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# Pathways To The Cosmos:the Alignment of Megalithic Tombs In Ireland and Atlantic Europe

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# Archaeology

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Summer 2018

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# PATHWAYS TO THE COSMOS—THE ALIGNMENT OF MEGALITHIC TOMBS IN IRELAND AND ATLANTIC EUROPE

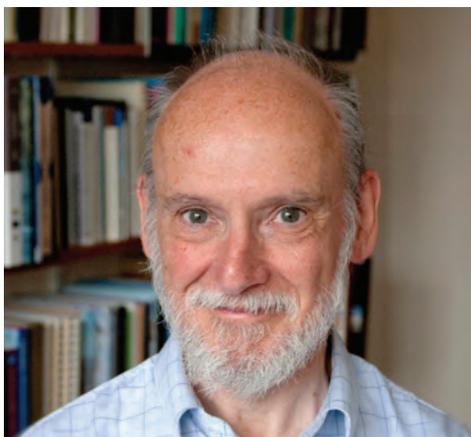
Gabriel Cooney and Frank Prendergast present the context of and outline the approach to this one-day conference organised by *Archaeology Ireland* on behalf of the National Monuments Service at the Department of Culture, Heritage and the Gaeltacht and the Office of Public Works to mark the European Year of Cultural Heritage 2018. The event will take place at Dublin Castle on 15 September 2018.



Gabriel Cooney



Dr Frank Prendergast



Professor Chris Scarre

## Setting forth

The background to the conference can be traced to an article in *Archaeology Ireland* in winter 2017 in which the authors, with their colleagues Muiris O’Sullivan and Ken Williams, set out the evidence indicating that the well-known phenomenon of the Neolithic passage tomb at Newgrange facing sunrise at the winter solstice can be placed in a wider cultural context. Alignment on solstices—and around equinoxes in a very limited number of cases—is a regularly recurring feature of the Irish passage tomb tradition, which reached its highpoint in the construction of the massive passage tombs of Newgrange, Knowth and Dowth in Brú na Bóinne immediately before 3000 BC.

There are a number of ways in which this regard for the cosmos—and particularly for the sun—on the part of prehistoric people can be discussed further. For example, Mary Cahill’s work on the links between the motifs on early Bronze Age pottery and goldwork and solar imagery indicates that it continued to play a central role in people’s lives through the third and into the second millennium BC in Ireland. Recognising, however, that 2018 marks the celebration of European cultural heritage, it seemed appropriate to draw attention to, and discuss, the deliberate alignment of megalithic tombs in Atlantic or western Europe to capture key astronomical events, such as sunrise or sunset at particular times of the year. This also helps to put the alignment of passage, and other megalithic, tombs in Ireland into a wider cultural context.

There are around 15,000–20,000 megalithic tombs in this wider area, literally monuments that celebrate the activities of the lives and beliefs of our early farming ancestors, built from well before 4000 BC down to 2000 BC. This question of their deliberate alignment is therefore a key topic to discuss and understand as an aspect of European prehistory and its importance for society today.

We are delighted that the theme has struck a chord with international colleagues, and in September an interdisciplinary gathering of eminent scholars and practitioners will seek to make connections between archaeology and cultural astronomy, linking the material evidence and more intangible aspects such as the cultural ideas, beliefs and ceremonies of Neolithic and Bronze Age societies, with a focus on the seasonally changing skyscape. To whet our readers’ appetite for the conference we provide a taste of the programme here.

## Children of the Sun? The European megalithic phenomenon (Professor Chris Scarre)

Specific patterns of orientation are an intriguing feature of megalithic tombs in many regions of western and northern Europe. The significance of the heavens should come as no surprise in monuments that had a powerful symbolic and cosmological dimension. The burial chambers themselves were dark and enclosed, but they were frequently aligned towards particular points on the horizon, notably (but not exclusively) in a sunrise direction.

