

In Kazakhstan, a World Expo Is All About Energy (and Dancing)

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Germany wants you to know that it has a house whose energy is supplied by algae growing in its walls. Pakistan wants you to know that its parliament building runs entirely on [solar power](#). Russia, sort of missing the point, is very excited about [oil](#) and gas reserves in the Arctic. Welcome to [Expo 2017](#), the world's fair in Astana, [Kazakhstan](#). The theme: Future Energy.

Like 99.9 percent of the people on earth, I had no idea there was a world's fair in Kazakhstan this summer (it runs until Sept. 10) until my daughter, Molly Jane, told me she'd be working as a volunteer "student ambassador" at the U.S. pavilion there. (Disclosure: she has no financial or, for that matter, emotional interest in the success of the exposition.) But the fair is huge news in Kazakhstan. The oil-flush Eurasian nation, the ninth-largest country in the world with a smaller population (18 million) than the state of New York, built a shiny expo village at the edge of its new built-from-scratch capital city, which is a show in itself. A sort of Dubai North, Astana is filled with buildings that look, a writer for [Foreign Policy](#) noted, "as though they're about to transform and fight the Autobots." There are pyramids, spheres, obelisks, trapezoids, ovals and giant eggs. Occasionally one sees a rectangle.

Jetting into Astana's airport, I of course had visions of exotica. Kazakhstan! Nomads! Genghis Khan! What I actually found, of course, were broad boulevards full of cars, jazz bars and Burger Kings, people walking through parks with their children eating ice cream, waiting for buses, shopping for potatoes. Bus stops displayed the covers of classic novels ("Jane Eyre," "The Last of the Mohicans"), which could be downloaded to phones on the spot for reading while waiting for the next bus.

On the other hand, one option for a pizza topping is horse meat. And the sushi rolls are made with cheese.

On the Expo grounds, the visitors were overwhelmingly Kazakh — the official figure was 85 percent — and they had more than a hundred nations' pavilions to explore. The exhibits were chock-full of models and videos of windmill turbines and solar panels. And more windmills. And more solar panels. But there were variations. The German pavilion (motto: "Energy on Track") had, besides its algae-powered house, a hollow seesaw filled with water. As children rocked up and down, the water poured back and forth through blades, spinning them and generating the energy to turn on a light.

Israel ("The Energy of Creation") had a (Popeye-inspired?) display about turning spinach leaves into hydrogen fuel as well as a lovely young dancer who performed an interpretive dance on the themes of solar and thermal power and alternative fuels transportation. Azerbaijan ("Land of Energy") was proud to promote so-called burning ice (gas hydrates), flammable gas-filled frozen water that is found in the Caspian Sea and promises, the display said, to provide more power than all the world's oil and gas. Unfortunately, more research is required first. Future energy.

In the multinational African pavilion, Somalia displayed a sign declaring the country has "great potential on elements that can be converted into renewable energy," which I found somewhat surprising, since I was under the impression that Somalia [is not currently functioning](#) as a country. The booth of the Democratic Republic of Congo was, for some reason, playing a film of the 1974 Muhammad Ali-George Foreman fight in Kinshasa.

Iran, in its display on solar energy, announced that "today the sun has taken off its veil." Several Muslim nations managed to meld religion with a newfound devotion to green energy. Qatar quoted Muhammad himself as a proto-environmentalist: "Do not waste water, even if you perform your ablution on the banks of an abundantly flowing river." Not to be outdone, Israel, in its showpiece video, quoted a prior Authority: "Let there be light."

Strolling the grounds between pavilions, fairgoers could snack on kimchi, or dim sum, or Nathan's Famous hot dogs. A band from Germany, [Cliff Barnes and the Fear of Winning](#) (named for J.R.'s archenemy on "Dallas") played environmentally themed rock songs ("Ride My Bike Electric"), their amplifiers powered by volunteers pedaling bicycles. A wide range of musical programs was on offer at several on-site stages, including Limp Bizkit, Afrojack, and one I caught with my daughter that was billed as ["Niyaz the Fourth Light Project."](#) The program identified the droning melodies as ancient folk songs of the Persian Gulf, but after listening for a minute, Molly Jane declared "it's psytrance!" For confirmation, she texted an audio clip to

her boyfriend, a supermarket display designer from Siberia who is a fan of the genre. He texted back that it was “like psytrance but too commercial.” By then I was asleep.

I caught a much livelier performance on Solomon Islands national day, when a group of dancer/musicians, their bodies painted, clad only in loincloths, performed canoe paddling chants of their ancestors with infectious energy. The crowd loved them.

