

THE COVER PICTURE — Scientists have constructed a three-dimensional model to show the complex structure of the cells in the human body. The photo shows a close-up view of the center of the model, which is 24 feet in diameter and 12 feet in height, and more than one million times the size of a living cell. The human body contains more than 30 million million (30,000,000,000,000) cells in which protein molecules constitute the enzymes that operate complex chemical changes in the cell. Each cell contains thousands of different kinds of protein molecules, and every one of these protein molecules contains several thousand atoms.

The cell, which only a few decades ago was considered to be simple in structure, is now known to be complex in the extreme. Still some would have us believe the first cell somehow formed itself from lifeless matter, enveloped itself with a marvelously complex membrane, equipped itself with an incredibly complex energy factory and metabolic system, gave itself complete capability of self-maintenance and self-reproduction — and then somehow miraculously became alive. These folks are staunch believers in the most amazing miracles, which they attribute to matter which has no life nor intelligence.

Gish Answers Faculty...

The Goliaths of evolutionism who have been making their bold claims have now met little David, and they are somewhat dazed after the encounter. Dr. Henry M. Morris and Dr. Duane T. Gish of the Institute for Creation Research have been debating all evolutionists who are willing to take them on, and these two men have eminently succeeded in upholding the Creationist position. They are now finding few who are willing to debate them. The evolutionists evidently believed that they had won the war, and now they are

surprised to find that there is an increasingly growing number of men of stature in the field of Science who are discovering that God is and that He is the Creator of all things.

But there are still some of the evolutionist persuasion who are willing to take on little David. Evidently they haven't heard of the recent battles their side has been losing. Recently Professor F. Heath Cobb, instructor in political science, and head of the history department at Fort Steilacoom Community College in Tacoma, Washington, evidently felt it his duty to protect his students from some of the teachings of Dr. Duane T. Gish in his illustrated booklet entitled HAVE YOU BEEN BRAINWASHED? Over one million copies of this booklet are now in print, and more are coming off the press. The account of this challenge by the professor appeared in The Pioneer, the student paper at the College.

The article was titled Booklet Stirs Faculty Ire. We will give you the printed challenge here by the professor, and then Dr. Gish's answer. You be the judge in this debate as to the winner.

Booklet Stirs Faculty Ire

TO THE EDITOR:

On Feb. 21, 1975, booklets titled "Have You Been Brainwashed?" were distributed widely on our campus. The booklet was written in support of the creationist thesis by an officer of the Christian Heritage College, San Diego, Calif. After I read a copy I contacted Randall Phillips, chemistry professor, Joanne Shelly, geology professor, Martin Lobdell, psychology professor, and Dale McGinnis, anthropology professor, and asked for their comments on the booklet. The factual content in this paper was derived from my colleagues, but I am responsible for the rest. As an academician I believe it to be my concern when an argument based on fallacies is presented to my students. This article is not meant to be an attack on the creationist thesis, it is directed against the deceptive and misleading presentation in the booklet.

The booklet's pages were unnumbered. For ease of reference I numbered the pages beginning with the cover as page one. The first five pages purport to show the gathering of a large crowd on the campus of the University of California at Davis to hear a lecture by Dr. Duane T. Gish. It was difficult to locate anyone at Davis that knew of the Gish lecture. The best information I was able to obtain was that it occurred three or four years ago before a few dozen people in the basement of one of the local churches. The other factual errors begin on page 6, parenthetical notations indicate the instructor to contact for further information on the data.

Reference page, booklet's statement: "The earliest fossils to be found are in the Cambrian rock strata." On a chart: "Pre Cambrian Void of Fossils" and "Earth's Crust Void of Fossils."

Fact: Cambrian begins 600,000,000 B.C. Fossils of jelly fish, sea pens, and annelid worms, 700,000,000 years old have been found in Australia, Newfoundland, England and South Africa. Fossils of algae, bacteria, fungi, and filamentous organisms, one billion years

old are found in Australia. Fossils representing eight genera and twelve species of organisms, 1,600,000,000 years old are found in Canada. Fossils of bacteria, stromatolites, and algae, 3,200,000,000 years old are found in South Africa. (F.J.)

