A Chilean rain forest retreat

By Anne Z. Cooke
Tribune News Service

NELTUME, CHILE

My first clue that Huilo Huilo, in central Chile, might not be your typical wilderness park was when I unfolded the tourist map and spotted the word "canopy."

An English word. Not one you'd expect to find in a Spanish dictionary. Nor a name you'd be likely to see on a map of a rare temperate rainforest, a 250,000-acre preserve in the foothills of the Andes Mountains.

I looked again and found a second "canopy," and a third, as if the map-maker tasked with illustrating Huilo Huilo's "green mansions" decided that if one canopy was good, three must be a charm. So I poured another cup of tea and took a closer look.

Huilo Huilo, a UNESCO-designated biosphere, is a park like Yellowstone or Glacier national parks, a protected biological reserve. But it's also a tourist resort, a for-profit business. Here, on the border between Patagonia and the Lakes District, where the Mapuche tribe once shared the trees with the forest fairies—living spirits of ferns and flowers, frogs and fungi—eco-tourism is booming.

If any doubt remains, Huilo Huilo's tourist map, a "Where's Waldo" visitor guide, proves the point. Done up in comic book colors and crowded with cartoon figures, it's chockablock with visitor services, nature trails, ski slopes, trout streams and hotels built to blend into the undergrowth.

Here is the Reino Fungi Lodge, the "Mushroom Queen," a fat, round shape resting on a cement stalk. There is the multi-sided Nothofagus Hotel & Spa, also known as the Baobob Hotel, with a tree growing in the dining room, guest room doors opening onto a spiraling corridor and an activities desk offering an infinite array of outdoor adventures.

The Montana Magica hotel—the Magic Mountain—connected to the other hotels by a covered boardwalk, was the owner's first experiment in rustic design; the result is a moss-covered, cone-shaped, tree-like building with inset windows and a brook spilling off the top. Made almost entirely of custom-hewn local wood, its giant logs, thick beams and untrimmed board paneling are a one-off work of art.

On one corner of the map, a 125-foot waterfall rushes over a fractured rock; in another corner, a pair of horseback riders canter across a meadow. Forest trails, the Rio Fuy and Lake Pirehueico promote hiking, fishing, kayaking, easy and risky whitewater rafting, birding and horseback riding.

At the map's upper edge, an ice climber scales 7,946-foot Mocho Choshuenco's glacier while a skier schusses down this active volcano's snowy slopes. Miniature deer—the endangered Andean "huemul"—and a puma, Darwin frog and a clutch of long-necked guanaco—first cousins to the llama—peek out from between the trees.

On the volcano's lower forests, "Canopy" zip lines mark the spot where—as I was soon to discover—five dizzyingly long cables straddle deep dark gorges.

"El canopy, you know, it means rides in the air," said our guide Juan Valencia, on my second day of vacation, leading me and a handful of other visitors to the zip line's check-in hut.

Buckling us into our harnesses, he led the way up a trail hacked into the hillside where the cables were bolted into rocks beside precariously perched platforms—or so it seemed as I teetered on the edge.

As Jacob Salgado, the second guide, clipped me onto each cable, he reminded me to lean back, straighten my legs, point my feet and fly like the wind. "Remember, it's very long," he said, prying my hand, locked in a death grip, off the cable. "If you brake like that you won't get to the other side."

The next "canopy"—a sign pointing to the Darwin Trail around the village complex—was tamer. Starting early, we joined ecologist Diego Rojas, from the Simon Bolivar University in Santiago, for a half-day walk around the perimeter.

Diving into the forest, we stopped beneath a stand of giant beech trees to look at the flora and to learn why Huilo Huilo is classified as a rare temperate rain forest.

The beech trees, said Rojas—"coihue" and "rauli," in Mapudungun, the native Mapuche language—"are members of the Nothofagus genus, indigenous to the area since the Jurassic period."

