



# ANCIENT SKIES

*"Come Search With Us!"*

## Official Logbook of the Ancient Astronaut Society

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### THE NAZCA LINES AND THE NEW EXPLORERS

BY GENE M. PHILLIPS\*

Another television special has been used to attempt to "debunk" the ancient astronaut theory, and again they have chosen the markings on the Plain of Nazca in Peru as the subject. In 1978, a 90 minute special entitled "The Case of the Ancient Astronauts" was first presented to the public as one of the NOVA series shown on Public Broadcasting Stations throughout the United States, and since then often repeated. The NOVA Program was designed to discredit Erich von Daniken and his theories of ancient astronauts by examining much of the evidence presented in his book *Chariots of the Gods?*. We discussed the NOVA treatment of the Nazca markings in *Ancient Skies* 11:1.

Now a segment of the New Explorers Series re-examines the subject of the Nazca markings, again presenting Maria Reiche and her theories, as did NOVA, but this time with a "new explorer," Phyllis Pitluga, an astronomer with the Adler Planetarium in Chicago. The program was aired in the Chicago area on January 22, 1988 over WBBM-TV, the CBS affiliate in Chicago, with Bill Kurtis as the series host. Unfortunately, many so-called "science" programs on television, such as NOVA and now, the New Explorers, contain factual errors and misleading statements. For example, Bill Kurtis opens the New Explorers segment on Nazca by stating that the markings are "along the coast of Peru." Actually, the Plain of Nazca where the markings are located is situated some 20 to 30 miles inland from the coast, at an elevation of 2,500 feet in the Andean foothills.

Maria Reiche, a German mathematician, went to Peru in the 1930s and became interested in the work of Dr. Paul Kosok on the mysterious markings on the Plain of Nazca. In 1946, Kosok turned over his data to Miss Reiche and persuaded her to devote her full time to a study of the area. Now in her eighties, Miss Reiche has spent over 40 years investigating the mysterious markings.

Maria Reiche believes that the local natives made the markings on the desert floor, using the crudest of tools and devices, such as an arm's length of cord as a standard unit of measure, ropes, and wooden stakes, and the "eye-ball" to lay out the perfectly straight lines, some of which extend for miles over hills and valleys. Following Kosok's

lead, Miss Reiche advanced the theory in her book *Mystery on the Desert* (First Edition published by Heinrich Fink GmbH, Stuttgart, West Germany, 1968), that the lines had astronomical significance, permitting the natives to determine solstices for agricultural purposes, and that certain lines pointed to significant stars.

Now comes Phyllis Pitluga, an astronomer by trade, who became fascinated with the Nazca markings and Miss Reiche's theories concerning the astronomical aspect of the markings. Ms. Pitluga has visited Nazca and Miss Reiche several times and with the use of a theodolite and some ancient star maps, she is thrilled that some of the lines point to positions in the heavens where some major celestial bodies appeared 2,000 years ago. The New Explorers Program shows Pitluga and Reiche walking hand-in-hand along the desert markings and then sitting together gazing into the sunset, suggesting that Ms. Pitluga is the successor to Maria Reiche and her theories.

In several instances on the New Explorers Program the ancient astronaut theory, as it applies to the Nazca markings, is ridiculed. Never mentioning Erich von Daniken by name, New Explorers attacks the ancient astronaut theory itself, stating that it "offends the serious researchers."

In one sequence it was stated that while some of the larger elongated, rectangular markings look like landing strips, as some proponents of the ancient astronaut theory have suggested, New Explorers attempts to "prove" it is not true by using a flagrant example of "selective evidence." Bill Kurtis is shown walking along one of the markings, which he says, viewed from above appears to be a level landing strip, but from ground level it is obvious that the terrain is not flat, but undulating or wavy. Thus, New Explorers has taken one example to "prove" the proposition that none of the strips could have accommodated landing vehicles, while completely ignoring the dozens of others that are perfectly level. Most of the area of the desert floor of the Nazca plain, or pampa, where the markings are located, is flat. Also, there are many markings in the nearby Palpa and Ingenio Valleys which are situated on hill-tops which appear to have been sliced off, leaving a perfectly level area at the top on which the "landing strip" appears. There are many of these near the pampa.

Kurtis begins "as for the idea they (the landing strips) were made for or by ancient astronauts from outer space...." Maria Reiche continues "that's nonsense. You can't explain everything with extra-terrestrials."

The program shows the very large outline of a human figure which is drawn on the side of a small hill beside the pampa and which has a round head with two large round eyes. This has been referred

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\*Mr. Phillips is the Founder of the Ancient Astronaut Society and a practicing corporate attorney. He has a Bachelor's Degree in Business Administration from Virginia Tech, an MBA Degree from Harvard University, and a Juris Doctor Degree from Northwestern University School of Law. His address is 1921 St. Johns Avenue, Highland Park, Illinois 60035-3105 USA.



