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Guest Editorial

by Andrew Sharpless : Chief Executive Officer, Oceana

Restoring Abundant Oceans

In 2006, an international team of scientists assessed the state of the world's oceans in an article that was published in *Science*. Their findings had the ring of the apocalyptic: nearly a third of the world's commercial fisheries had already collapsed. And if trends are allowed to continue, all the world's fisheries would collapse by mid-century.



This is a serious problem for the world because a billion people turn to the seas for protein. Hundreds of millions of people rely on an abundant ocean for their livelihoods. Countless coastal villages, some quite remote, will become ghost towns if the oceans collapse. And of course there are many wonderful wild ocean creatures—whales and dolphins just the celebrities among them—that do not deserve to be hunted to virtual extinction.

Practical people want to work on problems that are solvable. And many people assume that saving the oceans is impossible. Let me give you some very good news: restoring abundant oceans is the most solvable global ecological challenge that we face. And we can get it done in our lifetimes.

Why? Discouragement is rooted in several fundamental misconceptions about the causes of the problem.



First, people assume that ocean collapse is driven by pollution. That's discouraging, because pollution is difficult to prevent. For example, oil and mercury pollution of the oceans is a consequence of things that people want and need—for example, gas in their cars, electricity to their homes. The good news is that most of the collapses in ocean fisheries are not caused by pollution. They are instead caused by short-sighted commercial fishing practices that include overfishing, habitat destruction, and high levels of bycatch.

These are fixable problems. We know what to do. We just need to get the government officials who set the rules for commercial fishing to do a better job.

Second, people assume that international action is required to save the oceans. Because vast parts of the oceans are beyond the reach of any one country, one naturally assumes that ocean protection requires action by the United Nations or other international treaty bodies. That's discouraging too because, sadly, the track record of many such bodies is long on words and short on results. The good news is that many of the most ecologically and commercially valuable parts of the ocean are coastal. Shallower coastal waters produce more productive marine environments. In the 1980s, the nations of the world took control of their coastal oceans out to a distance of 200 nautical miles. That means that you can protect much of what is most important in the ocean by *national* action.

Third, people assume that fish farming is a solution to overfishing. The facts are that it depends what fish you are farming. If you're farming a fish that eats fish, then aquaculture does not reduce the pressure on the wild ocean ecosystem. In fact, quite the reverse. Salmon farmers need at least three pounds of wild-caught fish to produce one pound of salmon. With that conversion ratio, every new salmon farm is a giant new customer for the rapidly depleting supplies of wild-caught marine fish. On the other hand, if you are farming a fish that eats vegetable protein, then with appropriate safeguards (on use of pesticides and antibiotics, for example), such a fish farm can indeed contribute to solving the problem of ocean depletion.

Ocean ecosystems are generally quite resilient. While there are distressing exceptions—the collapse of the Atlantic cod fishery off Canada is a vivid one—fisheries will rebound if managers enforce scientifically sound quotas, protect habitat, and reduce bycatch. One example: during the years of World War II, when fishing in the Atlantic dropped off due to the war effort, fishery populations increased dramatically. As a result, one can look to a near future in which abundant oceans are not just planned, but fact.



At [Oceana](#), we make it a practice to give ourselves a limited number of policy objectives—restoring ocean fisheries, for instance—and to hold ourselves accountable for delivering results within three or four years. We resist the tendency to spread ourselves too thinly among too many objectives, doing just enough on everything to lose. And by results, we mean a policy change that will deliver concrete benefits to healthy oceans. We do not mean objectives like “raising consciousness of the problem.” Happily, our practical approach has made us very effective in the seven years since our founding. Here's to an abundant future.

A graduate of Harvard, **Andrew Sharpless** has been CEO of [Oceana](#) since 2003. Previously, he was a founding manager of RealNetworks, vice president of the Museum of Television and Radio, and a consultant with McKinsey & Co. He lives in Chevy Chase, Maryland with his wife and two children.

Column: The Literal Landscape

by Simmons B. Buntin, Editor/Publisher, *Terrain.org*

Portrait of Fernando, Bahía de Loreto



The *Mision de Nuestra Señora de Loreto*.
Photo by Simmons B. Buntin.

Fernando is from Loreto, a quiet town nestled between Baja California Sur's *Sierra de la Giganta* and the Sea of Cortés: *where the mountains come to swim*, legend says.

Originally settled ten-thousand years ago by the Cochimi and Guaycura peoples, it houses Baja's first mission, *Nuestra Señora de Loreto*, and for many years served as the first capital of the Californias. Today, Loreto is a small but growing fishing village, a site destined—developers and Mexican tourist authorities hope—for the fame and fortunes of ecotourism and sustainable development.

For now, at least, it remains authentic.

Fernando steers our *panga* over the turquoise water, away from a beach-lined cove and away from *El Don*, the yacht our group chartered to take us to Isla Coronado and the *Parque Nacional Bahía de Loreto*. He is of medium height, muscular but not overly so, tanned from his Mexican heritage and from working in the subtropical sun. He is perhaps twenty-five years old. Shirtless, Fernando wears only deep yellow swim trunks. Like us, he just finished snorkeling—serving as our guide—but unlike us, he is not already exhausted with delight from the day's early events.

Our boat skips over small waves and into deeper water, where dozens of dolphins leap and splash, fin after flashing fin. I sit next to Clifflyn, the fifty-something educator and photographer from Seattle whose digital SLR snaps photos in rapid succession. (I'm envious; my camera froze back on the big boat and I miss the weight in my hands.) Behind us and next to Fernando is Echo, a magazine editor from Scottsdale who is thirty and thin and radiant. Echo can hardly sit on the bench for her excitement—a *lifelong dream*, she tells us over and over, *to swim with dolphins*.



The view from *El Don's* starboard side, looking back across the bay toward the Baja mainland.

Photo by Simmons B. Buntin.

That's what we're after, and before long we split the pod. There must be a hundred! The dolphins' dark shapes torpedo through the clear water before they propel themselves into the sunlight and mark our memories just like that. Not even Clifflyn's camera can capture the images now resonating in the lit projector of my mind.

Echo crawls over the edge of the boat, clinging to the lip. Fernando, black hair cropped and dark eyes friendly, watches with bemusement. He's seen every kind of stunt from American tourists, no doubt. He has worked on *El Don* for two years, and likes it much more than the five years spent working on the Pacific side of Baja, and up and down North and South America, in a tuna fishing boat. That is work, hard work—and dangerous, too. Exhausting nights, angry storms, endless labor. Good pay, when it comes, but after a half-decade, he returned to Loreto.

He speaks little English but communicates well nonetheless. I get the overview of his life from Scott, a writer and garden designer from Tucson. This is our fourth trip into Mexico together, and perhaps the best. Scott speaks Spanish well considering it has been more than two decades since he lived briefly in Chihuahua. There's an easy discourse between the two men, and I'm envious once again—though it's incentive to learn the language that rolls from Fernando's tongue like the swift wings of stingrays now slicing the water's surface.

Though we split the pod once more, weaving through the dolphins again and again, Echo is never able to fully jump in, to swim with the dolphins as she had hoped. Fernando has done his best, but the dolphins are faster than our tiny boat, even as they delight in cruising its wake. *No problem*, says Echo, who is content nonetheless.



One of dozens of dolphins that swam among us in *Bahía de Loreto*.

Photo by Simmons B. Buntin.

Fernando motors us back to the larger boat, where he ties up and we climb aboard. Without a word he rinses the snorkeling gear, stows the loose supplies, and disappears into the cabin to emerge at the top of the brig, where a chrome wheel directs *El Don*. He smiles as Echo waves in thanks, then turns to banter with the captain of the three-person crew. Soon the cook joins them. He is the only member of the crew who speaks English, though their rolling discourse is Spanish through and through.

The nose of the boat turns toward the mountains of the mainland, the dolphins peel away, and we slip through the water that curls like molten metal under a silver sun. Near the marina, Fernando leaps into the *panga* to take us ashore. He jumps lightly, lands with easy balance, and cranks the motor. The engine sings under his bronze hand.

Simmons B. Buntin is the founding editor of *Terrain.org: A Journal of the Built & Natural Environments* and now writes a [weekly blog](#) for *The Next American City* magazine. His first book of poetry, *Riverfall*, was published in May 2005 by Ireland's Salmon Poetry. Recent work has appeared in *Weber Studies*, *Pilgrimage*, *Orion*, and *South Dakota Review*. New work is forthcoming in *Isotope* and *Whiskey Island Magazine*. Catch up with him at www.SimmonsBuntin.com.

Column: Bull Hill

by David Rothenberg, *Terra Nova* Editor

To Wail with a Whale: Clarinet Meets Humpback Whale in Island Paradise

“Come Join the Spirit Sailing Journey to the Cetacean Nation,” says the email invite, full of tiny print listing all the fabulous love and music that will be on board. “Leave your shoes on the beach, swim out to our catamaran, drums, and shakers will be on board. Our guest musicians will play cellos, harps, and guitars. We’ll have flippers, you can dive in with our giant friends.” As soon as we leave the harbor on the island of Maui, clothes tend to come off. A woman named Mahana, who was once called Lauren, waves and shouts the old Hawaiian word for humpback out to the sea. “*Kohola, koholaaa*, we love you, come close to us, we’re waiting.” The passengers start to sing and dance, the warm sun beats down on us, and we see the first great humpbacks cavorting in the bay. It’s prime mating and calving season, and they’re everywhere. A few hundred yards offshore and we’re all mostly naked, trying to tune in to that great whale energy.



Singing to the whales on the "Spirit Sailing Journey to the Cetacean Nation" in Hawaii.
Photo courtesy David Rothenberg.



David Rothenberg plays clarinet aboard ship for the whales. *Click image to hear clarinet/whale song.*
Photo courtesy David Rothenberg.

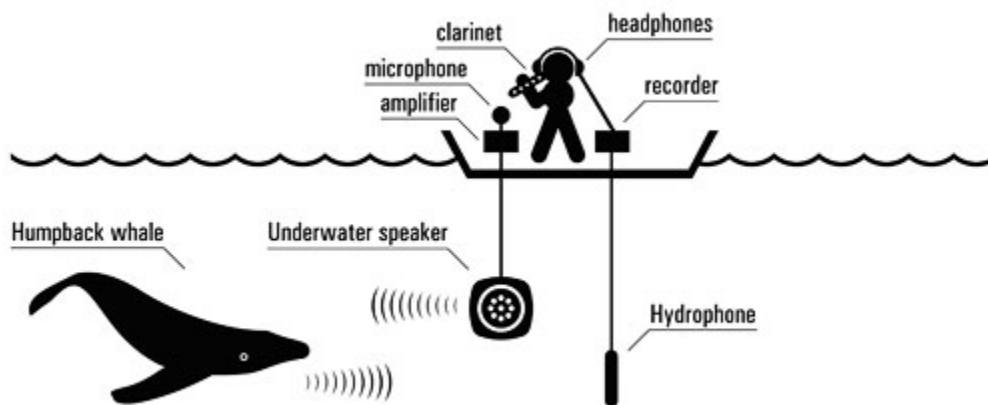
The old Hawaiians called the humpback *kohola*, and they even named a nearby island Kahoolawe, because it looks so much like the back of a whale. But there are no ancient myths about whales, and the islanders never hunted them or talked much about them. Revisionist island history has come up with lots of tales about whales, but where were they long ago? Some say there just weren't as many humpbacks cavorting in these waters until recently, because whalers were plying these waters as early as the 1700s. Others say there were plenty of Hawaiian myths about the animals, but they are too secret to let us *haole* find out about them.

I believe it is a question of attention—nobody noticed. They may have been diving, but they didn't think to listen while under water. Yet when our catamaran drifts so close above a singing male that the hull is shaking with the low 'i'i tones easily audible above water with no amplification at all, I have to wonder. Surely someone detected this in centuries past, when we humans were either pursuing the beasts in tiny boats armed with long harpoons, or telling stories about how our ancestors traveled across the deep blue seas?

“Ooh, beautiful man. Relax bro. He can hear you, the whales are telepathic, dude!” A naked woman starts to blow a didgeridoo toward the water right next to my ear. I'm playing high, detached notes, basking in the sun up on deck, leaving space for that whole whale song. Is he grooving on the didg and the reed? We don't know what they hear, what they sense.

Some people are listening to the music, some are ignoring it. Like your average jazz club, except the sun is shining, we're out in the waves, it's the middle of the day, everyone's all smiles and no clothes. A guy with a long gray beard comes up to me and says, “You know, I've been on these boats before, and usually everyone just chants and sings their own shit. But you're actually listening. The clarinet is one of few instruments that merges with these whale sounds. Your music does fit in with them.”

I have no idea if he is right or not. The encouragement counts a lot, because I'm often doubting what I'm doing here. Why would the whales want to listen to me? It's a crazy hope, to make music with animals with whom we cannot speak. Easy to agree with my critics who say I'm just full of myself, tooting my own horn. Somehow I just have to keep doing this. It interests me. On the course of this journey it has become what I do. Maybe I'm finally learning how to do it.



How to play clarinet along with a humpback whale.
Graphic courtesy David Rothenberg.

After several weeks of waiting, the master arrives from Vancouver. Finally I get to go out on the water with Jim Darling, the one man who has spent year after year watching what whales do while they sing. It's early on a clear morning, we're washing off his boat the *Never Satisfied* before we head out.

I ask him if he was surprised by the results of his latest study, which, at fifty-odd printed pages, is the longest, most involved paper on whale songs ever published. “Well, by the time we got to this most recent phase we knew the songs were being sung by males for males. But we thought it would be some kind of dominance-hierarchy thing, not the apparently non-agonistic cooperative behavior we ended up seeing. I hardly trust my own view of this, but I just can’t think of anything better.” He also comes from the school of cetacean humility.

“But Jim, you’ve been going out every day you can during breeding season for nearly a decade. What have you found out so far?” I ask.

“Well, we know we can get them to *stop* singing, but we don’t know how to get them to start.” He points to starboard. “Look, there’s a fluke, a whale just went down. Maybe he’ll start singing.” We speed right over to where the tail appeared. I take my clarinet out and we toss the hydrophone and speaker overboard.

Once again there seems to be a brief link between clarinet and whale, mostly heard in the spacing between sounds and the tendency of the whale to jump to a full range from booming low to squeaky high when I play. But for much of the time he ignores me. Do the whales get accustomed to my music and then lose interest? Or are they genuinely in love with novelty—enough so that we could introduce a new sound unit and have it quickly spread through a whole ocean of whales?

“I doubt we could get a permit to do it, but it would be interesting to see if we could specifically introduce a change in the humpback sound,” wonders Jim. “My first thought is that it would be really easy. But if it’s not easy, and they don’t sort of adopt any sound they hear, then it’s probably much more complicated than we think. There just aren’t that many people looking at this stuff. It’s just a huge amount of work, that’s why people don’t do it. But it’s also fairly addictive. You really want to hear what phrase comes next. Every year I give a talk to the locals here about how the song has changed in the current season. Usually it’s clear enough, comparing the old and the new, but last year it changed so much, so rapidly, that the whole theory wasn’t convincing at all. There is probably much more variation in these songs than most of us are willing to admit.”

Just then a whale wing appears in the waves right next to the boat, encrusted in barnacles, and then it swings down. *Splash! Splurf!* I back away, just in time to keep the clarinet dry. “Hmm... there’s a reaction,” smiles Jim. “I wish I really knew what was going on out there.” He shakes his head now.



Whale watcher (and listener) extraordinaire Jim Darling.
Photo courtesy David Rothenberg.



A humpback whale jumps in the waters off of Maui.
Photo courtesy David Rothenberg.

I drop my speaker and microphone underwater and get out my horn. I'm screaming, wailing, screeching too, trying to pack as much emotion as I can into one moment when a whale wants to listen. It roars through the seas, only for a few minutes, this music neither human nor humpback could create alone. Yet each musician makes space for the other, our duet an overlap of themes from different worlds, human and cetacean. Undersea and above, it is music with no beginning or end.

The whale sounds amazingly close. Right under the boat. The hull itself is buzzing.

How is it *possible* that no one noticed this level of sound before the sixties? I play along for thirty minutes or so, and the whale never stops. Two minutes in, he really seems to get louder in response to the spaces I leave in between my notes. He's alternating with me, not interrupting, like nightingales who compare each other's riffs in the dark. Then I play a high wail, and he *seems* to add a *whoop* to his *bruup*. He's adding resonance to his tones, making them richer, louder. Suddenly he leaps from a real low growl to a super high squeak. We pause only to back away from the possible sounds that still remain. Then we stop paying attention to one another, back in our separate worlds. Neither human nor whale has forgotten the song we made together, just off the coast of the most isolated islands in the world.

This column is an excerpt from David Rothenberg's forthcoming book, *Thousand Mile Song: Whale Music in a Sea of Sound* (Basic Books), due out April 2008.

David Rothenberg is the author of [Sudden Music: Improvisation, Sound, Nature](#), [Hand's End: Technology and the Limits of Nature](#), and [Always the Mountains](#). His latest book, [Why Birds Sing](#), has been published in five languages and just turned into a TV documentary on the BBC. The paperback includes a CD of his own music. His next book will be about whales and music.

Column: Plein Air

by Deborah Fries, *Terrain.org* Editorial Board Member

Days of Grace on Rutherford Island

Like turquoise seamounts, islands emerge in our collective imagery of escape and transformation. In film, print, and dreams, we arrive involuntarily at islands where we are lost, deserted, thrown together with strangers, swept away. Or we seek them out—longed-for places where we can escape toxic modernity and be restored. In solitary retreat on private islands, we watch the sun rise through the pines, listen to the loon’s cry, and are healed in our isolation. Shipwrecked, we fall madly in love with another castaway. On the island, inevitably, we are changed.

In 1997, Ellen Vincent took a sabbatical from the art institute where she taught, and the Milwaukee suburb of Whitefish Bay, where she lived, to spend three months on Rutherford Island, Maine. She already loved Maine, had visited before and admired its people and their traditions of working the land and sea. She appreciated its natural beauty—especially its waters. She loved it as an outsider, as someone who idealizes both a place and its people. Ultimately, her love would be reflected.



Ellen Vincent, taken in South Bristol, Maine, c. 2002.

Photo courtesy South Bristol Historical Society and Vincent family.

Ellen’s path to Rutherford Island was charted by friends, strangers, and happenstance. In 1993, while in summer residence at the Watershed Center for the Ceramic Arts in Newcastle, she took a closer look at a developing interest, and with a liberating shift in focus, began a new project that would change her work and outsider status.

For years, she’d been collecting vintage photos, compelled to rescue certain faces peeking out of cabinet cards and tintypes—paper ephemera that had become detached not only from their families, but also from all narrative context. The faces would beckon to her from their flea market bins and Ellen would take them home, arrange them with old postcards and antique household and fishing artifacts until she’d given them the dignity of context, however fictional. Through her assemblage, word bits, cookie cutters, and sepia portraits could evoke an emotional semblance of history.

But that summer, Ellen considered a new long-term project: instead of creating vignettes made with found objects, she would drill down into the real history of a town and its people, would salvage and document the story of a single community. It would be, as she put it, *still a purely working town, not given over to tourism, a place where the families were part of a generations-old continuum.*

She found such a place before summer’s end and her return to Wisconsin: South Bristol, Maine, a



South Bristol's Merrill House, 1993.

Photo by Ellen Vincent, courtesy Tilbury House, Publishers.

town so defined and integrated by the sea and marine occupations that its municipal boundaries hold in both Rutherford Island and a chunk of mainland. South Bristol fit Ellen's criteria, and in the time she had remaining in her Watershed residency, she began to meet and speak to members of the old families, to boatbuilders, fishermen, and shopkeepers, who defied their reputation as a closed community by inviting her in.

For the next few years, Ellen returned to South Bristol each summer as her project coalesced and grew. The people of South Bristol continued to

welcome her and share their stories. If *Tell me your story* is the most seductive phrase in our language, as some journalism prof once told me, Ellen knew how to open the town's heart.

The *tradition bearers*, as she called them, welcomed her into their living rooms, allowed her to collect more than 70 hours of oral history, put their photo albums into her trusted hands, and guided her through extant and lost arts. They told her about bottom fishing, seining, drying and mending nets, building pogy steamers, extracting oil from menhaden, shucking clams, and smoking herrings. They shared tales of caulking wooden vessels, launching schooners, shipwrecks, lost lives, deep snows, and big storms. They told her about how the old-timers who found stones when cleaning hake knew a storm was coming, that it was a fact that the fish swallowed them for ballast. They described how to prepare dandelion greens, young raspberry shoots, bog onions, and fiddlehead ferns.

Passionate about her project and the people of South Bristol, Ellen taped their stories and made over 500 copy negatives of their photos. In Ellen Vincent's hands, their recollections became a 258-page book, [*Down on the Island, Up on the Main*](#) (South Bristol Historical Society & Tilbury House, 2003). As Dave Andrews, a South Bristol resident and Ellen's friend, says, "Ellen Vincent created a photo album for an entire community."

In its forward, she writes: “This is truly a collective memory of place, spoken in the words of its people. Their strength of character and unflagging humor have carried them through many decades, and it shows through in the cadence of these tales. Idyllic at times, at other times laden with hardship, this was a place where self-sufficiency was a virtue and neighbors were as family. It has been my good fortune to have been entrusted with gathering and assembling these recollections, and to now have the opportunity of sharing them in this book. In these pages I hope to share some of my good fortune with the reader. Through the images and rich memories, and with the words of these remarkable people, I hope to take you back in time to a place called South Bristol—back to those days of grace on the coast of Maine.”¹



Main Street South Bristol postcard No. 48, c. early 1900s.
Photo courtesy South Bristol Historical Society.

Ellen continued to revisit those days, honoring them through “installations”—arrangements of photos, drawings and artifacts accompanied by audio—that would be exhibited in two showings in Maine and one in Milwaukee. She worked with middle school children in South Bristol, engaging them in their own oral history project. She held up a mirror to a community to show them who they were, how admirable she found them, and in return, they trusted and admired her.



View of Elliot's Cove from the gardens of Anodyne House, where Ellen Vincent often stayed in South Bristol.
Photo courtesy Dave Andrews.

Photographer, sculptor, professor, oral historian—Ellen Vincent, a petite city woman whose background was unlike their own, had made the effort to come into their world, and the people of South Bristol loved her for it. They found her to be a patient, good listener, whose authentic interest in them revived their interest in their own historical society. In August 2003, in a ceremony of mutual adoption, the selectmen made her South Bristol's first honorary citizen.

Although she longed to live there full-time, the sabbatical on Rutherford Island, annual visits, and time spent at [Dave and Betsy Andrews' Anodyne](#)

[House](#) were days of grace that could not be sustained. Tethered to Milwaukee by a recurrence of

breast cancer, Ellen drifted away from the coast of Maine, even as her good friends there continued to call and send cards.

In February 2007, Ellen Vincent died in hospice care in Boca Raton, Florida, near family and water.

Four months later, I visited my former neighbors, Deane and Sarah Nesbitt, in their new home in western Massachusetts. Ellen and the Nesbitts had moved from Maryland to Wisconsin in 1989, caught up in a faculty migration. Although they stayed there for 18 years, buoyed by their close friendship, Milwaukee never felt like home to them.

We'd all left Wisconsin. And as we sat in the Nesbitts' screened-in porch on a July afternoon, we talked about the moves we'd made in the past 20 years, hoping to find the house, the town, the state that felt *right*. We talked about Ellen's journey. Her recollected history of South Bristol, with its watery blue cover, lay on the antique chest in front of us. It was proof of how some of us can and do earn that state of grace. Of how we lose ourselves and find our places.

Deborah Fries is the author of [Various Modes of Departure](#) (Kore Press, Tucson). In addition to writing and teaching, her professional life has included journalism, and public affairs for transportation and environmental issues. She is working on a second book of poetry and a collection of short fiction.

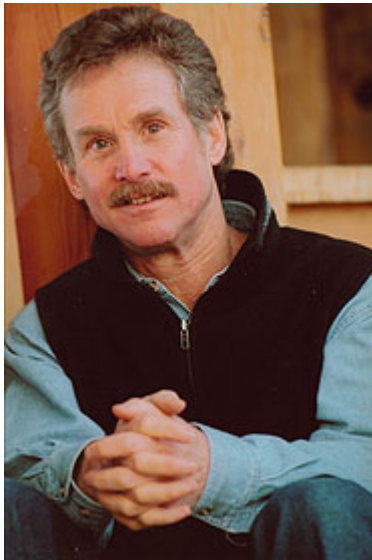
Interview



Terrain.org interviews

David Quammen author

About David Quammen



David Quammen is the author of eleven books including, most recently, [*The Reluctant Mr. Darwin: An Intimate Portrait of Charles Darwin and the Making of his Theory of Evolution*](#). His 1996 book, [*The Song of the Dodo: Island Biogeography in an Age of Extinctions*](#), won the John Burroughs Medal for Nature Writing and several other awards, and he has three times received the National Magazine Award for his essays and other short work. He is a Contributing Writer for *National Geographic Magazine*, and presently holds the Wallace Stegner Chair in Western American Studies at Montana State University. He lives in Bozeman, Montana, with his wife, Betsy Gaines, a conservationist.

Interview

Terrain.org: The award-winning Natural Acts column appeared in [*Outside*](#) magazine from 1981 to 1996, totaling 160 essays. How did the columns get started? What does it mean to have the essays serialized in books ([*Natural Acts*](#) and [*The Flight of the Iguana*](#))? Do you have "favorites" from those columns, and if so, which essays?

David Quammen: It began when I met John Rasmus, then editor of *Outside*, during a summer visit he made to Montana. Two friends and I, all three of us starving freelancers just trying to get started, entertained John for a day of fishing, then an evening of steaks and whiskey in their farmhouse. (The two friends, married then, were E. Jean Carroll—now a columnist for *Elle*—and Steve Byers, now an editor at [*National Geographic Adventure*](#).) By the end of the evening we were all great pals. That



didn't get me into *Outside* but gave me the opportunity to pitch an idea to John. The idea was: an essay on the theme "What's good about mosquitoes?" I wrote it, John loved it and asked me to take over the Natural Acts column. The mosquito piece became my first column, under the title "Sympathy for the Devil."

I've told this story before—it seems like a hundred times. John tells it differently.

Collecting magazine essays into books gives the writer the best of two formats: the large audience of the magazine, the long shelf life of the book. Also, in the book version, you can give credit to the various sources, bibliographical and human, that have made the piece possible. Can't do that much in a magazine.

My favorites? They would probably include "The Same River Twice," about those years when I lived in a small river town, with Steve and Jean my two closest friends, and maybe "Love in the Age of Relativity," a piece on clocks and Einsteinian ideas that revolves around my parents' 50th anniversary. "Chambers of Memory" is another for which my affection has endured—reflecting my years of obsession with [William Faulkner](#), and a thank-you to one of my early influences, the television reporter Hughes Rudd.

Terrain.org: Who are your literary influences and inspirations? Do you have any political influences? Teachers who made the largest impact in your life? Family members who did or continue to influence your work?

David Quammen: My strongest literary influence, throughout life, has been Faulkner. Started reading him as a sophomore in college, got utterly hooked, buried myself in his work for years. That was when I wanted to be a novelist myself (and, in fact, I started my writing career as a novelist). Did my graduate degree on questions of structure in Faulkner's novels. As I've said elsewhere (I think), I probably couldn't have handled the structural challenges of writing *The Song of the Dodo* (those readers who think it's a structureless bag of information and travels are wrong) if I hadn't studied Faulkner.

I had three very important teachers: Two Jesuits (in high school) and [Robert Penn Warren](#) (who taught me and befriended me while I was an undergraduate at Yale). Political influences? Maybe [Saul Alinsky](#), indirectly, by way of another Jesuit friend. I'm not much for speaking of heroes, but if I have political heroes they are: [Dick Gregory](#) and [George McGovern](#). Tells you what generation and milieu I come from, I guess.

Family members: Two saintly parents who have supported every quixotic ambition and crackpot adventure into which I've ever gotten diverted. Two sisters, equally supportive. My parents are now in their 90s, and we're still a close group of five.

Terrain.org: In *The Song of the Dodo* you write, "Islands are where species go to die." How so?

David Quammen: Species go extinct because their populations have fallen to low numbers, for one reason or another, and then something bad happens. Islands have been the preeminent sort of loci for extinction because (among other reasons) populations are generally held at low levels by the constraints of area. I could fill page after page explaining this further, but I won't. That's why I wrote the book.

Terrain.org: What is "island biogeography?" In researching it, did you change how you define the term "island?" Do you have a favorite island—from your eight-year journey in writing *The Song of the Dodo* or otherwise?

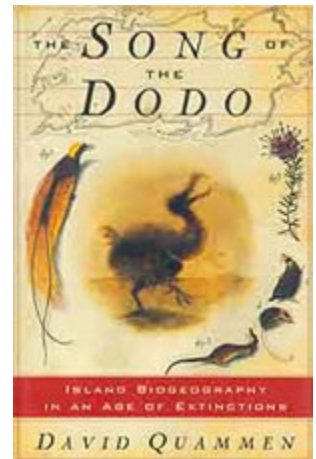
David Quammen: I didn't change the definition of "island." I merely reported and explained the fact that ecologists, beginning in the 1960s, had recognized that habit fragments of any sort represent islands, as far as the processes of community structure and extinction are concerned. [E.O. Wilson](#) and [Robert MacArthur](#) were the two young ecologists who, in 1963, brought this important realization forward to the scientific world.

Favorite island? Very hard to say. Madagascar is extraordinary, and I had wanted to go there for a long time before I embarked on *The Song of the Dodo*. I received a Guggenheim fellowship in 1988 for work on the book, and the first thing I did with that money was buy a ticket to Madagascar. I also love Indonesia (that's 13,000 islands) and Tasmania. Admission: Despite eight years of work on islands for *Dodo*, I have never been to the Caribbean. (I don't go to Europe often, either. I like places somewhat wilder and less traveled.)

Terrain.org: In January, I am chairing a panel titled "The Future of the Environmental Essay." Alison Hawthorne Deming, David Gessner, David Rothenberg, and Lauret Savoy will each present their perspective. What do you think the future of environmental essay holds? What are your thoughts on the term "environmental essay" compared, say, to "nature writing" or "writing on place?" Within this genre, what is most critical for you as a writer and reader?

David Quammen: With all due respect to your panel, Simmons, "environmental essay" is not a term I would ever use for anything I write, or anything I take pleasure in reading. If I do read anything that justly deserves that label, I'd be doing it from a sense of duty, not literary interest. I'm a crank on this subject: I also loathe the term "nature writing," or anyway loathe having it applied to what I do. What term, if any, does apply? I dunno. None that I'm fully comfortable with. I write nonfiction. Often on the subjects of evolutionary theory, field biology, ecology, and conservation. I also write sometimes about political history and travel. The underlying theme of much of what I do is: the yin and yang of landscape and human history. That is, I'm interested in the ways landscape shapes human history and the ways human history shapes landscape.

"Landscape nonfiction?" Naw. My pal [Barry Lopez](#) and I sometimes call this stuff "political



ornithology," a half-facetious term coined originally, I think, by [Graeme Gibson](#).

Terrain.org: In a [conversation with David Thomas Sumner in 2001](#), you say of environmental literature that "the writers who work in this vein have a responsibility similar to any nonfiction writer: be accurate, be interesting, be graceful—provide good reading—and write about things that are real and important, as *you* see them." Accuracy is under the public microscope these days; but which is more important: fact or truth (or *Truth*, with a capital T)? Can they be separated? Is nonfiction an art form like fiction or poetry, and therefore the pursuit of Truth is the ultimate goal, even at the expense of accuracy? Or does nonfiction maintain a higher standard precisely because it's not fiction or poetry (or advertising or television, etc.)?



Madagascar's Ranomafana National Park.
Photo courtesy WildMadagascar.org.

David Quammen: Fact or truth, yeah, that question. I utterly distrust the word "truth." I detest it when writers claim they are hedging on factuality in service to "higher truth." Or sometimes it's "the essential truth of a situation." Bullshit. Nonfiction should be composed, artfully but conscientiously, like a mosaic, from bits of accurate fact. Is it an art form? well, it can be, it should be. Artful, imaginative, accurate: this combination of adjectives is not contradictory. Readers should demand this of their nonfiction, and not settle for self-indulgent, falsified jive.

The form in which this boundary has been most egregiously violated recently is the memoir. Ugh.

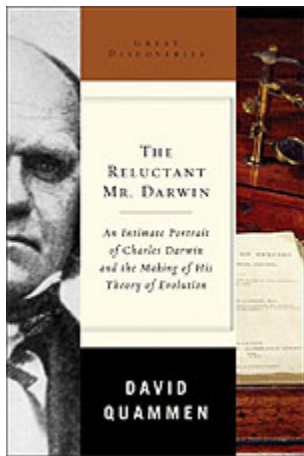
Terrain.org: "Following scientists in the field and describing their work has taught me," you've said, "that most scientists detest journalists, for good reason." Why do most scientists detest journalists? What responsibility does the journalist have to the scientist, and what responsibility does the scientist have to the journalist and, perhaps, to the broader public?

David Quammen: Most scientists detest most journalists because too many (I won't say most) journalists are careless of accuracy and lazy about doing their homework and double-checking their facts.

The journalist's responsibility to a scientist is, in exchange for time spent and access, to make every effort to achieve accuracy within the limitation on precision imposed by the publication and the audience. A journalist who doesn't understand the difference between precision and accuracy should stay away from science; write about Paris Hilton or... other analogies fail me. I guess that's because a journalist who doesn't understand the distinction between precision and accuracy shouldn't write about anything, not the NFL, not NASCAR, not politics.

Rant, rant.... Where was I? The scientist has no responsibility to the journalist, except perhaps decent civility in saying yes or no to an interview. If the scientist says yes, then it's not so much a new responsibility as an opportunity that has opened: an opportunity to see his or her work explained to the general public. Then the scientist should try to appreciate the inherent limits to precision, while not lowering his or her expectations that the result should be an accurate story.

Terrain.org: With your interest over the last two decades in evolutionary biology, was it only natural to write *The Reluctant Mr. Darwin*? What made you decide to write the biography, especially after spending so much time and attention on [Alfred Russel Wallace](#) in *The Song of the Dodo*? Does Wallace likewise deserve such a rich biography now?



David Quammen: I wrote the Darwin book because I was asked to do Darwin for a series of short biographies, the "Penguin Lives." James Atlas, an old friend of mine, invented that series. Do Darwin, he said. You're kidding, I said, me? Absolutely, he said, I don't want a lifetime Darwin scholar, I want your conscientious attention to the story and the work, and your voice. Then Jim parted ways with Penguin, before I'd gotten my book written, and he invited me to bring it with him to another series, W.W. Norton's "Great Discoveries," that he had just founded. If Jim hadn't persuaded me that a radically concise, essayistic life of Darwin was something the world needed, I never would have presumed to throw myself at that subject.

Alfred Wallace has gotten several pretty good biographical treatments in recent years. He's a wonderful character. Does he deserve an excellent new biography? yes, I suppose so, but it's not as though readers can't currently read about him if they want to.

Having told the Darwin-Wallace story in *The Song of the Dodo* mostly from Wallace's side, I enjoyed retelling the same story in *The Reluctant Mr. Darwin* from Darwin's side. There was no inconsistency or change of sympathy in this. It was merely a matter of different perspective, context, and emphasis.

Terrain.org: What are the challenges and rewards in writing biography—or at least in writing the specific biography of Charles Darwin?

David Quammen: The big challenges in doing a biography of Darwin are 1) the material is vast, and 2) many other biographies, some of them long and excellent, have been done.

Biography in general is a wonderful form for both readers and writers, and I'd gladly do it again. I'm presently running a seminar on short biography within the history department at Montana State University, and the readings for last night were Plutarch's *Alcibiades*, Samuel Johnson's *The Life of Richard Savage*, and Lytton Strachey's "[Florence Nightingale](#)". We had a fine old time discussing these three wonderful pieces of writing.

Terrain.org: You are a conservationist, not an environmentalist. What's the difference?

David Quammen: I'm both, but I frequently try to remind people that these are two distinct things. Environmentalism is mainly concerned with treating the world as a context for *Homo sapiens* and worrying about the pollution and other changes that cause harm to our species. Conservation is concerned with maintaining biological diversity and the integrity of ecosystems. It's possible (at least in the short term) to have clean water and clean air but still be allowing tragic losses of biological diversity.

As Michael Soulé has (I think) said: Environmentalism is about getting lead out of paint. Conservation is about saving species, populations, and ecosystems.

Terrain.org: You have noted that evolution is not incompatible with Christianity, but that Darwinian evolution is. How so? Is a common ground necessary, not so much from a religious perspective, but from habitat and species preservation perspectives?

David Quammen: This is a huge question. Two huge questions. The short answer to #1 is: Darwin's theory as articulated by Darwin is incompatible with Christian orthodoxy, in my view, because evolution by natural selection depends on random variation within populations; whereas the (Christian) notion that humans have a special spiritual status within creation, with opportunities and responsibilities that will send them to heaven or hell after death (and no such immortal consequences for earthworms or beetles), is dependent on the notion that God either created humans especially or else "guided" evolution to produce these special beings with whom he engages such a contract. If evolution is "guided," it's not Darwinian evolution.

Is common ground necessary, or at least desirable, for the sake of conservation? Yes. Ed Wilson is working on that front. So is my wife, Betsy Gaines. And others. I hope their efforts are fruitful.

Terrain.org: "If environmentalists are responsible for leading the fight to preserve species, to stave off the sixth great extinction, to prevent habitats from being chopped up into tiny pieces that can't support viable populations," you say, "then they need to understand how evolution functions." What are your recommendations for getting environmentalists—and the general public—to understand evolution? Is it more than teaching principles of evolution at school? Is the lack of a working knowledge of evolution, and perhaps more broadly ecology or basic biology, a national crisis? Should it be?

David Quammen: People shouldn't be afraid to read Darwin himself. That's one of the points I try to



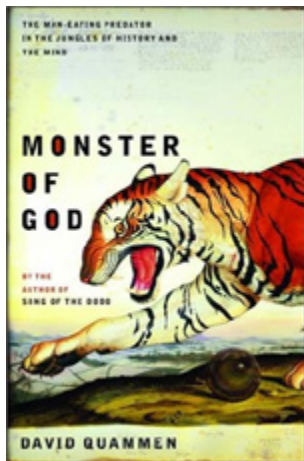
make in *The Reluctant Mr. Darwin*. Everybody treats "Darwinian" and "Darwinism" as common parlances, as though they know what these words mean. But if you really want to know what Darwin said, read [The Origin of Species](#). It's a terrific book.

Yes, we should all know more about this. We should teach evolutionary biology in the public schools. We should also teach a little bit of the science of ecology—to fifth graders, sixth graders. It's possible. They'll get it. They'll love it.

Terrain.org: What are your goals as a writer—beyond an individual piece and to broader communities, as well as to yourself? Do you find discrepancies between what you believe coming into a story, and what you discover during the research and writing, and if so, how do you resolve them? Or is the writing itself—the essay or article as process and product—the resolution?

David Quammen: Lytton Strachey said, "The first duty of a great historian is to be an artist." I'd extend that to say: The first duty of a good nonfiction writer is to be an artist. My main goals as a writer are to create things that are beautiful, fascinating, and meaningful using words, facts, and craft.

The researching and writing of a piece is always an experience of discovery, challenging what you think you know and what you feel you believe. If it isn't, you're in a rut, working too formulaically on subjects that are too comfy and safe.



Terrain.org: How does the writing process compare for articles and essays to books such as [Monster of God: The Man-Eating Predator in the Jungles of History and the Mind](#)? How does the process—the research and time allotment, for example—differ between shorter pieces and books?

David Quammen: Books take longer, because there are more pages.

Terrain.org: As the Wallace Stegner Distinguished Professor of Western American Studies at MSU, what are your responsibilities? Do you teach, and if so how do you like it?

David Quammen: MSU has given me, as (temporary) holder of the Stegner Chair, a luxurious degree of freedom to invent duties for myself, and an edifying degree of trust. I give two formal lectures per year to the university community; I run a formal but noncredit seminar for grad students in the history department, which meets monthly at our house to discuss readings on a theme; and I perform some other services (e.g., speaking to classes), within the history department and elsewhere in the university. I don't teach classes. I don't correct papers or give grades. I wouldn't; I couldn't, not without detriment to my own writing work. MSU understands this and welcomes me on comfortable terms. They don't want to put me out of business as a writer; the point of the Wallace Stegner Chair is to bring a working writer (and teacher) into the university, not to convert a writer into a teacher.

Terrain.org: When I was a freshman studying wildlife biology, a professor told our class that if we really wanted to make a difference, we shouldn't become biologists. Rather, we should work in business, make lots of money, and donate to the cause. That reminds me of your quote, "If you really love the landscape, live in town." There is a town planning movement called New Urbanism that strives to create livable, compact, and pedestrian-focused towns. More and more, these new and redeveloped towns are implementing advanced resource efficiency measures, too. Integrating wildlife, or wildlife corridors, into these towns is, perhaps, the next logical steps. What are your thoughts on coexisting with native wildlife in an urban setting? Is it possible to live amiably with dangerous wildlife, or is it wiser to create boundaries beyond which our towns should not grow?

David Quammen: Your professor was nuts. Or anyway (more politely, and in my humble opinion) wrong. The conservation movement doesn't need more money; it needs more people who understand the ineluctable interconnectedness of life on Earth. You don't get that from making money in business and writing checks to the World Wildlife Fund as a way of salving your conscience. Criminy.

The point about living in town is completely different. I'm all in favor of denser housing, whether you call it the New Urbanism or whatever. I've lived on the same one-eighth acre of urban (okay, town) Montana for the past 22 years, not because I've been saving up to own a ranch, but because I have no interest in owning a ranch. Leave the "ranchable" country to elk, wolves, and grizzlies—that's what I meant by that comment. Live in town among the magpies and squirrels, who don't need such undisturbed open spaces.

And yes, we can allow wild fauna and flora to exist (to some degree) in our towns. Even our cities. Central Park is a good thing for all concerned.

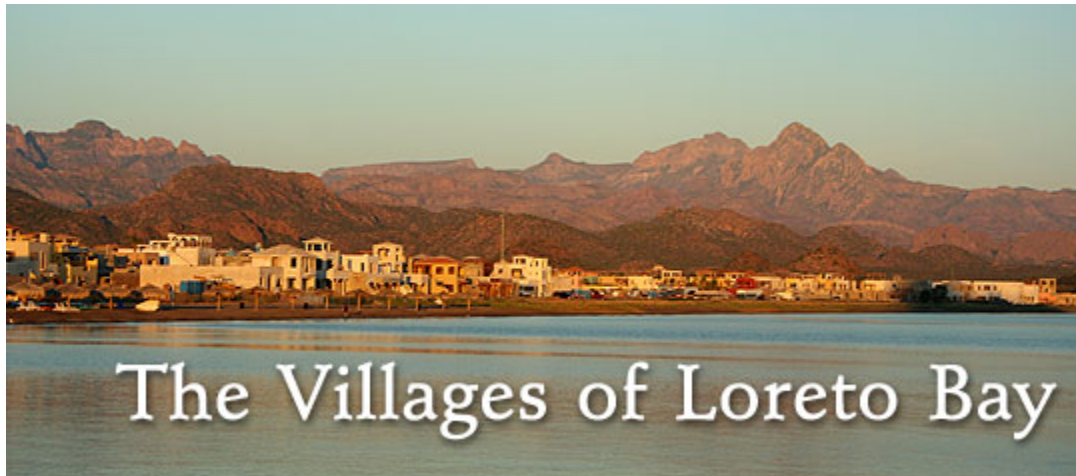
Dangerous wildlife? If you mean predators, the flash point is generally livestock. Humans and big predators clash because the humans want to raise and protect domestic ungulates and the predators want to hunt and eat wild ungulates. The domestic ungulates are inserted, supplanting the wild ungulates; the predators eat what's available; the humans protest, and somebody gets hurt. I go on at length about this in *Monster of God*.