Chris Scarre is Professor of Archaeology at Durham University and a specialist in the later prehistory of Atlantic Europe (Portugal, France, Britain and Ireland), with a particular focus on monumentality and landscape.

## Through a glass darkly: orientation uncertainty, passages and stars in the western Iberian Neolithic (Dr Fabio Silva)

The Neolithic passage graves of Iberia are among the earliest and largest of their kind, but also the simplest. Previous orientation studies will be reviewed and, in line with the author’s skyscape archaeology approach, a reflexive eye will be turned to their theoretical and methodological assumptions. Orientation patterns suggest that individual communities structured their seasonality patterns with



Dr Fabio Silva

recourse to bright stars in the skyscape and mountain ranges in the landscape.

Fabio Silva is a Research Associate at the Institute of Archaeology of University College London, a tutor in the Sophia Centre for the Study of Cosmology in Culture (University of Wales Trinity Saint David) and responsible for a postgraduate module in Skyscapes, Cosmology and Archaeology.

**From Brodgar to Boyne: a cosmological interpretation of the alignments of burial monuments (Professor Jane Downes)**

The alignments exhibited in passage graves and other forms of burial monuments and domestic architecture will be discussed, along with the relationships between monuments, landscape and skyscape. Interpretations will be offered as to how revealing this is of both ontology and cosmology. Connections between Orkney and the Boyne Valley will be considered.

Jane Downes is Director of the University of the Highlands and Islands Archaeology Institute, Orkney, Scotland, and has researched extensively on prehistoric burial monument and domestic architecture. She is part of the Heart of Neolithic Orkney World Heritage Site Steering Group, developed the Research Agenda and Strategy for the Orkney WHS and contributed to the Brú na Bóinne WHS Research Framework.



Professor Jane Downes



Professor Richard Bradley

**The prehistoric sky 3000–500 BC (Professor Richard Bradley)**

The significance of prehistoric monuments with celestial orientations will be compared with that of other sites that may have been directed towards the sky. These include not only stone settings and tombs but also decorated outcrops and the sites of metalwork hoards. The relationship of Scandinavian rock carvings and decorated monuments to the sun will also be discussed.

Richard Bradley is now Emeritus at Reading University. His research on the prehistory of western and northern Europe includes landscape archaeology, monumental architecture, rock art and hoards.

**Skyscape, culture and the Irish passage tomb tradition—a complex legacy (Dr Frank Prendergast)**

Searching for non-funerary meaning in Neolithic passage tomb architecture and

orientation is fraught with difficulty, cultural conditioning and biases. This presentation will focus on the Irish corpus of these monuments and review the evidence for such meaning at different landscape scales. While astronomically interesting and probably deliberate solar alignments occur in a significant number of cases, extracting broader interpretative meaning and cosmological symbolism poses a much greater challenge.

Frank Prendergast is now Emeritus at the Dublin Institute of Technology, where he researches Irish prehistoric monuments and their landscapes from a cultural astronomy perspective. His current interests and publications are on the meaning of the dark sky in the prehistoric past and on the conservation of archaeological landscapes from light pollution.

**Winter solstice at Knockroe, Co. Kilkenny (Professor Muiris O’Sullivan)**

The cairn at Knockroe contains two passage tombs, one opening towards the south-east and the other towards the south-west. It is a monument of considerable significance, featuring a double winter solstice alignment, a substantial corpus of megalithic art and a large quantity of cremated human remains with associated artefacts. The Knockroe site opens up questions not only about Neolithic life in the region around Slievenamon Mountain but also about the distribution of mythologies amongst megalith-builders.

Muiris O’Sullivan has published extensively on passage tombs and megalithic art; he is the author of *Duma na nGiall* (2005) and lead editor of *Tara—from the past to the future* (2013), both published by Wordwell. He directed five seasons of archaeological excavation at Knockroe passage tomb, a project now nearing publication. He is a member of the Heritage Council and a former head of the UCD School of Archaeology.

