Von Däniken’s Chariots: A Primer in the Art of Cooked Science

Feature

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“I am not a scientific man, and if I had written a scientific book, it would have been calm and sober and nobody would talk about it.”

—Erich von Däniken

Playboy: Are you, as one writer suggested, “the most brilliant satirist in German literature for a century”?

Von Däniken: The answer is yes and no. ... In some part, I mean what I say seriously. In other ways, I mean to make people laugh.

Were it not for the fact that Erich von Däniken has millions of otherwise intelligent people discussing his book and theories seriously, I would prefer to write a parody of his style. But I fear his readership might believe me too. I ignored his books for four years, but now I cannot teach my students or talk to my academic colleagues without his name souring my day. It is out of his hands, now, this chariot thing. It has reached the people, and for reasons that are their own they have made von Däniken a prophet (profit?) and me a defender of the Establishment.

Why is this book so popular? Von Däniken, it seems, has written one of the scriptures of a new cult. What he says, people obviously want to hear.

Throughout history, cultures subjected to stressful situations have responded with cataclysmic religious reformations, often as a substitute for or supplement to political rebellion. The Zulu Uprising in Africa, the Sepoy Rebellion in India, the New Guinea Cargo Cults, the Ghost Dance of the Plains Indians, the Taiping Rebellion in China, and the Luddites and Anabaptists in Europe are some of the famous examples. Anthropologists call them revitalization movements, messianic cults, and so forth, and take them quite seriously. Though they vary greatly, they have certain characteristics in common: a humorless fanaticism, prophets, a new world view, and a stiff distaste for the Establishment. Most of these movements are rooted in obvious and serious crises, and frequently are part of a religious and political change in the culture.

The entire von Däniken affair, even much of the UFO interest associated with it, is, I think, very much like these movements. Only hindsight will give a good perspective on this point in American history, but the “we are not alone” attitude has become an important element of our culture’s religious cosmology. A frustration with science’s not having delivered all that it promised, a distaste for the specialization of scientific research, and a continuing need to believe in an intelligence beyond our own are the main characteristics of this antiscience mysticism. It does not take much imagination to see that science has been for many in our culture the New Religion, with its white-frocked priests talking in strange tongues about a universe we couldn’t even understand. (Try to grasp the idea of a boundless universe doubling back on itself, a la Einstein.) The priests’ accomplishments in a few areas like technology and medicine were enough to satisfy the faithful. But as a religion science didn’t stand the test of time. The contrast between what we could do in space with what we could do for ourselves on earth was like watching a priest celebrate mass with his zipper down. Science is rather stale as a religion, and it cannot substitute for one. The man-in-the-street prefers a richer religion than that.

If von Däniken’s thesis is part of your religious cosmology, so be it. I don’t argue religion; I try to study it and see how it relates to human life. But if von Däniken seems like science to you, shame on you.
What follows is an attempt to lay open von Däniken’s approach as a warped parody of reasoning, argumentation, as well as a vigorous exercise in selective quotation, misrepresentation, and error based on ignorance (presumably, if it is not intentional fibbing). For students his work does serve two valuable purposes: first, it raises their interest in the cultures and myths which he so badly mishandles; and second, like Lewis Carroll’s Alice in Wonderland, Chariots of the Gods? is a challenge to study and determine all that is wrong with it. So it is by no means a complete waste of one’s time (either his, yours, or mine).

Briefly stated, Chariots of the Gods? proposes that scientists have overlooked or refused to inform the world of the many pieces of evidence which suggest that we have been visited, probably several times, by intelligences from other planets. Von Däniken argues that an open-minded approach to the ruins of past cultures and their art and myths raises many unanswered questions which can best be answered by accepting the hypothesis of extraterrestrial visitors. Data from Incan, Mayan, Sumerian, Egyptian, and many other cultures which suggest the hypothesis include cave painting, architectural and technological accomplishments, and mythological events of great similarity around the world. Von Däniken says that the explanations given by scientists of these data are too smug, and that now that space travel is possible for us, we must at least admit that his hypothesis is as viable as anyone else’s.

Some of my professors used to tell me that hypotheses are a dime a dozen; people make them up all the time. Making an hypothesis is not science; it’s what you do with an hypothesis that more or less is science and is to be judged by others. Von Däniken is entitled to his hypothesis. But what does he do with it?

### The straw horse, red herring, and other ruses

Argumentation is an art which can easily be perverted. One technique to make yourself sound good is the straw horse: misrepresent the thing you wish to argue against. Von Däniken’s characterizations of archaeology and anthropology - fields which focus on precisely the kind of data he studies - are abysmal.

