

CONCRETE GARDEN

SUSTAINABLE // URBAN // AGRICULTURE

FALL/WINTER • 2015/2016

DON'T HAVE A COW, MAN!

What's up with Raw Milk Laws?

The New Craft Spirit

Island Distilleries Take Off

CAN VICTORIA FEED ITSELF?

UNDERSEA GARDENS

Digging Indigenous Clam Culture

SAVOURING SALT SPRING





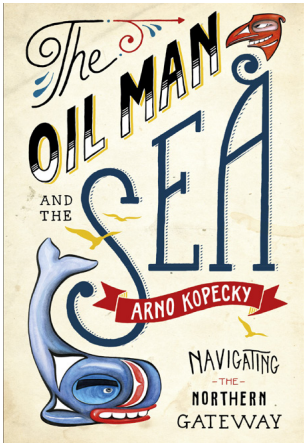
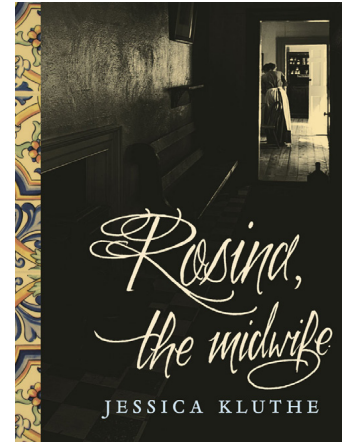
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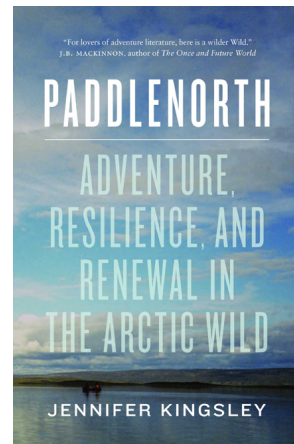
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LETTER FROM THE EDITOR

BY THE TIME YOU READ THIS letter, Canada will have voted a new collection of MPs into Parliament. No matter who wins, we all have work to do. Sometimes we must work with the party (or parties) in power; other times we need to work around unbending and out-dated rules.

For this issue of *Concrete Garden*, I explored the surprisingly complex world of milk regulations and met farmers and activists who think unpasteurized milk has been unfairly banned by our government. Sometimes, though, politicians do get things right. In “Island Spirits,” Madeline McParland reveals how new liquor laws are helping local distilleries succeed, while our food editor Adrian Paradis looks at the City of Victoria’s push to take agricultural advantage of unused boulevards—an idea we wrote about in the past that now seems to be coming into fruition.

Many of those who feared an unfavourable result in the federal election suggested they might move to a Scandinavian utopia (or secede from Canada, but this ain’t Texas). If you truly care about your country and community, that’s not really an option. We need to dig in and get this work done.

Part of staying means realizing whose land we’re on and how to take responsibility for the effects of our presence. We can do this by learning more about the Indigenous history of our province and by supporting the resurgence of Indigenous food systems. In “Edible Intertidal,” Sarah Hughes looks at how scientists are collaborating with First Nations to rebuild traditional clam gardens along the coastlines of the Salish Sea.

The massive drought this past summer shows that the changing climate isn’t going to wait for us to figure things out. As we head into an El Niño cycle, we shouldn’t expect weather patterns to return to normal—whatever that normal was. We need to learn how to work together now, as a community, with all levels of government, so we can adapt and flourish in the future.

When I was going through my own tough time this August, I was invited to the launch party for the new Food Eco District, a first in North America. On the walk home I couldn’t wipe the smile off my face thinking about how there are so many great people in our community working to make change. I’m proud that we at *Concrete Garden* are a part of that transformation.



— QUINN MACDONALD

Islands Chefs Collaborative Christmas Shaker

November 22 in the Atrium

“WHO DOESN’T WANT TO HAVE FUN IN NOVEMBER?” says Ali Ryan, head chef of Spinnakers Brewpub. Ryan is talking about the Christmas Shaker fundraiser for the Island Chefs Collaborative (ICC), for which she is also the president. Founded in 1999, the ICC represents chefs and food and beverage professionals with a common interest in food security, preserving farmland, and developing local food systems.

