What requirement then might be a useful substitute? Many ideas come to mind, including a broadening in those subjects suggested by Hartman (Letters, 24 Mar.). I would like to suggest another—a proficiency requirement in the graduate student's own language—English. Much just criticism is made of Ph.D. candidates' common inability to express their ideas lucidly in writing. I suggest that they be required to pass a test in literary criticism and report composition, including a judgment of the organization and clarity of an average paper in the student's own field. Such a test would be difficult to evaluate objectively, but the requirement in general would go far to improve American scholarship.

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Sluggish Process of Purification

Rainey's estimates of the flushing times for removal of pollution from the Great Lakes ("Natural displacement of pollution from the Great Lakes," 10 Mar., p. 1242) are decidedly underestimates, even allowing for his simplifying assumptions. Increased eutrophication causes an increase of pelagic and benthic biomass which acts as a trap for nutrient elements and energy, which in turn permits recycling within each basin. Such systems are most dramatically evident in estuaries possessing two-layered, countercurrent flow, and which are automatically self-enriching. It is entirely likely that even open systems such as the Great Lakes, once enriched, will be "permanently" changed. A "major disaster for which there is no apparent solution" has already occurred in the lower lakes, since it is unlikely that the present rate of eutrophication will decrease in the next few decades. It is absolutely imperative that all available measures be taken to prevent the addition of phosphorus, in particular, to closed or semiclosed basins and to reduce the input of this element into open systems if any headway is to be made, whether in the next decades or centuries, toward controlling disastrous changes in freshwater ecosystems.

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