But the forest was isolated when the supercontinent Gondawanaland broke up, creating today's continents. Now an eco-island, the forest occupies a limited range, between 35 and 40 degrees south and 2,300 and 3,900 feet elevation.

Farther along, we stopped at the Darwin Frog Museum, a one-room cabin with exhibits founded to support research into the fungi killing this and other frogs worldwide. When Rojas explained that the chirp-chirp heard overhead was a recording of the endangered frog, we realized that not even this museum had a living specimen. "We're hoping to find one," said Rojas, shaking his head.

Challenged to locate one of the critters, we combed through the surrounding understory for a few minutes, searching under ferns and vines, but found only the wispy "guila" bush. Pronounced "huila," said Rojas "this one grows everywhere, even when nothing else will." Could it have been the root of the name Huilo Huilo?

By the time we stopped to watch an Andean condor overhead and admired the pre-European Mapuche artifacts in the nearly finished Volcano Museum—named for its shape, not its contents—the sun was high in the sky. Joining the boardwalk trail across a boggy meadow, we found the third "canopy."

"That's Canopy Village, right there," said Maria, a housekeeper who was pushing a cart of towels. "It's this way," she said, putting down the laundry and opening the door to one of the spartan wood cabins shaped like old-time pioneer wagons. The cabins, priced for campers and families, perch on stilts next to the Huemul enclosure, another of Hulio Huilo's wildlife preservation projects. "If you look through there," she said, pointing to the windows near the floor, "you can see the deer when they come to drink. We had three deer to start; now we have 20."

I could have put on crampons, roped up and climbed Mocho Choshuenco's icy summit. This guided trek, a match for glacier skiing in Norway, earns an eight on the risk-meter. Instead, I joined a snowmobile tour accompanied by glaciologist Antonio Vasquez, who also runs Huilo Huilo's ski area. Making angels and snapping selfies among blowing snow clouds was a buzz. But it was a bittersweet buzz because the glacier is melting away. While we watched, Vasquez fetched his shovel and as he does at intervals, dug down through the snow, hollowing out a hole in the ice. Peering down at the last few year's layers, we saw each was thinner than the one below it.

But Huilo Huilo is booming, confirming the belief that there's only one way to save a wilderness: buy it and prevent development. In North America, governments traditionally assume this role. But in countries which can't or won't step up, the eco-tourism model can save scarce wilderness, as it has done in Africa, Asia, in the Pacific and elsewhere in South America.

How does it work? Individuals or groups buy a piece of land, agree to preserve most of it and dedicate space for a tourist center with lodging and services. Travelers looking for new, unspoiled destinations visit the area, stay at the hotels and spend money for rooms, food and guide services, creating jobs for local residents. An unbroken circle, it's not "by and by," but now.

And about those "canopies." For me, none rivaled the real canopy, the treetops reaching for the sky, brushing against the balcony of my fourth-floor hotel room, framing my view of Mocho Choshuenco. The next best thing to a treehouse, this was where I went to catch the sunrise, watch the birds twitter and follow the stars. Looking toward the horizon, Huilo Huilo's 250,000 acres were all mine.

Tribune News Service photos

Above: A waterfall roars in the rain forest near Neltume, Chile, in the Huilo Huilo Biosphere Reserve. **Below:** The Hotel Nothofagus—named for a genus of southern beech trees—is the largest of Huilo Huilo's four hotels.

THE NITTY GRITTY

The resort is at Neltume, a village near Lake Pirehuico. Fly to Santiago, Chile, and on to Temuco airport, a two-hour drive from Huilo Huilo.

For description, history and mission, go to huilohuilo.com/en. For reservations and rates go to huilohuilo.com/our-accommodation/hotel-nothofagus. Rooms for two in the Nothofagus hotel start at $222 per night.

Site reveals part of America's nuclear history

Location produced plutonium used in Japan bombs

By Christopher Reynolds
Los Angeles Times

MANHATTAN PROJECT NATIONAL HISTORICAL PARK, WASH.

