The Future of Terrain
Presentation at National Geographic Magazine

6th
ICA Mountain Cartography Workshop
What we do: March 2008
SIMPLIFIED ORGANIZATIONAL CHART

NG-MAGAZINE MAPS

NG-BOOKS MAPS

Special publication maps

Map supplements

DATABASE

Atlas

NG-MAPS
9 Magazine Cartographers

- 1 Director
- 2 Editorial cartographers
- 2 Cartographic researchers
- 1 Cartographic editor
- 1 GIS specialist
- 1 Production specialist
- 1 Cartographic designer
backpacking hordes that have trampled Nepal.

On the eve of the millennium, in 1999, Bhutan granted its citizens access to television—the last country on the planet to do so. (The Internet trickled in the same year.) Euphoria reigned in the towns as the outside world in all its garish glory beamed into shops and living rooms. Pulling the lid off Pandora’s box, however, raised concerns. What happens, after all, when an isolated, deeply conservative society is suddenly exposed to gangsta rapper 50 Cent and the World Wrestling Federation? Such questions carry extra weight in a vulnerable nation of 635,000 people, half of whom are under 22 years old.

Now comes the daring culmination of Bhutan’s experiment: the move to democracy. Never before, say Bhutanese officials, has a beloved monarch voluntarily abdicated his throne to give power to the people. But in 2008 King Jigme Singye Wangchuck did just that, setting up an unusual convergence of events in 2008: a coronation (the fourth king ceremoniously hands over the raven crown to his 28-year-old son, Jigme Khesar Namgyel Wangchuck, who will serve as a constitutional monarch); a centennial celebration (the monarchy’s hundredth birthday was in 2007, but a royal astrologer deemed this year more auspicious); and, most important, the formation by this summer of the country’s first democratic government.

The real test of Gross National Happiness, then, is just beginning. Bhutan’s new civilian leaders will face a raft of challenges, not least of which is a public that remains enamored of its kings and skeptical of democracy. The outside world peers in, wondering if this once forgotten Himalayan nation might help answer some of humankind’s most vexing questions: How can a society maintain its identity in the face of the flattening forces of globalization? How can it embrace the good of the modern world without falling prey to
Porous Border
A narrow land bridge linking the impoverished south with the wealthy north, southern Mexico funnels migrants from Central America and beyond. Two main routes bypass the border's rugged terrain and lead to trains heading toward the U.S.

Nicaragua. In depictions of this modern Latin American migration into the United States, the image of a great wave is often invoked, and Mexico's southern border today feels like the place in distant water where the wave first rises and swells and gathers uncontrollable propulsive force.

Before the Lópezes left Managua, they had heard the counsel repeated now in certain poor neighborhoods of Central America: If you are leaving for El Norte, find Padre Flor María Rigeni in the city of Tapachula, 20 miles north of the border, because the first dangerous crossing you will make is not the one that takes you into the United States. It is at the southern Mexican border where the perils begin—the thugs, the drug runners, the extortionists in official uniforms, the police and migration agents who pack undocumented migrants into detention facilities before forcing them onto buses to be deported. The Tapachula migration station was recently rebuilt, to hold 960 migrants and process them more quickly; the southward-bound buses roll out every morning before dawn.

The Lópezes rode for hours in the 90-degree heat, Jessenia standing on blocks attached to both sides of the bicycle's rear wheel. She carried her shopping bag in the crook of her arm and kept her hands on Armando's shoulders as he pedaled, avoiding migration checkpoints by veering at intervals off the pavement and onto dirt paths. They had remarkably good luck. No one assaulted them with machetes or rifles or handmade pistols fashioned from PVC pipes stuffed with gunpowder; no one beat Armando and dragged Jessenia into the weeds; no one forced them to undress so that their body cavities and secret sewn-in clothing pockets could be examined for...
EGYPT AND NUBIA—NEIGHBORS AND RIVALS

After exploiting Nubia’s gold since at least 2000 B.C., Egypt conquered its southern neighbor, also known as Kush, during the New Kingdom. When political turmoil later gripped Egypt, the Nubians marched in and ruled—until the Assyrians pushed them back south in the seventh century B.C.
have to take care of this place, and then it will reveal itself to you."