Because of the action of the crust and mantle, most geologists think that the earth's crust is constantly being recycled. Plant or animal deposits on newly recycled continental or oceanic slabs would be obliterated from the rock thus leaving no record to be read in most places. (J.S.)

Page 9, Booklet's Statement: "Billions of highly complex... trilobites, brachipods, corals, worms, jelly fish, etc... just suddenly appear, with no signs of gradual development from lower forms."

Fact: "Signs of gradual development from lower forms" are prevalent, for instance, through time. Trilobites go from simple, blind Olenellus to such highly complex varieties as Elrathia. (J.S.)

Page 10, Booklet's Statement: "Also. . . throughout the remainder of the

fossil record there is a remarkable absence of the many transitional forms demanded by the theory of evolution."

Fact: There are gaps in the fossil record, but the record for some forms of life is very good. For example, the phylogenic records are fairly complete. (J.S.)

Page 11, Booklet's Statement: "...the evolutionists claim that it took perhaps 50 million years for a fish to evolve into an amphibian... But again, there are no transitional forms."

Fact: For the fish to amphibian transition the fossil record is extremely good. The transition can be clearly followed in pelvic and other boney modifications. (J.S.)

Page 11, Booklet's Statement: "And this is true between every major plant and animal kind. . . All higher categories of living things, such as complex invertebrates, fishes, amphibians, reptiles, flying reptiles, birds, bats, primates and man, appear abruptly."

Fact: These statements are false. No vertebrates have appeared abruptly, all have a good fossil record of transition. (J.S.)

Page 13, Booklet's Statement: "Surely if evolutionary processes had truly existed in the past they would still be operating today."

Fact: They are.

Page 17, Booklet's Statement: "Dr. Jolley has recently reported that a species of baboon in Ethiopia has the same dental and jaw characteristics as Ramapithecus. These characteristics are therefore not those of man."

Fact: In 1970 Dr. Jolley suggested that the gelada baboon and Ramapithecus may have had a similar diet because both have diminished foreteeth and heavy grinding molars, but Ramapithecus has five-Y cusp patterns on its molars as does man, but not the baboons. In addition, the baboons have the simian shelf, but man and Ramapithecus do not. (D.M.)

Page 17, Booklet's Statement: "...Richard Leakey, the son of Dr. Leakey, published evidence that indicated that the Australopithecines were long-armed, shortlegged knucklewalkers..."

Fact: Richard Leakey said that there might

be evidence that Australopithecus Robustus was a knucklewalker, but not Australopithecus Africanus. In fact the most recent information indicates that the Australopithecines stood and walked erect. (D.M.)

Page 18, Booklet's Statement: "Peking 'man' must then have been simply a giant ape."

Fact: The average brain size (860cc) in proportion to Peking man's body size is far too large for any species of ape. (D.M.) Also on Page 18, the booklet refers to Java man to dismiss it as "a giant gibbon." Anthropologists have the bones of genus homo, species erectus from many places in Asia, Africa, and Europe. These are not mere fragments as indicated in the booklet and cannot be classified as apes, baboons or gibbons. (D.M.)

Page 19, Booklet's Statement: "Neanderthal Man has a skeletal structure similar to that of modern man. . . . all anthropologists now believe that he was just as human as you and I."

Fact: Anthropologists see two distinct types of Neanderthal, classical and modern.

Classical Neanderthal was much different from modern man, while modern Neanderthal appears to be a transitional fossil between classical Neanderthal and Homo Sapien. (D.M.) Pages 20 and 21 consist of references to some famous hoaxes purporting to show how the "world's greatest authorities" were taken in. In fact, the "authorities" were highly suspicious of all the referenced hoaxes and in the end were responsible for proving them to be false. (R.P., D.M., J.S.)

Page 22 quotes Richard Leakey out of context and on page 26 the second law of thermodynamics is used fallaciously. (R.P.)

