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Chariots and the Cult of Credulity

Von Daniken's books now circulate in tens of millions and a film of his book "Chariots of the Gods" has attracted crowded audiences in every major city of the Western World and behind the Iron Curtain too. In this interesting article Mr. Poole examines the appeal of the views he expresses.

A first reaction to Von Daniken's Chariots of the Gods? might be, "Well, nobody's likely to take that sort of thing very seriously", but the fact is that many have done so. Those in contact with young people tell of a disproportionate interest in the suggestion which triggered off the popular Sunday-paper serial, "Was God an Astronaut?"

The suggestion came from Von Daniken, an ex-hotelier from Switzerland, that long ago our planet received visitors from space. These erstwhile astronauts, Von Daniken argues, were regarded as gods and many of earth's hitherto unexplained mysteries can be solved by recourse to the idea. Furthermore, these visitors are supposed to have interbred with humans (with whom they just happened to be sexually compatible) and produced offspring (which just happened to be fertile) from whom our space travellers of today have descended. 1a

Before trying to find possible reasons for the popularity of Von Daniken's works — and it is estimated² that his books have sold more than 25,000,000 copies in over 32 languages — a few points need to be made about the content of Chariots of the Gods?

Various difficulties confront anybody who wants to check up on the subject matter of the book. Firstly the material referred to includes archaeology, anthropology, astronomy, biology, chemistry, geography, history, physics, theology and a good many other "ologys" and "onomys". Consequently, unless the reader has had training in a fair proportion of these disciplines, he will not be in a position to advance explanations of the phenomena mentioned, other than the one suggested by Von Daniken himself. It is significant that if you ask him about the technical training that prepared him for all

this, he begins his answer with a surprise statement: "I am a specialist ..."

He is a specialist, he says, in "my own field — which is, 'Are There Ancient Astronauts?' And for this field you can't have training in the universities, because it doesn't exist. Maybe in 10 years we'll have 'Ancient Astronaut' courses in all the universities. Then I may be the leading professor, I don't know ".²

As Return to the Stars puts it, "Erich von Daniken is not a scholar. He is an autodidact, which the dictionary defines as a man who is self-taught" ^{3}a

Any comprehensive critique of Chariots of the Gods? must necessarily take the form of a symposium, with contributions from experts in a variety of fields. Otherwise one merits the charge of doing just what Von Daniken has done in speaking across the board. A useful book, which is a collection of writings by sixteen specialists in various fields, is Some Trust in Chariots. 4

Von Daniken, in his later book, Return to the Stars says, "The 'Sunday' archaeologist has the great advantage of being able to give his imagination free rein and ask the specialists disconcerting questions". This dual exercise of "being able to give his imagination free rein" and the asking of questions just about sums up the style in which the books are written. "Without over-stretching my imagination, I get the impression that the great god Mars is depicted in a space — or diving-suit." "A cave drawing is as recognisable — without overstraining the imagination — as a normal slide-rule in a double frame." Let us imagine for a moment that Sodom and Gomorrah were destroyed according to plan, i.e. deliberately, by a nuclear explosion. "Ic

Questions follow in quick-fire successions and before having read many pages of this sort of thing, one is left with the sense of a breathless world-tour of widely scattered snippets of undigested information. Questions are asked in plenty, but alternative answers to the favoured theme are dismissed lightly.

When taken for such a verbal ride, it is not at all easy to separate fact, interpretation, imagination and hearsay. Conjecture is followed by assertions of certainty with shameless jumps in the logic, "let us stick tenaciously to our theory (italics mine), according to which astronauts from distant planets visited the earth thousands of years ago. We know (italics mine) that our ingenious and primitive forefathers did not know what to make of the astronauts' superior technology. They worshipped the astronauts as 'gods' who came from other stars..." 1 d

The doctrine that "all things are possible" features strongly in Von Daniken's writings. We are told that "NOTHING is incredible any longer. The word 'impossible' should have become literally impossible for the modern scientist". Id One is reminded of a quotation featuring Alice in conversation with the Queen, about finding things hard to believe:

"'I can't believe that! said Alice. 'Can't you?' the Queen said in a pitying tone. 'Try again: draw a long breath, and shut your eyes.' Alice laughed. 'There's no use trying.' she said: 'one can't believe impossible things.' 'I dare-say you haven't had much practice' said the Queen. 'When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast.'"

