

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

ENERGY-NEUTRAL ABODE

Take a Tour of the Harrison Home

Test Drive
2009

+

PLUS:

Marine Protected Areas
DIY-Vermicomposting
Spring Cleaning

greenmagazinehawaii.com

Spring 2009 // Volume 1 Number 1

FREE
Please Take One

Today's Ahupua'a
Visions for a modern island community



Photo: Wili

What's in a name?

Translating green to real life

The word green has come to mean many things. It's a quick and modern single-word summation of all things sustainable and a generality used to represent eco-consciousness. It's a social, political and economic movement as well as an environmental one. It's also the color of chlorophyll, molecules of pigment found in plants and algae that are necessary for photosynthesis and in turn, the food we eat and the air we breathe.

The term green continues to evolve in its meaning, encompassing new ideas, technologies and ways of life. It brings under its wing individuals, businesses, institutions, products and services. Though diverse in scope and nature, these stratified communities are working toward the singular goal of sustainability.

What does being green mean in Hawai'i? It means leading the nation in installed solar hot water heating systems. It also means taking care of the land, like picking up all your trash when you leave the park or beach. People are planting native plants around their homes and catching rainwater to water their gardens as the state works toward the ambitious goals set by the Hawai'i Clean Energy Initiative: taking 70 percent of the state's energy needs from clean energy sources by 2030. But being green is more than just using solar power or recycling your bottles and cans; it's a collective consciousness that is necessary for the health of our communities, the islands and the ocean. Living green is an awareness that we are one with our surroundings, the natural environment, and the realization that our decisions and actions have consequences that reverberate around us like ripples in the sea.

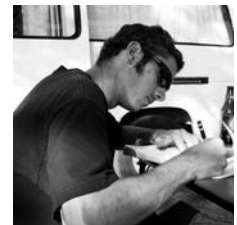
Examples of successful sustainability have been handed down to us from the original Polynesian voyag-

ers to this land, whose social systems of farming and community stretched from the mountaintops to the deep ocean. The ahupua'a system of land division and community employed sustainable methods of farming and fishing through a shared coexistence with the natural resources.

The Hawai'i of today has seen much change over the last millennium: the forests have been invaded by invasive plant species and feral ungulates, many of Hawai'i's native plant, bird and insect species have gone extinct or are listed as endangered and extremely rare, development has taken the place of natural coastal ecosystems, the reefs near urban areas are at constant risk from pollution and fish stocks are in severe decline.

While the assessment may look bleak at first glance, it is an opportunity to expand one's awareness of the issues we face, educate one's self, then take responsibility and positive action. And everyone's contribution toward that goal is relevant. Whether you have the finances to remodel your house to incorporate natural lighting and passive cooling design principles to cut down on your energy consumption or you take a reusable bag to the grocery store to consume less plastic, every contribution to lessen our footprint on the environment is worthwhile and important.

The task at hand is to lead a more sustainable life. The key is to accomplish sustainability while increasing our quality of life by engaging ourselves in our communities and with the natural environment. Living green isn't just for tree huggers anymore. —Kevin Whitton



Editor, Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

SUSTAINABLE GARDENING

The evolution of Leland Miyano's garden

Natural Lighting

Spread daylight throughout your home

Conscious Cuisine

Unlocking the flavors of organic



PLUS:

DIY Rainwater catchment

Q&A Understanding energy policy

Eco-friendly gear for the beach

greenmagazinehawaii.com

Summer 2009 // Vol. 1 Number 2

FREE
Please Take One



Photo: Michelle Whitton

The Air Is Electric

Surviving technology

Nature has a funny way of letting us know who's boss.

Take for example flying in an airplane. One of the most unnatural things we as terrestrial human beings have accomplished, yet it is something so mundane that we take the risks and sheer gravity (no pun intended) of traveling through the frigid atmosphere at 30,000 feet for granted. Read a book, watch a movie, get some shut eye, choke down nearly unpalatable single-serving portions of food and five hours later you're on the mainland.

That's how my recent jaunt to Colorado was shaping up. We were going to see my wife's parents since they hadn't seen our daughter since she was born. The trip to LAX was minor and the transition to another airplane bound for Denver was seamless. Only two more hours till a home-cooked meal and a little help with the baby.

As luck would have it, one of Denver's famous spring storms was dumping heavy, wet snow on the flat lands and weather conditions were cold, wet and oppressive. We had seen the reports. We had our jackets and we had our daughter layered up and ready, but what we weren't prepared for was a brush with mortality.

We were 20 minutes out of Denver, descending through the storm system. Outside the window was a fog of pale gray nothingness. We were sitting in the next-to-the-last row in the aircraft. I was holding my sleeping daughter as my wife flipped through the in-flight magazine, killing time.

Tha-wack! An explosion detonated outside our window with a blinding white and red fireball flash.

My wife, Michelle, grabbed my leg, "Oh my god, did you see that? What was that?"

"I don't know," I said in shock, ill-fated scenarios racing through my head.

Michelle's hands were shaking; she was rattled. I looked down at my 10-month-old daughter, so innocent and beautiful, so unaware.

There's no way this is it for her, I thought.

"The engines are up there on the wing, so it isn't like an engine blew up," I quietly tried to rationalize the situation with my wife to remain calm and embrace sanity, "and even if one did, they can fly the plane with just one engine. Maybe we were hit by lightning."

A stewardess emerged from the back galley, opened a few of the window shades in the rear of the plane, peered outside with concern and then strode into the back. And that was the extent of it. Several passengers who witnessed the explosion all seemed to settle on the collective, unofficial explanation as lightning.

It took a few minutes for the adrenaline to subside and my heart rate to return to normal. After the plane touched down and the anxiety waned, I overheard the stewardess mention to another passenger that, in fact, lightning had struck the tail of the plane, a once-in-a-lifetime occurrence, as it usually strikes the nose. Once in a lifetime—at least I got that one out of the way unscathed.

My in-laws received us at the gate and the freezing temperature and pelting snow bit at my face as we walked to the car. My daughter's cheeks were bright red, her first snow. As we left the airport, driving west toward Boulder, another feat of technology came into view. Row upon row, array upon array of solar panels blanketed the prairie, the power source for Denver International Airport. The uniformity and sheer number of panels was mind boggling.

Human beings have built machines that fly across oceans, designed a panel that can capture the sun's energy and power an airport, but as a species on an ecological level, we are no different than the birds we mimic or the sand used to create a single PV cell. All life is fragile and we all breathe the same air. On a grand scale, the Earth is one system. Sometimes all it takes is a brush with unadulterated nature to get your head out of the clouds and bring you back to Earth.

—Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

MOLOKA'I RECLAMATION

Returning to home land and
a simpler way of life

The Paragon Of Organic Farming

Big Island Aquaponic Farmers Produce

greenmagazinehawaii.com

Fall 2009 // Vol. 1 Number 3

FREE
Please Take One

Presidential Mu'umu'u

Designing the First Family wardrobe

Eat Local!



Plastic Confessional

For better or for worse, till death do us part

All right, let's clear the air here. Just because I'm the editor of a sustainable living publication doesn't mean I lead some perfect, fuel-efficient, energy-neutral and plastic-free life. I do what I can, when I can, and live comfortably within my means. But let's be honest, it would be nearly impossible and unrealistic to say, lead a plastic-free existence, however appealing and reminiscent that might sound. Plastics are, for better or for worse, a ubiquitous constant of our global ecology.

But my confession is two-fold and plastic is merely the thread. I attended my first beach cleanup (stop throwing rotten tomatoes at me) on World Oceans Day earlier this summer. Being a life-long surfer, the ocean has been my aquatic muse and I have developed a great admiration and respect for its beauty and countless resources. You'd think that with the health of the ocean directly affecting my penchant for daily physical and mental rejuvenation in the waves, I'd be at every beach cleanup possible, saving the coast one trash bag at a time. In my own defense, I practice other indirect means to accomplish this goal, but as I personally witnessed, there's nothing like getting your hands dirty to acknowledge the breath of a problem and begin the conversation to find solutions.

What really struck me was that the beach we canvassed to rid of debris is a cove that I pass by often, Cockroach Bay in Waimānalo, also called Baby Makapu'u. From the vantage point of my polluting, personal people mover zipping by on the highway, the sand always looks white and crystalline and the water shimmers light blue, clear and inviting, as it pushes up on the rocks. On the beach, on the front lines, it's a different story though.

Cockroach Bay, tucked into the north end of Kaupō Beach Park and fringed by the highway and the Ocean Institute's Pier on O'ahu's arid southeast side, was aptly named by the exorbitant amount of cockroaches that inhabited the area, their colonies supported by the litter

of beach goers. Now it seems the cockroaches have been replaced by plastic debris. I'm talking about little tiny bits of plastic; faded red, blue and green pieces that commingle, almost invisibly, with the sand. And even though plastic won't crawl up your leg at night to get that piece of poke that inadvertently fell into your lap, polluting plastics are a much greater problem than just what's visible on the shore.

Plastics are not biodegradable and once introduced into the ocean, float around and break up into tiny bits over time. Marine organisms often ingest these tiny bits of plastic: from birds and fish to krill and marine mammals. Plastics cause irreparable harm by poisoning, choking and lodging in smaller creatures, essentially starving them to death. In turn, they become part of the food chain.

These small bits of plastic were everywhere along the beach: strewn threw the organic debris at the high tide line, in the sandy crevices of the rocks and in the tide pools. There was no point in picking up one bit at a time. I was scooping up handfuls of sand, the colorful plastic pieces finding their way into my trash bag. The closer my focus on the sand, the more plastic I found and my elation for doing a good deed and cleaning up the beach was stifled by the reality that it would be almost impossible to remove every bit of plastic, every piece of trash. Luckily, I'm not alone and many others care the same way I do for the ocean and beaches. A community of conscious individuals worked all day in the sun to clean that beach as best they could.

But there's no happy ending here. Those little pieces of plastic are a stark and visible reminder of the decades of damage already done, and I'm not going to get into the giant garbage patch floating around in the Pacific. Should we give up? Never. Instead, let's put a halt to our frivolous use of plastics where applicable, do our part as individuals to keep the beaches and oceans clean, and stay strong in our convictions to do our part—one trash bag at a time. —Kevin Whitton

green

HAWAI'I'S SUSTAINABLE LIVING MAGAZINE

HAWAI'I'S BEST FARMERS' MARKETS

For the Freshest Local Produce

greenmagazinehawaii.com

Winter 2009 // Vol. 1 Number 4

FREE
Please Take One

PLUS:

Konohiki Fishing Rights
Kalihi Valley Instructional Bike Exchange
Kai Market's Living Wall
DIY: Cloth Diapering



Illustration: www.nicoletteavenport.com

The Art of Eating

Learning the benefits of locally grown foods

I love cooking.

I remember cooking my own breakfasts when I was a kid: French toast, eggs, pancakes and oatmeal. Sure, it was all relatively simple and easy, but I did it because I wanted to, not because I had to. My culinary endeavors narrowed in high school to sandwiches and tacos à la leftover pot roast, but flourished again in college, although my ingredients were processed and ordinary—budget constraints and the ignorance of youth. I made pasta dishes, grilled fish, baked chicken with jack cheese and green chilies and drank cheap beer. I even taught my roommate how to roll the perfect burrito, just like the ones from Tío Alberto's, two streets over from our meager apartment.

Like most 20-year-olds, I didn't give much thought to where the food I ate came from or how it was grown, just how much it cost and how long it could sustain my energy until hunger returned. But maturity brings discerning tastes and broader perspectives.

I started connecting the dots of food quality and health during a hiatus in Costa Rica, working as a volunteer trail guide in a private rainforest preserve. The rainforest was being systematically cleared for cattle pasture, creating a patchwork of dense jungle juxtaposed by open fields, where erosion scarred the earth as the daily heavy rains washed downhill along the path of least resistance. The cattle nosing on the soggy grass were sick, emaciated and riddled with festering, open sores. Those cows, once processed, were the main ingredients for TV dinners and fast food so egregiously devoured in America.

I stopped eating fast food and frozen dinners.

After Costa Rica, my wife and I stayed with her aunt on an island off Quintana Roo in the Yucatán Peninsula. Her aunt owns and operates a hotel and restaurant on the island. When the hotel next door to hers put in a pizza joint, she decided to one up the competition and took classes to learn the traditional, regional cuisine. She mastered the craft and revamped her own restaurant, specializing in locally caught fish

and seafood. To this day I have never tasted better, fresher ceviche. That seafood soiree was my eye-opener to excellent food crafted from local ingredients and the importance of sustaining local resources.

My wife and I also did some hardcore traveling around Australia in a van for half a year, from which I learned that the perfect head on an ice-cold schooner of beer trumps all other culinary concerns.

For Hawai'i, an archipelago once flourishing with completely self-sustaining communities, yet known today for shipping in most of its food from continents far away, locally grown farm-to-table fare is once again finding its place throughout communities conscious of the need for this isolated state to become self-reliant once again. Restaurants are using locally grown produce and tailoring their menus to reflect the daily fluctuation of available ingredients. Farmers' markets are popping up in parking lots across the state, offering bananas, avocados, lettuce, papayas and an ever-increasing variety of locally-grown food as well as a venue for small, community farmers to sell their bounty.

As the paradigm of purchasing produce from Mexico and California sold in mega-chain grocery stores evolves to buying locally grown ingredients from community markets, so will the quality of our food. Fresher fruit, longer-lasting lettuce and produce packed with vital nutrients will become the norm as rising demand calls for local farms to increase production.

My mouth starts watering just thinking about my next trip to the farmers' market to pick up ingredients for my infamous tropical chutney: Hayden mangoes, papaya, cilantro, Hawaiian chili pepper, lime and cumin to taste. I eat it with tortilla chips, as a topping on scrambled eggs, heat it up with leftover chicken meat for tacos and savor every bite because it was all grown right on the island I call home. If only there was a way to cut washing dishes out of the equation, then I would definitely be having my cake and eating it too.

—Kevin Whitton

green

HAWAI'I'S SUSTAINABLE LIVING MAGAZINE



HAWAI'I'S FUTURE IS IN YOUR HANDS

greenmagazinehawaii.com

Spring 2010 // Vol. 2 Number 1

FREE
Please Take One

6 People You Need To Know
Electric Vehicles: Our Octane Alternative
DIY: Plant A Tree And Have It Thrive



Illustration: yumivong.com

What is Earth Day Anyway?

"I am convinced that all we need to do to bring an overwhelming insistence of the new generation that we stem the tide of environmental disaster is to present the facts clearly and dramatically. To marshal such an effort, I am proposing a national teach-in on the crisis of the environment to be held next spring on every university campus across the Nation. The crisis is so imminent, in my opinion, that every university should set aside one day in the school year—the same day across the Nation—for the teach-in." —U.S. Senator Gaylord Nelson, October 8, 1969

I could say the same thing you've heard many times before, everyday should be Earth Day—but we all know that. I could suggest planting a tree or to turning off the water when you brush your teeth to save the environment—cliché Earth Day. I could invite you to myriad Earth Day events across the islands—great excuse to take a day off. Instead, on this 40th anniversary of this special day dedicated to the awareness of not just our immediate environment, but of the world as a whole, I pose to you a simple question: What is Earth Day anyway?