The ICC holds the event in late November since most people in the food industry are too busy to enjoy Christmas parties in December. Non-industry members are also welcome to attend. “The Christmas Shaker is one of my favourite events we do with the ICC,” says Andrew Paumier, chef at Meat & Bread. “Although the chefs involved prepare amazing canapés, it is an opportunity for the super-talented bartenders we have here in the city to really shine.” He says the Shaker is also a great way for a smaller business to have a Christmas party.

Ryan says this year’s Cuban theme will help people escape the winter blues, and it also includes live music, “so dancing is a must.” The money raised goes to projects like their microloans and grants, which provide zero-interest loans to growers, harvesters and processors, and the Growing Chefs! Program, a non-profit that brings chefs to classrooms to teach about healthy eating and sustainable food.

“It is amazing to see the students growing their

own gardens right in their classroom,” says Paumier. “The thing I like best about the program is seeing the kids that don’t like veggies try new things and perhaps even find a new favourite.”

Paumier and Vintage Spirits’ Ceri Barlow brought Growing Chefs! to Victoria in 2014 with a pilot at Victoria West Elementary. The ICC will run another series of Growing Chefs! visits in 2016. “It gives kids the confidence and skills to make smart and informed choices about the food they eat,” says Paumier.

“It also encourages family time when the kids take their knowledge home and want to be involved in making the family meal or growing the family garden.”

Paumier is giving last year’s Growing Chefs! graduates a chance to show off their skills at another event at the Atrium. On November 14, they will help him plate the

first course for 100 guests at a health and wellness fair held in conjunction with Camosun College’s Hospitality Management program.

The Island Chefs Collaborative holds other events throughout the year at which attendees can eat food prepared by world-class chefs and feel good about strengthening our local food system. The ICC also collaborates with local businesses on limited-edition products to raise money, such as the Aprons & Orchards cider series from Tod Creek Cider. Find the ICC on Facebook or visit their website, www.iccbc.ca, to learn more or to volunteer.



— QUINN MACDONALD

seed to plate

Brad Holmes at OLO
509 Fisgard St, Victoria

BRAD HOLMES, THE CHEF AND OWNER OF OLO, extends one hand to shake before replacing it with the other, which holds a bite-sized piece of almond praline. “For the chocolate dessert tonight,” he explains.

Holmes grew up in Port Alberni before moving to Vancouver to study accounting. He applied for a job at the restaurant Havana on Commercial Drive, where he met his wife, Sahara Tamarin, who worked in the front of house. “She sort of introduced me to food because she grew up in a family of foodies,” he says. Holmes took a liking to cooking and went on to work with big-name chefs like Rob Feenie and David Hawksworth at acclaimed restaurants such as Feenie’s, West, Chow, and Cibo.

In 2010, Holmes and Tamarin moved to Victoria and opened ulla. “It was sort of ‘our restaurant,’” says Holmes. “I cooked the food and she served you. It was very small and we were only open 19 hours a week. It was the mom-and-pop operation, but it allowed for us to have a lot of control over what we did. I think that’s a big part of our success.”

Only a year later, ulla was named one of Canada’s best new restaurants by Air Canada’s *enRoute* magazine and Holmes was honoured as one of the top chefs of the year by *Western Living*. Awards from *Vancouver* magazine followed, with ulla receiving gold for best Victoria restaurant in 2012 and 2013.

In February, ulla reopened as OLO, in what Holmes describes as a branding shift. “Five years is a long time in the restaurant industry,” he admits. “I wanted to take the focus away from saying this is ‘our restaurant’ to more of an ingredient-driven casual community.” In place of the chef’s tasting menus, OLO now offers family meals that Holmes serves as multiple courses. While Holmes has always relied on local ingredients, OLO now emphasizes this fact. “Why import all this stuff,” he says, “when there’s a terroir of its own in Canada and in B.C. and on our own little island?”