I rather fancy the Queen would have enjoyed Chariots of the Gods? Certainly the achievements which have been made in science and technology have prepared the minds of Von Daniken's readers to believe that nothing is impossible, but I think we've got to be very careful here and tread warily between two extremes.

The first of these extremes is to deny the validity of research into unusual and untraditional fields of experience. A recent editorial in Nature entitled "Science beyond the Fringe" spoke strongly about "a discernable tendency for the public and even some practitioners of science to turn their backs on science and become preoccupied with the bizarre and the magical". The writer went on, "Mr. Uri Geller is only the most recent to cast doubt in the public mind on the efficacy of rational explanation. Archaeology is being plagued by a series of ideas which have achieved a following particularly among the young".

Now there is no doubt that there is a good deal of antiscience around which is to be deprecated. Nevertheless, strange phenomena like those associated with Uri Geller are, in principle, open to attempts to investigate them scientifically. This is in fact being done at the present time. It may well turn out that people have been led up the garden path over the so-called 'Geller effect', but the important principle to be established is that such claims are open to investigation using the methods of science.

A later issue of *Nature* included a strong letter of protext at the editorial, pointing out that "History is littered with ideas shown to be false by people bold enough to question their contemporary conventional science, often in the face of personal ridicule and even persecution." The letter concluded with the declaration, "I want no part in any science which operates with a closed mind..."

The other extreme to be avoided is not the closed mind but the empty mind masquerading under the guise of an open mind. The advice given to students by Kenneth Howkins in his book The Callenge of Religious Studies is very pertinent when one is confronted by the appeals for open-mindedness made by people like Von Daniken. He writes,

"The mind needs to be open at the top, to let new ideas drop in, and not at the bottom, to let all former ideas drop out ... The student needs an open mind towards those things which he does not know, and a readiness to grapple But he does not need to empty his mind with problems. of those matters about which he has a sure knowledge. Нe should not jettison previous knowledge but, with intellectual humility, be willing to consider other views. an ever-open mind in everything is simply a serious neurosis ... It is not a sign of maturity to be carried away by 'every eddy in the stream of thought'. The demand for an open mind is so often in practice a demand for an empty mind. Sometimes this is overtly so. There are those who ask their students to remove all preconceived ideads from their minds, and to start thinking again. This is morally very questionable. It tends to be saying in effect in an authoritarian manner, 'Abandon your beliefs and accept mine'.

A completely closed mind on any matter is not being advocated. Indeed a modification of ideas may be demanded. But it is not desirable to consider that every question is completely open.'"8a

Anyone reading Von Daniken's writings would be given the impression that all "experts" are closed-minded stick-in-the-muds with never an adventurous spirit to be found among them. He exhorts them to get on with investigating the possibility of extra-terrestrial life, saying, "A Utopian archaeological year is due, during which archaeologists, physicists, chemists, geologists, metallurgists and all the corresponding branches of these sciences ought to concentrate their efforts on one single question: did our forefathers receive visits from outer space?" The simple answer to Von Daniken's charge of laxity is that a not inconsiderable number of scientists are at present working on problems allied to other forms of life. You don't need to take many issues of current scientific literature to find this out. Nature for May 10th, 1974 reports, "Radioastronomers are about to begin another programme of 'listening' for signals from intelligent life within our Galaxy". 9 The following week an article appeared entitled, "How special is the Universe?" 10 New Scientist for July 4th featured an article on the subject 11 and two months earlier, on May 2nd a symposium was held at the Royal Society called the "Recognition of Alien Life". 12

