article to present a brief defense of the standard biological evolution. But note what a great advantage the authors gained for promoting their evolutionary view, because they were able to thoroughly fault the creationists for openly rejecting so much evidence for great age.

Without any doubt, a high percentage of the readers of <u>Science 81</u> were not particularly eager to "climb on the evolutionary bandwagon." As many polls have shown, the American public has a tendency to be hesitant about accepting biological macroevolution. This hesitancy is also present among public school teachers, especially on the elementary level. But, with "proof in hand" of the young-earth creationists' great errors and inability to effectively defend their position on age, <u>Science 81</u> and scores of other magazines and journals.______ have had great success in breaking down the confidence which people--especially educational personnel--formerly had in creationism. And, as we examine the way in which other publications used this large "weak spot" in the creationist armor we will see how greatly this technique contributed to the phenomenal success which the anti-creationists now enjoy.

Scientists Confront Creationism

A widely-used anti-creationist book which was published in 1983 (W. W. Norton and Co.) is <u>Scientists Confront Creationism</u>, by L. R. Godfrey, editor. In Chapter 12 Steven Schafersman* strongly defends macroevolution as "a fact of science" (p. 219) and points out many faults of "scientific creationism," especially the mistakes which Henry Morris has sometimes made in quoting from various scientific works. In the early part of the chapter Schafersman cites a great weakness of young-earth creationism. He effectively summarizes this weakness as follows:

Louis Agassiz, one of the last great scientific creationists, wisely admonished his fellow scientists to "study nature, not books." The modern creationists, however, study books, not nature. Specifically, they study the Bible and the books of scientists; their research effort is devoted to making their beliefs about the empirical world consistent with the former and to searching the latter for appropriate quotations to use (or misuse) in their campaign against science and evolution. (p. 220)

I am not in agreement with Schafersman's implications that Morris willingly misrepresents the scientists whom he quotes, but one of the errors of Morris which he points out is such a basic one that it may be important to cite it here in some detail. He gives a refutation of Morris's assertion that geologists regularly use a purely "circular-reasoning" method of dating rock layers (Morris, 1974, p. 95ff). Morris states repeatedly that this method of dating rock strata is based only on the geologists' assumption of evolutionary progression, and that the field geologist relies entirely on an assumed age of certain "index fossils" for arriving at a date for any particular sedimentary layer. Schafersman then gives an illuminating statement which shows the particular point which Morris, not being a geologist, failed to understand;

Index fossils do help determine the age of a given rock formation, but only by correlation from a type section of rock that is first defined to be a certain age. Fossils, by themselves, do not determine age, so no attribute of theirs, including evolution, is necessary to date a rock. Creationists believe that geologists use a fossil's supposed "stage of evolution" to determine age, but nothing could be further from the truth.

^{*} Steven Schafersman is a consulting petroleum geologist in Texas. He specializes in sedimentary geology, including petrology, paleontology, and stratigraphy.