For me, the scary thing is, I had never even heard of Earth Day until my freshman year at university in Santa Barbara, Calif. Let's just say diversity wasn't huge on Orange County's agenda when I was a kid in the '80s and '90s. And what was my first Earth Day all about? Students coming together, seeking information about endangered species, conservation, wondering what they could do to help? Not exactly. Try a thousand young adults aimlessly traversing through required curriculum, finding common ground in a natural amphitheater in Anisq'Oyo' Park, reggae music jamming, the smoke from ubiquitous joints creating its own atmosphere inside the amphitheater, a couple of sun-stroked vendors (CALPIRG, Greenpeace) and Happy Earth Day on the tip of everyone's tongue.

We had no idea, literally, what Earth Day was all about; No idea that U.S. Senator Gaylord Nelson (D-Wisconsin) had been on a person-

al bender to bring the issue of environmental degradation into Washington's political spotlight from 1962 through 1969; No idea of his grassroots launch of the official Earth Day teach-in on April 22, 1970 at universities and schools across the country, using anti-war energy to fuel an environment cause; No idea that over 20 million demonstrators supported the cause on that remarkable day; No idea that in the spring of 1970, in the very same park I was standing, students and police clashed in three separate riots, leaving one student dead and the local branch of Bank of America burnt to the ground. Happy Earth Day.

So, in the original spirit of Earth Day, in the founder's vision to use the day to bring awareness about the state of the environment, wherever it is you may be, may I suggest that you think of Earth Day a bit differently this year. It's time we recognize the relationship we have with our natural environment, the affect that we have on one another and what we can do to interact symbiotically with our planet. In a word: appreciation.

Now that the world is connected by a click of the mouse, Earth Day is celebrated simultaneously around the world—amazing that a simple vision to create awareness of one's surroundings and a grassroots soapbox campaign is now a holiday, an event and a forum connecting billions of conscious people across the planet.

In Japan, a form of Earth Day had been in practice for centuries before our modern day version. Shunbun No Hi was spent visiting family graves and holding family reunions, and became a national holiday in 1948 as a day for admiration of nature and the love of living things.

I like that—admiration of nature and the love of living things. It puts a different spin on the term environmental awareness. Instead of the environment being a victim, assuming that man is in control, it supposes that we are observers and share our space on this planet with all things comprising the environment. Maybe if more people thought this way, we wouldn't need a holiday to create environmental awareness. —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

WATER RIGHTS

THE DEVASTATING EFFECTS OF
WEST MAUI STREAM DIVERSIONS

GRID ACCESS

The future of Hawai'i's
photovoltaic industry

THE GOLD STANDARD

Kahala LEED-certified home

greenmagazinehawaii.com

Summer 2010 // Vol. 2 Number 2

FREE
Please Take One

MAKUA VALLEY

Challenges of a sacred space

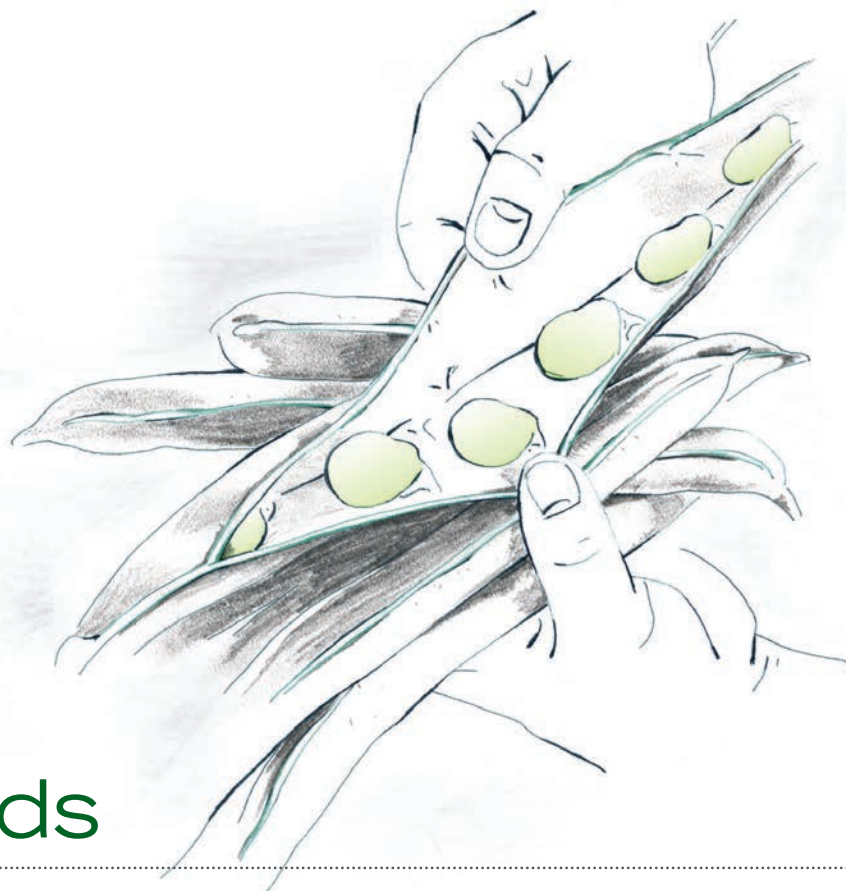


Illustration: Orthreb Arios

Pulling Weeds

Gardening, like life, is not perfect. But you don't need me to tell you that. Even if you were born with a green thumb, gardening is just as much an art as it is a science, sway to forces of nature that act beyond our control. It's a practice of patience and an experiment in trial and error. You can do everything right—turn the soil with compost, water frequently and accurately, sing songs to your keiki veggies—only to have midnight raiders eat sage down to a stump, mynah birds steal your vine-ripening tomatoes or your daughter fall into the seed bed, crushing a few cilantro sprouts while regaining her posture.

I'm not boasting, but I do consider myself one of the lucky few to have a green thumb. It's not a miracle, as some would make it seem. It just comes with the awareness that plants need the same basic nourishments we human beings seek: food, water and sunlight. Exercise those analytical skills and it's not rocket science to figure out when it's time to water. Consistency with a touch of compassion is the key.

But having a green thumb does not make one immune to the detrimental effects of the harsh elements. Case in point: I started a rooftop garden this spring as a way to turn a 200-square-foot patch of flat, boring roof outside my bedroom window into a vegetable garden. Cucumbers, Roma tomatoes, Serrano chiles, cilantro, green onions, basil—I had just about everything I needed for pesto or salsa right on my roof. By May, the intense overhead sun was wreaking havoc on my prized greens. The cucumber plant produced two cucumbers then shriveled up and died, the Roma tomatoes looked more like grape tomatoes and the edges of the Manoa lettuce leaves were burning. Even the peppers were wilting everyday from the moisture-consuming breeze and the hot afternoon sun, concentrated and intensified by the black asphalt shingles. I was watering twice a day and my plants were still bending and wilting in between waterings.

Common sense is the foundation of sustainability. Just because green roofs work well in one valley, doesn't mean they are the answer

in another. And there's nothing sustainable about watering your vegetable garden twice a day, especially evident when your water bill arrives in the mail—egad. Lesson learned. Let's do some digging.

The rooftop container garden was scrapped without delay. I turned up an old gardening bed in the yard, laboriously picked out most of the weeds and mixed in a lot of healthy compost to add nutrients to the hard-packed, red clay soil. Now I have the chiles, Kamuela tomatoes, cilantro, cucumber, squash, asparagus, green onions, flat-leaf parsley, thyme, oregano, strawberries and what's left of the sage in a cozy bed in the ground. The plants receive direct and filtered sunlight throughout the day as the sun moves across the sky and interacts with the old mango and lychee trees in the yard. As of yet, the mesclun greens have yet to break the surface, which seems a bit lazy to me.

Like I said before, gardening is as much an art as it is a science. Will all my veggies tower in the new location? Probably not. Am I still watering twice a day to keep wilting plants from dying? No, and that's a really good thing.

There are many different ways to sculpt a garden, area and lifestyle pending. It's great fun if you look at it in the right way. And of course, it's a chore if you loathe hands-on activities that require a bit of attention. If you fall into the second category, that's fine; buy local produce and leave the agriculture to others who find joy in the slow progress of vegetative growth. You don't have to feel guilty because everyone on the block has a rooftop garden, an aquaponic garden or a traditional garden; you're still living sustainably by supporting local food production. Or better yet, befriend one of the green thumbs. They always grow more than they can eat and they're sure to unload much of their bountiful harvest on good friends with the right attitude. Lychee anyone? —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

DECONSTRUCT

Tearing down the demolition paradigm

NATIVE HAWAIIAN FERNS
FOOD SECURITY
BAMBOO HOME

greenmagazinehawaii.com

FALL 2010 // Vol. 2 Number 3

FREE
Please Take One

What It Means To Be Hawaiian



Writing is exciting—for me at least. Every time I embark on my research for a piece I meet interesting people with unique perspectives and stories, and get to briefly step into their world. More often than not, I learn a great deal more about a given topic than what actually appears in print.

Case in point, I was sitting on my lanai, just nonchalantly flipping through my new copy of Daniel D. Palmer's, *Hawai'i's Ferns and Fern Allies*, an invaluable resource I picked up for the Hawaiian fern feature in this issue. Letting my eyes fall on interesting descriptions of ferns I have never seen before and their accompanying anatomical scientific sketches, a familiar silhouetted frond caught my attention—*Phymatosorus grossus*, which everyone refers to as laua'e or the maile-scented fern.

Laua'e is ubiquitous in Hawai'i. It is a common border plant in residential and commercial gardens. A widespread ground cover, it blankets large expanses of lower elevation forests on all the main Hawaiian Islands. The hearty frond is also a staple for lei material, beloved because the crushed leaves give off a fragrance similar to that of maile. In fact, due to its cultural significance as a lei plant and its broad habitat range, people have come to think of laua'e as a native Hawaiian plant. Myself included. But the laua'e fern Hawai'i admires today is an introduced species, growing wild from Australia and New Caledonia to Fiji and beyond.

In fact, Samuel M. 'Ohukani'ōhi'a Gon III, of the Nature Conservancy Hawai'i, and Puanani Anderson, a former ethnobotanist at the University of Hawai'i, had both taken up the search independently several years ago to find the real laua'e referred to in Hawaiian lore. Through different avenues of research, both came to the same conclusion. The name laua'e was originally attributed to a maile-scented plant that once thrived in the high rainfall areas of the Wainiha Pali of Kaua'i, its range stretching west to Makana and the Kalalau Valley.

Microsorium spectrum, an endemic fern known today as pe'ahi, once thrived in that particular area, but is rare today, having retreated to the uppermost reaches of the wet forests. Young, juvenile plants of both species, *M. spectrum* and *P. grossus*, look remarkably similar and are maile-scented. Anderson found evidence of *M. spectrum* being the true laua'e in old Hawaiian chants that refer to the scented laua'e from Kalalau and Makana. Gon utilized an original mimeographed document he had in his possession, penned by the renowned biologist Joseph F. Rock in 1920, and discovered that Rock's seminal list of Hawaiian names of native and introduced plants refers to *M. spectrum* as laua'e.

According to Daniel Palmer, *P. grossus* was introduced to Hawai'i in the early 1900s and first collected for scientific study in 1919 in

Maui, where it had quickly become naturalized in the Hāna and Kaupō areas. With the knowledge of the chants that predated the *P. grossus* introduction and Rock's research occurring before *P. grossus* could become naturalized and common, it is generally accepted in the scientific and cultural communities that *M. spectrum*, pe'ahi, is actually the original laua'e fern. As *P. grossus* became widespread across Hawai'i, displacing native plants, *M. spectrum* became all the more rare. Over time, with the similarities between the two ferns, the name laua'e shifted to the naturalized *P. grossus*, and became woven into society and custom, revered today as an important native Hawaiian plant.

Does this mean you should tear up the introduced laua'e ferns in your garden and organize a community group to eradicate it from the forest? That's up to you. Should we never again use the introduced laua'e frond for lei?

Maybe it just comes down to how you define a Hawaiian plant. Much like the Polynesian introductions to Hawai'i—breadfruit, 'awapuhi ginger, banana, taro, kukui and the bottle gourd to name a few—the introduced laua'e is useful and culturally important, deeply entrenched in past and present Hawaiian culture. It might not be the endemic native used for lei making in pre-contact times, but it serves the same purpose today, as it has for nearly a century, and being an introduced fern should not take away the significance of the plant to fulfill its cultural role.

I imagine in a perfect world we could propagate pe'ahi on a monumental scale and reintroduce it back into the Hawaiian forest, from the lowlands to the pali, and back into its long-overtaken role as laua'e. But then reality slaps us in the face. Introduced species have essentially forever been changing the landscape of Hawai'i and there is no way to rewrite the course of history. After all, every plant that arrived here, via wind, wings or canoe, was an introduced species at one time.