As at any world’s fair, participating countries took the opportunity to present messages about themselves beyond their devotion to algae and windmills. Cuba showcased its rum and cigars (sadly, I missed its national day, when it was giving out free samples). Finland wanted people to know that it is the most stable country in the world, and that it offers free school lunches. Russia wanted it known that, with the aid of President Vladimir Putin, it is protecting the Amur tiger. Russia also declared its strong interest in the Arctic, which, one display informed visitors, occupies 27 million square kilometers and, perhaps more to the point, contains 130 billion tons of oil and natural gas. Russia also displayed a purported four-meter-tall block of Arctic ice, which would seem to limit access to those resources. But not to worry, another display said: “The Russian nuclear-powered icebreaker ship Lider will be able to break ice more than 4 m thick.”

The U.S. pavilion was also a little ... different. The U.S. State Department solicited proposals for the project last fall. (It’s financed by corporate donors, primarily Chevron and General Electric; federal law, oddly, prohibits government funding of U.S. participation in world’s fairs.) The solicitation went out during the final months of the Obama administration and cited Expo guidelines that the pavilion should deal with combating [climate change](#), reducing CO² emissions, and promoting energy alternatives. Specifically, it said the pavilion’s theme “should reflect elements of the White House’s ‘all of the above’ energy strategy,” to which it provided an internet link.

That was then. When I clicked that link I reached a page that said “Thank you for your interest in this subject. Stay tuned as we continue to update [whitehouse.gov](#).”

The main elements of the U.S. pavilion were two videos that posed the question, “What is the source of infinite energy?” And they provided an answer. Solar power? Nope. Windmills? Nope. “People are. You. Me. All of us together.”

The first video emphasized American ingenuity, with images of Henry Ford, Thomas Edison, Steve Jobs, and the garages where they did their early work. For current examples of ingenuity addressing energy needs, it cited teeny-tiny windmills that can power a mobile phone, a flashlight powered by the heat of the hand that holds it, and a soccer ball that generates and stores energy while being kicked and can be used, postgame, to light homes in the Third World. (The teeny-tiny windmills were developed by scientists at the University of Texas and remain a concept. The flashlight was the creation of a Canadian high school student who appeared with it on “The Tonight Show with Jimmy Fallon”; it too remains a concept. The soccer ball, invented by a Harvard undergraduate, was produced for a while but is no longer.)

The second video featured two attractive dancers moving among iconic American images — a rodeo, football, Mount Rushmore, Hollywood, and lots of happy families, of all races, smiling and hugging. I heard there had been complaints that the video

was contentless, but I saw it three times, and every time the Kazakhs watching with me applauded.

The centerpiece of the Expo, literally, was the Kazakhstan exhibit, housed in a structure billed as the world's largest spherical building, 100 meters tall, a giant marble that one hoped would not roll off its pedestal while one was in it. It contained a terrific museum, with clever displays telling you everything you'd ever want to know about every kind of energy, and more, from the creation of the universe to a solar-powered car that looked like it had been crushed in a giant sandwich press. From the high floors one had a clear view of the surreal buildings of Astana and also of where Astana abruptly ended, at the edge of the vast Eurasian steppe, stretching flat to the horizon in all directions.

I went out there one afternoon to see a bit of Kazakhstan's history when it was part of the Soviet Union. The statistics are not happy ones. Kazakhs who died from famine in the 1930s: 625,000. Ones who died from forced collectivization: 2.3 million. At least those were the figures given at a display in the museum-memorial at [ALZHIR](#), 20 miles west of Astana. Created by Stalin in 1937, ALZHIR is the acronym for Akmolinsk Camp for Wives of Traitors to the Motherland. The Gulag was well-represented in Kazakhstan (Aleksandr Solzhenitzyn spent time in a camp east of Astana). ALZHIR was populated by women — housewives, nurses, actresses, dancers — who had the misfortune to be married to political prisoners. They were yanked out of their lives and sent by freight car to a barren spot in the middle of the empty steppe. Their children stayed with them until they were three; then they were sent to orphanages.

To modern Kazakhstan's credit, it remembers and memorializes these women, all with the encouragement of Nursultan Nazarbayev, who has been president of the country since independence in 1991 and regularly wins re-election with at least 95 percent of the vote. Mr. Nazarbayev is no model democratic leader — he presides over an unfree press and multiple human rights abuses — but, judging by Astana and its inhabitants, he seems content to share the country's wealth. The Expo was his idea, and so was Astana, and so are its monuments, most notably the 97-meter-tall Bayterek Tower, which, when I was there, was mobbed by Kazakh tourists in town for the Expo. They stood in long lines for elevators up to a golden ball that perches atop what looks like an enormous badminton birdie. Once inside the ball, they waited in line again to approach a silver pedestal topped by a solid block of gold with a handprint of Mr. Nazarbayev. Each put his or her own hand into the print and made a wish.

So did I, and I couldn't help but notice that the president of Kazakhstan has large hands.