— ADRIAN PARADIS



Photo: Alifia Kapasi

Refreshing Salad by Brad Holmes

Vegetables

- Fennel
- Kohlrabi
- Cucumber
- Hukari turnip
- Savoy cabbage
- Radish

Herbs

- Flatleaf parsley
- Fennel fonds
- Dill flowers or pollen
- Nastirium leaves and flowers
- Wood sorrel

Cultured cream base

- 1 part yogurt
- 1 part crème fraîche

Vinaigrette

- 3 parts fresh pressed Canadian sunflower oil
- 1-2 parts apple cider vinegar

Visit concretedgarden.ca for instructions and to learn more about Brad Holmes’ philosophy for designing and serving salads at OLO.

Photo: Hanna Golding





THE GUILD: 1250 WHARF ST, VICTORIA, BC

DESPITE A DESIRE TO REFINE MY PALATE, I REMAIN A hopeless sucker for meat, potatoes, and other classic pub fare. I realize my fondness for simple slabs of protein and starch might be the unhealthy choice, for both personal growth and coronary longevity. But thankfully, there are restaurant options such as The Guild to enrich my obsession.

Both the name and the Victorian-looking hardwood bar conjure up idealized images of the noble working class, which Benedetto complements with deceptively simple-seeming pub fare created with care. Located in a Wharf Street heritage building from 1882, in what was once a dry-goods and grocery house, the restaurant's restored interior implies early 20th century values. In fact, it does more than imply: the restaurant knocks casual patrons over the head with its philosophy in the form of a framed chalkboard manifesto.

"The Guild is a more than just another concept restaurant," reads the manifesto. "Like the actual meaning of the word 'guild,' it represents a reclaiming of the idea that people who work together and share common values can create something that is stronger than what any one person can do alone." While this could be said of any restaurant, the food at The Guild reflects a craft mentality. Owner John Watson and chef Sam Benedetto work with local producers to find the best way to showcase The Guild's take on "West Coast British" cuisine.

From the 12 taps at the bar, I chose a coffee-like Black Tail Porter from Nanaimo's Wolf Brewing Company. Keeping with my meat-and-potatoes appetite, I ordered the crispy pork shoulder, recommended by our upbeat waiter as his favourite menu item. When it arrived, heavy pockets of fat clung to the tender meat that, like any good British dish, was accompanied by two small—a bit small for my liking—lumps of herby-green mashed potatoes. A chili jam covered the pork and pooled on the plate, adding a sweet and spicy note throughout the meal.

The arugula salad with goat cheese and pickled beets my partner had was well executed, albeit much like any other beet salad. The fish and chips had received the same care and attention that my pork shoulder did—particularly in the mushy peas, which may have been more enjoyable than the fish itself. Possibly the best-kept secret of The Guild, however, is its brunch. I've blogged about how much I enjoy brunch at this pub and my bias towards the selection of salted pork options.

The Guild's value lies in its ability to provide both fine dining, such as the beef tenderloin with potato pavé, and quality British pub classics, like the Welsh rarebit and Scotch egg. Nothing we had at The Guild was wildly original, but that's not a slight. Its manifesto represents a true craft mentality: working together to create a quality meal, even if that boils down to meat and potatoes.

— ADRIAN PARADIS

Salt Spring Island

GRAB THE FERRY AT SWARTZ BAY OR Crofton and disembark on an island where things move more slowly. With bed and breakfasts, pubs, lakeside cottages, beautiful beaches, art galleries, three provincial parks and loads of outdoor activities, Salt Spring Island has something for everyone—especially lovers of local food and drink. The island boasts three vineyards, many farms, a teahouse and honey emporium, the famous Salt Spring Island Saturday Market, and an abundance of small-scale food and drink producers.