Not all the errors included in the booklet were covered in this article, only enough to make the point that the creationist thesis is ill served by the booklet. An argument based on misquotations, deceptive reasoning, and falsehoods masquerading as facts will tend to negate whatever merit the creationist position might possess.

F. Heath Cobb

Gish Replies

Dr. Gish somehow received a copy of the printed article, and he was quite surprised at the generalized, undocumented challenge by the professor. He wrote an answer, and in his letter to the editor he stated, "Since I have been publicly accused of misquoting, deceptive reasoning and using falsehoods masquerading as facts, it is essential that I be permitted to offer an adequate defense. This would be in keeping with the fairness doctrine, academic freedom, and your personal desire that all should receive a fair hearing. It would also significantly contribute to the learning process of the students. . . Thank you for your consideration."

His request was granted. Following is his letter to the Editor, which was published in the Pioneer, under the title **Dr.** Gish Corrects Teacher's Paper.

Gish Answers Faculty...

TO THE EDITOR:

I wish to reply to the article by F. Heath Cobb, "Booklet Stirs Faculty Ire," which appeared on page 2 of the March 14 edition of The Pioneer. The statements challenged by Cobb, Phillips, Shelley, and McGinnis can be fully documented from the scientific literature. I will reply to their objections in the order in which they appeared in the article by Cobb.

The statement that the best information Cobb could obtain about my lecture at Davis was that it occurred "before a few dozen people in the basement of one of the local churches" perhaps gives some idea of the accuracy of the entire challenge to my booklet "Have You Been Brainwashed?" I am enclosing a copy of the article which appeared on

March 10, 1972, in the California Aggie, the campus newspaper of the University of California at Davis, and which contains a report of the meeting. As the article notes, the meeting was held before a capacity audience in Chem 194, an auditorium which seats nearly 600. Students and professors filled every available inch of the auditorium — aisles. floors, doorways (Dr. Robert Thornton, the Professor of Biology who had invited me to speak, had to sit on the floor). Below follows a point by point reply to objections voiced by Joanne Shelley (J.S.), Randall Phillips (R.P.), and Dale McGinnis (D.M.). The page numbers refer to those of my booklet. The statements in the booklet to which they have objected are quoted or indicated first, followed by their statements.

1. "The earliest fossils to be found are in Cambrian rock strata" (p. 8) Objections of J.S.

On p. 9 of the booklet I clarified that statement by saying that not a single indisputable multicellular fossil has been found in a Precambrian rock (for documentation see Preston Cloud, Geology, Vol. 1, November,

1973, p. 123). Even the authenticity of the Precambrian microfossils (the bacteria and algae mentioned by Shelley) is not certain, but the fact of greatest significance is that there is a monumental gap between the single-celled, microscopic bacterial and algal fossils allegedly found in Precambrian rocks and the highly complex invertebrates found in Cambrian rocks. Cloud argues strongly that "...in spite of many published records, there are as yet no unequivocal Metazoa in rocks of indisputable Preterozoic or older age." In any case, regardless of when they are found, highly complex animals, such as trilobites, brachiopods, worms, jellyfish, sea pens, corals, sponges, and more recently, even cuttlefish, appear abruptly in the fossil record. And in spite of intense effort, no evolutionary ancestors for these creatures can be found anywhere.

The suggestion of J.S. that these intermediates have disappeared because the earth's crust is constantly being recycled is totally without merit because this does not apply to continental areas. There are many undisturbed, continental Precambrian

deposits, identical with overlying rocks and perfectly suitable for the preservation of fossils, yet not a single indisputable metazoan fossil has ever been found in them.

2. "No signs of gradual development from lower forms" of highly complex trilobites, etc., p. 9. Objection by J.S.

Her statement that "Gradual development from lower forms is prevalent" (citing one example, the development of Elrathia from Olenellus) is both presumptuous and irrelevant. My statement refers to the first appearance of these multitudes of Cambrian animals, and not to any later alleged evolutionary transformations within these groups. Furthermore, that Elrathia developed from Olenellus is merely an assumption of evolutionists. In any case, the first trilobite that appears in the fossil record is a highly complex creature for which no ancestor can be found.

