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# The Troglodyte Frieze

Chiseled into the frieze around the Great Court at Massachusetts Institute of Technology are the names of Lavoisier, Kepler, Pasteur, and other great figures in the history of science. In MIT's dark subbasement, I wonder, would we find the names of those who have retarded science? Whose names might appear on such a troglodyte frieze? Looking into history, there are candidates galore: the persecutors of Galileo, the faker of the Piltdown man, the supporters of Lysenkoism. But what about recent times?

Identification of villains on a personal level is not constructive. However, science and engineering are playing a dominating role in the nation's life. So they attract the attention of those in positions of public influence. Among these people, there is sometimes outright bias against science and technology. More insidious are actions with unintentional yet damaging fallout for science or with harmful effects that are deliberately ignored or shrugged off. A troglodyte frieze might encourage action-oriented individuals—be they politicians, judges, lawyers, economists, or paladins—to think more carefully about the impact of their actions on science and engineering.

There is no paucity of modern candidates for the troglodyte frieze. Among them are the framers and supporters of the so-called Mansfield Amendment. It was passed in the late 1960's as a rider to a military appropriations bill and imposed a standard of supposed relevance on Department of Defense research funding in academic institutions. The amendment was effective only for one year and applied only to DOD, but federal administrators' taste for fundamental research has never recovered.

Then there is the fuss over academics' accountability in the use of federal funds. Accountability is an accepted principle. The controversy is over time and effort reporting requirements laid out in the now well-known Office of Management and Budget Circular A-21. Certain federal auditors have stated that the primary aim of government research funding is not scientific progress but comprehensive accounting. This diversion of purpose can be laid at the door of those in public life who gave legitimacy to these attitudes.

Or we might point to people outside the Bell System responsible for cutting off the primary sources of funding for fundamental and exploratory research at Bell Laboratories. Regardless of other features of the recent antitrust settlement, its effect on Bell Labs was foretold by someone there who remarked: "Oh well, no more transistors." Today, when the nation values innovative technology for countering international competition and creating jobs, this episode provides names aplenty for the troglodyte frieze.

Then there are those who capitalize on the fallibilities of our community for their own purposes. For example, the electorate appreciates that science and technology can promote economic growth and cure disease. Thus, some public figures uncritically champion more of everything from "giant science" to high frontier technology. Despite the questionable value of many such schemes, they find some support from the enthusiasts among us. Past damages to science include the fragmentation of government-funded health research into disease-specific programs, weakening the sounder policy of a balanced, fundamental assault on disease. The fashion for energy research in the 1970's has pushed some of our national laboratories toward being job shops rather than purposeful institutions. The abortive initiative to mastermind automotive technology in the late 1970's sprang from an opportunistic proposal to "reinvent the automobile." People making such appeals ought to recognize that with the inevitable disillusionment may come a nomination for the troglodyte frieze.

Yes, there are candidates galore for the troglodyte frieze. But the nation does not really need to censure individuals. What we do need is for the movers and shakers in our society not only to say they value science and technology highly but also to act accordingly.—EDWARD E. DAVID, JR., *President, Exxon Research and Engineering Company, Florham Park, New Jersey 07932*