... in the future, archaeology can no longer be simply a matter of excavation. The mere collection and classification of finds is no longer adequate. Other branches of science will have to be consulted and made use of if a reliable picture of our past is to be drawn. (p. 14. This and future references from von Däniken are to Chariots of the Gods?)

Let us say that someone decides to become an anthropologist and he reads and learns a lot about anthropology, about bones and apes and all those details. (Ferris, p. 58)

By denying the breadth of these fields and the wealth of data in them he has left somewhat of a vacuum into which to float his own ideas, which I hope to show are clearly not based on any background in archeology or anthropology. These are not the only disciplines he chops. His critics are nearly unanimous in accusing him of misrepresenting or failing to understand even the rudiments of geology, mythology, psychology, chemistry, astronomy, and physics (Ostriker 1973, p. 239).

His technique is successful in part because there are many presumably educated people who don’t understand these fields, or even the ways of scientists in general. He has played to the prejudices and stereotypes of those who are not “scientists” (priests of the old religion). The tone of “you and I, dear reader” places him and his readership in a somewhat of a vacuum into which to float his own ideas, which I hope to show are abysmal.

Another technique that works well for misleading the mind is the red herring. The object is to confuse the reader by introducing an extraneous issue so that he will not catch you on your main point. Politicians might introduce Motherhood and Apple Pie, but von Däniken has his reflections on truth, atomic war, and propagandizing for space research. His comments in these red herrings seem startlingly in contrast to his arguments.

We owe it to our self-respect to be rational and objective ... (p. 5)

We may be as religious as our fathers, but we are certainly less credulous, (p. 37)

Anyone who really seeks the truth cannot and ought not to seek it under the aegis and within the confines of his own religion, (p. 53)

It is unworthy of a scientific investigator to deny something when it upsets his working hypothesis and accept it when it supports his theory, (p. 68)
It is depressing what many people - and sometimes whole occult societies make out of their ostensible observations. They only blur our view of reality and deter serious scholars from dealing with verified phenomena... (p. 120)

These comments are quite irrelevant to his arguments and serve only to glaze the reader's critical judgment.

One final technique that is useful in argumentation is to warn the reader in advance about the criticisms which will be leveled by one's opponents. This is not the same thing as dealing with those criticisms, but neatly puts the critic on the defense when listeners say, “Aha! Von Däniken said you would say that!” thus somehow scoring a point for the home team. For example: “Impossible? Ridiculous? It is mostly those people who feel that they are absolutely bound by laws of nature who make the most stupid objections” (p. 84).

Our Ancestors, the Dummies

What most depresses my fellow anthropologists and me is the way people accept von Däniken 's unnecessarily anthropocentric and ethnocentric views of other people in the world and in history. Anthropocentrism is the assumption that other living, sentient, or intelligent creatures must feel and think or evolve as humans do. Ethnocentrism is the even more narrow assumption that other people must think, behave, or evolve as we do. Further, there is usually a heavy flavor of cultural superiority in such assumptions.

Chariots of the Gods? plays upon most people’s inability to break out of these assumptions. It implies that up until the last thousand years or so the world was filled with primitives, heathens, savages, dummies. Their intelligence matched their simple technologies; their languages were simple, their cultures were primitive, they were brutes. If they seem to have come up with something quite fantastic by our standards, someone smarter than them must have given it to them. They then proceeded to garble it up in their ingenuousness; they certainly didn’t do those things for the same reason that we would have.
These are really just a handful of examples which reveal ethnocentricism. Von Däniken’s reasoning, conservatively stated, is: there are some real mysteries in the past because it is obvious that people who lived then are not solely responsible for those remarkable things. There are indeed real mysteries in the past, but they are usually not the ones von Däniken sees. When one consciously puts aside the prejudices of his own culture and examines the cultures of the peoples mentioned in *Chariots of the Gods?* one begins to see the way myth, art, architecture, politics, kinship, and technology relate to one another, reflect and react to one another. The “fit” of many of these seemingly bizarre practices in the rest of their culture is often in itself a wonder to behold.

**The Sillygism and Cooked Science**

Von Däniken’s book is a virtual goldmine of logical fallacies, implications by innuendo and rhetorical questions, and failures to apply “Occum’s Razor.” Alicia Ostriker, who interviewed von Däniken for *Esquire*, wrote, “So what if the fallacies fly by in flocks like mallards heading south?” She was captivated by the man’s enthusiasm and chose to overlook his “gee-whiz style fit only for kiddies.” She chose to overlook his flaws - but many other people don’t see them.

