



episode 12b (2019 April) *Cultural astronomy*

Heather: Hello everyone! Are you still there? I hope you are, because this is the last episode of the RASC 150 History Podcast! We’ve been silent, but not idle during the months since we last released an episode on the unsuspecting podcast world (well, at least I haven’t been idle; I don’t know about Randall). To do the podcast I must first locate that indispensable archival accoutrement, the RASC Archivist. I wonder where he’s got to? [*sounds of Heather walking*]. Ah, there’s Ratatoskr the squirrel in the oak outside the Archives, I can ask him: [*Heather calls up into the tree*] “Hey, Ratatoskr, have you seen the Archivist? [*sound of Ratatoskr the squirrel scampering down, and answering with squirrel noises*]. What, an hour ago? Where is he now? [*Ratatoskr answers with more squirrel noises*]. Oh, in the Archives—well, that makes sense. [*Ratatoskr makes more noises*]. Sure, I’ll deliver a message for you; who’s it for? [*Ratatoskr makes more noises*]. The Grumpy Bird in the Tree of Knowledge? Er, sure. [*Ratatoskr makes more noises*] Oh, the biscotto with nuts is for me? Thanks! [*sound of Ratatoskr the squirrel scampering back up the tree*]. I don’t know if you, the podcast audience, have noticed over the course of this series, but Randall’s got some strange friends. Good biscotto, though.

[*Heather knocks on the heavy oak door of the Archive, then footsteps are heard approaching, and the door creaks open*]. Ah, there you are. We have to do the start of the podcast. Ready?... My name is Heather Laird, I am a Director of The Royal Astronomical Society of Canada, and my co-host is the RASC Archivist, Randall Rosenfeld. Say hello, Randall!

Randall: [*some mumbled greeting, or other*].

Heather: So what’s up for this episode?

Randall: Cultural astronomy.

Heather: Ah, Ratatoskr intimated that that word covers both archaeoastronomy—the astronomy practised by past cultures, or earlier states of contemporary cultures—and ethnoastronomy—the astronomy practiced by present cultures...

Randall [*interjects*]: You’ve been conversing with that furry little red pest? A day ago he was instrumental in making a package of biscotti vanish up a tree—well, never mind...

Heather [resumes]: Something about the terms archaeoastronomy, ethnoastronomy, and cultural astronomy and the way people struggle to use them seems not quite right.

Randall: I concur. They seem less than adequate, because of how boundaries are constructed, and practices are excluded, or included. It can be really tough to find words that adequately delineate areas of study. For some people, archaeoastronomy chiefly concerns the astronomy of prehistoric cultures, at best only imperfectly recoverable from imperfect material remains, for others, archaeoastronomy also includes aspects of the astronomy of Greco-Roman civilization, and even medieval remains. Should earlier practices of astronomy which seem to carry over from prehistory into historic periods be part of the study of archaeoastronomy? What of the occurrence of beliefs about astronomical phenomena which parallel those of several millennia ago cropping up in a modern culture which produces good empirical science? And, logically, the astronomy of modern-day professional astrophysicists merits study as an ethnoastronomy as much as the astronomy of contemporary cultures which owe little to modern research science. Similarly, one might expect based on the words alone, that “cultural astronomy” ought to include all astronomies without distinction, yet more often than not it excludes modern science. The whole issue of boundaries is even more interesting.

Heather: A lot of these divisions of observed human activity seem, well, artificial. I guess it’s necessary in helping to define the limits of what’s being considered. It would help if we could always keep in mind that the way we carve up the past is a conceptual convenience for us, but may have made no sense to anyone in the cultures we’re looking at. Even the best analyses are destined to remain in some respects provisional. But boundaries...so, by “interesting”, you mean where they’re placed?

Randall: Exactly! Or, in other words, where one draws the lines, and what’s on the inside, and what’s on the outside. At times, it seems that in talking about a certain culture’s astronomical practices, one makes a choice about framing them as “archaeoastronomical”—definitely not of the present, or “ethnoastronomical”—of the present, but outside systematically-based empirical means of knowing. And, while the term “cultural astronomy” was developed to enable astronomical practices to be discussed without making those distinctions, in practice it frequently falls short of the implied universality of the term.