I don't recommend cougars in Central Park. Not enough poodles to sustain a viable population.

Terrain.org: What's next for David Quammen?

David Quammen: I've just begun a book project on gorillas and viruses and humans and bats. I have a relationship with *National Geographic Magazine* (as contributing writer) that keeps me traveling to interesting places. My commitment to the Stegner Chair is for the coming year. Etc. Lots of balls in the air; sometimes I feel like a juggler on the *Ed Sullivan Show*. But each one of those balls fascinates and satisfies me. Plus there's telemark skiing. Is it possible, in our sad postmodern age of climate change, to close this interview by saying: "Think snow"?

UnSprawl Case Study



Baja California Sur, Mexico

Overview

Located seven miles south of the [town of Loreto](#) in Baja California Sur, the [Villages of Loreto Bay](#) is an 8,000-acre new urbanist development that strives to be North America's largest sustainable resort development. At buildout—anticipated by 2020—the \$3 billion project will include village neighborhoods constructed in nine phases primarily along the protected Loreto Bay on the Sea of Cortés.

Nearly all pedestrian-oriented villages will feature commercial services such as corner markets within walking distance, and a town center featuring a larger collection of retail uses a short walk from the neighborhoods is under construction. Though 6,000 homes are planned (including condominiums above commercial), 5,000 acres of the site have been set aside as permanent natural open space, and the project will also incorporate two championship-level, low saltwater-use golf courses and other amenities such as spas, boutique hotels, and a new marina.



Loreto Bay Company's municipal office, in the shadow of Baja's oldest mission in central Loreto.
Photo by Simmons Buntin.

Sustainable design and resource features include plans for the construction of two utilities—an onsite desalination plant for water harvesting, and an offsite wind farm to generate electricity—plus the use of passive and active solar technologies, alternative building materials and construction waste recycling, an onsite agricultural center that produces organic fruits and vegetables, and extensive estuary and mangrove regeneration. Other efforts include implementation of a regional affordable housing strategy, construction of a new full-service medical facility, and the donation—through the [Loreto Bay Foundation](#)—of one percent of gross proceeds to “assist with local social and community issues.”



Loreto's famous street trees: a canopy of figs over cobblestone, lined by shops.

Photo by Simmons Buntin.

The Community

Nestled between the steep *Sierra de la Giganta* mountains and the Sea of Cortés—“where the mountains come to swim”—Loreto is a community of firsts: first settled more than 10,000 years ago by the Cochimi and Guaycura peoples, it was Baja’s first permanent Spanish settlement when Jesuit priest and explorer Juan Maria de Salvatierra established the *Mision de Nuestra Señora de Loreto*. Loreto then became the first capital of the Californias, a title it held until 1829, when a hurricane destroyed much of the city and the capital was moved

south to La Paz.

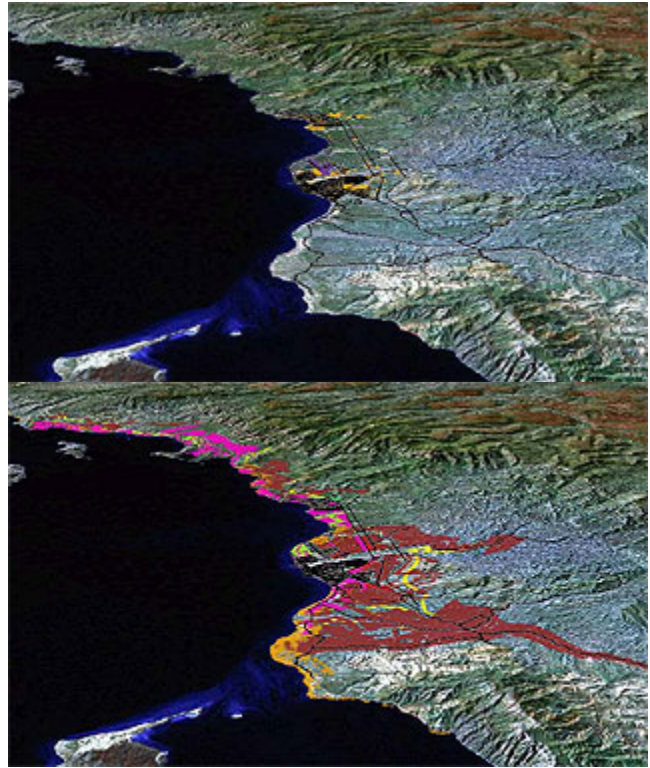
Located among lush thornscrub desert, Loreto receives little rainfall yet is surrounded by a rich mix of desert plants that include towering cardón cactus and white-barked palo blanco, in part due to hot and humid summers. The [Bay of Loreto National Marine Park](#) was designated in 1996 and, supported by the non-profit environmental organization Grupo Ecologista Antares, the federal Marine Park Authority manages the park, which includes the rugged islands of Coronado, Del Carmen, Danzante, Montserrate, and Santa Catalina. In 2005, the United Nations designated the full Sea of Cortés, including Loreto Bay, as a [World Heritage Site](#). Marine species finding refuge in the bay include sea turtles, mother-of-pearl, starfish, sea urchins, fan coral, killer whales, blue whales, dolphins, manta rays, and sea lions—as well as hundreds of fish and bird species that use the area’s mangrove estuaries as hatcheries and rooks.

Historically, Loreto's economy was based on fishing and ranching, according to the [Alternative Futures for the Region of Loreto, Baja California Sur, Mexico](#) report published in 2005. Now, however, "the region depends heavily on tourism, focused mainly on sport fishing." sport fishing, a growing movement in ecotourism, and a recent, rapid increase in real estate development for second-home (predominantly American and Canadian) buyers draw more than 60,000 foreign visitors per year.

Though the population of Loreto today is about 15,000 people, it is expected to grow to more than 100,000 in the next twenty years, raising concerns of resource use and unchecked development. And while Loreto is the first community on the Baja peninsula to have a city master plan, the *Alternative Futures* report states that "degradation of the ecological, visual, and recreational landscape may have profound consequences for the future of the tourism and real estate sectors, as well as the quality of life for the residents of Loreto. As the size of Loreto grows, the risk of damaging the economic base for sustaining future growth also increases." The report also notes, however, that with proper planning, economic and environmental outcomes are not in conflict.

Project History and Vision

More than 30 years ago, the federal tourism development agency *Fondo Nacional de Fomento al Turismo* ([FONATUR](#)) designated Loreto one of five areas in Mexico with high tourist potential. The others were Cancun, Los Cabos, Ixtapa-Zihuatenejo, and Huatulco. And while tourism in Cancun and Los Cabos, for example, have rapidly expanded, infrastructure investments including a new airport, roads, water supply, and sewage treatment facility did not result in the enhanced Loreto tourism that FONATUR anticipated. Loreto's recent interest is likely the result of increased real estate development by foreigners and a renewed Baja tourism promotion program by FONATUR.



Current (2005, top) and projected (2025, bottom) urban growth in and around Loreto, Baja California Sur—looking south.

Graphics courtesy *Alternative Futures for the Region of Loreto, Baja California Sur*, Harvard University.



The Villages of Loreto Bay, with golf course and Inn at Loreto Bay—looking north.

Photo courtesy Loreto Bay Company.

The Villages of Loreto Bay began when FONATUR approached Canada's [Trust for Sustainable Development](#), spearheaded by David Butterfield, to redevelop the Loreto Bay property in a sustainable manner. A partnership agreement was subsequently signed in 2003, and a pioneer team was established in January 2004. Butterfield was also instrumental in the creation of the environmentally-oriented, new urbanist [Community of Civano](#) in southeast Tucson, Arizona. The Trust for Sustainable Development then created the Loreto Bay Company, which in December 2005 partnered with

Citigroup Investment Partners. Loreto Bay initially partnered with Citigroup to purchase an existing 155-room hotel that has since become the Inn at Loreto Bay, though the partnership has expanded to include other Villages of Loreto Bay projects.

“Our vision is to create a peaceful, authentic Mexican community that preserves and enhances the integrity of the environment and allows people to experience the natural beauty of this seaside village,” says Butterfield. “Loreto Bay is sure to attract those looking to embrace the casual, outdoor lifestyle of Baja.”

Jim Grogan, president and CEO of Loreto Bay Company, says, “It is our goal that Loreto Bay set the standard for sustainable developments around the world. Our focus is on conserving energy, reducing water consumption, solid waste materials, and air pollution, as well as creating economic opportunities through new jobs and local businesses.”

In developing the Villages of Loreto Bay, Butterfield sought a personal answer to a far-reaching question: Where could he and his wife retire? His answer, according to Loreto Bay marketing materials, sets the vision for the development:

The setting would be beautiful and inspiring. It would place us in an exotic, emerging country rich in history, authenticity, and vibrant culture. Yet it would also provide us with all the comforts of home: clean water, excellent medical care, modern infrastructure, and safe streets.

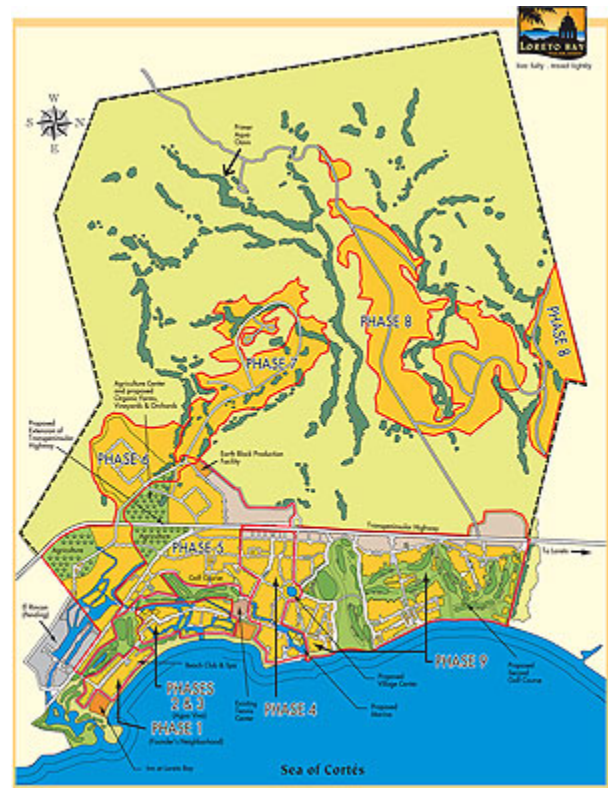
From the start, it would be planned for humans rather than for automobiles. If we could do without cars, residents would be surrounded by quiet, narrow streets instead of noise and pollution, wide stretches of asphalt and architecture dominated by garages. Walking to the village center, to the beach, or anywhere, would be a daily pleasure.

A mix of housing types and prices would lead to a more diverse community of interesting people from all over the world. Beautifully appealing, human-scale architecture would be a wonderful expression of beauty and functionality. Landscaping appropriate to the habitat would be used to enhance the natural beauty of the surrounding wilderness.

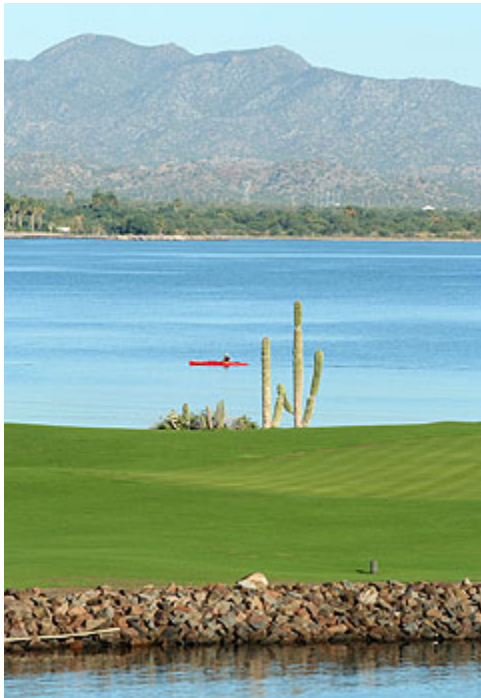
Finally, it would be a place where wellness-centered lives could thrive and where we could continue to learn. Where a day of golf or fishing or kayaking or whale watching would end with a visit to a museum or gallery. Where artistic, cultural, and intellectual pleasures are a seamless part of the life of the community, and where fitness, health, and vitality were a part of everyday living.

More specifically, the Villages of Loreto Bay is based on the principles of new urbanism, and the project's master plan was created by [Duany Plater-Zyberk & Company](#). The principles that drive the project's design are:

- Providing independence of movement for everyone (especially the elderly and the young) by bringing most of the activities of daily living within walking distance
- Minimizing congestion, the expenses of road construction, and air pollution by reducing the number and length of automobile trips required in a community
- Bringing neighbors together by providing streets and squares of comfortable scale where people can gather
- Forming authentic communities and integrating age and economic classes by providing a full range of housing types and work places
- Facilitating democracy and a balanced society by providing suitable civic and public buildings and spaces



Site map of the Villages of Loreto Bay.
Graphic courtesy Loreto Bay Company.



Kayaker in Loreto Bay with Loreto Bay's first golf course in the foreground.
Photo by Simmons Buntin.

Loreto Bay's commitment to sustainability is even more ambitious: "The community produces more energy than it uses, harvests more potable water than it consumes, and creates more biodiversity than existed before the project started."

Construction on the first neighborhood, Founders' Village, began in fall 2004, and project completion is expected in 2020.

Sustainability

The concept of producing more energy, harvesting more potable water, and creating more biodiversity is what Loreto Bay vice president of sustainable development David Veniot calls regenerative design. "Instead of simply trying to limit the impact a development has on the surrounding environment and community," he says, "regenerative design asks, 'How can we enhance the place where we live so much so that it, in turn, enhances our own lives there?' This philosophy is at the heart of our approach to sustainability at Loreto Bay."

Regenerative design begins with an in-depth site assessment and study of the region's natural and human history in order to restore ecological health to a place "and then expand its capacity for health by developing a symbiotic relationship between the humans that inhabit that places and its natural systems." The project's "sustainability priorities are energy and water conservation, habitat protection and enhancement, reduction of solid waste materials, and prevention of air pollution," according to its [*Inaugural Sustainability Report*](#), published in June 2007.

At Loreto Bay, regenerative design and sustainable development fall into three categories—social, economic, and environmental:

Social

Loreto Bay's social sustainability goals include the implementation of a regional affordable housing strategy to ensure that people who work at Loreto Bay can afford to live in the area. Currently, single-family housing prices start at over \$300 per square foot, which is well beyond the average Loreto resident. To that end, Loreto Bay is planning onsite housing for employees in a phased approach: 50 employees by the end of 2007, 1,000 by the end of 2009, and 6,000 by project completion. "Construction has not started yet," says Veniot, "but we are in discussions with FONATUR concerning advance purchase of Phase 5 designated land (44 hectares) and amending the master plan to allow enough density for a worker village." Features of the employee village, which will be within walking distance of the town center, other restaurants, and industrial lots, include:



The main street in Founders' Neighborhood, with retail at street level and residences above.
Photo by Simmons Buntin.

- 420 residential units (one-, two-, and three-bedroom studios and suites, plus some six-bedroom communal clusters) totaling 1,080 bedrooms that will accommodate 500 to 800 employees with families
- Commercial with small market and laundromat
- Children's and vocational schools
- Neighborhood squares



Many of the village homes in Loreto Bay feature rooftop terraces.
Photo by Simmons Buntin.

- Organic gardens
- Church
- Playgrounds and lighted playing fields
- Possible greenhouse-style natural wastewater treatment facility

Because the nearest hospital is in La Paz, two hours south of Loreto Bay, the Loreto Bay Company has contributed funding and design consultation toward the construction of a new hospital in Loreto, which will be operational in early 2008.

The Loreto Bay Company has also committed to dedicating one percent of the gross proceeds of all sales and re-sales, in perpetuity, to the Loreto Bay Foundation, which was founded in September 2004 by the Trust for Sustainable Development. The Foundation operates as an independent Mexican not-for-profit corporation. ([See sidebar for more information.](#))

Economic

The economic sustainability goals for the Villages of Loreto Bay project include:

- Create significant new jobs in Loreto. It is anticipated that 4,500 permanent and several thousand additional jobs during construction will be generated from the project. Additionally, the Loreto Bay Foundation “will provide micro-lending, job training, and entrepreneurial training for local residents,” while the Loreto Bay Company is “working closely with the Foundation to develop education programs to upgrade local skills in order to fill jobs being generated by the Loreto Bay project,” according to Foundation executive director Mark J. Spalding. Many skilled construction laborers have come from mainland Mexico; a goal is to enhance the skills of local residents to allow them to effectively compete for these and other jobs.
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- Enhance the local economy through responsible tourism development.
- Build a successful community that delivers a healthy rate of return for investors, homeowners, and partners.



Founders' Neighborhood courtyard homes feature Mexican Colonial style and intricate architectural details.
Photo by Simmons Buntin.

Environmental

In order to meet its goal of producing more energy from renewable resources than the project consumes, the Loreto

Bay Company has implemented a plan for renewable resource use and conservation. After realizing that compressed earthen walls originally planned (and used on the first 300 homes) are not as efficient as anticipated because of high nighttime temperatures and humidity during summer months, the homes are now built with [Perform Wall](#), a recycled concrete-Styrofoam mix with an R-40 insulation rating that uses significantly less concrete than conventional Mexican building methods, saving an estimated 7.2 tons of carbon dioxide emissions per home. The homes also feature solar hot water heaters, while solar photovoltaic systems are used in the community for fountain pumps and other systems.

The Loreto Bay Company has signed a renewable land lease agreement at Puerto San Carlos, on Baja's Pacific coast, to build a 20 megawatt commercial wind generating facility that will tap into the existing transmission system, supplying all of the Villages' power needs, currently estimated at a peak of 11.5 MW. Surplus electricity will be sold to the main municipalities in Baja California Sur, including Loreto, La Paz, and Los Cabos, and the plant will be expanded to 60 MW capacity by project buildout to meet anticipated demand. A special purpose company for the wind utility has been formed, and final project design is underway. Environmental permitting has also been completed. The largest environmental concern is plant salvaging; no negative avian impacts were identified in the environmental impact assessment. Road and foundation construction are expected to begin in 2008, and wind farm operation is expected to commence in winter or spring 2010.



Natural thornscrub desert surrounds the golf course.

Photo by Simmons Buntin.

Loreto Bay's strategy for harvesting or producing more potable water than it uses includes conservation, harvesting, and watershed restoration. Homes and businesses incorporate low-flow fixtures and appliances, while the golf course uses paspalum grass, a saline-tolerant, low-growing plant that requires considerably less freshwater than typical golf course grass. ([View sidebar for more information.](#))

A stormwater management plan has been created to "make optimum use of rainfall runoff for irrigation and estuary flushing," according to Loreto Bay's sustainability materials, and wastewater will also be treated and reused onsite for landscaping and agriculture once sewage treatment plant construction is complete, expected in 2008.

The natural areas permanently set aside within the 8,000-acre project contain two watersheds. Loreto Bay plans to implement a watershed restoration program by placing check dams and flow-slowing structures at runoff channel faultlines that allow mountain runoff to be collected and replenish the existing aquifer.

Aquifer replenishing and onsite water harvesting, however, will not provide enough water in the long run. Research and planning for a 1- to 1.5-million gallon/day reverse osmosis deep intake and injection well system—a desalination plant—are therefore underway. Before implementation, Loreto Bay is conducting a comprehensive environmental assessment and extensive hydrogeologic testing. Test wells and hydrogeologic analysis begin in early 2008, and the desalination plant itself should be operational by fall 2009, according to Veniot.

Loreto Bay Company's waste management plan provides three outlets:

- Compostables
- Recyclables
- Non-recyclable garbage

Waste organics produce compost that is subsequently used onsite for landscaping and agriculture. Recyclables are delivered to an onsite materials recovery facility, “where they are sorted and either recycled locally or distributed for reuse,” according to Loreto Bay sustainability materials. Loreto Bay’s goal is to recycle 75 percent of the construction waste, and through June 2007 it has managed to recycle 74 percent of all construction waste by volume, including toxic materials.

Loreto Bay EcoScapes Agricultural Center

The Agricultural Center is a joint venture between the Loreto Bay Company and Saline Habitats. EcoScapes specializes in saline and coastal ecosystems, and at Loreto Bay:

- Conducts development of biological resources of the area
- Salvages and transplants native trees and other flora
- Conducts gardening and landscaping
- Promotes plant propagation and production
- Grows organic fruits and vegetables for local restaurant and other use
- Conducts ecological restoration, including the mangrove estuary and other wetlands



An Agricultural Center worker prepares yam cuttings for propagation.
Photo by Simmons Buntin.

The Agricultural Center “plays an integral role in Loreto Bay Company’s efforts to preserve and enhance the ecosystem and biodiversity of the land,” says the Loreto Bay development team. In addition to producing organic food, it maintains a nursery for food plants, trees, and other landscaping plants, and a mangrove nursery where 20,000 mangrove seedlings have been harvested and an additional 7,500 seedlings are planted, adjacent to the first golf course. As the mangroves mature, they are planted to restore and expand the estuaries, including in the new, canal-lined Agua Viva neighborhood.

As with the golf course, challenges at the nursery include limited access to freshwater. The single onsite well contains salty water (5,000 parts per million salt). While potable water must be trucked in, the Ag Center is also experimenting with vegetables, turf grass, and trees that can grow on the salty water. Center director Dan Murphy believes that the EcoScapes Agricultural Center may be the only organic farm in Mexico, and perhaps the Western hemisphere, using salty water. “But that first batch of kale,” he says with a laugh,

“sure was too salty to eat.”

Villages and Homes

Each of the nine villages at Loreto Bay represents a different phase, and the first two phases—Founders’ Neighborhood and Agua Viva—are currently under construction. Founders’ Neighborhood is about 75 percent complete and mostly sold out, containing more than 600 homes with prices beginning at \$300,000. Located centrally, it is comprised of “streets [that] flow like streams; from wide to narrow, under archways, and in and out of sun-drenched courtyards,” says Ayrie Cunliffe, original town architect.

The area surrounding Founders’ Neighborhood—east of Mexico Highway 1 and tucked along three miles of beaches—will include the town center as well as phases 1 through 5 and 9, all pedestrian-oriented. West of the highway, the 5,000-acre nature preserve surrounds phases 6, 7, and 8, which “tuck a village into the foothills of the Sierra de la Giganta mountains and allow a footprint-limited development of individual homes,” according to Duany Plater-Zyberk & Company.

Loreto Bay Company leaders note that “village scale architecture is how we put the principles of new urbanism into action. At the heart of this ideal is the belief that communities should be designed not for cars, but for people, and that this design should strive to enhance our quality of life.” Three overriding principles therefore drive village design:

- **A walkable community**—neighborhoods are designed so that most residents are within a five-minute walk of the neighborhood center, where daily needs like transit stops, work places, retail, community events, leisure activities, and the beach are all readily available.
- **Streets and buildings**—Streets within the neighborhoods and in the development overall are laid out in a modified grid network, allowing streets to be smaller with slower traffic. In most phases, the streets and alleys among homes are completely car-free, which “encourages you to discover hidden courtyards and *callejón*,” or alleys. On the network of streets is a mix of homes, condominiums, shops, restaurants, offices, and warehouses.
- **Public spaces**—“Open space is provided in the form of courtyards with trickling fountains, playgrounds, and parks and greenbelts,” notes Loreto Bay marketing materials. “Civic buildings, schools, meeting halls, theaters, churches, clubs, and museums are placed on squares or at the end of street vistas. By being built at important locations, these buildings serve as landmarks and friendly gathering places.”



View of golf course and Sierra de la Giganta mountains from a custom home in the Founders' Neighborhood. Photo by Russ Heintl, courtesy Loreto Bay Company.



Rendering of canal with mangrove and hard edges and homes in the Agua Viva neighborhood.

Graphic courtesy Loreto Bay Company.

Agua Viva is the second neighborhood, with homes beginning at \$400,000, and is a built attempt to meet Loreto Bay's third leg of regenerative design: creating more biodiversity than when the project began. It will accomplish this goal by incorporating five miles of new inland waterways—soft-edged estuaries and structured canals, the former providing native mangrove habitat for marine and bird species—situating the neighborhood between the beach, golf course, and Highway 1. The neighborhood features a variety of Mexican Colonial-style homes, including courtyard homes, luxury condominiums, and beachfront and golf course custom homes.

According to Loreto Bay Company management, “the planned village center will be an island located where it all flows together. Cafes, studios, and galleries will populate the edges of this vibrant urban village center and golfers will play through the center of the village like the best of Europe's Old World courses. There will be performance spaces [including a waterside amphitheater], gathering spaces, and wide promenades along the water's edge. *Posadas*, or small hotel apartments, will look down into the town square and out across the estuary to the sea and the Sierra de la Giganta mountains.”

Currently, Loreto Bay Company offers three types of homes throughout the Villages: village homes, custom homes, and condominiums. Village homes are located throughout the phases; eleven floor plans ranging from 1,515 to 2,380 square feet feature private interior courtyards, rich finishes, and environmentally sound construction, including the use of Perform Wall, plaster, and low-VOC paints. Custom homes can be placed on beachfront and golf course locations, often in “very special residential enclaves,” though still publicly accessible among *paseos*. The Founders' Neighborhood includes three condominium buildings—Posada del Mercado Norte, Posada del Mercado Sur, and Casa Nopoló. The first two are sold out. Each four-story building in “the town's signature architectural style” includes one-, two-, and three-bedroom homes, a private pool, and landscaped grounds and gathering places.

The theme of Loreto Bay's residences is "Live Fully. Tread lightly." At the homes, residents will "find everything you desire: the sea, the proposed beach club, and the planned shops and restaurants of the town center," says the Villages of Loreto Bay website. "The pathways and public spaces are beautifully scaled and detailed with fountains, carved wood, cooling tile, and other design elements."

Commercial and Mixed-Use Development

Each village is built around a neighborhood center with commercial services such as shops and restaurants. In some neighborhoods, as in Founders' Neighborhood, mixed-use buildings that contain retail at street level and residences upstairs will be constructed. At the core of the development is a town center, where a larger market, galleries, boutique hotels, and other services will be located.



Village homes along main street in Loreto Bay's Founders' Neighborhood.

Photo by Simmons Buntin.



Mangrove estuary and nursery adjacent to the Inn at Loreto Bay.

Photo by Simmons Buntin.

The largest current commercial entity is the [Inn at Loreto Bay](#), a 530,000-square-foot, 155-room resort that opened in 2002. The Inn offers a spa, meeting spaces, restaurants and bars, recreational activities such as kayaking and snorkeling, a large pool, and other amenities, and is located on a secluded beach adjacent to the Loreto Golf Club.

Amenities

With its location on the Sea of Cortés, the Village of Loreto Bay offers a variety of outdoor and other amenities. After location, the community's design is its primary amenity: narrow, walkable streets, lush landscaping, estuary and other natural open spaces, vernacular architecture, and a mix of uses allow residents and visitors to move freely and enjoy vistas of the steep mountains and the sea.

Built amenities include the Loreto Bay Beach Club, Loreto Golf Club, and Loreto Bay Racquet Club. Other amenities include a day spa at the Inn at Loreto Bay, plus three miles of open beach and access to the bay itself for kayaking, snorkeling, scuba diving, and

related activities.

The Beach Club will “serve as the five-star centerpiece of Loreto Bay,” according to marketing materials. It will offer more than an acre of water features, from grotto pools and negative-edge pools with waterfalls to private coves and a children’s play pool with slide and lazy river. As the hub for the community, the Beach Club will also feature a movie theater, children’s activity center, library, and full-service fitness facility. Adjacent amenities include restaurants, bars, and cafes.

Two championship-level, 18-hole golf courses are planned. The first has been redesigned by PGA Tour professional David Duval, and is near completion. Managed by Troon Golf, the course is unique because its renovation includes the use of a mix of freshwater and saltwater for irrigation, organic fertilizers, and design elements that provide for wildlife habitat, including mangrove estuaries and an onsite mangrove nursery. ([See sidebar for further information.](#))

At buildout, the Villages of Loreto Bay also plans to have a 100- to 200-slip marina at the town center.

Measuring Success

A [2006 article in *Baja Life*](#) criticizes the Villages of Loreto Bay for declaring that it is North America’s largest sustainable development—without setting sustainability goals or creating methods for gauging success. “Loreto Bay is claiming to be a sustainable development without using any measurement tools to prove it or without making an actual effort to do so and hoping that no one will



Rendering of condominiums near the Villages of Loreto Bay town center.

Graphic courtesy Duany Plater-Zyberk & Company.

A Sustainable Golf Course?



Loreto Bay is transforming the site’s original golf course into a community park with a championship golf course in it. The “recreation commons” will allow the 7,200-yard, Par 72 course to facilitate not only golf, but also walking and hiking paths, kayak areas in small coves, playgrounds, picnic areas, garden areas, and natural mangrove forests.

[Read full story below](#)

notice,” says Ross Spiegel, author of *Green Building Materials*.

Loreto Bay’s *Inaugural Sustainability Report*, however, identifies commitments and results to date for its sustainability measures. For example, designers estimate that the Villages of Loreto Bay will

offset a minimum of 140,000 tons of emissions annually by the time it is completed, with an additional 43,000 tons in prevented carbon dioxide emissions due to reduced use of cement. How? The “no car” design saves 11,400 tons of CO₂ per year; energy-efficient appliances save a total of 11.4 gigawatthours of electricity per year compared to standard appliances; and the use of compact fluorescent lights in lieu of incandescent bulbs saves over 20,000 tons of CO₂ per year. Other emissions and pollution reduction goals include:

- 66,000 tons of CO₂ emissions per year by
- buildout through wind generation as the 20 MW wind farm expands to 60 MW capacity
- 6,300 tons of carbon and 10 gigawatts of electricity saved through solar hot water heating
- 446 million gallons of potable water saved annually by using reclaimed and brackish water for landscaping and golf course irrigation
- 1,100 tons of carbon sequestered annually by planting five linear miles of estuary mangrove forests

Other sustainability goal progress, if not explicitly quantified, is nonetheless documented in the *Inaugural Sustainability Report*, including job creation, agriculture, and community support through the Loreto Bay Foundation. [Read the full report.](#)

Success of the project can also be measured—and most often is—in home sales. Here the Villages of Loreto Bay excels. The project recently passed \$330 million in residential sales, selling approximately 750 homes through November 2007. Re-sales have also been brisk. Loreto Bay Company’s marketing efforts have been substantial, benefiting not only project sales, but area tourism, as well.

“The project speaks for itself,” says new Agua Viva homeowner James Young. “The vision, size, and scope are impossible to fully comprehend without actually seeing it.” Living in southern California, Young’s purchase was based both on developer commitment and the project’s emphasis on sustainability.

“My decision to buy came down to my belief that the owners were truly committed to building a project that would preserve the integrity and beauty of this glorious property,” he says. “My purchase is a gift to my children, grandchildren, and future generations as a special place for my family to visit where they can enjoy the spirit of this truly magnificent place.”

Loreto Bay Foundation and the Creation of the Sustainable Coastal Development Standards



The nonprofit [Loreto Bay Foundation](#), formally *Fundación Bahía de Loreto*, strives “to serve the social, educational, ecological, and business needs of the town of Loreto and the surrounding region, which are growing and changing with the development of the Villages of Loreto Bay.” Between its founding in September 2004 and the end of 2006, the Foundation received over \$1 million in funding, providing nearly \$700,000 in grants while undertaking approximately \$280,000 in direct program services for the community.

[Read full story below](#)

Conclusion

Though early in its 15-year buildout, the Villages of Loreto Bay has already demonstrated and found success in an aggressive approach to sustainable development, an approach that ensures an “authentic Baja” sense of place while restoring and preserving much of the environment around it. The pedestrian-oriented, mixed-use neighborhoods rich in vernacular architecture and desert landscaping serve as both resort and community. Built respectfully upon the area’s cultural and natural history, it is a community leading the way in sustainable design for Mexico—and far beyond.



Courtyard homes across from the Inn at Loreto Bay.
Photo by Simmons Buntin.

Just the Facts

The Villages of Loreto Bay, Baja California Sur, Mexico

- New urbanist seaside development of mixed-use village neighborhoods on 8,000 acres
- \$3 billion project
- Buildout in 9 phases anticipated at 12-15 years
- 6,000 Colonial Mexican style homes at buildout; first neighborhood—Founders’ Village—is 75% complete
- 5,000 acres set aside as a natural preserve that includes intensive mangrove restoration and creation
- Amenities will include 2 18-hole championship golf courses, resort hotel, beach club, tennis center, marina and sport fishing center, and spa
- Renewable energy and energy efficiency measures include solar hot water and photovoltaic systems, new 20 MW wind generation plant (expandable to 60 MW), passive solar home design, Perform Walls, and super-efficient appliances
- Water conservation measures include saline tolerant plants, xeriscaping, aquifer recharging, and construction of a desalination plant
- Agricultural Center for onsite organic food production and native plant nursery
- Onsite mangrove nursery program
- Loreto Bay Foundation funded by 1% of home sales and re-sales
- Designed by Duany Plater-Zyberk & Company; Ayrie Cunliffe, architect
- Developed by the Trust for Sustainable Development, Loreto Bay Company, and FONATUR, Mexico’s tourism development agency

Loreto Bay Foundation and the Creation of the Sustainable Coastal Development Standards



The Villages of Loreto Bay and Sea of Cortés.

Photo courtesy Loreto Bay Company.

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Between its founding in September 2004 and the end of 2006, the Foundation received over \$1 million in funding, providing nearly \$700,000 in grants while undertaking approximately \$280,000 in direct program services for the community.

The Foundation is managed by Mark J. Spalding, an expert on coastal and marine biodiversity conservation and community foundation philanthropy. It is currently hosted by the Ocean Foundation, a private, international grant-making portal focused on ocean resource conservation.

Foundation projects benefit the local community and the National Marine Park. For example, the Foundation commissioned Sherwood Design Engineers to create the Sustainable Coastal Development Standards, which propose “clear regulations for responsible coastal development in a region experiencing rapid tourism development.”

Specific objectives include:

- Protect and integrate built forms with the local environment
- Maintain essence of the region with respect to scale and cultural heritage
- Protect the valuable marine areas, such as the Loreto Bay National Marine Park
- Educate the community on the practice of sustainable development
- General political support leading to adoption of Standards as a governing document
- Allow for measured economic growth

The project team is now creating a Standards-based guide for developers.



Aerial photo of the "human whale" made with 1,000 school children from Loreto in May 2007. Children attended a marine conservation presentation, cleaned up the arroyo and beach, and formed the image of a blue whale to promote whale and bay conservation.

Photo courtesy Loreto Bay Foundation.

A Sustainable Golf Course?



The first golf course is lined in many places with mangrove estuaries.

Photo by Simmons Buntin.

Loreto Bay is transforming the site's original golf course into a community park with a championship golf course in it. The "recreation commons" will allow the 7,200-yard, Par 72 course to facilitate not only golf, but also walking and hiking paths, kayak areas in small coves, playgrounds, picnic areas, garden areas, and natural mangrove forests.

Permaculture gardens—providing food, wildlife habitat, erosion control, and native landscaping—will be planted in strategic locations around the golf course commons.

"Imagine a lush citrus and mango grove interspersed with herbs and vegetables, teeming with bird life; an oasis in the desert offering tranquil refuge accessible by

all," says Dean Atkinson, Loreto Bay's director of golf.

The course uses seashore paspalum (*Paspalum vaginatum*), a drought-tolerant, warm-season perennial grass that has the highest salt tolerance of all turf grasses. It can be watered with direct seawater, reducing the need for herbicides since most weeds cannot tolerate saltwater. Additionally, the course uses reclaimed water from Loreto. The combination of reclaimed water and paspalum grass means that the course uses about 30 percent less water than a typical course—670,000 gallons of primarily reclaimed water per day versus the one million gallons/day use of a regular golf course, during the peak of the evapotranspiration cycle.

And while Loreto Bay maintains a budget for herbicides, it hasn't used any. Instead, Atkinson notes that Loreto Bay Company has hired ten young workers from nearby Constitución to pull weeds by hand; providing work while eliminating potential pollutants.

The course offers a number of "signature" holes. The 13th and 14th holes provide spectacular views of the sea and nearby islands, while the 14th hole challenges golfers with elevated tees and a target green nestled on the beach in front of a dramatic rock outcropping.



View of first golf course adjacent to small cove, with Inn at Loreto Bay in background.

Photo by Simmons Buntin.

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For more information, visit the Villages of Loreto Bay at www.LoretoBay.com.

ARTerrain Gallery

Ten natural light photographs by Joel B. McEachern

On August 12, 1950, Joel B. McEachern was born in a small community hospital by the Miami River. On that day, the first major storm of the season was also born in the eastern Caribbean. On a course for Miami, they called it Hurricane Able. The smell of salt filled the air.

Hurricane Able would turn northward and away from Florida, eventually becoming a classic northeaster. But for the child who would grow up to make pictures of mangrove trees, Joel would never lose his love for the smell of the ocean air.



McEachern first became interested in photography when he took a cinematography course at the University of Florida's School of Journalism. And though he never pursued the craft professionally, he never lost his fascination for film. With the birth of his son, he bought an Olympus SLR and never looked back.

After working in professional planning positions with local government agencies across south Florida, Joel's photography turned increasingly toward the landscape. In that work, he learned about the developmental history of Miami Beach and other cities, contributing to the creation of the Miami Beach Architectural District. In preparing the City of Miami Beach's environmental reports, he came to understand the specific impacts of growth on the environment. Somewhere along the way, the magic and vitality of his community and native state were lost in the sheer quantity and contrivance of development.



Like many artists, Joel grew his eye and his credits first through local and then national competitions and publication. His first awards came from juried art guild and national photography competitions like the Park Forest (Illinois) Photography Club. They were a kind of classroom for the fine art of making pictures; their help not forgotten.

With the creation of *Lone Dancer with Moon*—Joel's first light mangrove portrait, his creative course took yet another turn. A book project was born. It would be called *Picturing Grace, Florida at First Light*. Fiscally-sponsored by the New York Foundation For The Arts, McEachern is in the last phases of the project which includes "fingerprint" shows: exhibitions in public venues, primarily small museums and libraries, where the images are mounted intentionally lower so children can better see them.

Joel's work has appeared in national and international publications and exhibitions such as *Zoom*

magazine, *Terrain.org*, *Wild Earth Journal*, Saatchi Gallery/London, *Latchkey*, *British Journal of Photography*, Carnegie Museum of Natural History, and the ASMP/NY Annual. His work was also recognized by the America The Beautiful Fund. He holds a BA degree from Florida International University and a Certificate of Recognition from his second grade teacher (Mrs. Resnick) for his participation in his school's annual spelling bee.

During the holidays, Joel's work appeared in a group show at the No-Ho Gallery in New York City. Sponsored by the Ruth Chenven Foundation and titled *Remembering Ruth: 25 Years of Giving*, the juried show will feature a selection of the foundation's award recipients. Additionally, two "fingerprint" shows are also scheduled, both at regional libraries in Florida. The first is in January 2008 at the Mount Dora Public Library and the second in February at the Winter Park Public Library.

On his work, Joel offers the following: "I have long believed 'Florida is the light of dreams,' its remaining wild and open places still both beautiful and magical. But one cannot profess with any certainty that those places are safe from our ambition nor its elements exempt from our vanity. America has reinvented the Medieval, its Three-Hundred Year War Against The Wild nearly won. Only now the enemy isn't just poor and aboriginal peoples or lions or tigers or bears but eagles and senior citizens in trailer parks as well. What shall we call this time: The petrification of democracy or the last gasp of Eden? For this landscape artist, the context of the work cannot be denied. Ours is a time of unprecedented, nearly criminal, political and institutional predation. As Walt Kelly, the cartoonist, noted: the enemy is us. Were it only funny."

Contact Joel B. McEachern at:

Natural Light Studios
P.O. Box 182
Mount Dora, FL 32756

View full ARTerrain Gallery online at www.terrain.org/arterrain/21.

Poetry by Susan F. Benjamin

Winter's Beach

There you go again,
fingering death in icy tide pools,
plucking broken conch shells,
chipped carcasses of sand dollars, decomposing
crab backs like treasures wrought by Hedes.

Pockets full you stumble across lumpy, wind-blown sands,
finding another icy pool, seaweed cluttered rock,
digging for the split quarters of a horseshoe crab.

Finding instead
a retarded boy,
eyebrows dark and thick, hair curly
as a Greek god's,
plucking at death's remains like the best of mortals,
plastic pail crammed with clam shells snail shells conch shells
humble offerings heaved onto the earth's windswept shores.

He speaks softly to his caretaker,
a rotund girl with flowing hair, soft fingers
who gingerly
dips
her
hands
deep into the waters, beneath the craggy rocks.

He speaks, stops, seeing you, seeing
loose within your palm the molted horseshoe remnant,
and pauses for one stupid instant
staring, with pointed finger,
face all stark delight,

envying what you have.

[Susan F. Benjamin](#) is author of seven books on various aspects of communications, a communications trainer, and host of the .com radio show [The Greater Voice](#). She has published fiction and poetry in numerous literary magazines.

Poetry by Donna J. Gelagotis Lee

The Coastal Road

A strip of island,
paved only in well-traveled village-
to-village stretches, slid
into beach and sea, rose
into mountains, then dipped into
long sea-worn tracts
clinging precipitously
to mountainsides. Here
in the village, it was the
Sunday promenade, the test-drive
for teenage motorcyclists, the receptacle
for tourists left at bus stops and taxi drop-offs.
It was the breath of an island
struggling to free itself and on this
road I breathed, salt on my tongue,
summer on my face,
the long afternoon biding
time and all the while,
behind a row of white houses, women in black
labored in the cloaks of their ancestors. The wind
pushed me and pulled me, like reluctant sea tide.
It glided along, playing with my hair,
touching my shoulders. I would do anything it wanted.
I could dance like the olive trees,
my arms a flurry of leaves,
my fingertips dripping fruit
with bitter juice. I could wrap
my arms around the limbs
of the trees, moonlight
draping a silk shawl onto
my shoulders, my legs moving
so freely you could not
distinguish them.

Paradise

We put leis around our necks.
The native Hawaiians bowed to us
and to each other. And we accepted
kindness, and a formality we might mistake
for innocence. Only, the birds are crashing
into the window, looking for the breakfast tray—
no longer guests but full-time residents, the wings
of the ocean, a breeze from Molokai at our room
with a partial view. And while I dine on Ono
or Hebi, I know that the locals
favor Spam musubi and malasadas. So I am
their deep-fried fool, as I sweep
the train of my dress across
a marble floor while the tree frogs,
who can torment sleep, sing
their bridal song to me.