A non sequitur, or logical fallacy, makes a conclusion which does not follow from the premise. The book starts out with a few non sequiturs. On page vii von Däniken argues that if you ignore his book, then you are a layman who refuses to face the adventurous and mysterious past. On page 2 he says that if one accepts the possibility of developed life elsewhere in the universe, then it must have been a civilization. Here is an example, phrasing the main thesis of the book: “Since we are not prepared to admit or accept that there was a higher culture or an equally perfect technology before our own, all that is left is the hypothesis of a visit from space!” (p. 28).

A rhetorical question places the entire burden of proof on the reader, who either acquiesces because of the generally bewildering style of the argument or passes the burden of proof on to the “scholars.” When contemplating the ruins of Tihaunaco, in Bolivia, von Däniken writes: “Had our forefathers nothing better to do than spend years - without tools - fashioning water conduits of such precision?” (p. 21)

Applying Occum’s Razor means that when two explanations for one set of facts are possible, one adopts the simplest explanation, that is, the one that assumes the least number of “ifs.” Von Däniken has argued (Ferris 1974) that space travel is a simple explanation, since it is now possible by us. However, it is not the possibility of space travel or of extraterrestrial intelligence that is questionable. The thesis of *Chariots of the Gods?* fails by Occum’s Razor because it constructs a gigantic house of cards, each card requiring a new “if.” The “ifs” are held together by faith alone and patently contradict most of the principles which “science” had begun to see as a rather unified system. Look, for example, at von Däniken’s thesis that modern humans are the act of deliberate breeding by extraterrestrial intelligences. The fossil record of humanlike creatures and the culture they possessed stretches back more than a million years. Through the millennia, by rather gradual steps, we see the body approaching modern shape and the brain approaching modern size. Cultural developments like fire, sophisticated stone tools, burials, tailored clothing, and so forth appear long before modern Homo sapiens. To see ourselves as a continual development of those trends, moving and adapting to the changing climates, creatures, and contours of the land, is much tidier than introducing some undefined, undated appearance of superior “breeders.”

Von Däniken plays heavily on the reader’s readiness to conclude that a long string of random possibilities equals a certainty. By the same reasoning, it is a virtual certainty that you will get six heads in six coin tosses, since there is a real possibility (50 percent, to be exact) that one toss will come up heads.

Last, and perhaps most disturbing, is von Däniken’s misrepresentation of the very process of “doing science.” He does not exhibit, nor does he anticipate in the reader, any real facility in the nature of a “fact,” an hypothesis, developing a theory, and proof (or more accurately, demonstration). At one point von Däniken disclaims that he is compiling a sequence of proofs of prehistoric space travelers: “that is not what I am doing. I am simply referring to passages in very ancient texts that have no place in the working hypothesis in use up to the present” (p. 66).
The author doesn't know what a working hypothesis is, nor is he embarrassed to stamp “Q.E.D.” on an enormous gaggle of tautologies (assume something, create an hypothesis, test, claim to have proved your assumption). He avoids ever stating anyone else’s explanation in reasonable terms. He is loose with his concept of proof, with which he bludgeons unidentified others for not producing. More than any other characteristic, it is this blithely ignorant toying with the method of scientific reasoning which marks the book’s shabbiness.

Just Plain Wrong

A review of Chariots of the Gods? in Book World says, “To check his ‘facts’ would take months of research, since he never cites his authorities.” His highly selective choice of what to introduce as data follows absolutely no discernable criteria. His translations make critics howl (with glee if they have a sense of humor, with rage if they do not). Many of the “facts” which von Däniken presents have been checked out. A few of these are presented below.

The Piri Reis maps (p. 14). (Amazing maps, but far from accurate.)

The Tiahuanaco culture of Bolivia (p. 20ff). (Cf. Lanning to remove a few of the mysteries von Däniken sees here.)

The Sumerians (p. 24). (Braidwood and Adams among others have quite fine ideas about where the Sumerians came from.)

“Isn’t there something rather absurd about worshipping a ‘god’ whom one also slaughters and eats?” (p. 33). (No. The world has a number of people who do so: Australian Aboriginies, Mesopotamians, Ainu, and others.)

The copper furnaces at Ezion Geber (p. 44). (The dating given is wrong; also the source has withdrawn his speculation: the rooms are storage rooms.)