Heather: Would it be fair to say that how someone decided to classify an astronomy which was foreign to their time and place, depended a great deal on whether they saw it as ancestral to their own tradition?

Randall: Yes!

Heather: So, what's the history of the RASC doing "archaeoastronomy", or ethnoastronomy", or "cultural astronomy", or whatever?

Randall: It took awhile for the Society to get interested, and there are some surprises along the way, as well as what appear now to be less than glorious moments. Since you ask...

What is now called "archaeoastronomy" was one of the currents of learned interest in the years of the Society's founding and refounding, incorporation, and gaining of royal appellation. Right before we were founded, the Astronomer Royal for Scotland, Charles Piazzzi Smyth's *Life and Work at the Great Pyramid* (1867) appeared, a strange work of evangelical pyramidology in defence of the God-given imperial system of weights and measures, and a little after *Royal* was put into our name, Sir Norman Lockyer published his *Stonehenge and Other British Stone Monuments* (1906). Here's a list of talks given to the Society and publications we issued from the 1890s and early 1900s dealing with archaeoastronomy understood broadly.

Heather: Let's see it—h'mmm...I can just make out the writing through the squirrel paw marks. In 1893 Arthur Harvey addressed a regular meeting on the Pythagoreans, and Edmund Meredith spoke on Virgil and agricultural astronomy. In 1894 Balfour Musson surveyed the mythology of Jupiter for his colleagues, and in 1898 he lectured on the earliest Greek cosmologies and notions of celestial motion before Greek astronomy took a really mathematical turn. The astronomical orientation of ancient monuments first arises in the pages of the Society's Transactions in Arthur Harvey's presidential address delivered in 1899. It is apparently not till 1906 that the astronomies of the First Nations receive notice in a RASC publication, through a short paper by J.C. Hamilton. And a copy of Lockyer's *Stonehenge and Other British Stone Monuments* (1906) found its way to the Society's library.

Randall: Hamilton's paper is interesting for what it reveals about attitudes at the time. I expected that this earliest RASC publication on First Nations' astronomical narratives would present them as "primitive" or even "prehistoric", archaisms out of their time, like leaves preserved in amber. Hamilton doesn't quite do that; his approach is almost that of "cultural astronomy". Some of his expressions and statements from 1906 are unacceptable today. And the assumed hierarchy of "civilizations" which privileged the culture of classical Greece and Rome and its cultural heirs above all others is clearly evident:

[quote] "*The Hydahs [Haida] and other far-western tribes, some of whom worship the Sun and the Moon, have many myths, some of which have a similarity to Greek legends, though more simple in thought and construction, as may be expected from*

such races...Imagination was affected by the surroundings...the Carrier [Dakelh] Indians styled them a “Herd of Caribou”; the Eskimo [Inuit] “A number of dogs pursuing a bear,” and the finer Greek sense made them the “Garden of the Hesperides,” or “Isle of the Blest”” [close quote] .

Where Hamilton allows himself the space he portrays the story tellers as people with agency who have names, and he doesn’t hesitate to describe some of the stories as beautiful. Most telling is his conclusion. It might be expected that, whatever the admitted aesthetic merits of First Nations’ astronomical narratives, First Nations’ astronomies would ultimately be judged to lie off the path leading to modern scientific astronomy, unlike remote pre-Socratic cosmology, Roman agricultural astronomy, Greco-Roman astral mythologies, and stone-age monumental alignments. Hamilton doesn’t do that. He creates a filiation between the settler astronomers and their First Nations “predecessors”, and draws an unflattering comparison with the poor state of astronomical knowledge among the generality of settlers:

[quote] *“What shall we say too, when we find such an interest taken in celestial phenomena by our aboriginal predecessors on this “Land of Plenty,” and remember how few now-a-days, with all the school learning, can distinguish even the chief constellations or call the great stars by their names! And yet the same orbs move and burn above us as shone upon and inspired those Indians [the original here is “red men”] two hundred and sixty years ago”* [close quote].

