Walking on ice—frequently asked questions (FAQ) 05/02/06a

The FAQ discussed below are based on my response to several hundred emails. They encompass a broad spectrum of writers' backgrounds and a broad spectrum of beliefs. It is highly recommended that you read the original article in the Journal of Paleolimnology before looking at these questions. By paying attention to the abstract, the introduction and the summary, you should be able to understand most of the ideas even if you cannot follow the mathematical and statistical analysis in between. We sincerely apologize to those who find our scientific approach offensive.

1) How do you explain the discrepancy between the theory (stating that there was a strip of ice 100 feet broad and several hundred feet long anchored to the shoreline) and the detailed scriptures' description of Peter sinking, the boat, the strong wind, and the location of the event (2-3 miles off-shore)?

We state in the summary section of the article that we do not intend to match the biblical story word-for-word because we take the bible as a *story* based perhaps on some eyewitness accounts. As such, it is partly factual and partly the creation of whoever wrote it. Consequently, we do not regard the biblical accounts as perfect "data". If we did, then we would have to reject both our own findings and such truths as the fact that the Earth is revolving around the Sun; we would also have to reject the theory of evolution. In this sense, our approach is the same as the one that we took in our 1992 explanation of the Red Sea crossing and the same as that of Ryan and Pitman's explanation for the great flood. We believe that there is perhaps some factual aspect in the biblical story and it is this factual aspect that we are after. We do not take the bible to be a manual for the geosciences.

With this approach, the data are the things that we can actually measure *today*--the paleotemperature record in the Mediterranean cores, the wind, and the temperature record near the lake. These data suggest that (in somewhat rare cooling spells) there was probably ice on parts of the lake near the village where Jesus supposedly lived. Whether it is related to the Jesus story or not we don't know, but it could very well be connected.

Having said that, one can also imagine that there could have been a boat near the ice edge and that someone could have fallen from the ice to the surrounding open water which (with our springs ice mechanism) was much warmer than freezing water.

2) Are you saying that Jesus deceived those around him?

Our article is not for or against religious beliefs—it merely describes the natural conditions that took place during the times that Jesus supposedly lived. It is written with the premise that any natural phenomena that rarely occurred may have appeared to the

people of those times as a "miracle" simply because they weren't used to seeing it.

We then take this a step further and ask, not state, whether the origin of the biblical account lies within the observation of that natural phenomena. We feel that, as natural scientists, it is our job to tell you, the reader, what we find and what it could mean. What you decide to do with this information is really up to you. You can incorporate it into your religious beliefs somehow or you can simply ignore it if you think that it needs to be ignored. Some find comfort in the statement that many of the miracles in the bible were natural processes far beyond the level of knowledge at that time.

3) Some people say that your study is blasphemous to Christianity, do you agree?

Our paper is blasphemous to Christianity just as much as our Red Sea paper of 1992 was blasphemous to Judaism--neither of the two is true and nobody ever accused us of being blasphemous to Judaism in 1992. It is useful to recall in this context that when Copernicus stated that the earth wasn't flat, the Church referred to his findings as blasphemous. (I am not trying to blow the significance of our own study out of proportion by comparing it to the work of a science giant such as Copernicus but the stories and the initial reactions are painfully similar.)

4) What value does this research have?

Our study seeks the foundation of the biblical stories. It is not of any use to those that take the bible to be literally true word-by-word nor is it of much use to those who are on the other side of the spectrum and take the bible to be merely a collection of metaphors. We are in between those two extremes and examine the idea that nature probably meant a great deal to those who wrote the bible.

In addition, our study contributes to conventional physical oceanography and conventional physical limnology. The work could have been published without the social and religious component. However, we believe that its true value *is* in its unique combination of the physical limnology and the biblical aspect.

5) What are your and your co-authors religious beliefs?

We are all non-believers. Paldor and I grew up in the Israeli-Jewish tradition whereas McKeague grew up Christian. One can say that I am an atheist though the article doesn't advocate atheism.

6) I have heard that you received a lot of hate mail; can you please tell me about it?

We received thousands of emails from both the US public and overseas. These messages came from those belonging to all facets of life--blue color workers, physicians, lawyers and professors. Social scientists who know how to interpret the social aspects of these emails will (hopefully) ultimately analyze them. The emails ranged from the flattering ones requesting my picture with a signature on the back to hateful ones with indirect death threats. Unfortunately, there was more of the second kind than of the first kind probably because our study unintentionally threatened the beliefs of many individuals.

Among other things, I have been accused of doing the research as a part of the "Jewish conspiracy" which is "based in New York".

Emails that came from other scientists familiar with our more conventional oceanography and limnology work were, by and large, very supportive, regardless of their religious orientation.

Doron Nof, Tallahassee, Florida, 05/02/06