No, it is not that nobody had thought of getting on with the job before Von Daniken arrived on the scene; the point of contention is his whole approach to making an investigation, and this on two counts. Firstly with respect to the way he treats existing ideas and secondly in regard to logical gaps in the presentation. The treatment accorded current ideas is, generally, to dismiss them cursorily. "Classical archeology" is accused of having created "an impressive and interesting mosaic ... the product of a preconceived pattern of thought" and the accusation is made that, "As long as archeology is conducted as it has been so far, we shall never have a chance to discover whether our dim past was really dim and not perhaps quite enlightened." le

Now, no scientist will deny that from time to time various areas of science have had to undergo major 'rethinks'. New theories have been advanced which have radically reshaped the structure of the Biology, geology and the physical sciences have all in their time undergone such metamorphoses and may do so again. held ideas have been displaced by better theories and the history of science records both birth-pangs and growing-pains. Phlogiston. caloric, atoms and quanta are all words which are reminders of revolutions in thought. However, there is a radical difference in the development of scientific ideas and the sort of rethink that Von Daniken appears to wish upon us. In the progress of scientific thinking new theories are advanced because they give better explanations of more data and not simply a number of selected curiosities. In Chariots of the Gods? unsolved mysteries are selected, simply because they are cryptic. Some might consider the solution suggested by Von Daniken to provide one explanation of those mysteries, but that solution doesn't take into account the wealth of additional relevant material for which patient research has already advanced other feasible and consistent explanations. In short, the Von Daniken suggestion raises far more factual problems than it professes to solve.

The nearest parallel to Von Daniken's unsubstantial "astronaut gods" is the mistaken and quite unbiblical concept of the "Gods of the gaps". Only here it is "astronauts of the gaps". Visiting astronauts are invoked to explain anything for which there appears at present to be no explanation. Using this technique, any of the multitude of unexplained mysteries can be regarded as support for the existence of these "astronaut gods". And lest it should be thought that it is a neat hypothesis which links a number of unsolved mysteries, let the following atory act as a cautionary tale to remind us that there are other criteria of truth than neatness.

"... there were once two very perplexing mysteries, over which the wisest men in the land had beat their heads and stroked their beards for years and years. But nothing came of all this. The two mysteries continue to plague everyone.

The mysteries were that whenever anyone wanted to find a lead pencil he couldn't, and whenever anyone wanted to sharpen a lead pencil the sharpener was sure to be filled with pencil shavings.

It was a most annoying state of affairs, and after sufficient public agitation a committe of distinguished philosophers was appointed by the government to carry out a searching investigation and, above all, to concoct a suitable explanation of the outrage.

One can hardly imagine the intensity of the deliberations that went on among the august members of this committee. Moreover, their deliberations were carried out under very trying conditions, for the public, impatient and distraught, was clamouring ever more loudly for results. Finally, after what seemed to everyone to be a very long time, the committee of eminent philosophers appeared before the Chief of State to deliver a truly brilliant explanation of the twin mysteries.

It was quite simple, after all. Beneath the ground, so the theory went, live a great number of little people. They are called plogglies. At night, explained the philosophers, when people are asleep, the plogglies come into their houses. They scurry around and gather up all the lead pencils, and then they scamper over to the pencil sharpener and grind them all up. And then they go back into the ground.

The great national unrest subsided. Obviously, this was a brilliant theory. With one stroke it accounted for both mysteries. $^{\rm n\,13}$

The writer gives this little story as an illustration of "the prescientific picture". "The theories which we speak of as prescientific, or magical, may be regarded as plogglie theories ... No matter what happens, it can always be explained after it has happened by saying, as solemnly as possible, 'Well, that's how it goes with plogglies'.

Thus Von Daniken's "astronaut gods" theory, far from being an avan garde hypothesis, is a "plogglie" theory, magical and prescientific.

