November 25, 1973

Dear Mr. Herrmann and geology staff:

It is important to draw your attention to the question of Flood deposits for a moment. The recent Good News article illustrates what we are prepared publically to write and how different is our view of the Flood from so-called creationists.

On the other hand, it also illustrates what we are not prepared to write, or perhaps better said, What evidence have we really found of the Flood that we can point out to others?

To assist in our studies, let me draw the following points to our attention. We cannot arrive at the evidence for creation week and the creation of man, geologically speaking, until we have first established carefully and thoroughly the evidence for the Flood. The reason should be obvious. The description in the Bible (with supporting records from history and archaeology) is very clear for both sides of the Flood. The description of the pre-Adamic world, by contrast, is very limited in the Bible and we have to differentiate the living world at that ancient time and the processes of destruction and the process of re-creation before we can arrive at the answers to Genesis 1.

Further, we have no sufficient time scale to determine any of the evidence for the Pre-Adamic world with assured certainty. Whereas, for the Adamic world we have the Biblical revelation and significant post-Flood historic evidence to assist us in evaluating time scales derived from laboratory studies — radiocarbon, potassium-argon, etc. Once we are able to evaluate the meaning of these scales by comparing them with Bible and history, we will be in a much better position to determine the passage of time reflected in deposits of earth's earlier ages.

I reject the idea that we cannot know what are the general Flood desposits because we are not yet all fully persuaded of where to draw the line for creation week. Studies done by archaeologists and anthropologists are sufficient to put this question to rest among ourselves. The reason archaeologists may not have recognized the Flood deposits for what they are is obvious -- they do not believe there was a Flood. But they cannot be condemned , for even so-called creationists haven't discovered the real Flood deposits of Noah's day. Further, if Flood deposits were automatically obvious to anyone looking for them, there would have been no reason to define the character and effects in detail in the Bible. We could have known without revelation. What I should like to do in this letter is take a very recent book on archaeology and cite the evidence and the pitfalls in published material.

The book: <u>The Archaeology of Arizona / A Study of the Southwest Region</u>, Paul S. Martin and Fred Plog: Published for the American Museum of Natural History; Doubleday/Natural History Press, Garden City, New York, 1973.

Page xix:

In a sense, Arizona is a ideal subject for such a treatment. It has been continuously occupied since at least 10,000 B.C. ... Within its boundaries lies as complete an archaeological record as is available anywhere in the world.

Page 60 -Gypsum cave:

Extinct fauna found in the cave include sloth, horse, dire wolf, and a camelid. The cultural debris that seems to be associated with these fauna is substantial....In addition, two hearths were found in the same level of the cave. The cave was used by Paleo-Indian groups between 8527± 250 and 10,455± 340 B.P.

-Ventana cave:

...The occupation level containing the Clovis point has been dated to 11,290± 500 B.P.

- the Lehner site:

The site is about two miles south of Hereford, Arizona, at an altitude of 4,200 feet. It was exposed in the bed of the San Pedro River, 2.5 meters below modern land surface.

The last word -- surface -- falls on p. 61

Page 61:

... Radiocarbon dates on material removed from the Lehner Site range from 10,410± 190 to 11,600± 190 B.P.

Page 65:

The Double Adobe Site is in the Sulphur Springs Valley twelve miles northwest of Douglas, Arizona. The site is generally classified as an example of Sulphur Springs "stage" of the Cochise culture. We mention it here because it is a relatively early site dating to 9350± 160 B.P.

Page 73:

The Cochise culture (Sayles and Antevs, 1941) was the first well-documented set of early sites in southern Arizona and they were soon recognized as part of the Desert culture stage. The sites are located in the southeastern corner of Arizona. The earliest stage, the Sulphur Springs stage, was exposed by recent channel erosion in Whitewater Creek, although the artifacts had been buried by ten feet of old river sands and gravels. The artifacts included handstones, milling stones, and percussion flaked tools such as knives, scrapers, axes, and hammerstones -- all typical of Desert culture tools. No projectile points were found. Associated with these tools were bones of now extinct mammals: camel, horse, dire wolf, mammoth. This stage is dated by radiocarbon at about 6000 B.C.

In the same creek channel but in deposits above those containing artifacts of Sulphur Spring stage was located another aspect of the Desert culture. This stage is called the Chiricahua and is later in time than Sulphur Springs materials. The investigators feel it iw a later and continuous development of the Sulphur Springs tools...Dates for this stage are given (radiocarbon dating) as about 6000-4000 B.C.

The latest Cochise stage, called San Pedro, yields stone implements, some of which are the same as those of the Chiricahua and some new types. In addition, tools by pressure flaking occur for the first time.... Pit houses (the earliest) occur in this stage...This stage is dated by radiocarbon at 1900 B.C. - A.D. 1.