Her words echo in my ears a few days later as I slowly work my way across a crumbling pali (na pali means “the cliffs” in Hawaiian) on the trail to the Kalalau Valley. Sweat falls in steady drops from my hat to the narrow trail, which winds a very fine line between a rock wall and a sheer 800-foot drop to the sparkling sea. Early Western visitors reported seeing Hawaiians running along these trails, sometimes two abreast. Today a parade of “flightseeing” helicopters buzz by like giant gnats.

Despite the difficulty of the trail, I pass several people coming and going; some of the half million visitors from all over the world who flock here each year. The ones I meet include some serious hikers, a few college kids in bathing suits and sandals, and one or two obvious “Kalalau outlaws”—bearded men in their 40s or 50s with ragged clothes and furrowed looks. These modern-day hermits live in the remote valley, edging occasional roundups to evict them.

With abundant water, rich soils, and plenty of papaya, coconut, and java plum trees, Kalalau has provided refuge for many outcasts over the years. In 1893 several Hawaiians with leprosy moved their families to the valley to keep from being banished to the dreaded leper colony on Molokai. When the deputy sheriff of Waimi came round up the sick ones, a well-known cowboy and crack shot named Ko‘olau refused to go without his wife and son. The standoff lasted into the night, until shots rang out and the deputy fell dead. Hawaii’s new provisional government, fresh from deposing Queen Lili‘uokalani, feared an open revolt and sent the army after the cowboy. But Ko‘olau evaded his pursuers in the cracks and crags of the valley, eventually dying there of his disease. Ko‘olau the Leper” became a modern folk hero of Hawaii.

Decades later another group of social outcasts sought peace in the valley—young hippies who spent years living off the land and communing with nature until eventually they were rousted out by the law. At a bend in the trail I meet one hiker of that generation and ask him if he’d been to Kalalau. “I was there in the 1960s,” he said with a warm smile. “It was pristine. Everybody ran around naked. But hey, it was the ’60s.”

When I finally reach the magical valley with its folded cliffs and sinuous beach, the vibe is more frat party than nudist retreat. Dozens of campers, some apparently long-term, are scattered among the trees behind the beach. A group of college kids have a boombox blaring, and a woman with bright red hair is shaving her legs in the valley’s famous waterfall. Bags of garbage, old coolers, and discarded tents are strewn about the campsite and sea caves, waiting for work crews to haul them out by helicopter—the greatest expense for the cash-strapped park.

“The challenge of managing Kalalau is its isolation, which is also its attraction,” state parks administrator Dan Quinn told me later. “If we’d get more people carrying out what they carry in, it would be a better experience for everyone.”

As I watch the sun melt into the sea, a passing shower uncorks a magnificent rainbow. How could humans trash such an earthly paradise? The fictional Shangri-la, as portrayed in James Hilton’s 1933 novel Lost Horizon, was inspired by the Buddhist concept of Shambhala, a mythical place of peace and tranquility reached by enlightened beings. Maybe we aren’t there yet.

On my last day in Kalalau, however, I meet someone who seems well along the way. A young outlaw with a massive backpack bounds down the last stretch of trail as I’m starting the long climb out. He drops his burden at my feet, sprawls on the grass, and tells me his name is Erik. He’s planning to stay for two months in a cave up the valley, foraging, meditating, and “getting centered” with the universe. “You go back up that valley and there are rock platforms, taro fields, sacred altars all the way up,” he says. “It was a metropolis in there! It’s the land of the mehemahe, the ancient ones. It’s primal!”

Erik is bright, articulate, and seems utterly at peace with himself and the world. We chat for a while, and then he picks up his 75-pound pack as if it were full of feathers and bops down the trail, singing a joyful tune. “Enjoy your journey on planet Earth!” he shouts in parting. And for the rest of the day, I do.
WILD—FOR HOW LONG?

Only 100,000 people live outside Reykjavik, most in scattered coastal villages that are dying out as family-owned fishing businesses decline. Advocates of aluminum smelting say such development is needed to reinvigorate the rural regions, while environmentalists press for new national parks to support tourism, the fastest growing industry. Last year the government created Vatnajökull National Park (purple) to offset wilderness lost to Kárahnjúkar (orange), though most of it is ice.
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Pacific Acreage: Explore Na Pali magnificent beaches and vistas, and find out where the images were taken in an interactive map at ag.gov.com.