Salt Spring Island Ales

THIS BREWERY SITS HALFWAY UP THE SLIVERING tip of a pie-shaped property on the flank of Mount Bruce, from the top of which flows the fresh water spring that supplies the water for Salt Spring Island Ales. Many of the other ingredients don't come from too much farther afield. The brewery works with four organic farms, in what president and general manager Becky Julseth calls "business-supported agriculture," to grow a new crop on Salt Spring: hops. An inaugural test crop of 145 plants has grown in its sixth year to 400, all picked by volunteers. Other ingredients are also organic, and Julseth says the operation's small size means it can use slow, traditional brewery practices: no pasteurization or adjusting the pH with chemicals. "It's all very old school," says Julseth. The company closes the loop by sending the spent grain to the pigs and cows on two farms down the road, while the hops are used as compost. Check out the expanded tasting room or call ahead for a tour.

local flavour



Photos: Hannah Golding



Salt Spring Island Cheese Company

DAVID AND NANCY WOOD STARTED SALT SPRING Island Cheese Company in 1996 as an escape from city life. They had originally planned to milk sheep for cheese. When it turned out not to be a viable business idea, they added goats. “Before we knew it, we were really a goat-milk cheesemaker who happened to have some sheep they milked,” says their son Daniel. The Woods refocused and became federally inspected in 2000, which allows the company to sell seven cheeses and eight chèvres across the country. Curious connoisseurs can stroll the property, greet the goats, and learn about the cheese-making process via a self-guided tour, then stop in the tasting room to sample the various flavours. The company sources many ingredients from Salt Spring farmers, including the herbs and flowers in their signature handmade displays and packaging. “We’ve put a lot of effort into making the cheese as beautiful as it can be,” says Daniel.

And while it’s always worth the trip over to Salt Spring, you can find products from both companies at Victoria locations.

— QUINN MACDONALD

5 Reasons To Garden With Your **KIDS**

BY HEATHER NEALE FURNEAUX



MY TWO-YEAR-OLD DAUGHTER, MALIA, DIGS A shallow hole in our raised flowerbed, watching as the soil falls gently back into the exact spot. This'll keep her busy while I plop in a row of carrot seeds. Naked, except for her "big-girl" rainbow underpants and a toque, she's hard at work scooping the dirt and dropping it, scooping and dropping—Sisyphus deep in concentration. Near my heel, my three-month-old, Audrey, coos in her bouncy chair.

Gardening these days is a bit like playing "Red Light Green Light." Green light: plant a row of seeds.

Red light: nap time. Green light: another row goes in. Red light: Malia's climbing into the neighbour's pond. We don't accomplish much, but the fresh air feels good. All this stopping and starting got me thinking: how do people do it? For me, sometimes it seems impossible just to run and pee or keep a single thought in my head long enough to act on it. How did other parents of small children maintain their gardens? I surveyed a few of them on why (and how) they garden with kids and I wound up with five reasons.



1 Spending quality time with your kids doing something you all love

WHEN I ASK LOCAL IT EXECUTIVE SHAWN BURTON what the biggest benefits of gardening were for his two girls, Kingsley (4) and Mila (3), he immediately responds that it's fun for both them and him.

"Gardening is something special that my girls and I can share together," he says. "And seeing their sense of pride when they have grown something and they run back inside to show 'Mom' always puts a smile on my face."

While Burton admits that it's not always easy to maintain a garden with kids while working 60 hours a week, he describes it as a "priceless" shared activity that also teaches them about local food sustainability. Eating out one night, Burton stared down at his international plate—prawns from Asia, veggies from Mexico—and thought, why? "I started to think more local, started fishing again, and expanded into prawning and crabbing. Then I planted veggies and berries, and finally a few years ago I bought chickens."

Not only do he, his wife, Lara, and their girls benefit from fun bonding time, they eat healthily, cut down on fossil fuels, and spend less on groceries, so the "why" part of the question is easy for him. As for the "how," he said, "I won't lie. I've had numerous plants die from a lack of watering over the past few years."

2 Fostering a sense of wonder and curiosity

A MASSIVE CARDBOARD BOX FILLED WITH LIVE poultry sits six inches from where Kate Fraser's one-year-old son eats his snack. The mother of two boys, Ryan (6) and Coby (1), Fraser works part-time for an insurance company, but looking at her garden, I would have sworn it's her full-time gig. Their backyard is a mosaic of handcrafted planting structures, while the front features three fruit trees, a fig plant, and blueberries—all pollinated by their own mason bees—and at least 15 different plant varieties grow under specialized lights in their dining room: everything from stevia and chocolate mint, to tomatoes and basil.