3. "Also . . . throughout the remainder of the fossil record there is a remarkable absence of the many transitional forms demanded by the theory," p. 10. Objection by J.S. that "there are gaps in the fossil record, but the

record for some forms of life is very good. For example, the phylogenetic records are fairly complete."

J.S. provides no documentation to support her statement, but I can provide abundant documentation that gaps in the fossil record between higher categories (phyla, classes, orders, families) are systematic and almost always large. I hereby quote just a few of the many sources from the evolutionary literature which attests to this fact:

"Gaps among known species are sporadic and often small. Gaps among known orders, classes, and phyla are systematic and almost always large" (George Gaylord Simpson, in **Evolution of Life**, Sol Tax, U. of Chic. Press, 1960, p. 149).

"The facts of greatest general importance as the following. When a new phylum, class, or order appears, there follows a quick, explosive (in terms of geological time) diversification so that practically all orders or families known appear suddenly and without any apparent transitions . . . Moreover, within the slowly evolving series, like the famous horse series, the decisive steps are

abrupt without transition." (R.B. Goldschmidt, American Scientist, Vol. 40, p. 97, 1952).

"Despite the bright promise that paleontology provides a means of 'seeing' evolution, it has presented some nasty difficulties for evolutionists, the most notorious of which is the presence of 'gaps' in the fossil record. Evolution requires intermediate forms between species and paleontology does not provide them. The gaps must therefore be a contingent feature of the record." (D.B. Kitts, **Evolution**, Vol. 28, p. 467, 1974)

4. "... the evolutionists claim that it took perhaps 50 million years for a fish to evolve into an amphibian ... But again, there are no transitional forms, "p. 11. Objection by J.S.: "Fact: for the fish to amphibian transition the fossil record is extremely good. The transition can be clearly followed in pelvic and other body modifications."

This statement is completely without foundation. The crossopterygian fish, the supposed ancestor of the amphibian, has a set of fish fins with a few internal bones, but these fins are beautifully designed for balancing, steering and locomotion in water. The ichthyostegid amphibian, the oldest known amphibian, has the basic amphibian limb (see A.S. Romer, Vertebrate Paleontology, p. 88) and there is not a trace of an intermediate form between the fins of the fish and these limbs in the fossil record in spite of the supposed multiplied millions of years of evolution between the two. Furthermore, in all fishes, living or fossil, the pelvic bones are small and loosely imbedded in muscle. In all amphibians, living or fossil, the pelvic bones are large and firmly attached to the vertebral column. There is not a single transitional form that bridges this basic difference in the anatomy of fishes and amphibians.

5. "And this is true between every major plant and animal kind...all higher categories... appear abruptly." p. 11. Objection by J.S.

Her statement that "no vertebrates have appeared abruptly, all have a good fossil record of transition" is unquestionably false. How can she make such a statement in the light of the admissions by Simpson, Goldschmidt and Kitts quoted above?

Furthermore, what about fishes, supposedly the very first vertebrates? Speaking of the first fish, Ommaney states "Between the Cambrian, when it probably originated (the chordates), and the Ordovican, when the first fossils of animals with really fishlike characteristics appeared, there is a gap of perhaps 100 million years which we will probably never be able to fill" (F.D. Ommaney, **The Fishes**, Life Nature Library, 1964, p. 60). There's not a trace of transitional form between chordates and vertebrates. How big a gap does Shelley require? And as Simpson admits, gaps between the higher categories are systematic.

6. Statement by Cobb that evolutionary processes are operating today. It all depends on what is defined as evolutionary process. The shift in populations of the dark or melanic variety of the peppered moth in England versus the light colored variety has been characterized by some evolutionists as the most striking evolutionary change ever seen by man. If that is so, then no man has ever seen evolution occur, because in 1850 these moths were peppered moths, **Biston**

betularia, and in 1975 they are still peppered moths, Biston betularia. Neither creation or evolution is occuring today. Both are inferences drawn from non-empirical data.