As Hawai'i evolves socially, culturally and environmentally, meanings will develop new layers, definitions will take on new perspectives and paradigms will shift. What was once introduced and foreign becomes naturalized. That is the unrelenting march of time, society and consciousness. But more than a name, the importance lies in understanding how we arrived at this point and how we choose to move forward. Knowing that our beloved laua'e is an introduced plant does not make it any less useful, culturally important or beloved, but it is important to know how and why the shift occurred and that the pe'ahi fern, the endemic laua'e, continues to retreat to the upper reaches of our forests, farther and farther from our consciousness, unless we reintroduce it back into the fold of culture and society. —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

COCONUT ISLAND

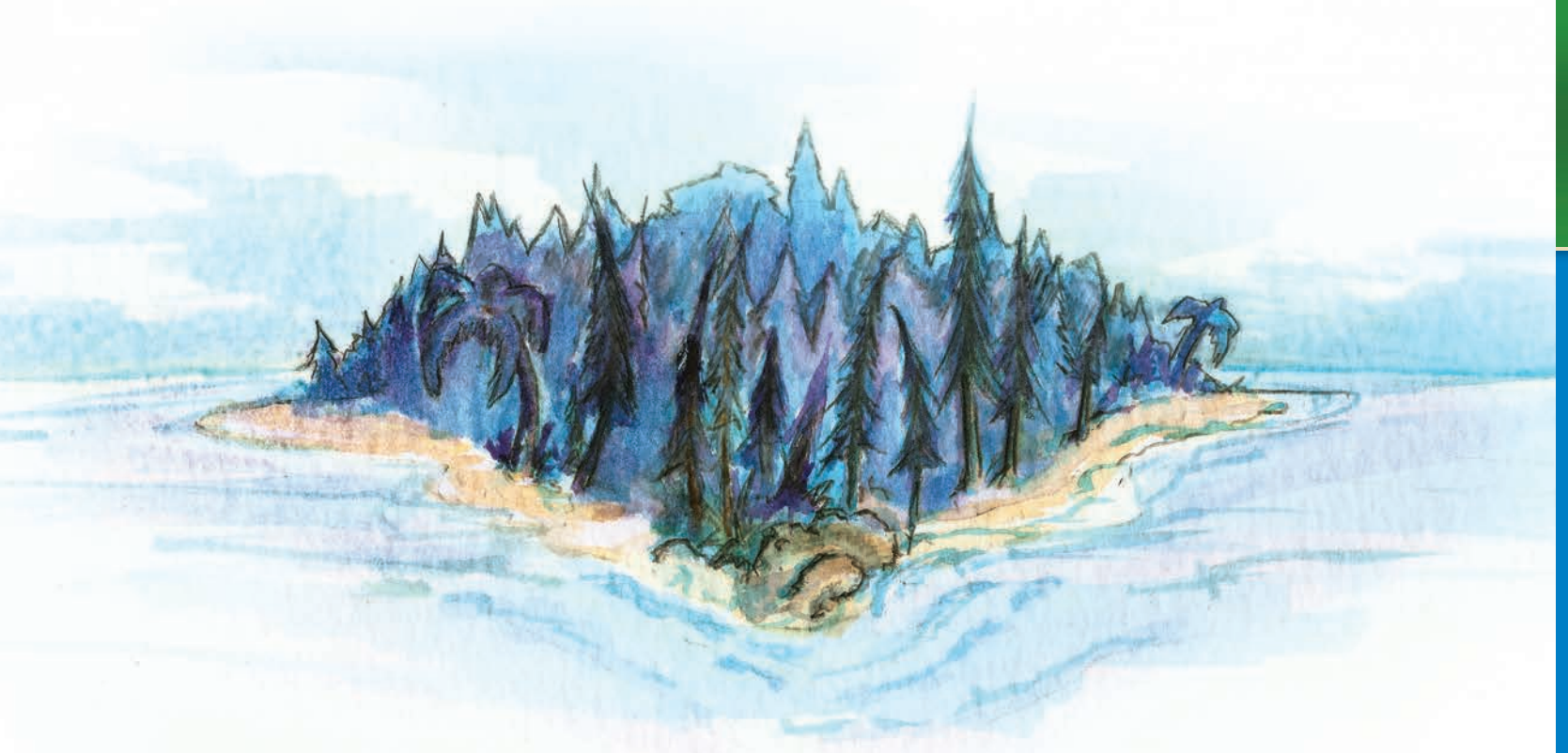
Hawai'i's leading hub for marine science and conservation

greenmagazinehawaii.com

JANUARY/FEBRUARY // Vol. 3#1

FREE
Please Take One

Rell Sunn: Heart of the Sea
Real Food is a Real Pleasure
The Energy Lab



Island Getaway

I used to live in Kāne'ohe, right at the end of Waikalua Road, on the bay. There was an overgrown, graded and abandoned lot separating our aging duplex from the black tea back-bay waters. Head-high fountain grass covered the lot down to the muddy highwater mark. At low tide a hodge podge of plastic trash, fishing debris and rotting coconuts littered the narrow beach. While the Marine Corps Base dominated our view across the bay, I was always aware that Coconut Island was right around the corner, even though I couldn't see it, like a light in the fog.

My baby daughter has an aversion to taking naps, so I used to do a lot of driving around the back roads in the neighborhoods to lull her to sleep. I'd make it a point to take Lilipuna Road, which skirts the bluff and offers some spectacular views of Coconut Island, slowing significantly as I rolled around the horseshoe bend. The islet has such an interesting relationship with its larger island counterpart. Somehow, even though it's just a stone's throw from a major population center, it has managed to remain a remote destination, a clandestine time capsule, the bulk of the research facilities concealed by foliage and the science incognito to outsiders.

I have to admit, part of my motive for featuring Moku O Lo'e in this issue was self-serving, so I might be able to indulge it on the sneak. I wanted to learn more about the mysterious island that I drove past almost every day and witness it first hand, step off the boat and onto its calcified foundation. There's a mesmerizing turquoise gleam to its surrounding waters that I just had to see up close. Sometimes a camera can be a backstage pass. Perks of the job you could say.

From the steep walk down to the dock and the short boat ride

across the channel to the reef-encircled island, my stomach was butterflies all the way. As the shuttle pulled up to a finger landing, Mark Heckman, the Hawai'i Institute of Marine Biology's Community Education Program coordinator, was ushering a group of students onto their larger ferry and waved for me to join him.

Strangely, once on the island, it seemed immensely larger than it looks from Kāne'ohe. One of the island's previous owners, Christian Holmes, made some serious alterations to the islet, drastically changing the geography by expanding the island with the fill garnered by dredging small bays. He also planted a lush tropical landscape of trees and foliage. Saltwater swimming pools, Chinese banyan trees, hammerhead shark research lagoons, avocados and coconuts, dilapidated buildings beset by state-of-the-art research facilities, Mark illuminated the rich history and scientific necessity from north to south and east to west across Coconut Island's 29 acres.

Standing on a grassy rise near the old hotel and saltwater swimming hole, the sandbars and Ko'olau Mountains visible to the north, the sound of traffic long gone and the smell of the ocean on the fresh trades, it was easy to loose myself in the nostalgia, the what-once-was and what-will-be. The island has a deep mana that speaks louder than words.

Mark and his colleagues in the education program have been expanding their outreach and in addition to hosting school groups, now offer docent-led family tours one Sunday a month. The park, the beach, the mall, it can all wait. The next chance I get, I'm taking my family to Coconut Island for the day. —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

Architect
Laura Ayers
talks smart
building and
green roofs
page 26

EVERY MAN'S GARDEN

The Urban Garden Center is O'ahu's community garden

greenmagazinehawaii.com

MARCH/APRIL 2011 // Vol. 3#2

FREE
Please Take One

Kahuku Wind's Silent Generator
Staycation in Style
Bayside Renovation on a Budget



Illustration: Kyle Tanaka

Get Your Green Fix

If you haven't noticed already, GREEN: Hawai'i's Sustainable Living Magazine is now a bimonthly publication. That's right, you're holding the March/April 2011 issue. We took the leap and are publishing six issues a year. This way we can bring you more of the in-depth, informative and smart content you've come to expect from GREEN, all year long.

I have to tell you, for a small publishing company of only a few dedicated and passionate individuals, going from four to six issues is a big deal and we thought long and hard about it. The deadlines will sneak up on us that much quicker and the workload of those extra two issues is heavier than one might think. But the rewards outweigh the risks and we feel that more GREEN is in the best interest of the community and Hawai'i.

After all, sustainable living is a lifestyle, a conscious choice that we should consider everyday, no matter what month, season or holiday. Sustainable living is not a fad or a trend. Beanie Babies, acid-washed jeans, Rollerblades, spinning rims and mens skinny jeans were trends (thank goodness). GREEN is modern life in Hawai'i. It's the issues we face in our modern collective

and the solutions we foster. It's the clothes on our back and the food on our table. It's our attitude toward our natural environment and all the flora and fauna we share these islands with. It's your hard-earned dollar and your voice.

This issue also marks our third anniversary. We're not throwing confetti in the air and cracking open the champagne quite yet, but we are proud that GREEN has established important roots across the islands and continues to be Hawai'i's go-to publication for sustainable living.

And I know that this is not my usual Editor's Note, but sometimes you have to get down to business, put your head down and run. Believe me, I'd much rather share with you my perspective and person trials as I do my best to lead a sustainable lifestyle. I can only hope that you find inspiration to act or fodder for healthy discussion, for or against. We're not here to preach to the choir. GREEN is for both the consciously entrenched and the more recently awakened. Either way, thanks for reading. —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

HIGHER EDUCATION
Creating A New Workforce

CAN'T STOP THE RAIN

O'ahu's Wastewater Problems

greenmagazinehawaii.com

MAY/JUNE 2011 // Vol. 3#3

FREE
Please Take One

DIY: Bucket Gardens
Tin Roof Ranch
Penthouse Remodel



Catching Rain

I've been watching fresh rainwater flush from the rain gutter downspout into our backyard for the last year and a half now. It's not so much that it's wasted water, after all, our verdant backyard slopes downhill from our house and the water is able to naturally filter into the ground, as much as that I know there are better uses for the ample supply of free water other than hydrating the grass. There are fruit trees, herbs, vegetables, orchids, ferns and flowering ornamentals in the yard. And everything is thirsty to some degree.

When a friend asked to borrow my truck to pick up some 55-gallon plastic barrels to start their own backyard water catchment system, it got my mental wheels turning and I started to envision my own system. I offered to drive and we motored to the Pepsi bottling plant in Hālawā Valley. A forklift delivered four empty barrels into the bed of my truck. Forty dollars later and the nauseating stench of concentrated soft drink syrup on the back of my tongue, the guy in the forklift told us they go through at least two of the drums a day. Good to know.

My friend offered me a barrel in exchange for the ride out to Hālawā, just what I needed to get started. Mental sketches were becoming a reality and, truth be told, I referenced the DIY published in GREEN in 2009 ("Rain On Me: Water Catchment for the Urban Gardener," Volume 1 Number 2) to see what other materials I would need.

I've seen a few backyard systems since then and I had a clear idea of what I wanted to water—vegetables, herbs, bananas and papayas—so it was just a matter of rounding up the supplies. There were a couple old, but leak-free hoses under the house so all I needed was a hose bib. I opted for an additional Y fitting so I could have two

hoses at my disposal. Watering with gravity takes a bit longer. A piece of three-inch flexible pipe, an adapter to connect the pipe to the rectangular rain gutter and a couple of cheap fasteners later and I was in business.

After a quick assembly and installation, I stood back to admire the craftsmanship of my homemade system and was excited for the potential of what it could accomplish as well as what it stands for. It's an empowering feeling to go against the grain. I can only imagine it's like having a PV system on your roof and watching the meter spin backwards as the sun powers your home, no grid necessary. I could turn on the water faucet and pay for a forceful flow of water from the spigot, but I'd rather harness the rain and use that free water to nourish my garden.

Entranced in my back-patting glory, the limiting factor dropped a brick on my foot. The barrel was empty. How long would I have to wait for the next rain?

Luckily, the leeward side of the Ko'olau Mountains gets its fair share of rain and my barrel was full within a week. The amazing thing was that it only took one night of an average rainfall to fill it up. You don't realize how much water your roof collects and dashes to the ground until you put all that water in a very large container. And when the tsunami sirens revved up their foreboding whine and everyone dashed to the store to grab a couple flats of bottled water, I cracked a beer and watched the roads surge with traffic, a public works nightmare, content with the 55 gallons of water in my backyard.

—Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

BRING YOUR OWN

Maui leads the ban on plastic bags

greenmagazinehawaii.com

JUL/AUG 2011 // Vol. 3#4

FREE
Please Take One

Guerilla Conservation
Big Island Tea
Fast Food Times



Illustration: Orthneb Arias

Change of Ideas

I grew up watching TV and eating fast food like most people in America, a homogeneous product of our consumer-based culture. On New Year's Eve 1999, sick in bed with a terrible flu for the party of the century, I had plenty of time to come up with New Year's resolutions and decided to give up TV for good, one of the biggest wastes of time possible in our short lives. Besides, the movie *Poltergeist* always freaked me out a bit. At 23 years old, I was on a path of self-discovery and in the summer of 2000 I headed south to Central America. For three months I worked as a volunteer trail guide at a private rainforest preserve in the central mountains. During my stay, I had another profound Ah-ha Moment.

The 485-hectare private preserve was beset by a patchwork of pristine rainforest and pasture land, devoid of trees and trampled by cows. A rocky, rutted dirt road served as a lifeline from a small village to the rainforest preserve's rustic lodging. The network of pastures were scattered along the dirt road, a testament to decades of clear cutting the forest to create grassy expanses for grazing cattle.

You're probably conjuring up some mental image of happy fat cows lumbering across picturesque, verdant terra firma, stopping to graze under a warm tropical sun. Picturesque as it may be, those cows were far from happy and fat. Emaciated and brittle would be a more accurate description. Hiking up the 15-kilometer road with backpacks

full of supplies, it was easy to see protruding hipbones, xylophone rib cages and open sores dotting muddy hides.

These cows, bred solely for low-grade beef, would end up the base protein for TV dinners, pet food and burgers served at fast food joints around the world. I gave up fast food on the spot—the degradation of the rainforest, the lowest quality of food imaginable, the related detrimental health effects, the copious amounts of waste generated from all the take-away containers, all reasons of their own merit to do away with fast food in my life. Now, when I see cars and trucks queuing up through a drive-thru, pouring out onto the street to block traffic, I wish all those people could witness those same sick cows to visually link that rubbery byproduct patty to the detriment of the environment and their own health.

Maybe they know the food is sub-par and just don't care. Perhaps laziness, under the guise of a quick and cheap meal, is the root of the problem. Either way, fast food is the dumbing down of communities and cultures to their locally grown foods and regional cuisines, to their local eateries and home cooked meals. Maybe if we put a tax on big brand fast food, like alcohol and cigarettes, people would think twice about what they are spending their money on and putting into their bodies. And while we're at it, we might as well tax soda, too.

