

## FORUM

## Petroleum Geologists' Award to Novelist Crichton Is Inappropriate

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The American Association of Petroleum Geologists (AAPG) announced in February that the group had given novelist Michael Crichton its 2006 Journalism Award for his novels *Jurassic Park* and *State of Fear*. AAPG states that the Journalism Award is intended to acknowledge those who have contributed to the public understanding of geology.

The Council of the American Quaternary Association (AMQUA), a professional organization of scientists who study the recent (Quaternary) period of geologic time in which mankind has flourished, feels it was inappropriate for AAPG to give a journalism award for *State of Fear* for two reasons. The novel is not journalism. Furthermore, it is fiction that presents a distorted view of global warming as a scientific hoax, and Crichton is using his prominence as a novelist and movie director to push his views into the scientific debate on global warming and its consequences.

AMQUA's main concerns are that Crichton has blurred the line between fiction writer and scientific expert, using his novel as a springboard to influence public policy, and that AAPG seems to approve of both his message and his approach.

*State of Fear* is mostly a blend of Scooby-Doo and The Lone Ranger, an extended chase scene in which a small team led by an intrepid government agent foils a plot of evil environmentalists to engineer artificial 'natural' disasters in order to promote their cause. Crichton drives the action with the contention that global warming is a hoax. He essentially accuses the entire community of researchers involved in climate change, including those of us in AMQUA, of shading our findings on global warming in order to obtain the government grants that support our research. In a work of fiction, this would be fine—Crichton is free to spin his tale as he pleases. But it really does stretch the imagination to argue that scientists, a disorganized and argumentative lot, somehow were able to orchestrate a vast conspiracy of fraud without blowing the whistle on each other.

Back in reality, U.S. Senator James Inhofe (R-Okla.), failing to distinguish between fiction and fact but clearly resonating with Crichton's maverick views on global warming, invited the author to testify before the U.S. Senate Environment and Public Works Committee. There, Crichton's main message (<http://www.crichton-official.com/speeches/index.html>) was that the methodology used in Earth sciences is suspect, and should be

changed—maybe with governmental oversight—before global warming can be taken seriously.

Now that Crichton has inserted himself, and his fiction, into the public debate over climate change policy, his views, whether cast in the novel or in his personal statements, need to be challenged. In *State of Fear*, Crichton appears to be cherry-picking facts from an evolving scientific literature to show that warming is not occurring everywhere on the planet, and then arguing that this means that global warming is not occurring anywhere. In reality, the available scientific evidence clearly shows that the Earth on average is becoming warmer. Moreover, it is true that scientific evidence also shows that with this warming, change is not equal everywhere.

In his novel, Crichton's factoids are presented in the guise of a legal showdown in which the point is winning a case instead of understanding a situation. We believe that the AAPG should recognize the difference between scientific facts and debate, and the legal wrangling presented in the book. In our view, it was misleading for Crichton to present himself to the U.S. Senate as an expert witness. We have seen from encounters with the public how the political use of *State of Fear* has changed public perception of scientists, especially researchers in global warming, toward suspicion and hostility. Perhaps this furthered Sen. Inhofe's political agenda, but we do not believe AAPG should condone such behavior.

Crichton uses lulls in the action in *State of Fear* to insert editorial views more far reaching than his views on global warming. His core commentary is that the public is being manipulated through the media by fear—fear of the Russians during the Cold War, and fear of environmental catastrophe now that the Cold War is over. Scientists who study global warming and find it real are just caught up in this web. Oddly, public debate over *State of Fear* appears to have focused only on the 'bad science' charges against those who study global warming.

In honoring Crichton, we believe AAPG is lending its stamp of approval not only to Crichton's misrepresentation of global warming and his negative view of scientists, but also to his effort to slip his editorial views on global warming 'under the radar screen,' to present them to the public, President George W. Bush in 2005, and even to the U.S. Congress without suffering the indignity of review by those who have actually conducted research on climate. On its Web site ([http://dpa.aapg.org/gac/papers/climate\\_change.cfm](http://dpa.aapg.org/gac/papers/climate_change.cfm)), AAPG aligns itself with Crichton's views, and stands alone among scientific societies in its denial of human-induced effects on global warming.

