

Seven (Deadly) Sins of Archaeoastronomy

Kim Malville

1. **Ethnocentrism:** (a) Considers that every building with astronomical features was an observatory; assumes ancient sky watchers had goals and attitudes similar to those of modern astronomers. Considers ancient sky watchers to be proto-astronomers and proto-engineers. The word “observatory” should be used with great caution. There were very few true “observatories” in the ancient world: one would be the observatory in Jaipur, India, the Jantar Mantar. North (1996:xxxvi): *“It will not of course be suggested that the monument on Salsbury Plain was an astronomical observatory, at least in the current meaning of that word. The stones were not erected as a means to investigate the heavens in a detached and abstract way. Their aim was not to discover the patterns of behavior of the sun, Moon, or stars, but to embody those patterns, already known in broad outline, in a religious architecture.”*
(b) Another hazard of ethnocentrism is to assume that because certain beliefs, goals, and patterns of behavior seem crazy and unreasonable to us now, they did not occur in other cultures or in the past. Lekson (2006:43) who inspired me with his list of the Seven Sins of Archaeology, elegantly identifies this as *“Sin #4: The Sins of Ockham: Misapplication of the Razor to the question of interest, rather than the logic of its answer. To err cautiously in archaeology is to err egregiously”*. An example is the rejection of lunar standstills before testing the possibility in specific contexts.
(c) Cartesian dualism: the modern world draws a firm ontological distinction between animate and inanimate, between life and death; these may not apply in other cultures.
2. **Thin description.** (Clifford Geertz, *The Interpretation of Cultures* (1973) A thick description of an anthropological phenomenon or feature of the archaeological record is one that both describes and explains the

implicated behavior, but also explains its cultural context. A wink is an example. When someone winks at us without a cultural context, we have no what it really means. It might mean the person is attracted to us, that they are trying to communicate secretly, that they understand what you mean, or really don't mean what they are saying. Simply reporting a solstice sunrise, for example, is similar to reporting a wink. A thin description comes from treating an archaeoastronomical puzzle simply has an astronomical problem, not considering the cultural context. Failure to attempt to consider the full picture: ethnography, anthropology, and the archaeological record. Too much from the outside ("etic") with little attempt to understand the culture from the inside ("emic").

3. **Two-dimensional thinking:** Ignores the full three-dimensional nature of an archaeoastronomical investigation; does not consider elevation of the horizon; draws lines across landscape based on reported azimuths of solar or lunar extremes regardless of what people could actually have seen.
4. **Emphasize the rich and powerful:** Long a problem in archaeoastronomy as well as in archaeology itself. Fascination with Egyptian pyramids and temples, Mayan astronomer-priests, royalty, cities, and temples, Chacoan great houses. The story of the real people is usually more interesting.
5. **Excessive post-positivism:** Fail to frame testable hypotheses and to test them robustly.
6. **Sloth:** Disregard statistics: Fail to test whether astronomical orientations are fortuitous. Sloth also enters when insufficient attention is paid to determining true north: in many cases measurement with a magnetic compass does not provide sufficient precision unless it is backed up with a photograph of the actual solar or lunar event.

7. **Hubris:** Excessive self-confidence: fails to use terms like “perhaps”, “may be”, and “seems possible.” Does not seek alternate interpretations. Voltaire: “*Le doute n'est pas une condition agréable, mais la certitude est absurde.*” Doubt is not a pleasant condition, but certainty is absurd”