7. My statement (p. 17) relating the teeth of Ramapithecus to those of the galada baboon. Objection by D.M. They are indeed practically indistinguishable. McGinnis states that "Ramapithecus has five-Y cusp patterns on its molars as does man, but not baboon. In addition the baboons have a simian shelf, but man and Ramapithecus do not." What he did not add is that both apes and men have the Y-5 cusp pattern. E.L. Simons states "The crown of apes and man's lower molars normally have five cusps, and the 'valleys' between the cusps resemble the letter Y" (Scientific American, Vol. 211, p. 50, 1964). I am saying that Ramapithecus was an ape of some kind, not necessarily a baboon. No one knows whether Ramapithecus had a simian shelf or not because no one has yet found enough of the lower jaw to establish the absence or presence of a simian shelf. The research of Dr. Robert Eckardt of Penn State has led him to conclude that Ramapithecus was simply an ape — morphologically, behaviorly, and ecologically (Scientific American, Vol. 211, p. 50, 1964).

8. "Richard Leakey . . . has published evidence that indicated that the Australopithecines were long-armed, shortlegged knucklewalkers . . . " McGinnis states: "Richard Leakey said that there might be evidence that Australopithecus robustus knucklewalker but was Australopithecus africanus. In fact, the most recent information indicates that the Australopithecines stood and walked erect." McGinnis is dead wrong on both counts. If Leakey believes that A. robustus was a knucklewalker (which he does, as McGinnis admits) he would have to believe the same about A. africanus because he now reports that the robustus and africanus forms were the male and female, respectively, of the same species (see Science News, Vol. 99, p. 398, 1971; Nature, Vol. 231, p. 241, 1971). In addition to Leakey's work, the latest research on locomotion of the Australopithecines has been reported by Dr. Charles Oxnard (see University of Chicago Magazine, Winter 1974, p. 8 — to be included in his forthcoming book Uniqueness and Diversity in Human Evolution: Morphometric Studies of Australopithecines), professor of anatomy and anthropology. His research shows that these creatures were not intermediate between man and apes, that they did not walk upright but that they had a unique mode of locomotion and other features setting them apart from all other creatures. While denying a genetic link between these creatures and either man or ape, Oxnard says that they were closer to orangs than any other living creature.

9. "Peking 'man' must then have been simply a giant ape" (p. 18). Objection by D.M. He states that the cranial capacity of "Peking Man" in proportion to body size was too large to be that of an ape. That may be true of modern apes and of most fossil apes, but can we say that of "Peking Man," especially since very little of the postcranial skeleton has been recovered? The femur that Dubois associated with the skull cap of "Java Man" was undoubtedly a human femur which had nothing to do with the owner of the monkey-like skull cap (as it was called by

Marcellin Boule, one of the greatest experts on fossil skulls). In spite of what McGinnis says, the remains of Homo erectus (the species which now includes both "Java Man" and "Peking Man") are extremely fragmentary. "Peking man" consisted of fragments of 40 individuals (all of which disappeared in 1941). These fragments were almost exclusively from the skull and lower jaw. Boule believed true Man had killed and eaten "Peking man," preserving the lower jaws and skulls as trophies (M. Boule and H.M. Vallois, Fossil Man, The Dreyden Press, New York, 1957, p. 145.). Some fragments recovered at other sites around the world and classified as H. erectus might actually be those of Neanderthal Man and thus truly human.

10. My statement (p. 19) saying Neanderthal Man is classified today as Homo sapiens. Objection by D.M. Neanderthal Man today is classified by most modern anthropologists as Homo sapiens neanderthalensis, that is, of the same species as modern man, with racial distinctiveness termed neanderthalensis. Furthermore, "Modern Neanderthal" could not have

been transitional between "classical Neanderthal" and modern man, as asserted by McGinnis, since "Modern Neanderthal" preceeds "Classical Neanderthal" in time (see A.J. Kelso, **Physical Anthropology**, 2nd Ed., Lippencott, New York, 1974, p. 205).