On a spring morning in high, dry southern Washington, a bright yellow bus rumbled to a stop in a lot at the Hanford Site near the Columbia River. The fourth-graders of Orchard Elementary School in nearby Richland, Washington, were about to see one of this nation's newest historical parks, surrounded by a valley filled with sagebrush, eagles and elk.

When the bus door opened, the kids rushed straight into a metal-and-concrete box of a building, nearly 100 feet tall, neighbored by a 200-foot exhaust stack topped by a wind-whipped American flag. Inside, looming like a Borg ship in "Star Trek," stood a massive cube of graphite bricks and aluminum tubes.

"Welcome to the B Reactor," said docent David Marsh. Then he explained how in this room American scientists made "the nuclear weapon that was used to end World War II."

"Fat Man," the atomic bomb that detonated on Aug. 9, 1945, over Nagasaki, Japan, originated here. The National Park Service, best known for its stewardship of peaks and valleys, is taking on the job of explaining how and why the U.S. built and used the deadliest weapons ever turned against mankind.

The Manhattan Project National Historical Park, established in November, is a joint effort by the park service and the U.S. Department of Energy. Besides the Hanford Site it includes Oak Ridge, Tennessee (where the enriched uranium that fueled the Hiroshima bomb was produced), and Los Alamos, New Mexico (where bombs and components were designed and assembled).

Congress voted in 2014 to create this park, and park service leaders describe it as a chance to explore history that not only shaped the end of World War II but also the advance of science and at least half a century of geopolitics.

"It changed the world," said Anne Vargas, an Energy Department docent whose father worked at Hanford.

The B Reactor is the park's focal point in Hanford and the only structure most visitors will enter. The building had stood idle since 1968 and was slated for closure until the B-Reactor Museum Association, led by retired Hanford scientists and engineers, launched a preservation campaign. The association also built models on display at the reactor and made videos detailing the science and history behind the structure.

To see it, you reserve a seat on an official tour bus and meet at the Hanford visitor center in Richland. The bus ride into the restricted site takes about an hour; visitors typically spend about two hours at the reactor with a docent. Another tour focuses on remnants of communities that the secret project quietly displaced. This year, for the first time, all ages are welcome.

"OMG," said one boy, facing the heart of the reactor, which is known as the pile.

"So," Marsh asked the fourth-graders, "what does a reactor do?"

"It makes plutonium to make atomic bombs," said one boy.

"What would you use to make the plutonium?" asked student Gloria Caridad.

"Uranium," another docent answered.

So eager to learn

The reactor tours, often led by docents retired from jobs at the Hanford Site, have been a hot ticket among local families since the Energy Department started offering them in 2009. This year's tour season continues until Nov. 19.

"Does that red light always flash?" asked a mom, Colleen Lane, eyeing the equipment. The answer was yes. The reactor is monitored full time to make sure radiation remains at "background levels."

"Do you know what nuclear fission is?" asked docent Marty Zizzi.

Another boy raised his hand, then froze.

"I forget," he said. "We just learned it yesterday."

"We've been talking about it for a week now," teacher Liz Cronin said later. "They wanted to know why Japan bombed Hawaii in the first place. And they wanted to know why we needed plutonium when we had so many other bombs."

Enthusiasm for this trip was so high, Cronin said, that from her class of 26 kids, 18 parents volunteered to chaperone. She had room for four.

Hanford's Manhattan Project story started in 1943, when Gen. Leslie R. Groves of the U.S. Army Corps of Engineers chose the site for its remote location; the pure, cool water of the Columbia River; and the ample electricity generated by the nearby Grand Coulee and Bonneville dams.

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Students from a local school listen to a docent in the control room while touring the B Reactor on the Hanford Nuclear Reservation in south-central Washington. The reactor is now the centerpiece of the Manhattan Project National Historical Park, where school children and tourists can visit the place that produced the plutonium used in the nuclear bombs dropped on Japan in 1945.