



Miracle Photographs

On Friday, October 27, 1995, the television program "Unsolved Mysteries" aired a segment, "Kentucky Visions," that included investigative work by the Committee for the Scientific Investigation of Claims of the Paranormal. The popular, prime-time television series had requested CSICOP's opinion of some "miraculous" photographs taken at a recent Virgin Mary sighting at a hillside spot in central Kentucky. This was my first significant case as Senior Research Fellow—or as the narrator termed me, "Paranormal Investigator" (a "P.I." nonetheless).

The photographs were made by a Sunday school teacher who had visited the Valley Hill site (near Bardstown, Kentucky) with eight girls from her class. I did not see the photographs until the day I was brought on location for filming, but I was sent color photocopies of them in advance. The lack of reproductive quality put me at more of a disadvantage with some photos than with others. I did recognize that the claimed "faces of Jesus and Mary" in one photo were simply due to random, out-of-focus patterns of light and shadow caused by mishandling of the film pack. (More on that later.)

I also recognized in another photo the now common effect at Marian apparition sites, a phenomenon known as the "golden door." This is an arched

door shape, filled with golden light and believed by some to be the doorway to heaven mentioned in Revelation 4:1. In fact, as explained in an earlier SKEPTICAL INQUIRER (Winter 1993), it is simply an artifact of the Polaroid OneStep camera, which, when flooded with bright light, as when pointed at the sun or a halogen

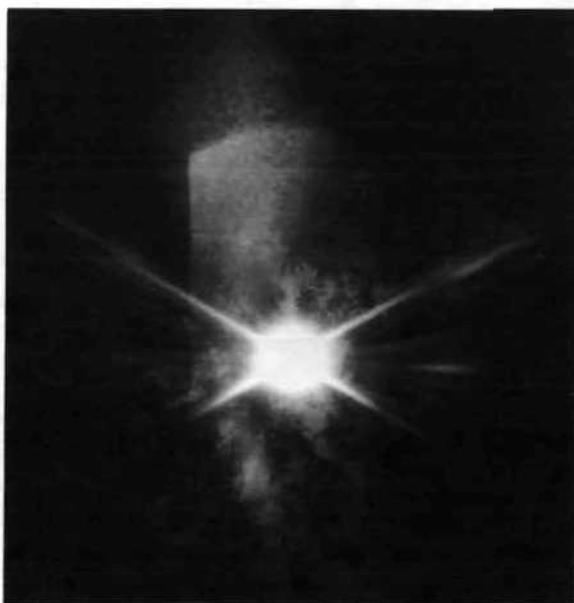


Figure 1. "Golden door" photo.

lamp, produces a picture of the camera's own aperture (Nickell 1993a) (Figure 1). This was codiscovered by Georgia Skeptics members Dale Heatherington and Anson Kennedy, who tutored me in making such photos. (Together we have wasted much Polaroid film, all in the interest of scientific experimentation.)

I telephoned Kennedy about two of the other "miracle" effects, and he was already familiar with one of them. Sight unseen, simply from my description of the alleged "angel wings," he diagnosed light leakage into the Polaroid film pack. My subsequent experimentation confirmed his explanation and showed how the leakage could have occurred (Figure 2).

Fortunately, my experimentation also provided an explanation for the remaining effect—one that had at first puzzled both Kennedy and me as well as some professional photographers and film processors I consulted. The effect was that of a *chart* superimposed on one picture. The chart was slightly out of focus, but nevertheless unmistakable. One of the girls at the site thought she could see in the blurred printing the name of a deceased friend. Where had the chart come from? It appeared to have resulted from a double exposure, although the Polaroid OneStep camera should not ordinarily permit that to occur.

Suddenly, I realized that the card atop the film pack, which protects the film from light and which is ejected when the pack is first loaded into the camera, has a chart printed on its underside! Indeed, that was clearly the mysterious chart in question, somehow appearing in mirror image in the pho-



Figure 2. "Angel wings" effect.

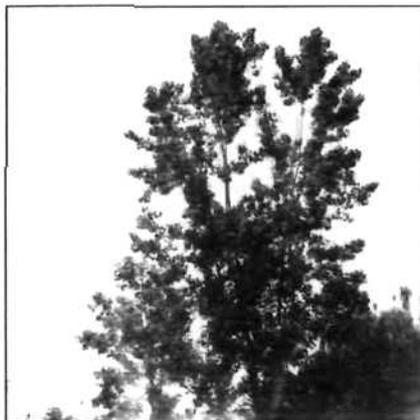


Figure 3. "Miracle" chart.



Figure 4. Detail of chart superimposition.

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Figure 5. Chart from film pack.

tograph taken by the Sunday school teacher. But how had it gotten onto one photo? My subsequent experiments showed it was possible to produce such an effect by light leakage (the same culprit that produced the "angel wings"). The light had leaked in, between the card and the first potential photograph, bouncing off the white card and onto the light-sensitized surface of the film, thus making an exposure of a portion of the chart. In this way it was superimposed on the first photograph made from that pack (Figures 3 and 4).

Taken together, the evidence from all four photographs, some of which had multiple effects, provided corroborative evidence that the film pack was somehow mishandled and admitted light, maybe by the front having been pulled down with the thumb on being inserted into the camera, or even by someone having sat on the pack. Since the other major effect, the golden door, was due to the construction of the camera, there was therefore no indication of hoaxing with any of the pictures.

On the television program, my comments were edited down to very brief, but sufficient explanations. The treatment of the photographs was uneven from a skeptical point of view. The "faces" were greatly enhanced to make them look more realistic. Commendable was the use of an effective graphics technique whereby the chart was placed on the screen beside the chart-bearing photo, then flopped so as to superimpose it on the photo.

Skeptics who watched the segment with me laughed loudly at the conclusion of my interview when the narrator commented, "Rational explanations

may satisfy some people, but. . . ." This comment was followed by various "miracle" claims that went unchallenged. I had not only explained how the "golden door" photos are made, but I showed several of them for the "Unsolved Mysteries" camera (Figure 1); but this was omitted from the program even though such photos were described as "mysterious." Also omitted were my explanations for silver rosaries supposedly turning to gold—either due to tarnishing or the rubbing off of the silver plating to expose the copper or brass beneath (Nickell 1993b). I included an explanation for a new claim: Glass-beaded rosaries were supposedly turning, momentarily, a golden color; I theorized that the faceted beads were reflecting the golden light of the sun.

Much ado was made about people reportedly seeing the sun pulsate, spin, or exhibit other phenomena—all due to optical effects resulting from staring at the sun, which I discussed at some length in my *Looking for a Miracle* (1993b). Many pilgrims also had claimed to see showers of golden flakes, which I attributed to their having looked at the bright sun (even though some insisted they had not looked directly at the sun), or to a dappling of sunlight through the canopy of tree leaves, or to the power of suggestion—or a combination. All of my comments about such other phenomena, including faith healing, ended up on the cutting-room floor.

The program did end on a rather skeptical note, with program host Robert Stack stating: "It is interesting to note that the local Catholic church has declined to recognize Valley Hill as anything out of the ordinary. The rest of us will have to decide for ourselves." Unfortunately, they will have to decide without the benefit of all of the skeptical evidence. That's why I sometimes refer to the television show as "Unsolving Mysteries."

References

- Nickell, Joe. 1993a. Miracles in Kentucky. *SKEPTICAL INQUIRER* 17(2) (Winter): 120-122.
—, 1993b. *Looking for a Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures*. Pp.177-178, 196-197. Amherst, N.Y.: Prometheus Books. □