

# CULTURE AND COSMOS

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## Editorial

### **The Philosophy of Cultural Astronomy**

A recent discussion on the H-ASTRO (History of Astronomy) email list has concerned the general, although not complete, absence of a philosophy of astronomy. The point has been made, but generally rejected, that the philosophy of astronomy can be contained within the philosophy of science. Other sciences, it has been noted, have philosophies which could provide models for astronomy. Steven Dick, well known as one of the conveners of the Biennial History of Astronomy Workshops at the University of Notre Dame, observed that the philosophy of biology has had a robust discussion of the meaning of some of its fundamental concepts such as 'species', but that there has been no similar discussion of what constitutes a new 'class' of astronomical objects, a practical problem illustrated by the Pluto debate.

The same problem concerns the discipline (or sub-discipline?) of cultural astronomy, as has occasionally been noticed from papers on research into the subject area.<sup>1</sup> A couple of contributions have focused on

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<sup>1</sup> Clive Ruggles and Nicholas Saunders, 'The Study of Cultural Astronomy' in Clive Ruggles and Nicholas Saunders, *Astronomies and Cultures* (Niwot, CA: University of Colorado Press, 1993), pp. 1–31; George J. Gumerman and Miranda Warburton, 'The Universe in a Cultural Context: An Essay', in John W. Fountain and Rolf M. Sinclair (eds.), *Current Studies in Archaeoastronomy: Conversations Across Time and Space* (Durham NC: Carolina Academic Press, 2005), pp. 15–24.

defining the area through teaching syllabi from perspectives variously in the sciences and humanities.<sup>2</sup> A recent contribution from Clive Ruggles, exploring the question of ‘non-western’ astronomy, has emphasised the notion of indigeneity.<sup>3</sup> The problem Ruggles raises is whether cultural astronomy, as a phenomenon, can be adequately defined as the study of indigenous astronomy. The difficulty is partly one of semantics: the word ‘indigeneity’ has two primary meanings. First, it simply means ‘local’. Second, it is also widely regarded as pertaining particularly to the culture of people colonised by Europeans, in which respect it becomes politically problematic. Ruggles acknowledges the word’s difficulties. There is, of course, the problem that much ‘indigenous’ knowledge and practice has been recorded and interpreted by western anthropologists. Is the notion of indigenous knowledge then an academic construct? How can we ever know what genuinely constitutes indigenous knowledge? Darlene Juschka raised the problem:

Ethnography assumed that inductive reasoning, the moving from the particular to the general to the universal terms of the production of knowledge, was unproblematic...ethnography did not self-reflectively understand that the discipline’s act of writing the other into existence was a colonizing act.<sup>4</sup>

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2 W. A. Glover, ‘Cultural Astronomy Curriculum Unit in the Highland High School Physics Curriculum’, <http://www.unm.edu/~abqteach/ArcheoCUs/99-01-04.htm>; Nicholas Champion, ‘Teaching Cultural Astronomy: On the Development and Evolution of the Syllabus at Bath Spa University and the University of Wales, Lampeter’, in *African Cultural Astronomy: Current Archaeoastronomy and Ethnoastronomy Research in Africa*, ed. Jarita Holbrook, Rodney Medupe and Johnson Urama, (Amsterdam: Springer Verlag, Astrophysics and Space Science Proceedings, 2008), pp. 109–19, <http://www.scribd.com/doc/90101943/Holbrook-Jarita-African-Cultural-Astronomy-Current-Archaeoastronomy-and-Ethnoastronomy-Research-in-Africa>

3 Clive Ruggles, ‘Indigenous Astronomies and Progress in Modern Astronomy’, Paper presented at the International Astronomy Union 27th General Assembly, 3–14 August 2009, Rio de Janeiro, Brazil, *Proceedings of Science*. <http://pos.sissa.it/cgi-bin/reader/conf.cgi?confid=99>

4 Darlene M. Juschka, ‘The Writing of Ethnography: Magical Realism and Michael Taussig’, (University of Regina, Dec. 2003), from a paper presented to

Bernard McGrane also considered the problems of analysing, interpreting and constructing the 'other':

In writing...a history of the different conceptions of difference, I am concerned with making visible, in reference to European self-understanding, the other, the other as non-European. This is an attempt not to understand the other the alien, the different but rather, historically, to understand our understanding of the other, the alien, and the different.<sup>5</sup>

The problems are not insurmountable but, once anthropology fully becomes a part of the methodology of cultural astronomy, as all protagonists agree it should, anthropological methodology has to be rigorously applied. When that happens, perhaps the most difficult task for the cultural astronomer will be to understand their own agenda and the ways in which they may construct the discipline and interpret the evidence. This is the kind of issue with which a philosophy of cultural astronomy can deal.

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the Canadian Women's Studies Association and Canadian Sociological and Anthropological Association at Canadian Congress, May 29th 2002, p. 86,  
<http://www.jcrt.org/archives/05.1/juschka.pdf>

<sup>5</sup> Bernard McGrane, *Beyond Anthropology: Society and The Other* (New York: Columbia University Press, 1989), p. 2.

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