The other point of contention, referred to earlier, is the presence of logical gaps in Von Daniken's presentation. Sentences like, "Who can produce concrete proof to show why another planet should not have provided more favourable conditions for the development of other or similar intelligences?" are taken to imply that because absolute proof of non-existence cannot be advanced, therefore it is very likely that these hypothetical beings do exist. Incidentally, Von Daniken would do well to read some modern books on the philosophy of science before he uses phrases like 'concrete proof'. The discontinuities in the logic follow the general pattern

of 'Can it be? ... it could ... in fact it's quite probable ... right then, so ...' Before long the casual reader is left with the impression that even if Von Daniken's idea has not been established beyond any shadow of doubt, at least the issue has been moved from the umbra to the penumbra. Following page after page of this sort of writing, it is easy to forget that there was an initial 'if'.

The technique used is one of suggestion. If the same idea in many different forms is presented often enough, an undiscerning reader may be persuaded that the idea is strongly supported. Somehow, subtly, the feeling is left that 'it can't all be wrong', 'there must be something in it', 'it seems a bit far fetched but look at all the evidence he quotes', 'I don't know much about these things but he's spent years and years studying them'.

Some may feel that the use of suggestion reaches its peak in the selection of captions for the various illustrations. the book the way is paved for the very limited resemblances which the illustrations bear to what the author wishes his readers to believe; we are told, "There are no limits to the fantasy of the illustrations that result from the visit of our space-ship". lh Some of the captions ask questions, some offer suggestions. example, "The object in the centre is described as a sacred tree. It could just as reasonably be interpreted as a symbolic representation of the construction of an atom, with an astronaut in a fiery chariot above". 1i Of an 820 foot figure carved in a hillside it is asked, "Could this be an aerial direction indicator rather than a symbol of religious significance?"13 Within the text it is asserted that it this and some other similar figures, "were undoubtedly meant as signals for a being in the air". 1g I did wonder, as I drove past the White Horse carved in a hillside in Berkshire how Von Daniken would have interpreted this figure!

For a picture of a temple drawing, however, Von Daniken admits one, and one only possible answer to his question, "Could primitive imagination have produced anything so remarkably similar to a modern astronaut in his rocket?" His answer? "Those strange markings at the foot of the drawing can only be an indication of the flames and gases coming from the propulsion unit." I am strongly reminded of a game which featured in a recent series in Punch, where, given a Victorian cartoon without a caption, one was asked to supply one. A variation of this game would be: Given an ancient carving, drawing or engraving, find a caption for it which relates to space travel and astronauts. Well does Von Daniken say of the 820 foot figure, "If you play at 'It looks like ...', your immediate reaction is ...".

There are also a number of pictures in the book which appear to be padding, since their presence there might be assumed to be because they illustrate artifacts which support the author's central idea. For example, the writing under one of them reads, "This Babylonian tablet records past and future eclipses". Another reads, "an Assyrian

crystal lens from the seventh century BC. To grind such a lens requires a highly sophisticated mathematical formula. Where did the Assyrians get such knowledge?" ¹¹ An appropriate comment to the first of these might be "so what?" and to the second it is sufficient to point out that you don't need "a highly sophisticated mathematical formula" to grind a lens; you can simply grind, polish and then work on those parts of the surface which distort the image.

A different type of padding takes the form of a sprinkling of genuine scientific terms and formulae. These seem to be fitted into the text in order to lend it an air of credibility. Some of them, e.g. those relating to Special Relativity and to fundamental particles are very specialised indeed and need quite a considerable background of scientific knowledge in order to be able to understand them. Since the style of the book is unlikely to attract readers with such a background, the main purpose of including such terminology seems to be to "blind them with science".

