

Science Center on Jordan-Israel Border Aims to Bridge the Rift

Groundbreaking will start next week on a project involving Stanford and Cornell universities that will focus on the ecology of the arid border region

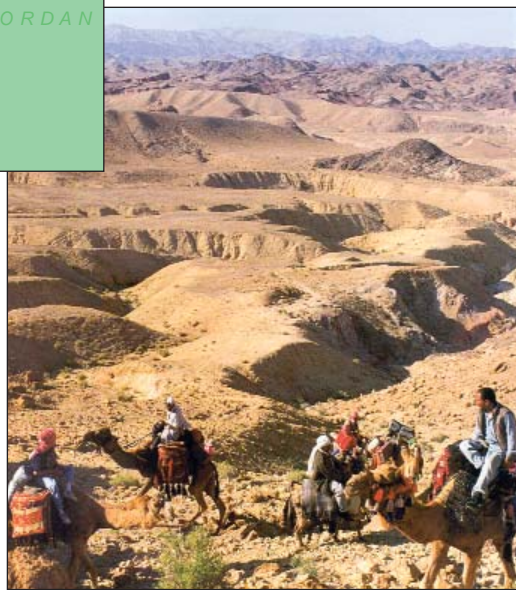
The bleak, fortified desert border between Jordan and Israel seems the last place on Earth for an ambitious multidisciplinary science institution, but the two states plan to break ground on 9 March for just such a venture. The Bridging the Rift science center, a “free academic zone” planned to straddle a literal gap in the fence, will host researchers from both countries and eventually other Middle Eastern nations. Its first project will be a comprehensive catalog of the genomics and ecology of the Dead Sea region. Spinoffs might include advances in Middle Eastern agriculture—to say nothing of politics. “Obviously the symbolism is as important as the science,” says Marc Feldman, a Stanford University population geneticist who, along with colleagues at Cornell University, will help run the program. “We’ll be bringing together people who don’t normally have the opportunity to work together.”

The center is the brainchild of Mati Kochavi, a New York City-based Israeli magnate involved in fiber optics and defense industries. Kochavi already has pledges of several million dollars—from his own funds and private donors—toward a total cost estimated at tens of millions of dollars. No government money is involved. “Very few people in these two countries talk to each other,” says Kochavi. “We want to start by speaking the common language of science. Then we will build the language of partnership.” The location is significant: 80 kilometers south of the Dead Sea in the Wadi Arabah, an extension of the African Rift. Once the frontier between the ancient Hebrew kingdom of Judah and its enemy, Edom, it is rich in history, culture, and archaeology—so much so, UNESCO is pushing to make it part of a World Heritage site.

The announcement of the project on 24 February took many by surprise. According to sources involved, Kochavi invited Stanford and Cornell 4 years ago and enlisted Israeli Prime Minister Ariel Sharon and Jordan’s King Abdullah. (Abdullah is a voice of moderation in the region; the countries signed a peace treaty in 1994.) Negotiations were slowed by the ongoing Palestinian up-

rising—many Jordanian scientists are of Palestinian descent—and were kept secret to avoid publicity that might torpedo the project. Recently tensions heightened with Jordan’s bitter criticism of a vast new Israeli security barrier now going up along the West Bank. Finally, in late 2003, Kochavi told Sharon and Abdullah the project would fold unless it moved forward now; the countries then agreed to cede 30 adjoining hectares each. According to a signed agreement, researchers will have free access to both countries through the portal.

Researchers hope to assemble a picture of all organisms



Desert ecosystem. Center will straddle the border in Wadi Arabah, a barren rift valley between Israel and Jordan.

around the Dead Sea—initially, plants and microbes—with an emphasis on how they handle the extreme heat, aridity, and salinity. Stanford-sponsored scientists will focus on collecting organisms and mapping their populations and ecology; Cornell will sequence genomes and create new computing technologies to integrate the vast trove of data into a single user-friendly system, the Library of the Desert. Researchers aim to figure out how organisms survive and exist together, says James Halde- man, director of international programs for Cornell’s College of Life Sciences. Potential

applications include environmental engineering and crop design for dry, saline Middle Eastern soils. “This would be a springboard for all sorts of research from which surrounding nations would benefit,” he says.

The facility will take 3 to 5 years to build. It will have space for perhaps 150 staff members. Plans call for Israeli and Jordanian Ph.D. candidates to attend Cornell and Stanford for 2 years on scholarships, then return to the desert for fieldwork. The initial cadre of a dozen students should arrive in the United States in January 2005, with numbers growing in succeeding years. Students from neighbors such as Egypt and Lebanon—and possibly the Palestinian territories—will be invited later.

By late February, border fencing at the site had already been razed; but other joint ventures suggest that the project still confronts many challenges. Along the Gulf of Aqaba, where the Jordanian and Israeli coasts meet, marine researchers from the two nations have pooled data under a U.S.-sponsored program, but politics have prevented much physical contact and each team has worked its own side

(*Science*, 27 July 2001, p. 627). More recently the Wadi Arabah project, a cross-border coalition of archaeologists, has tried fostering joint excavations. Things looked promising until the Palestinian uprising started in 2000. Relations dried up, and a conference planned for Jerusalem last November had to be moved to the neutral ground of Atlanta, Georgia. Joint fieldwork “would be very unrealistic at this point,” said co-leader Katharina Galor, an archaeologist at the W. F. Albright Institute of Archaeological Research in Jerusalem. The group has compiled a badly needed map of the region’s 6000 known sites, she says; it’s a start.

Similar tensions are evident with Bridging the Rift. Sharon and Abdullah will hold groundbreaking ceremonies—but separately, in Jerusalem and Amman. And no Israeli or Jordanian university is involved. Ron Elber, an Israeli computer scientist heading Cornell’s Library of the Desert, says there was no choice: Scientists on both sides are eager to work together but cannot afford to be seen as collaborating directly. Avishay Braverman, president of Ben-Gurion University of the Negev, disagrees. The university has been quietly working with individual Jordanians for years, he says, and the time for direct, public engagement has come. He wants a role for Ben-Gurion: “We would like to contribute as much as we can to science and as much as we can to peace.” —KEVIN KRAJICK

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