Few credible scientists now doubt that humans have influenced the documented rise in global temperatures since the Industrial Revolution. The first government-led U.S. Climate Change Science Program synthesis and assessment report supports the growing body of evidence that warming of the atmosphere, especially over the past 50 years, is directly impacted by human activity [Karl *et al.*, 2006].

Crichton and his supporters at AAPG appear to prefer his fictional account to peer-reviewed scientific inquiry. As AAPG Communications Director Larry Nation famously said, "It is fiction, but it has the absolute ring of truth." Yet, the foundation of science is the belief that truth is not defined on the basis of support for a desired political outcome. It is hard to understand why AAPG would honor this endeavor and thereby dishonor those scientists diligently working to understand rapid change in the making and communicate the environmental consequences.

In bestowing its 2006 Journalism Award on Crichton, AAPG has crossed the line from scientific professionalism to political advocacy. In our opinion, the group should be upfront about its new status.

## Reference

Karl, T.R., S.J. Hassol, C.D. Miller, and W.L. Murray (Eds.) (2006), Temperature trends in the lower atmosphere: Steps for understanding and reconciling differences—Synthesis and assessment product 1.1. Clim. Change Sci. Program, Washington, D.C. (Available at [www.climatechange.gov](http://www.climatechange.gov)).

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## On Award to Crichton

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It is somewhat unusual for a scientific society to criticize the actions of another learned or professional society [Brigham-Grette *et al.*, 2006]. So when the Council of the American Quaternary Association (AMQUA) takes issue with the American Association of Petroleum Geologists over its 2006 Journalism Award to writer and climate skeptic Michael Crichton, citing a recently issued government scientific report [Karl *et al.*, 2006], one must take notice.

The AMQUA council members demonstrate that they have not read (or understood) the cited Karl *et al.* U.S. Climate Change Science Program report. It is true that the report's summary (and press release) claim 'clear evidence' for anthropogenic global warming, but the report itself clearly contradicts this. Specifically, Figure 5.4G, which compares key observations with the calculations of major greenhouse models, shows a considerable disparity. There are other differences between observed and calculated 'fingerprints' of temperature trends [Singer, 2006], further demonstrated by more detailed comparisons [Douglass *et al.*, 2004].

Note that even if there were agreement between observed trends and those calculated from greenhouse models, it would not logically constitute 'proof' of anthropogenic global warming, but simply make it more plausible. However, the demonstrated disagreement between observations and greenhouse models falsifies the anthropogenic global warming hypothesis and argues convincingly that human effects are minor and that natural factors are the main cause of current warming. This explanation fits well with the paleoclimatic evidence for a (roughly) 1500-year climate cycle, observed in ice cores, ocean sediments, and a variety of other data [Singer and Avery, 2006]. AMQUA members must surely be familiar with such evidence. The obvious disparity between the U.S. Climate Change Science Program report and its summary illustrates the common problem of relying on a potentially distorted summary for policy-makers. Perhaps we need a policy for summary-makers.

## References

- Brigham-Grette, J., *et al.* (2006), Petroleum geologists' award to novelist Crichton is inappropriate, *Eos Trans. AGU*, 87(36), 364.
- Douglass, D. H., B. Pearson, and S. F. Singer (2004), Altitude dependence of atmospheric temperature trends: Climate models versus observations, *Geophys. Res. Lett.*, 31, L13208, doi:10.1029/2004GL020103.
- Karl, T. R., S. J. Hassol, C. D. Miller, and W. L. Murray (Eds.) (2006), *Temperature trends in the lower atmosphere: Steps for understanding and reconciling differences—Synthesis and assessment product 1.1*, Clim. Change Sci. Program, Washington, D. C. (Available at [www.climate-science.gov](http://www.climate-science.gov))
- Singer, S. F. (2006), Climate responses, *Geotimes*, 51(9), 6.

Singer, S. F. and D. T. Avery (2006), *Unstoppable Global Warming: Every 1500 Years*, 260 pp., Rowman and Littlefield, Lanham, Md.

