

## THE CONDOR OVER NAZCA

BY

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All along the coast of Peru is absolute desert for 20 miles inland, flanked on the east by the foothills of the Andes. Nothing grows and rain registers less than a half inch per year. Thousands of people live there with no electricity, no modern water supply and very little shade. Occasionally dry river beds, many miles apart, snake down from the Andes. It is in the margins of these river beds where some farming is done but the population has outgrown the water supply.

After hours of travel through this desert our little bus took us up one of those river valleys. We passed cotton fields where people were bent over picking the white fluff and stuffing it in sacks. We saw a vision out of the past such as a farmer and his ox plowing a field with a crude wooden plow. We climbed away to the plateau above. This is the Nazca pampa or plain, a place out of a mystic dream. The surface stretches away in gently sloping plains to the towering Andes to the east. The hills that separate the coastal desert from the upper plains stop the ocean mist from reaching Nazca and in an ordinary year no rain falls here. The desert is not affected much by erosion or deposition. The subsoil is a light-yellow mixture of sand, clay and calcite. It is an alluvial fan and during a rare "El Nino" some rain water does wash, in rivulets, down its gentle slope. Small, igneous rocks, coated with desert varnish cover the surface like chopped nuts on a frosted cake. In the distant past people of an ancient culture have made lines and pictures of living creatures on the pampa by removing the rocks to expose the lighter material. Because this area is so flat and almost featureless, these drawings cannot be seen from the ground.

We stayed at the Hotel Turista Nazca, a beautifully kept Spanish colonial style complex with an inner courtyard, swimming pool and flower gardens, surrounded by the graceful arches of the main buildings. The arches, pool and planters are decorated with colorful, glazed tiles. The red tile floors are polished to a mirror finish. A paradise? No. Now I notice that a high prison like wall topped with barbed wire surrounds the building and grounds. Is it a precaution against the Marxist terrorists trying to take over the Peruvian government? We have seen many guards armed with rifles and machine guns at hotels, restaurants and public buildings in Peru. Is it to keep the local hungries from bothering us?

The next morning we drove, via bus, the short distance to the little airport where Aero Condor's Cessnas awaited our arrival. The airport consists of two small hangars, an open air gift stand and a gravel runway. Across the highway is a small museum and gift shop. Excitement welled up in me as we boarded our little plane. It rattled and shook its way down the bumpy runway and kept on rattling when it was airborne. We gained altitude and then I could see the Nazca Lines stretching away in every direction with amazing

precision.

Paul Kosok was the first academic to study the Nazca Lines. He pioneered the use of aerial photography after the lines were discovered by air in the late 1920s. He turned the work over to Maria Reiche, a German mathematician-geographer, who has devoted the rest of her life to the study and preservation of the area. Wandering mule paths, tire marks and footprints of curious people scar this giant drawing pad that has endured for possibly 2000 years. These latter scars will last for centuries.

At one point in our flight the pilot tipped the wing on my side of the plane and flew around circling a giant spider figure. To me it appears to be a mechanical drawing as opposed to a more free hand drawing and it is enormous, 150 feet in length.