Sunrise, Mytilini

So slow in our arrival, the ferry parting the water, gulls
waking, remembering their jobs. The port appeared
empty—one large slab of paved earth—but as we approached,
families emerged, car doors opening and closing, Greek men sipping
their coffee or lighting their last cigarettes before the ferry docked,
its huge mooring lines tossed to ring around each post,
the dark features of the sturdy dock workers brightening
as the sun pulled itself up
over the island and rooftops it had skimmed for hundreds of years.
The air warmed. The scent of the city skipped off the sea. The plank
dropped. And we lined up on the steps as cars rolled from the belly
of the boat. We hurried to reach land, to greet family who had prepared
for us with large meals and clean sheets and full cupboards.
The city busied. Taxis queued. Tavernas filled. Smoke started to drift
over the streets—and accents thick as Turkish coffee. I took one last look at the sunrise
just merging into day, its bold yellow muted orange
now hardly recognizable. The ferry empty for another trip. And we,
having left its steerage, began our own into the mountains. At every
turn, I looked through a clearing to glimpse the water, crystal full
of reflection, like thousands of diamonds under so much pressure
we had to leave them so that we could travel on air that wrapped around
the mountains, free of all that light.

Donna J. Gelagotis Lee's book, *On the Altar of Greece*, is the winner of the Seventh Annual Gival Press Poetry Award and the recipient of a 2007 Eric Hoffer Book Award: Notable for Art Category. Her poems have appeared in *The Bitter Oleander*, *CALYX: A Journal of Art and Literature by Women*, *Feminist Studies*, *The Massachusetts Review*, *The Midwest Quarterly*, and other journals. Visit her website at www.donnajgelagotislee.com.

Poetry by J.D. Schraffenberger

Wild, Wild the Mind

Wild, wild the mind, and the ocean's cold night crashings upon the concrete wall,
Still the dark soupy sky, thick the hum of surf surging into the rocks, sucking strips of sand back
again and again back into the gullet of the earth where it finally belongs,
And us inside our many-windowed beach house playing rounds of poker, ours the laughter of the
drunk and well-fed, ours the voice of the universe musing on itself aloud,
Wild, yes, the mind, wild in its knack for forgetting and remembering at will, a bluffed and beateb
wildness but wild no less
—Ocean, Mind, Sky, this the earliest trinitarian pact—
Out among the sand-buried lapping stones, out along the moon-burned horizon, our minds
drowned and risen into the mashed-up sky, gluey in its almost darkness,
Up inside the damp of clouds, up into the freeze of atmospheric fragility, the ocean seeking its
complement, us, the unexpected rise, the inevitable fall, us,
Where through the murk of a mind at play, the map of full-steam thinking, careering as the dumpiest
of lobster boats,
Through wild and through crashing, through the swirl and spray outside, through the gaiety in,
We look, the lighthouse dot popping miraculous through the dark.
Is this the form our redemption is supposed to take?
Is this the only hope we have to stake our living on?
Someone pushes all-in, no limits here, and yes, there are those among us unafraid to call, to push
back, to watch and wait.

Before the Photo

We tried to touch, take hold of the moon,
the weariness of our misunderstanding soothed by wounds
too dangerous for precise illustration.
We did in fact touch the moon, clouds, oceanic bird things.
The magic was in our knowing the smell and taste
of saltwater on the skin of palms—
this our faraway moon brought near, made true,
the suffered, the real.
We endured it for the sake of remaining out of the way
of what touching, what taking firm hold of the horizon means.

After the Photo

I wanted little but to please and be pleased
by the crashing of light in the understory of trees.
Broken blasé, I wanted little but blear reply
from leaf bee dirt bird trapped forever in flight,
little but the little meanings behind the littlest of likenesses.
I wanted so little and now littler still when the bird
resumes its crossing home, leaves their flickery changes.
Falling, turning south, I replace the cap, undo my steps in this world.

J.D. Schraffenberger's first book of poetry, *Saint Joe's Passion*, will be published in 2008 by Etruscan Press. His other work appears in *The Best Creative Nonfiction*, *Poet Lore*, *Paterson Literary Review*, *Seattle Review*, and other journals. He is the founding editor of [Elsewhere: A Journal for the Literature of Place](#).

Poetry by Margarita Engle

The Land Crabs of Cuba

When land crabs migrate
from tide pools up into green forest
the rhythmic urge to reach high ground
leads to chaos, a stampede through windows
into rooms, then out again, through open doors,
scrambling over each other
one orange claw at a time
until a road is found
and followed.

Hungry villagers gather the massive, armored creatures
into burlap sacks, while trucks speed along the highway,
crushing black and orange shells by the thousands.

In the mountains it is always twilight
the dark spell of forest shade cast by vines
and leafy branches, welcoming the land crabs
into half-night, a secrecy of purpose
as mysterious as the submerged shadows
of black and orange coral
in tide pools—
the next destination
a return
to the sea.

Saffron Rice

My mother speaks of stamens
gathered in the courtyard of her childhood home in Cuba—
golden pollen from purple crocus blossoms

just enough gold to spice and color
a kettle of rice with green olives, red pimentos,
and a sea breeze

flavoring the yellow meal
in an open-air kitchen
where everyone wanted to sit in shade
while eating the gold of island heat

tasting sunlight
the centers of flowers.

Portrait of the Artist as an Islander

The study of pastoral, romantic landscapes in Paris leads her to *la naturaleza muerta*, dead nature, the still life, an arrangement of motionless leaves, stones and feathers, the wistful satisfaction as each painting is finished.

Cubism, and then the journey home, rediscovery of *cubanidad*, Cubanism, tropical sunlight in stained glass colors, flora and fruit, dolphins, flying fish, sharks, arabesques of flowering vines, the baroque, wrought-iron flourishes of colonial memory.

Deceptive tranquility, a female figure at rest indoors, *la siesta*, Woman Dreaming Titles: Woman on a Terrace With Fish, Woman of Birds and Trees, Woman With Horse on a Beach, Winged Centauress, View of the Island From Clouds.

The spilling of wildly romantic landscapes, *la naturaleza viva*, living nature, a whirling disarray of dancing leaves, stones and feathers, and the wistful yearning, this sudden understanding, knowing that every island is always unfinished.

Margarita Engle is a botanist and the Cuban-American author of several books about the island. [*The Poet Slave of Cuba: A Biography of Juan Francisco Manzano*](#) (Henry Holt, 2006) is the recipient of the Americas Award, and an International Reading Association Award, and is a finalist for a PEN Center USA Literary Award.

Poetry by Eric Paul Shaffer

On the Verge of the Usual Mistake

I learned the same thing on the beach again.
Between the sea and the land is a broad white span
 where the surf makes lines
 and the lines are blank.
On the sand, hermit crabs, broken coral, and wave-worn shells,
 a cowrie with colors fresh from deeper water.

This is the margin change demands of the world.

In the surf, there is a distance before the coral grows,
 before the fish begin, where there is no rock or green.
The empty sand above and below the waves is the space
the tides mark for the moon. On the sea's blue edge
nothing grows, nothing rests,
 nothing that comes here,
stays here.

Eric Paul Shaffer is author of five books of poetry, most recently [*Lahaina Noon*](#) (Leaping Dog Press, 2005). His poems appear in *Ploughshares*, *Slate*, and *North American Review*. He received the 2002 Elliot Cades Award for Literature, an endowed literary prize given yearly to an established local writer in Hawai'i.

Poetry by Wendy Burk

Against Telepathy

It is a peak once dreamed about,
washed with green-
blue supernatural rain
in rivulets as are only found in Hawai'i,
and which we now see, draped in
rain falling simply
like long hair
from clouds—
we are going up, up, up,
nature is going down, down, down,
personified by the rain,
the oaks we pass,
and the dull
electric violet butterfly
that charms,
though none of these is a person.
The mind projects
as the peak stays with us,
each time we look back
and all the way down,
the line of hikers descending as
a lazy, confident
S
with a blue tail.

Wendy Burk is the author of a poetry chapbook, [*The Deer*](#), and the translator of Tedi López Mills's [*While Light Is Built*](#). Her poems and translations have appeared in various journals, and have been anthologized in [*Connecting Lines: New Poetry from Mexico*](#), from Sarabande Books, and the Kore Press audio anthology [*Autumnal: A Collection of Elegies*](#).

Poetry by Scott T. Starbuck

We Were All Native Once

Maybe a feather sailing on the lake at dusk
or scent of wood smoke in autumn
finds you thousands of years removed
from the battle cry against bureaucracy.

Maybe a ray of light through a frosty window
or a fragment of a dream of gray tombstones,
gargoyle shapes, colored flowers
works its way back

into your heart
the way a holy irritant of sand
in the darkness becomes a pearl.

Originally appeared in High Plains Register.

Cranking Up the Organ

An old man in my sister's church confessed
he was unable to forget
during WWII
when the death train rumbled by
with whimpering children,
broken men and women,
the organist cranked the music louder.

I imagine
night after night after night he dreamed
a gut-shot deer
kneeling
beneath a roaring waterfall.

In 2004 **Scott T. Starbuck** was a writer-in-residence at the Sitka Center for Art and Ecology on Cascade Head near Lincoln City, Oregon. He recently combined his interest in fishing with clay art, some of which was accepted by The Spirit of the Salmon Fund for the Columbia River Inter-Tribal Fish Commission at http://www.critfc.org/Gala/the_art.html.

Poetry by Paul Fisher

At the Symphony

Between the warring
archipelagos of sound,

a woman coughs.

A movement swelling
like a young sequoia sprouts.

Songs and canyons open to

rapid beats of goshawk wings.
Thunder follows;

yet silence remains

a perfect surface shattered by
arpeggios of no one's dreams.

Inland Sea

“Carried below by mudslides, forest may stand
a thousand years, preserved beneath frigid
waters of the sound.”

— *Oceans Review*

Around eight o'clock, when shallow
fog lifts, you sometimes glimpse shore
where memory drops off,
and sometimes hear the sound of water,
the sound of water stumbling over rocks
as smooth and striped as planets
ground halfway from stars to dust.

Ringed by trembling hills, the Salish
carved war canoes
from cedar, fire, and smoke-hardened prayer.
Dogfish, crabs, gutted seals,
whatever washed belly-up on not-quite land
was pecked apart by hawks and gulls,
or fondled by a child.

Not long ago, groves launched themselves
like Yankee clippers into cold.
Some say masts still harbor nests of owls,
cradle bones of men and wolves,
and spread blue shadows under waves
like flickering, wingless ghosts.
Silver and black, the surface is all we know—

wind caterwauling through railing and rigging,
clearing the decks of half-sunk ships.

A native of the Pacific Northwest, **Paul Fisher** lives with his wife, Linda, and a small menagerie of animals on North Carolina's Outer Banks. He is the recipient of an Individual Artist's Fellowship in Poetry from the Oregon State Arts Commission, a graduate of the MFA Program in Poetry at New England College, and has a book manuscript currently in circulation.

Poetry by Yvonne Carpenter

Taos Parade

Death rode a poor horse.
Between the boisterous conquistadors
laughing in their metal helmets
and the sullen boys portraying the priests

came the lone figure with a painted face
and a thin blanket around his shoulders,
the terror beyond the reach
of church and state, the one that

drives us out into the desert.

Writing from an Oklahoma wheat farm, **Yvonne Carpenter** weaves the gritty insights of animals and soil into her poetry. Her two chapbooks are [To Capture Fine Spirits](#) (Haystack Publishing, 2004) and *Barbed Wire and Paper Dolls* (Village Books Press), and her work has appeared in *Red Dirt Anthology*, *Grain*, and *Concho River Review*.

Poetry by Carolyn Kreiter-Foronda

Do You Know About the Raintree?

Do you know about the world's broad belt?

They say that in Brazil at the equator
birdsong fills the heart of the Catrimani
River. Its bed, teeming with diamonds
and gold, grows fat with this riot of light.

Do you know about the beehive tombs in Greece?

Lower yourself by rope into the dark secret.
If the rope breaks, let your eyes adjust
to blindness. They say there is a sun
behind your lids. Climb its ascending
rays back to the earth's roar.

Do you know about the rainbow fish?

Solid black, they ruled the waters
before earthquakes opened their coffers,
turquoise, topaz, amethyst, jade
plummeting into the rivers where
the eyes of the dark fish shimmered
as they fed on the earth's rainbow.

Do you know about the hidden mountains?

They say that in Tanzania and Kenya
the mountains warred. Kilimanjaro
and Mt. Kenya pushed their broad
shoulders too high into sky.
Now, whenever they nudge God's throne,
his angry breath shrouds their peaks.

Do you know about waters of the Grotto?

You will find the pool off the coast
of Italy on Capri. Lie down
in the boat's bottom to enter
the cave's mouth, then feast on
a blue mirror that butterflies
carry here on their wings: pieces
of sky they gather learning to fly.

Do you know about the raintree?

There's a tree, invisible, with a broad
canopy in the sky. The earth sings to it
whenever it's thirsty. They say
if the song's loud enough to rise,
the ripest blooms will break off
their branches and rinse earth's
green cathedral in firstlight and last.

Originally appeared in Antietam Review and reprinted in the author's book, [Gathering Light](#).

Carolyn Kreiter-Foronda, Virginia's current poet laureate, has published widely throughout the country and abroad in such publications as *Nimrod*, *Prairie Schooner*, *Mid-American Review*, *Passages North*, and *Antioch Review*. She has published four poetry books and two anthologies. Her book, *River Country*, is forthcoming from San Francisco Bay Press. Catch up with her at www.CarolynForonda.com.

Poetry by Jane Levin

Atoll

Her life
is an atoll.

Tiny islands of dependency,
alluring from afar.
Up close,
a relationship of sand.

She leaves at
 high tide.

 Floats

Originally appeared in The Minnesota Women's Press.

Devotion

ten little blue stems gather
at sunset
the minyan stands tall
bends in unison
wispy heads bob to earth
then sky
 then earth again
whiskers quivering
 East

Musings

I stand on a bridge of one span
and see this calm act, this gathering up
of life, of spring water
and the Muse gliding

— *Denise Levertov, "The Well"*

the Muse cannot stand
on our bridge, or glide her yellow kayak
down the mighty river

she is submerged
trapped by a twisted steel serpent
its mouth devouring a tiny red sandal

the Muse begins to write

a poem of courage
for divers
scrambling onto the banks
putrid sludge dripping from empty arms

a poem of hope for the father
curled into a broken teacup
on the dank carpet of the Holiday Inn

when the last hearse has left
the massive gravestones to settle
the Muse will resurface
write her rage

*Written in response to the collapse of the bridge in Minneapolis and originally appeared in
Writers Rising Up to Defend Place, Natural Habitat, Wetlands.*

Jane Levin is a retired psychologist, community worker, and eight-year survivor of ovarian cancer. Recent publications include *Coping with Cancer*, *Cosmopsis Quarterly*, *Flutter Poetry Journal*, *Talking Stick 16*, and *Dust & Fire*. She is the recipient of a Jerome Foundation/Intermedia Arts Mentorship and a Howard B. Brin Jewish Arts Endowment grant.

Essay



Essay by Steve Kahn
Photographs by John Hohl

It was never about the killing. I was drawn to any occupation that would allow me to place my boot in the track of a brown bear, listen to the bellowing of rutting moose, or curl up at four thousand feet in a shallow depression still pungent with the aroma of sheep. At one time, I had even considered becoming a field geologist, but my paleontology professor hinted I might be better at identifying live animals than ones long dead. More by luck than design, through a series of fortuitous yet minor events, I was pulled along an ever-deepening trail, toward the title of big game guide, that spring of 1979.

Though my initiation had come in the mountains and muskeg of the western slopes of the Alaska Range, this season I would be searching for brown bear in southeastern Alaska. On the commercial flight into Juneau, I listened intently to my mentor and boss, Stan Frost, describe the country I was about to see for the first time in my guiding career. To a terrestrial nimrod such as myself, boat hunting within the Alexander Archipelago seemed as exotic as the names implied: Baranof, Chichagof, Kuiu.

Our skipper Tom Parks, who had navigated these waters for decades, exuded the confidence of a man at home in his element. Charts tucked into a newly oiled teak rack, bunks crisply folded, lines neatly coiled on deck, windows spotless, everything displayed a master's touch. Even the coffee was percolated and poured with care.



On the eve of our first client's arrival, we sat on the hatch covers luxuriating in the rhythmic dip and sway of the ocean, while the *Tiller Tramp* worked against its mooring lines. Glaucous-winged gulls



peered from the rigging at the wisps of smoke spiraling up from Stan's corncob pipe. The familiar rum and maple aroma added a strange sweetness to the algae-rich air of the harbor. Tom's eyes glinted, mirroring the phosphorescent backdrop of small life forms swimming erratically in the dark water. As Tom and Stan relived their past hunts together, I felt in the presence of two sages: one of the sea, the other of the mountains. With such an auspicious beginning to our saltwater safari, I felt as if nothing could dampen the prospect of a successful season.

The following day the weather took a sour turn. Heavy rain sliced the afternoon as Stan introduced me to our hunter, who brusquely shook my hand and presented me the back of his brand new PVC-over-polyester slicker. I swallowed hard, quietly picked up his duffel bags and deposited them next to his bunk.

"Buffleheads, aren't they?" The hunter gestured across the bow of our skiff. My binoculars were trained on a curious brown object partially obscured in the tall grass just above the high-water mark. A stump. Glancing over at the squat birds, the drakes with the distinctive white blaze dominating their bulky heads, I was impressed. He seemed to know ducks. Already he had identified goldeneye, scoters, oldsquaw, and pintail. We slowly motored around the next point, my attention divided between searching the water for reefs and scanning the beach for bear.

Maybe I had misjudged his distracted stare as we chipped aqua-blue chunks from floating icebergs for our coolers, as we explored isolated bays and felt the spray of a thundering waterfall mix with the dense salt air. Perhaps it was only a matter of semantics, how he always substituted the word *kill* for the word *hunt*: "Sure would like to kill a sheep someday." But his word choice bothered me. Kill was not the term that I immediately associated with hunting. Seek, pursue, search, yes. That the holistic aspects of hunting, the blood and beauty, the death and wonder should be reduced to such a harsh-sounding verb seemed an affront to the animals and country.

As the next stretch of beach came into view I hit the off switch on the idling Evinrude.

"Damn it, I wish I'd brought my shotgun. Those are harlequins!" His face pressed into his binoculars. "Shouldn't have listened to Stan!" His fist slammed the side of the skiff. The hollow tremor echoing from the aluminum seemed to launch him into a tirade. It had something to do with not securing a special permit from a museum back east. "With that I can kill anything I want, anytime I want!"

There seemed little percentage in entering into a dialogue with him about the ethics of hunting. In

later years, I would have done so. But then, realizing my handling of the situation could affect our relationship over the next week, I offered, "Well, you know there is a fall hunt for ducks and I'm sure you'd be able to make arrangements with one of the local guides." My words drifted aimlessly over the ocean swells, waved away like annoying insects.

I didn't know what else to say. At an inch over six feet, he stood a good three inches above me, his close-cropped thatch of pale brown hair in contrast to the ample spread of his belly. I wondered how he perceived me. With my scuffed hipboots, bent pack frame and rifle's thin blueing, it was apparent that I'd had a few years in the field, though even a full auburn beard couldn't hide the youthfulness of my twenty-four-year-old face.

The tiller of the outboard rested against my knee as if urging me to move on. I turned the handle to the start position, squeezed the bulb on the hose and gave the cord a hard pull. I eyed the gas tank, determining that we could cruise along another 45 minutes before making our way back to Tom's boat.

The following day we motored around Walker Point and headed into Murder Cove on the southern end of Admiralty Island. On one of these beaches in 1869, a party of fur traders had been robbed and killed by local natives. The stories Tom told last night were fascinating, but the duck man had spent the time doodling blue ink stars on the napkin resting on the galley table. Now, as he stared blankly at some point just above the horizon, I glassed the first beach, thinking it could have been a morning just like this that the fur traders spent their last hours sleeping, their bodies pressed wearily into the sand.

A bald eagle glided past our skiff and landed deftly near the tip of a Sitka spruce. The hunter raised his rifle and peered through the scope. It was odd, given that yesterday he seemed comfortable enough with binoculars, which, in this terrain, were the superior optics. Then I saw his finger on the trigger.

Stan's edict, enforced by his guides, was to always have an empty chamber until the final stages of a stalk. This policy was made clear in correspondence, pre-hunt talks and constant reminders. It could not be misinterpreted, but with a start I realized it could be disregarded. If there was ever a time to state the obvious it was now. "You know, of course, that you can't shoot those."

I half expected a comeback, an argument that eagles were mere scavengers, but the hunter only grunted and lowered his gun. I glassed the hillsides and beaches wishing I could will a boulder or hummock of grass into *Ursus arctos* and transform the tension I felt into relief. The day continued in strained silence.





As we swung on anchor that night, the creak and pop of the line and waves slapping the sturdy hull filled me with dismay. I tried to understand why I hadn't given Stan the full story. With his broad face and high cheekbones, Stan had a classical look of stoicism. How many times had I heard him reply to those guides who expressed discontent with a hunter, "Well, you don't have to marry the guy. You only have to live with him for a week." Yes, but those seven days are made up of over ten thousand minutes. Now each one seemed exponentially longer than the one before. Yet I was determined not to complain. So I'd dropped a casual remark, the kind of offhand comment we sometimes make when not really expecting a reply, "Boy, I sure hope we see a bear tomorrow, because the hunter seems awfully anxious to shoot something...."

"Crows, can I shoot crows?" The hunter interrupted the stillness. "No, you can't." The third day was proving no better than the previous two. Increasingly tired of his game, I had dropped all explanation or attempt at distraction. It had been the same all morning with porpoise, a kingfisher, and sea otters. No, no, no. I was considering running him back to the *Tiller Tramp* when just beyond the starboard gunwale of the skiff a slate-gray dome emerged from the water, then the entire head of a harbor seal. The fur of its face stretched tautly over its skull, its eyes haunted and beseeching. The hunter slammed a cartridge into the chamber and raised his rifle to his shoulder.

I flung my weight deliberately to port and began rocking the boat in order to throw off his aim. A series of short-crested waves from the aluminum hull rippled out over the water. The seal was gone. Fighting the impulse to snatch up the seven-foot oar and thwack him on the head, I commanded, "Give me your rifle." Apparently taken aback by my anger, he handed it over. I allowed myself the brief indulgence of imagining what a satisfying splash the rifle would make as it hit the water. Instead, I removed the bolt and dropped it into my coat pocket. Then I returned his rifle. Without a word I jerked the outboard's starter rope, spun the skiff around and headed for the bight a few miles to the northwest where Stan and Tom were waiting.

A midday return would signal two possibilities to those on board, bad weather or success. A gently rolling swell, light breeze, and high overcast could only mean the latter. In an effort to squelch even the suspicion of celebration, I flashed a thumbs down sign as we eased our way up to the stern.

Tom led the hunter down to the galley while Stan loaded his pipe and bent his lighter's flame into the bowl with a deep pull of breath. I sat down on the aluminum hatch farthest astern, the only access to the dank storage space called the lazarette. Stan had been slow to accept those parts of me, the guitar strummer and writer of verse, that were incongruous with his concept of an Alaskan guide. As I told my story, I wondered if the confidence, the connection I had built with this man through packing heavy loads of moose meat, fleshing hides, and climbing mountains was dissipating into the sea breeze as quickly as the smoke from his pipe. Would he think I was incompetent? Unable to handle testy clients? Stan said simply, "I'll take the hunter out tomorrow." A few beats later he added, "You can help Tom with some chores here on the boat."



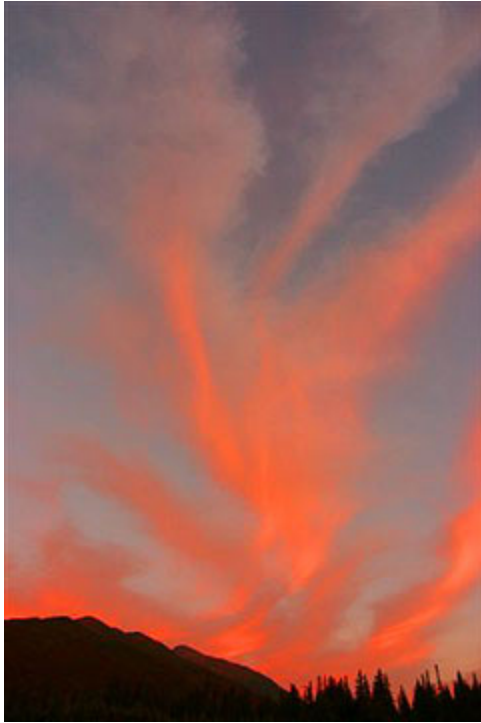
"Change your hat, change your luck," my friend Jerry liked to say. If only it were that easy, I would flick my wrist and another hunter would appear. But no amulet, incantation, or headgear would transform him into someone else.

My view of the skiff departing into the first light of day offered no balm for my spirits. As I washed, dried, and put away the breakfast dishes, within me grew a certainty that today, a bear would slip out from the rain forest and offer itself to Stan and *his* hunter. Stan wouldn't see the behavior I'd witnessed. There would be jubilation, an instant camaraderie spawned by a successful hunt. The more I thought about it, the more miserable I felt. "Not much of a guide, that Steve," people would say. Maybe they were right. And maybe what I was seeking was not adventure or wilderness as much as Stan's approval.

But what if I lost this job? There was always my tool belt, the speed square clicking against the 24-ounce framing hammer and studs and rafters to cut, with blue dust rising from a chalkline. The carpentry I did between guiding seasons could be a full-time job. It was honest, satisfying work. Maybe it didn't matter how things turned out on this trip. I was old enough to know that every occupation has its disappointments. The biggest sin would be to allow my experience to be diminished by a man whose field of view was limited to the crosshairs of his rifle's scope.

Late in the afternoon, Stan pulled the skiff alongside and threw me a line. I tied it off to the rail and glanced at the empty floorboards at Stan's feet. No bear. In an odd replay of the previous day, Tom led the hunter below, while Stan and I stood on deck. Stan pulled apart the sections of his pipe and put in a new filter. He stuck the stem in his mouth.

"Strange duck," he began. "As guides, Steve, we don't have to put up with bullshit like this." He paused. "Tomorrow we'll make the run to Juneau and send him home." His shoulders lifted with a breath, then settled slightly. "It's a great life we live, Steve."



He was right. Fresh air, exercise, unsurpassed scenery—we had it all. What other profession would pay me to explore new places, view wildlife, escape the crowds? I liked the job too because each day was unique, the direction it took usually dictated by weather. Adjusting my plans to wind, rain, fog, or sun strengthened my bond to the natural world, made me feel as if I were answering to a higher power. What I craved, above all, was *immersion* in wilderness, weeks and months at a time spent breathing in the spicy aroma of Labrador tea, tasting the tart explosion of red currants on my tongue, listening to the *kloo-klok* of a raven in flight.

I looked at Stan. He appeared unconcerned with the thousands of dollars he might have to refund, untroubled by an empty bear tag. What had happened between the two of them? I wanted to ask, but remembered how he had earlier requested nothing more from me than I was willing to share. A wave of relief swept over me. Not only would I keep my job, I would not have to compromise my ethics. That day, I learned to put faith in my misgivings, to listen hard that to

that visceral sense of violation. I learned that unacceptable behavior is just that, and should be immediately and forcefully addressed.

"How about a beer?" Stan asked, lifting the lid on the cooler. He reached in and pulled out two *Prinz Braus*, and with a touch of glass, a silent toast passed between us.

Early the next morning, I asked Stan if I could row the dinghy to shore and walk around for a while. I wandered out of sight of the boat, around a finger of loose rocks, and came upon a long sweep of gravel beach. A minus tide. A rare glimpse of the sun glinted across the exposed round rocks, turning them into a canted cobblestone road. As the sun's rays hit the dampest part of the beach near the water's edge, tiny spouts of water appeared. A few at first, then dozens, then maybe a hundred sparkling geysers. The beach was alive with a pulsing rhythm. I was here for moments like these. Though I would at times be an instrument of death, I had a deep appreciation for life. As I knelt in the wet sand, the blue-green water inched up and covered the clam holes. A pair of ducks traced the shoreline's contour. They drifted a moment before they stretched and fluttered their wings, then took flight and disappeared beyond the rocky point.

Steve Kahn is a lifelong Alaskan currently enjoying a subsistence-based lifestyle on the north shore of Qizhjah Vena (Lake Clark). His nonfiction is drawn from years of wilderness experience from the Wrangell Mountains to the Bering Sea. His work appears in *Alaska*, *Red Mountain Review*, *ISLE*, *Pilgrimage*, and other publications. Kahn is a recent recipient of a Rasmuson Foundation Individual Artist Project Award.

John Hohl has been guiding anglers and photographers in Alaska for the past 10 years. He runs an independent guide service, Alaska Fly Anglers, with his wife in the Bristol Bay region.

Essay



by Lynne Shapiro

Every so often my thoughts turn to Foula, strange Foula, where St. Francis—patron saint of birds—visited me, though I didn't recognize him at the time. During news of recent storms in Europe, a film ran in my head of a single cow blowing over the darkening island, like a balloon on a string tugged every which way by whipping wind and sheets of rain. The most remote of British Islands, Foula sits twenty miles west of Walls in Shetland. In winter it is often cut off from the main island for weeks.

In 1988, at the height of my avian obsession, I was taken with the idea of living among birds. I signed on for a two-week research stint, the first of a summer-long relay of teams that would study Foula's sea bird colonies. Foula was inhabited then, as now, by a handful of people who are joined during the summer months by throngs of birds returning to terra firma for the first time in almost a year. A speck of land three-and-a-half miles long and two-and-a-half miles wide, Foula cuts a jagged silhouette as it rises from the Atlantic. Foula is Norse for fowl, and may have been the last place where Norn was spoken.

My interest in St. Francis, and then birds, began as two separate avocations. After moving to Manhattan, I made frequent visits to the Frick Collection, always stopping to see Giovanni Bellini's magnificent painting, "St. Francis." At the same time I rescued several fledgling sparrows, one of



Painting of Saint Francis of Assisi with birds.
Photo courtesy the [National Shrine of Saint Francis of Assisi](http://www.nationalshrineofstfrancis.org).

which lived free in my home for eight years. I named him Francis after both the saint of Assisi and the crooner Francis Albert Sinatra. Because of this bird, a friend thought I might like binoculars, and gave me a pair for Valentine's Day. In Central Park, looking through them for the first time, I was awed by details previously unseen. I expressed my surprise aloud—"What's *that* bird?"—and was answered by dozens who popped their heads from the bushes to answer, "Catbird." From then on, I was an urban birder receiving whispered 5:00 a.m. phone calls: "Owl in the Shakespeare Garden" or "Red-tailed hawk in the Ramble." I'd dress in the dark, find a taxi, and arrive to find dozens like me staring up at preening bird in a pine. Central Park, I learned, was a birder's haven—an almost secret society that coexisted parallel to the rowers, joggers, and lovers. I frequently slipped into the Boathouse to pull a birder's log from behind a niche in the wall to check out the recent sightings.

Birds led me to adventure. They got me out of the house and off concrete. Finally, they lured me to travel. I had no idea what would be expected of me on Foula, or of what the landscape itself would require. Newly married, my freedom to take on this solitary endeavor symbolized the strength of our marriage and vision for a life together, as individuals. Foula was also important because I wondered if I'd rather be an ornithologist than the high-heeled Madison Avenue art historian I was.

Like an athlete in training, I walked Manhattan in hiking boots and with a heavy backpack, repeating the mantra, "Adventure means being open—beyond what one prepares for." I prepared for my adventure, nonetheless, by studying *Peterson's Field Guide to Birds of Britain and Europe*, shopping for gear, and plotting ways to travel light. I was leaving behind one island for another. Goodbye New York, with its energy, style, and culture emanating out in concentric waves to the world beyond. Hello Foula, land of no amenities or hotels or restaurants or stores—but spectacular scenery and the unrivalled opportunity to be close to enormous numbers of pelagic birds.



The Foula Road from the airstrip to the croft house, a mile beyond the dwelling seen here.

Photo by Lynne Shapiro.

I flew to London, then Edinburgh, where I was stuck for a night due to weather. I flew north to Lerwick, Shetland, where I boarded a small "budgie" plane at Tingwall Airport for the 15-minute flight over open water to Foula's airstrip. When I landed, I felt I had arrived at the end of the earth.

On board were other researchers. We were welcomed by a gentleman who told us simply to walk to the end of the island, north. As we bent to gather our packs, the plane revved its engine and lurched into the air behind us. Instead of heading toward the mainland, however, the pilot banked the plane

toward us, flying so low that we instinctively dropped to the ground, hearts palpitating. "Welcome to Foula!" he laughed, and was gone.

Four miles later, we arrived at “Ristie,” a 300-year-old croft house, having passed the only vehicle on the island, a mail van. Communal cooking *and* living: no private rooms, no hot water. An inscrutable peat stove for cooking and warming shoes and socks. I was relieved to get a bottom bunk, where I deposited my belongings and stepped outside. The house was near a sea cliff. Below was a spectacular arch, the Gaada Stack, rising 126 feet from the water like a fabulous letter A. There were no trees. No shrubs. Birds were everywhere—on the land, on the cliff edge, hovering, diving, floating; a litany of bird calls carried on the wind. The land, clothed on all sides by sea and sky, seemed boundless and freeing. Joy filled me as I heard the “vociferous welcome of the birds,” which St. Francis called his “brethren.”

But the days were not easy. Walking the island’s uneven terrain was exhausting—yet Dr. Robert Furness, “the professor” who led the research, was tireless. After dinner it would have been lovely to stay inside, warm, but the neverending daylight meant we could conduct field research at any hour. Foula is so far north (just shy of the 60th parallel which passes through Cape Farewell, Greenland, and Oslo, Norway) that in summer the sun never entirely sets; instead of darkness there is an eerie twilight. While some found it difficult to sleep, the light reminded me of the city at night, out my window back home.

Most evenings, we’d tramp heavy cannon nets over the rough terrain and set them off at the “club” site where we would capture a good number of great skuas (*Stercorarius skua*) or *bonxies* as they are called locally. We would weigh, measure, and then ring or band them. If they were already banded, we’d update information on individual birds. The club was where the teenage birds hung out, mated indiscriminately, laid eggs—all while awaiting the prime sea ledge real estate where they would establish permanent nest sites.

Pelagic birds, what a cast of characters! Fulmars (*Fulmarus glacialis*) spew a vile liquid that strips competing birds of their waterproof protection, often leading to death. The liquid’s foul odor can’t be scrubbed off a birder’s flesh. It may stink for months. *Bonxies* are thick with fat for buoyancy and will knock out anyone who comes too close to their nests; I stuffed a small towel into my hood so any blows would miss my head. We witnessed the trimmer Arctic skua’s (*Stercorarius parasiticus*) “piratical, aerobic chase of gulls and terns” (as noted in the field guide) daily. As well, these hawk-like seabirds regularly feigned broken wings to lure us from their nests.

Thankful to be there in the early summer when the birds thrived, I was spared witnessing the bird deaths that would overtake the island in late summer. There were simply not enough sand eels to feed the colonies’ fledglings. Birds that fed close to the water’s surface suffered most. Deep-diving birds fared better. But many of the colonies were utter failures. None of the Arctic tern chicks, I later learned, survived that year. Regardless, the birds return to the place of their birth to breed. And that’s why we’re here. It is estimated that at least ten percent of the world’s seabirds are endangered; seabirds are indicators of the abundance of fish and the health of the ocean. The data our teams collect help scientists and local conservationists to understand what steps might be taken to ensure future breeding success of Foula’s bird colonies.

After a few days on Foula, Professor Furness announced we would descend a crevice in the earth known as the Sneck o' da Smallie (The Smallie being a Norse word for a mystical beast who lived in the Sneck), giving us access to the sea ledge and different colonies of birds. He also received word that a colleague had recently died climbing similar sea cliffs. I was apprehensive. I'd already taken my turn as cook for a day, so this wouldn't provide an excuse to stay back at the croft house. Then again, I didn't want to miss seeing puffins up close, or the chance to hold them. The team surmised that, as a result of his friend's death, the professor would take fewer risks with his volunteers.

To get to the Sneck we walked a good two-thirds of the island, almost back to the airstrip, veering toward the western coast. We would have passed the Sneck without ever noticing it. You had to know where it was to find it. Only when we were right on top of the cleft, the 200-foot opening in the earth, could we see it. As one team member after another disappeared into the Sneck, a panic arose in me. My fear came not from any anticipation of what I might actually face in there. What I feared most

was not being able to contain myself among people I hardly knew. Alone with the professor, I told him I wouldn't descend. "Nonsense," he replied—he'd be at my side the entire way. When I'm frozen with fear I often latch onto someone I'd never trust under different circumstances. Here was the professor, a handsome Englishman, not particularly warm, without any noticeable sense of humor; but I took his arm because I was too scared to do otherwise.

I found myself within a windless, strangely vertical, architectural jewel. Lined with moss, the Sneck was lit by a green magnificence. Ferns grew within this bifurcated heart and nowhere else. Wrens darted about, tiny compared with the bulky birds above. Here, in the middle of the earth, I felt safe, ecstatic. Never having rock climbed before, I easily pushed off the sheer walls and shimmied through the narrowest part of the Sneck—a claustrophobic's nightmare. A dead cow, snagged on debris, was suspended above; I thought about the slippery sea ledge and my anxiety returned. I vowed that if I would only make it back up alive, I'd refrain from any complaining the rest of the trip.

The Sneck opened onto the sea ledge; the ocean was at eye level. If anyone fell, the current would carry her; it would be impossible to climb onto the boulders from the icy water. My dry Swiss boots gripped the wet rock. Everyone else had wet shoes and cold feet; Gore-tex gear, we learned, doesn't repel saltwater and, on Foula, saltwater accompanies every gust of wind.

My legs were shaking from the climb, and I was happy to stop for lunch. Though my sardine



Research team members at the entrance of the Sneck.

Photo by Lynne Shapiro.

sandwich was wet, I ate it without complaint, thankful for the calories. Over the next few hours, the team weighed, measured, and banded breeding razorbills (*Alca torda*), their distinctive thick black bills marked with white streaks; guillemots (*Uria aalge*) with elegant white eye spectacles during breeding season; noisy and smelly shags (*Phalacrocorax aristolelis*), easily confused with cormorants; and puffins (*Fratercula arctica*) with their colorful parrot-like beaks and decorated eyes.



Lynne Shapiro holding a puffin a (*Fratercula arctica*).

Photo courtesy Lynne Shapiro.

Our work done, we re-entered the Sneck. It became apparent that it's not as easy to climb up what one jumps down. The professor had led many research teams into the Sneck, but perhaps never with someone under five feet tall. At first, all I needed was a simple push off the professor's knee. I was distressed by having to put my full body weight on him. By the end of the ascent, I found myself standing, literally, on his head. No longer embarrassed, if ever I was going to get out of the Sneck, this was how I'd do it.

By the time my hand reached the land above and I pulled myself out, I was exhausted yet thrilled. My muscles ached with the memory of the climb for days. As a result of our contact with shag nests on the sea ledge, almost everyone picked up ticks, crawling or embedded. Everyone except me, apparently.

Other than the field guide, I'd brought one book to read: a biography of Saint Francis by Henry Green titled *God's Fool*. I had resisted the temptation to read it before I arrived. The problem now, however, was that the book was unimaginably boring. Every night I settled in to bed

and read Saint Francis renounces his wealth, Saint Francis gives away his clothes, Saint Francis kisses a leper and another leper and another. Danielle Steele it wasn't. After several nights, I admitted I didn't like the book and would probably never finish it. I was done with Saint Francis for now, or so I thought.

One evening Isobel Houlborn came to dinner. Isobel was the island's unofficial cultural historian. We were fascinated as she spoke about Foula's music, language, and mysterious currency. She told us about Michael Powell's *The Edge of the World*, filmed on Foula in 1931. She told us about *plantigrubs*—the round recessed gardens surrounded by stone walls. She explained that her husband was the island's weatherman and took readings from his instruments several times a day, which he phoned into the mainland. The Houlborns raised a rare variety of colored Foula Shetland sheep. Isobel knitted navy blue Foula sweaters unique to our croft house. The ancient pattern had been created to help identify anyone who might have drowned at sea. Each family on Foula had a different pattern. Then Isobel said, "Where you're staying, right here on this part of the island, there

was once a leper colony.” The words I had read the night before came back to me: “Saint Francis dismounted and embraced the leper... the crowning moment of his conversion!” What I had deemed irrelevant and dull yesterday, had become instantaneously significant.

Bonnie Fancher was a fellow researcher. A high school science teacher from Rising Sun, Indiana, she was plain, with a comfortable drawl. The first day, we both drew straws to cook for the team. We laughed when we realized the peat stove had a single unmarked dial that spun round and round. We managed to make dinner anyway. Bonnie showed me how to make pineapple upside-down-cake. We talked for hours and became instant friends.

It was with Bonnie that I counted the puffin colony while leaning over the Kame’s 1,200-foot drop. I can’t get close to a subway’s ledge, but here I inched closer, over several days, until I could finally look over. It helped that the earth curved up at the highest spot, gently, so I could rely on gravity to keep me on land. We measured distances between nests and stayed up counting how often a pair of Arctic skuas fed sand eels to nestlings over a 24-hour period.

I noticed Bonnie hardly slept, and was concerned for her. She told me she wanted to wander the moors at night looking for wild Shetland ponies, and that I shouldn’t worry. Then she took me aside—not to make me sad, she said, but because she wanted me to know that good things do happen. Five years earlier, she had been diagnosed with cancer and was told she had but a year to live. Tonight, on Foula, it was her 35th birthday.



Winter wren on hand, with St. Francis in the distance?
Photo by Lynne Shapiro.

Leaving Foula was no less adventurous than our arrival. About to give up my seat to a local, the professor suggested I rethink my altruism. The weather was changing; this might be the last flight for some time, even weeks. I climbed onto the plane beside the pilot and strapped myself in before closing the door. We took off in heavy fog, flying only feet above open ocean to the mainland.

The day before we departed, two new research assistants arrived on Foula and left to spend the day on their own. Toward evening they returned to our *wee housie* with a winter wren (*Troglodytes troglodytes*). I snapped a photograph of the tiny reddish-brown bird just before they released it.

Back in New York, under the amber lights of a friend’s darkroom, I shuffled through the contact sheets of my hundreds of Foula photographs, and selected one to print. I watched as the contents of the photograph emerged in the developer tray. I saw the wren in the foreground, eager to see how it

looked enlarged, but I was unprepared for the man in Franciscan robes who appeared beside the wren. Saint Francis—who lived with animals, worked with his hands, and cared for lepers—had somehow appeared in my photograph. He'd stood directly in front of me on the island but, focused on the bird, I hadn't seen him there.

Why was this photo, the last I'd taken on Foula, the one I chose to print? The unseen was an integral part of my experience on Foula. Bonnie's cancer, the one-time leper colony, the deaths of birds I was spared seeing—even the *Smallie*, unseen but present. In *The First Life of St. Francis*, written four years after Francis died in 1226, Thomas of Celano wrote, "Finally, he called all creatures *brother*, and in a most extraordinary manner... he discerned the hidden things of nature with his sensitive heart." My murky photograph of a bird and a man became a representation of the enigmatic island. Memory is compartmentalized, like an island, and Foula has transformed over the years from a real place I actually walked, end to end, into a mystical memory. This photograph captured a spirit of place we are only sometimes lucky enough to see. Strange, primordial Foula, eternal landscape of intense hope.

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Essay



Essay by Betty Reid
Photographs by Kenji Kawano

Sheila Goldtooth and Rebecca M. Benally are examples of Navajo women who blend the American and Navajo philosophies to carry out their work. Their careers and professions influence Navajo life and represent the merging of traditional and contemporary practices occurring through the doorway of the Nation. Navajo medicine people are keepers of the wisdom, traditional faith, and philosophy of *iiná*—life—on the Nation. Educators inspire children to pursue modern knowledge.