The breeding experiments of space travelers on prehumans (p. 52). (The Esquire interviewer points out that von Däniken doesn’t even believe this stuff himself. Then why say it? It defies all the principles of genetics and evolution. Ironically, he calmed down in Gods from Outer Space, and the book didn’t sell.)

The “suddenness of Egypt” according to Egyptologists (p. 74). (This leads you to suspect someone put it there - bingo. In fact it developed out of a Neolithic farmer culture a thousand years after the civilizations began in Mesopotamia.)

The Cheops pyramid: the height formula, pi formula, and wood hypothesis. (Cf. Wilson. Even von Däniken’s math is bad.)

“Did the Egyptians learn the possibility of mummification from nature? If that were the case, there ought to have been a cult of butterflies or cockchafers … there is nothing of the kind” (p. 84). (Worship of the scarab beetle was widespread.)

The Chinese tomb with 41 dead without violence (p. 86). (How about disease or starvation, a common threat in Chinese civilization?)

Terra cotta heads in Jericho ten thousand years ago: “That, too, is astonishing, for ostensibly this people did not know techniques of pottery making” (p. 87). (Wrong on several counts, one being that terra cotta had been made into statues for over ten thousand years before this.)

“I would suggest, on tolerably good grounds, placing the incident I am concerned with in the Early Paleolithic Age - between 10,000 and 40,000 (p.88). (The early paleolithic ended about 200,000 years before this. What he is describing is called the Upper Paleolithic and Mesolithic.)

The “Chinese” jade necklace in Guatemala (p. 93). (This one threw me for a minute, but Wilson says jade is indigenous to Central America.)

“… in Christ’s day the concept of a heaven with fixed stars taking into account the rotation of the earth did not exist” (p. 105). (Let me quote Ostriker again: “What the average reader of von Däniken probably doesn’t know is that the idea of life on other worlds is not exactly a new one.” She further points out that before Ptolemy’s geocentric world view came along, a number of cultures were not far off the view we hold now.)

Outline drawings of animals which simply did not exist in South America ten thousand years ago, namely camels and lions (p. 106). (Perhaps they are llamas and pumas, native to the area.)

“There are artificially produced markings, as yet unexplained, on extremely inaccessible rock faces in Australia, Peru, and Upper Italy” (p. 106). (Speaking just for Australia, the aborigines have been seen to make the same markings in their totemic rituals.)
These are some of the items I caught. Others are pointed out in the articles mentioned in the bibliography. Rustless iron columns in India, the Easter Island stones, and so forth are not quite the mystery von Däniken claims.

This review has been aimed at those readers of von Däniken who feel that in the interests of science and reasonableness we should consider his argument. I have sketched some of the reasons why, when one considers his argument, one discovers no science or reasonableness in it. The mass popularity of Chariots of the Gods? doesn't derive ultimately from any interest in science or reasonableness but, as I have suggested, stems from a reaction against it. There is some justification for such a reaction; I even advocate a dose of insanity in everyone's life. Von Däniken 's book is a good read if you need a dose of enthusiastic delirium. But I do not mix my insanity and my science.

References


Bibliography

If your interest has been stimulated by the controversy surrounding Chariots of the Gods?, I recommend the following works as just as interesting but more sound.


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John T. Omohundro is an assistant professor of anthropology at the State University of New York College at Potsdam.
Erich von Däniken (born 1935) is the Swiss author of a number of books proposing that extraterrestrials visited Earth in the past and influenced human history. His works made him the best-known proponent of the idea for a few decades, until Giorgio Tsoukalos gained that position due to his Ancient Aliens TV show (and his meme-spawning hair). The majority of von Däniken's claims are either not even wrong or fail Carl Sagan's extraordinary claims require extraordinary evidence test. Contents. 1 Biography. 2 Books. 2.1 Chariots of the Gods? 2.2 The Eyes of the Sphinx. 3 Fraud. Von Däniken's Chariots: A Primer in the Art of Cooked Science by John T. Omohundro, Skeptical Inquirer Winter 1976. PBS Nova page. Notes[edit]. Erich Anton Paul von Däniken (ˈɛʁɪk fɔn ˈdɛnɪkən; German: [ˈɛʁtʃ fɔn ˈdɛːnɪkən]; born 14 April 1935) is a Swiss author of several books which make claims about extraterrestrial influences on early human culture, including the best-selling Chariots of the Gods?, published in 1968. Von Däniken is one of the main figures responsible for popularizing the "paleo-contact" and ancient astronauts hypotheses. The ideas put forth in his books are rejected by a majority of scientists and academics, who