A further way in which Von Daniken tries to attract support for his ideas is the well-worn one of "playing with numbers", used as a ploy for generating an aura of mystery. An illustration of how to play with numbers - only in this case it is humourous rather than serious - can be found in the June 1974 number of Scientific American under the heading of "Mathematical Games". 14 It starts with a quotation which reads, "Does the Great Pyramid of Cheops enshrine a lost science? Was this last remaining of the Seven Wonders of the World ... designed by mysterious architects who had a deeper knowledge of the secrets of this universe than those who followed them?" Readers of Chariots of the Gods? will be excused for guessing this quotation to be taken from that book. No, actually it is taken from Secrets of the Great Pyramid by Peter Tompkins. The Encyclopaedia Britannica is emphasic that "The theories that ascribe prophetic and esoteric meanings to the measurements, angles, and proportions of the Great Pyramid are wholly devoid of scientific foundation." this, Von Daniken asks, "Is it really a coincidence that the height of the Pyramid of Cheops multiplied by 1,000 million corresponds approximately to the distance between the earth and sun?" lk Checking his figures with the value of the Great Pyramid's height given in the Encyclopaedia Britannica I discovered that Von Daniken's approximately" is about 2,000,000 miles out!

However, if this sort of accuracy is acceptable, others can play with numbers, too; so I thought that I would try my hand. Clearly, one needs to start with some ancient monument. Since I often pass Cleopatra's Needle on the Thames embankment, as I go to work, I decided to start here. The first thing I found out was that our Cleopatra's Needle is one of a pair which originally stood before the sun temple at Heliopolis.

The other one stands in New York Central Park. Discovery number two was that the American one is bigger than ours! This time the authority quoted is the Encyclopedia Americana: "The London obelisk now measures and weighs somewhat less than its "twin" because it is more severely weathered and chipped..."16 Anyway, having found out the height of the Needle and consulted Kaye and Laby's Tables of Physical Constants, I found something which prompted me to write a Von Daniken-type sentence - "Is it really a coincidence that the height of the Needle of Cleopatra multiplied by 10,000 corresponds approximately to the distance between Mars and the sun?" my 'approximately' is just a little more approximate than Von Daniken's, but what further evidence is needed to support Von Daniken's "thesis that a group of Martian giants perhaps escaped to earth to found the new culture of homo sapiens by breeding with the semi-intelligent beings living there then..."?11 (Actually, I thought twice about including this, in case anybody should take it seriously!)

Von Daniken's second attempt at playing with numbers goes badly wrong. He asks, "Is it coincidence that the area of the base of the pyramid divided by twice its height gives the celebrated figure $\pi=3.14159$, discovered by Ludolf?" Two points need to be made here. One is that an area divided by twice a height gives a quantity having the dimensions of length and therefore cannot be π which has no units. The second is that the numerical answer to Von Daniken's sum depends on the choice of units. If lengths are measured in metres the sum is $230^2 \div (2 \times 146.59)$ and the answer is 180.4 metres.

This error of fact is one of many which inevitably raises again the whole question of the factual content of the book. How many readers, after all, have the time and the inclination to check the accuracy of what they read?

For example, knowing nothing about the Piri Re'is map which Von Daniken declares is "absolutely accurate" and which "must have been made with the most modern technical aids — from the air" as "A space-ship hovers high above Cairo", q I obtained one of the books from which Von Daniken is supposed to have drawn his conclusions, namely, C.H. Hapgood's Maps of the ancient Sea Kings. Far from supporting the idea that the map was compiled as a result of aerial photographs, the conclusions drawn by its author exclude any such notion, for he writes:

"We found that some of the positions on the Piri Re'is Map were very accurate, and some were far off. Gradually we became aware of the reasons for some of the inaccuracies in the map. We discovered that the map was a composite, made up by piecing together many maps of local areas (perhaps drawn at different times by different people), and that errors had been made in combining the original maps." 17

A less extravagant interpretation of the map than Von Daniken's appeared in the Daily Telegraph in 1959. It read;

"The section showing Antarctica was particularly interesting because it showed coastlines now under the icecap. Since modern scientists have been pulling the last Ice Age closer to modern times and pushing the age of the first civilisations further into the past, there is nothing too startling in the theory that survey teams were mapping the Southern Atlantic some 4,000 years before Christ." 18