When Sheila Goldtooth had her *kinaalda*, a Navajo girl's rite of passage, her uncle performed the *Hózhóóji*, or Blessing Way, a ritual performed to ensure a blessed life of good health, emotional strength, prosperity, and a positive outlook. Goldtooth's uncle announced, "*Díí beebi'dool zíí,*" meaning: "This one has a gift."

Dawn peeked over the Chuska Mountains, near *Tsénikani*, or Round Rock, as Goldtooth's *kinaalda* was near completion. The tiny community is located a stone's throw from Monument Valley, an area famous for its red buttes and rock spires that sit on the desert floor and reach toward blue skies.

"*Díí Hózhóóji doo náalthaashda* (This one will be a Blessing Way singer)," the uncle said. "*Díí*

bidine'éyiká adoolwol (This one will help her people).”



Those words sealed Goldtooth’s fate to pursue a profession rare among Navajo women. She has become a medicine woman. They call her *Hataali Bitsii lichii’*, the Medicine Woman with the Red Hair. She belongs to the *Ma’ii deeshgiizhnii* (Coyote Pass People) and is born for *Kin lichii’nii* (Red House People). The educator at Diné Community College in Tsaile-Wheatfields has trailed her uncle since age five. Today, Navajos seek out the thirty-year-old to bless their lives between *Yádilhil Shitaá* (Father Sky) and *Shimá Nahasdzáán* (Mother

Earth).

When they journey outside the four sacred mountains—relocation to the city, college, or a job site—Navajos come to Goldtooth to bless their forays. They also seek a blessing before surgery, before they move into a new home, or when a girl becomes a *kinaalda*.

The *kinaalda*, a four-day ceremony, reflects Changing Woman’s first ritual when the Navajo Holy People gathered on Huerfano Mountain in New Mexico. Oral history says the Navajo deities treat this moment in the young girl’s life as pure, powerful, and sacred. It is said Changing Woman jogged east and west to gain physical strength and endurance. Medicine people say the Holy People performed the first *Hózhóóji*. Changing Woman ground corn kernels on a metate stone, a round corn cake was baked in the earth, and a female holy person physically shaped and molded Changing Woman’s body by pressing her head, shoulders, arms, back, legs, and feet.

The *kinaalda* creates a reenactment of how the Navajo Holy People held the rite of passage for Changing Woman. She was dressed and painted in white shell and received a second name, *Yoolgai Azdáá* (White Shell Woman). The old belief says that this is when adulthood and procreation begins for Navajo women. Today, most Navajo women are aware of the American stages of life, beginning as a baby, progressing to adolescence, adulthood, and old age. The contemporary *kinaalda* ritual varies and depends on the energy of relatives, cost, and time. Navajo families on an American work schedule may condense the event into a single night on a weekend. They skip certain rituals such as the four-day run, or they opt to have the Blessing Way only, without the elaborate ritual. Other mothers replace the physically laborious creation of the ground corn cake with a slab of chocolate cake from a supermarket.

Navajos say their deities gave them other curing rituals such as the Lifeway (*Iinááji k’ehgo*) and Female Shooting Way (*Na’at’ooyee’Bi’áádjí*), and seasonal ceremonies such as the Enemy Way

(*Anaa'ji*), before they faded into the mountains, rocks, water, and vegetation. Navajo medicine people call on the Holy People, who are believed to attend the Blessing Way, seasonal ceremonies, and curing rituals. The Blessing Way is said to be associated with Navajo women.



Medicine people like Goldtooth, called *hataalii*, which translates to “singers” in English, are trained by elders to perfect them in the skills of their profession. So when Goldtooth received her *jish*, or medicine bundle, which holds a powerful collection of tools, her connection to Navajo Country also deepened.

“I feel that in order to serve people, I need to be here,” Goldtooth remarks. “I grew up here. I have a flock of sheep. It’s that serenity of life here that suits me and what I do for my people. I lived in Flagstaff. It’s too noisy, polluted. The ceremonies are connected to the land here.”

Goldtooth attended Northern Arizona University, where she received Western knowledge culminating in a bachelor degree in Native American studies and sociology. A Western education could have guided her away from the four sacred mountains and into a border town or city where jobs are available. Instead, she returned to Round Rock to continue her role as a Blessing Way *hataalii* and also to perform protection prayers.

Not all Navajos embrace traditional worship. Other faiths are available, ranging from Christian to the Native American Church, a worship that blends traditional Navajo religion and Christianity beliefs with the use of peyote. Some Navajos hopscotch between faiths. Detractors from the traditional Navajo faith cite cost and a lack of access to medicine people. Others blame the American life that forces them to move into the city for jobs. Subsequently, they lose ties with extended family relatives whose energy and resources are needed to pull off a successful ceremony. Many Navajo youth are born into other faiths, which their parents embrace and encourage.

Traditional Navajo faith also rides on the oral language. When medicine people such as Goldtooth call on the Holy People to bless an individual during a prayer, each deity carries a name. To receive a blessing or help, the correct enunciation is required. Goldtooth notices more Navajo children speak only English, which forces medicine people like herself to modify their work. Sometimes mothers recite the prayers in Navajo for their daughters. Goldtooth places the responsibility on the girls.

“I explain [in English] that the Holy People only understand Navajo, and therefore everything must be done in that language. I make them do their own reciting in prayers rather than having a parent do the reciting. I explain how the prayer is for them and their future, and therefore they must do them themselves.” And it works. By the time the ceremony ends, most of the daughters are able to repeat the prayer in Navajo.



The medicine woman also notices that change occurs when Navajo youth move into urban Navajo communities or off the Nation. As a result, Goldtooth believes that urban life erodes Navajo language and philosophy, especially the influence it has on a child's behavior. This includes respect for parents, elders, and other people. Navajo children are taught in the Navajo language to never speak harsh words, because they can inflict pain. But Western instruction encourages youth to speak up and have an opinion—to be argumentative and to solve

problems through an analytical process is prized in the American society. The traditional ability to solve issues with *k'é*, in the spirit of good and harmony, is gone.

“I find that with my students at the community college,” Goldtooth says. “Their attitude is, that is in the past. We don't need it anymore. They also say, if it [*Diné* teachings] is true, then there has to be proof.”

The survival of Navajo religion and philosophy depends on parents' teaching the language, stories, rituals, and philosophy. Still, that may not be enough. “If the Navajo Nation leaders become actively involved in preserving and passing laws regarding preservation of our traditional healing methods and ceremonies, they can be preserved,” Goldtooth states. “There are numerous young traditional practitioners throughout the Navajo Nation, and [yet] many are unknown to the public.”

When Navajo educator Rebecca M. Benally took the helm of the Montezuma Creek Elementary School in the northern portion of the Navajo Nation in Utah, the new staff disapproved of her promotion to principal. They did not object to her wealth of experience in the education field, but to her gender. What shocked Benally even more was the attitude that masked the resistance by Navajo educators—especially female educators.

Montezuma Creek is an isolated Navajo community, surrounded by red buttes, in which a trip to a “local” grocery store means a 110-mile drive (one way) to Farmington, New Mexico. Christian missionaries in the 1920s attempted to tame the wild surroundings, but even today the local Aneth Chapter House, one of 110 communities on the Navajo Nation, is wedged in an arroyo. The influence of missionaries spurred an exodus of children to off-reservation schools and introduced the concept of a male-dominated society, in which men were “head of household” and made all the important decisions.

So when Benally arrived, she was soon approached by a Navajo colleague who confided that her Mormon faith made it uncomfortable to work in a setting where a woman was in charge. A clash of cultures seemed certain, because the Navajo culture is both matrilineal and matriarchal, while the Mormon-dominated community of Montezuma Creek promotes a patrilineal society. Benally, who belongs to the *Kin yaa 'áanii* (Towering House People) and is born for *Tó 'aheedlínii* (Two Rivers Coming Together Clan), found herself in a difficult spot.

The elementary school staff expected the Navajo educator to throw up her arms in defeat and walk away from criticism, as was traditional when change was suggested in the school community. The workers did not realize that this Navajo educator knew more about them than they did about her, and she refused to wilt under pressure. She was on a mission to raise student test scores in order to pass the federal report card and to move Navajo kids out of special education.

Benally refused to give in. She had come too far to make accommodations. For two summers, she had driven 608 miles (round trip) three times a week from Montezuma Creek to Provo, Utah, while working on a master's degree in educational leadership. She took a hard line and told those who opposed her leadership because of her gender they could leave, if they wished.

The stance resulted in an exodus of those resistant to female leadership. Then, something almost miraculous happened. When she first arrived on campus, half of the 210 students were in special education classes. The teachers who remained under her leadership focused on 105 children, moving 21 of them into regular classrooms, where they thrived, within the first year. Today, fewer than twenty students are in special education at Montezuma Creek.

Local leaders told Benally that "Navajos can be like crabs in a bucket." When one tries to get out, they pull each other back. "I always stood for the betterment of Navajo children," she says. Having to face a battle over gender in educational leadership was a distraction.

"The two reasons students were automatically placed in the special education program was simply for language development acquisition and a lack of knowledge to work with children with learning disabilities," Benally notes. "My drive to overcome obstacles and challenges is always for the betterment and best interest for *all* children. I believe we should all be advocates for children."

Benally is among those Navajos who delicately integrate both traditional Navajo cultural values and teachings and Western philosophy. As a Navajo woman, she maintains a Beauty Way of life. Both her father and grandfather had encouraged Benally to remember that her role as a woman meant that she was responsible for the passing down of cultural knowledge from mother to daughter, and for setting a good example that provides an important balance to the words and actions of men, resulting





in Navajo harmony between traditional and contemporary life. To be a Navajo woman means connecting the spiritual, intellectual, social, and the physical. At school, this meant accepting both the role of being a woman and being a leader in education—reconciling the two, never subjugating herself in the process.

Encouraging her to excel in school, her father instructed Benally at an early age that she would have to overcome the male domination of the

larger world. “You are a Navajo woman in a white man’s world,” he told her. “Never forget who you are and where you come from.”

Going against the grain would be difficult, and Benally would need to summon the strength of her cultural upbringing to succeed. In the field of Western education, questioning authority is encouraged, however, and harmony often is more difficult to achieve. This was the case when she began her new role as a school principal, again remembering her father’s words: “Be competitive with elegance.” Benally says she succeeds by taking the best of both worlds and applying them in her job.

“A medicine man told me, ‘For every bad thing that happens, there is a way to fix it. It is fixed with corn pollen and positive thoughts.’” She says she prays to the Holy People.

Culture and academic learning become one, and Aneth’s students—most of whom are Navajo—learn how to apply what they have learned at school to their lives on the reservation and globally. Benally wanted to influence the Navajo Nation’s curriculum further and campaigned for a seat on the first Navajo Nation Board of Education. She won.



Yuhzhee is my Navajo name. It translates as “short” or “petite” in English. At age seven, I spoke only Navajo. My family, simple shepherds and part-time migrant workers, raised and moved their flock of sheep at a place called *Bidáá*, on the northeastern edge of the Grand Canyon. *Bidáá* means, simply, “The Edge.”

While the rest of America paid attention to the Vietnam War and the civil rights movement, my extended family focused its attention on existence. Rain, snow, sunshine, or wind, they took the sheep out to pasture.

Our religion—*Hózhóó*, or Beauty—demands balance, which holds my extended family like a tight weave in a Navajo rug. This faith, embedded like stone into our young Navajo hearts, minds, and souls, protects us. *Íiná*, life, we were told by our elders, is full of bad and evil. And to fend off the bad, *Hózhóó* helped us to think positive.



As a Navajo child, I believed my life was rich, because I had plenty of relatives, sheep, and religion. The women and my father who raised me never learned to recite the ABCs or read classic literature, like Shakespeare. From their flock of sheep, they wove pretty rugs. They sold sheep to buy potatoes, lard, baking powder, salt, and coffee. Or they made payments on a communal pickup truck. They turned to migrant work in the summer, pulling sugar beets in Utah. Out of their work, Navajos

coined the phrase *Áshii likantah*, or “Among Sugar Land.” Sometimes I joined in picking the potatoes in Elsinore, Utah.

The price of wool and mohair took a nosedive in the 1980s. Our family reduced the herd from 500 to 21. Today, my mother and her sister-in-law Jeanette are retired shepherds who live in Tuba City, closer to clinics and hospitals. Others, like my grandmother Edith, my aunt Lutie, and my father, Willie, returned to the earth.

My brother William, a biology teacher at Tuba City High School and my mother’s caregiver, continues to care for the tiny flock of sheep that belongs to my family near *Bidáá*, west of Tuba City. My mother likes this arrangement, because she believes the sheep give her life, which is how they are described in Navajo prayers. The sheep ground her to the traditional elements of the Navajo Nation.

This is my family’s glorious past as Navajo shepherds.

This essay is a chapter excerpt from Betty Reid’s book, [Navajo Women: Sáanii](#) (Rio Nuevo Publishers, 2007). It is reprinted with permission.

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Kenji Kawano lives with his family in Window Rock, Arizona, the capital of the Navajo Nation. His photography also appeared in [Warrior: Navajo Code Talkers](#) and [In the Fifth World: Portrait of the Navajo Nation](#).

Essay



by William R. Stimson

My wife Shuyuan pulled the car up in front of her family's big house in Yuanlin. It wasn't just any family visit. She was coming home for the dragon boat holiday. On the road in front of the gate, billowing smoke, sat one of those red canisters that all the homes and places of business up and down the streets here use to burn spirit money. She had shown me stores that specialized in different kinds of this religious currency; and explained that Taiwanese burned quantities of it in the belief that those exact amounts of money would go into the pockets of the ancestors or spirits in the other world. I couldn't figure what such a rite would have to do with the dragon boat holiday, and shot Shuyuan a questioning glance. I'd tied up my affairs in New York City the previous November and moved to Taiwan to follow her. She'd gotten a teaching position at the university here and come several months earlier. How blatantly even religion here revolved around money still astonished me now, seven months later.

"My mother's careful to observe each holiday in the traditional way."

I knew that was as much of an explanation as I would get, so turned to follow her to the front gate. A bundle of a kind of herb I'd never seen before, tied carefully together with a red ribbon, hung from it. "What's this for?" I asked. Until a few days back I'd never even heard of the dragon boat holiday and was still struggling to understand why a whole nation would celebrate the day some poet in ancient times committed suicide by jumping into a river.



Rice paddy in Taiwan.
Photo by Cha Chih-Wen.

“I don’t know.” She eyed the herbs as if she’d never seen such a thing in her life. The youngest of five children, she was the bookish one who, against her mother’s wishes, had gone to America for graduate school and earned a doctorate in developmental psychology at New York University. In a sense she was as much an outsider to her family and its ways as was I. I know this about her because she is one of those people who wakes up in the morning with vivid dreams, then tells them to me. When we lived back in New York City, her dreams had been my introduction, not just to her family and its story, but to Taiwan and its landscape. I’d arrived here with pictures already in my mind of how everything would look. But what I’d found had been utterly different.

Shuyuan’s New York dreams had mostly been set in the countryside around her grandmother’s village, where she was born and lived until the age of eight. Before she started school, she’d spent her mornings by her mother’s side at the well, the center of social life for the village women, who washed clothes there by hand on scrub boards. Countless afternoons she’d walked with her mother to her mother’s distant rice paddy, passing through a landscape of lush, green rice fields that stretched as far as the eye could see, interrupted here and there by gushes of giant bamboo or rows of the spindly betel nut palm. Her mother’s rice paddy reappeared in dream after dream. Shuyuan described it lovingly to me over and over again until it came to feel like the heart of her life and her family’s life in Taiwan. Her mother’s people were rice farmers and their life revolved around rice.

When her mother was 20, a matchmaker came through trying to find a bride for a handsome young factory worker. Shuyuan’s grandmother took to the young man right off and sized him up as a smart guy who would someday make something of himself. She chose him as her daughter’s husband.

“Why that guy?” Shuyuan’s mother objected. “He has no land.” The young man was an orphan who’d been raised by his grandmother and didn’t even have a family village he could take her away to. He’d have to move in there with them. She suspected her mother chose someone like that to keep her there at home where she would have to continue doing all her daily chores and caring for her two younger brothers. What really made her bitter was that those boys would inherit every bit of the family land. Because she was a woman, not even a single rice paddy would go to her.

After the wedding, her new husband could only stay there with her in the village on weekends. His factory job was in a town too far away in those days of bad roads for a daily commute. He proved a good wage earner, though, and handed over every paycheck to her. Babies came, one after another, and grew into little children. When they clamored for some candy or treat that all the other village kids got coins from their mothers to buy, she snapped, “No. It’s a waste of money.” She hoarded every penny, determined to save enough to buy her own rice paddy.

Years later a rice paddy on the outskirts of a nearby village went up for sale and she had enough to buy it. She paid a local farmer to tend it. After each harvest he dumped the big pile of rice outside her front door. Every day the kids had to spread it out on the courtyard to dry in the sun. Come nightfall, they gathered it up into a pile again and covered it with canvas to protect it from rain. That single paddy produced all the rice the family needed and more. She sold the excess.

To explain what her grandmother’s village looked like, one day when she was telling me one of her dreams back in New York City, Shuyuan grabbed up a piece of paper and sketched a long, narrow building that folded around three sides of a rectangular central courtyard. The ridged roof was tile.

The walls were made of evenly spaced vertical bamboo poles packed in between with a mix of mud and broken straw. The family had two rooms along one side of the building. One served as the kitchen. Shuyuan's oldest sister slept there. The other was furnished with a big old-fashioned bed where Shuyuan slept with her mother, father, second sister, and second brother. Ming-Song, her eldest brother, had to sleep over at his uncle's. Next to the bed stood the table. Against the opposite wall sat the TV.



Modern Taiwan: Kaohsiung on Love River in the southern portion of the island.

Photo by Yali Shi.

What a difference between those cramped beginnings and this four-story mansion at the edge of town where the family now lived. Shuyuan unlocked the iron gate hung with the fascicle of herbs. We stepped into a landscaped passageway that led back past Ming-Song's Mercedes, parked in the two-car garage there. Up a flight of stairs was the big front entrance facing a pretty garden.

"Probably those herbs are for good luck," Shuyuan said. That was about all she could come up with. I could tell it was a guess. About such things, she knew little more than I did.

A burst of greetings in the Taiwanese dialect met us as we entered. We took off our shoes, and put on house slippers. Shuyuan was the only child who hadn't stayed in town close to the nest and accepted a management position in one of her father's factories. Even though she came home almost every week now, her arrival still produced the commotion of a reunion. The one who'd gone far away outside their world was back.

"Ni hou," I smiled to Shuyuan's father, always the first to greet me. It was about the extent of my Chinese. He sat with the others on the posh leather couches folding around a low table in front of the TV. He waved me forward to join in, as he had the very first day Shuyuan brought me home. He was a small, thin man with dyed black hair and impeccably dressed in a suit and tie. His quick eyes betrayed a sharp mind that took everything in at a glance. There wasn't anything he wouldn't give his sons or daughters. The car Shuyuan drove was his present to her when she came back from America with a Ph.D. He'd wanted to buy her a Mercedes but she'd opted for a more modest Nissan.

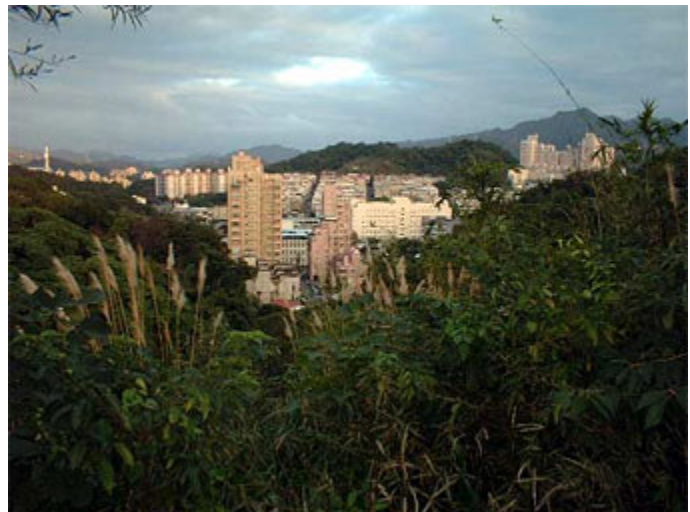
Shuyuan set down on the low table in front of the couch the large bag she'd bought for them that morning of the season's very first lychees. We'd caught the initial shipment just as it was delivered to our corner fruit market a few hours before. Her father took one look at the prize fruits and gave Shuyuan a big smile. He always brought home the best, no matter the cost. Shuyuan had warned me, though, her mother would object to buying lychees this early in the season. These lychees were grown by farmers down in Taiwan's extreme southern tip. Their crop ripens several weeks earlier,

so they get away with charging a higher price.

As everyone was grabbing into the bag, Shuyuan's mother shuffled in from the kitchen. "Why did you buy lychees this early?" she reprimanded. When she first learned her youngest daughter planned to marry an American, she snapped over the phone, "If you do that, don't bother to come back home." After the stories about Shuyuan's mother that emerged from the dreams, I was taken by surprise when I first met her to find a small, stout, down-to-earth and unassuming woman who moved slowly and returned my smile with real sweetness. Once, when Shuyuan and I were alone in the house with her, I asked Shuyuan to translate between the two of us. Her mother talked about how much harder it was to make money in Taiwan as a result of the rising competition from mainland China where labor was so much cheaper—not something I knew or cared too much about. Next she asked about the money situation in America. I tried to change the topic to something interesting but with her everything always came down to money. It didn't make much sense to me to sit there talking about money. It didn't make any sense to her that I wrote if nobody was giving me money to do it; or that I intended to continue writing instead of getting a paying job in Taiwan, like teaching English, which is what she told me other foreigners did when they came here. "If you don't work, you don't eat," she snapped.

At this I bristled. "I pay my own way here with the rent from my Manhattan apartment. This is my one chance in life to do what I've always wanted. If I don't do it now, I'll never again have the chance." It ended at that. There was less understanding between us when we knew each other's thoughts than when we didn't.

I never tried to communicate like that with any of them again, but just did my best to make it through the family visits as gracefully as possible. They smiled at me. I smiled back. They offered me food. I ate it. They sat in front of the TV talking. I sat with them, not understanding a word, as long as I could stand it, and then excused myself politely and went upstairs to Shuyuan's old room on the top floor to read the book I always brought along when I came. By mid-afternoon Shuyuan usually called me down for tea with her mother—and then we left. That was the pattern and essentially the same thing happened this time, except that when I came down for tea I was surprised to see Ming-Song sitting there with them. As oldest son and future head of the family, he conducted himself in a gracious and socially accommodating way, responsive to the needs of everyone. He was always polite with me and was the only one of them who spoke to me in English. The first time we met, he invited me to play golf. I thanked him but joked I wouldn't know what to do out on a golf course.



View of Hsintien, a suburb of Taipei, Taiwan, from the hills above the city.

Photo by Robin Turner, courtesy City Farmer (Canada Office of Urban Agriculture).

He didn't know what to say. And I didn't know what to say that he didn't know what to say. Our conversations were always like that. They never got beyond the first sentence or two. Language wasn't what separated us.

No sooner had I settled in on the couch in front of the tiny bowl of hot tea they had waiting for me than Shuyuan dug amongst a stack of Chinese papers she'd been reading for a page she'd set aside. Often when she sat alone talking with her mother she read the paper while her mother watched TV.

"Look at those two places," she said, handing me the page with two color photographs. One was of a hot spring retreat in the mountains. A naked nymph soaked in a hot tub in a spacious private room in front of a picture window looking out on a forest. The other photo showed an ocean-side resort in the south of Taiwan. A long line of wooden chairs stretched down the clean white sand under coconut palms. A few paces away, waves lapped up on the beach.

"Where do you want to go?" she asked. It was early June. Her first grueling year of college teaching was almost at an end. She was antsy to get away—anywhere. I'd followed her from New York City to a remote Taiwanese town all the way on the other side of the world. I didn't feel the need to go one step further. The resorts pictured in the paper were of scant interest to me compared to the happy daily rhythm I managed to maintain here of morning writing, mid-day swimming, and afternoon reading. After decades of slaving away at day jobs in New York City, I could finally devote myself full-time to what I loved. I handed the paper back without enthusiasm. "Where I'd like to go," I said, "is to your mother's rice paddy and to your grandmother's village. And maybe also to see your father's factory." I didn't want to be a tourist. I wanted to see the real Taiwan.

I'd asked over and over to see those places. There was something about Taiwan that still didn't seem quite right to me. I needed to fit this place I'd come to somehow with the one I thought I was coming to. I had this notion that I could understand Shuyuan's family and her people if I could just spend some time at her mother's rice paddy. When I was a kid in Cuba I often went out exploring the countryside with my dog. I always felt I could glean from a piece of land a feel for the people attached to it, even if they were long gone.

Shuyuan turned to Ming-Song and fired off something in Taiwanese. There was a buzz of talk I didn't understand. Then Shuyuan faced me with a big smile and announced, "We're going!"

"To the rice paddy?"

"And to my grandmother's village, and to the factory," she said. "Ming-Song is taking us. The factory is closed today for the dragon boat festival, so we can look around without getting in the way."

"Why would Bill want to see the village?" Shuyuan later told me her mother objected suspiciously as we all piled into the Mercedes.

"I think he just wants to see where we come from," Shuyuan answered.

“Maybe Bill will look down on us when he sees we come from a broken-straw hut,” her mother said. In the old days broken pieces of straw were mixed with mud and daubed between bamboo poles to make the walls of a traditional Taiwanese farmhouse.



The steep slopes of the hills surrounding Hsintien provide for local agriculture.

Photo by Robin Turner, courtesy City Farmer (Canada Office of Urban Agriculture).

Ming-Song drove us out of town on a narrow winding street. From the deep concrete irrigation gully that ran alongside it, I could tell this had once been a country road. I only saw a single remaining rice paddy, though. The whole landscape was a crazy quilt sprawl of factories and houses. At length we arrived in front of a closed gate. Before us stood a large clean factory building. Ming-Song pushed a remote dangling from the keychain in the ignition. The gate slid open. Some months back Shuyuan and I had come upon a small, dumpy metalworking factory on the outskirts of the little town where we lived. I always assumed Shuyuan’s family’s business was of that sort and that nobody wanted to show it to

me because they were embarrassed by it. I never imagined anything big and showy like this.

“Your father built this whole factory up from nothing, step by little step,” Shuyuan’s mother said to Shuyuan with pride when we got out of the car. “It took forty years.”

In the factory where Shuyuan’s father was originally employed, he’d operated a metalworking machine. When he found out how much more the factory charged for each piece of his work than he himself got paid for doing it, he had the brains to realize how much money he’d make if he bought himself one of those machines and contracted out directly to the customer. Even though she had her rice paddy, Shuyuan’s mother was still pinching every penny. In time there was enough to buy him that machine.

He installed it in a rented space in the nearby town of Yuanlin. Finally after all those years, he could quit the factory job in the distant city and come live at home full time. Shuyuan, the surprise fifth child, had been born by then. In those years Taiwan’s economy was in a period of explosive growth. Customers came knocking at his door. On many an evening he sat laboring away at his machine way past midnight. How different it was, though, working for himself and building up his own business than slaving away at the factory for a wage. Dealing directly with customers brought out the knack he had for making deals. In time, there was money enough saved up to buy a second machine. He hired a laborer to operate it. The profits came tumbling in. He purchased a third, and then a fourth. He had the beginnings of his own factory—the one we were now about to enter.

Shuyuan's mother's instinct had been to squirrel away the money the factory generated. But her father had insisted again and again on re-investing in the business—buying the most modern equipment, diversifying, upgrading the plant, and entertaining customers. Every single investment he made paid off handsomely. The factory grew by leaps and bounds.

All this while the family still lived crammed into those same two rooms. Shuyuan's father proposed they build themselves a big new house there in the grandmother's village. To stay there in the village, though, was the last thing Shuyuan's mother wanted. A wife was supposed to go live in the husband's village, but she'd had to remain in her own. All the village's other children had the name Liu. Only hers had her husband's name, Wang. In this and many other little ways she'd come to feel herself an outsider in her own village. Over the years she'd felt it more and more. Her dream was to get away.

So they bought a narrow plot of land in nearby Yuanlin and contracted to have a three-story house built there, squeezed in between similar structures along that busy street. The family moved into town and settled into what, from Shuyuan's dreams, I had come to know as "the house on the street."

Shuyuan's mother was forty at the time she finally got out of her ancestral village. That was the point for her when her real life began. Up until then she was a woman without social standing, someone who didn't properly belong where she was. Everything changed the instant she moved into the house on the street. Stores and shops lined the way in each direction. People came and went at all hours. There was excitement, traffic, and best of all, just around the corner lay Yuanlin's traditional market—an extended labyrinth of small stalls where she could buy anything imaginable. Every morning found her there, haggling mercilessly over prices, pinching and squeezing the merchants down to the lowest sum. She came away with the day's best bargains. This was her passion. For this she had a devotion, even a love. Overnight, in the eyes of all the various women and men at the different stalls in the marketplace, in the eyes of her new neighbors up and down the street, and especially in the eyes of her country relatives stuck back in the remote village—she was seen finally, after all these years, to have really become somebody. She rented her rice paddy out to a farmer. The first of each month the check arrived in the mail.

"When my mother burns incense to honor the ancestors, it's for those of my father's family, the Wang, not her own, the Liu," Shuyuan said as we mounted the steps of the factory. "She feels that neither she nor any of us children ever got anything from the Liu, its village or its land. Everything we have come from my father and this factory."



Taiwanese house.

Photo by Robin Turner, courtesy City Farmer (Canada Office of Urban Agriculture).

Ming-Song unlocked the door and led us through the modern front office with flat-screen computers on each desk, past a spacious executive suite for his father, and then into the back—an airplane-hangar space filled with aisle after aisle of modern metalworking machines. I asked to see the kind of machine his father had operated back when he started the factory.

“Those old machines don’t exist anymore,” Ming-Song said. The machinery I saw all around was big and new. Some of it was huge and ultra-modern—computer driven. Some served to cut metal, some to shape it. Ming-Song showed us a pot he’d made the day before, toying around with a new machine. A finished batch of motorbike handlebars sat stacked in an aisle. In the next aisle we came upon a finished lot of bicycle frames.

As we were leaving, Ming-Song pulled out his digital camera and had us pose on the steps of the factory for pictures. Shuyuan’s mother stood straight and proud for her photo.

Then we all piled back in the car. I was excited. We were finally headed out to the rice paddy. Ming-Song continued along the same narrow road. I kept looking forward to getting out into open countryside. But we went deeper and deeper into the same unsightly sprawl. What fields there were lay scattered amidst a jumble of houses, factories and roadside places of business. We turned off onto an even narrower asphalt lane, hardly wide enough for the car, and proceeded down that until we came to a big unattractive factory, dirty and messy. We parked out front and continued on foot. “Last time I was here,” Shuyuan’s mother said, “This pavement was only this wide.” She held her hands shoulder length apart. It had been a motorbike path.

A concrete gully alongside the pavement ran with bluish, milky water. The bottom was strewn with old bottles and other junk that had all turned the same milky blue. “That’s the source that waters the rice paddy,” Shuyuan’s mother said.

We came upon a crazy quilt of agricultural plots. One had long green Chinese cooking melons hanging from vines on an overhead horizontal frame. They weren’t ripe yet, but each melon already had a protective Styrofoam net carefully stretched over it. The plot across the way was covered with rows of metal lean-to frames overgrown with dead cucumber vines, already harvested. The ground on the raised beds between the irrigation ditches was covered with a black plastic cloth. Rotting yellowed cucumbers lay strewn over the cloth and in the ditches.

Next to that field stood a row of greenhouses, covered with the same black cloth. Behind them, fields of rose bushes extended into the distance. “I don’t think you’ll even recognize your own paddy, it’s been so long since you’ve been here,” Ming-Song teased his mother.

“I’ll recognize it,” she countered.

Ming-Song led us on around a bend. In that one spot where the road turned, sandwiched between all the rest, a narrow vista opened out before us of rice paddies bordered by spindly betel nut palms. Here and there, farther back, bursts of bamboo arched gracefully into the sky. It was the single sliver of this landscape that remained alive and still capable of communicating some of the timeless

mystery and beauty I'd come to sense from Shuyuan's dreams. It drew me in. In that direction surely lay the Taiwan I wanted to find. I stepped over the irrigation ditch and onto a narrow cement footpath that trailed off between the fields.

Shuyuan called me back. The others had all come to a stop at the bend and weren't going any further.



The Jingmei entrance to Buddha's Footprint Mountain, where it is rumored that Buddha touched down at one time and left his footprint.

Photo by Robin Turner, courtesy City Farmer (Canada Office of Urban Agriculture).

smaller rose nursery next to the big one. The greenhouses we'd walked by earlier stretched along one side. On the other, under the open sun, lay beds of straggly young rose bushes. They weren't pretty. There was one flower. It had no smell. The bushes were planted in individual plastic pots held upright by plastic grids set in long sunken beds lined with the same black plastic cloth that was everywhere. Irrigation water gushed into the beds from a thick metal pipe that stuck up out of the ground. What soil was exposed was a lifeless, oily glop.

"Where are the boundaries?" I asked. Nobody quite knew. The farmer who rented the land emerged from a greenhouse, a deeply-tanned man in a white t-shirt, wearing dress pants tucked into sturdy rubber boots. He pointed out the irrigation ditch that formed the boundary on one side and then the line of tall betel nut palms at a right angle that formed the second boundary. The third boundary was the paved lane that we'd walked down on the other side of the greenhouses, and the fourth was the fence separating the roses from the plot of dead cucumber vines.

I walked away from the others now so that I could pick up the feel of the land, like I'd so often done in Cuba. My technique was simple. I stood silently and looked around, then walked on a few paces and stood silently once more and looked around again. I did this from one end of the property to the other. I had no illusion that I possessed any mysterious or occult ability. I'd once discovered that the way people treat a piece of land leaves countless little clues about what they love and who they are. Anyone who cares for the outdoors has no trouble reading these.

"I didn't think it was this far," Shuyuan's mother said, looking around.

Ming-Song chuckled. He'd let his mother walk right past her paddy, to prove his point. He turned and led us back.

He walked into the rose nursery and stopped right in the middle of nothing; then turned to me, as if to present the place.

"This is it?" I asked. It wasn't a place.

"Right here," Ming-Song affirmed.

"You're standing on it."

It was no longer a rice paddy, but a

From this property, though, I got no feeling at all. I drew a complete blank. It was not a place that had been touched by anybody's spirit, but one that had merely been exploited for a profane, utilitarian purpose. I rejoined the others.

Ming-Song pulled out his camera and had us all pose for a picture.

"Why are you taking pictures?" Shuyuan's mother objected. "There's nothing pretty here." I was surprised to hear her say that and looked closely at her face to see if it could be possible she saw what I did, that the place had been trashed, no love had ever been put into it. But from what I could tell she didn't see this at all. In her eyes the place never had been beautiful to begin with. She couldn't care less what happened to it. It was all about something else.

We headed back to the car. Ming-Song drove us out to the country road again and further on down it until we came to a larger road. Farther down this, on the left, crowded tight, one against the other, as if they were built in town, stretched a row of ugly nondescript buildings several stories high. Across the road from them ran a featureless concrete-lined waterway that had more the aspect of a large open sewer than a canal.

"I used to swim in this river when I was a boy," Ming-Song reminisced.

"What river?" I looked around for one.

"This one." He pointed to the wide, concrete-lined sewer alongside the road. Bubbles of swamp gas rose to the scummy surface from its putrid depths.

I'd thought this was some ugly place we were passing through to get to where we were going. But it wasn't. This was where we were going. This was the place of Shuyuan's dreams. I looked around. No matter in which direction I turned, the landscape was foul beyond description.

"It's polluted now," Ming-Song admitted. "But it used to be a clean river."

"This was a river?" I couldn't mask my incredulity.

"Yes," he assured me. "I used to catch big fish in this river."

"Wu-Kuo Yu?" The invasive Wu-Kuo Yu from Africa, I'd discovered, was the only fish to be found anymore in most of Taiwan's rivers.

"Not Wu-Kuo Yu," he assured me, "Real Taiwanese fish. Different kinds. They don't exist anymore. There were lots of them."

"This place was beautiful," Shuyuan affirmed with real feeling, leaning forward from the back seat. She needed me to see that. But I couldn't.

"The cement walls weren't here then," Ming-Song said. "It was a real river with real banks and lots

of trees. It was very beautiful.”

“There were big willows all along the shore,” Shuyuan said. “There used to be a swimming hole up ahead where we swam when we were children.”

“There were no buildings anywhere around,” Ming-Song added. He turned left onto a narrow alley that squeezed through a break in the row of buildings. A ways behind them, he made another left turn onto an even narrower alley. A cluster of junk sat in the middle of the pavement, blocking our way. Amongst the bags of garbage, sat the top of a gas stove, with burners. I wondered how we were going to get by. Unfazed, Ming-Song brought the car to a stop and waited. I was wondering how he could back up on such a narrow alley, when some youngsters appeared and resentfully began moving the garbage aside to make room for us to pass. They cast hostile glances at us as Ming-Song squeezed the Mercedes past them.

“They’re our relatives,” Shuyuan said.

“Those kids?” I said. “They didn’t look at us in a very friendly way.”

“They don’t recognize us or even our car, because we seldom come here,” she said as we drove on a little further. “They’re the grandchildren of my second uncle.”

Ming-Song brought the car to a stop before a gate in a cement wall. Inside, back a ways from the road, stood a structure I recognized immediately from Shuyuan’s New York dreams. So accurately had she sketched her grandmother’s village on that piece of paper that when I got out of the car and walked through the gate, it felt I was stepping into her dream. That feeling quickly faded. “The walls weren’t brick when I was a child,” Shuyuan said. “They’ve reconstructed the whole thing.”

On the right were the five doors to the five rooms, just like in the dreams. The two rooms closest to the far end would be where her family lived until she was eight. “Strangers live there now,” Shuyuan said, as someone appeared in one of the doorways and stared curiously at us. “My uncle rented those rooms to people outside the family. For them it’s just a cheap place to live.”

“The center building houses the altar to our ancestors,” she said. She led me inside. The room looked ancient. Along the far wall stood a high elaborate wooden altar with Chinese calligraphy. We folded our hands in homage to the ancestors of the Liu family, Shuyuan’s mother’s people. For generations this had been their family village. This room had been the sacred place at its center.



A valley in Taiwan.

Photo by Tai-chi Liao, courtesy Taiwan Government Information Office.

Now it was dusty and unused.

Shuyuan pulled me out through a low sliver of a back door to the right of the altar. We stood in a passageway behind the main house. An identical-looking building wrapped around the rear of the main one. “This was a great place to play hide-and-seek when we were children,” she reminisced, “Because there were so many places to hide.”

We circled around and ended up out front again. Shuyuan’s mother stood near the gate chatting with a woman wearing a coolie hat—a relative. They talked like they’d last seen each other only yesterday.

“I can’t find the well,” Shuyuan said, looking around.

“The well is here,” Ming-Song said, pointing to an unsightly overgrown area cluttered with junk and old rotten boards.

“This was the source of water for the whole village,” Shuyuan told me, with great significance. “My brothers had to carry buckets every day from the well to fill up the big earthen pot in our house.”

“This was a center of life for us as children,” Shuyuan said. “We used to play here as our mothers washed the clothes. In the evening, the men bathed here.” She wanted me to see it once was a place teeming with aliveness.

The whole area all around was now dead and abandoned. I stepped warily into the heap of junk and weeds, to peer down into the well itself. It was partly covered with rotted boards. Down inside, all I saw was cobwebs and dust. It had dried up.

“There are probably dangerous snakes here,” I muttered.

“You don’t have to worry about poisonous snakes,” Shuyuan assured me. “They are not common in Taiwan. People here eat them.”

“There used to be tall bamboo all around,” Ming-Song said, extending his arm to indicate the periphery. “It was beautiful.” Now ugly buildings crowding in close. One of Shuyuan’s uncles sold the adjoining rice paddy. A big factory stood on that site. With the money he’d gotten, he’d built his family a mansion on a remaining rice paddy and moved into that. The whole village had a derelict feel to it. It was now a place where the less fortunate hung on.

Before we left, I asked Ming-Song to take a picture of us all standing on the pavement out front of the village. “Why are you taking pictures?” Shuyuan’s mother objected. “There’s nothing pretty here.” It was the second time she’d said those same words and this time I grasped their meaning.

During Shuyuan’s difficult years in New York City, it was the pristine country landscapes she’d known here in her childhood that returned so faithfully again and again in her dreams to remind her

who she was and where she belonged. Her mother, though, was from an earlier generation, and had a different dream—to rise up and get free of such places, so that she would no longer be seen by others as small and insignificant. It didn't matter how badly the place was trashed. What mattered was to make money.

Dr. William R. Stimson leads dream group workshops throughout Taiwan and teaches a graduate course on dreams in the Department of Social Policy and Social Work at Taiwan's National Chi Nan University in Puli. More of his writing is posted at www.billstimson.com.

Essay



by John Roderick

On the afternoon of Sunday December 7, 1941, I began to hate Japan and the Japanese, a nation and a race I hardly knew.

I was twenty-six then, the only editor on duty in the Portland, Maine, bureau of the Associated Press. It seemed like a quiet, eventless Sunday until the bells on our teletype machines began clanging, waking me from the daydream into which I had fallen.

The urgent message read:

JAPS BOMB PEARL HARBOR

The details came clattering over the teletypes: Carrier-based Imperial Japanese Navy bombers armed with torpedoes had, without warning, destroyed much of the U.S. fleet moored at Pearl Harbor on the Hawaiian island of Oahu. Eight battleships were sunk or severely damaged, 188 aircraft destroyed, 2,280 military men killed, and 1,109 wounded. Sixty-eight civilians also died.

The next day President Franklin D. Roosevelt described December 7 as “a date which will live in infamy” and congress declared war on Japan.

In the twenty-first century, the enemy is less visible, harder to pin down. He operates from secret headquarters and strikes at many targets hard to identify and defend. But there was no question about the enemy in 1941. It was Imperial Japan. A mixture of fact, fiction, and propaganda over the war years persuaded me, and millions of other Americans, that Japan was evil and the Japanese were monsters, buck-toothed, near-sighted, slow-witted, and cruel.

Inducted into the army in 1942, I studied the Japanese language at Yale University as part of a War Department program to train enough interpreters for the occupation of a defeated Japan.

My teachers, Japanese interned for the war's duration, were pleasant enough, but my revulsion persisted. The Bataan Death March in the Philippines, which took the lives of many American prisoners of war, and later atrocities increased my distaste for Japan and the Japanese.

When the war ended in 1945, I became an AP foreign correspondent in China. Becoming a foreign correspondent opened up a whole new, thrilling world for me. Within a month I was in Yanan living in a cave in the beleaguered capital of the Chinese communists and hobnobbing with their leader, Mao Tse-tung. I reported the harsh march of events that would lead to their conquest of all China in 1949.



From there I went to Amman, Transjordan, and reported the birth of Israel and the Arab world's attempt to stifle it in its cradle. Postwar London and Paris, my dream city, followed, and then French Indochina, reporting the French defeat at Dien Bien Phu.

In Saigon, I got an invitation in 1954 from a friend in Japan to visit Tokyo on my vacation. World War II had ended nine years before. I decided to accept.

