grams throughout the United States. The decision is unrelated to the conduct of SSTP itself—a program that is widely approved and for which continuation is desired by the NSF staff. The White House and the top echelon of presidential appointees at NSF have rationalized a claim that SSTP leads to science manpower recruitment in a time of excess talent and unemployment in the field.

We have but to remember shortages of scientists and engineers in the 1930s and in the 1950s. A similar crisis might beset us in the 1980s. The present temporary manpower excess is directly related to the abrupt government cutback on space and defense development and production. Continuation of the program now does not seem likely to contribute to the present oversupply of professional manpower. It will, however, help assure the country of the existence of a talented and capable group 10 years from now. A technologic society requires that the best minds be drawn into these endeavors.

The House Committee on Science and Astronautics and the Senate Committee on Education and Labor are the committees that consider the NSF appropriation. These committees should be urged to mandate the continuance of SSTP. Congress, in all likelihood, will pass upon the appropriation bill for the National Science Foundation in June. Sympathetic congressmen have advised that a few letters to each congressman and senator will win majority support for SSTP and a mandate for its continuance.

Certainly, individuals requesting that SSTP continue are making a selfless request. They are not the individuals who will benefit directly from it in future years. This is an educational opportunity requested for others that can only serve to improve the quality of science and the understanding of the interrelationship of science technology and the community. Here is that rare case where government support is urged to help others.

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Beer-Can Project

Grandfather has spoken of yesterdays when a naturalist could walk six hours in the country without seeing a beer can and gaze into a stream unpolluted by trash. Shall such a setting reoccur?

If the involvement of your classes in relevant projects against pollution seems futile, perhaps an interclass aluminum-can contest would achieve some degree of success.

The Adolph Coors Co., Golden, Colo., and Lapeka, Inc., Topeka, Kan., pay 10¢ a pound for the cans. (It is rumored that the price shall increase to one cent per can in the near future.) A pound of Coors cans consists of approximately 20 cans. A few of the Coors warehouses will also accept aluminum ice cube trays and aluminum wrap. Beware of any aluminum "so labeled" can that has seams. Actual aluminum cans do not have seams and are easily crushed with one hand. Most alloy cans are labeled "aluminum" on the lid to entice the consumer into thinking the whole can is homogenous; however, only the lid is aluminum. Coors will not purchase alloy cans.

A method that can be employed in the project is competition between one or more science classes. Voluntary class secretaries can post the daily results for each class. Perhaps the school paper would supply competitive publicity.

Project funds can be applied to funding for science equipment and supplies, support a school or charitable organization, or perhaps (best yet) contributions to the Wildlife Federation, Audubon Society, Sierra Club, etc.

In eight weeks, 119 general-biology students collected 411 pounds of aluminum cans. How well will your classes fare?

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Mealworms Galore

Teachers always need more mealworms. The demand at the University of British Columbia, Vancouver, has been met by Simon Messer, our chief technician. Remembering from his childhood days in Germany that mealworms seemed more plentiful in wooden containers than in other kinds, Messer designed rearing "drawers" made of plywood. Each drawer measures 15 by 85 by 75 cm and is fitted with a sliding lid. The lid has two 7.5-cm round holes covered with screen wire, for ventilation. The drawer

Mealworm drawers in use, showing storage arrangement.

is fitted into a cabinet or some other out-of-the-way place. It is filled with about 8 kg of bran, into which a small starting colony of mealworms is introduced. Periodically a banana peel or a pineapple slice may be added for a change of diet or to conjugate the mealworms for easy collecting. Every six months or so the material should be strained and the finer material discarded; the larger can be returned to the drawer along with fresh bran.

Size of the drawer can be altered to fit one's storage space, but the depth of 15 cm seems to be required. For most elementary and secondary schools a single drawer should be adequate; if not, add another drawer.

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The Subversive Science

In recent months there has been much in the news and in science circles pertaining to the environment and the many problems mankind has created. A great deal of news about ecology has been widespread throughout colleges and school systems, and many students have been motivated to become action-minded individuals and do something about our environment.

It must be remembered, however, that ecology is not a new science; it has been around for many centuries, disguised under such titles as physical geography, natural science, or field biology. But today ecology has come to mean something slightly different from the original connotations. Today, ecology is not only interested in the delicate balance of ecosystems and the inter- and intraspecific relationships that exist between various populations and the communities, but is interested in man's role in the environment, his technology, his wars, and his thinking. In other words, many biologists feel that such a course in human ecology is quite controversial and subversive, and many shy away from giving students the political, economic, and scientific overtones needed to pave the way to a complete understanding of our biotechnosphere.

This semester, City College of New York is offering a newly created course in human ecology through the School of Education, which is given to graduate students teaching in the greater New York area. This course is an attempt to integrate the "subversive qualities" of our society with that of science. The course meets once a week for two hours over a 15-week period. Students from all disciplines, including the sciences and social sciences, are enrolled, and they show an enthusiastic interest as they work together and secure more of an understanding of man and his total environment. For the first time there are students of English, social studies, elementary education, engineering, sociology, and all the physical and natural sciences. The course has been warmly received and may be expanded upon for the coming semesters.

The main purpose of the course is to inform students of issues. By using an interdisciplinary approach, mainly the resources from all academic fields, we hope to solve or come up with controls to many of the "human" problems facing the world today. The course is divided into three basic sections. The first section involves the issues. Here is where we analyze and discuss some of the main issues of the environment. They include the political, economic, biologic, sociologic, and psychologic factors of man's relationship to his biosphere. The concepts, facts, and various case studies are given in order to keep the issues clear, and students readily grasp this information from various sources. Some sources used include the Scientists' Institute for Public Information; the various environmental committees of New York City; the journals *Environment* and *Environmental Education;* and various assigned books that include biologic, political, and economic overtones to the issues. Some of these books are Kenneth Boulding's *The Meaning of the Twentieth Century,* Peter Farb's *The Living Earth,* Barry Commoner's *Science and Survival,* and Harrison Brown's *The Challenge of Man's Future* and *The Next Hundred Years.* The basic reader for the course is Jack Bresler's *Environments of Man,* and this acts as a supplement to the discussion of issues and gives the students some insights into the various environmental problems from a biosociologic point of view. All of the readings have been well received by the students to date, and they find them interesting, informative, and challenging in terms of the urgency of the problems and crisis at hand.

The second section of the course is devoted to problem research. Here is where students attack a subversive problem, such as population control, pollution, radioactive wastes, or space ecology, to mention a few, and research the pros and cons of each issue and present them to the group. A detailed account of the history of the problems is undertaken and solutions are thought out on the issues and various suggestions are offered as to methods of approach to each of the problems facing mankind today. Students this semester have been involved in researching the facts and developing solutions in such areas as solid-waste disposal, noise pollution, venereal disease, and overcrowding. Methods for developmental research are beginning to emerge, and we hope this can be carried through in the research courses needed for the attainment of the master's degree.

The third section is devoted to action projects. Here students become involved in a particular project and take the necessary action steps, involving political, scientific, and sociologic power-structures, in order to change an existing problem or reshape it so it is less harmful to the environment. Many students have been involved in looking at garbage