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to by many, including the pilots who take visitors over the area, as "the astronaut." Bill Kurtis says in an omniscient tone: "It is not an astronaut." How he knows this is anybody's guess.

New Explorers then presents Maria Reiche's theory (which she inherited from Paul Kosok) that the ancestors of the Nazca Indians deliberately drew some of the lines to point to solstice positions in order to determine the change of seasons and to enable them to know when to plant and when to harvest. Ms. Pitluga says "we watch sunrise and set - this is the basic reference point." The program gives the impression that this is a very important find and refers to this aspect of the Nazca lines as an agricultural calendar.

However, the "agricultural calendar" theory espoused by Miss Reiche was exploded in 1968 by a study financed partly by the National Geographic Society, which ascertained that some of the Nazca lines do point to solstice positions of the sun and moon in ancient times, as well as to the rising and setting points on the horizon of some of the brighter stars, but no more so than could be expected by chance. (See National Geographic Magazine, May 1975, page 716). Thus, the idea of a deliberate alignment to the sun and moon is not valid.

Bill Kurtis shows a piece of Nazca pottery which depicts what appears to be a black sky with stars and in the foreground two figures with round heads who appear to be floating in space. Kurtis says: "It is not an astronaut, but to Phyllis Pitluga it is better, for it suggests the ancient Nazca people were looking not only at the sun but at the stars as well - could they have been marking constellations with giant drawings in the desert? If she's right, it means the Nazca calendar in the sky is far more sophisticated than watching the sunset. To prove it, Phyllis and Maria must search back through the sky that existed 2,000 years ago and try to find a group of stars that match the figures."

Starting with a line that goes through the giant spider figure, Ms. Pitluga uses a surveying instrument (theodolite) and printed star maps to determine where the spider is pointing. She says "when I have the results, if I find that each of the figures is pointing to a fairly bright star, I will feel fairly confident that is what they (the ancient Nazcans) were doing." Then checking her printed star charts of 2,000 years ago, Ms. Pitluga finds what Maria Reiche thought she would find - the sight line of the spider points to the constellation Orion, where it was 2,000 years ago.

"It's a remarkable find," Bill Kurtis reports. "Maria thinks the pampa is a giant astronomy book in that the lines and figures are related to the stars."

Phyllis Pitluga then explains that so far she has studied only 18 of the figures, but she will continue her research to take a line on the pampa and "see what bright star is at the end of that line."

But Ms. Pitluga's studies are hardly scientific, to say the least. She has taken a line which runs through the spider figure, has found that the line points to the constellation Orion as it appeared 2,000 years ago, and concludes that *ergo* the line proves that the spider figure was deliberately aligned to point to Orion! However, she has failed to establish that the figure and the line were drawn contemporaneously. In order to sustain her theory, she must prove that both the line and the figure were drawn at the same time, namely 2,000 years ago. This will be hard, if not impossible, to prove. In fact, there is some evidence to indicate that the line through the figure was made before the spider was drawn. In a photo of the spider taken in 1963, the spider is quite distinct with few other markings to mar it. The "sight line" used by Ms. Pitluga shows up in the photo as a very faint

line in comparison with the bold outline of the spider. This would indicate that the line is much older than the figure. Further, there is a companion line, also very faint, running parallel to the "sight line," which indicates that the two lines together probably are nothing more than the outline of an elongated rectangle which was drawn on the surface at a much earlier time. A photo of the spider taken 12 years later, shows the "sight line" to be quite distinct, even more so than the spider outline, indicating that the line has been re-drawn by much pedestrian traffic on the line. (See National Geographic Magazine, May 1975, page 728 for the two photos.)

New Explorers presents Phyllis Pitluga's studies as new, exciting and as a plausible explanation as to why the Nazca lines were made. Following in the footsteps of Maria Reiche, who also tried to "sell" the theory that the Nazca lines were deliberately aligned with the sun and the moon, and with major stars and constellations, Ms. Pitluga appears to lend some credence to the Reiche theories, because of her being a professional astronomer. The New Explorers Program states that, together Maria and Phyllis are closer than ever to solving the mystery of the lines. This is patently absurd, because Ms. Pitluga's "new" theory was proven wrong by competent astronomers some 20 years ago!

The 1968 National Geographic sponsored study proved that there is no evidence that any of the lines of Nazca were deliberately aligned to point to the sun or the moon or to any significant stars.

