

THE ELLIPTICAL FORMATION IN THE TENDUREK MOUNTAINS

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The author was able to visit the formation which some have thought to be connected in some way with the Ark. In his opinion it has nothing to do with the Ark, but is a geological and tectonic phenomenon.

The Initial Discovery

About 1959 aerial photographs of parts of the Tendurek Mountains of Eastern Turkey were brought to public notice. The point of interest was an elliptical formation, having an outline roughly that of a ship, which appeared in the photographs. (As shown in the preceding article, by Shea.) Captain Sevket Kurtis had taken these photographs; and he brought them to the Ohio State University, where he was doing advanced work in connection with aerial surveying.

A specialist at the Ohio State University, upon examining the photograph, believed that the object could be none other than the Ark of Noah.

The picture was published in several magazines and newspapers. It appeared in Life magazine. The Stats Zeitung and Herald, Woodside, New Jersey, 15 November 1959, published the picture, with a caption: "Stereo-airphotos at Mount Ararat show petrified boat in a field of lava, possibly Noah's Ark of the Bible". About the same time, a writer in a newspaper in Columbus, Ohio, commented in part:

Discovered with stereoplanograph. The air photos were taken a year and a half ago on behalf of the Geodetic Institute of Turkey. But a curious object was just recently discovered in one of the photos. It was discovered when, in Ankara, Captain Ilhan Durupinar used a stereoplanograph in order to prepare maps. The size corresponds with the description of the Ark in the Bible and in the Koran. The object has the form of a boat, 450 feet long and 160 feet wide. . . . Kurtis said that the object is sunk in a field of lava.

A member of the Geodetic Institute of the Ohio University, after he had seen the stereophotographs, said that he was convinced that the object could not be a product of nature, but was possibly "a petrified boat". "There is a ship on Ararat," he declared positively, "and someone had better find out how it got there."

The Expedition to the Site

It would be pointless to recount all of the negotiations with the Turkish Government personnel in obtaining permission to visit the site. Eventually the Archeological Research Foundation of New York was chosen with George Vandeman as director of the expedition.

There were doubters, of course; since most of the stories of past finds of the Ark placed it on Mount Ararat. The Tendurek Mountains, while in plain view of Ararat, are still many miles from it. Besides, the photographs of the object showed a prow as pointed as that of the Queen Mary, while many believe that the Ark was blunt or square at the ends, like a barge or scow.

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Eventually the expedition, accompanied by Captains Durupinar and Kurtis, reached the site; completed some excavation of the formation, and even resorted to some blasting. To the disappointment of all, they found nothing but dirt. Naturally, there were those who seized the opportunity to say: "We told you so". One periodical writer, for instance, remarked that the disappointment should have been no surprise, for most experts entitled to express an opinion had always claimed that the Biblical story of the Flood had no more factual basis than tribal tradition.

How the Author Came to Visit the Formation

After the disappointment, when it turned out not to be an artifact, the formation was almost forgotten for some years. Meanwhile, searching for the Ark on Mount Ararat continued, as opportunities arose. In the summer of 1973 a group, of which I was a member, was permitted to search on Ararat. Other members included Dr. Lawrence Hewitt, the director, Eryl Cummings, John Willis, Joeff McMahon, and J. S. Darnall.

We established our base camp on the northeast side of the mountain, at an elevation of about 12,000 feet. Three hardy members of the group climbed higher, to establish a high camp at the edge of the ice cap, at about 14,000 feet. All the uncovered canyons were searched, but without success in finding the Ark. Many photographs were taken.

The Turkish government had arranged for an officer, who spoke good English, to accompany us. He reported daily to his superiors in the army camp below at Dogubayaset concerning developments.

The Russians knew of our activities; and they were continually complaining to the Turkish government about our presence. We were not looking for any Ark, they suggested; that was merely a coverup. Actually, they said, we must be spies from the C.I.A. Why should anyone else be taking so many photographs? (Of course we could sit in front of our tents and, with binoculars, see about 15 Russian cities across the Aras river boundary.)