Passing from physics celestial to physics terrestrial, Von Daniken has no more success. Uzzah's death, recorded in 2 Samuel 6:7 is put down to a severe electric shock for, says Von Daniken, "Undoubtedly the Ark was electrically charged! If we construct it today according to the instructions handed down by Moses, a voltage of several hundred volts is produced. The condenser is formed by the gold plates, one of which is positively, the other negatively, charged. If, in addition, one of the two cherubim on the mercy seat acted as a magnet, the loudspeaker — perhaps even a kind of set for communication between Moses and the space-ship — was perfect. The details of the construction of the Ark of the Covenant can be read in the Bible in their entirety. Without actually consulting Exodus, I seem to remember that the Ark was often surrounded by flashing sparks ..."

One lesson which follows from this is that it would have been better to have consulted Exodus. Firstly, no mention would have been found of the Ark "surrounded by flashing sparks" and secondly. since "The details of the construction of the Ark of the Covenant can be read in the Bible in their entirety" (Ex. 25:10;22), he might have been saved the other error of regarding the Ark as a "condenser". It is pure reading into the text to take the instructions to "overlay it with pure gold within and without ..." to imply that the inside was electrically insulated from the outside, but even if it was. the "mercy seat of pure gold" which was put "on top of the ark", would have effectively shorted Von Daniken's two "condenser" plates, if the mercy seat formed the top of the ark - of if there was a separate wooden top overlaid with gold. Quite where the electric charge on the ark is supposed to have come from in the first place we won't bother to enquire further. As to one of the qold cherubim being considered as suitable material to act as a magnet, thereby enabling Moses to use the ark as a transmitter, the least said, the One could go on, critically examining the factual content, but an important question which must have arisen in many minds is. Why the Credulity?

Why have the book and the film of Chariots of the Gods? been opular? As one film critic asks, "Can a 97-minute-long docuary film — part travelogue, part scientific tract, part wild speculation - become one of the most popular movies in the world?

Can the same picture, at the ripe age of three years old, journey belatedly to the United States and — without sex, violence, stars, or even plot — knock 'em for a loop at the box office? Can the same picture outgross (moneywise, that is) The Exorcist?

If you're talking about Chariots of the Gods? the answer is a resounding "Yes".2

There isn't just one reason for the popularity of Chariots of the Gods? but many popular ingredients which have been mixed together for a recipe of success. Some of these are quite trivial; others appear to go much deeper.

For a start, considerable use has been made of the enigmatic. Earth's unsolved mysteries are always good for column space — witness Loch Ness.

Then there is the attraction which many feel for stories of space, especially when they involve the suggestion that alien life not only exists but has already made contact with our earth. After all, this is a very "hot" subject, as has been said before, both to specialist and to non-specialist. There is the possibility that we might have to adjust our thinking to accommodate a discovery that we are not unique in the universe; and for some this would be more difficult than for others. Certainly the Bible gives no grounds for saying that earth is the only planet which supports life.

Yes, 'space' is a popular subject. Our bookstalls, liberally stocked with science fiction bear a regular testimony to this. It could well be asked whether Chariots of the Gods? could be classed under the heading of "science fiction"? Such a question would probably call forth the Joadian reply, "It all depends what you mean by 'science fiction'", but it would be a fair retort. Lois and Stephen Rose, in their book, The Shattered Ring take a look at the relationship between science fiction and the quest for meaning. They enumerate the themes of science fiction "into the following categories: technological gimmickry, space travel, time travel, future scenarios, and finally, the exploration of inner space and ultimate meaning". "It is said to differ from fantasy because its scientific explanations make it seem plausible."

Not all of the themes listed are to be found in Chariots of the Gods? but there is an emphasis which follows what Lois and Stephen Rose term "The New Wave" of science fiction writers, namely, "the exploration of inner space and ultimate meaning". As another writer puts it, "The adventure into outer space is a symbol of a more important exploration of the 'inner space' of personal freedom and social change". If this is proving, as it appears, a popular ingredient in modern sf, then it has no doubt enhanced the sales of Von Dańkiken's book.

