

# THE CULTURE OF SCIENCE

**ESSAYS AND ISSUES FOR WRITERS** 



JOHN HATTON

PAUL B. PLOUFFE

# The Culture of Science

# ESSAYS AND ISSUES FOR WRITERS

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# **General Introduction**

This book reflects two beliefs. The first is that, since our culture is overwhelmingly scientific and technological, every "educated" person should have at least a basic familiarity with science—with its central concepts, its way of knowing, and the limits of that knowledge—as well as with its place in our history and culture. The second belief is that writing—the act of writing—is an important instrument of learning and should therefore be an integral part of the educative process.

Education in the United States has been under scrutiny for some years now. And virtually every critic has come to the same conclusion: students don't know enough science—nor enough about science—and they can't write. We hope that this collection of essays and the accompanying questions will contribute to the broad effort now under way to address these problems. It cannot, of course, supply the science. That's the job of the science teacher and the science textbook. But it can contribute in other ways. It can help science students to see their particular discipline (astronomy, botany, chemistry, etc.) in the broader context of scientific culture, and it can help all students—science and non-science alike—to better understand the nature of the scientific enterprise and to locate it in its human and social setting.

This, at any rate is our hope. For if science is a culture in and of itself—a "second culture," as C. P. Snow called it, with its particular concerns, special language, and specialized literature—it is also a dominant force in the larger culture of which we are all a part. Indeed, science has played a defining role (perhaps the defining role) in the development of that culture over the last century or so, changing our understanding of the world, as well as the way we think about ourselves and our place within it. Nor is science simply