I expected to find the city peopled with the cruel and unattractive stereotypes of wartime propaganda. I met instead a new generation of Japanese, embittered by the war their elders had foisted on their country and eager to learn about their American conquerors, who had conducted the military occupation firmly, which they expected, but also with compassion and intelligence, which they had not.

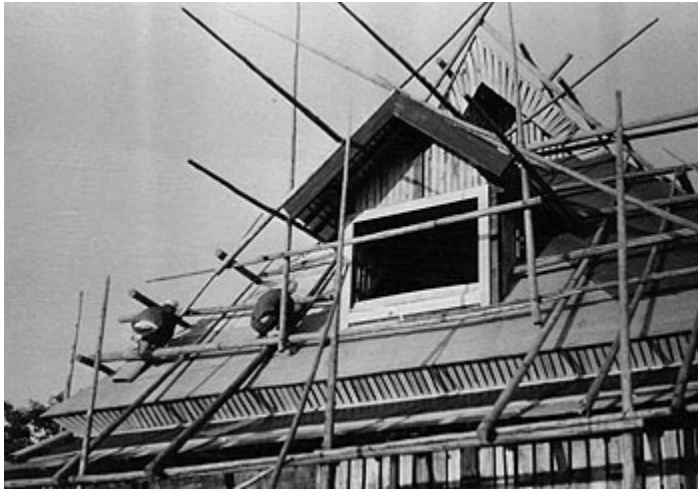
These Japanese were young, anti-war, and more pro-American than many Frenchmen I had known in Paris.

After years of hating the Japanese, I suddenly found them attractive, intelligent, and enthusiastic about democracy and its freedoms. Most young Japanese were sick and tired of militarism. They were eager to sample the privileges of democracy, to demonstrate and protest, which they did almost daily, without risking torture or imprisonment. Though they had little say in writing the American-sponsored "no war" constitution, they embraced it fervently. The roots of their pacifist credentials were visible in the destroyed cities and millions of war dead. Ashamed to be labeled pariahs, they yearned almost achingly to rejoin the family of civilized nations. I was willing to stop thinking of the Japanese as enemies and tentatively consider recognizing them as friends.

I talked to some diehard militarists, but they were few and no longer respected. They had nothing new or original to say; defeat had robbed them of their old, discredited, jingoist arguments.

Over the next five years, I returned to Japan on vacations from Paris and Hong Kong until, in 1959, AP gave me what I had once least wanted and now eagerly sought—assignment to Tokyo.

Besides admiring the defeated people, I found that I also liked Japan because in many ways it reminded me of China, where I had spent the first three years of my overseas career. In fact, I loved the Chinese and their culture so much I planned to end my career and retire in Beijing. When I lived there in 1947, it was a sleepy, dusty city of scholars, philosophers, and unfocused dreamers. I felt I had the qualifications—it didn't take much—to become one of those dreamers.



Mao, conqueror of China in 1949, shattered my plans. Instead of acting like the poet he had been, he became an absolute dictator, turned China into a nation of robots. He converted Beijing into a noisy, busy, regimented metropolis as clunky and uninspired as cold-war Moscow.

It was not what I wanted, so I said goodbye to my illusions of a Chinese Shangri-La.

Over the centuries Japan, I found, had been influenced by its giant neighbor. Wherever

I turned, I saw Chinese influence in Japanese religion, paintings, sculpture, literature, law, music, the tea ceremony, flower arrangement, and government. Even the ideographs of its language were borrowed from China. But the Japanese made what they had taken peculiarly and markedly their own.

Though I had loved China and the Chinese and had met some congenial communists, such as its premier, Chou En-lai, I chafed under the rigid controls and wrong-headed dogmatism of the communist system. I was thrilled by the yeasty, noisy, free-wheeling democracy of postwar Japan and glad to say and write what I pleased without worrying what some communist bureaucrat would think. Too many Americans, I thought, valued democracy only when they lost it. To enjoy these freedoms alongside a culture so closely resembling that of the ancient Chinese seemed more than I deserved. It suited me down to the ground.

But what I had loved about the Japanese in 1959—their relaxed way of life, willingness to talk endlessly about politics, art, music, literature, the theater, and sex—by 1964 had been sacrificed to the new god of industrialization.

The change was gradual. Almost from scratch, the Japanese began to rebuild their shattered economy. Those five years were devoted to rebuilding what before the war had been a booming industrial scene, and was now in ruins. When Tokyo was awarded the 1964 Olympic games, the rebuilding took off in a surge of relieved, grateful, and dedicated enthusiasm.

Yesterday's students graduated and began looking for work. Older Japanese with skills found more opportunities opening up with the rise of offices and factories. Those who had been demonstrating in the streets for political reforms found themselves preoccupied with new chances to earn money. A full rice bowl did much to change political perspectives.

The Japanese I had known abandoned me to join the huge work force in what I thought of as the same old rat race—the contest for industrial power and wealth, which I had hoped was a thing of the past. Others called it an economic miracle as the Japanese rose from the ashes of defeat to once again make Japan into a superpower. It was, I believed, a mistake. Life was simpler, and many people seemed happier in those pre-industrialization days than they had been before. As the race intensified, thousands of new factories spewed smoke into the air, spilled metallic poisons into the rivers and streams, and polluted the earth. In Tokyo in mid-afternoon one could barely see more than a few hundred yards into the distance.



Discouraged and disillusioned, I made plans to leave. Paris beckoned. The skies there were clear, the wine plentiful, the French preferred the good life to one based solely on material wealth.

In the midst of these preparations, I met a young Japanese man named Yoshihiro Takishita, familiarly known as “Yochan.” He introduced me to his parents in his hometown, the Gifu mountain city of Shirotori, 350 miles from Tokyo. His father, Katoji, was a ramrod-straight ex-Imperial Army cavalryman, his mother, Kazu, a rosy-cheeked kimono maker still young-looking and energetic, was an amateur historian who regaled me with stories of the Gifu mountains.

They embraced me with an enthusiasm that astonished, then pleased me. It was the beginning of a relationship that has lasted more than forty years. The Takishitas have become my surrogate family, Yochan my adopted son. Because of them, our lives have changed and my long journey to Japan, which began in unreasoning hatred, has turned to love.

On subsequent visits I got to meet the farmers, carpenters, shopkeepers, *sake* brewers, timber workers, and small-town politicians of this rural city.

I saw that the backbone and resolve of Japan lay not in the seething big cities but in the enduring values of the villages: hard work, communal spirit, fatalism, love and respect for nature, superstition, religious fervor, and a refusal to admit defeat no matter what the odds they face. The industry and teamwork they foster and the natural skills they have mastered are the key elements of Japan's economic greatness. It is why, despite an almost total lack of natural resources, its economy now ranks second only to that of the United States.

When Yochan, witty, amusing, and optimistic, joined me in my rented house in Tokyo, I decided to stay in the country. Japan appealed to me not only as a good story but also as a place to live and work. Japanese culture and a newly acquired Japanese family, the Takishitas, were attractions I could not resist. There was something more: the Japanese themselves. Their pro-American friendliness and affection, honesty, sincerity, and unflinching courtesy I found refreshing. And their spare, clean, uncluttered lifestyle struck an answering chord. They seemed to be everything I wasn't and wanted to be.



Their extraordinary cultural accomplishments: folding-screen paintings, in which they excelled, the *kabuki* and *noh* theaters, calligraphy, woodblock prints, the many and colorful country and religious festivals fascinated me. And finally, and for me, importantly, their cuisine. Composed of the choicest natural ingredients, unchanged by few spices, served in an elegant setting, it was a new, and to me, exciting taste sensation.

All these things left a vivid impression on the small-city Maine boy that I was. They contributed to making me feel remarkably at home in this once-hated country.

After the Olympic Games, we moved to another rented house in Kamakura, on the coast thirty-five miles southwest of Tokyo. By this time, far from thinking of leaving, I began to envision the possibility of spending many more years in Japan.

The subject came up during breakfast one day. Our frisky little black dog, Hoagy Carmichael, frantically chased butterflies in the garden. The sun, rising red-faced over the distant bay, made me feel, like Voltaire's *Candide*, that all was for the best in this best of all possible worlds.

"What a beautiful place," I said to Yochan. "I wish I could buy a house like this, any house, in Japan. No more rent, no more nasty landlords."

It was idle talk, not to be taken seriously. In thirty years as an AP reporter and foreign correspondent, I owned nothing of real value and didn't want to. When tempted to do so, I remembered Thoreau's warning that we think we have things but, in fact, things have us.

Mine had been, until then, a carefree, rootless, vagabond life. With my new family, that was changing. I felt a responsibility in my dealings with the Takishitas, particularly Yochan, that I had never experienced before. He bridged the gap in our ages by treating me exactly as he did Katoji. They were more like brothers than father and son in the way they joked and played together, calling each other by their first names.

Quick-witted and ebullient, Yochan beguiled me with his boyish smile and bantering manner. But I had yet to discover that, like Katoji, once he made up his mind to do something, he was almost frighteningly unstoppable.

Yochan said nothing then but two months later, out of the blue, he asked: “John-san, did you really mean it when you said you’d like a house of your own in Japan?”

I paused. “Why yes,” I replied. “But it was only wishful thinking. A dream, really. I don’t have enough money.”

He frowned. “Well, I took you seriously. My parents have found some old farmhouses, called *minkas*, not far from Shirotori. You might be able to buy one cheaply.”



“No matter how cheap, I’m afraid I could not afford it,” I replied.

Yochan shrugged.

“They’ve gone to a great deal of trouble,” he said. “You could at least take a look at them.”

Since we had met two years earlier, Yochan’s family had been wonderfully kind to me. They had almost literally adopted me, a large American so recently an enemy, and at their insistence I had taken Yochan, their youngest son, under my wing during his student days.

Not that I needed any persuasion. From the beginning, despite the differences in our ages, race, and culture, we hit it off. At first I was *John-san*, the honorable John, but soon after it was just plain John, in the same way that he called his father and mother by their first names, something almost unheard of in relationships between Japanese parents and children. But Yochan was not an ordinary young man. For one thing he had an American sense of humor, an ability to laugh at himself, and a disdain for conventions. His relationship to his parents, and to me, could be described as affectionate, leavened with a large dose of bantering.

By the time Yochan mentioned the *minkas* to me I regarded the Takishitas as surrogate family. I loved them too much to do anything that might upset them. They had gone out of their way to find a house they thought I might afford. It would have been churlish to disillusion them, so I decided to play the game. The next day, Yochan and I met Katoji and Kazu in Shirotori, their hometown, spent the night there, and set out by taxi soon after breakfast for the remote hamlet of Ise.

Ise is in Fukui prefecture, an hour and a half from Shirotori, well off the main road that connects to the Gifu mountains. The area is wild and lonely, ideal for anyone seeking, for whatever reason, to

hide from his fellow humans.

Our taxi came to a halt before a cluster of about a dozen thatch-roofed farmhouses that, at first glance, seemed to have been battered in a recent battle. Six or seven were in various stages of destruction, roofs gone, walls crumbled, timbers sticking out like bones that had broken through their outer skins. There were vacant places where others had stood. Only six or seven had survived.



I looked at Yochan. He indicated he would explain later.

Silently, we walked through one house after another until we came to the one Kazu and Katoji liked best. It was a monster of a house. I had seen farmhouses in my native Maine and many in Europe. None was like this. Thirty feet high, its steep, thatched snow roof scowled down at me like an enraged elephant. Its size and height terrified me.

Out of the corner of my eye, I watched the reaction of the Takishitas, mère, père, et fils. Katoji and Kazu looked as though they were gazing on the newly discovered Egyptian tomb of King Tut. The rapture on their faces was reflected on Yochan's who, like me, was seeing it for the first time.

I wondered whether we were looking at the same house. We were.

When we stepped inside my wonder, and distaste, increased. It was cold, damp, cobwebby, dirty, and forbidding. I could barely discern through the gloom the immense posts and beams that held up the massive roof. My reluctant admiration at seeing these architectural wonders evaporated at the sight of the wide wooden planks that made up the floor. A floor like no other I had ever seen, it rose several feet in the air above a second floor of pounded dirt called a *doma*. The entire edifice was all too large, too strange, and too overpowering. It left me with a feeling of unease. Even if I could have afforded it—I assumed the price would be as high as its roof—this was not the house for me.

Though I plainly saw how they felt, I could not believe that the Takishitas seriously thought I would want such a monstrously big, obviously unheatable, and darkly repelling structure as my home. But, even as I reasoned that surely they were too sensible to harbor such ideas, I realized, with a pang, that they could and did.

I have always been sensitive to the feelings of others, a trait that borders on weakness. Because I loved them and understood their motives, I decided to remain silent while the Takishitas led me through this wildly improbable, never-dreamed-of, house-hunting nightmare. Out of politeness, I looked interested, but ultimately, and with a show of regret, I was determined to say no. Firmly.

The owner, a friendly, short, flush-faced, middle-aged man joined us a few minutes later.

“My name,” he announced after bowing deeply, “is Nomura. You honor me by visiting my modest home. The house you are sitting in was built in 1734, and I am the head man of the village.”

He looked at me and smiled.

“My ancestors were members of the Heike,” he continued. “They built the first house on this spot in the twelfth century.”

This bit of historical lore aroused me from my total lack of interest in the house-hunting proceedings. I had heard of the Heike. They were Japan’s most celebrated losers. A

military clan based in Osaka, they fought the Minamoto, based in Kamakura, for mastery of Japan in the twelfth century. After crushing them in a series of bloody battles, the Minamoto hunted them down almost to the last man. Few escaped. The Japanese see in their tragic end a sad commentary on the evanescence of life and a lesson in humility; even the most powerful must one day die and their works crumble into dust. The few descendants of the Heike enjoy a fame comparable to that of a home-run king or a movie star.



I looked at this small, meek-looking man with new respect.

“Even though I am an American, I have read about the Heike,” I said. “They are well-known in Kamakura where I live. Your ancestors were brave and tragic people.”

He bowed even more deeply.

“My honorable ancestor found safety here in 1188 after fleeing the victorious Minamoto in a famous battle,” he said. “This house has many memories. And I hate to part with it. But that’s fate. *Shikataga nai*. There’s nothing I can do about it.”

Katoji cleared his throat.

“It is kind of you to consider selling this stately home to John-san,” he said, looking first at me, then at him.

“I would consider it an honor to give it to so famous an American journalist,” he said. “I have been assured he loves and respects Japanese culture and that he will cherish it as his own.”

I listened to this exchange in a daze, not quite sure about whom they were talking. Events were speeding up bewilderingly.

I felt like a drowning man going down for the third and last time.

I was losing control of the situation. This was not the scenario I had so confidently envisaged.

In this state of stunned confusion I heard Katoji's voice, faint and distant, saying to Nomura-san, "And how much, in your great and benevolent generosity, are you asking for this truly splendid house?"

The answer was short and to the point.

"Would 5,000 yen be alright?" Nomura-san asked.

This figure startled me out of my torpor. I am a numb-skull at figures, but I knew that 5,000 yen in those days was the equivalent of fourteen U.S. dollars. I could hardly believe my ears. Hate it though I did, and though I didn't want it at any price, I recognized that his drafty but magnificent old house was worth considerably more than that.

Were these country people playing a joke on me, an innocent American? I didn't have time to ask. The Takishitas' faces lit up like sunrise over Mt. Fuji. Yochan beamed at me. Feeling foolish, I smiled weakly back.

Even after it had seeped into my consciousness that, instead of buying the old minka, I was being given it, my stunned mind refused to accept the fact. During what seemed an endless silence, I sat there saying nothing as all eyes were turned expectantly on me. Yochan made it clear I should accept.

Unwilling to make a scene but feeling foolish, I reached into my pocket and extracted the 5,000 yen—the price of a good lunch for one in Tokyo—and handed it to Nomura-san, who bowed yet again. The Takashitas applauded.

Briskly, Yochan produced a piece of paper and a pen and made out a rough bill of sale, which Nomura-san signed. Then a law student at Waseda University, this would be Yochan's first and last legal act. We didn't know it then, but the events of that day ended whatever youthful dreams he had had of being a lawyer.

I was now the reluctant owner of a huge minka I did not want, which I had acquired for a price I could not refuse.

"What the hell," I thought, "am I going to do with this damn thing?"

I smiled for the benefit of the Takishitas and Nomura-san. Anyone could have seen that I didn't mean it. But their euphoria was so great they thought it was the real thing.

This essay is the first chapter of John Roderick's new book, [Minka: My Farmhouse in Japan](#) (Princeton Architectural Press, 2007). It is reprinted with permission.

All photographs courtesy John Roderick and Princeton Architectural Press.

John Roderick was an Associated Press foreign correspondent in Asia, Europe, and the Middle East for almost 40 years. He lives part of the year in Hawaii and part of the year in his minka in Kamakura, Japan.

Fiction



by Tamara Kaye Sellman

When we cross the last of the floating platforms in our SUV, the girls give out high-pitched hurrahs and giggles, calling me the greatest Mommy ever. You'd have thought we'd won some sort of reality show competition. And I feel like a winner for the courage it took to get here in the first place.

But the truth becomes apparent in the moment that follows, when the first row of search lights and flashing reds blaze along the fog-obscured shore.

"Mommy, why are the police here?"



One Hour Before

A few among us direct traffic. Mostly men, though I recognize Joan, the checker down at the drugstore, waving people toward the platforms. They wear sad, knowing smiles on their faces, jaws tight with resolve—neighbors helping neighbors through a difficult time.

I pull into my assigned lane. Then I gasp. The man directing this lane of traffic is the retired colonel.

We lock eyes. He winks, motions me on.

What is he doing here? I'm afraid to ask.

"Godspeed," I hear him say through my open window. "Everything will be okay."

I swallow hard.

What is he doing here?

I can't conceal my panic.

"It's all right," he says, as if he can tell in the dark how terrified I am by the idea that he is here.
"This has always been the exit strategy."



One Hour, Thirty Minutes Before

When we crest this last hill, I expect to see the lights on the other side, across the water. Our island is densely forested and not very well lit. Across the channel, deeper into the county, life normally resembles the one we left back in the city: major roads, strip malls, subdivisions, neon signs, and stop lights.

But tonight it's eerily secluded over there. A fog has pulled in. I want to cheer. Cloak of darkness, cloak of fog, cloak of silence. Proper conditions on this lowest-tide night.

When the girls and I reach the bottom of the hill to the beach, other cars and people appear in the night's opacity. Quiet, cautious, at the beginning.

I see my friends. We are safe.

I pull the truck into a queue and roll down my window. People make private conversation, hug, check roofrack tie-downs. Children huddle in car seats, buckled in, most of them asleep.

"We're here," I whisper with my heart in my throat.

"And then we'll be there." My oldest points out into the fog, smiling.

"Here we come, Daddy," says my youngest.



One Hour, Forty-Five Minutes Before

It's harder than I expected, driving without lights. You can't see anything, or if you see something, it looks like something else.

We only notice one other car on the road. Its lights are also extinguished.

"Mommy!" my youngest, the one with eyes like a cat's, points. The car emerges from a driveway concealed by trees. I hold my breath.

No lights go on.

Liberals.



Two Hours Before

I double check. The porch light is still out at the retired colonel's house. There aren't any neighbors sitting sentry on their front porches, either. After a few days of Liberation, they must feel smug, convinced the Crackdown has succeeded.

I drive through the neighborhood at a crawl. My eyes scan left and right for the sudden glare of lights. My ears perk for voices, alarms or, God forbid, gunshots. The girls are equally watchful and focused in the back seat, clinging so tightly to their stuffed animals that their knuckles glow white in the dash lights.

I gasp. The dash lights! I turn down the pale green glow from a knob on the dashboard panel. Any light is too much.

We make it to the main road without being seen.

The girls don't demand "car music"—children's songs that help them to sleep. I tune the shortwave to the local channel where we have, in the last few days, picked up tinny broadcasts from our ousted island mayor.

I can barely pick up her words tonight. She asks for patience, prayer, and for no one to panic. Something about due process.



Two Hours, Fifteen Minutes Before

Children have a way of knowing when it's not their place to protest.

As I scoop the girls out of their beds in their jammies, they hold on wordlessly, their eyes wide and bright as stars.

I buckle them into their car seats, return to them their appropriate lovies and cozies.

After a deep breath: "Here we come, Daddy."



Two Hours, Thirty Minutes Before

When it's clear the other neighbors won't be returning from their brotherhood meeting for a while, I steal down to the garage and smash all the lights out on my SUV. Blinkers, rear brakes, reverse whites. I do it in the dark, praying no one will hear me, especially the girls.

They should be sound asleep. I'd silently packed everything into the truck earlier, while the girls were watching a movie. *Monsters, Inc.*

We are ready.



One Day Before

We find out the hard way that school has been canceled.

My neighbor across the street, the retired colonel, stops us on the sidewalk. "Where you going this fine morning, ladies?"

The girls and I are walking to the bus stop like any other Tuesday morning.

My youngest, the kindergartener, is first to reply, with the pride reserved only for kindergarteners, "Today is a school day."

I see, then, the patch on his sleeve, the kind they sew on for emergencies of state, a blazing red

emblem signifying the brotherhood.

“I’m sorry, but you’ll have to go back to your homes now.”

On his breast pocket, a badge like a deputy’s reflects the morning light.

“Come along now, you know the rules.” He gently turns the girls by their shoulders and faces them in the direction of the house.

I stammer, “Surely they haven’t shut down school because of the problems in the city....”

The retired colonel smiles at me. A sad smile, jaw tight with resolve. “City? Dear lady, this is a nationwide curfew. Move along now, give the government the respect it’s due like good Americans.”

When I open the front door to let my befuddled children back in, I look back at the colonel.

“Don’t worry, they’ll bring you food,” he says, pointing to the houses down the road from ours. In the yards stand people I’ve been friends with for five years.

All of them wear red patches.



Two Days Before

National Crackdown on Liberals Enforced By Local Agencies reads the headline in the morning paper.

No one has called. No one has emailed. There was nothing on the news last night or this morning.

I try to keep my concern from the girls while they sleepily lick peanut butter off their morning toast. I’ve been up all hours wondering where my husband is. He never came off the commuter-hour boat last night, or any of the later ones.

When I put the girls to bed last night, I kissed them both on the forehead and told them that Daddy was just visiting friends.

The newspaper headline proves quite opposite: Daddy is probably in jail, detained by the brotherhood.

Daddy is a Liberal.



Three Days Before

“Give Daddy a kiss goodbye,” my husband says as he kneels for the peanut-butter-toast pecks from the girls at the bus stop. “I’ll miss you later.”

“How come?” my oldest frowns.

“I have an appointment in the city.”

My youngest one asks, “Are you going to the dentist?” The only appointment she’s ever had in the city has been to see the dentist. Naturally she assumes the same for her father.

“No, sweetie, I’m going to visit my boss. Have a meeting.”

I want to say, *Daddy’s going to get a raise!* The salary freeze was dropped for certain levels of management last month, just in time for my husband’s annual review. We’re hopeful. We could use the money; the changing economy has made life tough even for the wealthier middle class. Gas and electricity are excruciatingly expensive these days, which means that everything else is, too, including peanut butter.

“You haven’t had a meeting in a long time!” My oldest daughter’s eyes are wide with surprise.

My husband laughs. “Not in the city, no. But I have meetings every day in the home office. Remember?”

The girls nod and smile. They’re so glad Daddy works at home.

Frankly, so am I. With so many disconcerting political developments in the news these days, it’s good that he’s always so close to home. Any time he ferries over to the city, I worry. It’s one of those I-can’t-put-my-finger-on-it kinds of worry, so I don’t say anything to him. He’s a logical man. He requires the evidence of fear before he worries about anything.

He tweaks the girls’ ponytails. “I’ll see you at dinner. Be good for your Mommy.”

The bus doors close behind them, and they are off, blowing kisses to Daddy and me as we walk, arm in arm, away from the bus, back to the home where we work together, live together, love together.



Six Months Before

Since the elections and the Constitutional redraft, working life in the city has begun to drag on my husband's morale, like it has for so many others.

"No one ever comes into the office anymore," he laments. "Even the ferry ride into the city doesn't make it worth it anymore."

"Why not build a place in the basement?" I suggest. I've worked out of the house for five years now, and it has been an excellent solution for me, the working Mommy who wants to be home with her kids.

"Heck, I don't even need to go into the office anymore, not with this DSL, my cell, the laptop and wi-fi." He glows at me. "That's an excellent exit strategy."



Five Years Before

"It's perfect," I glow at my husband. The girls giggle and give out high-pitched hurrahs. "Not only the house, but this island."

We've finally found a place that's right for us. Sure, the neighborhoods are safe, the schools good, the quality of life outstanding. The island is absolutely beautiful, as well. But there is something about this place that beckons us after years of life in the city. The people here embrace our values. Community. Sustainability. Fellowship. Compassion. Peace.

The realtor passes us the full set of keys and our signed paperwork. "Remember, only two ways off the rock, by boat or by bridge."

My husband laughs. "Even if there was a third way, we'd never want to leave," he sighs with satisfaction.

Tamara Kaye Sellman is an independent developmental editor who lives and writes on Bainbridge Island, a small community located 35 minutes by ferry boat from downtown Seattle. Her active dream life inspired this story.

Fiction



by Julian Hoffman

The sun was high, insistent, and brought with it the hazy gauze that garlands these lakes in summer. Last night's stubborn winds had pushed off some time after sleep, leaving a strandline scribbled with lost wood and ribbons of wracked weeds. The pelicans had woken me at first light. They were fitfully feeding alongside cormorants in the lagoon. Each morning I had witnessed the same frenetic ritual of thrashing and churned water, a gossipy chattering and clapping of bills. The pelicans would flare out, like a billowing white sail, then circle in clamoring numbers to trap shoals of small fish in the shallows where they are scooped in the birds' inflated pouches as easily as handfuls of sand. I had spent the morning photographing them, taking notes regarding their behavior, numbers and feeding patterns, occasionally being interrupted by footsteps sloshing at the water's edge.

He was closer now, closer than he'd been all week. I decided to speak to him.

"Kalimera."

"Kalimera." He turned on the last drawn-out breath of the greeting, having offered a momentary glance. His eyes were deep, buried beneath thick lashes like awnings lowered against the light. He neither challenged nor questioned, simply noting my presence as he turned and walked away, receding along the quiet shore.

I had watched him as, I suppose, he had watched me. Each day he'd wandered along the dog- and otter-paw pocked sands, shuffling weeds and bleached shells with his feet, fumbling in the pockets of his loose trousers for a cigarette to draw on before settling on the shore to strike a hand-sheltered match. At times he would perch like a heron on the upturned hull of an unused fishing boat, a study in poise. He was probably in his late sixties and he moved sparingly, with gentle precision. Occasionally I saw him sitting cross-legged or crouched on the small rise of dunes pitched away from the beach, with his back to the dense reed bed that swayed and cracked with the slightest provocation of breeze. Mostly though, he stared. He would look out over the limpid waters of the lake as though assigned a watch, tracking the stillness as if through a periscope, memorizing the empty spaces like they contained an invisible design, something necessary.



I'd studied marine sciences at the University of Toronto. After completing my degree I'd read an article about the plight of the Louisiana brown pelican; how the widespread use of DDT as an agricultural pesticide in the 1950s and 60s had completely wiped out the coastal population. The toxic chemical didn't affect the pelicans immediately but killed them off slowly and indirectly. It was absorbed into the food chain by small fish as it drained off the agricultural plains of the American heartland and into the Mississippi River. From there it traveled downstream, carried in the tissues of the fish upon which the pelicans fed in the coastal waters. As the chemical accumulated over the course of years in the pelicans' systems, its effect was to dramatically reduce the thickness and rigidity of their eggshells. Ultimately, the Louisiana brown pelican was extirpated by its nurturing instincts, crushing its own eggs as it sat protectively over them. In the late 1960s there was a concerted restocking program that has, in conjunction with the banning of DDT in 1972 and a continued conservation presence, returned the brown pelican to the shores and barrier islands of Louisiana in healthy numbers.

I was so taken with this heraldic story of the resurrection of a community that I applied for a research post out of Baton Rouge. As part of my work there I was sent for a week or so each year to a different pelican colony in another part of the world; an exchange aimed at sharing conservation methods and techniques. It allowed me to gain a better understanding of local program dynamics and how they potentially affect preservation schemes.

The Prespa Lakes, where I had spent the last week, are shared by three Balkan countries. The larger of the lakes, Megali Prespa, is divided between Greece, Albania, and the Republic of Macedonia, and in certain lights resembles the sea. The smaller lake, Mikri Prespa, lies almost entirely within the borders of Greece, and is separated from its larger neighbor by a flat and scrubby strip of land. These lakes are the summer home of over a thousand pairs of Dalmatian and great white pelicans, and are one of the most important European breeding grounds of the birds. They nest on small islands set in open water amongst the reeds of Mikri Prespa, though they tend to feed from the clearer, deeper waters of the larger lake. Throughout the day the pelicans cross back and forth between the two, appearing as suddenly as apparitions above the road that splits the isthmus.



I looked up from my notes and refocused the telescope on a small group of Dalmatian pelicans idly preening themselves in the shallows. In the still, heat-leavened silence his voice came like a gunshot.

"Where are you from?" He'd approached silently, as I do when studying animals, and had startled me. He'd asked in English, good but accented, which didn't surprise me as I'd met many people in

this far corner of Greece who'd emigrated and returned.

"Toronto, originally. But I've been working in the States."

"I don't know much about the States but I know Toronto pretty well." He stood slightly hunched as though the best part of his life had been spent in the sitting position. "I've spent the last twenty years there. Born here though. You like the pelicans?"

"I'm here to study them."

He watched me carefully, with a hint of a smile. "Fine. But do you like them?"

In the few seconds that hung between question and answer, his eyes, under cover of their generous lashes, had left my own, had betrayed an independence of view and drifted ever so slightly to a space to the right of me and beyond. I turned and looked in the same direction to see seven or eight Dalmatian pelicans gliding toward us, hugging the coast. It was like watching a dream pass, hazy and hypnotic.

"Would you like to look at them through the telescope?" His eyes suddenly left the pelicans, flickered briefly and refocused. He stood motionless, staring at me through a watery glaze as the pelicans passed alongside us, skimming along only inches above the surface of the lake, nicking the water with their wingtips like rows of skipping stones.

"I used to hate them. All of us fishermen around here did. We thought they ate all the fish. Some people here still think so. Used to curse them from the moment we put the boat in." There was a hesitancy in his speech, a slight tremor, like the rumble of a far-off train.

"There was a time when we got paid for them. Like a pest. We took them to a government office in the nearest town and got fifty drachmas a bird or five for an egg." He laughed suddenly and nodded towards the peaks that climbed away from the lake. "The first time we went we actually strapped the dead birds to donkeys and walked them over the mountains till we got to the city. You should have seen their faces in the office when we carried these huge dead birds in through the front door. They told us we only needed to bring them the beaks as proof. Now we watch them fly over the same mountains." He was still smiling, but shook his head in disbelief—though whether for the past or the present I couldn't tell.

"After this place became a national park they stopped paying us. We still smashed up the nests, though. We'd scare up all the adults by smacking our oars against the water." Thwack. He brought his palm down hard against his thigh. "Then we'd bash the hell out of the eggs and the small ones as they lay there in their nests. Some guys would just hold the baby birds under the water for a few minutes. Said it was easier. When we rowed away they just floated there limply."

He sat on the sand among my books and I joined him. I'd encountered these or similar stories before, and the people who told them. They were difficult to listen to, but I'd come to accept them as

important and necessary, a basic way of understanding why humans persecute certain species. He offered me a cigarette before lighting one for himself. There was a hush over the entire lake basin. Only a drowsy insect hum escaped the filter of mid-afternoon. The last desultory croaks of the marsh frogs had ceased. Dragonflies flitted in their silent and incessant way, as if they were tethered to lengths of taut, invisible string. Water snakes screwed themselves through the sand to bask.

“Do you come back every summer?” I asked him.

He shook his head slowly. “No. It’s been many years since I was last here.”

“How does it feel to be back?”

“Strange.” He reached for a small stone, rubbed it a few times against his fingers and then threw it into the lake. “But it’s always strange to go back. Except for these birds. They’re forever coming and going. It’s part of their nature. Not ours though.”

“Why did you come back this year?”

Lifting a single eyebrow he studied me for a few long seconds before finding another stone and casting it into the lake.

A lazy silence ensnared us, but neither of us seemed uncomfortable or bothered. We watched the lake instead. As small groups of pelicans began to gather, to shoulder up together on a narrow spur of sand that reaches like a consoling arm around the shallow lagoon, I thought of my time with these birds over the past week. How I’d watched them, mesmerized, as they drifted over the blue lake or climbed in staggered spirals on high thermals. I felt privileged to have shared their pacific space as they set down on the water, barely parting its clear and glassy skin as they slowed to a float. To have woken each morning to see them shoaled before me in a coronation of light.



“It was a day like this, early August.” He breached the silence as suddenly as his greeting had. “It had been hot for weeks and the fish were staying deep. Eleni and I put the boat in from just over there.” He pointed to a smooth section of beach to the east of us. “It was one of the old wooden boats. Real heavy and low in the water. We’d proofed it with tar a few days before so it was even heavier. We were out far when we first felt the wind, really cold. Then the clouds came in from over there.”

He drew his arm toward the mountains that towered over the western shore of the lake, the craggy beginning of Albania.

“It was tough getting gas around here so none of us bothered buying motors. I started rowing us back in but this wind was hard against us and we were going nowhere. Suddenly it was getting dark, like the sun had gone out, and waves started rocking our boat. The clouds were over the lake now and there was thunder and lightning everywhere.”

He looked up from the sand for the first time since he'd begun talking and turned towards me. “The rain came hard. It was hitting the boat like a hammer. Clouds and fog were all around us and I couldn't see anything. The waves rose up, way up, out of nowhere. Back and forth they rocked us. Back and forth.”

His voice had faltered and trailed off. The lake was like glass today, shimmering beneath a balmy glaze. A kingfisher broke the humid stillness, a tracer of blue light that skimmed the water's edge. We watched it hug the graceful curve of the shore, like the reeds that curled in a sickle of sunlit tassels.

“The water was coming in plenty. We lost our balance in the wind and she tipped.” It was said as calmly as a news announcement, but there was a vague resignation in his voice, like the sound of a slowly deflating balloon. He paused for a few moments as though re-stitching a loose thread of memory. “We went under. To this day I don't know for how long. A few seconds, a minute. Who knows? I only remember coming up. There was this noise in my ears, like a drill, and my chest was on fire. I was scared as hell.”

The kingfisher returned along the coast and sped past us like a lit arrow. “You know what, though?” he asked as we gave up trying to follow its flight. “It was the shock of not being above the water, that's what did it for me. All those years of being on the lake, of looking in instead of out.”

He looked away again, picked up a handful of sand and let it fall slowly. The air was thick with silence, stifling and close, and the languid waters lapped out of obligation on the shore. He looked out on the lake as if hypnotized.

“I couldn't see more than a few feet in front of me. The rain was so heavy and the clouds were on the lake. And then there she was, floating in fog.” The sand had run out, but he slowly opened his hand to be sure. He turned abruptly and asked me, “Are you married?”

I fumbled for a moment, looking for lost words. “No. I was engaged a few years ago. When I was still at university.”

“What happened?”

“I had a choice. To get married or take up a job as a biologist studying pelicans in Louisiana. She wouldn't leave her family so I went south on my own.”

“Do you regret it?”

“Sometimes.”

“How about today?”

“No.” I spread my arms towards the lake like a preacher welcoming his congregation. “Not in places like this. But we haven’t spoken since the day I left. Sometimes I wonder what my life would be like if I’d chosen to stay.”

“Sure. But then you would have wondered about the other life. This one.” He pointed repeatedly at the sand with a bony finger.

“We were married in spring, Eleni and me. People came from all the villages around here. For three days and nights it went on. Dancing, eating, drinking. I don’t know how many lambs we roasted. We were all poor but everyone pitched in. It was a hell of a time. Eleni was dancing with her father and looking over his shoulder at me, winking. Then she’d blow me a kiss.”

As we sat together on the sand in the burning light a group of pelicans floated near. Others circled high above us in the impossibly blue sky on a ladder of warm air, or slid so low to the water that they seemed inseparable from it, like a jockey hugging a horse’s flanks near the finish line. They passed just above the willow tops on their way to the other lake and their nests, drumming their wings like a deep, measured breath. On other days I had watched them drifting out beyond the swimmers, a few kids screeching and splashing in the lucent waters whose brown sun-turned bodies were as smooth as polished stone.

“She was face down next to the boat when I reached her. I was screaming her name over and over: Eleni. Eleni. Eleni.” He repeated the name like an incantation, whispered as slowly as prayer. “But she just stayed there, like one of those dead baby pelicans.”

I drew my knees instinctively toward my chest and held them there, keeping as quiet as I could.

“What could I do?” He slumped further into himself, suddenly appearing as small and frail as an injured bird. “I turned her face towards me and there was blood all over her forehead. It kept coming and going with the waves.” He shook his head as slowly as a pendulum, revisiting an image that threatened to crack. “She must have come up under the boat after it flipped and smacked her head on the edge. She was unconscious but still breathing. I tried to keep her mouth out of the water by pushing her up against the hull. There was no way I could turn the boat.”

Mid-afternoon and a fierce light enclosed us. It was like swimming in a bubble. From the corner of my eye I could make out a hazy group of white pelicans rising through the air like little steps of clouds. To see them like that, at the edge of vision, was like watching them through a telescope when the sun draws vapors off the lake that ripple through the lens. The pelicans, and the world around them, flickered and folded in shimmering waves as though a mirage, distorted and unlikely, but as achingly persuasive as a slowly dissolving dream.

“The rain was awful. I couldn’t see through it. I just held Eleni against the boat and wiped the blood from her face. And prayed. At some point I started swimming with her under my arm. Just headed out into the clouds and rain. Then I stopped, and thought, maybe it’s the wrong way, and I turned

back.”

He lifted his eyes from the sand where he'd been absently drawing circles with his finger and stared straight at me with an intensity equal to the slow burn of the afternoon.

“I was blind on my own lake,” he continued slowly, “a lake I'd known since a boy. I was frightened and confused. Couldn't think straight after finding Eleni. And everything I knew about this place had vanished.” An anger had appeared in his voice, but it was tempered by helplessness. “You see that shore? It's where we tied up our boat each day. And the little white church of St. John, on the hill over there. And that's Golem Grad, that big island in the Yugoslavian part of the lake. At least that's where it was back then.” He pointed out each landmark, pale against the vast light, by stabbing at the air around him. “They'd all disappeared in the clouds and rain. There was nothing. I knew in my memory where each of them were, but without somewhere to start I was like a stranger. In my panic I was lost. Didn't know a thing about this place.”

He rose slowly and stood before me, but seemed distant now, pale and tired, worn down by the heat. He turned away as though addressing the lake itself, the way summer can drown a day in silence.

“Then I heard something in the storm. Something else. It was faint.” He edged a few tentative steps toward the lake. “Somewhere out there.” I watched him lean forward slightly, as if in a wind, listening. “It sounded like the church bell in our village. They'll ring it for us when we're pulled from the lake, I thought. A single chime, over and over. The bell of the dead.” He exhaled deeply, surrendering to the memory. “I imagined our families and neighbors gathering outside our house, our coffin lids at either side of the door. I'm dressed in my only suit and Eleni is wearing the pale green dress that we bought for our trip to Salonica. She's got wildflowers on her head to hide the cut and our little boy and girl are holding hands, staring at us.”

He was silent now, lost in the listening. The kingfisher blurred before him but he remained as still as the reeds in the breathless afternoon.

“The bell was getting louder, closer. And then there they were.” He suddenly spun in the sand and faced me excitedly. “Pelicans!” Color had found its way to his face again, which lit up with a grin. “That's what it was. Pelicans. Seven or eight of them passed by like ghosts through the rain and mist. They were so close I could hear their wings, over and over, like a bell. I could feel them even. They were really struggling in the storm and then they were gone. Just like a dream. I put my arm around Eleni's shoulder and started kicking my legs. I followed the pelicans as best I could, just stared at the spot where I thought they'd disappeared and kept going, following them home.”

He smiled as he said the word *home*, like it was the elusive answer to a long-forgotten riddle. He lit a cigarette and brushed the sand from his trousers, and with a pointing nod of his head we began walking along the shore.

“They're better at finding their way in the world than we are. I knew they would pass over our beach. They were trying to get back to the small lake and their nests with the little ones. We finally

landed not far from where we started. My brother was there, waiting. He knew we'd gone out in the boat and came down in the middle of the storm, praying we'd make it in. He rushed us up to the village and carried Eleni into the house. She was in bed for a week, but she made it."

We walked the last stretch of the beach in silence, lost in our own quiet worlds. We found his pick-up truck in the shade of a large willow. He leaned against the door and spoke with lowered eyes fastened on some unmappable place.

"I buried my Eleni this last winter, a long way from here. In a Greek cemetery just outside of Toronto. We always said that we should come back here one more time, to pay our respects. So here I am. We wouldn't have had our life together if it weren't for those birds."

He opened the door to his truck, slid in over the dusty seat, and started the engine. Through the open window he looked up at me and said, "You know what I think sometimes? What if they'd flown over just a little to the left or right of us?"

He was laughing to himself as he pulled the truck off the beach and disappeared up the track, dust and sand clouding behind him.



Evening settled slowly, like pond water disturbed by a fallen branch. I realized long after he'd driven off that I hadn't even learned his name. I started a small fire with driftwood and willow limbs, and leaned back against the dunes. I glimpsed pelicans and cormorants heading home, saw the stars come blinking into night as the sky folded in on itself, and watched the last snatches of gathered light vanish like ghosts over the summer-quiet lake. As I covered the few remaining embers of the fire with sand I heard a bell somewhere in the distance.

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Fiction

Her Best Interest

by Janet Yung

The first Monday of the new year, Edith Watson sat in the large communal living room where she stayed, trying to read the paper. Since she'd moved into the place the previous January, she'd never used the term "living." That would definitely be a misnomer. Almost a year and she hadn't adapted. She was only marking time.

Someone was banging away on the piano in the corner. Even to Edith's tin ear, it sounded like it could use a tuning. "Do you know where Mr. Thomas is?" She looked up; old lady Thomas was standing in front of her, clinging to her walker.

"What?"

"My husband, dear. Have you seen him?" She smiled patiently at Edith.

"No. Not lately." Edith turned the page of the newspaper, dismissing Lucille.

"Aah, you know he's dead," someone chimed in from the table where a card game was getting underway.

"Oh..." Mrs. Thomas pushed along and started to cry.

"I have to get the hell out of here," Edith mumbled under her breath. There was nothing wrong with her. She had all her faculties; didn't use a cane or walker, never started a kitchen fire and was still able to drive when she could get her hands on her car keys. The maid kept moving them. The days Edith drove, she checked the odometer, suspicious the maid was using the car. She recorded the numbers on a small notebook she kept hidden in her underwear drawer.

Patsy—Patricia—(she told her mother several years ago no one called her Patsy anymore; it has a negative connotation) said she was paranoid. Another reason to keep her locked up. She was furious at her daughter for putting her in the place. Edith believed she'd been tricked into entering the retirement home and had to be the biggest chump of all for agreeing to the move. "Isn't this place lovely?" Patricia cooed when they first pulled up the long driveway, ostensibly for a "look

see.” Where did Patricia come up with these expressions and why was she so condescending? Patricia walked along with the director and *ooed* and *aahed* about everything she saw. Once Edith was housed in the facility, she realized the road was so long to keep all the old coots away from the neighbors’ view. No one wanted the constant reminder of what was ahead—shrinking, wrinkled bodies and dementia. Death would be the upside.

