

Frauds, Myths, and Mysteries

Science and Pseudoscience in Archaeology

FOURTH EDITION



Kenneth L. Feder

FRAUDS, MYTHS, AND MYSTERIES

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For Lissa



Preface

Frauds, myths, and supposed mysteries about humanity's past are moving targets for those of us committed to the scientific investigation of human antiquity. Clearly, it is important for anyone interested in the human past to know, for example, that there is no evidence for a race of giant human beings in antiquity, no broken shards of laser guns under Egyptian pyramids, and no proof that thousands of years ago ancient Polynesian explorers were racking up frequent flyer miles rocketing from island to island on spacecraft left behind by globe-trotting extraterrestrial aliens. Debunking such nonsense is fun and useful in its own way, but of much greater importance is the process we employ to determine that such claims *are* nonsense. The utility of *Frauds, Myths, and Mysteries* rests in its use of interesting and often hilarious archaeological hoaxes, myths, and mysteries to show how we can *truly* know things about the past through science.

What's New in the Fourth Edition?

With this in mind, I have updated and improved each chapter. Specifically, I have made the following revisions:

Chapter 1: Science and Pseudoscience

- Includes a new survey of my undergraduate class's beliefs about human antiquity

Chapter 2: Epistemology: How You Know What You Know

- Presents the Holocaust—and the claims of Holocaust deniers—as an example to show how the historical sciences (archaeology

included), like the physical or experimental sciences, can test hypotheses and reveal the truth about past events

Chapter 3: The Goliath of New York: The Cardiff Giant

- Expands the history of the Cardiff Giant and reveals yet another giant hoax perpetrated by one of the Cardiff conspirators

Chapter 4: Dawson's Dawn Man: The Hoax at Piltdown

- Expands the discussion of the possible roles played by Lewis Abbott and Martin Hinton in the Piltdown hoax

Chapter 5: Who Discovered America?

- Updates the discussion of the origin and timing of the first Americans

Chapter 6: After the Indians, Before Columbus?

- Discusses in far greater detail the archaeological approach to assessing whether foreigners entered into a region in antiquity and interacted with the native population
- Provides valuable historical and archaeological contexts for the evidence of the Norse penetration into northeastern North America before Columbus

Chapter 7: The Myth of the Moundbuilders

- Updates the discussion of the Newark Holy Stones

Chapter 8: Lost: One Continent—Reward

- Expands the historical context for Plato's story of Atlantis, with additional discussion of the historical sources on which he may have based elements of the mythical Atlantis and its mythologized contemporary, Athens

Chapter 9: Prehistoric E.T.: The Fantasy of Ancient Astronauts

- Includes a surprising pre-*Chariots of the Gods* source for the ancient astronaut hypothesis

Chapter 10: Good Vibrations: Psychics, Dowsters, and Photo-Fields

- Includes the latest New Age claims about the human past (I try to keep up)

Chapter 11: Old Time Religion—New Age Harmonics

- Updates discussions of the scientific analysis of the shroud of Turin
- Expands the historical context for Noah's Flood and the ark
- Presents the latest controversies concerning scientific creationism and the teaching of evolution in public schools

Chapter 12: Real Mysteries of a Veritable Past

- Includes the Kennewick Man discovery, analysis, and controversy as a real “mystery” of the ancient past

Special Features of *Frauds*

Several pedagogical features new to previous editions of *Frauds* have been updated for the fourth edition.

- Each chapter continues to have an associated **Frequently Asked Questions** section. These questions represent a sample of queries from my students over the years that relate specifically to the issues and controversies addressed in the chapter.
- The informal, uncontrolled, unfiltered, and freewheeling context of the Web continues to have exciting implications for disseminating information about the human past. These same qualities of the Internet, however, also mean that more misinformation about the past can be spread to a far greater number of people far more quickly. Rumors about the discovery of Noah’s ark or the excavation of extraterrestrial alien bodies beneath an Egyptian pyramid can appear on anyone’s computer anywhere in the world virtually the instant such stories are fabricated. Tall tales about the human past no longer need rely on word of mouth to be spread; anyone with a computer, a modem, and an Internet provider can shout such nonsense to the world. The good news here is that archaeologists can shout back. There are many fine Web sites presenting genuine archaeological discoveries and some that respond explicitly to the folderol that dogs our discipline. Each chapter includes an annotated list under the title **Best of the Web** with a selection of Web sites (and their Internet addresses) put up by museums, individual archaeologists (amateur and professional), anthropology departments, and others. A brief description of what each of these sites presents is a new feature to this edition. Don’t look for the bizarre, absurd, extreme, or nonsensical on my lists. These sites are produced by people who conduct field research, analyze artifacts and sites, and are committed to the scientific interpretation of the human past.
- The *Frauds* home page has a new home. To make it easier to locate and scan the Best of the Web sites, the *Frauds* home page is now available at www.mhhe.com/frauds4. Every Web site listed in the Best of the Web sections of *Frauds* is linked to and accessible through the *Frauds* page. Instead of typing in the URLs, you need only to get onto the *Frauds* page. From there, click on any of the *Frauds* chapters