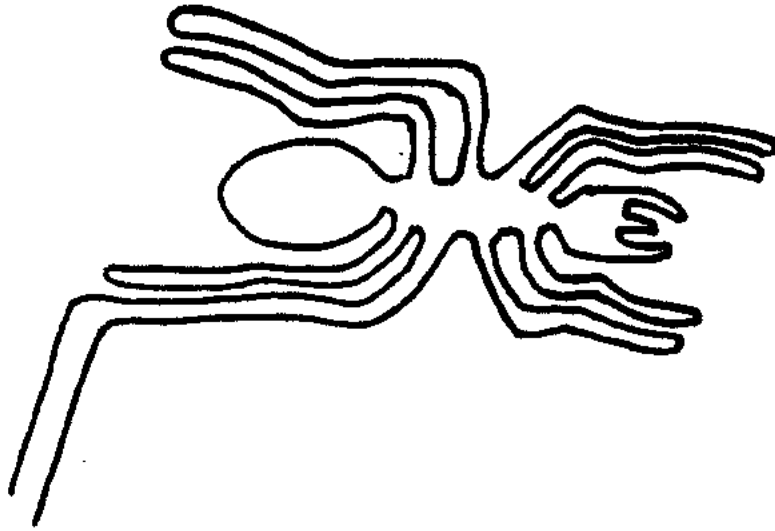
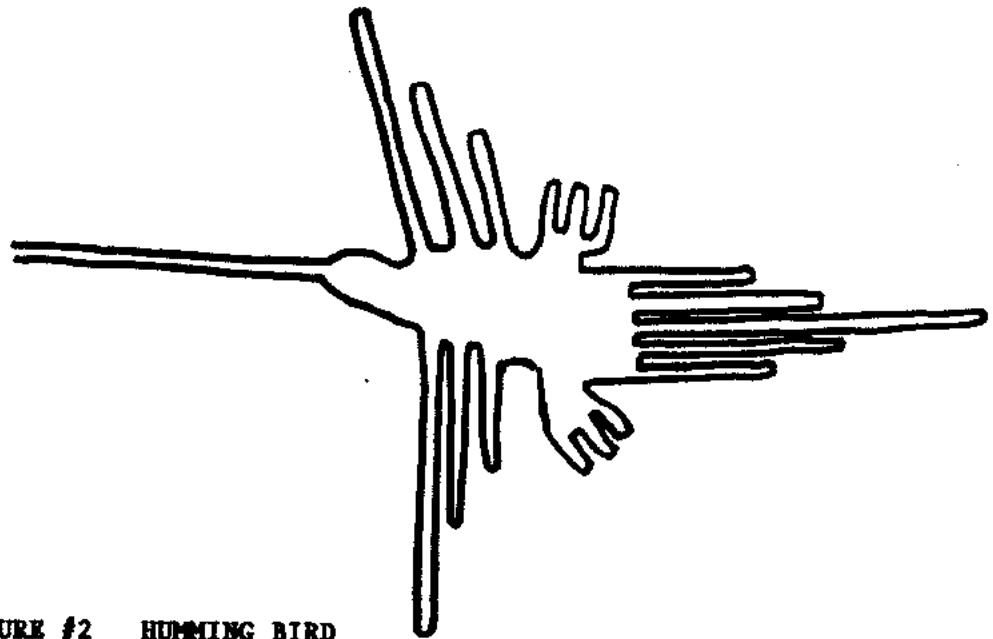


FIGURE #1 SPIDER

My eyes were drawn to its eight legs. The foremost of two back legs on one side is deliberately lengthened and extends out to the side. This is astonishing. The rare Ricinulei spider of the Amazon jungle uses the tip of the same leg for copulation. Ricinulei is no more than a fourth of an inch long. The use of a microscope is required for a person to see the copulatory device. There are so many questions here in this wasteland. How did the Nazcans know about this diminutive insect and its sexual habits? One curious

aspect about the spider and most of the other pictures is that it was drawn with a one line technique. As the line traces the image, it never crossed itself. It is continuous, returning to the starting point. Could it be a ceremonial pathway?

Our pilot banked again, circling a beautiful humming bird figure. It too was drawn in one continuous line with its beak ending at the edge of a rectilinear design. Hummingbirds are regular visitors to Nazca's green valleys. Andean people believe they are special messengers of the mountain gods. This humming bird has a wingspan of over two hundred feet.



**FIGURE #2 HUMMING BIRD**

One giant bird is crossed by a prominent line that points to the rising sun at plus 24 degrees north of due east on the June Solstice - and in the other direction to the setting sun at minus 24 degrees south of due east for the December Solstice. The solstice line and the bird may not have been made at the same time. We just don't know.

Another giant bird we saw, probably a Cormorant, has a wingspan of over 350 feet. One beautifully executed bird, with a tail over 160 feet long has its head and part of its outstretched wings obliterated by one end of a huge cleared rectangular area. The animal and bird figures all seem to be older than the straight lines.

The monkey is Maria Reiche, the mathematician-geographer's favorite.