—Kevin Whitton

green

HAWAI'I'S SUSTAINABLE LIVING MAGAZINE

DISAPPEARING SANDS

THE FATE OF HAWAI'I'S MOST PRECIOUS ASSETS

greenmagazinehawaii.com

SEPT/OCT 2011 // Vol. 3#5

FREE
Please Take One

Hand Pounded Pa'i 'ai
Farm Tours
Island Power Plant

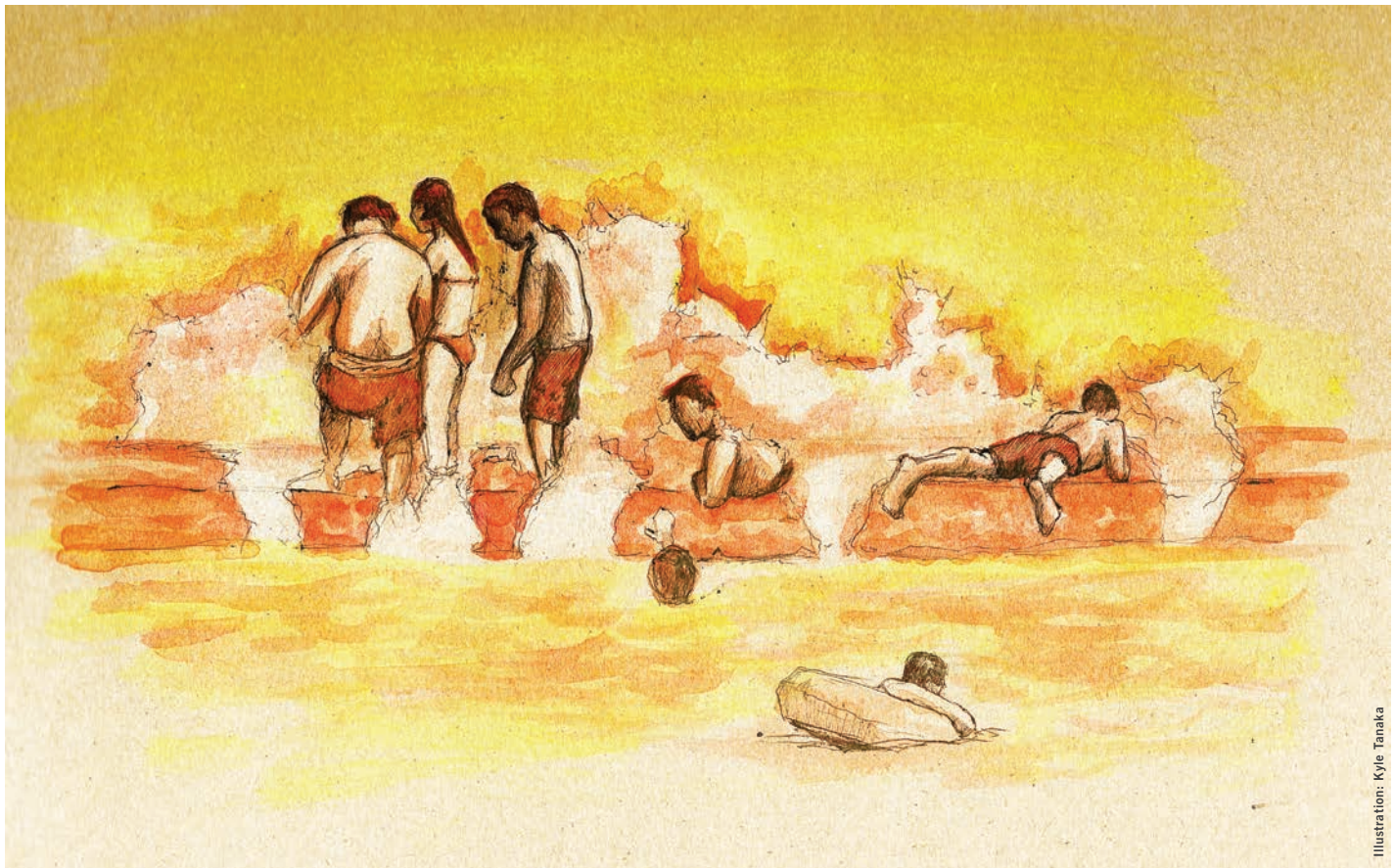


Illustration: Kyle Tanaka

Skin Deep

I have to tell you, interviewing Director of *Acceptable Levels*? Ed Brown for the Q&A piece in this issue really got me thinking about what's in the products my family uses and the chemicals we come into contact with on a daily basis. We buy organic food as often as possible and choose safe and natural beauty and health care products for the most part. Don't get me wrong, we're not eco-psycho, freaking out about every last piece of plastic that crosses our path, because after all, plastic is ubiquitous and that's just the direction our society as a whole has embraced. Just pick up a pen, any pen, blue or black, and it's plastic. It's not like you're going to stop writing. Not to mention, your car is more plastic than metal, even if it is electric.

Anyway, Ed made a good point. There are hundreds of industrial chemicals that now call our flesh bodies Hale Sweet Hale. They are in the water, in the air, basically unavoidable, like the flu, like love. But thanks to the dichotomy of life, as we are exposed to a litany of invisible chemicals all the time, we also have the opportunity to limit our contact to these harmful fabrications.

For me, the issue really hit home as I slathered a palm-full of goeey white sunscreen all over my face, arms and back before I headed out for a surf. What am I putting on my skin? What am I feeding my blood and lymph nodes? I used to go to Long's and buy the biggest, cheapest tube of sunscreen with the highest SPF I could find. Why? Because I really go through the stuff and sunscreen is really, quite expensive. Judging from the amount of people I see out in the water, I'm sure a lot of people can relate.

But really, I should have known better. While living in the Costa

Rican rainforest, I dogmatically applied 100-percent DEET to every inch of my exposed body every night before dusk to forgo the unpleasant experience of being completely dissected by mosquitoes. I did this for a period of about 2 months. No joke—my armpits turned red and peeled (sloughed skin) for about a year after my rainforest tenure. It's like the internal pathway of the chemical from skin to bloodstream to sweat was highlighted by the trauma to the exit point. And now I've traded one chemical for another, rubbing sunscreen on almost everyday laden with PABA, avobezone, benzophenone and homosalate. Does anyone really know what these chemicals are for or what they do? Who cares, it's a bargain. Right?

Wrong. Now I have two daughters and it matters, really matters what's in that sunscreen. I guess I'm never going to get a sunscreen in a plastic-free vessel, but I sure can find a natural and safe sunscreen that has no adverse health affects as it's absorbed through my skin into my body, or my daughters'.

And there's no way around it, safe and natural sunscreen costs more. Is it worth it? For me, yes. No questions about it. You just have to look beyond the pervasive argument heard time and time again: I can't afford an organic apple, so I'll buy a Big Mac meal with fries and a soda. Sure, it seems cheaper in the now, but wait till you're paying for health care for your diabetes. As consumers, we have to be smarter than the advertising campaigns. Think about it, if they could, they'd have you eating mint-flavored dog sh#!. And they'd be making a healthy profit. —Kevin Whitton

green

HAWAII'S SUSTAINABLE

THE HOME ISSUE

greenmagazinehawaii.com

NOV/DEC 2011 // Vol. 3#6

FREE
Please Take One

The Other 99 Percent
The New Living
Ridgeline Retreat

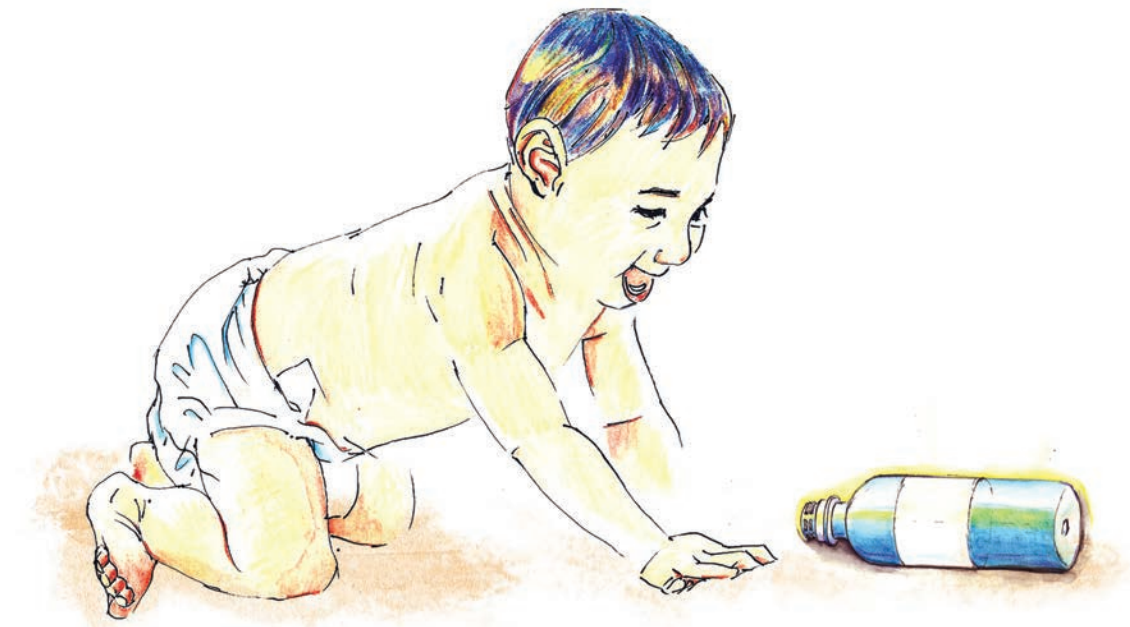


Illustration: Orthreb Afros

Generation S

My three-year-old daughter opens the fridge, grabs the green juice and asks for a pink cup. “I’m going to pour it, Dad,” she says, as I unscrew the cap. She fills the cup with minimal spillage, shaking the drops from the empty plastic jug. “All gone. I’m going to recycle,” she lets me know, and walks to the door, jug in hand.

“OK, let’s go recycle the bottle,” I say, enthusiastically. We walk outside to the three waste bins on the side of the house. “Which one does it go in?”

“Blue!” she yells. I open the lid and she gets on her tiptoes and drops the bottle in, trying to peer over the edge, to no avail, to see where it went.

There was no lesson plan to teach her recycling, no homework or drills. And we didn’t read her any kids books about recycling, either. No need. She watches her parents do it and she naturally does it. She wants to recycle. Not because she knows why, but because it’s the only way she knows.

While at an interview for one of the vignettes in the feature story, “Oh, Yes We Can,” I was invited into a friendly couple’s home to enjoy some fresh ginger and mint tea, garden ingredients, while we chatted about sustainability. Colorful kid toys dotted the living room and a vast array of classroom artwork made a quilt of color across the dining room walls. It was reminiscent of my home, but a lot tidier.

Kids are sponges, we all know that, and here’s this family, they have a PV system, they grow as much of their own food as they can (and the kids have their own gardening plot), they’re running LED lights in the whole house, Energy Star appliances, low-flow faucets—you name it and these kids are growing up with principles and

examples of sustainability as the norm. I call them Generation S.

The more that we educate ourselves now about a sustainable lifestyle and make those conscious changes and choices, the easier it will be to achieve a higher level of sustainability as a community and throughout society at large down the road. Because as our children grow up in this environment, where sustainability and conscious living are the norm, where it’s taught in schools and practiced at home, sustainable living will just become living. And maybe green will just be a color again.

“Dad, can I have some more green juice?” my daughter asks me, pulling hard on the handle to open the fridge.

“Of course you can,” I respond. She can have more of anything that’s packed with fruits and vegetables and cleverly disguised as juice.

She moves a few things around on the bottom shelf, a little refrigerator Rubik’s Cube, and pulls out the half gallon of green juice. “OK, I’m going to pour it myself,” she says with confidence. With two hands she carries the jug to the counter, gets up on her little wooden stool and unscrews the cap, leaving the refrigerator door ajar, dividing the narrow kitchen like a shoji screen.

“Go for it,” I reply, grabbing a kitchen towel, anticipating a spill. Now, if I can only get her to remember to shut the refrigerator door.

—Kevin Whitton

green

HAWAI'I'S SUSTAINABLE LIVING MAGAZINE

WAYFINDERS

HAWAI'I'S PRACTICAL PIONEERS

Master Navigator Chad Baybayan finds balance between economy and culture

greenmagazinehawaii.com

JAN/FEB/MAR 2012 // Vol. 4#1

FREE
Please Take One

The Experiment: Trash Free Year
Kaua'i Fungi
Big Island Carbon



Illustration: Abi Braceres

You Are What You Consume

Have you ever heard of photojournalist Peter Menzel, co-author of the book *Hungry Planet: What the World Eats*? If you're not familiar with the man behind the lens, perhaps you have seen his images. *Time* magazine published a series of his shots from the book project, families from around the world with a week's worth of the food and beverage they consume sprawled out in front of them. The breadth of his work found in the book documents 30 families from 24 countries and are as telling of regional diet, custom and culture as they are of consumerism and waste.

Families from Great Britain, Kuwait, Japan and the United States proudly display a colorful hodgepodge of boxes and plastic packages that house their processed food. The Californian family even displays a couple russet potatoes and three meager florets of broccoli, the paltry vegetables virtually lost in a sea of brightly colored boxed products. A Mexican family shows off a wide variety of produce, juxtaposed by a table filled with two-liter bottles of Coke. I have to give props to the German family, which included a healthy showing of beer and wine on their weekly table.

On the other end of the spectrum, the Egyptian family prominently displays a wealth of vegetables and herbs, which leave little room on the table for just a few packaged goods. The families from Ecuador and Bhutan both have an arrangement of only fruits, vegetables, herbs and starches with no packaging to be seen, save for the burlap sacks full of tubers and rice.

One can make a direct correlation between what these families consume and the amount of waste they generate on a weekly basis based on their diet and how their food is packaged. Using these families as an average in their respective communities, extrapolate their amount of weekly garbage throughout their community and you can get a good idea of the amount of trash generated in Newport Beach, California versus Ulaanbaatar, Mongolia. And hopefully, as you realize

how much packaging you're bringing home in addition to the Cheerios, you get a little upset, because it doesn't have to be this way.

But it's one thing to just get mad and another to do something about it. And that's where I have to tip the hat to Honolulu's own Jennifer Metz. Ms. Metz, a woman of strong conviction, took on the role of social scientist last year, living a year-long experiment to exist trash free for 2011, all the while documenting her progress on her well-written blog, trashfreeyear.com. She summed up her experience in our feature story this issue, *Excess Baggage* (page 40).

To overcome the social norms of Styrofoam to-go containers and cereal packaged in a plastic bag wrapped in a cardboard box, her experiment took a great deal of effort and out-of-the-box thinking to find products with little to no packaging and goods that could be recycled, reused or composted upon their initial retirement. She was up against a food distribution system that doesn't know how to handle someone asking for their fresh deli meats and cheeses to be placed in a customer's reusable container, as easy as it may seem. At the end of her year, Jen had created a mere three-quarters pound of trash that fit into a one-gallon Ziploc bag. The rest of her waste was recycled, composted or repurposed—amazing and highly commendable.

We all owe Jen a hearty thank you and a collective debt of gratitude. Why? Because she documented her trials and tribulations so you can actually live trash free. She took away the guess work so you don't have to go through your own year-long experiment. You can jump right in and get to work scaling down your waste. With her strategies and tips, tried and true, the groundwork has been laid.

Let me guess. You're thinking, good for me, I'm half way there. I buy my granola, rice and flour from the bulk bin. I say, good for you. Now just remember to bring your own reusable container along instead of using the plastic bag they provide. OK, now you're on the right track. —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

THE ART ISSUE

MODES of EXPRESSION

greenmagazinehawaii.com

Sweet Artisan Honey
Hawai'i Kākou Mural Project
Thread Count

APR/MAY/JUN 2012 // Vol. 4#2

FREE
Please Take One



Illustration: Kyle Tanaka

'Til We Meet Again

I was washing the dishes after the kids went to bed—it's one of my dailies, daily chores that is—singing along with Greg Graffin (Does anyone else in their thirties still listen to Bad Religion? I hope so.), subconsciously reflecting on a day of selling ad space, editing copy, building a sand box for my daughters, watching the youngest take her first steps unaided across the lanai, planning editorial for future issues, changing diapers, chatting with a good friend at the Surfrider Foundation and watching whitewater roll in across South Shore reefs, wishing I could include a surf in all that wonderful mess of my life. The melody, the rhythm (I love that word, no vowels), the trusty chords, the concerted effort of drums, bass, lead guitar, rhythm guitar, vocals and message, coming together in a seamless streaming wavelength of empowering sound through my headphones straight into my brain, into my conscious that lurks right behind my eyes and expands right through the back of my skull even though I've never really seen it. The music has my full attention, but at the same time it allows my brain to wander and sort out all the day's input, to file it away for possible safekeeping or keep it close to my tongue for immediate recall. It is relaxing and invigorating even though I'm tired and the kink in my neck will not abate.