One theme which never fails to get widespread sympathy among a large section of the community - sometimes rightly, sometimes wrongly is that of the "loner" v. the established authorities. Witness the "minority cause" appeal of some of the most widely-read, national dailies. If ever this was exemplified, it is in Chariots of the Archaeologists, historians, scientists, theologians etc. are all taken on single-handed at the same time. Here is the lone crusader-for-truth with the familiar, "the facts must be told", "why should the public have the wool pulled over their eyes," sort of phraseology. Certainly the sheer self confidence with which the ideas are sold is likely to rub off a little on the reader before many chapters are out. If there is an attraction for the man-inthe-street v. the "experts" type of writing, there is also the possible fillip to the ego that if the reader gives credence to Von Daniken's ideas at a time when established opinion is against them, then there is a good chance of being able to say "I told you so!" at a later stage - "It took courage to write this book, and it will take courage to read it." The appeal of The Inner Ring, so ably spelt out by C.S. Lewis²¹ is a strong one.

The as-yet-unrecognised thinker confronting the body-of-consideredopinion is good for a following. Every generation in its turn sings the song of "Trad. is bad and new is true" in some key, be it major or minor; but when what is being attacked includes the Christian message, it is especially welcomed by a section of the populace.

The spirit of Mars Hill is not confined to New Testament times: There are always those who spend "their time in nothing else, but either to tell, or to hear some new thing." (Acts 17:21) Truly did Paul write, "the time is coming when people will not endure sound teaching, but having itching ears they will accumulate for themselves teachers to suit their own likings, and will turn away from listening to the truth and wander into myths." (II Tim. 4:3.4) At a time when there is much emphasis on learning, the Bible warns us of the everpresent danger of being those who are "Ever learning, and never able to come to the knowledge of the truth." (II Tim.3:7) As one writer puts it, "To be honest, the search is not always quite genuine anyway... You are a seeker, but you are not too keen to find; the result might be too disturbing". 22 Jesus told us that the big problem is the will, rather than the intellect. Given willingness and obedience, the necessary understanding will be given, for, He said, "If you continue in my word, you are truly my disciples, and you will know the truth, and the truth will make you free" (John 8:31-32, RSV).

As far as an intellectual understanding of the universe is concerned, we've "never had it so good". Knowledge is on the up and not only scientific knowledge, although if the bulk of scientific literature published is anything to go by, it is certainly true here.

"Writing on the storage and retrieval of scientific information D.J. Urquhart, Director of the National Lending Library for Science and Technology, has described how the output of scientific literature in the next fifteen years is likely to equal the previous output in the whole history of mankind." 23

In our schools, the teaching of science over the last decade has received a major boost in syllabus reconstruction, apparatus design and finance through such bodies as the Nuffield Foundation and the Schools Council. Strong emphasis has been placed on the rationale of science teaching whilst terms like "teaching for understanding" and "the heuristic method" are reminders of the healthy re-emphases and innovations which have taken place.

It is a cause for concern that it is from young people who have passed or are passing through our school science courses that Von Daniken draws many of his followers. Furthermore, it would not be true to imagine that it is only less able pupils who become taken up with the idea of "astronaut-gods". No, those with considerable academic ability get involved as well — and some of them specialise in science. It is a sobering thought that it appears to be possible to undertake six or seven years of courses in the sciences and then to emerge with little critical awareness of powers of evaluating evidence. Fancy, at times seems to rank higher than fact in the popularity poll and there is a perceptible trend away from the rational.

Professor Hoselitz, writing in *Physics Bulletin* comments, "For some time now there has been a movement away from science and technology. Popular opinion, including a large section of the well-educated public, claims that the progress resulting from the application of science has been detrimental to society ... Fewer school leavers go in for scientific and technical education ... publicity which is critical of science and technology tends to obtain a prominent place in some media.

