SCIENCE AND CULTURE

High-stakes game of oil use

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While commuters fought evening rush-hour traffic on the streets of downtown Washington, DC, visitors to the Koshland Science Museum of the National Academy of Sciences waged a more philosophical battle on the mythical island of Catan. At round tables in the museum's central space, teams of four to six players leaned across game boards divided into a series of landscapes, or hexes, each rich with a natural resource that could be traded to populate the island with settlements, cities, and metropolises. In the Oil Springs iteration of the Settlers of Catan, a game first introduced by Klaus Teuber in 1995, one thing is clear, says designer Ty Hansen: "It's all about oil." As the island's single most valuable natural resource, oil can be sequestered to protect the environment or traded so extensively for resources that its overuse triggers a series of natural disasters that culminate in the inundation of the island—and loss of the game.

The Settlers of Catan game has been translated into more than 30 languages and ranks among the most popular board games of the last 20 years. The latest scenario, Catan: Oil Springs, was introduced in 2011 by Hansen, an office administrator at the American Bar Association, and codesigner Erik Assadourian, a senior fellow at World Watch Institute in Washington, DC. The game strikes an uncomfortable chord by forcing players who, by and large, tend to be environmentally conscious, to decide whether the risks of oil use—ranging from oil spills to coastal flooding on the tiny island—outweigh the benefits of populating Catan with more cities and metropolises. The lesson, says Assadourian, is simple: "We can't grow forever. There are limits to growth."

Visitors to the Koshland Science Museum engage in a game of Catan: Oil Springs, where they must balance the use of natural resources such as oil against the risk of catastrophe.

Most players try to steer the island away from natural disasters by conserving oil, observes Hansen, who attended the June 5, 2012, event at Koshland. Their strategy makes sense. "If you cut down trees and use the wood as a resource, you can plant more trees. If you consume livestock, you can breed more sheep. But oil doesn't work that way. Once you run out of oil, that's it. It's gone," he explains. Even the most environmentally conscious players, however, seem to recognize that heavy reliance on oil is the quickest—if not cleanest or best long-term—route to success. "I think most environmental advocates recognize that you can't turn off oil use overnight," says Hansen. On the other hand, Assadourian hopes the game will attract players who were not previously as passionate about the environment. "What better icon than Catan—a hugely popular game—to get people who might not otherwise think about sustainability issues to wrestle with the problems of climate change and unchecked growth?"

By adapting the popular game, the pair hopes to make a lasting contribution to sustainability education by driving home the concept that we live in a finite world. "Catan is a representation of the planet," Assadourian says. "The game suddenly infects people with the reality that infinite growth is not possible—neither on Catan nor on Earth."