“Mother,” Patricia said, “I worry about you alone in that big house. What if you would fall? Or there was a fire? How would you get help or get to safety?” Patricia had watched too much day time TV.

“I don’t plan on falling and why would there be a fire?” She couldn’t say anything to change Patricia’s mind and since she’d put her name on all of her accounts, (“as a precaution”) she came to the conclusion she’d abdicated a lot of authority in determining her own future. Eventually, they reached a compromise. Edith would give it a test run of six months. If, after that time, she didn’t like it, she could move back home. But during the period, Patricia rented the house to “a lovely young couple who would love to buy it” and stored or sold most of its contents, keeping sentimental pieces. A few things were in Edith’s efficiency apartment.

“That’s the beautiful thing about this place,” Patricia told her mother, “you can furnish your apartment with your own things.” Edith noticed the best things weren’t here. It was mostly things Patricia picked. Things stuck in the basement or attic. Stuff that had no resale value. But at least they were hers. Not like poor Mr. Simmons down the hall. Everything in his unit was provided by the facility. And, it looked pretty sad for such a new building.

“Moves kill old people,” she’d sputtered on the visit she learned the house was rented and a lot of her things gone. “Maybe that’s what you’re hoping for.”

“Mother,” Patricia replied, “we need the money to pay for this place.”

“Well, who’s idea was that?” Edith didn’t want to know how much it was costing but she gathered it was in the thousands. “It’s a good thing your father’s dead.”

At Christmas, she tried to pretend things were alright between the two of them but only because Libby was coming home and they planned to spend the holiday together. Patricia was letting her come stay with them over the holiday.

“Time off for good behavior,” Edith reasoned.



After lunch, Edith retreated to her apartment. It wasn’t bad, it just wasn’t home. What the hell was

wrong with Patricia? She'd never been a burden. Never hassled her to visit; had her own friends and activities. She plumped a pillow on the sofa—one of the few things from her house that had actually been on the first floor—and settled down with the remote. She aimed it at the television and started to click. "Crap. Crap. Crap," she muttered as she switched from one channel to the next. Talking to herself was one of the things she supposed drove Patricia to lock her up in this place. That and the fact her friends were dying off and each death would make her bluer than the last. Maybe Patricia thought being around people would cheer her up. "But they're all so old."

She pulled the afghan across her legs. There wasn't much point in making new friends. Why get attached to someone who was here today and gone tomorrow? "She'll learn someday. If she lives that long." Edith was determined to outlive her daughter. She muted the sound and her eyes began to close when she noticed the red hat.

A gift from Patricia. "Mom, look—here's a special present from me," was the way she phrased it on Christmas morning.

"Oh, my. What's this?" Edith didn't know what to think when she opened the box and there was a large red hat inside. Red had never been her color.

Patricia was smiling, armed with her camera. "Libby, sit with your grandmother while she tries on her hat." She motioned for the two of them to get closer. "Put the hat on, mother," she said when it didn't look like Edith had any intention of doing so.

"Okay." She studied it, looking for the front. "Women don't wear hats anymore, do they?" She thought she was missing some new trend.

"It's mom's latest thing," Libby informed her and then whispered in her ear. "For ladies over fifty."

"Who said I'm over fifty?" she joked.

"Mother, please, just put on the hat." She was focusing the shot, "It's a symbol of empowerment for us."

"Speak for yourself," Edith snapped as she stuck the hat on her head and pasted a silly grin on her face.

Libby laughed.

Putting down the camera, Patricia said, "I plan on buying you a purple dress to go with the hat."

"Purple!" The hat was returned to the box. "When have you ever seen me wear purple?"

"Well, maybe lavender."

"Honey," she tried to sugar coat her response. "I promised myself when I got old, I'd never wear

purple or any shade like it or tint my hair blue or pink.”

She tried to leave the red hat behind but Patricia dragged it into her apartment, hanging it on the hall tree. It had been in the same spot since then, Edith wondering what a decent period would be before she could get rid of it and explain she'd lost it when Patricia asked where it was or why she wasn't wearing it. Patricia could be persistent if nothing else. Edith had no idea where she got that from.

She was about to doze off again when there was a tapping at her door. She rolled over on the sofa, determined to ignore it. Eventually, they might go away. That was another thing she hated about the place. You could never really get away from people. There was a pause for a moment and Edith closed her eyes, figuring whoever had been at the door gave up or forgot what they were doing and left. The knock was a little louder. “Hello?” she heard through the door, followed by pounding. “Are you in there? Are you dead?”

Edith threw off her covers. If there was one remark that could rouse the sometimes sluggish staff, “Are you dead?” was it.

“Hold on,” she went to the door. She looked through the peep hole more from habit than precaution. She was larger than most of the residents and reasoned she could take on any of them. It was Lucille. “Lucille, what's wrong?” The door was only open a foot but that was enough for Lucille to charge through with her walker.

“Have you seen my husband?” She marched towards the bedroom as if she might find him there engaged in some lewd act. “Are you having an affair with my husband?” She looked pretty angry and able to take on Edith even though she was twice her size.

“Lucille, dear,” she guided her neighbor away from the bedroom and towards the door, “your husband isn't here. Why don't you try Vivien's room?” Vivien was the local flirt, zeroing in on the newly arriving single males and the males whose mates looked like they might not make it till the end of the week.

Lucille gave Edith the evil eye, just in case, and then spotted the red hat. “Oh, what a pretty hat.” She wheeled herself over to it and put it on her head—backwards. It came down over her ears and to the tops of her eyebrows—what was left of them.

“Do you like it?”

“It fits me so well. You know, red was always my color.”

“Take it. It's yours.”

“Oh. Thank you.” She left quickly, “I know my Teddy will love it.”



On Wednesday, the snow that had been threatening since the weekend started to fall. Residents gathered in the lounge and stared through the window as the giant flakes fell, covering everything. Patricia normally brought groceries on Saturday. That was part of the arrangement. “Mother,” she’d promised, “I’ll bring your groceries every Saturday when I come to visit.” Edith had voiced her concern about the lack of shopping nearby.

“I won’t be able to walk to the market to pick up a few things,” she’d said, noting there wasn’t much around, stuck in the suburbs. She wanted to say that means I’ll be forced to drive to get anything. Patricia worried about her mother driving although she’d never had a problem.

In the evening, Patricia phoned. “Mom, how are you fixed for groceries.” Her way of leading into a reason to stay home.

“I’m running low on cereal and milk.”

“Can’t you eat breakfast in the lunch room? Just a couple days. I really don’t want to be in this mess.” She was always pushing that damn dining room. Edith ate dinner and most lunches there, but not breakfast. She didn’t want to look at her fellow residents that early in the day. Not to mention, the oatmeal was lumpy and the eggs cold.

“It’ll be cleaned up by the weekend,” Edith said. She didn’t want to say that if Patricia had managed to stock her own larder before the storm hit, why couldn’t she pick up a few things for her mother while she was at it. After all, Patricia had emphasized the home was so close to her house, getting there would never be a problem.

“There’s another front coming through.” The discussion ended.

By Saturday, Edith was tired of the dining room and arriving at the crack of dawn to ensure she’d find something halfway edible. She took a seat near a window. Patricia was right. The sky was grey and looked like it was full of more snow. She heard the unmistakable clink, clink of Lucille’s walker approaching. She bent over her plate, studying her scrambled eggs, hoping Lucille would keep going.

“Umm,” Lucille cleared her throat. Edith kept eating, her head down. “Hello.” Lucille tapped on the table with a bony finger.

“Oh, hi.” Edith put down her fork. Lucille was wearing the red hat. Breakfast was ruined. She may as well put up her tray and go to her apartment and read the morning paper. She started gathering her things.

“What are you doing?”

“Finishing breakfast.”

“Oh.” Edith stood but Lucille blocked her way, refusing to move the walker. “What did you have?”

“Eggs. Did you eat yet?”

“I don’t know.” She moved away and stood next to another table where she went through the same routine.

“Oh shut up!” another diner yelled at Lucille and a biscuit went sailing through the air aimed at her head. It narrowly missed the brim of her hat.

“Where’d you get that ugly hat?” someone else added.

Edith was putting her tray on the conveyor belt and turned around. The group at the “in” table was laughing. Lucille looked confused and then burst into tears. Edith felt like she was being sucked into the vortex.

She headed for Lucille. “Come on,” she said touching her elbow, “let’s get out of here.”

“Are you my friend?”

“It looks like it.”

She led Lucille from the dining room to the lounge. It was empty. “Here, take a seat. Let’s watch some TV.” There wasn’t much on except cartoons but Lucille was easily entertained. Edith sat there a while mulling over what to do next.

“What did you say?” Lucille looked at her.

“Me? I didn’t say anything.”

“Yes you did, Millie.” Her eyes bore into Edith.

“Who the hell is Millie?” Edith wasn’t in the best mood.

“You are, that’s who.” She turned back to the television and began to hum.

Edith seized the opportunity to retreat to the quiet of her apartment. No messages on her recorder. Another idea of Patricia’s. “You won’t miss any calls.” She settled on the sofa and tried to read the paper but her mind couldn’t focus on the words. If I don’t make a move, I’ll wind up like Lucille. The prospect seemed grim. If Patricia didn’t come to visit now, she’d never make. Then the snow started.



Sunday morning dawned on the new snow. Many of the residents had boarded buses to go to Sunday worship. Edith begged off. She wasn't in the praying mood. She dressed and went into the hall. The place was like a tomb, and she shivered at the analogy. She wandered into the lounge: no one. There might be some visitors this afternoon but she doubted it. Any excuse not to come by. She sank into one of the oversized chairs. She was going stir crazy.

Edith marched to her room and rummaged through her underwear drawer and retrieved her keys. She pulled on her boots, grabbed her coat and the first hat she laid her hands on. A red stocking cap. She pulled it on her head. There couldn't be the same significance to this hat. That's what she'd tell herself, anyway. She crept down the hall. Now would be the time she'd run into somebody who'd want to ask her questions about where she was going.

She made her way to the garage undetected. Fortunately, the parking was covered, sparing her the chore of scraping ice and snow. "This is nuts," she told herself as she unlocked the car. The engine turned over the first try. She smiled. "It's not like I'm running away." As she steered the car from her space, she spotted the hideous red hat heading towards her.

"Millie," Lucille called in her high-pitched little voice. It was amazing she could see anything from beneath the hat's brim. "Wait, wait for me." She was in front of the car. Edith had two choices. She could make a run for it and hopefully do so without running down the old lady, or she could stop.

Edith rolled down the window. "What are you doing outside without a coat?"

"What?" Lucille clicked clicked to the side of the car. Pieces of paper were hanging from the side of the basket clipped to the front of the walker.

"You'll freeze to death."

Lucille began to shake the handle. "Let me in!" Her face was scrunched up like she was going to cry—the little sister left behind.

Edith reached across and popped the door open. "Okay." She watched for a few seconds as Lucille struggled to get in. She couldn't negotiate the walker and the door. "Oh, for Pete's sake." Edith put the car in park and went over to the passenger side. "Lucille, why don't you go inside? You don't even have on a coat."

"No." She stood firmly between the door and her walker. Edith managed to shove Lucille in the seat and fasten her seat belt.

“You’re worse than an infant.” Strapped in, Lucille smiled. Edith buttoned her sweater. “There,” she said as the last button was done up. “You really should be wearing a coat.” She fumbled with the walker, folding it after undoing the basket, and dumped both in the back seat.

“Turn up the heat,” Lucille said once Edith was behind the wheel again.

“There.” Edith turned the fan on full blast. Lucille’s wispy white hair sticking from beneath her hat blew in all directions. “Is that better?”

Lucille nodded eagerly. “Let’s go!”

Edith exited the lot, driving slowly on the unplowed Sunday streets. Lucille hummed, her eyes focused on the scenery as they drove down the block. “Pretty,” she kept repeating at the snow-covered landscape.

“Yes, it is,” Edith agreed and realized she had no idea where she was going. There were no other cars on the street and occasionally the car would slide as she tried to come to a stop at an intersection. “I guess this isn’t too bright,” she said as she glanced at Lucille. She was wearing slippers. Not even a decent pair of shoes. What if she had an accident or the car broke down? They could freeze to death before they got any help. There weren’t even any salt trucks on the road. At least not on this stretch.

Before she knew it, she found herself headed in the direction of her old home. “Guess I can’t help myself.”

“What?” Lucille asked.

“Nothing. I’m just thinking out loud.” It was really too far to go. It would take her at least an hour to get there if she took side streets all the way and they could run into trouble. She could always take the highway. She was tempted but then turned around. She’d stop at the first convenience store she saw and get some bread and milk. She drove along and suddenly realized she had no idea where she was. Everything looked different covered in snow. Besides, she wasn’t familiar with the area. The only places she’d ever been to around here were the home and Patricia’s house. She never went on the junkets the management organized so they wouldn’t feel so isolated.

Lucille started to sing a little tune. “Are we going to stop?”

“Soon.” She hoped she was heading toward their building. She’d given up on finding a store. She should’ve planned her destination before she left. “Good. I have to pee.”

“Great.”

They drove along for what seemed like forever. Edith was beginning to panic when the stone posts at the head of the winding road to the home came into view. “Thank God,” she murmured. As she pulled into her parking space, she spotted the janitor hauling trash to the dumpster. “Let me help

you,” she told Lucille who was tugging at her seat belt.

“I have to pee.”

“I know. Try to wait till I get you inside, okay?” Lucille nodded. Edith only hoped she was wearing a diaper. She didn’t want to be the one who ran away with the old lady only to bring her home soaking wet and ready for another bath. Once the walker was opened and the basket reattached, she freed Lucille and pointed her in the direction of the door. Lucille started to clip clip away and as if remembering her manners looked over her shoulder. “Thanks, Millie. I had fun.” Then she moved faster than Edith imagined possible.

In her apartment, Edith noticed the light flashing on her answering machine. “Hi, mom, this is Patricia.” There was a pause. “Just checking on you.” Another pause. “Where are you?” Where did she think she was? Driving around in the snow? Why couldn’t she be in the lounge playing checkers? That was where she was supposed to be according to everyone who had her best interests at heart. “Give me a ring when you get home. Thanks. Bye.”

Edith hung up her coat and slipped off her boots. She plopped on the sofa, deciding the call to Patricia could wait. Let her wonder what the hell she was up to. She snapped open the front page of the newspaper. Scanning the page, she felt unsettled. She’d been lost on the road and it was frightening. Before she had a chance to dwell on her troubles there was a tap on the door. Her first instinct was to pretend she didn’t hear it. She wasn’t in the mood for company. “Hello,” the voice in the hallway said haltingly. It was Courtney, the activities director. If ever there was a person who meant well it was Courtney. She didn’t have a lot to work with but she still kept trying to get everyone involved. She was the only staff member Edith liked.

Edith called, “Just a minute,” as she lifted herself off the sofa. She supposed she was one of the tougher cases.

“Courtney, how are you?” She opened the door wide, inviting the young woman in. She reminded Edith a lot of Libby. She wondered if she ever mentioned this to Courtney. Courtney stepped across the threshold. “I didn’t know you worked on Sundays.”

“Sometimes I like to stop by and check on things.” Patricia must’ve called.

“That’s sweet.” They sat down and an awkward silence ensued. “Can I get you something?” It was a hollow offer since Edith was pretty sure she didn’t have much to serve any guest thanks to Patricia.

“No, I’m fine.” She cleared her throat. “I heard you and Lucille went for a little ride.”

So, that’s what this was all about. She stirred up a hornet’s nest without even trying. “Who told you that?” It wouldn’t hurt to act a little incredulous before spilling her guts. After all, she had the right to drive. She couldn’t help it if some befuddled little old lady wanted to tag along.

“Well, I spoke with your daughter and said she was having trouble reaching you and then one of the aides checked your room and it was empty.” Edith bristled. That was an invasion of her privacy. It would have been one thing if she were lying dead or unconscious on the floor, unable to call for help. But anything else bordered on snooping. Did aides come in during the night to see if she was sleeping alone or had smuggled in a guest? She’d prop a chair against the doorknob starting tonight. “And we checked all over and couldn’t find either you or Lucille.” She was staring at Edith now with the look of an inquisitor who knows the witness isn’t telling the truth. “And your car was gone.”

“Well, what if I did go for a spin?”

“Edith, you know today isn’t the best day for that sort of thing.”

“I needed a few things.”

“You could always ride on the bus to the supermarket in the morning.”

Edith had seen that bus and there was no way she was getting on it. When she was still living at home, she learned to avoid the store on the mornings the bus lumbered onto the parking lot, came to a lurching stop by the front door, and the parade of walkers disembarked in a long line. Now, Courtney wanted her to join the parade. “I suppose,” was all she could say.

“I know you’re having trouble adjusting to life here.” That was an understatement. “But I wish you’d try a little harder.” Edith looked at her like she was crazy. If she got too comfortable, she’d never be able to go home. Or, at least, be on her own.

“Courtney,” Edith said, “you’re a nice girl and I do appreciate your concern.” She knew Courtney had a hard row to hoe. She’d watched while she tried to engage residents who were only a few weeks away from being shipped to the nursing home or one of the floors filled with patients suffering from dementia. If she stayed here, Edith was convinced she’d wind up on that floor. Resisting was her only defense mechanism. “You look at me and the rest of the residents and I’m sure you think you’ll never get like this.”

“Edith,” she started.

“No, no, dear, I felt the same way when I was young. The truth is I don’t think I’m as bad as everyone else here.” Courtney reached over to pat Edith’s hand. Her skin was smooth and soft without wrinkles or spots. Edith’s hand looked like the loose piece of skin on a chicken thigh. It was impossible to remember when it had ever looked any different. The skin around her ankles was beginning to sag, too, like a baggy pair of stockings. She didn’t linger too long in front of the mirror.

“Edith, if you’re so unhappy maybe you should talk to your daughter. There are alternatives.”

Edith hoped she was talking about the same alternatives she was planning. Her tone of voice almost indicated it was time to put the old dog down. It might be, but Edith reasoned she had a lot of living to do and the fees around here were eating up her income, taking away any opportunities to do so. “That’s what I was thinking, too.”

“If you’d like, I could arrange for the social worker to talk to Patricia.”

“Would you?” It was the first real hope she’d had since the day she’d moved in.

“Yes.” She squeezed Edith’s hand. “I’ll see you tomorrow,” she said and then went back to her office.



Edith watched the grey sky grow darker. The smell of dinner wafted through her door. She might as well go to the dining room and enjoy the evening meal. She switched on the lamp and pulled the curtains shut. There was nothing about this place she’d miss. She only hoped she had enough forces on her side to ward off any attempts by Patricia to keep her there.

Lucille was waiting for her in the dining room. “I saved a place for you,” she smiled, patting the chair next to her.

Edith took the seat. “Thanks.”

“You have to help yourself,” old man Walters shouted from the other side. “They don’t have any waitresses here.”

Her first impulse was to say they ought to. Instead she snapped, “I know that.” Definitely wouldn’t miss him. “Are you ready, Lucille?”

“Yes, Millie,” she smiled, grabbing her walker.

Janet Yung lives and writes in St. Louis. Previous pieces of nonfiction have appeared in small, local publications. Short fiction in *Writers On The River* and *Foliate Oak*.

Fiction



by **Richard Denoncourt**

My father, Pablo Narvaez Guerra, built our house in the middle of the woods. Ever since then his hands were hard and brown, like tree roots. He explained some years later that it was the view of the mountains that drew him to that small clearing far away from the pueblo. The smell of the forest hinted at what it truly meant to be free. The tips of the mountains, visible above the tree line, reminded him of his past, which he didn't speak of. I never knew why he stared so solemnly up at those mountains. Had he climbed them once, or was he remembering some greatness he'd since tumbled down from?

He built the house farther away from town than my mother, Elsa Maria, was comfortable with. She agreed because she knew his father had done the same. It was a Guerra tradition for the men to raise their children away from a world of alienation and unhappiness, where man no longer knew the meaning of working the land, of fighting the good fight against fierce, unrelenting Mother Nature, whose impartial breath could freeze his livelihood in the winter and just as easily warm it to life again in the spring. My mother's will was much more predictable but just as unyielding when you were held in its grip. In the winter her tongue could be as sharp as an icicle.

"Fetch the wood already. What am I, the maid? *Que carajo!*"

My mother worried very little but made up for it by complaining about everything. Hers was a life of duty and tradition, of raising fine children and destroying the evil habits in them. She complained about my father's flights of intuition, about the distant expression—*cara de idiota*—that creased his brow when he looked away at the sinking sun or sat, speechless, at dinner. He once decided not to work for an entire day after finding a worn book of poems in the pueblo. Afterwards, he spoke for days in rhyme and iambic pentameter. Even then my mother wasn't worried. She rolled her eyes up at God, as if he was playing some kind of joke on her.

It wasn't until he started building the platform that Elsa Maria felt the dread wrap itself around her.

"*Que carajo haces?* What in the hell are you doing?" She yelled at him for days. He never

explained. He only looked at us through narrowed, thoughtful eyes and continued with the grinding of the saw into the beams of wood he'd purchased from a coffin maker.

Eventually my mother understood, but never spoke of it. Her tongue softened and her hands became more rigid. More and more, she began to spill the *sancocho* over the edges of the pot. She took less notice of the dynamics of heat and the increments of time that she once observed as natural laws in her kitchen. The potatoes became harder, the broth less potent.

"When will you be leaving?" she asked him one day, her shoulders sagging in defeat. In one year her posture had dropped as if ten years had passed.

"*Ya casi*," he replied. "Soon."

His hands shook as he sipped the mug of water boiled with mint leaves. He swore off coffee, followed by his pipe, earlier that year. I didn't know at the time, but judging from the way they looked at each other as if from across a giant chasm, I know now that my father had by then given up much more than simple luxuries.



The wooden platform towered above the small shack as if it had sprung from the earth to keep vigil over us. On certain nights I stared out my window at the way the beams seemed to cut the moon into different shapes. The towering platform frightened me and I was able to sleep only after I remembered father's words. "Only through extremes can one really appreciate the beauty of life. This will be very difficult for all of us, but we must be strong. Don't worry, *hijo mio*. I'll always watch over you."

He looked out the window and swallowed. His Adam's apple bobbed somewhere inside his flourishing beard. He told me once that in the face of battle brave men swallow to taste their fear one last time before suppressing it. Without fear we cannot know courage.

When I didn't understand, he smiled down at me and told me it was only a matter of time. It's alright to be afraid, he said, stroking my hair.

My father climbed the platform on a windy day in October when I was fourteen years old. He took only a bucket with which to dump waste over the side and another to collect rain water. He also brought a thick cloak to protect himself from the wind. His feet were wrapped in strips of potato sacks and tied with the cords that always made my fingers itch.

I thought I knew the reasons behind his decision, but I knew only as much as my mother, who

understood that her husband was a brave man. I cried for him to come down and then climbed after him, letting my shoes fall to the ground. Father smiled as he watched mother pull me down and hush me. She cried only a single tear; a lesson I didn't understand. I know now that one cannot be happy for another without acknowledging one's own sadness.

I remember hearing the rush of wind through leaves when I walked back into the house that day. The fire cast flickering shadows over the bare walls. Through my tears they looked like marionettes wildly dancing, mocking me. My mother closed the door behind me and whispered in my ear.

“Your father is either a great man, or a very stupid one.”

Over the next few weeks, frost crept up the windows and with it the realization that father was not coming down. I had heard stories of Jack Frost from the colorful books he used to give me—Yak Fross, my mother called him. Sometimes I imagined that my father was Yak Fross. Pablo Yak Narvaez Guerra Fross, rogue of the forest and keeper of the snow.

During the day, father's voice accompanied me as I chopped and gathered the wood. “*Mi hijo,*” he would say, repeating the words again and again. “My dear son, my only son. How much are you willing to give up?”

He recited poetry and sang songs that had been passed down to him from his ancestors. He told stories of great men who had sacrificed everything for their ideals. I asked what those ideals were and he never answered, saying only that it was the end that mattered.

At night, I listened to the beams bend with the trees. I tried to think of every possible motive behind my father's actions. I called upon logic, reason, and speculation, all unsuccessful in their attempts to see what really bared itself on that tower every day and every night. The creaking of the boards left me each night with the uneasy feeling that everything was on the verge of breaking. It was only a matter of time.

As the first year passed, father spoke less and less. His words became more abstract, as if he was speaking from somewhere deep within. They carried an unnatural weight that left out any error or lack of conviction. When the second year came to a close and the orange leaves fell and swept the forest floor of summer's carelessness, I decided I wanted to go to school in the village. Mother agreed that one could never have too much education. She hired a poor man named Francisco to help her with the menial activities around the house while I was away. He did so respectfully in exchange for a bed and food. The man had the same brown hands as my father except that Francisco's skin looked like paper instead of wet soil. I imagined them tearing into tiny pieces if he ever tried to build anything with them. But he was nice enough, and spoke very little. He smoked too much from an old black pipe and it was the only thing about him my mother couldn't stand. Maybe she missed the smell of my father's tobacco, though to me they smelled the same.

Father watched from his platform as mother adjusted my backpack. She didn't look up at her husband who, after two years, had ceased to exist except as one of her duties. She acknowledged him when it was time to send up his sparse meals using the simple pulley attached to the side of the

beams.

I vowed to learn as much as I could so I could tell father stories of my own. I wanted to be like him someday; a storyteller, always detached and forever observant. I fantasized about traveling the world and telling those stories to anyone who would listen. Villagers from far away would whistle in awe and clap as I passed.

He raised a hand and saluted me like a soldier. His large eyes and sunken cheeks frightened me. I jogged shamefully down the path, promising myself that one day I would make him proud.

The schooldays were long and boring. I often looked out the window of the stuffy, one-room building and dreamed about faraway places and all the adventures that awaited. But I always thought of my father and how he might never leave the clearing again. I wondered if maybe he was going somewhere better. But how could he possibly know where? I was plagued with guilt every time I looked out the window at the mountains and what I imagined lay beyond them. I felt bound by a sense of duty that I couldn't put into words.

Francisco seemed to understand my father very well. He often looked up at him and smiled knowingly, as if to say, *Si, mi amigo. I know. I do not understand either, but it feels right.*

Sometimes I came back from school and saw Francisco kneeling at the foot of the tower. He'd smoke and look down at the ground as if he could see something there that no one else could.



Over time, we grew accustomed to the looming shadow. The sun chased it perpetually around the clearing, measuring out the time of each day for us. With every sweep of that dark shape, I became less hopeful and less eager to dream of better things. Three years after I started school father still sat up there, a dry bundle of propped up sticks huddled around a few glowing embers of life. Everyday his eyes followed me in and out of the house. There was a light in those eyes, a ferocious insight that seemed capable of burning down the tower and the woods around it. When I asked my mother if he ever came down, ever at all, even just to stretch, she silenced me and said it was the way things were, that I had to find the good in them. Then she would turn away from me and rock in her rocking chair by the window.

I never knew what she thought about our situation except that she felt one way in the morning, when her simple tasks kept her busy and humming contentedly, and a different way at night, when the forest was silent and she had only herself for company. I stopped asking about father and readied myself for graduation in the spring. The ceremony was small and when I came home to celebrate

with Francisco and my mother, father only stared at me. His hair had turned gray and hung over the sides of the platform in curtains. His deflated body had browned almost to the color of coffee without cream. The lines on his weathered face seemed etched in wood. Sometimes I found teeth scattered around the beams of the platform. I imagined that was why he never smiled.

Once, Francisco came by the house with a few *campesinos* that lived farther out in the country. These practical men and women helped in the daily labors in exchange for a few moments with father. He preached to them in a very eloquent Spanish and spoke of people he had known and places he'd traveled to beyond the mountains. I'd never heard of any of them, and I wondered how much truth there was in his memories. It didn't matter. His voice was a force that erased any line between fantasy and reality.

He spoke mostly of me and the days when I would exceed his virtues a thousand-fold. I didn't know what he meant. I only knew that I was not virtuous. I once stole some tobacco from Francisco and smoked it behind the schoolhouse using my father's old pipe so that I could be like the other boys.

"He is a hero," Francisco once told me. His eyes were moist and there were brown stains between his teeth.

Birds perched with my father in the summer and were replaced by icicles in the winter. Year after year, I never knew how he survived the cold. I used to cry and throw extra blankets up to the platform only to find them the next day, half buried in snow. I even thought of lighting a small fire underneath the platform but decided against it when I saw my mother roasting a piece of meat one night.

The months following my graduation the ice receded and his hair was left white as the dead, winter sky. His skin had cracked like hardened mud and his rail-thin body, curled up against the side, seemed a gruesome appendage of the platform.

Months passed and more and more of Francisco's people came by the house. They sometimes kneeled in front of the tower and wept. Some of the women grabbed and kissed me as I walked by, gazing at me hopefully. The attention made me uncomfortable, and sometimes at night I dreamed about those women, their strong brown arms, and the handwoven baskets they carried on their backs.

In time, I began to dream about women with long legs the color of milk chocolate and tired, almond eyes. I once saw one of the *campesinas* breast feed an infant while gazing up at my father. The image haunted me, not because of the reverent look in her eyes but because of the brown nipple that emerged glistening when the baby pulled its tiny mouth away. I dreamed of my father frowning at me and telling me that such thoughts were dirty and wrong, that I was *un pervertido*. Most nights, I couldn't sleep.

My mother must have sensed the restlessness in me. Now that I was no longer a teenager, she took me to the village every Sunday dressed in our finest clothes. It took a few weeks before I understood what she was doing. Women, she told me, look to the man's treatment of his mother before they can

consider him. She paraded me around the village square, her arm wrapped around mine. She secretly passed me money and told me to buy fruits from the vendor. When I did, she ate them delicately, slurping away at her fingers and thanking me for being such a kind son. She told me not to mention father. When the women of the village asked, she told them he had passed on, which was half true. Eventually, they began to glance at me from across the church pews and smile.



Her name was Isabelle, but everyone called her Isa. Her father owned a small bakery in the village and sometimes she left work early to go to the lake with me. Her hair was a deep black like the water and just as easy to pass my hands through. I felt very little guilt the first time we kissed, and even less when I watched her undress to go into the water.

“There are bigger lakes beyond the mountains,” she would say. “The ocean isn’t far away either. *Ay Dios*,” she would sigh. “My father’s bakery is too small and hot.”

As her legs disappeared in the water, followed by her bare hips and girlish breasts, I felt the sickening fear that she would slip away into the darkness like a half-forgotten dream.



I built my own house in a small clearing next to a gurgling stream. It wasn’t far from my father’s and I often brought my mother fruits and dried meat. Francisco remained in the house, himself a withered old man, and my mother endured year after year like a rock being cracked by ice. Isa gave me that image when she once called my mother a *piedra vieja*, which means “old stone.”

She had nicknames for everything. She called our son *cansón* because of his restless and sometimes aggravating spirit. At four years old, Pablito Fross Guerra came home with snakes, worms, and frogs bursting from his pockets. His tiny hands gripped the wriggling bodies as if the very essence of life was tucked inside each one. He sought to understand it through his senses and once I caught him licking a toad. I could only imagine the paths his curiosity would lead him down.

At night, my wife and I made love like teenagers. During the day we spoke of our son and the education he would receive in the faraway cities. When I mentioned my father, she smiled and kissed my neck until I smiled with her. Her own father had sold the bakery, and now sat by the radio

all day, much to her mother's *arrechera*.

I always felt the need to see my father, to pay him a silent tribute even though there was so much I wanted to ask. I wasn't ready for his answers yet. By then father had stopped speaking altogether and didn't seem to notice anyone below him. I spent more time with my family and visited less and less. The small matters of daily life filled my thoughts and it became easier to forget that he was still up there. But somewhere underneath all of that ran a current of despair and confusion; a secret fear that I might never have the answers I craved.

On my son's seventh birthday I approached the tower that seemed as tall as ever. I asked father to tell me what it all meant, what the final lesson was. He pulled himself to the edge, his body dragging across the splintered wood like dead weight. His fingernails curved over the planks like claws. A few remaining wisps of hair floated around his face, an evanescent white against the solid, earthy brown.

"You came to see me." His voice echoed out of his throat as if from an ancient tomb deep beneath the ground. "I taught you well, *hijo mio*. All these years and you never forgot about you're your old man, your *viejito*. Let me ask you something."

I swallowed, tasting my fear. "Go ahead, *papa*."

"Do you love your wife and son?"

"Yes."

"Would you do anything for them, even die?"

"Yes. I love them, father. As I love you."

He sucked his lips into his toothless mouth and mused. The sky was painfully bright behind him so that he was nothing more than a dark shape. His eyes were two pinpoints of light that threw sparks into the obscurity of his face.

"Great men release their strength, *hijo mio*. They let it flow back to where it came from. Otherwise, it will corrupt them."

I thought of my wife and son back home, of my mother who now sat inside my father's house and watched, expressionless, through the window. Francisco leaned against the side of the shack, puffing away on his pipe. His eyes narrowed and he watched me. Behind him, behind the bushes and hanging leaves, I saw the faces of the *campesinos*, dark ovals watching and waiting, hoping for something they did not understand.

"What do you want me to do?" I looked up at him and already knew the answer. He looked up at the sky and his face filled with light. Tears glistened in the corners of his eyes.

"You're finally ready, my son."

He lifted one crooked finger and pointed to the tiny shed, where his tools sat rusting in the dark. December frost crept up the soiled windows and promised a harsh winter. Francisco pulled an old key out of his pocket and walked towards me.

I backed away from the tower and the grinning face, the smile where teeth should have been. I thought of my son, of my wife's delicate arms. I imagined my hands turning into tree roots in the infinite hideousness of a quiet forest. The *campesinos* smiled at me. Already I saw them kneeling.

The leaves scraped against each other and the wind was a maddening howl. I didn't look over my shoulder as I ran away from them. I could hear Francisco's labored breaths. My father's stare followed me like a cold breeze.



Three months later, mother came to me with the news of his death. He had frozen to the platform and it would take some time to thaw him out. His body was so worn and frail at that point that Francisco had been afraid to scrape him off the wood. He feared snapping off one of my father's limbs.

"He was a good man," said my mother. "He never cared for worldly things." She shrugged her shoulders. "*Caiga quien caiga*. That's just the way things fall."

My mother and I buried him in early February, when the earth was hardest. He would have wanted it that way. Francisco and the *campesinos* had moved on weeks before, back to their camps and tiny pueblos. Mother cried silently throughout the solemn procession, her tears falling on the tattered cloak she clutched to her chest. I let a single tear fall on the mound of dirt.

"I wanted to make you proud," I said to the mound. "But you can't follow the dead."

I placed a clump of weeds over his grave.

My mother watched later that evening as I tore down my father's tower and burned it. The next day I told her that my wife and son and I were moving to the village. Mother rocked in her chair by the window and watched the cold sun dip behind the frosted mountains.

"Come here," she said. "You're a man now. You're ready for lessons your father and I could never teach you. After all, I'm not the maid. You see for yourself how unfair the world is."

"That's no excuse not to live in it."

I kissed her soft, lined cheek and asked her to come with us. She responded with an angry *¡que va!* and turned back to her mountains. I walked out of my father's house and into the crisp air. Isa collected her shawl from the wind and smiled.

“Father?” Pablito tugged on my sleeve. “Where are we going?”

“To the village,” I said, smiling.

“And then what?”

“I don't know, *hijo mio*. I don't know.”

I took their hands and led them down the path, away from the charred heap of the tower.

Richard Denoncourt received his BA from Colgate University and is an MFA candidate at the New School in New York City, where he also resides.

Article



by **Colin Donohue**

[with online slideshow]

In 2002, I went to Bali, Indonesia, to attend an international meeting on sustainable development along with 6,000 other people from around the world. At the meeting—leading up to the [World Summit on Sustainable Development](#)—I represented a rural, non-profit development in the Appalachian region of the United States. Our goal was to increase income from sustainable forestry and agriculture. The Ford Foundation funded my attendance, as well as a hundred more “grassroots” innovators from around the world.

While at the conference, I participated in a side trip to learn about traditional and modern Balinese agriculture. Bali has an advanced system of wet rice agriculture, involving local religions and traditions dating back a thousand years or more. In these traditions, rice is central. Each day, offerings of rice are given in thanks. Each family group has frequent ceremonies, which relate to rice and consequently create the social cohesion required for successful (and intensive) rice production. Each village also has larger though less frequent ceremonies. And annually, islanders gather for large festivals that are held at Kintamani and Lake Batur, which serves as the source of irrigation water for rice production across Bali.



These ceremonial patterns reinforce the traditional Subak irrigation system—a complex, pulsed artificial ecosystem of rice paddies based around a water temple. Allocation of irrigation water is determined by the temple’s priest. The system not only provides environmental and agricultural stability, but also socioreligious consistency. The ceremonies reinforce the bonds between families, villages, and regions.

Despite the intricate irrigation system, and the use of animals for wedding and other preparation activities, rice cultivation remains quite labor intensive. Additionally, rice farmers remain at a subsistence level. One farmer I met receives about \$500 per year for three crops of rice—the equivalent of \$1.50 per day to support his family.



The slideshow that follows provide a glimpse of the traditional, rice-based Balinese life. The photographs were taken during a recent two-month fair trade research trip to the island.

View narrative slideshow of 16 photographs of rice cultivation and tradition in Bali at:

www.terrain.org/articles/21/donohue.htm

Colin Donohue directs the [National Network of Forest Practitioners](#) and founded [Bali Karma](#), which is dedicated to providing livelihoods in Bali and nearby islands of Indonesia through fair trade. Donohue lives in Athens, Ohio, and is an alum of Antioch College.

Article



by Matt Skroch

From atop a mountain peak in southeastern Arizona, one's gaze falls upon a folded fabric of earth that strikes awe, resonates beauty, and hosts one of the most biologically diverse corners of the world. Neither desolate desert nor expanses of scrubland occur here. It is a place of subtropical oaks, soaring pine-clad cliffs, and undulating hills of grassland and forest.



The Chiricahua Mountains of southeastern Arizona rise in dramatic columns of rock.

Photo by Simmons Buntin.

The Madrean Archipelago of the North American continent is a globally unique region where several major biological provinces overlap, creating an explosion of life found nowhere else in the world. Commonly referred to as the Sky Island region, this territory of isolated, forested mountains surrounded by seas of grassland tells a fascinating story of evolutionary convergence and unparalleled diversity. Its native inhabitants include jaguars, thick-billed parrots, grizzly bears, Mexican gray wolves, and other species of wildlife not generally associated with such a geography. Some of these wildlife populations teeter dangerously close to blinking out, and many require the intervention—or deliberate non-intervention—of humans to survive today's conservation challenges.

Biogeography of the Sky Islands

One hundred miles north of Tucson, Arizona, the massive bulk of high country called the Colorado Plateau and Rocky Mountains jut into central Arizona and western New Mexico with iconic snow capped peaks and montane

ivers. These thick forests and deep canyons form the Mogollon Rim, which signifies the abrupt edge found on the Plateau's southern flank. The largest continuous stand of ponderosa pine in the world is found there, hosting the last bulwark of temperately inclined constituents before precipitously giving way to a more broken country of mountains and valleys below.

In the opposite direction—150 miles southeast of Tucson—the *other* mountainous spine of North America, the mighty Sierra Madre Occidental and its subtropical forests of pines and parrots gives way just before reaching the Arizona-New Mexico border. Here, an entirely different set of ecosystems have evolved over the millennia, adapting to warmer temperatures and strong connections to the western Hemisphere's tropical latitudes.

Between and connecting these two massive continental backbones, 40 distinct mountain ranges form the Sky Island region of North America. This globally unique convergence—the north-south overlap of two major cordilleras spanning the temperate and subtropical latitudes—begins to form the foundation for ecological interactions found nowhere else on earth. To add to this special connection, an additional biogeographical phenomenon occurs at the Sky Island intersection, as well.

Spanning the lower elevations of western Arizona and northwestern Mexico, the Sonoran desert and its iconic towering saguaro cacti creep eastward into higher elevations. Tucson, which sits at the eastern edge of the Sonoran desert, marks the western gateway into the Sky Islands. East from there, the Sky Island landscape increasingly represents the cold-adapted constituents of the Chihuahuan desert, which spill westward over the lowest point in the continental divide from southcentral New Mexico and Chihuahua, Mexico.

These two major bioregional convergences—the north-south span of the temperate and subtropical along with the east-west overlap of the Chihuahuan and Sonoran deserts—set the stage for an eruption of life. This intermingling of bioregional edges brings together different life forms evolved from vastly different places on the continent, finding themselves tucked together in unusual associations within the Sky Islands.

Topographical Complexity

A third factor plays into the mix as well, providing for those unusual associations to be fully expressed. Naturally, lower elevations are hotter and drier, while higher elevations are cooler and



Biogeographic influences on the Sky Island region.

Graphic courtesy Sky Island Alliance.

wetter. Valley floors within the Sky Island region vary between 2,500 and 4,500 feet, while the isolated mountains peaks reach 6,000 to 11,000 feet. With 40 distinct Sky Island mountains to choose from, each providing up to 6,000 feet of elevation gradient from valley to peak within a matter of several miles, the mountains provide ample opportunity for many different species to take hold. This is especially true considering the smorgasbord of converging bioregions.



Mixed conifer forests of the Pinaleño Mountains, towering above the valley floor.

Photo courtesy Sky Island Alliance.

Consider the tallest of Sky Islands, the Pinaleño Mountains of southeastern Arizona, rising to 10,720 feet above the Gila River near the town of Safford. Beginning at the valley floor on the banks of the river, one walks among irrigated cotton fields surrounded by typical Sonoran desert—saguaro and cholla cactus, ocotillo, and acacia bushes lying in wait to stab you with their thorns. In just a ten-mile hike toward the peak, one travels through no less than eight distinct zones: desert, arid grassland, chaparral, pinyon-juniper woodland, Madrean evergreen oak woodland, Ponderosa pine forest, mixed conifer stands of Douglas fir and white pine, and eventually a true spruce-fir forest with burbling creeks and quaking aspens. Depending on

which slope or aspect one chooses to ascend, microclimates throw curveballs into the mix, too. This creates all kinds of goofy blends of life, such as a saguaro cactus sitting opposite to a pine tree on an east-west canyon.

Biodiversity

While large information gaps exist in our knowledge of the Sky Islands, particularly in the Mexico portion of the bioregion, several indices are known.

For instance, one mountain in the Sky Island region hosts more than half of all the bird species found in the United States. Tens of thousands of visitors flock to small towns like Bisbee and Willcox, or to remote canyons such as California Gulch and Clanton Draw to glimpse the rare eared quetzal, flame-colored tanager, gray hawk, and scores of other species that occur nowhere else in the nation. On the San Pedro River southeast of Tucson, the last major free-flowing waterway in the southwest and a critical migratory flyway, the bird diversity rivals that of tropical forests in Central America.



The thick-billed parrot is a Sky Island native now restricted to isolated forest patches in the northern Sierra Madre Occidental.

Photo courtesy Sky Island Alliance.

Less well known is the fact that the Sky Islands also host the greatest number of mammals in the U.S., as well. Javelina, coati, bighorn sheep, black bear, black-tailed prairie dogs, and many more make their home here—more than double the number of species found within Yellowstone National Park. In recent years, the jaguar and ocelot have returned, or perhaps discovered again after several decades of absence. Bee, reptile, and ant diversity is unparalleled here too, speaking volumes about the subtropical influences within the region.