Don't be a henchman/Stand on your laurels/Do what no one else does and praise the good of other men for good man's sake/And when everyone else in the world follows your lead/Although a cold day in hell it will surely be/That's when the entire world shall live in harmony.

Art surrounds us everyday and gives us the opportunity to have a voice and make a difference in our community, just like our choice to live sustainably. And that's why I, and consequentially GREEN, won't be celebrating Earth Day, Earth Month or any other Hallmark eco-holiday this spring. Sure, I'll give sustainability some flowers on April 22 to reaffirm our relationship even though GREEN (myself included) celebrates this mantra, this mission, this way of life everyday. No longer do we need a holiday to recognize reasonable, smart, conscious thinking because it is everyday thinking. Sustainability is not a victim and it's not the new kid on the block anymore. It is a leader for policy, government and community through non-partisan action and common sense.

When I think of spring, I think of the proliferation of nature, flowers, leaves, growth, renewal and art. I think of paint on canvas, thick and colorful. I think of printed words on a musty page. I think of the creative spring (n. the motive for or origin of an action, custom.) that awakens in each of us. Hopefully you have the prescience to recognize the eternal muse and dive into the natural world through whichever medium suits your calling.

And so this spring we bring you the Art Issue, a departure from the overwhelming bulk of the manufactured Earth Day media you'll be bombarded with this April, including the same 10 simple steps to save the Earth that are rehashed every year. Stand strong with me as we continue to celebrate sustainability all year long and broaden the conversation into all aspects of our lives.

—Kevin Whitton



green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

greenmagazinehawaii.com

JUL/AUG/SEPT 2012 // Vol. 4#3

FREE
Please Take One

Laws Of Nature
Big Bad Weeds
One Song Farm



Illustration: KT

Value and Vultures

Eric had been surfing his whole life, or for as long as he could remember. He had a modest upbringing, but full of love and support none the less. He lived with his mom in a two-bedroom apartment on Pualei Circle, an alcove of low-rise apartments crammed in between Diamond Head and Kapi'olani Park. From the lanai, barely wide enough for a beach chair, the third floor offered what a realtor would call a “peek-a-boo view” of the ocean.

Eric had a good head on his shoulders, understood the value of hard work and of the all mighty dollar, and that a dollar's value could be stretched in other parts of the world. He started working at sixteen to support his surfing habit (buying boards and boardshorts mainly) and to put gas in the old gold Honda Accord he bought from his grandfather for a paltry \$200. He did his homework, bussed tables and surfed. It was his life.

By the time he was eighteen, Eric had been surfing for nine years and had grown accustomed to the big, powerful surf on the North Shore. And every summer, even though he was a quick bike ride or even a leisurely stroll from a few good south shore breaks, the small, lackluster waves just didn't get his heart pumping like Off The Wall or Pipeline could. So on his nineteenth birthday he bought himself a plane ticket to Mainland Mexico, to Guadalajara actually, where he took a bus to a little known fishing village called Pescales. He'd heard a few stories from traveling surfers on the North Shore about the black sand beaches, heaving barrels and all the fish you could eat for just a few pesos.

The bus ride was a horrid experience, but it was cheap, and once the dust settled after the fuming exhaust factory on wheels limped away, Eric saw that Pescales was nothing more than a few wood and palm frond palapas and a couple cement dwellings set back off the high tide line of a long, straight stretch of beach. There were fishing boats pulled up on the beach near a rivermouth, maybe a quarter mile to the north, and just a lonely dirt road leading down the beach to the south, into the scrub filled with snakes and scorpions.

Eric made a B-line to the nearest palapa to get out of the blistering afternoon sun, his heavy board bag in tow. There were three rows of picnic benches covered in red and white checkered plastic table cloth—family style eating. A young lady—short, dark skin with the shine of worn leather, thick black braid that ran down to the small of her back, small hands, pudgy fingers—took his order. It was an awkward situation as he didn't speak Spanish and she didn't speak English, but in the end he had a cold beer and a whole fish on a plate with potatoes and handmade tortillas. His meal was 18 pesos, three

dollars. He was freaking out.

A local man sitting a few tables away, also watching the surf, approached him after the young lady cleared his plate. His name was Joaquin. Joaquin lived in one of the cement dwellings with his young wife and their two-year-old son. The edifice had an extra room he rented out to the infrequent traveling surfer or weary fisherman. Joaquin's wife would cook three meals a day for their guest, inclusive in the small daily fee. Eric was game. It was right in his budget, about \$10 a day. He stayed for a month.

Eric went back every summer, religiously, staying with Joaquin and his family for a month at a time. He budgeted just enough for his month-long excursion, that same rate from Joaquin he had come to expect, along with the good cooking and treatment of American surf royalty.

On his fourth annual excursion, Eric noticed some changes in town. More restaurants had sprung up as well as two new hotels, one with four rooms and the other with six. There were also a few more surfers hanging around, Americans from the West Coast and Texas (of all places). Joaquin asked Eric if he could charge him \$15 a night. Fish had become more expensive and the new hotels (the six-room hotel had a pool table) were attracting return guests that had previously stayed with him. Eric apologized and said he only had enough for \$10 a night. Joaquin obliged.

When Eric returned his fifth year, he once again looked up Joaquin. Joaquin again asked for a higher rate for his services, but Eric, feeling dominant, proud and testing his prowess at haggling, was able to keep his room for the month at his usual rate. Of course Eric could afford the extra five dollars a night, but to Eric, it was principal. It was Mexico. It was supposed to be dirt-cheap.

Eric returned the next year, his sixth, happy to see Joaquin in the small cement house and get as close to comfortable as possible in the small guest room. But an old, scruffy man named Hector answered the door and relayed a message to Eric. Joaquin could not afford to stay in Pescales, renting rooms to surfers. They did not pay their fair share, and Joaquin was forced to take work farming in the mountains to make ends meet.

Shit out of luck, Eric retired to the six-room hotel and paid \$25 a night. Realizing he'd taken Joaquin's hospitality for granted and lost a good thing, a product of his own frugality, ego and lack of foresight, he found it difficult to enjoy the pounding surf that usually gave him such a rush. Remorseful, he left after five days. It was his last trip to Pescales. —Kevin Whitton

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

**Modern
Ahupua'a**
Managing Hawai'i's
precious resources

LEED Platinum Home

Sustainable building is the new norm

greenmagazinehawaii.com

OCT/NOV/DEC 2013 Vol. 5#1



**+ The State of
Sustainability**

Flying The Flag

*White collar conservatives flashing down the street,
Pointing their plastic finger at me.
They're hoping soon my kind will drop and die,
But I'm gonna wave my freak flag high, high.*

—James Marshal Hendrix, 1967

We all have a freak flag. I'm the first to admit and wrap myself up in it. It's comfy and cozy, most of the time, but it's not always an easy thing to hoist up in the air and wave around. It's been in my pocket my entire life, even though I've only had the courage to bust it out as of late. Sure, some people have no problem trotting around with their flag wrapped around their head like a biker's doo rag, which is fine. Good on them. Confidence, self-assurance, mastery of relevant facts and dialogue, originality—let's be honest, those traits are reserved for a select lucky few. Most of us saunter around looking for purpose and shared commonality by digesting the ethics and opinions in the current social sphere, deciding which are applicable to our lives.

I have a lot of flags to fly, as we all do, and I've been walking this earth wondering what my flag looks like. I'm a husband and a father, a surfer, a writer, a naturalist, a thinker and an underground table tennis fanatic. What else? I think music trumps language and serial commas are annoying to me, both apparent in this magazine if you look closely.

Our flags aren't always outwardly apparent. I didn't even realize mine was in my back pocket until I saw a young mother of two throw a Styrofoam plate of spent *casado* (rice and beans) out the window of the laboring bus that my wife and I were traveling on to Mal Pais on the northwestern Costa Rican coast. The forest eats it, that's what someone said. That was the accepted ethos and that pissed me off because we were passing through the most beautiful tropical landscape I'd ever seen at that point in my life.

That fire has never left me and I continue to feel the responsibility to live harmoniously on this floating blue ball, to wave my flag and share with others my mantra, my ethos. Lucky for me, I've stumbled upon a rooted community of like-minded people waiving the same flag, which has empowered me to pull mine out of my back pocket, hoist it up on a flag pole and take pride as it stretches out confidently in the trade winds. It's the reason why I started publishing *Green* in 2009 and why I'm so thankful that I'm able to relaunch the magazine with Element Media to keep the conversation alive and poignant.

So, thank you friend, good neighbor, for all you do, anonymous you, for your flag, your colors, for your effort to make these islands and this world a better place for all of us and our progeny. It does not go unnoticed. In fact, it is celebrated. You are *Green Magazine Hawai'i*. You are the stories on these pages and the heart of the effort. You are the glue that gives this dialogue traction. Thank you for your freak, your courage to go against the grain, to swim upstream and promote positive change, no matter how strong the current to a sickening sea of fast food, apathy and placid homogenization. —Kevin Whitton

Published by Element Media, Inc.

VOLUME 5 :: NUMBER 1 :: OCTOBER/NOVEMBER/DECEMBER 2013

Publishers

Jamie & Naomi Giambrone

Associate Publisher

E. S. Adler

Managing Editor

Kevin Whitton

Staff Writer

Alyssa Fukumoto

Contributing Writers

Tiffany Hervey, Jack Kittinger, Michael Kramer

Art Director

Kyle Tanaka

Contributing Photographers

Willi Edwards, Isaac Frazer, Augie Salbosa, Kevin Whitton

Advertising Director

Brian Lewis

Publishers' Assistant

Chelsea Tsuchida

Advertising Inquiries

esadler@elementmediahi.com

Editorial Inquiries

kevin@elementmediahi.com

Advisory Board

Stuart H. Coleman, Hawaii Coordinator Surfrider Foundation
Mike Fairall, Principal RME Mokulua High Performance Builder
Alan Hornstein, President Lenox Metals

Subscribe and read online at greenmagazinehawaii.com. Contact Element Media at 1088 Bishop Street, Suite 1130, Honolulu, HI 96813; 808.737.8711. Follow *Green* at [facebook.com/GreenMagazineHawaii](https://www.facebook.com/GreenMagazineHawaii) and Twitter @greenmaghawaii.

Green Magazine Hawai'i is a quarterly publication available through subscription, direct-mail program and bookstores throughout Hawai'i. The views expressed within *Green Magazine Hawai'i* do not necessarily reflect the opinions of management and ownership. *Green Magazine Hawai'i* may not be reproduced without written permission from the publisher.



Cover Photo: Augie Salbosa

ON THE COVER

A complete deconstruction and rebuild of this Wa'ahila Ridge home incorporates universal design, passive cooling, energy efficiency and multi-generational living. The end result, a LEED Platinum certified home.

Rooftop Solar: HECO speaks out + Hawaiian Monk Seals

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE



**KAKA'AKO
BUILD-OUT**
MEET URBAN SUSTAINABILITY

greenmagazinehawaii.com

JAN/FEB/MAR 2014 Vol. 6 #1



What's Sustainable About Increasing Population Density?

Great question. It's one that I had to ask myself to wrap my head around the sustainability of redeveloping Honolulu's Kaka'ako district. Let's face it, on the surface, dozens of high-rise residential towers and tens of thousands of additional residents jammed into 600 acres does not scream sustainability when traffic congestion, sewer woes and an imposing concrete jungle immediately come to mind. Organic gardening, saving endangered native Hawaiian plants, reusing lumber, turning off the lights when you're not in a room, composting worms, that stuff screams sustainability.

But as sustainable practices spread through society and become the norm, like organic gardening and energy efficiency, they will bleed into less sexy areas of life that seriously need a dose of consciousness, like large-scale development. Let's not be naïve here, the population in Hawai'i will continue to grow and people will need dwellings to live in. This isn't a Keep Kaka'ako Kaka'ako debate. There's no bluff to protect, no native plants to save and no developers to keep out. By developing a unique eco-urban community in Kaka'ako there is an opportunity to save acres and acres of agriculture land that could potentially be paved over for housing tracts if development were to occur in central O'ahu instead of Kaka'ako.

Look at the bottom line. Kaka'ako has roads, infrastructure and businesses already in place. By incorporating permanent residents into the equation housed in towers and condominiums, thousands of people will share a structural footprint of just a few acres. If agriculture land is rezoned for residential and housing tracts take the place of pineapples, it would require hundreds of acres to accommodate the same number of residents that would inhabit a tower or two in Kaka'ako. Not to mention, development of agriculture land would require building roads and infrastructure and take away from the natural character of the central plateau. It would also add to traffic congestion on the freeways.

Because there are several developers building towers in Kaka'ako, varying degrees of sustainable building practices will be employed in each new construction project. However, an overall master plan for the redevelopment of Kaka'ako calls for each developer to follow rigid guidelines to create a cohesive sustainable urban community that promotes a live-work-play lifestyle without getting in a vehicle. It accentuates nature when possible and promotes walking, bike riding, public transportation and community events.

While there's no single silver sustainable bullet when it comes to population growth and residential development on O'ahu, there are best-case scenarios that maximize resources and push the discussion of sustainability forward. Much like the success of rooftop solar in Hawai'i as a model to others around the globe, Kaka'ako has the potential to become a sustainable urban utopia in the Pacific. Let's just hope the vision comes to fruition. —Kevin Whitton

Ready to weigh in on the conversation or start your own? Please, raise your voice and send your letters to the editor to kevin@elementmediahi.com. What do you have to say?

Published by Element Media, Inc.

VOLUME 6 :: NUMBER 1 :: JANUARY/FEBRUARY/MARCH 2014

Publishers

Jamie & Naomi Giambone

Associate Publisher

E. S. Adler

Managing Editor

Kevin Whitton

Staff Writer

Alyssa Fukumoto

Contributing Writers

Stuart Coleman, Tiffany Hervey, Michael Kramer, Natalie Schack, Blair Townley, Maile Sacarob Woodhall

Art Director

Keith Usher

Contributing Photographers

Dave Miyamoto, Kevin Whitton

Advertising Director

Brian Lewis

Publishers' Assistant

Chelsea Tsuchida

Advertising Inquiries

esadler@elementmediahi.com

Editorial Inquiries

kevin@elementmediahi.com

Advisory Board

Stuart H. Coleman, Hawaii Coordinator Surfrider Foundation
Mike Fairall, Principal RME Mokulua High Performance Builder
Alan Hornstein, President Lenox Metals

Subscribe and read online at greenmagazinehawaii.com. Contact Element Media at 1088 Bishop Street, Suite 1130, Honolulu, HI 96813; 808.737.8711.