One evening, when I was visiting with the Turkish officer, he mentioned to me this suspicion about our identity. I assured him that our interest was purely scientific. Our main object was to find the Ark of Noah. My own work was that of a geologist, mapping the mountain and the surrounding area.

As a result of this conversation, Mr. Cummings and I were invited to visit the commanding general at Dogubayaset. Accordingly, we reported there the next day. The general was very gracious; and, after we had explained the object of our search, he invited us to take a trip with him. He explained that he would show us the sacred object for which we had been looking for so long, the Ark of Noah.

We arrived in the Tendurek Mountains, and soon came in sight of the ship-like natural phenomenon

which had disappointed so many some 13 years previously. Since we were there, and had not seen the formation before, we determined to settle, at least to our own satisfaction, whether this might perchance be the storied Ark after all—or at least have some connection with it.

The Actual Formation

The elevation of the formation in the Tendurek Mountains is about 6,000 feet. That seemed to us too low to agree with the reports of eye-witnesses, according to whom the Ark is at an elevation of about 14,000 feet. In contrast with Mount Ararat, from which rocks are continually breaking and rolling to lower ground, the Tendurek Mountains appear older, having a more mature topography. The relatively gentle nature of the slopes can be seen in Figure 1.

And, as can be seen in Figure 1, the phenomenon in question lies along a broad, well peneplaned contour. What had looked like a flow of lava in the aerial pictures turned out to be a deep deposit of clay, intermixed with small breccia, along the bed of a stream.

From a tectonic standpoint, apparently what had happened was that a small fault or fracture of about 450 feet (approximately the length of the Ark) occurred along the bed of the stream. Actually, by pacing, I estimated 500 feet. The “prow” of the formation was uphill from the stern.

Apparently a granitic or rhyolitic type of intrusive lava had pushed up through the clay along the center of the formation, making an elevated ridge along the center, as can be seen in Figure 2. The ridge does look something like the keel of a ship—but upside down. This outcrop of rock should have been an obvious clue to the nature of the phenomenon.

Apparently the extrusion widens a few feet below the surface, along the center part of the formation, thus giving the whole thing the outline of a “ship”. Possibly as the molten or plastic rock mass rose through the clay bed of the wash, it raised the hardened clay with it. The hardened clay did actually simulate the sides of a ship, and from a distance one could easily accept such an interpretation.

The height of the clay extrusion varied from a few feet to perhaps 30 feet. As can be seen in Figure 3, the clay extrusion broke away from the rest of the bed of the wash, leaving a crevasse about two feet wide. This crevasse appears to be quite deep—one would not wish to fall into it.

The eruption which caused this formation must have taken place comparatively recently. Otherwise the crevasse would have been filled with sediment brought down by the stream. In fact, from the freshness of the clay crevasse, and the fact that the fracture has not been filled by erosion and sedimentation, I should judge that the eruption occurred only some 25 or 30 years ago. However, precipitation may be limited in that region, and hence erosion and sedimentation slow. In that case the formation might be rather older.

Although in an aerial view the formation may look quite ship-like, it does not take a geologist on the site long to dismiss the notion that the strange phenomenon is an actual ship. Some have suggested that a ship was



Figure 1. This is a general view of the formation in the Tendurek Mountains. The picture shows also the general nature of the surrounding country.



Figure 2. This is a closer view of the formation. Note the rocky ridge running along the center.



Figure 3. This shows the crevasse formed where the formation broke away from the surrounding clay. It is to the right (his right) of the boy, who is the son of the Turkish general who took us to see the formation.

once there, but was burned by the heat of the lava. To investigate that possibility, Mr. Cummings and I hunted for charcoal, or charred remains of a ship; but we were unable to find any.

Conclusions

For the reasons already given, I cannot believe that this formation has anything to do with the Ark. I feel that our time could have been better spent searching in areas where eyewitnesses have reported having seen some kind of ship on Mount Ararat in the last 100 years.