Conservation

With the theater set and the actors revealed, the ecological play within the Sky Island region is complex, diverse, and fragile. How does all this ecological complexity interact with the human element upon the landscape?

Unfortunately, today the stage is being dismantled piece by piece. The greatest threat to the region’s natural heritage is not unlike that which plagues our planet’s other biodiversity hotspots—habitat loss and fragmentation—though it’s progression of degradation is occurring at breakneck speed here.



The Sky Island region with continental mastiffs at north and south terminuses. Black represents elevation above 8,000 feet.

Graphic courtesy Sky Island Alliance.

Historically, species decline, extinction, or extirpation (local population extinctions) often came at the hands of government trappers and hunters, aided by a general societal conviction that wolves, bears, wild cats, prairie dogs, and many other species should be done away with at every opportunity. At one time, the idea was that these “vermin” stood in the way of agricultural development, and should be removed to make the area safe for colonization. From roughly the early 1800s through the middle 20th century, it wasn’t so much that habitat didn’t exist to support populations of native wildlife as it was that full-scale persecution brought their numbers to all-time lows.

The U.S. and Mexico crusades against the Apache Indian culminated in 1886 with the capture of Geronimo and his remaining band, then cattle grazing and mining safely moved in and took their toll on the region’s grasslands and woodlands. The ecological effects of the late 1880s and early 1900s are still felt today, though

most scientists agree that, comparatively, today’s landscape is healthier than it was then. Except now, new and direr threats appear.

Today's Challenge

Arizona overtook Nevada as the fastest growing state in the nation in 2007, adding more than 200,000 new residents (net) every 365 days. Urban cores are undefined and growth continually spills into the wildlands, creating additional expansion and dependency on transportation infrastructure. The U.S. Sky Islands are constantly becoming more isolated from one another by roads, freeways, and rooftops, disrupting the natural movements and migratory patterns of much of the region's native wildlife. The Mexican portion of the Sky Islands remains more static, though illegal logging and the drug trade near the border take their toll. The conversion of wildlands to development is a relatively new phenomenon, though its sheer pace elicits alarm from conservationists working within the region.

Questions that must be answered soon include: how important landscape connectivity is maintained for wildlife as low-traffic rural routes are converted to four-lane freeways, how plant and animal communities adapt to a hotter and more arid environment due to climate change, and what implications the construction of an impermeable border wall between the U.S. and Mexico have on this internationally connected ecosystem.

The future is uncertain, though hope remains for these mountain islands and grassland seas. The opportunity for ensuring the Sky Island region's natural heritage remains intact for future generations lays in the same fundamental arena that drives the challenges placed upon it. This arena is responsible land-use planning at a regional and local level. When distilled, these land-use decisions are ultimately driven by local constituencies, providing a comprehensible angle of approach for solution-based strategies. Whether its global climate change, national energy use, or regional wildlife corridor needs, many of the choices before us involve how and where we live. State and local land-use planning must recognize the value of ecosystem services, natural landscape connectivity, and the benefits of an intact ecosystem to humans and non-humans alike. When that occurs, decisions on how and where to accommodate growth, development, and infrastructure will be better informed and our current environmental debt will be lessened. Even on federally owned land, which is tied to core sets of national policy, local constituencies have considerable latitude in how policy is prescribed and followed. In the Sky Island region, hope lies with the local constituents who are currently beginning to redefine how land and wildlife conservation must act and react to the growing pressures.



A 2007 photo of an ocelot in the Sky Islands, 25 miles south of the Arizona border in Sonora. This is the first photo of a live wild ocelot ever recorded in the region.
Photo courtesy Sky Island Alliance and Rancho El Aribabi.

A case in point is the recent proposal of an interstate bypass to be constructed through intact wildlands in southern Arizona, apparently to avoid the Tucson and Phoenix metro areas so that heavy truck traffic won't further congest the already record-setting commute times found there. Instead of widespread public support emanating from the metro areas, there is almost unanimous opposition against the proposal. Why? According to the hundreds of residents that have weighed in on the issue, it is because the bypass would impact important wildlife corridors, degrade important river systems, and further fragment relatively intact wildlands. What is the alternative most cited by those affected? They call for light rail to be put in between the lanes of Interstate 10 from Tucson to Phoenix. Would the social consciousness have reacted differently 50 years ago? Absolutely. Gas was cheap, there was plenty of open space to go around, and progress was defined by growth. Not anymore—though basic economic dogma is slow to react.

Global and regional challenges have brought into focus solutions that weren't previously available, and as these solutions are connected with a social consciousness that demands a better and more sustainable way of life, the Sky Islands will benefit along with many other places on earth currently reeling from the unintended consequences of growth and development.

In the Sky Islands, a race against the clock is occurring now. Can the people who live there—new and old alike—be empowered with the will, determination, and knowledge necessary to chart a future that provides for a functioning ecosystem that will continue to provide for human and non-human denizens alike? Or will the faults in recent development trends not break soon enough and result in catastrophe? History teaches us that both outcomes have occurred before. Today, the fate of the Sky Islands will likely be similar to the fate of much of our planet.

Sky Island Alliance

Sky Island Alliance, for whom the author works for, is a regional land and wildlife conservation organization dedicated to the protection and restoration of the rich natural heritage of native species and habitats in the Sky Island region of the southwestern United States and northwestern Mexico. Sky Island Alliance works with volunteers, scientists, land owners, public officials, and government agencies to establish protected areas, restore healthy landscapes, and promote public appreciation of the region's unique biological diversity. For more information or to contribute to its success, visit www.skyislandalliance.org.

Matt Skroch is the executive director of the [Sky Island Alliance](http://www.skyislandalliance.org), a regional land and wildlife conservation organization based in Tucson, Arizona. Mr. Skroch has lived and worked in the region for ten years, previously as a field coordinator and conservation programs director with Sky Island Alliance. He also serves as president of the [Arizona Wilderness Coalition](http://www.arizona-wilderness-coalition.org). When not tromping around the Sky Islands, Mr. Skroch can be found on his sorry excuse for a sailboat in San Carlos, Mexico.

Article



by Rick Mildner and Brian Canin

The suburbs: New Urbanism's new frontier?

In 1978, a visitor passing through the concourses of Atlanta's shiny new Hartsfield International Airport could not avoid exposure to Chamber of Commerce posters pronouncing the city's brash promise of the future: "Atlanta, City Without Limits."

Atlanta had it all, and plenty of it—land, water, transportation, and suburban governments eager to welcome the transferees who were flocking to the self-proclaimed capital of the New South.

Now, some 30 years later, the Atlanta Metropolitan Statistical Area still affords plenty of land for new communities, but most of it stretches 25 to 40 miles from the city's center. Gripped by unusually dry weather, the city's water sources are stressed. Interstate highways that span 14 lanes in many places cannot spare residents from some of the longest commute times in the nation. And while tolerant of growth, suburban municipalities cannot offer the cultural and recreational amenities of intown Atlanta.



Downtown Atlanta, Georgia.

Photo courtesy Atlanta Convention and Visitor's Bureau.



Sweetwater Creek State Park.

Photo courtesy Georgia Department of Natural Resources.

Nevertheless, Atlanta continues to grow. The city has been adding 50,000 new jobs per year and is a magnet for the highly-prized 25- to 34-year-old, college-educated demographic known as “The Young & Restless.”

A [2006 *New York Times* analysis of data](#) compiled by chambers of commerce and the U.S. Census Bureau showed that Atlanta's Y&R population increased 46 percent from 1990 to 2000, and accounted for 9 percent of the metro area's total at the close of the century. People who were aged 25 to 34

between 1990 and 2000 were largely members of Generation X.

While some of Atlanta's Y&R gains came at the expense of cities nationwide (notable among them are New York City, Miami, Los Angeles, Chicago, Washington, D.C., and Philadelphia) the city came by much of its young population the old-fashioned way—it bred them, educated them, and has held them with a growing economy and an active lifestyle. A substantial portion are the children of the young transferees who flocked to Atlanta in the 1970s and 80s.

Atlanta has always been skilled at redefining itself, and these young people have been welcomed with a wealth of fresh intown housing options that include skyline-altering condo towers, mixed-use developments on reclaimed industrial sites, and new infill housing in inner-city neighborhoods.

Active, young Atlantans, who form a—and possibly *the*—significant demographic for Atlanta housing, value what Atlanta's intown neighborhoods have to offer: pedestrian orientation, authentic architecture, convenient access to employment centers and recreation, and perhaps most importantly, the sense of community they associate with small towns. But as they begin to form families, personal security, home size, and family finances grow in importance. Consequently, many Generation X Atlantans find themselves less willing to pioneer transitional intown neighborhoods and unable to afford a home of their liking in established and desirable



Tributary's Founders Park at the entry of the Village offers wireless Internet access, among other amenities.

Photo courtesy Douglassville Development, LLC.

intown neighborhoods where single-family detached home prices often start well over \$750,000.

Why not the suburbs?

People who can't find what they want in an urban setting look to the suburbs. But there, new development has largely adhered to timeworn design themes: auto-oriented neighborhoods with beige-box homes and predictable, centrally located amenities. The few suburban Atlanta communities that have embraced live/shop/play ideals and traditional neighborhood development are located far beyond the gravitational pull of the center city's business districts and entertainment attractions. And even some of these sport starting prices of \$600,000, well above what most Atlantans would term "affordable."

By 2003, the growing importance of Gen X buyers and the apparent lack of a community meeting their affordability and lifestyle requirements had revealed an opportunity in Atlanta's housing market that has since become [Tributary](#), a new community with a small town atmosphere and a variety of housing and neighborhood choices designed especially for Gen X individuals, couples, and families. Launching Tributary required us to answer four questions:

1. Can New Urbanism principles be applied to a popularly priced community in a suburban setting?
2. Which specific attributes would Gen X buyers demand of an intown neighborhood in the suburbs?
3. Could the particular 1,475-acre site that we had identified in Atlanta's close-in, underdeveloped westside suburbs be transformed into such a community?
4. How would such a community be marketed to a Gen X audience?

Are New Urbanism and affordability mutually exclusive?



Tributary's Park Court homes in the Village front parks with sidewalks but no streets.

Photo courtesy Douglassville Development, LLC.

The close of World War II marked a turning point in U.S. housing. America had mobilized 16 million people for military service during the war. As they returned home, long-delayed family formation began in earnest. To meet skyrocketing demand for housing, the technology of mass production, perfected during the war, was applied to home construction. Builders specialized in a few designs and a few styles, but on a grand scale. In the post-war era of residential development, affordability, availability, and automobiles were victorious. Community character was a casualty.

Traditional neighborhood development has sought to reclaim community character through the reintroduction of those design elements that were sacrificed to affordability. But must affordability now be sacrificed to achieve a sense of place even when the place is in the suburbs?

Like a chorus, a community is an amalgam of different voices in harmony, distinct but complementary. The classic American neighborhoods prize both homes and streetscape. They distinguish between private spaces and public spaces, but bring them into contact with one another. They create opportunities for neighborliness inside and outside the home.

In theory, the elements that give classic American neighborhoods much of their character—human scale, tree-lined sidewalks, and green spaces, among them—should be more easily incorporated into suburban neighborhoods where greater land availability affords larger, less obstructed canvases on which to paint. In fact, however, transporting urban development to suburban locations has its complications:

- Municipalities acclimated to large lot development may be justifiably suspicious of the smaller lot sizes characteristic of TND design. They require assurances of quality.
- Utilities, unaccustomed to dealing with curbsides encumbered by street trees, require a greater degree of coordination and support.
- Suburban TND communities must alter the competitive equation. It is financially impossible to add New Urbanism elements to a suburban—or any—development plan and compete on the basis of home size and price with lesser-amenitized surrounding neighborhoods.
- Marketing approaches must be rethought. Typically, new-home communities identify their prospects as living within an eight-mile radius of the property. That is not the case with the suburban TND community whose prospective buyers are likely to be living intown.



Pooch Park is one of three off-leash dog parks already in place at Tributary. Photo courtesy Douglassville Development, LLC.

What do Gen X buyers want?

In the postwar period, people sought to put space between themselves and others—bigger houses on bigger lots for bigger families. In 1970, 21 percent of households had five or more people, but today only 10 percent do. During the same period, the average number of people per household decreased 18 percent from 3.14 to 2.57. Households are smaller, and younger buyers are more concerned with quality than quantity. As the *New York Times* reported in a [2006 story that profiled Tributary](#), “Younger buyers want better, not bigger.”

Gen Xers prize their standards and their standing within their peer group. They will not accept being

perceived as “selling out.” It is important to retain neighborhood traits that make intown living attractive to them. In our surveys of Gen X prospects for an intown community in the suburbs, they identified several community features as critical:

- A location that affords relative convenience to valued entertainment and dining attractions and, most importantly, their existing social network
- Authentic pre-1940s architecture
- A walk-to-everything, small town community design that incorporates retail shopping and services in architecturally compatible centers
- Gathering places
- Streetscapes that show diversity of home designs and materials with inviting tree-canopied sidewalks

In addition, to lure these buyers to the suburbs, it would be necessary to provide amenities not readily available in intown neighborhoods:

- A diverse selection of homes and types
- Recreation that goes beyond the swim and tennis fare standard in suburban communities
- A development plan and methodology that shows respect for the property and its environs
- Green construction and green spaces
- Advanced technology

Is the Tributary site up to the task?



Neighbors enjoy a fire pit at neighborhood activity center.
Photo courtesy Douglassville Development, LLC.

The site planned for Tributary has proven capable of satisfying all of the target market’s requirements.

The Location

Tributary’s location along Interstate 20 just eight miles west of Interstate 285 places it within 20 minutes of downtown Atlanta, 15 minutes of Hartsfield-Jackson International Airport, and 30 minutes of three of Atlanta's other major employment centers.

Bordered by the [Chattahoochee River](#) on the south and [Sweetwater Creek State](#)

[Park](#) on the north—and bisected by Sweetwater Creek itself—it offers countless opportunities for nature activities. Several streams run around and through the property. Its rugged terrain is heavily forested. Ridgetops afford views of the Sweetwater Creek Basin, wooded conservation areas, and the downtown Atlanta skyline.

At 2,500 acres, Sweetwater Creek State Park is home to the 215-acre George Sparks Reservoir, a popular site for fishing, canoeing, and kayaking. Sweetwater Creek itself includes a four-mile run of rapids that bump up to class 5. There are fishing docks, playgrounds, picnic sites, and nine miles of woodland trails that wind along streams and past the Civil War ruins of the New Manchester Manufacturing Company's textile mills, then climb rocky bluffs to provide views of the creek's shoals. All trails are interconnected throughout Tributary.

Prior to the start of development, Tributary ownership donated 500 acres of the site to Sweetwater Creek State Park (bringing the park's total acreage to the current 2,500) and 13 historic sites on the property to a trust created and managed by the City of Douglasville.

The Master Plan

The size of the Tributary site allows for a truly mixed-use master plan integrating and interconnecting a range of residential neighborhoods, a village center with boutique retailers, a town center for national retailers, a supermarket-anchored community center, and a park of commerce with mid-rise office buildings.



The site plan for Tributary, a 1,475-acre mixed-used community 20 minutes from downtown Atlanta.

Photo courtesy Douglassville Development, LLC.

- **Residential.** Tributary is planned to have metro Atlanta's largest concentration of home sites developed within the village concept. A substantial portion of the home designs will reflect the classic architecture of America's great neighborhoods. Other portions will reflect a more contemporary architectural style and neighborhood atmosphere.
- **Village Center.** At completion, Tributary could have nearly 500,000 square feet of commercial space in a 65-acre Village Center, the first phase of which is currently under construction. Plans call for a walkable Main Street lined with retail shops, an area that will accommodate a supermarket and a "big box" retailer, office space, and approximately 400 residential units.
- **The Tributary Park of Commerce,** where the Red Cross of America has opened its new LEED-certified regional headquarters, will feature up to 1.5 million square feet of low- and mid-rise office buildings.

The variety of housing types permits buyers to view Tributary as a community in which they can raise families through several stages of the family life cycle.

Easily the largest residential component is the Village, where single-family, detached homes are priced from the mid-\$200's to more than \$1 million. Townhomes in the Village are priced from the low-\$200's. In addition, there are "Park Court" homes that front enclosed parks rather than streets, a configuration ideal for parents of young children.



Elevations of townhomes at the Village are consistent with those of detached single-family homes.

Photo courtesy Douglasville Development, LLC.

"River Homes" feature more typical suburban designs with front or side-entry garages on larger home sites, many on cul-de-sacs and built on basements, and priced from the mid-\$200's to the \$500's.

"Ridge Homes" are custom homes on estate-sized sites. Many afford dramatic ridgetop views.

The Village is the Gen X touchstone of Tributary. Like intown neighborhoods, it is pedestrian-oriented. Almost all homes (except those on the perimeter of the property) feature alley-fed garages so streetscapes showcase the

people spaces of homes rather than auto spaces. All homes feature usable "rocking chair" front porches that introduce residents to their neighbors. All are built on elevated pads that create a 24-inch pedestal on which the home rests. The three-tiered streetscape rises from the street to tree-lined sidewalks to front porch. Individual landscaping lightly separates the public space of the sidewalk from the private space of the porch.

Like intown neighborhoods, Village homes are not price-segregated. They look right together even when a \$250,000 home sits beside a \$500,000 home. Each elevation is based on a photo of an actual pre-1940s home submitted by its builder to the town architect.

Green Space & Construction

Gen X buyers are cause-oriented. They want to do the right thing, especially if the right thing will lower the operating expense of their home, add to its value, and create a healthier living environment for their families.

Tributary represents the largest commitment to green building in Atlanta and one of the largest in America. All of its nearly 3,000 homes—single-family detached, townhomes, and multi-family—are being built to the exacting specifications of the EarthCraft House™ program of the Southface Energy Institute and the Greater Atlanta Home Builders Association.

EarthCraft House is a voluntary builder program dedicated to energy-efficient and environmentally friendly home design and construction. EarthCraft House-certified builders must meet the program's stringent requirements in heating/ventilation/air conditioning systems, ductwork, attic insulation, erosion control, exterior cladding, and window and door openings, among others.



Tributary's village center, now under construction, features a mix of shops, boutiques, and small offices within walking distance of Village residents.
Photo courtesy Douglassville Development, LLC.

Although builders have flexibility in selecting the EarthCraft approaches best suited to their homes, they must submit a worksheet stating which measures they plan to incorporate. These include but are not limited to site planning, energy-efficient building envelope and systems, energy-efficient appliances and lighting, resource-efficient design and building materials, waste management, indoor air quality, and efficient indoor water use. The worksheet is detailed and must be verified by an EarthCraft House inspector.

Tree-lined, five-foot sidewalks grace both sides of every street in every neighborhood. They shape community fellowship by linking residents to each other and to recreational amenities and gathering places.

More than 35 percent of Tributary's 1,475 acres will be dedicated to green space and recreation.

Recreation: Nature, Fitness, Athletics & Extreme Sports

The Tributary master plan takes a unique approach to recreation, dispersing opportunities throughout the community to make them more accessible to all residents rather than concentrating them all in one central area. All recreational amenities are open to all residents. A full-time activities director and staff orchestrate a stream of community events.



Swimming pools and other features like clubhouses, fitness centers, and playground are located at Tributary's multiple neighborhood activity centers.
Photo courtesy Douglassville Development, LLC.

- **Neighborhood activity centers** offer a variety of facilities such as fitness centers, swimming pools, clubhouses, basketball courts, and playgrounds. The first two have opened in the Village and River Banks neighborhoods.
- **Community recreation centers** include a 16-court tennis center with clubhouse and pro shop and sports fields.
- **Neighborhood parks** include contemplative areas, dog parks, and playgrounds as well as several out-of-the-ordinary parks such as bocce ball and a skate park where tweens and teens can show their stuff. There is a neighborhood park within a seven-minute walk of every home—one for every 50 to 75 homes.
- **A mountain biking trail** by [professional trail designer Mike Riter](#) is one of the only dedicated trails in a residential community in the U.S. The rigorous three-mile course presents a 30-minute challenge to experienced bikers and a 90-minute training exercise for beginners, rewarding both with dramatic views of Sweetwater Creek State Park.
- **An outdoor adventure center**, to be built overlooking Sweetwater Creek, will serve as the jumping off point for hiking, fishing, camping, canoeing, and kayaking.



Tributary homes feature modern, open, and "wired" interiors for tech-savvy Gen X families.
Photo courtesy WSB-TV Atlanta.

Technology & Connectivity

Gen Xers are prolific and proficient users of technology who regard it as a necessity, not a luxury. Tributary's fiber optic network delivers an economical communications bundle with local and long-distance telephone, high-speed Internet access, email, and cable television with premium channels, the cost of which is included in homeowners association dues. Residents are kept abreast of community activities by browsing the community Intranet. Neighborhood activity centers and several parks afford password-protected wireless Internet access.

Having structured our offering, we were faced with one final question:

How do you convince the Gen-X buyer?

People buy homes when their lives change, and nothing motivates a home purchase as powerfully as the introduction of children into the family. The number of Gen Xers beginning families is what makes them an attractive market. But Gen Xers are psychographically different buyers—self-assuredly hip, unwilling to sell out, and skeptical. Gregarious, they travel in packs. Quality driven, they insist on authenticity. They welcome diversity.

They are especially unlike their Baby Boomer parents in their media habits. Traditionally, new home marketing campaigns have relied on newspapers, outdoor media, and to a lesser degree, magazines. In Atlanta, where Realtor presence and influence has been strong, agent outreach programs have also been important.

But Gen Xers have altered the marketing landscape. They don't read newspapers; they get their information online. And they don't rely on outsiders—like real estate agents—to do their research; they do that online and within their peer group. Once they have found their home on their terms, they will engage a real estate agent to represent them in the purchase.

Because Gen Xers eschew print media, we saw the need to launch Tributary with intrusive radio advertising that could seek out our prospective buyers well beyond the eight-mile radius that typically feeds new home communities, and to speak to them in their language and on their terms. (*Listen to the radio spots: [SUV Living](#) and [OTP vs. ITP](#).*)



At the Outdoor Adventure Center planned for the banks of Sweetwater Creek, residents will be able to rent kayaks, bicycles, and fishing equipment.

Photo courtesy Douglassville Development, LLC.

Radio spots present Tributary as a solution to transporting kids to activities, spousal relationships, and the Gen X third-rail issue—moving to the suburbs or OTP (outside the Perimeter). The spots were designed to drive traffic to a website—www.TributaryGA.com—rich in content, flash, video, music, and lifestyle and streetscape photography.

Since Gen Xers are skeptical of promises, it was critical that we launch with key amenities in place and others underway. The first neighborhood, the Village, opened with its centerpiece gathering places—Founders Park and the neighborhood activity center—finished and ready to enjoy. In addition, several neighborhood parks were close to completion and we had begun work on the tennis center. When we opened the River Banks neighborhood nine months later, its neighborhood activity center was already underway and several neighborhood parks were also available.

Gen Xers place a premium on individuality. To showcase the broad selection of available housing styles and floor plans, we opened with seven decorated models in the Village, added five more when we opened River Banks, and two more when we introduced the Village townhomes.

Selling to Gen Xers is an art, an advanced form of soft-selling that borders on enabling discovery. Stay in touch, but don't push. Keep them interested. They want to be wanted; they don't want to be sold. Marketing materials must read and look modern as if they were written and designed by someone their age. They must see themselves in ads, brochures and displays as they want to be



Homes in the village are built on elevated pads to give the appearance of crawlspaces that characterize Southern homes.

Photo courtesy Douglassville Development, LLC.

seen—casual, cool, and caring.

Did it work?

Within six months of its launch, Tributary had established itself as the most talked-about new home community in Atlanta, and one of the best-selling. The marketing campaign was successfully driving traffic and the product was selling itself. Within a year, it was the best-selling community in its price range, a position it has held despite the recent softening of the Atlanta housing market.

“Smart growth” is the catchphrase among community planners, but too often it’s the planner telling the buyer what’s smart. That isn’t how the marketplace works, especially with the generation that now drives residential development. Listening is paramount.

Advocates for New Urbanism and smart growth who are anxious to see their ideas advanced must recognize the important role that affordability plays in the home purchase and the importance of the suburbs to affordable housing. Transporting New Urbanism and green building concepts to suburban locations is achievable, but it requires a methodical approach to market research, property development, product development, and marketing—an approach that is working at Tributary for “the Young & the Restless” and beyond.

Tributary Community Summary

- 1,475 acres incorporates range of residential neighborhoods, village center, town center, supermarket-anchored community center, and commerce park with mid-rise office buildings
- Neighborhoods include Village homes (1,400 single-family detached homes and townhomes on alleys), River homes (900 suburban homes with front- or side-entry garages on larger sites), Ridge homes (200 custom-style homes on large sites), and multifamily homes (number to be determined)
- Retail includes village center (100,000 square feet services and small offices), town center (300,000 square feet regional retail and office space), and community center (75,000 square feet with supermarket)
- Commercial includes up to 1.5 million square feet of low- and mid-rise office buildings
- Approximately 35% of Tributary's acreage is dedicated to green space and recreation
- More than 500 acres of original property were deeded to adjacent Sweetwater State Creek Park
- 13 historical sites, including portions of homes and remains of a mill from the Civil War community of New Manchester, deeded to City of Douglasville

Rick Mildner is General Manager & Chief Operating Officer of Douglasville Development, developer of Tributary at New Manchester. He has been engaged in real estate since 1979, having served as president of operating divisions of several national builders and chief development officer of several master-planned communities in Florida and Georgia.

Brian Canin is President of Orlando-based Canin Associates, Inc., a 26-year-old firm whose urban planning, landscape architecture, and architectural design studios focus on the planning and design of resorts, new towns, villages, town centers, and mixed-used developments.

Article



by **Dr. George Wallace**

A major resort development at [Mt. Hartman National Park](#) and Mt. Hartman Estate in Grenada threatens the largest and only viable population of the critically endangered Grenada dove (*Leptotila wellsi*), the national bird of Grenada. The resort is being developed by United Kingdom-based Capital 88 and its Grenadian subsidiary Cinnamon 88 Grenada, Ltd., and will be managed and operated by Four Seasons Hotels and Resorts. While the developers have made some significant improvements to the original resort plan, questions remain, including: Have sufficient measures been taken to protect the endangered Grenada dove?

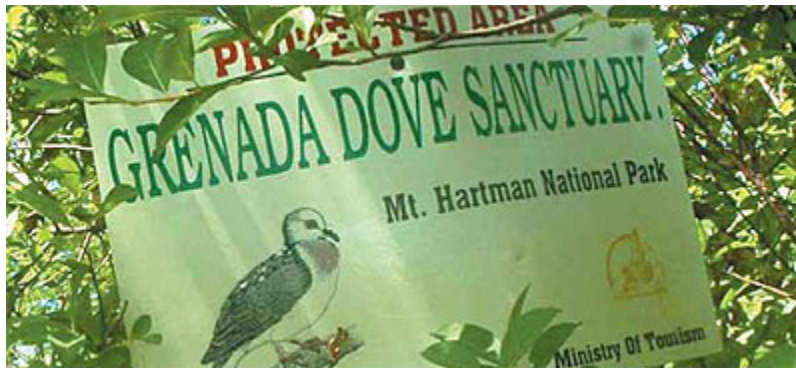


Mt. Harman National Park, hailed as a "critically important bird area for the Grenada dove" by Grenada's Ministry of Agriculture, Forestry, and National Parks in 2006.
Photo courtesy Grenada Dry Forest Biodiversity Project.

The only official protected area for the dove is the 155-acre Mt. Hartman National Park, created in 1996 specifically to protect the dove. Following Hurricane Ivan in 2004, much of the dove habitat elsewhere on the island was destroyed, resulting in over 50 percent of the less than 100 remaining doves being restricted to the national park and unprotected portions of the 450-acre estate. The original development plan called for an 18-hole golf course, central hotel, 107 individual hotel units, and 255 private residential villas—200 on the mainland and 55 on Hog Island, just offshore.

From the start, this project was dogged by poor communication from the developers, [Four Seasons](#), and the [government of Grenada](#). In November 2006, the environmental consulting firm, JECO Caribbean, issued a “[Conservation and Development Strategy](#),” triggering an outcry from conservation groups including [American Bird Conservancy](#), which were appalled by the report’s failure to incorporate scientific data on the status and distribution of the dove into the development plan. The strategy presented would clearly degrade, destroy, and fragment existing dove habitat.

The government of Grenada and developers claimed that the conservation groups’ statements were alarmist and based on a preliminary design. No development plan had been approved by the government, and a full environmental impact assessment (EIA) was in preparation with a different resort design that would address their concerns. Four Seasons hid behind its role as a hotel management company, insisting that they are not involved in the environmental review process or anything in advance of running the resort when it opens.



Sign reading "Protected area: Grenada Dove Sanctuary, Mt. Hartman National Park, Ministry of Tourism."

Graphic courtesy Grenada Dry Forest Biodiversity Conservation Project.

In January 2007, photos became available showing that much of Hog Island had been cleared by bulldozer in the same configuration as the maps presented in the conservation and development strategy. In April 2007, the government of Grenada passed an amendment to the National Parks and Protected Areas Act allowing the government to sell national parks to developers or other private interests with the approval of the

Governor General—what many believed to be a precursor to the de-gazetting of the national park in preparation for its development.

By June 2007, the long-awaited EIA became widely available. Regrettably, it was merely a longer version of the conservation and development strategy, using the identical development plan. Among its most significant deficiencies, the plan lacked current and accurate biodiversity information. No field surveys of the dove were done as part of the EIA, and the EIA failed to use available dove survey data to plot dove distribution in relation to the siting of the development, or the existing dove reserve boundaries. The importance of Mt. Hartman to the dove’s survival was understated and the EIA did not address the severe impacts on dove habitat and prospects for the species’ survival. The report suggested that as much as half of the existing dove habitat could be lost, greatly increasing the species’ extinction risk. Counter to accepted international practices for environmental assessment, the EIA report provided no analysis of alternative resort development options.

During summer 2007, following the release of the EIA, and apparently in response to criticism about the above problems, the developers agreed to support a dove survey and hired a leading expert on the Grenada dove to conduct a detailed, range-wide assessment of the dove population and to provide feedback to the developer about the plan design. The surveys showed that there had been little change in the distribution and abundance of doves at Mt. Hartman National Park and Estate. Some new dove territories were discovered outside the estate to the north, and the population in the Beauséjour /Grenville Valle area had declined slightly. The upshot was that the Mt. Hartman population is by far the most significant single population. Failure to conserve the population could be disastrous for the species. The developers also may have recognized they were on the brink of a potential public relations nightmare if they did not take steps to better align the development plan with the needs of the dove.



Clearcut areas on Hog Island match plans proposed in the Conservation and Development Strategy.
Photo courtesy Barbados Free Press.

The resort plan has gone through several iterations since the summer. The golf course has been retained, but the number of villas has been decreased to approximately 100 on the mainland portion of the estate where the doves are. The current proposal, which has recently been approved by the National Parks Advisory Council, will maintain the total area protected at Mt. Hartman at 155 acres.



One of the world's rarest birds: the Grenada dove.
Photo by Greg R. Homel, Natural Elements Productions.

A significant negative is that eight dove territories (20 percent of the Mt. Hartman total) will be lost under the plan. On the positive side, the protected area for the dove will be in one contiguous block, unlike the three unconnected blocks of habitat that exist now. The protected area would be fenced as well and restrictions would be placed on pet ownership at the resort. A trust established to provide ongoing support for the costs of management could result in greater long-term security for the dove than currently exists.

Negotiations are still underway among developers, environmental groups, scientists, and the government of Grenada. If the new plan moves forward as planned, it will be critical for the government to bring the Beauséjour/Grenville Valle area under official protection to mitigate the losses at Mt. Hartman,

and they have expressed an interest in doing so. The developer and Four Seasons have expressed

their desire to support the trust and the ongoing management of the protected area at Mt. Hartman. It is essential that this arrangement be spelled out in detail so that the amount and duration of the support is pinned down. In addition, areas to the north of Mt. Hartman need to be protected. The developer has expressed an interest in this area, both for dove protection and for the development potential of the hill tops. This could be a win-win situation for the dove and the development interests.

Dr. George Wallace, American Bird Conservancy's vice president for international programs, has been active in bird research and conservation for twenty years.

Article

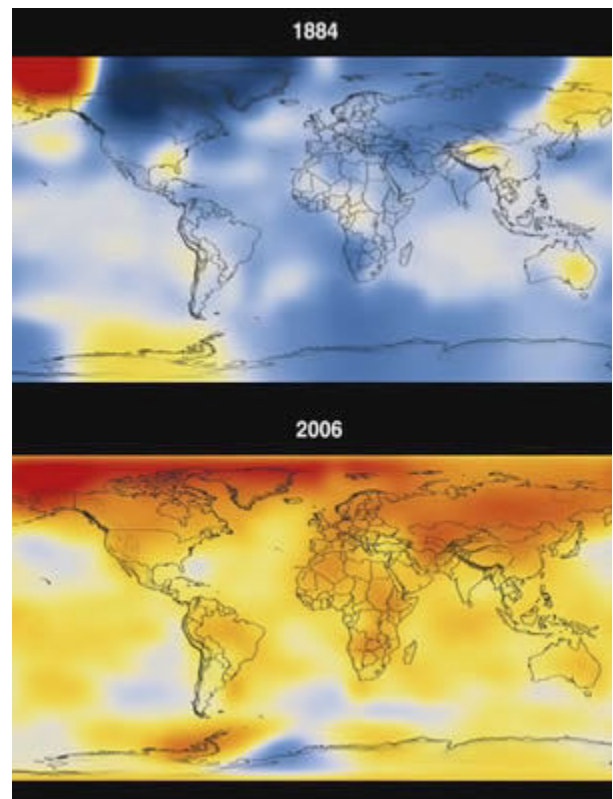


by Dr. William C.G. Burns

Introduction

As executive secretary of the [Convention on Biological Diversity](#) Ahmed Djoghlaif recently observed, "Climate change has become one of the greatest drivers of biodiversity loss." Indeed, the latest assessment by the UN's [Intergovernmental Panel on Climate Change](#) concluded that 20 to 30 percent of species would likely face an increased risk of extinction if globally averaged temperatures rise 1.5-2.5°C above 1980-1999 levels, and that 40 to 70 percent of species could be rendered extinct should temperature increases exceed 3.5°C, a temperature scenario that is becoming increasingly possible by the end of this century. A large portion of the species that are imperiled inhabit the world's oceans, including fish, marine mammals, corals reef ecosystems, and plankton.

The vast majority of oceanic climate research in recent years has focused on the potential impacts of increasing temperatures on ocean ecosystems



Global warming, 1884 to 2006.

Graphic and movie courtesy National Aeronautics and Space Administration.

as a consequence of rising levels of anthropogenically-generated carbon dioxide and other greenhouse gases, including methane, nitrous oxide, and chloroflourocarbons. However, there is growing evidence that the gravest peril for ocean species may be posed by what Victoria Fabry of the [Pacific Marine Environmental Laboratory](#) has termed “the other CO₂ problem”—acidification of the world’s oceans as a consequence of the influx of carbon dioxide generated by human activities.

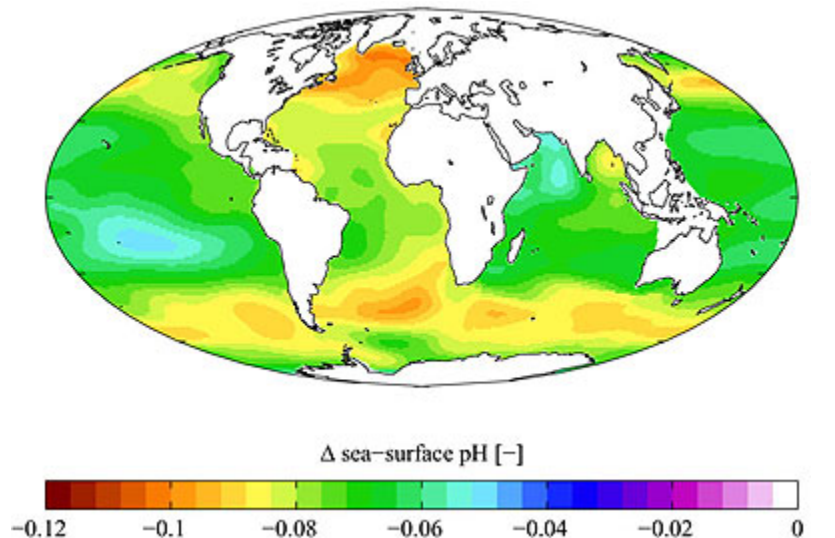
This article assesses the threat posed by ocean acidification during this century and beyond. It outlines the science associated with ocean acidification, assesses the likely impacts of ocean acidification on species and ecosystems over a horizon of the next 300 years, and lays out an agenda for future research.

Ocean Acidification: An Overview

Prior to the Industrial Revolution, atmospheric concentrations of naturally occurring greenhouse gases, including water vapor or moisture, carbon dioxide, methane, nitrous oxide, and ozone, had been relatively stable for 10,000 years. As a consequence, the net incoming solar radiation at the top of the atmosphere was roughly balanced by net outgoing infrared radiation. However, with the advent of fossil fuel-burning plants to support industry, automobiles, and the energy demands of modern consumers, as well as the substantial expansion of other human activities including agricultural production, “humans began to interfere seriously in the composition of the atmosphere,” says Fred Pearce in a 1995 article appearing in *New Science*, by emitting large amounts of additional greenhouse gases. The human-driven buildup of greenhouse gases in the atmosphere has resulted in “radiative forcing.” That is, increased levels of greenhouse gases result in greater absorption of outgoing infrared radiation and ultimately an increase in temperatures when a portion of this radiation is re-radiated to the Earth’s surface.

The most important anthropogenic greenhouse gas over the past two centuries has been carbon dioxide, which is primarily attributable to fossil fuel combustion, cement production, and land-use change. Since 1751, over 297 billion metric tons of carbon has been released into the atmosphere from anthropogenic sources, with half of the emissions occurring since 1978. Atmospheric concentrations of carbon dioxide were approximately 280 parts per million at the start of the Industrial Revolution in the 1780s. It took a century and a half to reach atmospheric concentrations of 315 ppm. The trend accelerated in the 20th century, reaching 360 ppm by the 1990s, and 384 ppm currently, which exceeds atmospheric levels for at least the last 650,000 years—and most likely the past 20 million years.

Approximately 7.1 gigatons of carbon are currently emitted annually by human activities. However, about two gigatons of carbon, or approximately 25 to 30 percent of annual anthropogenic emissions, are absorbed by oceans, with 3.3 gigatons accumulating continuously in the atmosphere. The oceans have absorbed approximately 525 gigatons of carbon dioxide from the atmosphere over the past 200 years, a rate ten times the natural historical rate. Over the next millennium, it is estimated that the world’s oceans will absorb 90 percent of anthropogenic carbon dioxide currently being released into the atmosphere.



Change in sea surface pH caused by anthropogenic CO₂ between the 1700s and the 1990s.

Graphic courtesy Pacific Science Association.

While chemically neutral in the atmosphere, carbon dioxide in the ocean is chemically active. As carbon dioxide dissolves in seawater, it reacts with water molecules (H₂O) to form a weak acid, carbonic acid (H₂CO₃), the same weak acid found in carbonated beverages. Like all acids, carbonic acid then releases hydrogen ions (H⁺) into solution—leaving both bicarbonate ions (HCO₃⁻¹) and, to a lesser extent, carbonate ions (CO₃²⁻) in the solution. The acidity of ocean waters is determined by the concentration of hydrogen ions, which is

measured on the pH scale. The higher the level of hydrogen ions in a solution, the lower the pH.

The increase of atmospheric concentrations of carbon dioxide since the advent of the Industrial Revolution has decreased surface pH values by 0.12 units. While this may not sound like a substantial change, the pH scale is logarithmic. Thus, a 0.1 unit change in pH translates into a 30 percent increase in hydrogen ions. The pH of the world's oceans now stands at approximately 8.2, with a variation of about ±0.3 units because of local, regional, and seasonal variations. The pH unit change over the past 150 years is probably the greatest seen over the past several million years.

While increases in ocean acidification have been substantial to date, far more dramatic changes are likely to occur during this century and beyond as a substantial portion of burgeoning levels of anthropogenic carbon dioxide emissions enter the world's oceans. Under a “business as usual” scenario, carbon dioxide emissions are projected to grow at 2 percent annually during the remainder of this century, although emissions have grown far more substantially in the past six years, exceeding even the upper range of the projections of the IPCC. The IPCC in its [Special Report on Emissions Scenarios](#) projected that carbon dioxide emissions could be as high as 37 gigatons of carbon annually by 2100, with the median and mean of all scenarios being 15.5 and 17 GtC, respectively. Atmospheric concentrations of carbon dioxide may reach twice pre-industrial levels by as early as 2050, and could triple or quadruple by 2100.

The “business as usual” scenario for carbon dioxide emissions during this century, in turn, is projected to result in a tripling of dissolved carbon dioxide in seawater by 2100, producing an additional decline in ocean pH by approximately 0.3-0.4 units. Moreover, continued oceanic absorption of carbon dioxide may result in a further decline of pH levels of 0.77 units by 2300, reaching levels not seen for the past 300 million years, with the possible exception of rare, extreme events. These levels will persist for thousands of years even after oceanic concentrations of carbon

dioxide begin to decline.

As the United Kingdom's [Royal Society](#) recently observed, "Seawater pH is a critical variable in marine systems; even small changes will have a large impact on ocean chemistry." The changes in ocean chemistry precipitated by acidification are likely to exert profound and highly adverse impacts on ocean species and ecosystems.

Potential Impacts of Ocean Acidification

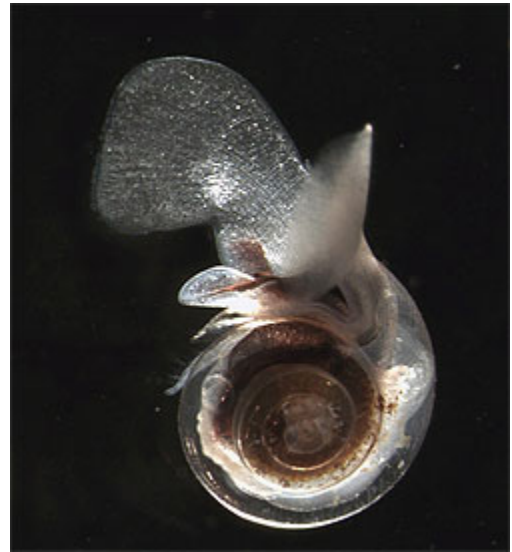
Impacts on Calcifying Species

As indicated above, rising levels of carbon dioxide results in a substantial increase in the release of hydrogen ions, which lowers oceanic pH levels. One important consequence of the release of hydrogen ions is that they combine with any carbonate ions in the water to form bicarbonate, thus removing substantial amounts of carbonate ions from solution. The uptake of anthropogenic carbon dioxide has already resulted in a 10 percent decline ($\sim 30 \mu\text{mol kg}^{-1}$) in carbonate concentrations compared to pre-industrial levels and is likely to precipitate a 50 percent decline by 2100.

The saturation of seawater with carbonate ions is extremely important for marine species that construct their shells or skeletons with limestone (calcium carbonate, CaCO_3) in a process known as calcification. These species include most corals, mollusks, echinoderms, foraminifera, and calcareous algae. The shells and skeletons of such species do not dissolve because the upper layers of the ocean are supersaturated with calcium (Ca^{2+}) and carbonate ions. However, as the pH of the oceans drops as a consequence of rising levels of carbon dioxide, carbonate levels begin to drop, ultimately resulting in an undersaturation of carbonate ions, which in turn impairs the calcification process.