Follow *Green* at [facebook.com/GreenMagazineHawaii](https://www.facebook.com/GreenMagazineHawaii) and

Twitter [@greenmaghawaii](https://twitter.com/greenmaghawaii).

Green Magazine Hawaii is a quarterly publication available through subscription, direct-mail program and bookstores throughout Hawai'i. The views expressed within *Green Magazine Hawaii* do not necessarily reflect the opinions of management and ownership. *Green Magazine Hawaii* may not be reproduced without written permission from the publisher.

ON THE COVER

There's nothing that sums up the new vision of Kaka'ako better than a bicycle. With the erection of residential towers and Complete Streets that promote walking and biking in a live-work-play community, this experiment in urban sustainability could be Hawai'i's biggest achievement yet.



Cover Photo: Keith Usher

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

THE POWER OF PEOPLE



I CARE ABOUT
CONSERVATION

I CARE ABOUT
AGRICULTURE

I CARE ABOUT
BIOFUEL

I CARE ABOUT
ENERGY

I CARE ABOUT
RECYCLING

greenmagazinehawaii.com

APR/MAY/JUN 2014 Vol. 6 #2



Efficiency First, My Friend

*"My bucket's got a hole in it,
I can't buy no beer."*

—Hank Williams, 1949

In preparation for Mike Fairall's story ["Checking All The Boxes," page 34] about green certification for homes, Mike and I had a great chat about sustainable building and design practices at his Kailua office. Mike is so well-versed in sustainable building practices, it's mind-boggling. After an hour of total absorption and a few pages of scribbled notes, his ideas about the relationship between energy efficient and money-saving building practices, a relationship that is unfortunately uncommon in Hawai'i's building industry, struck a chord. I realized that I had encountered these same philosophies several years prior when I interviewed John Harrison about his energy-neutral home for the first issue of *Green Magazine Hawai'i* (Spring 2009).

The retired coordinator of the University of Hawai'i at Mānoa's Environmental Center and founder of environmental consultant company 3E Advisory Service was giving tours of his ultra-efficient Nu'uano Valley home to anyone interested in learning about energy efficiency. John's home had it all in regards to sustainable design: passive cooling, solar attic fans, radiant barrier, insulation, energy-efficient appliances, water saving features, storm water management, reused and recycled materials, LED lighting, a solar hot water system and the feather in his hat, a five-kilowatt photovoltaic system with a battery backup. At the time, his home was one of only a handful of truly sustainable homes in Hawai'i.

John impressed on me one thing in particular, his underlying principal for energy efficient homes. Plug all the holes in your bucket before filling it up, he said, otherwise there will inevitably be leaks. John was making an analogy to the home being the bucket with energy going into the bucket. The holes are the necessities that require energy, like the hot water heater. Plug the holes, save energy, save money—simple. Common sense.

John suggested to start small when filling the holes, working within a homeowner's budget to make one upgrade at a time—install solar attic fans, a solar hot water heating system, use natural lighting wherever possible and CFL and LED lighting when necessary and switch to energy-efficient appliances. Only when a home's energy usage is as low as it can be, only then should the homeowner consider a photovoltaic system. With a smaller energy demand and no energy leaks, a small PV system will suffice to power the home, which in-turn saves the homeowner even more money, both on the size of the system and the energy savings from the utility bill. *Voila*, the bucket is full and remains so.

As homeowners rush to solar as a blanket solution for energy savings, keep in mind that if you haven't plugged the holes in your bucket—taken the many other energy saving steps first—then you'll be installing a much larger solar system (which will cost more money), you'll still be wasting energy and you'll be contributing to grid saturation and potentially keeping your neighbor from installing a solar array on their home. That's a hard pill to swallow when you're trying to do the right thing, but that's the reality. Remember, sustainability is synonymous with common sense. Mike summed it up perfectly during our chat, "Efficiency first, renewables second." —Kevin Whitton

Published by Element Media, Inc.
VOLUME 6 :: NUMBER 2 :: APRIL/MAY/JUNE 2014

Publishers
Jamie & Naomi Giambrone

Associate Publisher
E. S. Adler

Managing Editor
Kevin Whitton, kevin@elementmediahi.com

Staff Writer
Alyssa Fukumoto

Contributing Writers
Mike Fairall, Tiffany Hervey, Michael Kramer, Natalie Schack

Art Director
Keith Usher

Contributing Photographers
Dave Miyamoto, Kevin Whitton

Sales Executive
Brian Lewis

Administration
Kathy Bell, Patrick Garrett, Sally Shaner

Publishers' Assistant
Chelsea Tsuchida

Intern
Kara Jernigan

Advertising Inquiries
esadler@elementmediahi.com

Advisory Board
Stuart H. Coleman, Hawaii Coordinator Surfrider Foundation
Mike Fairall, Principal RME Mokulua High Performance Builder
Alan Hornstein, President Lenox Metals

Subscribe and read online at greenmagazinehawaii.com. Contact Element Media at 1088 Bishop Street, Suite 1130, Honolulu, HI 96813; 808.737.8711. Follow *Green* at [facebook.com/GreenMagazineHawaii](https://www.facebook.com/GreenMagazineHawaii) and Twitter @greenmaghawaii. *Green Magazine Hawai'i* is a quarterly publication available through subscription, direct-mail program and bookstores throughout Hawai'i. The views expressed within *Green Magazine Hawai'i* do not necessarily reflect the opinions of management and ownership. *Green Magazine Hawai'i* may not be reproduced without written permission from the publisher.



ON THE COVER

People are the power of change in the realm of sustainability. Whether working toward a cleaner environment, healthier food or a better society, it takes hard working, courageous and dedicated individuals striving to achieve a better world for the next generation.

Cover Photos: Dave Miyamoto

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE



GOING SOMEWHERE?

greenmagazinehawaii.com

JUL/AUG/SEP 2014 Vol. 6 #3



0 40232 07302 1

SET SAIL

Drifting

On a sea of forgotten teardrops

On a lifeboat

Sailing for your love

Sailing home

— Jimi Hendrix, 1970

I like boats. I like gliding effortlessly through the ocean, the rhythm of the salt water slapping up against the hull, the constant rocking of the craft, the sudden rise under the boat from passing swells that keep you on your toes to stay balanced and upright. I like floating in the ocean—simple pleasures.

When I received an invite recently to sail on Hōkūle'a, I was overjoyed and honored. Of course, I jumped at the opportunity to sail on such an iconic vessel. The Polynesian Voyaging Society had invited a group of journalists aboard Hōkūle'a and its sister canoe, Hikianalia, for an afternoon on the water to promote the Mālama Honua Worldwide Voyage. Over the next four years, the voyaging canoes will cover 47,000 nautical miles to 85 ports in 26 countries around the globe, navigating solely by traditional wayfinding techniques. A reflection of the name for the voyage, their mission is to grow the global movement toward a more sustainable world through education, outreach and by example.

At the Marine Education and Training Center on Sand Island, where the voyaging canoes were docked, 30 or so excited journalists were broken up into two groups to board each vessel. I was hoping to sail on Hōkūle'a, perhaps to feel some of the history, struggle and mana of the craft. When my name was called to ride the Hikianalia, I must admit, I was a bit disappointed. What a First World reaction, huh?

Once onboard the Hikianalia and motoring out of Ke'ehi Lagoon, I realized right away that this voyaging canoe is just as awe-inspiring and special as Hōkūle'a and an integral part of their global message of sustainability. The 72-foot Hikianalia, launched in 2012, is powered by photovoltaic-driven electric motors. While the crew of Hōkūle'a will still be navigating by way of stars, waves, wind and birds as mapping points for directions, Hikianalia will serve as Hōkūle'a's support and communications vessel, documenting every moment of the journey and broadcasting the events in real time across the world, all with solar-powered equipment.

Hikianalia is like a mirror of who we are today, an amalgam of history, culture and technology. It's the perfect representative of modern-day sustainability. It is also one sweet ride. Sitting on the deck, leaning up against the cabin and staring off across the ocean, the horizon seemed so far off, the ocean so immense and powerful. I thought about the canoes' crewmembers that would soon cross oceans without seeing land for weeks at a time. I love boats, but I sure was glad to see Honolulu off the starboard side. —Kevin Whitton

Published by Element Media, Inc.

Publishers

Jamie & Naomi Giambone

Associate Publisher

E. S. Adler

Managing Editor

Kevin Whitton, kevin@elementmediahi.com

Staff Writer

Alyssa Fukumoto

Contributing Writers

Tiffany Hervey, Alyssa S. Myers

Art Director

Keith Usher

Contributing Photographers

Dave Miyamoto, Kevin Whitton

Administration

Kathy Bell, Patrick Garrett, Sally Shaner

Publishers' Assistant

Chelsea Tsuchida

Intern

Kara Jernigan, Emma Ka'aha'aina, Lauren McNally

Advertising Inquiries

esadler@elementmediahi.com

Advisory Board

Stuart H. Coleman, Hawaii Coordinator Surfrider Foundation
Mike Fairall, Principal RME Mokulua High Performance Builder
Alan Hornstein, President Lenox Metals

Subscribe and read online at greenmagazinehawaii.com. Contact Element Media at 1088 Bishop Street, Suite 1130, Honolulu, HI 96813; 808.737.8711.

Follow *Green* at [facebook.com/GreenMagazineHawaii](https://www.facebook.com/GreenMagazineHawaii) and Twitter @greenmaghawaii. *Green Magazine Hawaii* is a quarterly publication available through subscription, direct-mail program and bookstores throughout Hawaii. The views expressed within *Green Magazine Hawaii* do not necessarily reflect the opinions of management and ownership. *Green Magazine Hawaii* may not be reproduced without written permission from the publisher.



ON THE COVER

Petroleum-based transportation is one of the biggest contributors to global warming and the environmental degradation associated with the trend. Hawaii is making progress toward cleaner, more efficient modes of transportation, but are we reaching our goals with enough urgency to reduce the negative effects of climate change?

Cover Illustration: Keith Usher

SUSTAINABLE TOURISM + PINK IS THE NEW GREEN AT THE ROYAL HAWAIIAN

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

MĀLAMA HONUA

A WORLDWIDE VOYAGE FOR GLOBAL SUSTAINABILITY

greenmagazinehawaii.com

OCT/NOV/DEC 2014 Vol. 6 #4



0 40232 07302 1

HANG UP THE KEYS AND TURN OFF THE COMPUTER

What makes a vacation sustainable? Is it purchasing carbon credits to feel better about the negative impacts of the plane flight? Is it turning off the air conditioning when you slide into your hotel room? How about choosing to eat at restaurants that source their meat and produce locally? Do you change out the towels everyday or keep the same towel in the name of water conservation?

I went on vacation with the fam this summer—wifey, two girls. We took a four-day trip to Kaua'i. We love the laid-back, low-key vibe, the beaches, the funky little towns, good food and good friends. We escape to Kaua'i often to get away, usually staying on the north shore, but decided to mix it up this time, so we posted up in Po'ipū. There was south swell in the water and rain in the forecast, so the south shore seemed the obvious choice for this beach-going family. It's always sunny in Po'ipū, right?

Quality family time always recharges my battery. We were in the water everyday. My six-year-old recently started snorkeling and couldn't get enough all weekend. She was swimming laps in this little cove, pointing at the fish. I could hear her giggling through the snorkel. My wife was happy to relax with the kids and soak up the sun. Wai'ohai was breaking and the surf was fun our entire stay. Good stuff.

Where's the sustainability contingent you might ask? I'll be the first to admit, no, I did not offset my airplane flight with carbon credits. What I found most impactful during our stay was something that was very easy to do. Other than driving from the airport to the condo and back, I didn't drive the rest of the time. For me, this is a big deal. I drive everyday, whether it's to work, to the beach, taking the kids to school or soccer or piano lessons—being in the car is a part of daily life, taken-for-granted locomotion. To break that cycle, even if only for a few days, felt so good. To bring life back into a bubble that stretched from the beach to the coffee shop across the street was rejuvenating for my soul. I don't think I've ever been on vacation and used less than a quarter tank of gas for an entire week.

Most important of all, more than turning on the fans and turning off the air conditioning, more than eating at establishments that source local food, more than not throwing the towels on the floor everyday for a fresh set, the uninterrupted time with the family is when the seeds of sustainability are planted. Snorkeling over the reef, collecting wiliwili seeds with the kids, walking to the beach, sharing good times—that's the beauty of living simply, out of the car, away from the computer, perfectly sustainable.

—Kevin Whitton

Published by Element Media, Inc.
VOLUME 6 :: NUMBER 4 :: OCTOBER/NOVEMBER/DECEMBER 2014

Publishers
Jamie & Naomi Giambrone

Associate Publisher
E. S. Adler

Managing Editor
Kevin Whitton, kevin@elementmediahi.com

Staff Writer
Alyssa Fukumoto
Lauren McNally

Contributing Writers
Rafael Bergstrom, Stuart H. Coleman, Tiffany Hervey, Lindsey Kesel,
Alyssa S. Navares Myers

Art Director
Keith Usher

Contributing Photographers
Dave Miyamoto, Kevin Whitton

Administration
Kathy Bell, Sally Shaner

Publishers' Assistant
Chelsea Tsuchida

Advertising Inquiries
esadler@elementmediahi.com

Advisory Board
Stuart H. Coleman, Hawaii Coordinator Surfrider Foundation
Mike Fairall, Principal RME Mokulua High Performance Builder
Alan Hornstein, President Lenox Metals

Subscribe and read online at greenmagazinehawaii.com. Contact Element Media at 1088 Bishop Street, Suite 1130, Honolulu, HI 96813; 808.737.8711. Follow Green at [facebook.com/GreenMagazineHawaii](https://www.facebook.com/GreenMagazineHawaii) and Twitter @greenmaghawaii. *Green Magazine Hawaii* is a quarterly publication available through subscription, direct-mail program and bookstores throughout Hawaii. The views expressed within *Green Magazine Hawaii* do not necessarily reflect the opinions of management and ownership. *Green Magazine Hawaii* may not be reproduced without written permission from the publisher.



ON THE COVER

There are thousands of great shots of the Hōkūle'ā. We purposely departed from the ubiquitous shot—sails raised, hulls cutting through the water—to focus in on the crew as well as canoe. After all, without the knowledgeable and dedicated crew, without the shared purpose of spreading sustainability around the world, it's just another canoe.

Cover Photo: © 2014 Polynesian Voyaging Society/Ōiwi TV. Maui Taotaha

IS LNG RIGHT FOR HAWAII? + POISONED PARADISE + HO'OKELE SCHOOL

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

THE NATURE CONSERVANCY
CELEBRATES 35 YEARS IN HAWAII

greenmagazinehawaii.com

JAN/FEB/MAR 2015 Vol. 7 #1



0 40232 07302 1

MAKING LEMONADE

The waves are small, chest to head high, but the conditions are beautiful—light offshore winds, sunny skies, crystal-clear water and round little barrels peeling down V-land's sharp, shallow reef. North Shore resident and iconic surfer Pete Johnson paddles into a little screamer, pulls in for a quick cover up, then blasts a turn on the shoulder. Spray flies into the air. He paddles back out and sits up on his board next to me.