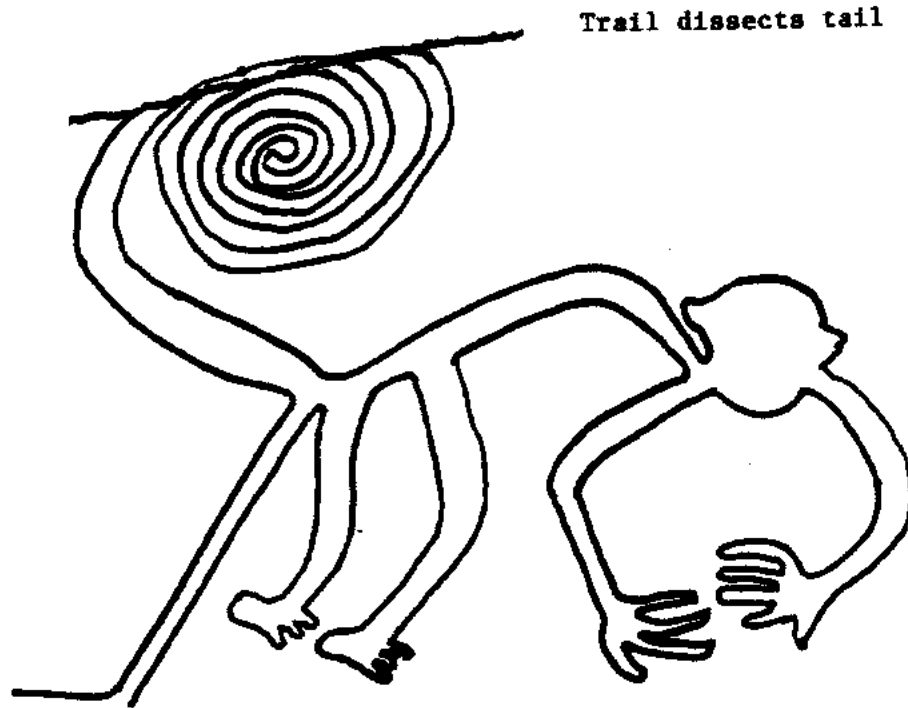


FIGURE #3 MONKEY (Monkey is 262 feet long)

The one line method is used to draw it. Its tail forms a large spiral. The line leaves the genital area to form a very large rectilinear design. Maria identified straight lines that form part of the rectilinear section that indicate one of the stars in the Big Dipper. A thousand years ago this star would have been visible for the first time about thirty days before the December solstice, the time of the year when the water usually returns to the

rivers around Nazca. Maria's theory is that the Nazca priest could use the lines to predict the return of life giving water to the people. There is a flower design with a pathway leading to the pollen area. These are some indications that fertility rites were held here. A dog, Killer Whales, Condors, Frigate birds, a duck, a pair of hands and a lizard are some of the other figures on the plains.

The Condor and Killer Whale were deities of a Warrior Cult dedicated to collecting human hands.