and you will call up the addresses for the Best of the Web sites for that chapter. Then simply click on any of the URLs and you will be taken to that site.

- Each chapter continues to provide **Critical Thinking Exercises**. In these I attempt to challenge the reader to apply the scientific method and scientific reasoning to the general issues raised in the specific archaeological examples that are at the core of each chapter. In answering the questions posed or in carrying out the specific exercise, the reader must be able to synthesize and apply the most important messages of the chapter.
- How can a reader assess the validity of an extraordinary claim that appears in popular media? To help readers make more informed assessments, the **Reality Check** on the inside cover continues to give a list of questions to consider when evaluating fantastic claims.
- Finally, a new feature located at the end of the book is the **Video Companion Guide**. The purpose of this guide is twofold: (1) to direct readers to helpful video documentaries of the topics covered in each of the chapters of this book, and (2) to assist the professor who is looking for audiovisual material to accompany this book in a university course.

Acknowledgments

Many people have contributed in myriad ways to the evolution of the fourth edition of *Frauds, Myths, and Mysteries*: in sharing ideas and by making suggestions; by providing greatly appreciated support and by dishing out deserved but always (well, almost always) gentle criticism; by sending reprints and transmitting those yet-to-be-published articles as e-mail attachments; and by providing photographs for use in the book. In particular, I would like to thank the following people whose special assistance has made an enormous contribution to the fourth edition of *Frauds*: Karen Olsen Bruhns, Emily Chasse, T. Garth Connelly, Andre Engels, Garrett Fagan, James Fox, Larry Klaes, Brad Lepper, Hu McCollough, Bernard Ortiz de Montellano, Marina Mozzi, Mark Newbrook, Tom Pertierra, and Wade Tarzia. Some of these wonderful people are long-time friends and collaborators, some are newly acquired colleagues, and some disagree with much of what I have to say. All share, however, a passion for the discourse of science and a commitment to knowledge. I genuinely appreciate the gracious and generous support and, equally, the criticism they have offered and the improvements they have suggested.

I'm also especially grateful for the many insightful comments of the reviewers of this edition: Charles Bollong, University of Arizona; Harold Dib-

ble, University of Pennsylvania; George Gumerman, IV, Northern Arizona University; and William Turnbaugh, University of Rhode Island.

Thanks as always to my father, Dr. Murray H. Feder, for his historical insights, splendid photographs, and late-night phone calls. And thanks as well to my mother who complained that she didn't get appropriate acknowledgment in previous editions of this book. It was an oversight, Mom.

Of course I want to thank the folks at Mayfield Publishing. Jan Beatty took a risk in originally signing this book in 1988 when so many other publishers—more than a dozen, but who's counting—had turned it down. Jan had faith in my ability and in my plan. I think the fact that *Frauds* is now in its fourth edition and has become a standard in so many archaeology courses across the United States and Canada bears out her decision. I am truly and forever in Jan's debt. Carol Zafiropoulos was the production editor for the first edition of *Frauds*, and Melissa "Chi Chi" Williams was the production editor for *Frauds 2* and *Frauds 3*. It is fair to say that their fingerprints remain on this edition and I continue to owe them a great debt. Holly Paulsen is my production editor for *Frauds 4*; not only has she done a terrific job, but the process has been great fun too. More importantly, *Frauds* is a better book as a result of her efforts. Copy editor Joan Pendleton is a joy to work with, and I bet the people who make Post-it notes like her almost as much as I do. The entire team at Mayfield has been incredible, not just on the new edition of this book, but on everything we've done together since 1986. I hope we can continue working together at least until the universe collapses in on itself, which I'm hoping won't happen any time soon.