"Hey Pete. How's it going?"

"Good. Fun little waves," he says. "How's the magazine?"

"Going great, the issues keep coming."

"Hey," he says, eager to share what's on his mind. "Did you notice all the white spots on the reef?" There are light blue and white polka dots scattered over the reef, right under our feet. From the surface, they look about the size of a soccer ball or basketball. I thought it was just pockets of sand in the reef. "The coral bleached," Pete continues. "It's all over the reef. And it's worse at Backyards."

"It's so shallow over there, I bet the water's even a few degrees warmer than here," I concur. We chat about the extent of the damage the unseasonably warm water caused along North Shore reefs all the way to Mokulē'ia until a few waves pop up on the horizon and steal our attention.

While it was near impossible to ignore the stifling air temperatures in the high 80s and low 90s during August, September and October last year, you might not have been aware that, close to shore, the water temperature was hovering in that same range. For almost two months, sea surface temperatures in Kāne'ohe Bay were hanging tough around 86 degrees and Laniākea is said to have jumped into the low 90s. The coral bleaching event that had gripped North Shore reefs, leaving local surfers wondering what was happening to their home breaks, was also affecting windward O'ahu reefs to a much greater extent, most severely from the north end of Kāne'ohe Bay to Waimānalo.

According to researchers from the Department of Land and Natural Resources Division of Aquatic Resources and the Hawai'i Institute of Marine Biology, about 70 percent of all corals surveyed on the windward side were showing signs of coral bleaching. They are calling it the most significant bleaching event in recorded history. Pristine reefs untouched by the hand of man, however, like those surrounding Hawai'i's island neighbor Palmyra, have a different reaction to coral bleaching. During this same time period, Palmyra also experienced elevated sea surface temperatures and coral bleaching, though not to the extent seen on the windward side of O'ahu. Researchers say that the coral colonies surrounding Palmyra will bounce back much more quickly, in months instead of the years they're predicting for O'ahu's hardest-hit reefs. The conditions we've created in Kāne'ohe Bay—water pollution, excessive sediment and invasive algae—add a stress level to the corals that will more than likely cause a slow return to low levels of health or, worse case scenario, coral death.

In the face of this terrible news for local reefs, many people may feel that the damage is done and there's nothing left to do. But science has a keen way of extracting the emotion from an event and finding logical explanations to understand the many facets of a problem. At a press briefing at He'eia Small Boat Harbor in early October, one researcher exclaimed that what really interested her about the bleaching event was not the reasons it was happening, but how and why 30 percent of the corals escaped unscathed. Now that's making lemonade out of lemons. —Kevin Whitton



Illustration: Kevin Whitton

RENEWABLE ENERGY REALITY + ULUPONO INITIATIVE + BIG ISLAND FARM ESTATE

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

LOCAL I'A

HAWAII'S FIRST
COMMUNITY
SUPPORTED
FISHERY

greenmagazinehawaii.com

APR/MAY/JUN 2015 Vol. 7 #2



0 40232 07302 1

I AM APOCALOPTIMISTIC

I learned a new word recently. Apocaloptimistic—it's a combination of apocalyptic and optimistic. Scott Cooney dropped the word at the Sustainability Unconference. I know, it sounds a bit like Snufalafagus, but apocaloptimistic holds a meaning more diverse than any furry puppet found on the Sesame Street set. Someone who is apocalyptic thinks that melting ice sheets, receding glaciers, rampant extinction and millions of starving people are proof that the end of the world is upon us—we're killing the earth one plastic bag at a time. The optimist says, I can save the world, the humpback whales and the Hawaiian monk seals. If everyone pitches in, we can stop climate change and save the planet.

Apocaloptimists hope for a better future. They buy CSA subscriptions, attend beach cleanups, drive electric vehicles and respect nature because they want a better world for their children and all creatures that inhabit this planet. At the same time, they lie awake at night haunted by the stabbing pangs of the reality that the damage we've done to our environment is beyond repair. With all our science (which relatively few people in the world believe to be true) to mitigate further climate change, we can only sit and watch as the oceans are poisoned with plastic, the global population booms and destroys entire ecosystems and our war-torn global community ultimately crashes under pressure from corporations blinded by greed. Egad, that's desolate. Actually, it's hopeless.

I see this struggle within myself. Sometimes I feel like, yes, we can do this. Let's grow more organic produce. Let's recycle. Let's put solar panels on every house. I will participate and lead by example. Other times I feel all that effort is futile in the face of the billions of people who just couldn't give a fuck about nature. The other night I watched a riveting documentary on GMO produce and the business of food. By the end of the film I was standing up and yelling at the screen, baffled at how a few corporations control our entire food supply. On one hand, I feel so small and insignificant compared to the power of those corporations. How can we fight that? Our food supply has been hijacked and we are screwed. Living in our modern society, there's just about no way to avoid chemically tainted GMO food that could potentially give us cancer or Alzheimer's. And here's the apocaloptimistic thing about me—I did something about it. I built a raised bed in the backyard for our home garden. My wife and kids helped plant organic vegetables and herbs that we eat on a regular basis. It's our 32-square-foot middle finger to Monsanto.

Apocalyptic? Optimistic? Apocaloptimistic? Where on the fence do you sit? —Kevin Whitton

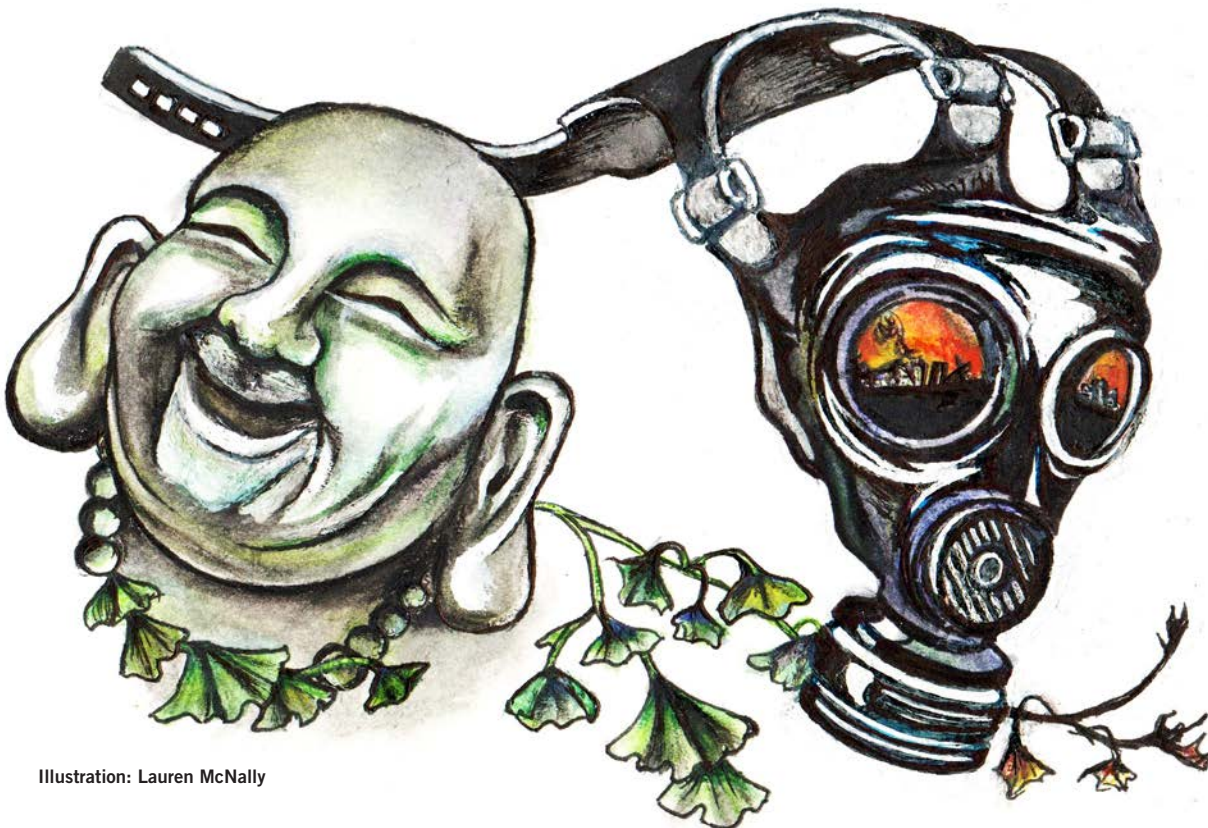
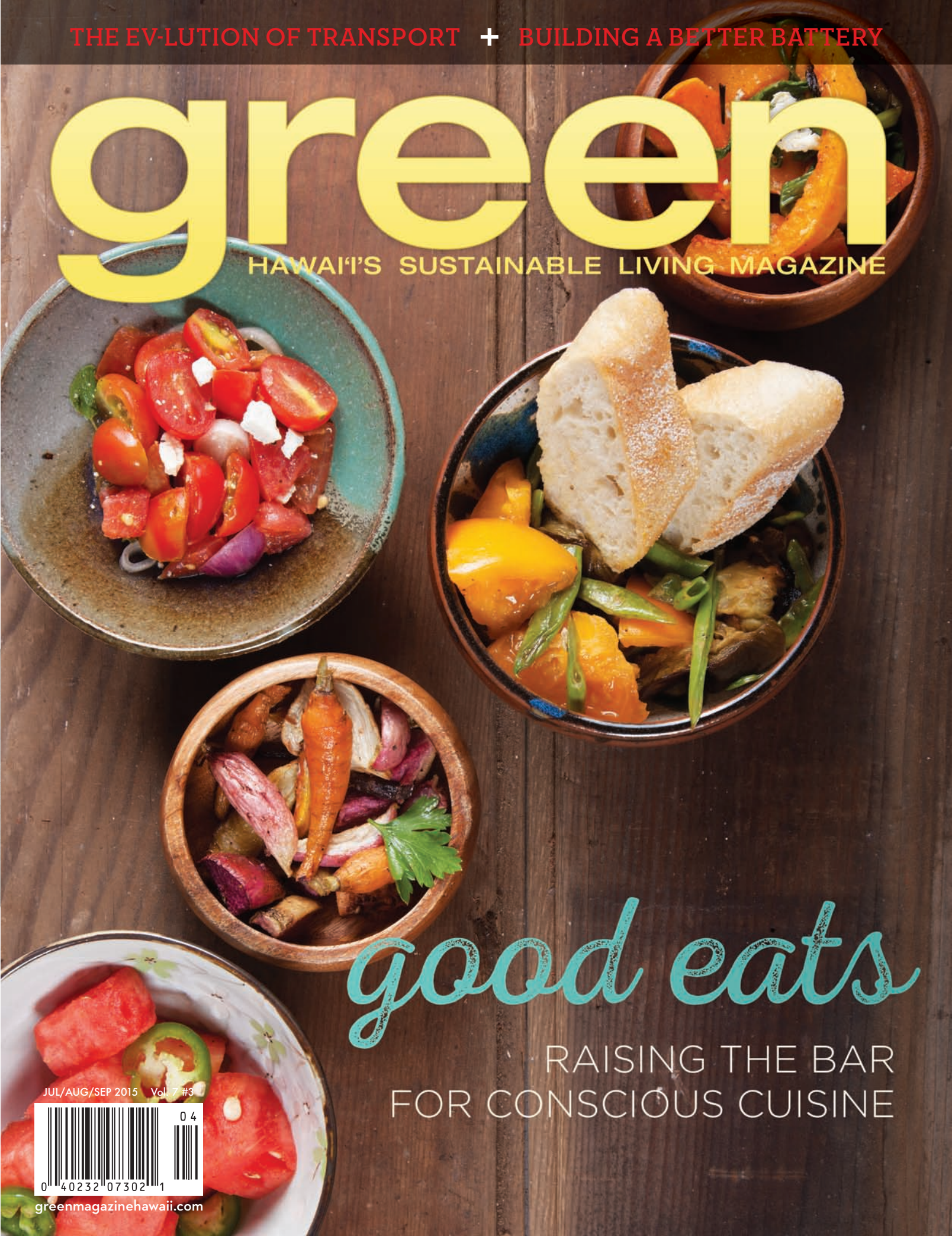


Illustration: Lauren McNally

THE EV-LUTION OF TRANSPORT + BUILDING A BETTER BATTERY

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE



good eats

RAISING THE BAR
FOR CONSCIOUS CUISINE

JUL/AUG/SEP 2015 Vol. 7 #3



greenmagazinehawaii.com

DIG IN

I love to cook. The entire process floats my boat. Sourcing the ingredients, preparing the *mise en place*, the knife rocking on the cutting board shaving off thin slices of onion and garlic, the sizzle and scent of the dish as it cooks, the sweat rolling off the open bottle of India pale ale on the counter—it's an exercise in art and science with a people-pleasing payoff.

More than any other type of food, I love to prepare Mexican dishes. The flavors are bright, spicy and even a tad earthy thanks to all the lovely, piquant chilies that have been cultivated for centuries. From thinly sliced and marinated carne asada to whole fish slathered in achiote paste, the only thing better is succulent carnitas simmering in its own fat and juices. Oh, and rustic guacamole with blackened tomatoes or a lively, fresh tomatillo salsa, which brings to mind homemade chile rellenos, smoky poblano chilies stuffed with chorizo and queso fresco...I'm getting all worked up. I need a Mexican food fix. Someone hand me a taco.

Before my mother-in-law fell in love with Chicago for its marathon, restaurants and famous chefs, she introduced me to Rick Bayless, who operates Frontera Grill in the Windy City and has authored his own small library of authentic Mexican cookbooks. He even has a video series for hard-core fans where he travels to Mexico in search of local dishes, which he emulates back home in his Chicago kitchen. Once he nails his version of a cultural classic, he shares the recipe with his hungry followers. It's genius. You probably guessed it, I have that collection of cookbooks and videos. Thanks Laura.

The only downside to cooking at home is washing the dishes, which I end up doing as well. Go ahead guys who don't do the dishes, insert joke here. When I don't feel like busting out the food processor, firing up the broiler or scrubbing plates at the end of the meal, it's time to go out to eat. I don't eat out often, but when I do, I want to eat fresh, quality food.

To me, it doesn't make sense to spend the money to eat out if the food and service isn't to the highest standard. Even with dozens of neighborhood eateries, it can be hard to find good food, particularly for those with discerning palettes seeking delicious, consciously prepared food made with quality ingredients. While good food is definitely subjective, if you compare a Chile's entrée to one from Town restaurant, it doesn't take a food critic to taste which dish is made from fresh, local ingredients.

Luckily for us, there is a new generation of restaurateurs with a fresh take on local food. What started as Hawai'i Regional Cuisine—local sourcing among an elite group of internationally renowned chefs—has evolved into eateries that support a variety of sustainable initiatives and offer delicious, fresh local food that everyone can afford to enjoy on a daily basis.