Fraser says the best part of this relatively new hobby is that their six-year-old loves to help. "Ryan did a science project this year at school on growing plants, and it was so neat to see him feel like a real professional talking about something he truly knows," says Fraser. "He tells everyone about our chickens and bees, and he's really helpful filling up trays with dirt. He's a great farmer."

While Fraser and her husband Mike have only been at it for three years, they've done extensive research into everything from hot composting to fruit tree grafting. Kate even started a Facebook group called "Urban Homesteaders" to exchange tips and advice with other gardeners. "But how do you do all this with two children and a day job?" I ask. "I work while they're napping and I tinker a lot," says Fraser.

garden journal

3 Teaching hands-on learners

FARM TO SCHOOL BC'S VICTORIA HUB ANIMATOR Aaren Topley excitedly explains how his program connects students to their food source. "Some of these kids have never eaten a salad in their life," he says. The province-wide nonprofit develops and facilitates school salad bar programs and communal gardens where students learn via practical experience.

"These programs work really well for students who don't necessarily fit into the small box of what academia is," says Topley. "They will excel with this type of hands-on learning that gets connected back to their curriculum." Gardening also seems to have an impact on in-class behaviour: school administrators report that students make fewer trips to the principal's office on the days the salad bar runs at school.

Farm to School was so popular that the provincial manager established three regional animators, including Aaren, to coordinate the program's expansion. Approximately 80-90 schools across the province are already involved, while eight more will be signed up in Victoria by the end of the year. B.C. is also home to a variety of other similar initiatives like Growing Young Farmers, "nature daycares" like the one recently opened in Oak Bay, and Life Cycles' Seed Library and educational workshops.





Photos: Hannah Golding

4 Developing socially and environmentally responsible citizens

VIC WEST-BASED KERI COLES IS A PROFESSIONAL photographer and mother of seven-year-old Ella. Coles created a special space for Ella in the yard that's just hers so the junior farmer could experience a sense of ownership over the process. "There's a saying in the environmental movement that 'if you don't know about something, you don't love it or have a need to protect it,'" says Coles. "The more [Ella] learns, the more interested she is in [gardening] and the more she wants to learn."

Ella has become really aware of the whole cycle—growing, cooking, eating, composting, and fertilizing—according to her mom. "Working with the land, getting your hands in the dirt, it really establishes that connection to place and to one's food source that's so important," says Coles. Ella is invested in the work because she understands the big picture benefits. And the benefits to her are: a deeper understanding of food security, healthy eating and social responsibility.

5 It's a sneaky way to get kids eating their veggies

FOR COLES, INVOLVING ELLA IN HER GARDENING HAS also proved a pain-free way to get vegetables into her daughter, and to familiarize her daughter's taste buds with real natural food flavours. "She snacks a lot when we're out in the garden," Coles admits, "because it's fresh. She forages and we get way more vegetables into her than any other time." Burton and Fraser both mention this bonus for their kids as well. And I have to admit, Malia jumps at the chance to eat snap peas when they're tempting her from the vine.

While many kids turn up their nose at these vitamin-rich goodies, they tend to be keener to eat things they've grown with their own hands. It's also way cheaper to grow them than to purchase produce at the store. According to a CBC report from November 2014, one out of five children in B.C. currently lives below the poverty line—getting kids involved in gardening increases their access to healthy, pesticide-free nutrients for very little money.

MALIA DISCARDS HER SHOVEL AND WALKS TOWARDS the front gate looking for something else to get into. Red light. I got half the carrots planted. We may be taking baby-steps in the garden this year, but it's glorious spending time together in the backyard, watching her face light up when she picks the rhubarb, waters the geraniums with her very own mini watering can, or sprays Dad with the hose. These little moments are worth every red light, nap-time stop, and pond dive they require, and soon enough the light will be green full time.



BOULEVARD OF GROWING DREAMS

Victoria's mayor looks to the past to build a sustainable future one street at a time

BY ADRIAN PARADIS



IN THE 1930S, THE WORLD SUFFERED THROUGH THE Depression and the Dust Bowl bankrupted farmers across North America. As the average income in B.C. dropped nearly in half and local families went hungry, Victoria learned the value of turning into a true Garden City when city council took two bold steps. “One, they allowed people to grow potatoes in Beacon Hill Park,” says Lisa Helps, mayor of Victoria since 2014 and a city councilor since 2011. “Every spring, the city gave out seeds and encouraged people to grow food on vacant lots. Then, every August, the city had a contest and awarded 25 bucks to the first-prize garden.”