Further, the world-renowned astronomer of Stonehenge fame, Dr. Gerald S. Hawkins, has proved beyond a shadow of a doubt that Miss Reiche's (and now Ms. Pitluga's) astronomical calendar-stars, sun, moon theory of the Nazca lines is completely unsupported by the evidence and is wrong. In his book, *Beyond Stonehenge*, Harper & Row, New York, 1973, Dr. Hawkins reported on his on-site computer analysis of the Nazca lines, stating that only about 20% of the 186 Nazca directions which he studied had some sun-moon orientation, which was no more than mere chance. Since there was no astronomical explanation for the remaining 80%, Dr. Hawkins concluded that the "Kosok-Reiche" theory of deliberate alignment with the sun or the moon is nothing more than "a speculation."

Since Miss Reiche had also postulated the theory that the Nazca lines were deliberately aligned to certain stars, this problem was also presented to Dr. Hawkins' computer. The question was: "what stars did the lines point to at any date between 5,000 BC and 1,900 AD?" The computer was fed positions of 45 stars. Again the results showed no more accuracy than could be obtained by mere chance and Dr. Hawkins concluded simply that "the lines did not point to the stars."

After conducting several other tests with the computer, Dr. Hawkins concluded: "The star-sun-moon theory had been killed by the computer.... Disappointed, we rejected the astronomical calendar theory." At page 132 of *Beyond Stonehenge*, Dr. Hawkins writes:

"I circulated a preliminary report of the computer findings. The negative result was disappointing, particularly to Dr. Reiche, who had spent so much time on this mystery.... I corresponded with her in Germany, and with archaeologists in the United States, United Kingdom and South America."

Dr. Hawkins' book was published in 1973 and Maria Reiche had the results of his tests long before she appeared on the NOVA Program in 1977-1978, but she did not mention Dr. Hawkins' evidence on the NOVA Program. Instead she presented her then-disproved theory as though it were still viable. Further, she failed to correct the errors in her book when the Second Edition was published in 1976.

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Now in 1988, the New Explorers Program presents Maria Reiche and Phyllis Pitluga with the exciting star-sun-moon theory as a new, viable alternative to the ancient astronaut theory; but instead of using modern computer techniques, they are using a theodolite and printed star maps to "eye-ball" the alignment of the lines in relation to certain stars and constellations, without even knowing if the lines they are using are recent or ancient. Again, there is no mention on the New Explorers Program that the "new", "remarkable find" of the Reiche-Pitluga astronomical calendar-star, sun, moon theory has been disproved by both the National Geographic study in 1968 and by Dr. Hawkins in the early 1970s, using the scientific method and modern computer equipment.

It is surprising that Ms. Pitluga, herself an astronomer, either is unaware of the National Geographic and Hawkins studies and findings (which is hard to believe); or, is aware of them but has chosen to ignore them, as Maria Reiche has done.

A most disturbing aspect of the New Explorers Program is its appeal to educators to use the program to teach their students the "truth" about the Nazca markings. Like the earlier NOVA Program, which distributed Teacher's Guides to schools prior to the showing of the program, with detailed suggestions as to what to watch for, what to think and questions and answers designed to prejudice students against von Daniken and the ancient astronaut theory, New Explorers, at the beginning of the program, urged educators to tape the program (without fear of the copyright laws) and to freely use it in their classrooms, obviously to influence the thinking of the students. Also, educators were urged to call the program's sponsor to obtain a free copy of a transcript of the program.

We are at a loss to understand who stands to benefit by brainwashing students to reject the ancient astronaut theory, but the alarming aspect is that the tremendous persuasive power of television is being used by a handful of people to discredit a theory, by propounding old theories which have already been proven false. This amounts to perpetrating a fraud on the public!

In 1977, members of the Ancient Astronaut Society travelled to Peru and visited Nazca. We spent one night at the government-owned Hotel Turistas, where Maria Reiche was a guest of the Peruvian government. We were introduced to her and she accepted our invitation to join us for dinner. Afterwards, she spoke to our group and explained her ideas as to how she thought the natives had made the lines, but at that time she confessed that she really did not know why the lines were made. We all bought autographed copies of her book and parted as warm friends. The next day we flew over the Plain of Nazca in a small plane at an elevation of about 500 feet for one hour and were amazed to view most of the markings with our own eyes. It was thrilling.

Upon our return to Chicago, we extended an Honorary Membership in the Ancient Astronaut Society to Miss Reiche and sent her a Membership Certificate along with a letter of appreciation to her for spending the time with us in such a cordial meeting. She returned the Membership Certificate to us, stating that she refused to be a part of an organization which included in its ranks Erich von Daniken!

Maria Reiche has been upset for many years with von Daniken for several reasons, one of which is that his books had lured many tourists to the Nazca area, who in her opinion were destroying the markings. She stated this in the Second Edition of her book in 1976. She did not mention that the government of Peru saw fit to construct the Pan American Highway across the Plain of Nazca, dissecting some of the markings and bringing vehicular traffic onto the pampa itself.

