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国台学术报告 NAOC COLLOQUIUM

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Time: **Wednesday 2:30 PM, Jan. 15th** Location: **A601, NAOC**

Neolithic (Stone Age) “Record” of Astronomical Transients?

Prof. Richard Strom

ASTRON and University of Amsterdam



Born in New York City, Richard Strom attended the highly selective Bronx High School of Science for 3 years until his family moved out of New York. He earned a B.A. from Tufts University, and M.Sc. and Ph.D. degrees in radio astronomy from the University of Manchester (Jodrell Bank), UK. Until his retirement in 2009, he was a senior research astronomer with ASTRON (the Netherlands Institute for Radio Astronomy) in Dwingeloo and an Adjunct Professor at the University of Amsterdam. He has been a Senior International Visiting Professor, Chinese Academy of Sciences in 2010, 2011 and 2012.

He was also regularly a Visiting Professor of Physics at the National University of Singapore, and in 2012 was elected a fellow of the Institute of Physics. Richard is a past Secretary and Organizing Committee Member of IAU Commission 40 (Radio Astronomy) and is also a member of Commissions 28, 34 and 41. He chaired one of the review panels for the XMM-Newton Observatory, and has served on time allocation panels for BeppoSAX, the European VLBI Network, the UK Infrared Telescope and the Westerbork Radio Telescope. He was an associate editor of the Journal of Astronomical History and Heritage (2012-2016). His research interests include super-nova remnants, gamma-ray bursts, large radio galaxies, pulsars, radio polarimetry, new telescopes (including FAST), Chinese historical records, and the history of radio astronomy, especially in the Netherlands. He has published over 250 papers. Jointly with his colleagues Tony Willis and Andrew Wilson, he discovered giant radio galaxies, the largest radio sources known. On January 16, the Chinese Academy of Sciences will honour him with its Award for International Scientific Cooperation.

Abstract

Historical observational records are (if reliable) invaluable to the modern astronomer: in topics ranging from meteor studies to bright stellar transients, they open a window on the past. Written records, however, carry us back no further than some 5000 years. For ante literate cultures, we can only interrogate the implements and artisanship of our Neolithic forebears. Fortunately, efforts in this vein have not proven barren. Stone age (from Palaeo- to Neolithic) artefacts bearing star-like (and other celestial) motifs have been found in diverse contexts. In this talk I will focus on a specific design, an eight-pointed star (八角星, BJX), widespread in Neolithic central China. From



an examination of the various kinds of BJX, patterns emerge. There is a trend for the oldest ones to come from the south, the youngest from the north. I will discuss possible reasons for this behaviour. One of the youngest BJX is also the most ornate – this might be expected if embellishment has accumulated with time, so older ones are simpler. Finally, I will suggest that BJX was originally inspired by an extremely bright star – probably a supernova – and some consequences of this conclusion will be elaborated.

All are welcome ; Tea and coffee will be served at 2:15 PM.