Heather: That’s so colonial! It’s the rhetoric here. Hamilton praises the naked-eye knowledge of the night sky possessed by members of First Nations compared to contemporary settlers, but he speaks of the First Nations peoples as *formerly* existing. Their successors in the landscape are the settlers. This is the world of the *Indian Act*, the residential schools, and the assimilate or disappear attitude.

Randall: It is stating the obvious to observe that Hamilton himself wasn’t First Nations, and neither was J.G. Griffin, who published the first paper in the *RASC Journal* on Australian Aboriginal astronomy in 1923. Neither sought permission to tell stories that weren’t theirs to give; one hopes that wouldn’t happen now. Neither, however is the worse case of a colonial attitude to other astronomies. The case I’m thinking of happened several years before Griffin’s paper appeared. And it is a spectacular story of poor judgement.

In 1920 to 1921 the RASC reissued in unrevised form Richard Grant Haliburton's *New Materials for the History of Man* which had been originally published in 1863, and in doing so the RASC became a publisher of anthropology in the service of theology. In retrospect the decision to do so seems extraordinary for a Society

“Devoted to the Advancement of Astronomy and Allied Sciences”, particularly in the year of the “Great Debate” on the nature of the universe between Heber D. Curtis and Harlow Shapley. The best that can be said about Haliburton is that he made Sir John A. Macdonald look like a staunch defender of Métis culture and rights. The best that can be said about Haliburton’s book, *New Materials for the History of Man*, is that it is as disorganized as a scrabble set dropped from the top of Ratatoskr’s tree, and that Haliburton’s means of proof for the primacy of a bipartite year of the Pleiades common to all humankind is a type of folk etymology which would have been familiar to Isidore of Seville in the seventh century. Haliburton’s theories were taken up by someone whose own work was formative for the development of Nazi Aryanism. The RASC ordered a large print run of his six decades-old work without apparently seeking the opinion of competent anthropologists on its worth. The Society still had most of the copies half a century later, which it then wisely pulped. This is not a glorious episode.

Heather: The story of the RASC and cultural astronomy is not all embarrassment and the equivalent of recounting Christmas dinner with your mother’s uncle. The pages of the Society’s *Journal* did attract some better quality work in the area, from some quite prominent people in the international world of astronomy. The great Dutch astronomer and theorist of Communism, Antonie Pannekoek, published on the cultural history of astrology in 1930. In 1933 the American planetarian, and astronomical showman Roy K. Marshall, sent us a paper explicating the recent researches on Mayan astronomy by Hans Ludendorff. And one of the greatest visual planetary observers of all time, Eugène Michel Antoniadi, gave us a paper on ancient beliefs on meteoritics and early astronomical iconographies on the eve of the Second World War.

Randall: The RASC has never been a major venue for cultural astronomy in a narrow sense, and we’ve never seen an avalanche of work in the field emanate from the RASC—although in a broader sense everything the Society does *is* cultural astronomy. In some important ways, our record of sensitivity to other communities has improved. For one thing, there seems to be more of a realisation that they are the ones who should be telling their stories.

As far as I can tell, it was only in the late 2000s that the RASC *Journal* started to publish work on First Nations’ astronomies by a RASC member, Frank Dempsey, who is a member of the Dokis First Nation, a trained meteorologist, and a veteran variable-star observer.

Heather: And in 2017, Cathy LeBlanc of Acadia First Nation, in collaboration with Dave Chapman, published their research on recovering Mi'kmaw traditions of lunar phases, and their cultural meanings.

Randall: The hope is, that these trends will presage better practices within the Society. Only time will tell.

Page | 6

Heather: Thanks to everyone who tuned in, and we hope you enjoyed this podcast. If you have any questions, please visit www.rasc.ca/rasc-2018-podcasts for contact details.

We'd particularly like to thank all of you who've accompanied us as we've delved into various aspects of the RASC's history over the last 150 years in this series of podcasts.

Our sound engineer is Chelsea Body, and our theme music is by Eric Svilpis.