That ethic of self-sufficiency pervaded southern Vancouver Island for decades. As recently as the 1960s, the Island produced 85 per cent of its own food. Today, however, only five per cent is a product of Island farms. So in May of 2015, Mayor Helps and city council put forth the “Growing in the City” initiative to promote urban farming and reverse that decline.

As part of the project, the city adopted a set of interim guidelines for boulevard gardening that allow owners to turn boulevards adjacent to their properties—the municipal-owned lawns between the sidewalks and the streets—into “well-designed and well-maintained gardens.” Owners can then invite tenants or neighbouring groups to share the garden

space. After feedback from the community in the fall of 2015, Council will approve a final set of guidelines to be implemented in spring 2016.

As Victoria taps into enthusiasm for urban gardening, its leaders might also look across the Salish Sea for lessons on how to feed a city. From 2009 to 2013, community garden plots on municipal, school, and park board land in the City of Vancouver more than doubled to over 4,000 plots in 104 locations, thanks in part to an initiative that zoned empty land plots as temporary community gardens. Victoria would be wise to adopt such a practice.

But can pocket gardens on municipal property really feed a city? Adam Orser, the owner of the Root Cellar Village Green Grocer in Saanich, is skeptical. “The greatest challenge in Victoria [to growing food locally] is the availability of acreage to produce high amounts of food,” says Orser. “There’s enough space, but the land values make it near impossible for anyone to start. The younger generation who want to farm doesn’t have access to the land.”

Orser still supports boulevard and urban gardening. “Every time people go through the check-stand, they’re placing a vote on what they want to purchase,” he says. “If you buy local food, then there will be more local food. If you buy less, then there will be less. That’s just how it is.” Orser grows a garden to teach his children

that food doesn't just magically appear on his store's shelves.

Pat McGuire organizes the annual Seedy Saturday garden show at the Victoria Conference Centre and supports the boulevard gardening initiative, but he questions the commitment to urban gardening of many city dwellers. Several years ago, he asked homeowners in James Bay if they would loan unused garden space in their backyards to a community project. "I knocked on doors but it was difficult" and the garden-sharing project found little traction, he says.

McGuire also worries about the upkeep of boulevard gardens. "Right now, our front boulevards are mowed either by the individual living there or the city," he explains. "But when you get a garden in there, it's different." To address that problem, the City of Victoria will allot \$500 per month to neighbourhoods (including Victoria West, Fairfield Gonzales, Fernwood, Burnside Gorge, James Bay and Hillside-Quadra) to hire a coordinator to manage volunteer boulevard gardeners.

Some homeowners also complain about the impact of cultivated boulevards on their property values. A tax break might assuage those economic fears. Under the new guidelines, if a home-owner takes over a boulevard for gardening, neighbours on the block can opt out of the tax they currently pay for city workers to maintain the boulevards' existing lawns and trees.

Urban green thumbs throughout B.C. struggle to keep deer and pets out of their gardens. That challenge is nearly impossible with unconfined boulevard gardens, says McGuire. As the City of Victoria website admits, "a certain level of quality and contaminant control may be lost when you garden along the street."

Despite the obstacles, Mayor Helps remains hopeful about the future of local food production—and a possible return to Victoria's past of self-sufficient farming. "The city took real leadership and used its resources in the Depression to do something," she says.