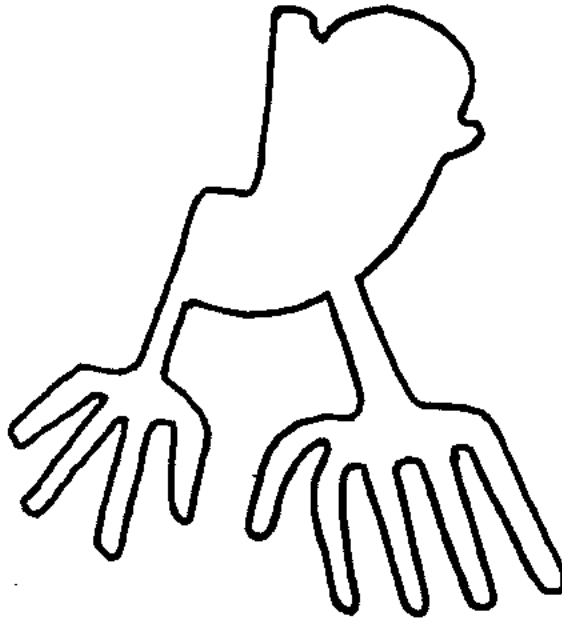


FIGURE #4 THE HANDS

The flight over the area lasted about 30 minutes. This didn't cover all of the areas where these lines exist, but did include most of the prominent figures. Several intact pots were found upside down at the intersection of two cleared areas. There was also one pot on top of a mound at one intersection. They were not funeral pots. There were also small stones and designs in one place. Pottery, apparently broken on the site, was scattered over much of the area. Pot hunters had been active there. Nazca pottery is of a fine quality, unsurpassed in the American. There are no burials on the Nazca plains. Because some of the figures resemble those decorating Nazca pottery, archaeologists attribute the lines to the Nazcas, whose culture rose, flourished and declined, roughly speaking between 100 BC and 100 AD. We have no proof that the pots were placed there at the same time the lines were made. When Maria first started her study, Indians told her they remembered wooden posts standing at the ends of some lines, but people took them away to use for firewood.

Computer experts have ascertained that some lines do point to solstice positions of the sun and moon in ancient times and stellar alignments seen when the lines were made but not visible today, like comets and novas. Results were no more positive than could be expected in a game of chance. The same results were obtained when testing for alignments with groups of stars. But why should we assume there was only one purpose for making the lines?

One figure is said to represent a needle and ball of yarn. Nazca weaving was some of the finest in the world.

Since Evan Hadingham's book "Lines to The Mountain Gods" was published, Colgate University researchers have noted, "a slight excess " of alignments around azimuth 105 degrees from true north, where the sun rises in October. That is the time of year when water is plentiful in the underground aqueducts. So we must give credit to Paul Kosok and Maria Reiche for their theory of a solar calendar. Water was the prime concern of the early Nazcans as it is for those living there today.

In deciphering the meaning of any prehistoric rock art, it would help if we could think like those who rendered it. The more we understand about the conditions they lived under, like the weather, geographic conditions, customs and stresses, the easier it would be to accurate conclusions. Life in this part of Peru has changed little for the native peoples here, in spite of the 21 Spanish Conquest. They act out the Catholic ceremonies forced upon them but the beliefs and practices of the past still govern much of their lives. For example, lets consider what they see in the Milky Way. When we look at the night sky, our vision is impaired by the glow from city lights. In the high altitude of the Andes, without the overpowering effect of electric lights, the Milky Way dominates the night sky with its radiance. Let's think like the Quechue do today. The dark spaces where there are no stars shining are very prominent. On nights when the sky is clear, during the rainy season, the dark shape they call the Llama, almost fills the sky. To them it looks like a llama suckling its baby. Two bright stars, Alpha and Beta, are the eyes. Here we have life giving, liquid, milk associated with the season of life giving water. The Quechua tell fables about this and other black shapes in the sky.

Maria found a small center containing four solstice lines, two equinox lines and one alignment with the midway point between the solstice and equinox in May. This is harvest time in the Andes. Astronomer priests could wield much power predicting the return of water, eclipses and other celestial events. Three and one half centuries ago, Francisco de Avila produced a document on Indian star lore in which he said that the Indians near Pechacamac waited each year for the appearance of the Pleiades. If the stars were large and bright, the crops would ripen well. If the stars appeared small, the people would suffer. Today the Quechgua believe that the constellation Pleiades watches over the preservation of seed. Computers give us much valuable information but coupled with it, the Quechua mind can give us more.

Why did they labor in this moonscape to make the rectilinear designs and figures they couldn't see? Why so many lines? Was it because of precession

in the movement of Constellations?--about one degree per century. When a star no longer rose or set on the end of a line did they make another? Are they runways?--the ground under the rocks is very soft. How did they make the lines so straight? Did they use the posts as sighting stations? Remains of the bases of posts have been found along some lines. The only artifacts are the shards of thousands of beautiful Nazcan pots and a few decorated stones. Were the continuous lines in the creature figures ceremonial paths? Even the whispering winds won't answer.

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