The many problems arising from the unlimited growth of the technological society are thought to be soluble only by recourse to nonscientific ideas ... Interest in the occult and mysterious is growing, library sections dealing with witchcraft and astrology are growing ... "24

The above extract portrays a fertile soil and a favourable climate for the generation and growth of ideas like those of Von Daniken.

In 1962 a prophetically-worded editorial entitled "Science in Disrepute" appeared in *New Scientist* at about the same time as the Nuffield Science trials were getting under way. It warned of the

then recent events which are "symptomatic of public alarm about the activities of scientists" and concluded by saying that those "have sounded a warning that the scientific community will ignore only at great risk to the prestige — and consequent tolerance and support — which it at present enjoys". That was more than a decade ago. It is left to the reader to judge how the intervening years have affected the 'prestige', 'tolerance' and 'support'.

Perhaps this growing sense of disillusionment with science and technology is, in part, an inevitable sequitur to expecting too much of it. To some, the book title Science is God²⁶ succinctly summarises their attitude to science. The Victorian hope and expectation that Science, spelt with a capital S, would bring in the "millenium" of peace and plenty, clung to them. Inexorably, the idol failed those who cherished it, for we are not meant to follow in the footsteps of those who "worshipped and served the created thing more than the Creator" (Rom. 1:25). Because more was expected of science than it could give, a not-uncommon reaction of "throwing the baby out with the bath-water" seems to have set in and prepared fertile soil for the ideas like those found in Chariots of the Gods?

However, to return to the teaching of Jesus, man's willingness — or lack of it — concerning the things of God is inextricably linked with the ideas he latches on to concerning "inner space" and "ultimate meaning", for "if any man's will is to do his (God's) will, he shall know whether the teaching is from God..." (Jn. 7:17). It is just as possible to close one's eyes and stop up one's ear to the things of God as it was when Isaiah wrote of it (Isiah 6:10) or Jesus quoted it (Mat. 13:14). There are those for whom palatability is more important than truth. Again, no new phenomenon, for Isaiah accuses the rebellious Israelites of saying, "Prophesy not unto us right things, speak unto us smooth things ..." (30:10). Tell us what we want to hear.

"Righteousness, self-control and judgment to come" have never been acceptable subjects for the unrepentant who choose not to know "righteousness, and peace, and joy in the Holy Ghost". Much more agreeable is an " intellectual Day of Judgment" lt "and that man's whole spiritual duty lies in perpetuating all his efforts and practical experience. Then the promise of the "gods" of peace on earth and that the way to heaven is open can come true". 1u what a term like "heaven" means when used by Von Daniken is open to Equally shadowy and exhausted of substance is the word GOD, for we are assured that "I myself am quite convinced that when the last question about our past has been given a genuine and convincing answer, SOMETHING, that I call GOD for want of a better name, will remain for eternity" Whatever else can be said about this amorphous "being", one certainly can't imagine being accountable to it - nor for that matter being loved by it.

Any writing which attempts to dethrone the God of the Bible will find a following among those who try to avoid their responsibility to Him. I believe this to be a major reason for the popularity of Charlots of the Gods? In illustration let me draw on some data from the report of the Bloxham Project. Images of Life (problems of religious belief and human relations in schools) present some of the findings by using the case histories of a few people as representing "ideal types". 27a One of these, pseudonym Steve, recounts:

"The other day in the town some guy comes up to me and asks me if I am saved. I said 'No' and he goes in to this talk about coming to a meeting and finding all the answers with other confused people like myself. I told him I wasn't confused because I think I see my options before me. As I see it, I can accept Christ (something I however find hard to accept), accept just God (that's better but still leaves questions), or just give up and believe God was an astronaut (that makes me God as well, much easier to accept)."^{27b}

Part of the authors' comment on "Steve" runs, "The reference to astronauts is to the theory that Christ was a visitor from a technologically advanced civilisation in another galaxy. The possibility that there is no God, and the ultimate goal is technological progress, gives Steve a brief glow of pleasure, for he is now at the centre of the universe: 'that makes me God as well, much easier to accept'."^{27c}

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