lation would have helped significantly" is a good but unanswerable question. Possibly one might calculate the probability of faster absorption of Lunts' contribution as a function of increasing reader exposure to the paper or reviews of it in various formats and different media. For example, what would have happened if Gibbs' phase rule papers had first appeared in a more widely read journal? Or if Gosio's 1896 paper, which noted the antibiotic properties of a *Penicillium* strain, had appeared in *Science* instead of in an Italian sanitary engineering journal?

National Science Foundation support of translations projects stems from the belief that the odds in favor of starting another "Lunts legend" are lessened for papers that appear in the translated journals. Thus, while I join sincerely with Boas in wondering what one does next if scientists do not use existing bibliographic aids, I do not think that doing nothing is the answer. This is one reason for the translation program.

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Biological Clock

I consider LaMont C. Cole's "Biological clock in the unicorn" [*Science* **125**, 874 (3 May 1957)] to be one of the great papers in science—in its absolute logical rigor and its straight-faced whimsy, in its demonstration of the meaning of a model and of a general theorem, and in its delicious deep sense-nonsense language. Congratulations and thanks for what is the best and most useful demonstration of really strict method I have yet seen and the most useful teaching tool with clients and students, especially with clients who think that they are scientists because they quantify.

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Literature, Science, and Manpower

The article "Literature, science, and the manpower crisis," by Joseph Gallant [*Science* **125**, 787 (26 Apr. 1957)], is one of the most disturbing pieces of rationalization I have seen in a long time. His thesis would seem to be that since almost everything written was considered "literature" (by some) in 1858, we may now readopt that position, with the curious reversal of tossing aside everything that is not science.

What Gallant apparently fails to understand, or does not wish to see, is the difference between "literature" (which may include even advertising) and a literary work. Perhaps he also fails to recognize the fact that already our college freshmen arrive knowing nothing of Shakespeare, nothing of Milton—nothing, in fact, of any of the literary points of human reference that one might expect even a scientist to have at his disposal. It is obvious that high-school courses in English need drastic revision, but should this be in the direction of *Life on Other Worlds*? Is the function of an English course to provide propaganda for the sciences?

Why, I wonder, do teachers of science not make greater use of the kind of "literature" Gallant lists at such length? Perhaps they are too busy teaching science. But if they *do* make use of such books, let us keep in mind that *The Sea around Us* is likely to seem merely a "factual" document unless one goes at it with an awareness of those points of reference mentioned above.

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In their reviews in today's *New York Times Book Section* (26 May), two contemporary poets wrote, unwittingly to be sure, replies to Carl F. Hartman's strictures. William Meredith, Hudson Review fellow in poetry, said: "Poetry cannot meet honestly with its subject except in the language of its time. No contemporary poet can feel deeply in a language whose problems and tensions are, for him, synthetic. It is in the nature of art that to be an artist at all one must be a modern artist."

W. S. Merwin said: "We delight in the Cavalier poets without blaming them for not having written *Anthony and Cleopatra.*"

In the house of literature there are many mansions, including, in our own time, *The Sea around Us,* which by its virtues as literature need not displace the mansion of Milton.

On the pedagogic side, our objective today is to endow students with a passion for reading and for things of the mind so that they may, among other intellectual pursuits, read Shakespeare and Milton with insight and not as mere ritual. It was the thesis of my article that this objective can be attained by a broader definition of literature, by no means restricted to science literature, but embracing works which offer fresh, individualized, and imaginative perspectives in any area of human interest, theology and history no less than science. However, science is particularly potent as a source of imaginative stimulus; it is peculiarly neglected as *reading,* and it is *needed* with particular urgency by the citizen of the 20th century.

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