Incidentally, the reports of eyewitnesses would seem to corroborate the deduction made above: that this formation is quite young. None of the reports include mention of anything closely resembling this formation. But the formation is fairly accessible; surely if it had been there for centuries it would often have been reported as the Ark. Conversely, if the whole formation is comparatively young, it can, of course, have nothing to do with the Ark.

It is true that, as far as I know, no one has reported having seen a ship on Ararat in recent years. The reason, however, might well have to do with cycles of

weather. A few years with less snow than usual, or hot summers in which more ice than usual melted, could leave the Ark uncovered, or at least partly so. On the other hand, while much snow, or cool summers, are common, it would remain hidden.

Reliable eyewitnesses claim to have seen the Ark about 100 years ago; about 60 years ago, during World War I, when Russians reported having seen it; and about 20 years ago. Bishop Nouri, who visited Chicago during the World's Fair of 1893, was reported in the Chicago Tribune to have seen the Ark; and he lectured about it in Chicago. Theodore Roosevelt vouched for his reliability.

I knew an Arizona man, Fred Drake, a prospector who had worked with a George Green about 1952, searching for oil in Utah. Green had worked for oil companies in Turkey; and he claimed that he had flown around Mount Ararat and taken pictures of a giant boat high on the mountain. My friend Drake had seen the pictures many times; and he was convinced as to the reliability of the account of the Flood in Genesis. However, no follow-up has been possible because Green was killed while prospecting in South America; and his relatives do not know what became of his pictures.

THE FOETUS AS A PERSONALITY†

SIR WILLIAM LILEY*

The author points out that the foetus, even in fairly early stages of development, is by no means a vegetable-like object. It displays motion, sensitivity, and, in a rudimentary form at least, most of the attributes of a sentient living being.

Introduction

I did not choose the title of this presentation. Had I done so, I would have been more careful in my selection of words. The foetus is part of my province of medical practice, and personality is part of yours. But whereas I am sure that you could all define, describe and even recognize a foetus, I am not so confident that I can define personality. One dictionary offers "what constitutes an individual as a distinct person", but does not define what the "what" is. Another dictionary asserts "the state of existing as a thinking intelligent being". This definition might lead to the inference that personality increases *pro rata* with intelligence, or that some people may not have a personality at all if we followed Bertrand Russell's dictum that "most people would rather die than think and many, in fact, do!"

My copy of the late Ken Stallworthy's *Manual of Psychiatry* is more help with the definition that "per-

sonality is the individual as a whole with everything about him which makes him different from other people", because we can certainly distinguish foetuses from each other and from other people. With the next sentence—"personality is determined by what is born in the individual in the first place and by everything which subsequently happens to him in the second"—we are really in business. Not only can I tell you what is apparent of what is born in the foetus, but I can also describe the environment in which he lives, the stimuli to which he is exposed, and the responses which he displays. Therefore it might have been more apt to title this presentation, "A day in the life of the foetus", and together we can revisit a stage of life which we all experienced but which, superficially at least, none of us remembers.

Such a journey is justified for several reasons. For many centuries interest in foetal life was restricted to anatomical studies by embryologists or to mechanical problems in delivery as they presented to the accoucheur. The legacies of this era are well known—particularly the attitude that, apart from some aimless kicking which began in the fifth month, the foetus was a placid, dependent, fragile vegetable who developed quietly in preparation for a life which started at birth.

In the present century, many disciplines have extended their interests to include the foetus, but in fields from surgery to psychiatry the tendency has been to

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†Presented at the 8th Annual Congress, A.N.Z.C.P., Auckland, October, 1971; published originally in the *Australian and New Zealand Journal of Psychiatry*, volume 6, pages 99-105, in 1972. It is reprinted here by permission, and in the belief that it will be of great interest to many readers of the *Quarterly*. The abstract, which has been added here, was not part of the original article.