigation by the stars are fundamental to all those groups who settled the scattered islands of the Pacific.

Closer to home, in 2024 Clive with archaeologist Amanda Chadburn published a masterwork on Stonehenge, giving a conclusive account of how Britain's most famous prehistoric monument relates to the sky, the Sun, and the Moon. Next month, Clive and two Hawaiian colleagues will publish the third edition of *Nā Inoa Hōkū*, which is Hawaiian for 'star names'.

He has worked extensively with, and for, UNESCO's International Council on Monuments and Sites (ICOMOS), especially through his leadership of the International Astronomical Union's Astronomy & World Heritage Thematic Initiative, whose published studies cover everything from prehistoric carved bones to radio telescopes, in an effort to encourage governments to identify and protect World Heritage Sites related to astronomy.

Clive's talents as a public communicator are much in demand. He has served as President of the Prehistoric Society and President of the International Astronomical Union's Commission for the History of Astronomy. For the International Union for Conservation of Nature, he has been a member of the Dark Skies Advisory Group, working to mitigate the effects of artificial lighting.

As a member of the IAU's Working Group on Star Names, his work is having an impact that will be permanent. They assign names that reflect the richness of world cultures. For example, the name *Imai* has been given to Delta Crucis, a star in the Southern Cross, and comes from the Mursi people of Ethiopia, who use this star to help monitor the flooding that is crucial for their agriculture. The underlying research on how the Mursi perceive time comes from a paper which Clive wrote in collaboration with an anthropologist, while he was himself still a research student in astrophysics.

Watching the new film *Project Hail Mary*, it seems appropriate, indeed inescapable, that the Working Group *should* now name the real exoplanet Tau Ceti e as 'Adrian', the name the film's human hero bestows upon it. And, just maybe, we shall find, someday, that planet 40 Eridani A b is not fictional but real, and give it a name in the Eridian language that sounds like music. *Clive Rocky name planets!*

I know Clive would not wish me to close without mentioning the work outside archaeoastronomy that now occupies a great deal of his time, and has done for a decade. He and his wife, Dr Sue Hills, herself a mathematician, who is with us today, founded the Alice Ruggles Trust in memory of their younger daughter, and have worked tirelessly to raise awareness of stalking and relationship abuse. Soon after its creation, the Trust received a Points of Light Award from Prime Minister Theresa May. Eight years on, the Trust is having a growing impact on government policy.

Likewise, Clive's astronomical work has had a worldwide impact on cultural heritage, thanks to his energy, his ability to collaborate with colleagues, and his encouragement of research, especially by younger scholars. He is, in short, the leader in his field. In recognition of this, in 2017 he was the first recipient of the Royal Astronomical Society's Agnes Mary Clerke Medal for Research on the History of Astronomy, awarded to Clive for a 'lifetime of distinguished work in [. . .] archaeology, astronomy and the history of science'.

Pro-Vice-Chancellor and Head of the College of Life Sciences, on the recommendation of the Senate and the Council, I present Clive Ruggles that you may confer upon him the honorary degree of Doctor of Science.