All this talk about food is making me hungry. I better get to work in the kitchen. Better yet, I'll just hit up Kaimuki Superette and skip the dish pit tonight. Salud. —Kevin Whitton



MĀLAMA KAWELA-KAHUKU + SPIRITUAL ECOLOGY + SEEQS SCHOOL

green

HAWAI'I'S SUSTAINABLE LIVING MAGAZINE



CLIMATE CHANGE

OCT/NOV/DEC 2015 Vol. 7 #4



greenmagazinehawaii.com

WITH SO MUCH TO LOSE
WHEN WILL HAWAI'I
TAKE ACTION?

I could take this opportunity to drone on about climate change, to weigh in on the legitimacy and urgency of the issue. I could stand on a soapbox and rant about sea level rise, coastal erosion, flooding, drought, storm severity, increasing sea surface temperatures, Hawai'i's response to the evolving climate or the long-term effects of climate change. But I'm not going to. Larry Lieberman eloquently tackles that discussion in his insightful article on page 28.

I've got a better idea. Let's chat about photography. I got my first camera, a Kodak Instamatic, for my birthday when I was seven years old. The boxy camera had a square flashcube on top that rotated like a disco ball. It came in a big box that I proudly displayed on a shelf above my desk. I would take pictures of my parents, my dog and the plants in our backyard—the worldview of a child.

Film was a limited resource for me. The Instamatic used encased plastic film cartridges that were easy to load into the back of the camera. The cartridges contained either 12 or 20 exposures. Of

course, I wasn't snap happy like I am now with my digital camera. Even then I knew I had to be selective before pressing the shutter button.

I remember taking my film cartridge to the lab for processing and printing. It would take a few days before they were ready, which felt like an eternity at the time. Opening that thick, paper envelope with the prints and the negatives filled me with anticipation. Seeing the images that developed onto the photo paper was like magic. I kept my prints in photo albums. Looking through them was akin to reliving that moment in time, even if it was just a shot of my dog lying in the grass in front of a big juniper bush.

In high school I took a photography class—my favorite second only to surf class every morning. My dad let me use his Canon FT, a manual 35mm film camera, which now sits on my bookshelf at home next to an old microscope and a stack of bonsai books. During the class I learned to use the aperture and shutter speed settings. Once again, I had to practice restraint and only press that shutter button once I was confident my settings would produce the image I was after.

With digital photography at everyone's fingertips (even my four-year-old's), it

seems archaic to use film cameras today for anything other than nostalgia. I couldn't be happier that technology has given us the digital SLR camera. I can still manually adjust my settings, tweak the depth of field and shoot macro or moving objects with a change of the dial. Viewfinders provide instant gratification and allow for instant image critiques. I can snap away until I get the desired frame, focus, look and feel. And memory cards with double-digit gigabytes of storage allow me to shoot hundreds, if not thousands, of images at a time.

If you enjoy photography like I do, send me your images that relate to sustainability. I want to see your perspectives on the issues shaping our community and the places we live and recreate. If we like your photo, we'll share it in the magazine and online. In fact, we're dedicating a new section in the magazine to you. It's called Perspectives because that's what our individual reality really is, a singular, unique perspective of a shared whole. The more we understand each other's perspectives, the more we learn from each other and expand our horizons. As you connect with nature and the community, point and shoot and send the results my way.

—Kevin Whitton



SUBMISSION DEETS

Submit your high-res (300+ dpi) photos in JPG, TIFF or RAW file format, along with the photographer's name and a photo description, to kevin@elementmediahi.com. Multiple images can be sent via Dropbox, WeTransfer or other file-sharing service.

LANDSCAPING WITH NATIVE PLANTS | THE COMFORTS OF OFF-GRID LIVING

green
HAWAII'S SUSTAINABLE LIVING MAGAZINE



THE DESIGN ISSUE

JAN/FEB/MAR 2016 Vol. 8 #1

0 40232 07302 1

greenmagazinehawaii.com

THE GOLDEN RATIO

I am a student of the ancient art of growing little trees in pots (some are quite big, actually). Developed by the Chinese around 700 A.D., adopted by the Japanese during the Kamakura period about 500 years later and now practiced all around the world, bonsai is the art and horticultural practice of growing a living, miniature tree that mimics the natural growth patterns of the tree in the wild. This is done by achieving a proportional balance between the girth of the trunk, the placement of the branches and the size of the pot and leaves, in relation to the height of the tree. The shape of a bonsai tree—upright with a twisted, slanted trunk, a straight trunk; with weeping branches; or a cascade of foliage that falls below the pot—tells the story of the tree's struggle and eventual triumph against the elements.

One of the basic design elements in bonsai is the scalene triangle. It is used as a guide to develop the shape of the tree and create the illusion that the tree is old and massive. Despite its asymmetrical shape, the triangle provides a measure of symmetry and stability, engaging the viewer because it gives the tree movement. Over the years, the tree is bent with wire, pruned methodically and repotted until that two-foot-tall Japanese black pine looks like it's been growing on the side of a mountain for centuries. Only when the tree reaches its highest level of design refinement and maturity is it considered a true bonsai.

What's interesting is that the beauty of a bonsai tree does not derive merely from its tiny leaves or fissured bark, but from how well it adheres to the golden ratio, also known as the golden number or divine proportion. Mathematically, it occurs when the ratio of two quantities is the same as the ratio of their sum to the larger of the two quantities. Considered the epitome of symmetry and balance, the golden ratio is a phenomenon found throughout nature—in the perfect pentagonal of a hibiscus flower or the logarithmic spiral of a nautilus shell—that influences what we find beautiful.

Why all this talk of ratio and symmetry? Because this is *Green's* first design-centric issue exploring how design shapes and accentuates our lives, from a microgrid on Palmyra Atoll to the native plants that landscape your house. There is an overarching order found in nature that we emulate in design as we try to achieve what nature does all on its own. Whether designing a house, a solar panel, a bicycle or a raised garden bed, when we attain the zenith of balance and symmetry, beauty and perfection are realized and the tree in a pot becomes a bonsai. —Kevin Whitton



THE POLITICS OF ENERGY + A CULTURE OF WASTE

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

*Koa Makes
A Comeback*

APR/MAY/JUN 2016 Vol. 8 #2



greenmagazinehawaii.com

CULTURE OF RESOURCES

*Immortality is in our mastermind
And we destroy everything we can find.
Tomorrow, when the human clock stops
And the world stops turning,*

We'll be an index fossil buried in our own debris. —Greg Graffin, 1988

As a kid, I would get so excited when the trash collector pulled up in front of our house. I would watch, mesmerized, as two grubby guys jumped off the back of the truck, grabbed our rubbish bins and hurled the contents into the back of the yellow monster. Engines revved, hydraulic arms hissed and the internal compactor squealed. A quick industrial honk from the driver and the truck was off to the next house. Funny thing is, my kids do the same thing, but they get a honk and a shaka.

I never thought about where the trash went after it left the curb or how much rubbish I made in a day. I only knew that no matter how much trash my family produced, someone would be there twice a week to haul it away.

I bet so many people, adults as well as children—also take this service for granted. Let's do some quick math. There are about 1 million people on O'ahu and the average island resident generates a little more than six pounds of trash a day—that's over six million pounds of trash to pick up everyday, just on O'ahu. If there was even a brief lapse in curbside trash collection (like when your neighborhood's pickup day coincides with a major holiday and you have to horde all that trash for two weeks) a million island residents would have two alarming realities staring them in the

face. One, that we make a lot more trash than we think and two, that no matter our socio-economic background, race, religion or astrological sign, we are all responsible for our island's waste.

On a global scale, burning trash has long been a means to deal with waste. European countries began harnessing the energy created during the process to power their communities. Since 1990, the City & County of Honolulu has been burning trash to create energy at H-Power, a waste-to-energy facility at Barber's Point.

At face value, it makes sense to burn our trash for energy rather than send it straight to an already teeming landfill. Trash may seem like a renewable resource in our consumer-based society, but unlike the sun, wind and waves—true renewable resources—trash is just a byproduct of our current culture of overconsumption. To shift our thinking from a culture of waste to a culture of resources, we have to reduce the amount of waste we leave curbside by recycling, composting and reusing as much of it as possible. Being apocaloptimistic by nature, one side of my brain thinks this is too much to ask in a capitalistic society based on growth and consumption. But then I watch my kids recycle and reuse objects bound for the trash for art projects and playtime and I know there's still hope for the human race. —Kevin Whitton



Blend in the Good.™

Blending by popular DEMAND

ORANGE DREAM MACHINE

STRAWBERRIES WILD

APPLE 'N GREENS

Try All Three Hawaii Favorites.

Jamba Juice

www.jambahawaii.com

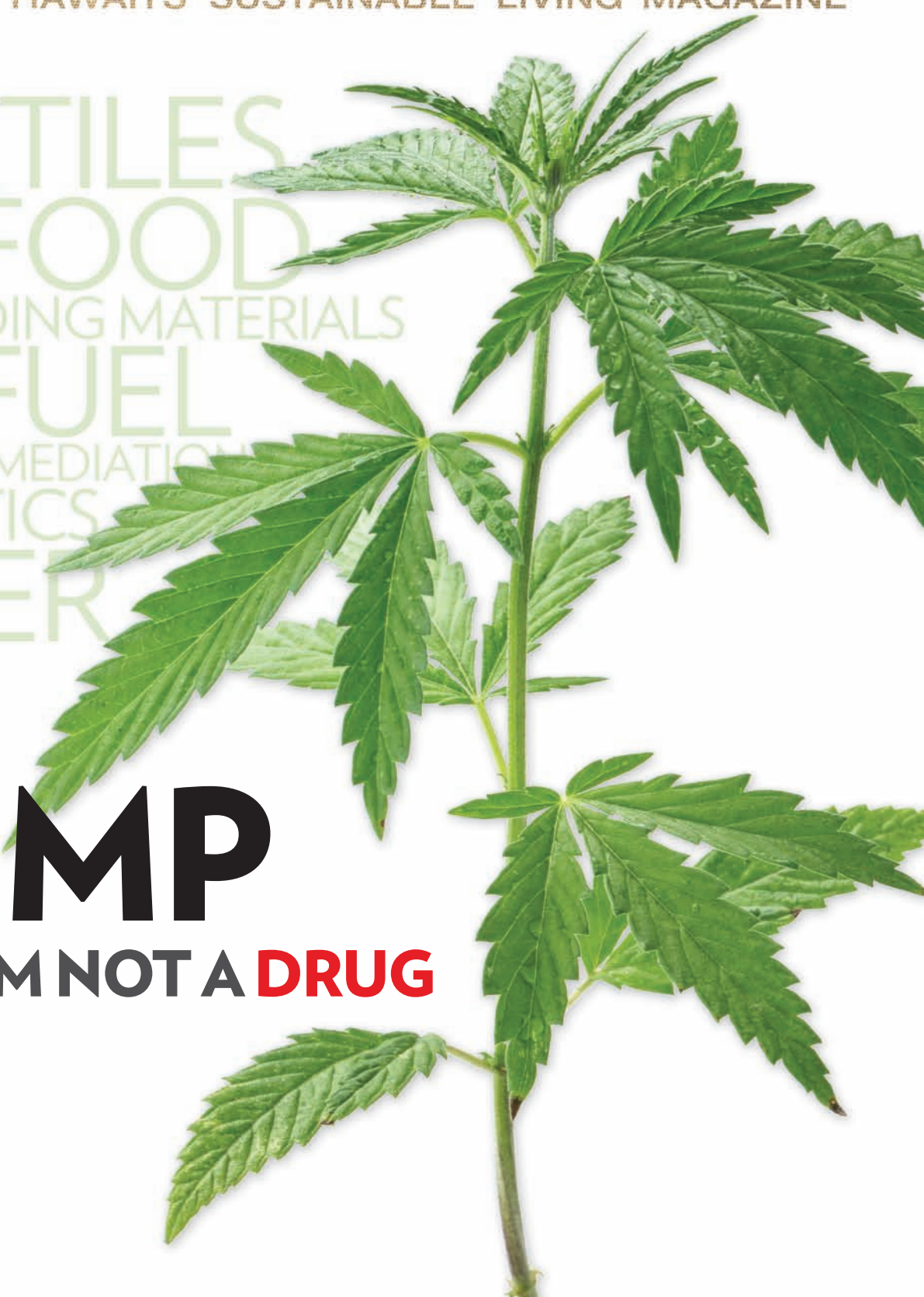
Instagram, Facebook, Twitter icons

SAVING KAHO'OLAWA + OFF GRID IN HA'IKU + BIKESHARE HAWAII

green

HAWAII'S SUSTAINABLE LIVING MAGAZINE

TEXTILES
FOOD
BUILDING MATERIALS
BIOFUEL
SOIL REMEDIATION
COSMETICS
PAPER



**I AM
HEMP**

I AM NOT A DRUG

JUL/AUG/SEP 2016 Vol. 8 #3



greenmagazinehawaii.com

MANGLED MONIKERS

Green. It's the go-to moniker for environmental sustainability, slang for paper money, a slightly derogatory word for a novice and, if plants grow well in your care, you can even have a green thumb. Green is also one of the many playful terms for marijuana. Unfortunately, when a word is used in so many different circumstances, its meaning can become diluted or unclear. If a company claims to sell green widgets, are they selling widgets that are the color green? Are they greedy or jealous widgets? Are the widgets sustainable and, if so, to what degree? Do they replenish autonomously or break down into organic matter over time? In some cases, overuse of the word has actually muddied its intended meaning.



The same can be said for marijuana, a word that is often associated with cannabis in all its varieties, regardless of form and function. This overgeneralization has been cemented by federal laws that criminalize the plant as one of the most addictive and dangerous drugs known to man, right up there with heroin, LSD and MDMA—an unfortunate designation that continues to thwart efforts to study the plant and embrace it for its industrial uses.

But you can't get high from smoking hemp, the variety of *Cannabis sativa* that is grown specifically for industrial uses. Hemp has very low concentrations of the psychoactive compound known as THC. The fibrous stalks are used to produce rope, paper, textiles and building materials. The seeds are a nutritional food and a source of oil used for its moisturizing agents, in plant-based plastics and for biofuel. As consumers, we can buy T-shirts,

granola, twine and skin-care products made from hemp, but because U.S. law blindly condemns all forms of cannabis, it is illegal to grow hemp in the United States. We're the only industrialized country in the world to impose such restrictive laws on this useful crop.

It's time to rise above fear-based political propaganda and call it like it is. Hemp could bolster Hawai'i's sagging agriculture industry and create manufacturing opportunities and new jobs. Hawai'i State Representative Cynthia Thielen has been fighting to legalize industrial hemp and redefine hemp in our laws and social spheres for more than two decades. Help squash the stigma and give local farmers an organic crop they can plant and be proud of for all its utility and economic and ecological benefits. Remember, marijuana is for the head—hemp is for life. —Kevin Whitton