This book has grown up with my now fourteen-year-old son. In fact, one of Josh's first intelligible sequences of words referred to my writing the first edition: "Dada work, book." More than a decade later it's nice to know that he still finds its content interesting enough to want to occasionally chat with his old man about it. My younger guy, Jacob, isn't sure what all the fuss is about, but seems at least a little pleased when he sees his dad on the television being interviewed about Atlantis, the Cardiff Giant, or King Tut's curse. Now if only they would craft a character based on me for the *Gundam Wing* animated series, he'd be really impressed.

Finally, an author's acknowledgment of the contribution of a spouse often seems a dispassionate formality. My "thank you" to my wife Melissa is anything but. This book is dedicated to her; it always has been and always will be. Truly, her love and support, as well as a degree of emotional stability far surpassing my own, are what make the whole enterprise—our lives together as well as working on books—not a fraud or a myth, but a lovely mystery.



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Science and Pseudoscience

Extrasensory perception. Astrology. Faith healing. Alien abductions. Palmistry. Reincarnation. Pyramid power. Ancient astronauts. Crop circles. Feng shui. If all of the claims related to these and other supposed phenomena were true, this world would be an extraordinarily strange place, far different from what orthodox science would suppose.

Cats would be psychic. Children could bend spoons with the power of their minds. Aliens from outer space would regularly fly over the earth, kidnap people, and perform medical exams on them. Along with their medical research, the aliens would flatten farmers' wheat crops, leaving monumentally scaled, perplexing, but beautiful designs in their fields.

People could read minds, and your future could be predicted by shuffling and dealing a special deck of playing cards (called Tarot). Sleeping under a pyramid-shaped bedframe would be conducive to good health, and wearing a quartz crystal suspended on a chain around your neck would make you more energetic. The exact location and positioning of your furniture and the orientation of the stairway leading to the second floor of your house would play a substantial role in determining your health as well as your economic and psychological well-being.

Furthermore, the precise locations of enormously distant celestial bodies at the instant of your birth would determine your personality as well as your future. People could find water, treasure, and even archaeological sites with forked sticks or bent coat hangers. In the strange world we are pondering here, Elvis would still be alive, visiting shopping malls and making regular midnight runs to convenience stores for Slim Jims and MoonPies.

Beyond this, if all of the claims were true, people living today would actually have lived many times in the past and could remember when they were kings or artists (few would remember being ordinary). And hundreds

of boats and planes and thousands of people would have disappeared under mysterious circumstances in the dreaded "Bermuda Triangle."

And, there's more. Plants would think and have feelings, dolphins would write poetry, and cockroaches would be clairvoyant. Some people would spontaneously burst into flames for no apparent reason; and tiny ridges on your hands, bumps on your head, and even the shape of your behind could be used to understand your personality.

In this extraordinary version of the world, it might not be a bad idea to insure yourself against the possibility of being abducted by extraterrestrials. I personally am covered for \$10 million (for the low, low price of \$19.95, as offered by an insurance agency in Florida). My heirs can double this payment to \$20 million if they are able to prove that the aliens ate me! It's difficult to collect the money, however; you need the signature of an "authorized alien," and even then they will only pay out \$1 per year for 10 million years. But you can never be too careful.

In this world of infinite possibilities, all your problems could be solved by a stranger at the other end of a 1-900 psychic hot line or by your feng shui consultant, and your health would improve dramatically simply by putting magnetic inserts into your shoes. Finally, in this most peculiar world, human prehistory could best be understood as the result of supernatural occurrences, enormous cataclysms, and the interference of extraterrestrial space aliens.

It would be a strange world indeed, and the list of extreme, mysterious, and occult claims goes on and on (Figure 1.1). For many of you, some of these claims—all of which have actually been published—might seem to be interesting to think about. Maybe you are a fan of one of the many television shows that tend to blur the distinction between fact and fiction (*The X-Files* is the most obvious of these, but there are also the aptly named *So Weird*, the breathtakingly bizarre *Psi Factor*, and a host of others). Perhaps you have dialed a 1-900 phone number, looking for psychic insights into your future. Maybe you believe that it's good to have an open mind and that some of the remarkable claims listed here are plausible.

Belief in the Unbelievable

If you find yourself in embarrassed agreement with some of these claims, rest assured, you are not alone. Not long ago, an entertainment/news television show conducted a survey among watchers concerning their opinions on some controversial claims. More than a quarter of those responding believed in the accuracy of dreams in foretelling the future, 12 percent believed in the utility of astrological forecasts, and 22 percent accepted the reality of clairvoyance in predicting the future. In the same sample, 3 percent of those responding also expressed confidence in the accuracy of predictions contained in fortune cookies!