The Goodwin-Niering Center for Conservation Biology and Environmental Studies

Senior Integrative Project Abstracts for the Class of 2004

Michelle Gorham
The Development and Implementation of a Continuing Education Curriculum in Environmental Education

Interdisciplinary, hands-on, investigative learning opportunities are central to environmental education. While many instructional methods are useful, there are some that are particularly well suited to environmental education content. In preparing my series of adult education seminars, I was guided by the essential approaches to environmental education instruction described by the North American Association for Environmental Education. These include hands-on observation and discovery in the environment, inquiry, cooperative learning, community-based action research and problem solving, investigating environmental issues, and project-based learning. For my senior project, I developed and taught four classes to members of the New London community: 1) Landscape design: Creation of the ever-blooming garden, 2) Trees and shrubs of south-eastern Connecticut, 3) Spring has sprung: Edible plants in your backyard, and 4) Natural crafts. Environmental education should begin close to home, encouraging learners to explore and understand their immediate surroundings. I started each class with a lecture on the selected topic, emphasizing environmental conservation, and then we went outside to actively engage the learners in projects and activities. The classes concluded with an overview of available opportunities and resources to further their education.

Joey Solomon
Greenpeace, Social Movement Theory, and Modern Media Society

Currently, Greenpeace is in bad shape. With membership and available resources down, the NGO that was once so powerful and ubiquitous in the environmental movement has definitely lost its edge. However, anyone in advertising will tell you that brand recognition is one of the hardest and most important things for any corporation or organization to achieve. Even if the recognition is slightly negative, in our media driven world we are constantly bombarded with different logos and messages. We often filter out only the unfamiliar, so any recognition is still better than nothing. The good news for Greenpeace is that they have brand recognition and are well known, regardless of their recently tenuous situation. While the new media and socio-political climate have changed many things for the NGO, Social Movement Theory is as valid today as ever, and can easily be applied to NGOs reliant upon the new media that is so omnipresent in our society. As one of these NGOs, Greenpeace might be able to greatly improve

its standing as an environmental organization by following some of the advice that comes forth from the work of theorists that have studied the successes and failures of various social movements. Additionally, Greenpeace's own history provides powerful lessons in what an NGO should and should not do. Not only does this history enrich the field of Social Movement Theory, but when combined with existing theories it can teach Greenpeace many powerful lessons on how they might once again become the influential group they once were.

Adam Weinberg
Geomorphological Response to Hydraulic Processes: A Study of Erosion in the Connecticut College Arboretum

The role of hydraulic processes in the differential erosion of two parallel channel forms in loosely consolidated sediment was investigated in the Connecticut College Arboretum, New London, CT. Hydraulic flow preferentially through one of two parallel channels results in the development of a meandering channel with pool-riffle bed forms and sculpted channel wall characteristics. The other channel lacks significant hydraulic input resulting in an almost featureless channel bed with loosely consolidated or undercut channel walls. Groundwater levels around the channels were monitored in wells. Substrate characteristics were described using sediment composition analyses on samples from the well boreholes, and resistance to deformation readings on the channel walls. A relative input of overland flow into the channels was found using stream gages. Erosion of the channel walls was tracked seasonally using topographic measurement techniques. Sediment compositions are similar, while the channel with sculpted wall forms has higher overall resistance to deformation. Groundwater levels were similar in each channel substrate. Overland flow was significantly higher into the channel with pool-riffle bed forms and sculpted walls. The amount of hydraulic flow therefore was found to be the most important factor for the development of channel characteristics.