Calcium carbonate occurs primarily in two forms in marine organisms: aragonite and calcite. Aragonite more easily dissolves when oceanic carbonate concentrations fall; thus, organisms with aragonite structures will be most severely impacted by ocean acidification.

Among the most imperiled species may be coral reef-building organisms, which must deposit aragonitic calcium carbonate in excess of physical, biological, and chemical erosion to facilitate the building of a scaffolding or framework for coral reefs. Studies have documented that coral organisms produce calcium carbonate more slowly as the extent of carbonate ion supersaturation



A free-swimming pteropod, *Limacina helicina*, a mollusc that forms a calcium carbonate shell made of aragonite. They are an important food source for juvenile North Pacific salmon and also are eaten by mackerel, herring, and cod.
Photo courtesy NOAA.

decreases. However, continued declines in pH levels, as a consequence of the rising uptake of carbon dioxide in the oceans, may ultimately imperil the very existence of coral reefs in many parts of the world.

A recent study on rapid climate change and ocean acidification appearing in *Science* concluded that oceanic carbonate concentrations will drop below 200 $\mu\text{mol kg}^{-1}$ when atmospheric carbon dioxide concentrations reach 450-550ppm, a scenario that may occur by the middle of this century. At that point, the rates of calcification by coral polyps will be exceeded by reef erosion, which in conjunction with the impacts of increasing temperatures, may “reduce coral reef ecosystems to crumbling frameworks with few calcareous corals.” By the end of the century, climate scientist Ken Caldeira—who with Michael Wickett originally coined the term “ocean acidification”—concludes that “there is no place left with the kind of chemistry where corals grow today.” The diminution of reefs could also result in half or more of coral-associated fauna becoming rare or extinct.

Massive declines in coral reefs could have grave environmental and socio-economic implications. Coral reefs are among the most diverse ecosystems in the world. While covering only 0.17 percent of the ocean floor, coral provide habitat for one quarter of all marine species. In the Pacific region, reefs serve as habitat for fish and other marine species that provide 90 percent of the protein needs of inhabitants of Pacific Island developing countries “and represent almost the sole opportunity for substantial economic development for many small island nations.” A [World Bank study](#) estimates that 50 percent of the subsistence and artisanal fisheries will be lost in regions of high coral reef loss.



Ocean acidification has led to the bleaching of coral reefs, like this one off Australia's Keppel Islands.

Photo by Ove Hoegh-Guidberg, Getty Images.

Moreover, coastal peoples rely on the marine life found on corals for many medicinal needs, including venom from tropical cone snails that serve as a substitute for morphine, and coral skeletons that can replace bone grafts. Overall, it's been estimated that the food, tourism revenue, coastal protection, and new medications that reefs provide are worth about \$375 billion annually, with nearly 500 million people dependent on healthy coral reefs for their services.

While corals are the most prominent calcifying organisms in the world's oceans, they account for only 10 percent of global calcium carbonate production. 70 percent of global calcium carbonate precipitation is contributed by several groups of planktonic organisms, including coccolithophores, foraminifera, and pteropods, many of which are extremely important components of ocean ecosystems.

Coccolithophores are one-celled marine phytoplankton that inhabit the upper layers of coastal waters and the open ocean. Coccolithophores are the primary calcite

producers in the ocean, constructing elaborate calcite plates or liths. Recent studies indicate that rising pH levels associated with increased oceanic carbon dioxide uptake may imperil coccolithophore species in the future. One study concluded that a doubling of present-day concentrations of carbon dioxide could result in a 20 to 40 percent reduction in biogenic calcification of coccolithophores, resulting in malformed calcareous plates and layers of plates, while another concluded that coccolithophores exposed to carbon dioxide levels triple those of the present day could lose half their protective coatings.

The particulate organic material of coccolithophores sinks and contributes substantially to carbon mineralization deep in the water column. A reduction in the transport of organic carbon to the deep ocean would diminish the flux of food to benthic organisms. Additionally, the decline of coccolithophore in an ecosystem can result in a shift to a diatom-dominated phytoplankton community, which can restructure an ecosystem at all trophic levels.

Diminution of coccolithophores could also amplify global warming trends for several reasons. Chalky coccolithophore blooms can extend over hundreds of thousands of square kilometers, and when blooming, lighten the surface of the ocean and reflect substantial amounts of sunlight back towards space. Substantial reductions in their numbers might thus accelerate warming because more incoming solar radiation would be absorbed by the oceans. Moreover, coccolithophores produce substantial amounts of dimethylsulphide, which account for substantial portions of atmospheric sulphate particles around which cloud droplets grow. Reductions in cloud development might ultimately result in additional warming, as some clouds reflect incoming solar radiation back to space. Finally, calcium carbonate is very dense, and acts as ballast, which serves to accelerate the deposition of particulate carbon in the deep ocean. A reduction in calcium carbonate production thus could ultimately imperil a mechanism that helps remove carbon dioxide from the atmosphere, potentially intensifying the greenhouse effect.

Aragonite-producing pteropods, sometimes called sea butterflies, are a group of 32 species of planktonic snails. While the species have a global distribution, population densities are highest in polar and subpolar regions, and they are the primary calcifiers in the Southern Ocean—the ocean waters surrounding Antarctica below 60 degrees S latitude.

Pteropods are particularly threatened by ocean acidification both because of the high solubility of aragonite and the fact that the calcite saturation state is lowest in near-polar regions. Under a business-as-usual scenario for growth of carbon dioxide emissions, the aragonite saturation horizon may rise to the surface of the oceans before 2100, rendering the skeletons of pteropods unstable throughout the water. Pteropods incapable of growing stable shells are not likely to survive in waters that become undersaturated with aragonite. Moreover, the weakening of the pteropod's health would most likely allow competing species to assert dominance.

Pteropods play an extremely important role in many ocean ecosystems. In the Ross Sea, the subpolar-polar pteropod *Limacina helicina* sometimes replaces krill as the dominant zooplankton species in the ecosystem. In many polar and subpolar regions, pteropods are an important food source for a wide range of species, including North Pacific salmon, mackerel, herring, cod, and large whales.

Planktonic foraminifera are single-celled organisms related to amoeba, some of which form shells from the calcite form of calcium carbonate. Recent research in the Southern Ocean reveal that foraminifera have thinner shells with considerably more porosity than fossilized foraminifera that lived in the ocean thousands of years ago. A doubling in atmospheric concentrations of carbon dioxide from current levels is projected to reduce the calcification rates of foraminifera by an additional 20 to 40 percent. Changes in the distribution and abundance of this species could therefore have significant impacts on the global carbon cycle.

Echinoderms—a phylum that includes starfish, sea urchins, and brittle stars—are especially threatened by ocean acidification because their calcite structures contain larger amounts of magnesium and thus dissolve far more readily than even aragonite under increased carbon dioxide conditions. Recent research, albeit limited, indicates that echinoderms can be seriously impacted by declines in pH of as little as 0.3 units. Diminution of echinoderms could have serious implications for many ocean ecosystems as some are keystone predators while others are important grazers.



Echinoderms such as starfish are also at risk from ocean acidification.

Other calcifying species that may be adversely affected by ocean acidification include mussels, oysters, copepods, and crabs.

Finally, it should be emphasized that the historical record associated with previous incidents of ocean acidification and calcifying species may be a foreboding portent. The mass extinction of huge numbers of calcifying marine species 55 million years ago (the Paleocene-Eocene Thermal Maximum) may have been largely attributable to ocean acidification and associated carbonate undersaturation. Moreover, it took over 110,000 years for calcium carbonate levels to return to previous levels. Because the release of carbon was more gradual during this era, facilitating some buffering by deep sea carbonate dissolution, it is likely that contemporaneous acidification will be more “rapid and intense,” says the [European Science Foundation](#).

Toxic Effects on Ocean Organisms

While we know far less about the potential direct toxic effects of carbon dioxide or acidification on marine species than potential impacts on calcification processes in marine species, there is some evidence that such impacts will occur. For example, some fish species may be threatened by declining pH through a process called acidosis, which is a buildup of carbonic acid in body fluids that can lead to death. Hypercapnia, or excessive carbon dioxide in the blood, may also threaten fish

species in the future. For example, a recent study concluded that elevated levels of carbon dioxide can result in high levels of mortality for Japanese amberjack and bastard halibut.

A recent study concluded that decreases in ocean pH by 0.5 units or more may severely disrupt the internal acid-base balance of sea urchins, which can ultimately result in their death. Cephalopods such as squid might be particularly affected by increased oceanic carbon dioxide because they require very high amounts of oxygen supply to the blood to sustain their energy-demanding method of swimming. Lower levels of pH can impair oxygen supplies in these species, reducing oxygen capacity by about 50 percent with a pH decrease of 0.25 units.

Future Research Needs and Translating Research into Policy



Squid, such as this Hawaiian bobtail squid, might be particularly affected by increased oceanic carbon dioxide because they require very high amounts of oxygen supply to the blood to sustain their energy-demanding method of swimming.
Photo by William Ormerod, courtesy Margaret McFall-Ngai and the University of Wisconsin-Madison.

Many in the climate community now believe that ocean acidification may prove to be one of the most serious manifestations of burgeoning anthropogenic carbon dioxide emissions. Yet the current research agenda in this context is egregiously inadequate, marked by insufficient funding for conducting pertinent experiments, monitoring, and modeling and the absence of a coherent framework for assessment. As scientist Haruko Kurihara and others recently observed, “The investigation of the biological impacts of future ocean acidification is still in its infancy.”

A core priority must be to substantially expand the scope of marine species that are assessed for potential acidification impacts. For example, while many calcifying plankton species are at the base of marine ecosystems, to date only 2 percent of these species have been studied in

terms of potential ocean acidification impacts. The highest priority should be accorded to assessing potential impacts on shelled pteropods and deep-sea scleractinian corals, two aragonite-secreting species that may be the first to experience carbonate undersaturation within their current geographic rates. A broader assessment will help to facilitate the timely development of precautionary measures and potential adaptation responses, as well as to establish priorities necessitated by resource constraints.

One severe limitation of acidification research to date is that the vast majority has been conducted in the laboratory. This is problematic for several reasons:

1. The experiments are usually not run long enough to assess whether the species threatened by acidification can adapt to their changing environment, either through physiological adjustments or migration.

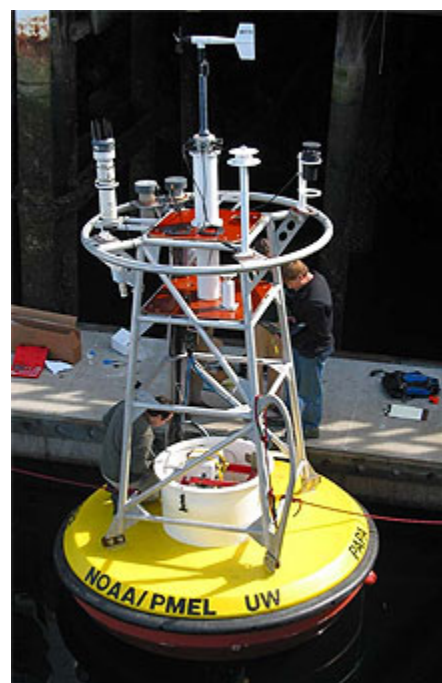
2. Laboratory studies usually focus on one species rather than an assemblage, and thus cannot assess the possibility of replacement of acid-sensitive by more acid-tolerant or acid-insensitive species that could help maintain ecosystem integrity.
3. The absence of an ecosystem make it impossible to assess trophic effects of acidification, a critical proposition given the key role of many calcifying species in marine ecosystem.

While an expensive proposition, assessments should focus on large-scale marine field experiments that mirror land-based free air carbon dioxide enhancement experiments. These experiments consist of towers on a small plot of land that send measured amounts of carbon dioxide into the air to determine the potential impacts of rising levels of carbon dioxide on terrestrial species. Engineers have begun to develop robotic submersibles to facilitate the study of deep sea organisms; however, it is far from clear that adequate funding will be forthcoming to develop a robust field program.

Field experiments must also seek to assess the synergistic impacts that rising open temperatures associated with climate change and carbon dioxide accumulation might exert on marine species. Other potential synergistic factors, such as pollution and harvesting of species, should also be incorporated into such studies.

Finally, acidification experiments must include assessments of potential impact of acidification on the early development of marine calcifying organisms since early life stages are usually more sensitive to environmental impacts, and most benthic organisms possess planktonic larval stages and fluctuations in these stages exert a profound impact on population size. For example, a recent study concluded that reproduction rates and larval development of copepods were sensitive to increased carbon dioxide concentration in seawater, while adult female survival was not affected at these concentrations.

Should additional research confirm the extremely serious ramifications that ocean acidification poses for marine ecosystems, there may be far ranging implications for policymaking under the two primary mechanisms at the international level to control carbon dioxide emissions: the [United Nations Framework Convention on Climate Change](#) and the [Kyoto Protocol](#) established under the UNFCCC. The parties to both instruments may fulfill their obligations by reducing emissions among a “basket” of “greenhouse gases,” i.e., atmospheric gases that absorb and re-emit infrared radiation. Carbon dioxide is one of these gases, but the basket also includes methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride, all of which have much higher “global warming potential” than carbon dioxide (through the absorption of radiation per molecule).



The first buoy to monitor ocean acidification was launched in the Gulf of Alaska in June 2007 and is a new tool for researchers to examine how ocean circulation and ecosystems interact to determine how much carbon dioxide the North Pacific Ocean absorbs each year. Photo courtesy NOAA.

The basket approach reflects the overarching objective of both treaty instruments to reduce emissions of anthropogenically-generated gases that can trap infrared radiation in the stratosphere, and thus contribute to climate change. Additionally, it affords the parties the flexibility to focus their efforts on reducing emissions of those greenhouse gases that pose the least cost for their respective economies.

However, if carbon dioxide poses a unique risk to marine ecosystems by leading to acidification, then the Parties to the UNFCCC and the Kyoto Protocol should consider amending their respective instruments to focus more attention on reducing emissions of this gas. On the other hand, should the parties conclude that their mandate is, and should be, limited to combating climate change, then other international fora might be more germane for addressing this issue. For example, under the United Nations Convention on the Law of the Sea, parties are required to “to prevent, reduce, and control pollution of the marine environment from any source,” including “the release of toxic, harmful or noxious substances, especially those that are persistent... from land-based sources, [or] from or through the atmosphere....” Anthropogenic carbon dioxide emissions clearly fall under the rubric of this mandate since they are a “harmful” substance when introduced into the marine environment, and are released “from or through the atmosphere.”

Conclusion

As the Royal Society of the United Kingdom concluded in its study of ocean acidification, “Without significant action to reduce CO₂ emissions into the atmosphere, this may mean that there will be no place in the future oceans for many of the species and ecosystems that we know today.” While warming associated with rising levels of carbon dioxide certainly warrants the steadfast commitment of the world’s major emitters to reverse this trend, the “other CO₂ problem” may provide an equal or even more compelling rationale. One can only hope that the world’s policymakers will mobilize more quickly to address this issue than was the case with climate change.

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Review: The Poems She Gathered Along Her Path

Deborah Fries reviews *Salmon: A Journey in Poetry, 1981-2007*, edited by Jessie Lendennie

When the thick copy of [Salmon: A Journey in Poetry, 1981-2007](#) arrived at my suburban Philadelphia home, posted from County Clare, I was more than a little enchanted by its return address and the path it had taken to arrive at my door. The package had been sent to me by Jessie Lendennie, co-founder, managing director, and commissioning publisher of Salmon Publishing. No one had ever before sent me anything from Ireland, and surely not from rural terrain just north of the Cliffs of Moher.

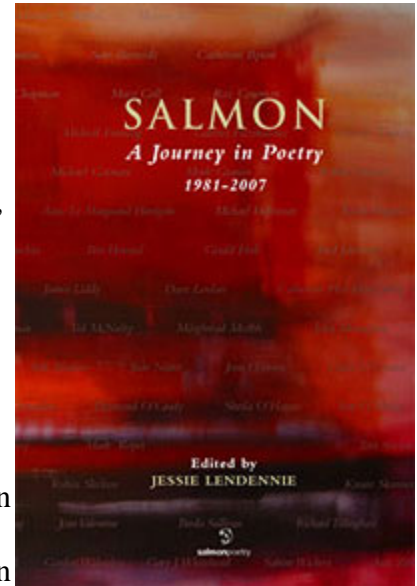
Known to me only from her fresh-scrubbed web photos, where she can be seen hugging border collies and sheep, Lendennie is an editorial board member of *Terrain.org*, a woman of my own generation, born in Arkansas, transplanted into the northeast corner of another country—one that she journeyed to 26 years ago, loved, and did not leave.

She is a poet, teacher, editor, and publisher. Lendennie's ever-widening journey in poetry was captured in a [2001 *Terrain.org* interview](#) with Simmons Buntin. From starting *The Salmon International Literary Journal* in 1982 to publishing more than 200 volumes of poetry through Salmon since 1986, her trip has become increasingly inclusive: first, providing a venue for Ireland's under-published women poets; then adopting the work of other English language poets until Salmon became the international publishing house that it is today.

My own venture through almost 500 pages of Salmon poets was in many ways made as a foreigner, an awestruck linguistic outsider. Lendennie has assembled a democratic anthology of three poems from each of 106 poets she's published—well-known and lesser known—and provided us with bios, then sent us on our way to identify with the familiar or sample new voices from beyond the breakwaters.

At first, I grabbed onto familiar landmarks: James Liddy and Nuala Archer, known from the time I spent as an undergrad and graduate student at the University of Wisconsin-Milwaukee. And Simmons Buntin, R.T. Smith, and other poets who reference familiar places: Americans and ex-pats writing about being in Kentucky, Nebraska, Florida, New Jersey, Boston, New York, even Northfield, Massachusetts.

But this anthology is so much a product of place, there is no way to read its poems without becoming a traveler. I crossed over, immersed myself in its transatlantic landscapes: places filled with wind



and light, the rough Atlantic coast, cold sea, moonlit hills, its painterly, elegiac world of longing. The poems she gathered together map out a lyrical odyssey of place names: *Shellybanks, Calf Bay at Lumb Bank, Lughnasa, Kinvara, Connemara, Knockanure, Renvyle, Achill Island*.

Our poet guides on this journey seduce us with delicious diction—fresh, Hiberno-English, sculpting a world that includes *the Nemeton, furze and briony, clasai* snow and *windolene*, where people *chunter* and recite the *angelus*. Music replaces context, and we nod along—not fully understanding, but willing to be taken there—to listen to talk of *Mullenfad, Erannach, and Eidolan*.

And when we get there, experience seems familiar: there is love and loss, history and modernity. They often meet in the same poem, as in Eamonn Wall's "Ballagh," from the forthcoming *A Tour of Your Country*:

This montage finds you sitting on buttercups and grass
On your memory card's faint photo.

Over your shoulder, two banks of sea sand. Between them,
One deep arroyo the spine-thin particles are falling away from.

Overhead, the sun seeks to find its space through low clouds
To bring the sea, over your other shoulder, into quadrille coastal time.

You do not reckon the bounty lost to water; these lone &
Level strands are stretching far away.

You touched the grass when you rested, counted rusted gates
On the journey, quietly pressed your words on the paved streets.

As the sun traced a path, you climbed the old & graded hills,
You heard each measure crafted on this, our slow, brief watch.

Born to a village between Oulart and Enniscorthy, the route
You took to town was your way forward. And the way itself.

At the end of the reader's brief visits with more than 100 contemporary Irish, British, American, and Canadian poets, there are places I want to revisit, other Salmon volumes I want to read. I want to linger longer with the poems of David Cavanaugh, Theodore Deppe, Melanie Frances and Michael Heffernan.

I want to hear Rory Brennan tell me about a place where *On past / The smart new housing for the unemployed the diesels / Churn and hiss, trailing a dragon tang out to / The crane-forested docks and the ferry's leviathan jaw*. Want Heffernan to keep on describing *a gray abyss the lacy disks / of the wild carrot where my peppers were / stir into spots of incandescent white / between the river meadow and my eyes*. Hope to again hear the voice of Richard Tillinghast, much as it begins "A

Quiet Pint in Kinvara”: *Salt-stung, rain-cleared air, deepened as always / By a smudge of turf smoke. Overhead the white glide / Of seagulls, and in the convent beeches above the road, / Hoarse croak of rooks, throaty chatter of jackdaws.*

In this anthology, Jessie Lendennie brings us 318 poems she has gathered along her path from Arkansas to County Clare—and at journey’s end, we want more.

Deborah Fries is the author of [Various Modes of Departure](#) (Kore Press, Tucson). In addition to writing and teaching, her professional life has included journalism, and public affairs for transportation and environmental issues. She is working on a second book of poetry and a collection of short fiction.

Review: Home in All the Lush Senses

Simmons B. Buntin reviews *Phantom Limb: Essays*, by Theresa Kishkan

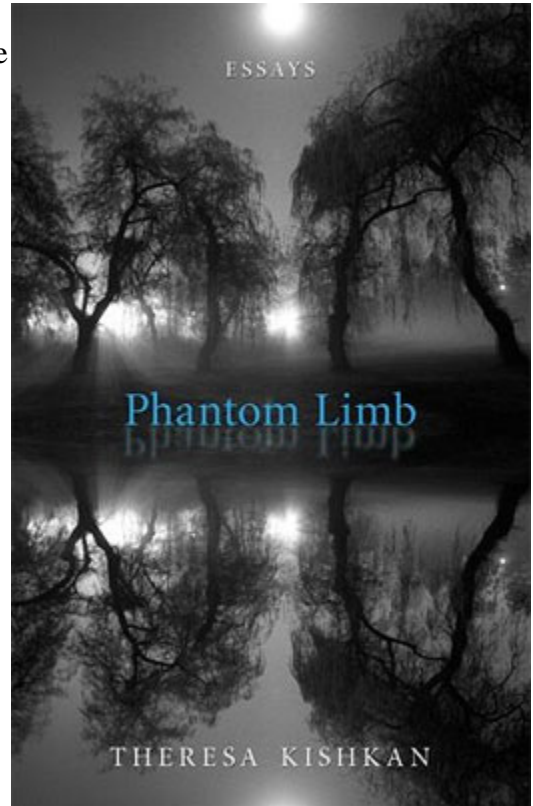
Every now and then, readers find themselves fortunate enough to come across a writer whose work fits their lifestyle and belief systems so well that the relationship between writer and reader seems familial. Though geographically estranged, perhaps, it's as if both author and reader hail from the same town, studied under the same teacher, and spent the long, warm evenings of summer hanging feet off the dock, side by side. Reading the work is like reconnecting with an old friend. Only pages in, there's a comfort level with the diction and style, a familiarity with words even though the reader finds them surprising, delightful.

So it is with Theresa Kishkan and [*Phantom Limb*](#) (Thistledown Press, 2007), a collection of 15 short essays that span Kishkan's British Columbia while also venturing afield to places like Utah and Ireland.

Like Alison Hawthorne Deming and Scott Russell Sanders, Kishkan writes from a core of earth-based wisdom—a common sense that speaks to community, conservation, and compassion. She is a liberal essayist in the base and best definitions of the word: “free from prejudice or bigotry; tolerant” and “given freely or abundantly; generous” and “not strict or rigorous; free; not literal.”

I am drawn to people with an environmental and community ethic, who believe in family and realize that family takes many forms, and who value free thought and the right to express thoughts in eloquent and sometimes daring, even painful ways. Kishkan is this type of person, I am sure, because the essays collected in *Phantom Limb* are full of the experiences, wonderfully told, of a woman discovering herself and her place among environments and cultures that cannot help but define her.

In “Autumn Coho in Haskins Creek”—the first essay—for example, she writes, “Although our lives change, loved ones die—several good friends, a neighbor, and even one of the dogs who watched the fish with us last year died in the spring, her body now buried under old cedars in our woods—we need the constancy of place to anchor ourselves like a small boat in wild waters.” In addition to penning insights that are universal but far from preachy, Kishkan also fills the essays with lovely language, painting the landscape without drenching, providing the light of hope on the horizon. “Autumn Coho in Haskins Creeks” provides the first of plenty of examples, my favorite near the



end, where she describes coho salmon in winter: “There is a radiance in their color and shape, purpose in their movements; this culmination of a journey from as far away as the north Pacific to this small waterway, is proof that home—its scent and texture—has a place in deep memory.”

Memory plays another role too, in this collection and for this author, for I had the opportunity to read three of these essays—“An Autobiography of Stars,” “month of wild berries picking,” and “Well”—before they were published; and then after, too, for they originally appeared in *Terrain.org*.

Disclosure isn’t necessary, nor is any conclusion that exposure to Kishkan before receiving the book makes me like it better. It undoubtedly made me eager to read the book, since I enjoyed those three essays immensely from the get-go. Yet whether by reading an essay here or there or by settling into the book, following essay after beautiful essay until the 168-page book is complete, the outcome is the same: a sense of wonder and honest questioning and discovery, superbly written.

I set out to list the essays I liked the most, but it differs little from the table of contents. One, however, remains with me well after finishing the book, and that is “Coltsfoot,” an essay that braids coltsfoot, a plant blooming on the Sechart Peninsula, with Kishkan’s coming of age with her horse. Perhaps this particular essay whispers like a wise friend in my ear because I am the father of two daughters, not so far away now from their teenage years, their first experiences with boys. In introducing us to her own colt, she begins:

Almost forty years ago, I was a girl with a horse. He was an Anglo-Arab colt, not quite three years old. His coat was black, he had three white socks, and a blaze on his handsome face. I loved him with all the ardor that a teenaged girl has to offer. I’d kiss his soft muzzle over and over, murmuring endearments. I did not yet ride him. He came to me accustomed only to the halter and lunge line. He was ready to be trained as a saddle horse and I was going to do it.

The essay continues with the author’s experience of turning her colt into a saddle horse, and of turning herself into a young woman. They are intertwined. “A girl longs for physical affection,” she writes, “and my horse provided the warmth and close intimacy that was lacking in those early teenaged years.” The intimacy continues even after the horse rears and she falls, breaking her pelvis and spending two months in the hospital:

Nothing else was broken, nothing lost apart from my heart to that large animal with his exquisite smell and coat like rubbed silk. I know that horses are thought to be symbols of sexual drive and fertility, and I will say this is true. Straddling that warm animal, I was never more aware of the latent possibilities of my own body, the rich musculature that began and ended between my legs. No boy I ever kissed gave me that sense of my own power. To learn that in a small orchard, with a submissive horse whose flanks one has groomed, polished with a soft cloth, whose muzzle one has kissed and shared breath with, whose feet one has held, one by one, to clean and care for, was to partake of the most urgent of mysteries. What was awakened was also a gradual sense of knowledge—that my body was capable of strength and power. I was ready for the life ahead, leaving that room with its single bed and girlish things, to travel on my own, find my voice as a woman, a writer. I was preparing for passionate love with my husband, the passage of my children down through my body to enter the world.

Other essays continue to resonate, as well, like “Scouring Rush,” full of poetic language such as, “How lovely a word: estuary. The *s* sound at the front of your mouth, then the wide opening. The rush of vowels. The tidal swoosh.” And “Drunkards Path,” about quiltmaking and Mormonism and

the author's brief stint in Provo, in which she writes, "Imagine a woman's desire to make a first quilt, having admired them in the houses of others or in books. Perhaps she'd moved to a new place and discovered a quilter's guild, a group of women meeting regularly to sit in a circle of flying hands. Perhaps she'd felt a need, as strong as hunger, to make something of beauty to take her out of her life for some time each day, or more deeply into it."

I discovered that the title essay, "Phantom Limb," is best not read with an open office door during lunch hour. Finally I had to close the door to hide my wet cheeks, for anyone who has lost a dog before—and likely those who haven't—will be greatly moved by this fine essay. A sample:

The prerogative to make a decision to end a life is a difficult privilege. There are so many things to consider: whether you are doing it for the animal's sake, your own, whether it might be best to let nature take its own slow course. But there's a time when an animal loses its essence, the sacred element integral to its being: for Lily, not being able to run, to even walk slowly through her woods and cause the grouse to rise, to move from place to place of her volition, seemed to cause her confusion.

It would not be true to say that Theresa Kishkan has a striking voice, an angelic voice, a voice so bright you cannot look directly at it—though the six-part "Six Stones on a Summer Windowsill" is as fine a lyrical essay as I've read in quite some time. Rather, she has a comfortable, wise, and elegant voice that reminds me of home, home in all the lush senses, full of texture and history and meaning. *Phantom Limb* is a wonderful collection of honest essays that convey not only sense of place, but also sense of worth and compassion. It belongs on the favored bookshelf yet deserves to be passed to an old friend, who will thank you for years.

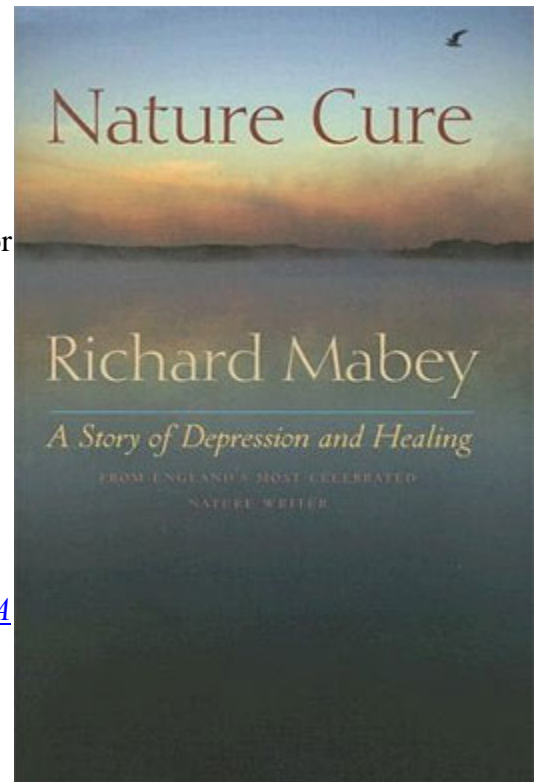
Simmons B. Buntin is the founding editor of *Terrain.org: A Journal of the Built & Natural Environments* and now writes a [weekly blog](#) for *The Next American City* magazine. His first book of poetry, *Riverfall*, was published in May 2005 by Ireland's Salmon Poetry. Recent work has appeared in *Weber Studies*, *Pilgrimage*, *Orion*, and *South Dakota Review*. New work is forthcoming in *Isotope* and *Whiskey Island Magazine*. Catch up with him at www.SimmonsBuntin.com.

Review: A Life Intertwined with Landscape

Stephanie Eve Boone reviews *Nature Cure: A Story of Depression and Healing*, by Richard Mabey

In graduate school, whenever I was assigned to read a book in which birds were either stars, symbols, or important supporting characters, I always approached it with the best intentions and then failed to finish more than half before class discussion. When I read books about birds, be they pigeons or sparrows, lapwings or kestrels, cranes or crows, one of two things happen: I drift off into my own thoughts, or I fall asleep. I never finished Bernd Heinrich's *Ravens in Winter* or Terry Tempest Williams's *Refuge*. I don't have many mental images of birds handy, so whenever a writer starts waxing poetic about this or that particular aviary creature, I feel like one of the kids in *Charlie Brown*, listening to the (to them) indecipherable *wah wah* of an adult. The conversation, quite simply, is above my head.

As it turns out, however, I am a more diligent book reviewer than I was a student, and so Richard Mabey's [*Nature Cure: A Story of Depression and Healing*](#) (University of Virginia Press, 2007) becomes the first fowl-heavy book that I have completed—and the first that I enjoyed. Let me tell you why:



For one thing, the subtitle is misleading and was, I suspect, suggested by the publisher as a marketing tool, given our culture's fondness for depression-and-healing stories. Yes, the narrator—a well-respected writer in his early sixties—has suffered a serious, crippling depression and the book covers a year of his recovery. But all this is background; we do not get protracted scenes of Mabey staring in agony at the ceiling, or weeping into his pillow, or contemplating suicide and being rushed cinematically to the hospital. And thank goodness for that—we've had enough of that on the display tables of our chain bookstores over the past half-dozen years. So to subtitle this book *A Story of Depression and Healing* is like titling *Harry Potter and the Sorcerer's Stone: The Story of an Orphan who Lives with Dreadful Relatives and Has to Wear his Cousin's Too-Large, Cast-Off Clothes*.

As the book opens, our narrator is packing his car, preparing to move from his lifelong home in the English Chilterns (which, according to the region's official tourist website, is northwest of London) to East Anglia (which the name suggests, and the map confirms, is England's eastern peninsula). A short move by American standards, but to Mabey, whose life is so intertwined with landscape, it is as jarring a move as, say, west Texas to Georgia. The move is only partly voluntary. During his

nearly three years of depression, unable to work, he burned through most of his savings and is now forced to sell his house and take up work and lodging as a house- and cat-sitter. He hopes that the move to a new landscape will force him to “grow up” (why a man who has managed to make a living as a writer feels like he still needs to mature is something I don’t entirely understand, though I might in thirty years), and complete his recovery.

This is important: Richard Mabey is a man who wakes up in the morning and looks out the window for birds. He knows the names of the winged animals he sees—lapwing, swift, pheasant—and the ones he doesn’t see. He knows where they go when they fly south for the winter, what route they take, what they eat on the way. He is fascinated by ecosystems and woodlands, and reading his book I realized I was reading the work of one of those polymaths who were supposed to have disappeared around the time Queen Victoria died. I had assumed that people like him never got depressed. With all the studying they do, they couldn’t have time.

I started a list of all the historical events, significant places, and fellow authors Mabey discusses, with varying degree of length and always with significance (he is not a name-dropper, and does not allude without explanation—a move I particularly appreciate as a reader whose polymath skills are not on par with Mabey’s). They include, but are not limited to, the Iraq War, Enclosure, the introduction of Konik horses to England, the Chauvet Cave Paintings, Annie Dillard, John Clare, Henry David Thoreau, and Gilbert White. Revisiting four of the last-mentioned author’s essays, he discovers that they

aren’t scientific in any formal sense of the word. They’re disorganized, anecdotal, affectionate.... Methodical investigation and presentation are not what he is about. Some other purpose... was guiding White, however subconsciously. And if you consider the circumstances and likely state of mind of the man who wrote them, the essays take on a new depth and resonance. Here was a middle-aged bachelor, confined in a remote English village, longing for intellectual company and urbane enjoyment. Writing of dwelling and migration and family responsibilities, he was contemplating not just the bird’s situation, but his own, and that of all social creatures. (171)

“Like *this* book!” I wrote excitedly in the margins, with my red mechanical pencil. Like the 18th century writer White (who I, for one, will admit to having never heard of before, though I’m now inclined to look him up), Mabey is a middle-aged bachelor, confined in his own way by the aftermath of his illness and limitations of his recovery process, longing for the everyday enjoyment he once felt in his familiar surroundings. He is concerned with birds, humans, and other social creatures—and not only their social relationships within their own species, but to other species, other genera, other phyla, other kingdoms.

Adam Bede, it is said, is such an accomplished book because more than simply telling a sensational story of infanticide and heartbreak, George Eliot draws a rich portrait of the landscape, both human and floral, of the fictional town of Hayslope. In a similar vein, *Nature Cure* is not so much concerned with a man named Richard Mabey who uses his love for nature to recover from depression. It is about the ecosystem he left, the ecosystem he moves to, the ecosystems he visits, and the global ecosystem of which each is a part. It is a book-length essay in the best sense of the word—thoughtful and digressive, world-aware and informative without being pedantic.

During the two weeks I spent reading *Nature Cure*, I finished three novels and a dozen or more essays. All of them, in their way, were in my comfort zone. *Nature Cure* exists outside my comfort zone; I expect that, as a reader, I am not alone in this. But I read it because I had promised to write a review of it; and I am glad I did, but not because I needed to read it in order to write a review (one thing I learned in graduate school, though most people learn it in high school, is that with enough skill you can often write a perfectly passable evaluation of a book without having finished more than a third of it). I'm glad I read it because it got me thinking about *why* this book exists outside my comfort zone. It contains many four-dollar words like "palimpsest," "eyrie," "epiphyte," and "carapace," but I have three dictionaries. It contains many references, sans description, to birds and plants I have never seen, or heard of. But I have access to a high-speed internet connection, so Google and Wikipedia can magick up images of any of those mysterious flora and fauna within seconds.

Nature Cure exists outside my comfort zone because it is a slow read. It is a page-lingerer more than a page-turner. We forget that books are not all meant to be rushed through, so that we may put them on a shelf of finished books and add them to our list of accomplishments. Some books—thrillers, for example—are written to be wolfed down like two-dollar hamburgers. I love a good two-dollar hamburger. But Mabey's work is best enjoyed like a well-earned and expensive meal. Take time to taste each unfamiliar, surprising flavor. It's been prepared with quiet mastery, just for you.

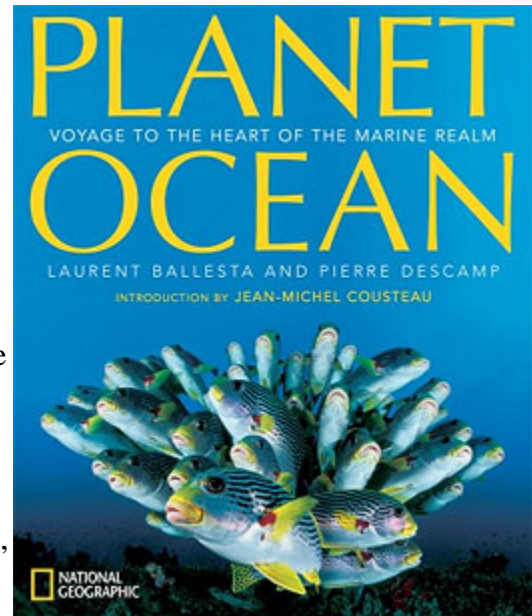
Stephanie Eve Boone grew up in Ona, West Virginia, and earned her MFA in creative writing from the University of Arizona in 2007. She served as nonfiction editor for *Sonora Review*, and has published essays in such places as *Edifice Wrecked: A Literary Journal* and the forthcoming anthology *Hiram, USA*. She teaches at Niagara University and lives in Lewiston, New York.

Review: *Planet Ocean: An Essential Wide-World Book in a Widescreen World*

Terrain.org staff reviews *Planet Ocean: Voyage to the Heart of the Marine Realm*, by Laurent Ballesta and Pierre Descamp

With alluring ocean photography and concise essays that celebrate the diversity—and perils—of Earth’s oceans and seas, [*Planet Ocean: Voyage to the Heart of the Marine Realm*](#) by Laurent Ballesta and Pierre Descamp (National Geographic Books, 2007) provides a book of wide-world views and thinking in what has otherwise become a widescreen world.

When I first received the large book (13x11 inches and nearly two inches thick), I found it beautiful but—in an age of high-definition television, wireless internet, and near virtual reality video games—wondered how it could compete. My question wasn’t as fundamental as whether books matter, but rather whether coffee table books still matter. After watching BBC’s amazing *Planet Earth* series, how can a flat book compare to the sights and sounds of a plasma flat screen?



Planet Ocean, however, is no designer coffee table book. Instead, it is a collaboration by celebrated underwater photographer Laurent Ballesta, a biologist and professional diver, and marine biologist Pierre Descamp, introduced by Jean-Michel Cousteau and wonderfully supported by short essays written by marine scientists and policy advocates from around the world.

In his introduction, Cousteau writes, “This beautiful, smart book is testimony to what we have to gain by living differently on the planet, by changing how we conduct ourselves on land so that these magnificent creatures you are about to meet will continue to thrive and lead lives of their own.” That is what distinguishes this book from the many others that visually highlight the beautiful intricacies of our shallow seas and deepest oceans: it centers as much on essays on the oceans and how they are under siege—“Ocean Biodiversity: Key to Our Survival Strategy” and “Climate Change and Marine Ecosystems,” for example—as it does on Ballesta’s often surreal photos.

It is also about a journey in both geographic and educational senses, which seems to be Descamp’s influence. For instance, the first chapter, “The Ocean—That Great Unknown,” is divided into such sections as Living in Water, Do Sea Monsters Exist?, Animals That Look Like Plants, Where Do Waves Come From?, and The Secret Language of Marine Animals. These sections, presented almost as poems interspersed with photographs, seem oriented primarily to children, or only the quick glances that coffee table books are usually afforded. From The Secret Language, for example:

Do dolphins talk? No one knows.

What is certain, though, is that marine animals exchange signals.

This distinction is important: A word makes one think, a signal makes one react.

The animals' communication can take many forms: chemical, visual, auditory, tactile, or electric.

A grouper's nostrils are extremely sensitive for detecting odors, whether of some prey or of a potential mate.

As for the bright colors of the bluespotted ribbontail ray, they warn any predators that the ray has a fearsome, venomous stinger.

If *Planet Ocean* was filled only with these interesting tidbits and photos, it wouldn't be more than the average coffee table book. Intriguing, certainly, but not essential. Fortunately, between chapters are sets of essays under the banner, *The Endangered Sea - The Expert's Opinion*. In addition to the first two on biodiversity and climate change mentioned above, there are essays on sustainable fisheries, tomorrow's aquaculture, polar oceans and their unknown ecosystems, sustainable fishing, marine protected areas, sea turtles, ocean governance, coral reefs in peril, sharks as essential predators, tourism and marine biodiversity, whales, navigation and biodiversity, and the unknown world of the deep seas.

Though the essays tend toward an academic voice, both individually and taken as a whole they are compelling and utterly important for an understanding not only of the nature of our oceans, but of the significant issues facing them.

From interesting facts:

The leatherback turtle, for instance, is one of the most extraordinary of Earth's creatures. To begin with, it is the largest of all extant Chelonians, with specimens on record measuring more than 10 feet in length and weighing over 2,000 pounds. Furthermore, it achieves this enormity on an exclusive diet of jellyfish, an organism that itself is mostly water! Leatherbacks can make several dives each day to depths of over 3,000 feet, where the pressure, temperature, and darkness preclude all but the most highly specialized life forms, and annually they traverse thousands of miles of open sea, crossing entire oceans sometimes multiple times.

— Brian Hutchinson and Red Salm, *Conservation International*, from "Sea Turtles: A Marine Icon"

... to forthright analysis and recommendations:

Today, the case for shark conservation is more compelling than ever before. We now understand the importance of ensuring that shark fisheries are sustainably managed in order to yield long-term benefits to coastal communities, whether reliant upon commercial fisheries, sport fishing, or marine ecotourism....

For the conservation of cartilaginous fish, the following priorities are recommended:

- Full protection status for rare, endemic, and endangered species;
- Development of fisheries management programs to minimize waste and discards and to encourage full use of dead sharks instead of just one body part: the fin;
- Identification and protection of critical habitats, such as nursery grounds, spawning grounds, and mating areas;
- Development of national and Mediterranean research programs, and the raising of public awareness through educational programs and information

— Fabrizio Serena, Head of a Regional Environmental Protection Organization in Tuscany, from “Sharks: Essential Predators”

... the essays add critical context and vision to the wildly colored pages.

Combined, the stunning photographs, playful paths of the chapters, and scrutinizing essays make for an essential book. Set against the pulls of a hypertexted, widescreen world, *Planet Ocean* provides its own wide yet powerfully intimate view of our rich oceans—a view that compels us to tune in, in spite of and perhaps especially because of the constant electronic buzz all around.