

# Martin Gardner Centennial

Oh, who doesn't love a good case of pareidolia? Whether it is the Virgin Mary spotted on a turtle shell or the face of Jesus on a tortilla shell (banana, tree stump, etc.), we love to, indeed we are programmed to, look for patterns and familiar shapes in random stimuli or chaotic data. To commemorate the centennial of the birth of Martin Gardner, one of the greatest figures in modern scientific skepticism, we are republishing several of his classic *SKEPTICAL INQUIRER* "Notes of a Fringe-Watcher" columns. In this column, "The Great Stone Face and Other Nonmysteries" from our Fall 1985 issue, Martin takes us on a tour of various cases of pareidolia with particular emphasis on the alleged "Face on Mars" that nearly became a popular culture icon (until later, higher resolution NASA spacecraft imagery confirmed, as scientists already knew, it was all a play of light and shadows). So read this article, and then go outside and take a look up at the clouds. Have yourself a little fun and try and see who might be looking down at you.

## The Great Stone Face and Other Nonmysteries

MARTIN GARDNER

Clouds often take the shapes of animals and human faces. The same is true of rock formations, such as the Great Stone Face in the White Mountains of New Hampshire, made famous by Hawthorne's tale. Draw a wiggly vertical line. It's easy to find spots where you can add a few more lines to make the profile of a face. On the left and right sides of the maple leaf on the Canadian flag you'll see the faces of two men (liberal and conservative?) arguing with each other. A few decades ago the Canadian dollar bill had to be re-engraved because the face of a demon accidentally turned up in the Queen's hair just behind her left ear.

This tendency of chaotic shapes to form patterns vaguely resembling familiar things is responsible for one of the most absurd books ever written about advertising: *Subliminal Seduction*, by journalist Wilson Bryan Key (Prentice Hall, 1973). The Signet paperback had on its cover a photograph of an ice-filled cocktail with the caption "Are you sexually aroused by this picture?" It was the author's contention that hundreds of advertising photographs are carefully retouched to "embed" concealed pictures designed to shock your unconscious and thereby help you remember the product. The hidden pictures include words ranging from sex to the most taboo of four-letter words, but there are also phallic symbols and all sorts of other eroticisms. In the ice-cube in an ad for Sprite, the author professed to see a nude woman cohabiting with a shaggy dog. It's hard to imagine anyone taking this nonsense seriously, especially since the author's many references to "recent

studies" never disclosed where they took place or who the experimenter was. More amazing still, the Canadian Catholic philosopher Marshall McLuhan wrote the book's laudatory introduction. Key has gone on to write two even more bizarre books about the sneaky ways modern advertising is subliminally seducing us.

More recently, UFO enthusiasts have been playing the hidden-picture game with the moon and Mars. They pore over thousands of photographs of cratered surfaces until—aha!—they find something suggesting the presence of alien creatures. An early anticipation of this pastime occurred in 1953, when H. Percy Wilkins, a retired British moon-mapper, discovered what looked like a man made bridge on the moon. Frank Edwards wrote about it in *Stranger Than Science* (1959), and UFO cranks lost no time seizing on this as evidence of lunar life. Donald Keyhoe in *The Flying Saucer Conspiracy* (1955), reported that spectroscopic analysis had identified the bridge's metal! When astronomer Donald Menzel said he couldn't see the bridge. Keyhoe called him an "army stooge" collaborating on a vast government conspiracy to conceal the truth about UFOs. (See James Oberg's article, "Myths and Mysteries of the Moon," in *Fate*, September 1980.)

As late as 1976 UFO buff George H. Leonard was claiming that bridges on the moon are among the "least controversial things about the moon." Alas, all bridges vanished when the Apollo photographs were obtained. The "bridges" were nothing more than illusions created by lights and shadows, yet the myth of moon bridges still persists in UFO fringe literature.

The same thing happened to mysterious spires on the moon. Photos in 1966 of the moon's surface showed objects casting such long shadows that UFOlogists decided they had to be rocket ships or radio beacons—at least something built by aliens. A Russian periodical called *Technology and Youth* featured a wild article about the spires in its May 1968 issue. The spires turned out to be ordinary boulders, their long shadows caused by the sunlight hitting them at extremely low angles.

George Leonard, in *Somebody Else Is on the Moon* (David McKay 1976), carried this kind of speculation to such extremes that he managed to write one of the funniest books ever written by a UFO buff. Leonard is an amateur astronomer and retired public-health official in Rockville, Maryland. Photos of the moon's surface, he insists, show rims of craters sliced away by giant machines, jets of soil spraying out (caused by mining operations), and tracks of huge vehicles. "No, I do not know who they are," Leonard told the tabloid *Midnight* (February 8, 1977), "where they come from or precisely what their purpose is. But I do know the government is suppressing the discovery from the American people."