Page 73 (continued): ...

The significance of the Cochise culture may be summed up as follows:....

4. It comprises three prepottery stages with houses appearing in the latest stage (San Pedro). The geological and climatic history of the deposits is fairly well worked out. The oldest stage is embedded in the final throes of the Pluvial period; the middle stage (Chiricahua) seems to have been an arid to semiarid one accompanied by erosion and cutting of arroyos during floods. The latest stage, San Pedro, enjoyed a semiarid climate with erosion cycles much like the climate of today.

Page 79:

Thus, the Desert culture way of life: not one of affluence perhaps, nor one of near starvation, but a transient one of constant vigilance, some satisfactions and a fatalistic attitude toward life.

Recognition of this way of life has come about because of the perceptive researches of many anthropologists... Jennings' delineation of it... was eagerly seized upon and used by archaeologists because it was succinct, forceful, and carefully written....His principal theses were: that no significant change in Great Basin environment has occurred for some ten thousand years of more..., that the Desert culture was a widespread uniform culture from 8000 to 3000 B.C. ...

Page 182: - adaptation of man to the mountains (named after Mogollon mts.)

...We have only a few data on early sites, the earliest perhaps being the Cochise tool kits that we found in western New Mexico....This manifestation dates from about 2500 B.C.

Since so few sites of 2000 B.C. - A.D. 1 have been reported, it is not possible to say anything about settlement systems of earliest Mogollon times.

Page 81:

At about the time of Christ, the population of Arizona began to increase rapidly.

Page 166:

The same argument must be made with respect to population. We cannot assume that there were more people in Arizona during the Desert culture stage than during the Paleo-Indian stage. It is true that archaeologists have found more Desert culture than Paleo-Indian sites. But, the Paleo-Indian stage lasted for about four thousand years and the Desert culture stage for about seven thousand. Furthermore, Paleo-Indian

(continuing on page 167) sites are more deeply buried and more difficult to find. It is not clear that there are a sufficiently larger number of Desert culture sites to firmly conclude that population was greater during this stage. Moreover, there are some blocks of time during the stage (e.g., 5000-3000 B.C.) when there is little or no evidence of human occupation of the state.

What? Read that last sentence again! I have presented the above quotes to show how human belief can color the facts in the minds of the authors. I have evidence from many areas to show that the same lack of population during this time period (radiocarbon dated) occurs elsewhere 'round the world. But what is the nature of the geology of the Recent during this time frame in Arizona?

Began in most places A.D. 1200–1500[1]; continuing until 1880 or later.

The geology sequence is found in a chart on page 48, from which I extract the first two columns:

FLOODPLAIN EVENT	Features (should be caps)
cutting 4	Began in late nineteenth century...
deposition 3	Coincided with decline of floodplain farming in many areas.
cutting 3	
deposition 2	Twofold in several areas; upper part in most places no younger than A.D. 1100–1200[1]. Lower part dates 2200–2400 B.P.[2], occasionally to 4000 B.P. ...
cutting 2	The altithermal of Antevs; calcification, dune formation along certain drainages. More extensive arroyo cutting than at any time since the last pluvial...
deposition 1	A scattering of dates suggests an age of 7000–11000 B.P.[2]. Last record of the late Pleistocene megafauna.
cutting 1	The major period of erosion in valley bottoms which defined the channels filled by alluvium in post-pluvial time. Probably of Wisconsin glacial age and older.

1 Pottery and dendrochronology 2 Radiocarbon (years before present)

What is this time of calichification and dune formation? -- the very time of absence of human occupation in the state of Arizona? Or better state: What is the cause?

Page 45:

The process of calichification in Martin's view is the subject of far greater disagreement among geographers than the simple interpretations of the occurrences of this phenomenon in the prehistoric Southwest suggest. The cause of the phenomenon is sufficiently in doubt that it cannot be used as the indicator of any particular set of conditions. Similarly, the formation of dunes is sensitive to a series of environmental variables such as the direction of the wind and the availability of local sand resources. Since these factors are not given sufficient consideration by the geographers, Martin finds their interpretation of dunes suspect. (Summarized from The Last 10,000 Years.)

(This Martin is Paul S. Martin of the Univ. of Arizona, not the co-author of this book.)

The reason men have not found the Flood is that they have not thought it really occurred, and certainly did not know where to look for it in the record. And since the phenomenon that would have illustrated it to them is not really comprehensible through routine weather patterns, it has been lost in the broad geographical and geological discussions. It is time we asked our geologist in Arizona to tell us more of this remarkable period of deposition.

This is no way to write an article, but I thought it the best way to present the material dispationately.

Malo Aupito!

Herman L. Hoeh