**TOUCHING THE ANCESTORS—THREE PERSPECTIVES ON BRIDGING A 5,000-YEAR CULTURAL TIME-GAP**

*Waiting for the light (Clare Tuffey)*

Waiting in an ancient monument for the sun to rise or to set is an experience like no other, and one that transcends age, culture and language. Clare Tuffey has experienced



Professor Muiris O’Sullivan

the phenomenon with the public on hundreds of occasions at Newgrange, Loughcrew and Dowth, and this short presentation will explain what being there is actually like.

Clare Tuffy has worked in the Boyne Valley for the Office of Public Works for nearly 40 years. She is Visitor Services Manager at the Brú na Bóinne Centre, Co. Meath.

### **Art, architecture and astronomy in the Irish passage tomb tradition (Ken Williams)**

This illustrated presentation will explore the visual and experiential aspects that blend light, architecture and art across the varied expression of the Irish passage tomb phenomenon in particular. The significance of certain monuments and certain times of year will be examined, along with why we continue to find the particular solar alignment phenomenon so compelling.

Ken Williams is a photographer and researcher specialising in the prehistoric art and monuments of western Europe. His photographic project 'Shadows and Stone' featured as a cover story in the *Irish Times* magazine. His work and pioneering use of photographic and lighting techniques have featured in a large number of academic and popular publications nationally and internationally.

### **inLIGHTinIRELAND®: where ancient wisdom inspires ingenious innovation (Róisín Fitzpatrick)**

As a visual artist, Róisín Fitzpatrick's objective is to bring the ancient wisdom of our cultural heritage to light in a way that enhances our modern lives. Inspired by the Discovery Programme 3D Icons models, she recreates glass installations of megalithic and La Tène art. With kind permission from the OPW and funding provided by the Irish Department of Foreign Affairs and Trade, she is currently filming in 4K Ultra High Definition the spectacular solar illumination phenomena at the most significant Irish Neolithic monuments during the equinoxes and winter solstice.

After graduating from Trinity College Dublin and the University of Geneva, Róisín Fitzpatrick pursued a career at the European Commission, United Nations and European Bank for Reconstruction and Development. Now an artist passionate

about sharing the beauty of the light in a way that people can connect with their own inner light, and with the Solas Síoraí (Eternal Light) in our Irish heritage, she was inspired to create a series of glass artworks—the *Artist of the Light* collection.

### **Cultural astronomy and cultural heritage: a global perspective (Professor Clive Ruggles)**

Wider issues relating to cultural astronomy as regards archaeological interpretation and heritage recognition and protection will be discussed. UNESCO's Astronomy and World Heritage Initiative (<http://whc.unesco.org/en/astronomy>) aims to safeguard cultural properties and landscapes 'that transcribe the relationship between mankind and the sky'. As a result of this initiative, several archaeological sites and cultural landscapes with strong connections to the sky are currently being considered for inscription on UNESCO's World Heritage List and/or included as case-studies developed for comparative purposes. This means that resolving outstanding interpretative and methodological issues is not purely an academic concern: it can also influence public perceptions of what constitutes our most valuable global cultural heritage.

Clive Ruggles is Emeritus Professor of Archaeoastronomy in the School of Archaeology and Ancient History at the University of Leicester. His early work focused on Scotland and Ireland, culminating in the publication of his award-winning book *Astronomy in prehistoric Britain and Ireland*, published by Yale in 1999. Over his career, he has written numerous books, papers and articles on subjects ranging from prehistoric Europe and pre-Columbian America to indigenous astronomies in Africa, as well as in other fields such as computer graphics and information systems.

### **Waiting for the day**

The conference on 15 September promises to be a great megalithic day! As ever with any *Archaeology Ireland* conference, there will be plenty of time for questions from the audience and participation in discussion and debate. We look forward to seeing many of you there.



Clare Tuffy



Ken Williams



Róisín Fitzpatrick



Professor Clive Ruggles