Notwithstanding her complaint, the town of Nazca showed its appreciation to Erich von Daniken with its Huesped Ilustre Award, because he did awaken the public's interest in the markings.

But Miss Reiche's loathing of von Daniken has a more specific cause, which she has stated. In his book Chariots of the Gods?, there appears a photo of a portion of one of the Nazca drawings with the caption that it "is very reminiscent of the aircraft parking areas in a modern airport." The photo actually depicts the knee-joint of the large water turkey, one of the huge figures on the Nazca Plain, and Miss Reiche was rightfully indignant that such a stupid caption would be used.

I advised Erich von Daniken of Maria Reiche's objection and he wrote her a two-page letter, in German, explaining that he had nothing to do with the photo captions in the book, that he wrote only the text, and that the publisher wrote all the captions. Apparently his explanation did not satisfy Miss Reiche because she never answered his letter and has continued to deride him and the ancient astronaut theory whenever the opportunity arises, such as on the NOVA and New Explorers Programs.

It is unfortunate indeed that NOVA and New Explorers would perpetuate the errors of a researcher whose theories have been proven false, to further their own desires to discredit the ancient astronaut theory and its principal proponent, Erich von Daniken, who is the world's most popular non-fiction author living today.

In 1983 another Ancient Astronaut Society Member Expedition travelled to Peru and this time we took small planes out of Ica, and flew over the Palpa and Ingenio Valleys to the Plain of Nazca, again for about one hour at low altitude.

From our first-hand experience, it is readily apparent that there is much more to the Nazca markings than the lines and the figures of animals, birds, insects and plants. The figures, emphasized so much in the literature, are infinitesimal in relation to the lines and other markings. And there are different types of lines; some about which Maria Reiche concerns herself for alignment purposes, which are straight, narrow lines, perhaps not more than three feet wide. Other lines are a hundred or more feet wide and several hundred to thousands of feet long. These are the so-called "landing strips" which are more difficult to assess. Further, there are geometric figures of very large size which are truly baffling when it comes to determining how they were laid out. Certainly, Miss Reiche's natives with their cords, stakes and sharp eyes could never have created these figures. To draw some of these, even on paper, requires more than a ruler, a piece of string and a trained eye.

At the Ancient Astronaut Society's World Conference in Novi Vinodolski, Yugoslavia in September, 1987, we discussed the Nazca markings with the Soviet Cosmonaut, Dr. Georgy M. Grechko, a PhD in physics and mathematics. Dr. Grechko has flown into space four times, and spent 96 continuous days in a Soviet Space Station. Twice named a Hero of the Soviet Union, Dr. Grechko told us that he did see the Nazca markings from space; not the smaller figures, but the lines.

No one knows who made the Nazca markings or for what purpose, and we probably may never know. We know that their configurations cannot be distinguished from ground level, only from above; and we know that they can be seen from outer space. One theory as to the markings is as good as another, until it is proven wrong. The Reiche-Pitluga star-sun-moon astronomical theory has been proven wrong by competent, scientific authority and is no longer worthy of consideration.

The ancient astronaut theory has been ridiculed, but it has not been proven wrong; therefore, it is still valid and must be considered and explored. We do need new explorers, but ones with new ideas.

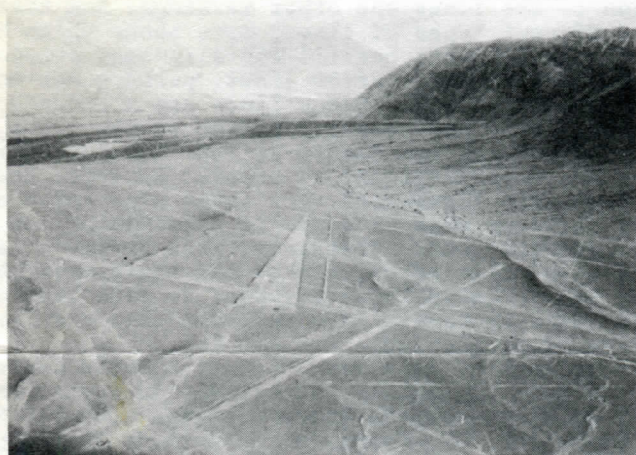




A E



B F



C G



D

PHOTO LEGEND: A and B are two examples of the many sophisticated designs found at Nazca. C, D and E are examples of the "landing strips" on the pampa, with E showing how flat the plain is. F and G show a few of the many "landing strips," or directional markers situated on hill-tops which have been leveled to accommodate the markings. All photos were taken by Gene M. Phillips.

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