

# United States Department of the Interior

NATIONAL PARK SERVICE  
Geologic Resources Division  
P.O. Box 25287  
Denver, CO 80225

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## Memorandum

To: Chick Fagan  
Office of Policy

From: David B. Shaver /s/  
Chief, Geologic Resources Division

Subject: Sale of the Creationist book at the Grand Canyon

To assist in developing a response to concerns raised by the park and the public, the Geologic Resources Division has reviewed the controversial book, *Grand Canyon: A Different View*, by Tom Vail (2003). This memo summarizes our views on the sale of this book in a NPS bookstore and whether the approval process used to authorize the sale of this particular book was appropriate. Based on our review, we recommend that the book not be sold in park bookstores because the book purports to be science when it is not, and its sale in the park bookstore directly conflicts with the Service's statutory mandate to promote the use of sound science in all its programs, including public education.

### Geologic Resources Division Findings

- 1) The content of the book does not represent sound science or reflect accepted scientific theory as defined by the National Academy of Sciences (NAS) and other prestigious scientific organizations, nor as relied on by the courts.

Sound science uses logic and empirical methods to understand the natural world. Scientific research involves observation of natural phenomena, formulation of testable hypotheses to explain these phenomena, and experiments or observations to test these hypotheses. Scientific theories are hypotheses that have survived extensive testing and repeated verification, and are the best-substantiated statements that scientists can make to explain the organization and operation of the natural world. Our understanding of Earth's development over its 4.5 billion-year history has achieved the status of scientific theory.

In contrast, the claims in *Grand Canyon: A Different View* that purport to be science actually reflect a "creation science" worldview, which is not supported by scientific observations of the natural world and cannot be meaningfully tested. The NAS has been actively involved in the debate as to whether "creation science" qualifies as a bona fide science. The Academy has consistently concluded that "creation science" does not constitute a science because it "lacks empirical support and cannot be meaningfully tested."<sup>1</sup> Other well-renowned scientific organizations echo NAS' conclusion.<sup>2</sup> In addition, US federal courts have also deliberated on this question, mainly in the context of determining that state statutes requiring the teaching of "creation science" as part of secondary education violate the Establishment Clause of the First Amendment of the US Constitution. In McLean v. Arkansas Board of Education, the US district court found that "creation science...is simply not science." (529 F.Supp. 1255, 1267 (1982)). The court goes on to define what constitutes science and concludes, "Creation science...fails to meet these essential characteristics."

- 2) The book makes claims that are counter to widely accepted geologic evidence and scientific understanding about the formation and age of the Grand Canyon. In fact, it assaults modern science and well-documented geologic evidence of the canyon's history.

This fact is well presented in letters submitted by various geologic societies and associations to the Director. The book is replete with text that is dismissive of science. For example, in the Introduction the author states, "the mile-deep Canyon itself, *which could never have been carved out by the waters of the present river*, tells of a time when a great dammed-up lake full of water from the Flood suddenly broke and a mighty hydraulic monster roared down toward the sea, digging deeply into the path it had chosen..." (italics added). Well-documented scientific theory concludes that it was precisely the cutting effect of the waters of the Colorado River drainage system over millennia that created the Grand Canyon. Other scientifically incorrect and misleading statements about the canyon's geology and paleontology abound throughout the book, which would be documented by peer review.

- 3) Because the book repudiates science, its sale in the park bookstores runs counter to Congressional direction to the NPS, to the science-based management and public education emphasis of the Natural Resources Challenge, to recent recommendation of the NPS Advisory Board, and to the mission of the Grand Canyon Association.

Consistent with legal mandates, NPS prides itself as being an agency that promotes sound science and makes science-based park management decisions. The National Parks Omnibus Management Act of 1998 directs the NPS to use a "broad program of the highest quality science and information" in managing parks. The statute further calls for the Secretary of the Interior to "continually improve the ability of the National Park Service to provide state-of-the-art management, protection, and interpretation of and research on the resources of the National Park System." NPS approval of a book that repudiates science and promotes a narrow religious viewpoint for sale in a park bookstore raises the question as to whether such approval is contrary to statutory direction to use a "program of the highest quality science

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<sup>1</sup> National Academy of Sciences, Science and Creationism: A View from the National Academy of Sciences, page 2, 1999.

<sup>2</sup> See [www.nationalacademies.org/attic/evolution/index.html](http://www.nationalacademies.org/attic/evolution/index.html) and [http://www.agu.org/sci\\_soc/policy/evolution.html](http://www.agu.org/sci_soc/policy/evolution.html)

and information.” The approval, and the implied NPS support of the book’s content, is contrary to the science-based decision-making and education thrusts of the ongoing Natural Resources Challenge. Further, the approval is contrary to the 2001 recommendations of the NPS Advisory Board report *Rethinking Parks for the 21st Century*, which encourages the Service to become a stronger educational institution and to stimulate visitor understanding of the forces that shape the earth.

The content of the book is also contrary to the mission of the Grand Canyon Association (GCA), which was established “to support education, research, and other programs for the benefit of Grand Canyon National Park and its visitors.” As part of this mission, GCA operates bookstores throughout the park. It would seem that the materials sold in the bookstores should be consistent with the GCA’s mission, which on its face *Grand Canyon: A Different View*, is not, as it does not reflect scientifically valid information.