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## On Award to Crichton

The recent *Eos* Forum article from the Council of the American Quaternary Association (AMQUA) attacking the American Association of Petroleum Geologists (AAPG) (*Eos*, 87(36), 364, 2006) goes beyond the pale of reasonable promotion or defense of AGU's position regarding global climate change and is a lamentable low for AGU in overarching political demagoguery. It is certainly within the purview of AGU to adopt a position concerning anthropogenic forcing of current global warming, as the association did in 2003. However, to challenge the competency, integrity, and intent of another scientific organization whose council and members read the data differently is truly reprehensible. The tone of the letter and AGU's position in promoting this view are nothing short of evangelical environmentalism with a dark shade of inquisitorial environmental repression. Truly, the credibility, impartiality, and integrity of AGU are at question in the debate over climate science. Evidently, AMQUA believes its position to be so righteous that it should sit in judgment on all other professional scientific societies. Such a poorly reasoned and self-justifying position screams political bias.

One must question the purpose and intent of AGU in publishing the AMQUA letter. It is AGU that needs to admit its new stripes—an overt political action group pushing an environmental political agenda under the aegis of scientific study. By attacking AAPG through the proxy of AMQUA, AGU has shown its true character. The 'inconvenient truth' here is that AGU lacks the integrity to act under its own name and has gone far outside the bounds of scientific inquiry and entered the realm of trenchant advocacy for a preferred political agenda. Evidently, neither the leadership nor many of the members of AGU can distinguish between promotion of their own political views and honest scientific controversy.

If the evidence for anthropogenic forcing of global warming were truly as compelling as AGU has stated, no controversy would today exist. It is specifically because there is a large body of evidence [e.g., Broecker and Stocker, 2006] which contradicts the anthropogenic hypothesis that controversy persists. Too often now, models are taken as data and their results taken as fact, when the accuracy of the models in predicting even short-term effects is poor and the fun-

damental validity for most climate models is opaque [Phillips *et al.*, 2006; Saskowsky, 2006].

Unquestionably, AAPG has taken the high ground in the debate over anthropogenic effects on global warming by stating its own position based on the skilled and reasoned interpretation of the data by some of the most gifted scientists in geology and geophysics, absent the need to assault the credibility of other scientific societies and their members. Let the data, all of the data, speak, if you dare.

The foregoing is my personal opinion and should not be construed as representative of the American Association of Petroleum Geologists.

## References

- Broecker, W. S., and T. F. Stocker (2006), The Holocene CO<sub>2</sub> rise: Anthropogenic or natural?, *Eos Trans. AGU*, 87(3), 27.
- Phillips, T. J., K. AchutaRao, D. Bader, C. Covey, C. M. Doutriaux, M. Fiorino, P. J. Gleckler, K. R. Sperber, and K. E. Taylor (2006), Coupled climate model appraisal: A benchmark for future studies, *Eos Trans. AGU*, 87(19), 185, 191–192.
- Saskowsky, I. D. (2006), Model verification and documentation are needed, *Eos Trans. AGU*, 87(25), 248.

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## From The Editor

The contribution by Kevin Corbett, as is true of the AMQUA piece, many features and other Forum items in *Eos*, and research articles in GRL, JGR, WRR, and other AGU journals, demonstrates that AGU does just what Corbett says we should. We "let the data, all of the data, speak..." AGU policy and its implementation allow no less.

AGU is proud of its process and the way it is executed. AGU welcomes the opportunities provided to put all sound science before the membership and the interested public.

Let us get a few facts straight.

The publication of an item in *Eos* does not represent AGU's view unless so stated. (See the masthead's final sentence.) The AMQUA piece was not solicited. It was reviewed and revised, just as Corbett's piece was. Neither the AMQUA piece nor the Corbett piece reflects or promotes an AGU position. My remarks do, however, represent an AGU view.

AGU's current climate change position, which was adopted in December 2003, is an update of a 1998 position and will be revisited over the next 12 months. These statements have been prepared by climate scientists who have various perspectives and broad disciplinary background. In preparing such statements, AGU can draw on expertise from over 8000 members who have identified themselves with global change science.

AGU does not have any agenda in this arena beyond ensuring that the best available science is used in making public policy.

EDITOR-IN-CHIEF

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