Photos: Alifa Kapasi

"I think we can do something like that. People need to be able to feed themselves. That's part of being a human being. The city has tons and tons and tons of land, and if we can put it into production—or get people to put it into production—I think that's awesome." ♦

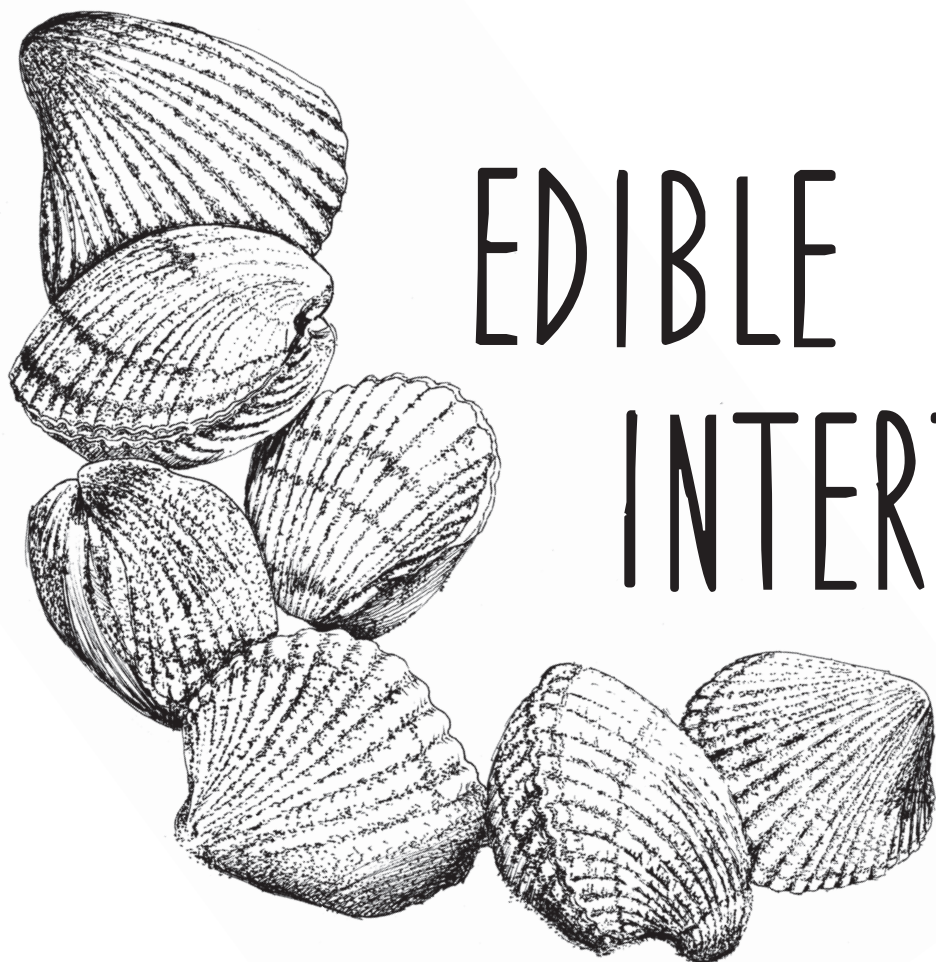


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EDIBLE INTERTIDAL

What can coastal communities learn from First Nations' ancient clam gardens?

BY SARAH HUGHES

ALL ALONG THE COAST OF BRITISH COLUMBIA, researchers and First Nations are unearthing—or rather “un-mudding”—ancient gardens. Over 2,000 years ago, the Indigenous peoples of B.C. created the first marine farms with simple materials to cultivate a staple of the coastal First Nations diet: the clam.

What researchers now call “clam gardens” the Kwakwaka’wakw Nation of northeastern Vancouver Island and mainland B.C. knew as *loxiwey*. Families managed the intertidal plots and passed them down through generations. After locating a beach with clams, women and children rolled basketball-sized rocks to the edge of the lowest tides to build the walls and cleared the plot from debris. Sediment and mud would accumulate to create the ideal habitat for clams to spawn and grow. Once they had established a clam garden, the tidal farmers would use digging sticks to turn over chunks of seafloor and aerate the sand. With rakes, they selectively harvested mature clams into woven baskets and left the smaller ones.

Over the last five years, academic researchers from Royal Roads University, the University of Victoria, and Simon Fraser University have rediscovered ancient farms along British Columbia’s coast, with several sites on the Southern Gulf Islands. The Clam Garden

Network has been restoring several historical clam farms. The resurgence in Indigenous clam gardening also coincides with the hopes of B.C.’s shellfish industry to expand into global markets, and these competing visions of coastal aquaculture echo many of the debates about sustainable agriculture.