11. R.P., J.M. and J.S. comment on the hoaxes I mention (pp. 20, 21). They state that authorities were highly suspicious of all of these hoaxes and in the end were responsible for proving them to be false. Yes, these hoaxes were eventually proven to be so by evolutionists, but not until, in some cases. several generations had been led to believe by other evolutionary authorities that they were genuine evolutionary forms. If R.P., J.M., and J.S. believe that the authorities were highly suspicious of the Piltdown Man fraud, they should read the original literature on this creature. Supporting this assertion, in commenting on the powerful influence of preconceived ideas on the study of human origins, Hawkes states "For example, to look back over the bold claims and subtle anatomical distinctions made by some of our greatest authorities concerning the recent

human skull and modern ape's jaw which together composed 'Piltdown Man,' rouses either joy or pain according to one's feeling for scientists' (Nature, Vol. 204, p. 952, 1964).

Leakey out of context. I personally heard Leakey speak those words and I have not taken them out of context. Leakey has been similarly quoted in many newspapers and magazine articles (see for example National Geographic, June, 1973). I have not used the Second Law of Thermodynamics fallaciously, as Phillips states. To build the complex from the simple requires four conditions: 1) An open system 2) An adequate energy supply 3) Energy conversion systems 4) A control system. The hypothetical primitive solar system could have supplied only the first two requirements. Living things have all four.

Cobb finally accuses me of misquoting, deceptive reasoning and using falsehoods masquerading as facts. Students at Ft. Steilacoom C.C. have now heard from both sides. Perhaps they may disagree with Cobb on who is masquerading falsehoods as facts. I have lectured and debated on major college

campuses throughout the U.S. and Canada and have always thoroughly documented my case. Complete documentation for most of the material in the booklet is contained in my book, Evolution: The Fossils Say No!, available from the Institute for Creation Research, San Diego, or from Life Messengers, Seattle.

There really isn't anything more to say. Dr. Gish has said it. It appears that Prof. Heath and his colleagues had failed to do their homework.

If you would like a copy of the illustrated booklet by Dr. Gish, entitled HAVE YOU BEEN BRAINWASHED?, you may obtain copies at the Christian bookstore in your community, or write to the publisher of this booklet. You will find the address of Life Messengers, the publishers, on the back cover.

Other professors have challenged Dr. Gish's booklet HAVE YOU BEEN BRAINWASH-ED?, and Dr. Gish has answered them just as effectively. However, we are not asking Dr.

Gish to answer any more letters, because we believe that he has shown sufficiently here that the evolutionists are on the losing side.

But why be on the losing side? Have you really given the side of creation an honest study? When all of the evidence is honestly considered it is becoming more and more evident that the position of the evolutionists is very untenable.

Do you really understand what the creationists have discovered? If you are merely an object of chance, you are nothing. But if there is a God, and if He has created you in His image and likeness, as the Bible declares (Gen. 1:26-27), and if the Bible is also right in its revelations concerning the fact that God made us to be His sons, to live with Him eternally, then you are a being of great worth. God believed this to be the case. As His sons He loved us so much that when we fell into sin and rebelled against Him, making it necessary for Him to pronounce judgment upon us, He sent His only begotten Son from the courts of heaven to take on the form of man that He might suffer and be punished in our place.

The promises God has given to those who have been restored to Him as sons, through Jesus Christ, are so astounding and marvelous that they're utterly amazing! And we believe that God has barely shown us the tip of the iceberg. The half has not yet been told. But read what God has told. Your education has been neglected if you have not read the Bible. To begin with we would encourage that you start in the New Testament part of the Bible. Begin reading with the book of Luke.

If you are an honest seeker for the truth we would be glad to send you a free copy of the booklet HAVE YOU BEEN BRAINWASH-ED?, and also a copy of a booklet entitled DESTINED FOR GREATNESS, from the office of Life Messengers. The booklet DESTINED FOR GREATNESS will tell you how rich you can be when you discover who you really are. Fill in the form on the next page and we will be glad to send these copies to you. May God become wonderfully real to you.

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