



BUYING CULTURE

Tough negotiations are nothing new to Jean d'Haussonville, special adviser to France's Foreign Ministry, but nothing prepared him for the high-stakes deal he struggled to hammer out over the past year and a half: an unprecedented agreement to open a branch of the Louvre in Abu Dhabi, the tiny capital of the United Arab Emirates. Persuading his compatriots to part with a portion of their cultural heritage was no easy matter; founded by Napoleon in the 18th century, the home of the Venus

de Milo and the Mona Lisa had never before established a presence outside France.

What France stands to gain is not inconsequential: a geopolitical foothold in a strategically important region, and cash. Abu Dhabi, which sits on 10 percent of the world's oil supply, has agreed to pay \$520 million just to use the name "Louvre" for 30 years.

Winning over the Louvre was merely the first step in Abu Dhabi's grand plan to transform itself into the cultural capital of the Middle East. The new museum will be housed in a massive \$27 billion complex called Saadiyat Island (Arabic for Island of Happiness), perhaps the most ambitious cultural-development project ever conceived. The 27-square-kilometer island, expected to open in phases beginning in 2012, will eventually include 29 luxury hotels and a huge park for a biennial arts festival, as well as branches of many of the world's most illustrious museums and academies -including the Guggenheim, the Sorbonne and most likely Yale -all designed by the biggest names in architecture: Frank Gehry, Zaha Hadid and Jean Nouvel, to name just a few. "We're bringing together the top architects of the past 100 years," says the director of the Abu Dhabi Tourism Authority (ADTA), which is overseeing the project.

A project of such spectacular ambition was bound to be controversial. What unites the critics is a core question: Can culture be bought? Abu Dhabi's future depends on the answer. Only 30 years ago, the Emirates were a barren desert sparsely populated by Bedouin tribes. Then, in the 1980s and 90s, they began to capitalize on their oil wealth. Parts of the U.A.E. built garish skyscrapers, megamalls and resort complexes. At first Abu Dhabi sat back and watched its upstart neighbor Dubai splurge on over-the-top construction projects like indoor ski resorts and palm-shaped islands. But while Abu Dhabi sneered, Dubai, currently under the leadership of the thoroughly modern Sheik Mohammed bin Rashid al-Maktum, became one of the most lucrative tourism hot spots in the Middle East.

Abu Dhabi's leaders quickly realized that if they didn't act fast, they'd be left behind, so they decided to zero in on high-end tourism: art and education. "In all the studies we have undertaken, culture has been shown to be a strong driver of the kind of tourism Abu Dhabi has identified as its primary market: upscale, high-repeat visitation," says the ADTA chairman. This would help Abu Dhabi distinguish itself from its déclassé neighbor. According to Lisa Ball-Lechgar, editor of the U.A.E. Canvas magazine, "It sees Dubai as the Nescafé of culture, while Abu Dhabi wants to be the cappuccino."

adapted from Newsweek, August 2007

Answer questions 1-4 in Portuguese based on the information in the text.

- 1 What did the article point out was the major obstacle to closing the deal between the Louvre and Abu Dhabi?
- 2 What two things will France gain from the deal?
- 3 How important is Saadiyat Island in Abu Dhabi's grand scheme?
- 4 What happened to the Bedouin tribes in the region?

Answer question 5 with a complete sentence in English based on the information in the text.

- 5 How will Abu Dhabi try to distinguish itself from Dubai?

Primordial Soup's On: Scientists Repeat Evolution's Most Famous Experiment

by Douglas Fox

A Frankensteinesque contraption of glass bulbs and crackling electrodes has produced yet another revelation about the origin of life. The results suggest that Earth's early atmosphere could have produced chemicals necessary for life—contradicting the view that life's building blocks had to come from comets and meteors. "Maybe we're over-optimistic, but I think this is a paradigm shift," says chemist Jeffrey Bada, whose team performed the experiment at the Scripps Institution of Oceanography in La Jolla, California.

Bada was revisiting the famous experiment first done by his mentor, chemist Stanley Miller, at the University of Chicago in 1953. Miller, along with his colleague Harold Urey, used a sparking device to mimic a lightning storm on early Earth. Their experiment produced a brown broth rich in amino acids, the building blocks of proteins. The disclosure made the pages of national magazines and showed that theories about the origin of life could actually be tested in the laboratory.

But the Miller-Urey results were later questioned: It turns out that the gases he used (a reactive mixture of methane and ammonia) did not exist in large amounts on early Earth. Scientists now believe the primeval atmosphere contained an inert mix of carbon dioxide and nitrogen—a change that made a world of difference. When Miller repeated the experiment using the correct combo in 1983, the brown broth failed to materialize. Instead, the mix created a colorless brew, containing few amino acids. It seemed to refute a long-cherished icon of evolution—and creationists quickly seized on it as supposed evidence of evolution's wobbly foundations.

But Bada's repeat of the experiment—armed with a new insight—seems likely to turn the tables once again. Bada discovered that the reactions were producing chemicals called nitrites, which destroy amino acids as quickly as they form. They were also turning the water acidic—which prevents amino acids from forming. Yet primitive Earth would have contained iron and carbonate minerals that neutralized nitrites and acids. So Bada added chemicals to the experiment to duplicate these functions. When he reran it, he still got the same watery liquid as Miller did in 1983, but this time it was chock-full of amino acids. Bada presented his results this week at the American Chemical Society annual meeting in Chicago. "It's important work," says Christopher McKay, a planetary scientist at NASA Ames Research Center in Moffett Field, Calif. "This is a move toward more realism in terms of what the conditions were on early Earth."

Answer questions 6-9 in Portuguese based on the information in the text.

- ⑥ What has led Jeffrey Bada to think his experiment points to a paradigm shift?
- ⑦ What did Miller and Urey demonstrate with their original experiment?
- ⑧ Why were the results obtained by Miller and Urey later contested?
- ⑨ What happened when Miller repeated the experiment in 1983?

Answer question 10 with a complete sentence in English based on the information in the text.

- ⑩ What did Bada consider it necessary to add chemicals to his experiment?