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Institute for Environmental Studies

presents

Tom Naff & Robert Giegengack

Asian & Middle Eastern Studies
University of Pennsylvania

Dept. of Earth & Environmental Science
University of Pennsylvania

The Jordan Watershed: Trouble Over Holy Water

The Jordan River basin, though small, is relatively complex in its hydrology. The geometry of the drainage basin is controlled by recent tectonic activity along the Dead Sea Rift Zone, the lineament along which the Arabian Peninsula is slipping north with respect to the Mediterranean Basin. That left-lateral displacement has opened up a deep depression at a releasing bend of the fault zone, and continues to drive the Arabian Peninsula under the rising Zagros Mountains along the Iraq-Iran border and under the mountain ranges in southeast Anatolia. The deep depression, of course, is the Dead Sea, in which the water surface now lies at - 215 m. Rain falls on highlands at the eastern end of the Mediterranean during the northern hemisphere winter and flows down local gradients ultimately to The Dead Sea; in the present arid regime water leaves the system only by evaporation. Ground water resources in the Jordan Basin are also quite limited.

The Jordan watershed's climate, which makes it susceptible to frequent droughts, severely restricts rainfed agriculture to a few scattered small areas in higher elevations. Consequently, virtually all agriculture is based on irrigation which has increasingly over-taxed the basin's ground water during the past two decades. The hydro-political qualities of the Jordan basin are, if anything, more complex than its hydrological parameters. Those physical limitations combined with a semi-arid climate have produced a situation of chronic water scarcity in relation to demand. In a situation where the basin's riparian entities --- Jordan, Israel, the Palestinian Authority, and Syria --- must share/compete for the basin's limited waters, where the size of the collective population in relation to the water supply is already unsustainable, where there is asymmetrical power, and where all the basin's actors are, in varying degrees, hostile to one another, a serious water-driven crisis lies just over the horizon.

Date: Thursday, November 21, 2002
Time: **NOON - 1:30 pm**
Place: **Auditorium at Wistar Institute**
On Penn's campus: Spruce Street & Penn's 36th Street Walkway

NO REGISTRATION REQUIRED

Direct questions to: 215-573-3164; ies_penn@sas.upenn.edu; <http://www.sas.upenn.edu/geology/ies>
