## LOS JARDINES, (E. D.) (x)

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For over 400 years navigational charts of the North Pacific Ocean have shown a small island in latitude 21°-40' N., longitude 151°-35' E., with the designation "Los Jardines", (E.D.)", the symbol "E.D.", as all navigators know, indicating "Existence Doubtful".

As implied by this description, the existence of this island has been shrouded in mystery. It has been well established in recent years that there is no island within over 200 miles of the position given. However, the search for this island resulted in the discovery of a feature of the ocean's bottom which will at least serve to revive the legends of the disappearance beneath the sea of former islands similar to that of the fabled continents of Atlantis and Mu.

In 1529, Alvaro de Saavedra reported the discovery of two small islands in a position generally placed about 375 miles northeast of the Marianas Islands. He gave to these the name *Los Buenos Jardines*. Several days were spent here and mention was made that the natives were very friendly. About 14 years later Villalobos reported sighting in the same general location a small group of islands which he also called *Los Jardines*. It seems probable that he considered that this was the same group as that reported by Saavedra. The location of these groups was given as between latitude 21° and 22° North and in longitude 153° East.

Nothing further was heard of Los Jardines for almost 250 years. In 1788 Captain MARSHALL (for whom the Marshall Islands were named), in the "Scarborough" reported the sighting of two small islands in latitude 21°-40' N., longitude 151°-35' E.

A whaler later reported them in latitude 20°-50' N.. longitude 151°-40' E.

As all of the above reports of land placed it in the same general locality it has been generally assumed that they referred to the same group for which the name Los Jardines has since been used. The earliest reports placed them about 75 miles east of the position given by Captain MARSHALL. This is hardly surprising when the crude methods of navigation in the sixteen century are considered. Determinations of longitude in those days before the invention of chronometers were always subject to large errors.

Captain MARSHALL, however, was a good navigator and the position given by him having been taken years later was accepted as reliable and the islands shown on the charts. The nearest land to this position is Marcus Island, a small wooded island some 210 miles to the northeastward. It is not beyond the bounds of possibility that the sixteenth-century explorers actually sighted Marcus Island and reported it with an error in position of 210 miles. That a British naval officer should in 1788 be in error to this extent, however, appears rather incredible.

Nevertheless, for over 150 years since the report of Captain MARSHALL, as far as is known, no one, with the exception of the whaling ship mentioned, has sighted any land in this vicinity. A number of ships have passed near the reported location of the island without sighting it, and at least three searches have been made for it in recent years without success.

It remained for the U.S.S. "Ramapo", however, to employ the most modern equipment in conducting her search. This ship in some 50 crossings of the Pacific Ocean has contributed greatly to our knowledge of the depths of that ocean by utilizing her sonic sounding gear to record deep sea soundings on each passage.

In 1933 the "Ramapo" conducted an organized search for Los Jardines, spending two days in covering the area thoroughly. No semblance of land was sighted, but the develop-

<sup>(</sup>x) See International Hydrographic Bulletin Nº VI, 1939, pages 117-18.

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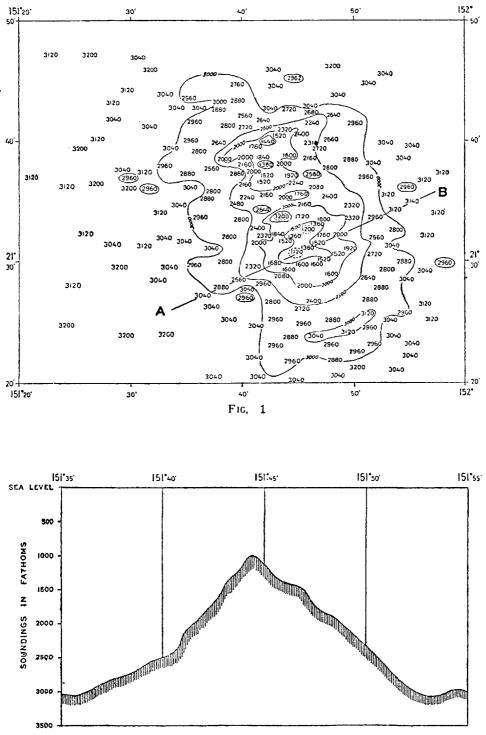


FIG. 2

ment by the sonic sounding gear of the contour of the ocean bottom in that locality resulted in the discovery of a remarkable submarine formation. From surrounding depths of 3,000 to 3,200 fathoms a submarine mountain about 20 miles in diameter rises abruptly to a height of 2,000 fathoms above the ocean floor and terminates in two small peaks about 8 miles apart. The highest peak is 1,120 fathoms below the surface.

In June, 1939, the "Ramapo" made an other attempt to develop the contour of this submarine mountain. In a 3-day search covering the area the previous results were confirmed. The contours of this submarine feature, as developed by the "Ramapo", are shown in Fig. I while a cross section along the line A-B (in Fig. I) is shown in Fig. 2. This subaqueous mountain, rising abruptly from the floor of the ocean, is generally comparable in size and height to Mt. Fuji in Japan or to Mt. Hood in Oregon.

It will be noted that the latitude and longitude, as given by Captain MARSHALL, are only a few miles from the northernmost of the two peaks, giving a position remarkably close and well within the limits of accuracy of navigation of that time.

Did Los Jardines ever exist and did Saavedra, Villalobos, Marshall, and the whaler actually sight them? Or did they actually sight Marcus Island and all of the discoverers make the same error in fixing the position - an error of over 200 miles? Was there actually a Los Jardines Island in the position indicated which afterwards disappeared beneath the sea due to some cataclysm of nature

It is a coincidence that all four discoverers claimed to have seen the islands in the same general location, within the limits of accuracy of navigation of that time. If it was Marcus Island that they saw, each one was about 200 miles in error in the position assigned and in each case the error was in the same direction - to the northeast.

The prevailing winds here are from the east and the ocean currents have a westward trend. If errors in navigation occurred it would be expected that the correct position would probably have been to the westward of the one reported and not to the northeastward. It may have been one of the Marianas Islands that was signed but the error would then amount to over 350 miles.

The fact that the submarine mountain is located in almost the exact position as given by the most reliable of the discoverers will undoubtedly convince many that we have a clear case of the disappearance of an island beneath the ocean surface, whatever may have been the cause. Geologists with whom I have discussed this matter state that in view of the depth below the sea level of the highest peak (1,120 fathoms = 6,720 feet), it is rather improbable that this submarine elevation ever projected over the surface of the ocean, at least within modern times.

Los Jardines is no longer shown on charts issued by the Hydrographic Office as we know that there is a prominent submarine mountain in the position formerly assigned it. We can only speculate regarding any connection between the two features. After all is said, about all that we ever will know definitely about Los Jardines may be summed up by the two letters "E.D.".

