

Title: The Santorini Project: The advantage of a multidisciplinary approach to solving water problems on a water-scarce Greek island

Hosts: Gail Holst-Warhaft with Abhinav Vijay, Laura Kenny, and Jared Enriquez

Date: November 30, 2016, 12:00 – 1:00pm, 300 Rice Hall

Abstract:

In June 2016, a multidisciplinary group of Cornell students led by Gail Holst-Warhaft (CIES) and Tammo Steenhuis (BEE) began a project in collaboration with the local water board of Santorini and with Global Water Partnership—Mediterranean, to investigate possibilities for reusing old village cisterns to collect and store water. The island was chosen for two reasons: 1) It has 2-3 million visitors a year, placing an enormous strain on the island's scant water resources and 2) since antiquity it has been famous for its ingenious and sophisticated management of water.

1500 years ago, before the island was largely destroyed in a volcanic eruption, the Bronze Age port of Akrotiri piped hot (geothermal) and cold water to its citizens. In later centuries, Romans, Byzantines, Venetians, and local farmers cultivated vines using only the heavy dew that formed on the volcano. Until tourism changed the island's transient population and economy, rain-water for household use was collected and stored in elaborate underground cisterns. This year Santorini, which has a winter population of only 30,000 people, is constructing its 6th desalinization plant to cope with summer demand, but all drinking water is imported. The same is true for most of the Aegean islands. Together with the director of the water board, students climbed into 6 disused public cisterns, measuring their capacity and investigating the viability of restoring them. Beyond the initial investigation of rainwater harvesting and storage, the students work on three other aspects of water management on the island. Jung-Ju Lee, a student from the Arts College with a background in Communications, looked at ways tourists and hotel-owners could be persuaded to economize on water, and two graduate students from City Planning, Laura Kenny and Jared Enriquez, devised a walking tour of Santorini designed to draw attention to the many historically and aesthetically interesting sites connected with water. In cooperation with UNESCO and Civiltà dell'Acqua in Venice, the students also worked on creating a site making Santorini a virtual "Water Museum." The advantage of choosing a multidisciplinary team of students became clear as the students, talking among themselves, expanded the initial project into a more imaginative and creative one.

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