

Review of Papamarinopoulos et al.

This paper made me realise how little I knew about the Argonauts and their journey. I knew about the dragon's teeth. I knew about the golden fleece. I knew about Jason. I was unaware that Hercules (or is it Heracles?) was involved in all of this. And I was certainly unaware that this was all written down by Apollonius of Rhodes.

I gather that Apollonius is believed to have lived from 300 to 225 BC. Yet, as this paper points out (line 50) the Argonauts sailed in the 13th century BC. The authors of this paper are therefore trying to determine events and locations on the basis of a text written 1000 years after the events. This allows the authors the latitude to claim that certain parts of the text are exact, if they agree with their arguments, but that other parts are inexact or poetic if they disagree with their arguments. Such latitude in interpretation does not sit well with scientists.

In particular, the authors like to claim in lines 234, 370, 390, and 682 that they have "proved" certain things. They may indeed have shown, demonstrated or even confirmed their theories but their claims to have proved them diminishes their credibility. Dogmatic statements such as "Herodotus would certainly refer to that as well" (line 115) need further explanation. Herodotus does not have a good reputation as an accurate source of information (my wife is a historian), and I quote from the internet:

Herodotus has been called both the Father of History and the Father of Lies. Although his Histories are our primary source for knowledge of the Persian invasions of Greece in 490 and 480 B.C., Herodotus' account includes some elements which seem to us incredible, sometimes almost bordering on the realm of fantasy.

The authors claim to have determined the location of the Triton's Lake, or Tritonis Lake as they call it. They may have. Or they may not have. There seems no way of scientifically determining this. In which case my judgement on this paper rests on whether it is interesting, and whether it reads well. In short, the answer to question 1 is yes. The answer to question 2 is no.

Interest

When I was a youngster there was an Argonauts' club on the radio (there was no TV back then). The Argonauts' club subtly introduced generations of Australian children to quality literature, songs, music and games on the ABC broadcasting service daily from 5pm to 6pm. Ostensibly the children's hour, at some point during the hour the Argonaut theme song would be played and the jolly friendly compere known as Mac would turn into the stern Jason. When one joined and became an Argonaut one supposedly joined Jason and his vessel *Argo*, setting out to find the Golden Fleece and was assigned a boat and a rowing position that became one's Argonaut Club name. There were fifty 'rowers' in each 'boat'. I was Boronia 18. One received certificates for writing about the name of the boat. Despite consulting the Encyclopedia Britannica in the Lindfield library, run by the local council, I could find nothing about Boronia. There is a genus of Australian plant called Boronia, but as far as I can make out neither the plant nor the chemical element Boron got its name from any Greek word. The closest Greek word is boras, meaning north, as in the aurora borealis and I suspect that the literary types running the club were running out of names by this time and picked anything sounding vaguely Greek. Had I known about Tritonis Lake and written about it then I am sure that I would have received lots of certificates and perhaps even attained the Dragon's Tooth badge, or the Golden Fleece badge.

Obviously I have a soft spot for stories about the Argonauts and now realise how little I know.

Readability

The paper is lacking in many areas. Some that I noted are:

1. Background: I suspect that most readers will not have any knowledge about the Argonauts, nor about the poems on which this analysis is based. The background information that is given is insufficient with one glaring omission being a good, readable map that shows all the places mentioned in the paper. I had to read this paper with an atlas open at the page showing the Mediterranean and even then I had difficulty. My atlas, for example, does not (I think) show that "The Minor Syrtis is in Tunisia, near to the Mountain Atlas' area "(line 80).

To further confuse the poor uninformed reader, the authors refer to 'both Syrtis' (line 69) long before Syrtis Minor has been mentioned.

2. Poor English: The English in the paper is just marginally adequate. It is below the level expected in an English language scientific publication. Some of the numerous examples follow:

The title starts with "A New Propose...". Propose is a verb. The word should be 'Proposal' though words such as Idea or Concept may be more suitable.

Line 17 has Apollonius Rhodes whereas the title has Apollonius of Rhodes

Line 28 Colloquial English would omit 'the' in both places on this line.

Line 29 'Triton who' not 'Triton which'.

Line 30 'to have' should be either 'as having' or 'with'

Line 41 'toddler bids and he farewell' should be 'toddler and he bids farewell'.

Line 53 'lake has been dried up' should be 'lake dried up'; 'authors have difficulties to agree to it location' should be 'authors fail to agree as to its location'.

Line 61 'taken' should be 'took'.

Line 104 'clarify' should be 'clarifies'.

There are lots more and I am sure that the authors will have fun finding them.

For reasons that defy comprehension, when English uses the Latin Major and Minor they are placed after the noun so that it would be more usual to refer to Syrtis Major and Syrtis Minor.

3. Obscure Meaning. This may be my fault but I think that words such as trans-scientifically; oasis; sabkha; and thalweg should be defined or explained. I also wonder if there is a

difference between a sabkhat (line 330) and a sabkha.

I do not understand what a 'reciprocal coastal wave' is (line 29), which is embarrassing as I thought that I knew something about coastal waves, having read Mysak & LeBlond's book "Waves in the Ocean".

Dark Ages (line 62). I am fairly certain that in English, the term Dark Ages is used for the period 476 AD – 1000 AD, and only for that period. To use it for a time period in the 12th century BC is very confusing.

A similar problem exists with the use of 'West and Central African Coast' (lines 159 and 181). West Africa and Central Africa are both in the Gulf of Guinea. The authors mean the western and central portions of the North African coast (of the Mediterranean).

The numbering of the Figures does not agree with the text. There is, for example, no Figure 6.

4. Inconsistent or obscure referencing.

4a. Though Appolonius and Eratosthenes appear in the list of references, the following ancient sources that are mentioned in the paper do not:

Pausanias, Hecataeus, Orpheus, Homer, Herodotus, Pindarus, Strabo, Dionysius Schytovrachion and Diodorus Siculus and possibly others.

4b. In the reference list itself, the year is generally at the end except that in lines 707 and 747 it appears after the authors names.

The reference list has 2002 for Aref et al, but line 453 has 2001. Which is curious since line 454 has 2002. Unclear if there is a missing reference or whether it is just a mistake.

The Journal names are sometimes given in full. Sometimes not. I am not sure how many readers will know: MAA, Q Sc R, Am.Ph.As, J. Ar. Sc.,

5. Relevance to Geophysics

In line 23 the reader is informed that 'modern technology' was used. If I understand the paper correctly, the modern technology consisted of a digital elevation model determined using satellite data that was then used to infer the pre-historic thalwegs. I suggest changing 'modern technology' to 'a digital elevation model'.

I think that claiming all of this to be "significant to geophysical research" (line 124) is gross exaggeration.