Leonard quotes an unnamed NASA scientist: "A lot of people at the top are scared." He thinks the aliens live underground and that seismic quakes on the moon are caused by their undersurface activities. "NASA is simply lying to the American people about UFOs," he told *Midnight*. He suspects the aliens are waiting patiently to take over the earth after we blow ourselves up.

Seeing familiar anomalies on Mars has

been common ever since the invention of the telescope. Percival Lowell found the red planet's surface so honeycombed with canals that he wrote three books about how the Martians, desperately in need of water, built the canals to bring water from polar regions. Now, of course, we know the canals were only figments in Lowell's mind, distinguished astronomer though he was. Unfortunately, this has not deterred seemingly intelligent people from similar self-deception.

Here and there on Mars are formations with grid-like structures. "Did NASA Photograph Ruins of an Ancient City on Mars?" is the headline of a *National Enquirer* article (October 25, 1977). A photo of a region near Mars's south pole shows a series of square-like formations called "Inca City" because they somewhat resemble a decayed Indian village.

In 1977, electrical engineer Vincent DiPietro came across a 1976 photograph taken by the Viking spacecraft that orbited Mars. At first he thought it was a hoax. The photograph showed a remarkably human-looking stone face about a mile wide. NASA had released the photo shortly after it was taken in 1976 and planetary scientists emphasized that it was a natural formation. DiPietro thinks it isn't. Computer scientist Gregory Molenaar used image enhancement to explore details of the face, and in 1982 DiPietro and Molenaar published a 77-page book, *Unusual Martian Surface Features*, about their results. ("Face in Space," *Omni*, April 1982, was an excerpt from this book.) The authors concede that the face may have been produced by erosion but they suspect otherwise. They claim that computer enhancement shows an eyeball in the face's right eye cavity, with a pupil near the center, and what looks like a teardrop below the eye. "If this object was a natural formation," they write, "the amount of detail makes Nature herself a very intelligent being."

West of the big stone face, in the shadow of a pyramid-like formation, is a grid-like pattern suggesting a lost city with an avenue leading toward the face. (See "Metropolis on Mars," an unsigned

article in *Omni*, March 1985). Skeptics have pointed out that the so-called pyramid is much cruder than scores of pyramids found as natural rock formations in Arizona.

Top drummer for the view that the stone face proves that an alien race once flourished on Mars is writer Richard Hoagland. He is completing a book about it that could make him lots of money, especially if he can tie the face into UFOs and get a chapter published in *Omni*. Fred Golden, writing the "Skeptical Eye" page in *Discover* (April 1985) ridiculed Hoagland's claims and ran a photo of another spot on Mars, where the topography resembles Kermit the Frog.



Let us not underestimate the public's scientific illiteracy. Dr. Emil Gaverluk, of East Flat Rock, N.C., is now lecturing around the country about the Martian face. A story in the Hendersonville, N.C., newspaper of February 16, 1985, reported that Dr. Gaverluk was speaking at the First Baptist Church on "the meaning of the gigantic face and pyramids and the laser of tremendous power that have been discovered on Mars." Why are these things on Mars? It's all explained in the Bible, Dr. Gaverluk told the newspaper columnist who wrote about him.

Dr. Gaverluk was identified as an expert on communications science and the holder of a doctorate in educational technology, whatever that is. His lectures on science and faith are sponsored by the School Assembly Service of Chicago. Dr. Gaverluk illustrates his talks with chalk drawings. He is a member of the American Association for the Advancement of Science and the Creation Re-

search Society.

The great stone face can teach a serious lesson. If you search any kind of chaotic data, it is easy to find combinations that seem remarkable. Every page of a book of random numbers contains patterns with enormous odds against them if you were to specify the pattern before generating the random numbers. Every bridge hand you are dealt would be a stupendous miracle if you had written down its exact pattern before the deck was shuffled.

Let someone close his eyes and talk for fifteen minutes about a scene he imagines. You'll have no trouble finding amazing correlations between his description and any randomly selected scenic spot. Let a psychic crime-solver rattle on for an hour about clues to a missing corpse. It's inevitable she'll have made some lucky hits if and when the body is found. If you don't have a tape of everything she told the police, how can you evaluate her accuracy? Jeane Dixon's few good hits seem impressive until you see a list of her thousands of whopping misses.

If hundreds of ESP tests are performed around the world during any given week, and only a few successful ones are published, the normal operations of chance are effectively concealed. J. B. Rhine was notorious in his belief that unsuccessful tests in his laboratory were not worth reporting; and equally notorious during his youth in finding patterns in data to support correlations that the experiment had not been designed to find. Today's better parapsychologists are aware of such statistical pitfalls, but a failure to understand them casts a deceptively strong glow of success over the results trumpeted in the early naive years of modern parapsychology.

Let's take a closer look at that great stone face on Mars. Rotate the picture 90 degrees clockwise and what do you see? On the left is the nude torso of a woman, complete with dark pubic hair, small breasts, and an enlarged belly button slightly off center. I'm surprised Ken Frazier would allow such a picture in his family magazine. ■