- 4) Approval of the book for sale in park bookstores is contrary to existing NPS policy, Director’s Orders, and other NPS guidelines. Our review finds the sale in conflict with the policies listed below.

#### NPS 2001 Management Policies

Chapter 7 on Interpretation and Education, Introduction -- “*Enjoyment of the parks and their resources is a fundamental part of the visitor experience. That experience is heightened when it progresses from enjoyment to an understanding of the reasons for a park’s existence and the significance of its resources.” (page 74) (underlining added)*

7.1 Interpretative and Educational Programs -- “*Each park’s interpretive and educational program will be grounded in (1) park resources, (2) themes related to the park’s legislative history and significance, and (3) park and Service-wide mission goals...Factual information presented will be current, accurate, based on current scholarship and science, and delivered so as to convey park meanings, with the understanding that audience members will draw their own conclusions.” (page 74) (underlining added)*

7.6.2 Cooperating Associations -- “*When appropriate, cooperating associations will join the National Park Service in presenting interpretive and educational programs, ...cooperating associations may...purchase for re-sale...interpretive and educational items that are directly related to the understanding and interpretation of the park or the national park system. Associations may offer appropriate and approved interpretive service that support but do not supplant interpretive educational services offered by the NPS.” (page 77) (underlining added)*

10.2.4.5 Merchandise -- “*The National Park Service will approve the nature, type, and quality of merchandise to be offered by concessioners. Although there is no Service-wide list of specific preferred merchandise, priority will be given to those sale items that interpret and foster awareness and understanding of the park and its resources. Merchandise should have interpretative labeling, or include other information to indicate how the merchandise is relevant to the park’s interpretive theme(s).* (page 119) (underlining added)

#### Director’s Order #32: Cooperating Associations

3.5.2a-2b Sales Activities, General Requirements -- “*Sales must support the purposes of Associations as stated in their articles of incorporation.”*

3.55.3 Sales Item Approval -- *"Items sold in park areas, ... must be approved in advance by the superintendent for appropriateness, price, quality, interpretive value, and accuracy.* (underling added)

#### Reference Manual #32 Cooperating Associations

Association Publications -- *"One of the important functions of associations is to supplement the official National Park Service publications program by providing visitors with appropriate, high-quality, information literature not otherwise available through the Service. Parks and associations should work together to identify such needs."* (page 32)

Evaluation Criteria for Sales Items -- *"The selection of appropriate sales items for a cooperating association operation should be approached in a conscientious and objective manner... In addition, reviewers should remember that associations have a privileged position in Service facilities. Should the approval or disapproval of sales items be challenged... the reviewers' decisions should be clearly documented and justified.* (pp. 35-36)

*Reviewers (park and association) should be able to answer "yes" to the following questions before approving an item:*

- *Is the content of the item appropriate, as the term "appropriate" is understood by the Service and the association?*
- *Does the item directly support the park's interpretive themes and/or provide needed site orientation?*
- *Is there assurance that the item does not promote unsafe or resource-damaging activities?*
- *Does the item use accurate, professional, and scholarly knowledge?*
- *Does the item fit into the overall balance of interpretive sales items?*
- *Is the item's quality of production, packaging, and durability appropriate to the quality of the park resources?*
- *Is the item fairly priced?*
- *Is the item appropriate for economic reasons?*
- *Is the item competitive enough with other approved items to warrant shelf space?*
- *Will the concessioner's preferential rights be respected?* (page 36)

5) Because approving this book for sale in NPS affiliated bookstores fails on NPS policy grounds, one does not have to address the First Amendment issues of separation of church and state, and freedom of speech.

#### Geologic Resources Division Conclusions and Recommendations

1) Our review of the above NPS policies and *Grand Canyon: A Different View*, lead us to conclude that this book: does not use accurate, professional and scholarly knowledge; is not based on science but a specific religious doctrine; does not further the public's understanding of the Grand Canyon's existence; does not further the mission of the National Park Service; does not further the mission of the Grand Canyon Association; does not complement the Service's interpretive programs; and finally, that this book should not have been approved for sale in an NPS affiliated bookstore.

- 2) We recommend that the book be removed from park bookstores. In the alternative, the decision to approve this book for sale could be remanded back to the superintendent for reconsideration with instruction that the decision on reconsideration must be supported with written documentation explaining the specific application of the criteria listed on page 36 of Reference Manual #32. The instructions should include guidance on the meaning of the term "appropriate." While the superintendent is deliberating, the book should not be available for sale in park bookstores.
- 3) While we did not see any of the written documentation prepared by the park that lead to the approval of this book for sale in the park, it appears that parks in general need better guidance on the criteria to be used in evaluating items for sale in park bookstores. The NPS should review its policies and procedures governing the sale of items in park bookstores and strengthen and add clarity to them to assure that items approved for sale further the purposes and mission of the NPS. The NPS should provide guidance to assure that parks are adequately documenting their decisions approving items for sale in parks.
- 4) The NPS should consider establishing review panels and/or scientific peer reviews to help parks deliberate when they are in doubt as to whether a given item is appropriate for sale by cooperating associations or concessioners.

I hope the above discussion proves helpful in deliberating on this important matter. Please let me know if you need additional information or if we can be of further assistance. We are particularly interested in helping to strengthen the extent to which existing NPS procedures and policies advance sound science, especially in the fields of the geologic sciences, and in participating on or assisting peer review panels.