THINK OF A BEACH AND ALL THE NOOKS AND crannies that different species use as habitat. Chitons stick to rocks, their leathery, accordion-like shells blending into the uneven formations. Black, purple, and green urchins glide back and forth, following the tides and spearing tiny sculpins on their spikes. Octopuses den below the surface of the inky waters. All these and so many other species of fish, bivalves, and marine creatures inhabit the coastal environments of B.C. The Clam Garden Network is trying to determine whether the clam gardens had a positive impact on this dynamic habitat. If so, the coastal First Nations not only farmed clams but also boosted the variety in their diet by supporting the biodiversity of the environment

Salt Spring Island hosts a clam garden near Fulford Harbour, close to where vacationers and residents disembark from the ferry. Here, the Network

works under the guidance of the WSÁNEĆ and Hul'q'umi'num Nations. Other sites can be found in Bella Bella on the Central Coast, Quadra Island in the Northern Gulf Islands, and Russell Island, an islet between Fulford Harbour and Swartz Bay.

Skye Augustine, a member of the Clam Garden Network, has been studying clams and First Nations management techniques for more than five years. Augustine completed a master's thesis in clam garden restoration techniques at UVic before joining Parks Canada as the clam garden restoration project coordinator for the Gulf Islands National Park Reserve in 2009. With the guidance of traditional knowledge holders from local First Nations, Augustine works with a team of scientists, academics, community stakeholders, and school districts to manage and learn from the restoration of the clam gardens. The project will continue for another five years to see if restoring the ancient clam gardens has any effect on beach ecology.

"Clam gardens are biologically diverse and offer habitats for many other species," she says. "One of the goals of this project is to quantify the other foods that clam gardens can provide, for humans and for wildlife."

At the Salt Spring site, Augustine's restoration team first clears away debris: kelp, wood, garbage, and derelict fishing gear. Then, they reconstruct the rock wall. With GIS sensors and aerial photography, the team can map the boundary of the original garden. The nature of clam gardening confines Augustine to working at low tides—early mornings, in the middle of the night, whenever the moon pulls back the water's edge. Only after the ocean retreats can she and her colleagues add rocks to the wall.

Clams and shellfish are integral to coastal First Nations' culture and way of life. Origin stories, dances, art, ceremonies, and song all incorporate the clam and its calcium-constructed counterparts. Nancy Turner, an ethnobotanist from UVic, and Douglas Duer, an anthropologist from Portland State University, interviewed Clan Chief Kwaxistalla Adam Dick and worked with other members of the Kwakwaka'wakw Nation to understand the traditional "mariculture" on the Northwest Coast. Their research paper in the April 2015 edition of *Human Ecology* emphasizes the significance of clam gardens not simply for food production but also as a site for knowledge sharing and storytelling. Kwakwaka'wakw tales remind listeners that caring for the clams led to better harvests.

Additional research is happening along the central and northern coast of B.C., where a number of

Northwest Coast First Nations groups managed clam gardens. Each group had distinct methods for harvesting, preparing, and storing the clams and different stories and interpretations of what the species meant to their people. Only recently recognized as significant archaeological features, clam gardens further debunk the myth that First Nations were solely hunter-gatherers.

Origin stories, dances, art, ceremonies, and song all incorporate the clam into First Nations culture

THE CLAMS WE FIND IN OUR GROCERY STORES OR doused in marinara sauce at our favourite restaurant often come from the same region as the ancient clam gardens, but they are produced by a far different process. Most commercial clam farms in B.C. are situated south of Campbell River in Baynes Sound, where the water is warm enough to support the Manila clam, a species introduced from Japan in the 1930s. The Manila clam is the most popular commercially produced clam because it takes only two years to mature and has a high export value. The global market paid \$1.55 per pound for Manila clams in 2012, while littleneck or butter clams fetch around half that price. As of 2011, when the last major Statistics Canada survey of the industry was conducted, over 9,400 tonnes of shellfish were produced in B.C., at a value of \$19 million. That's several boatloads of clams.

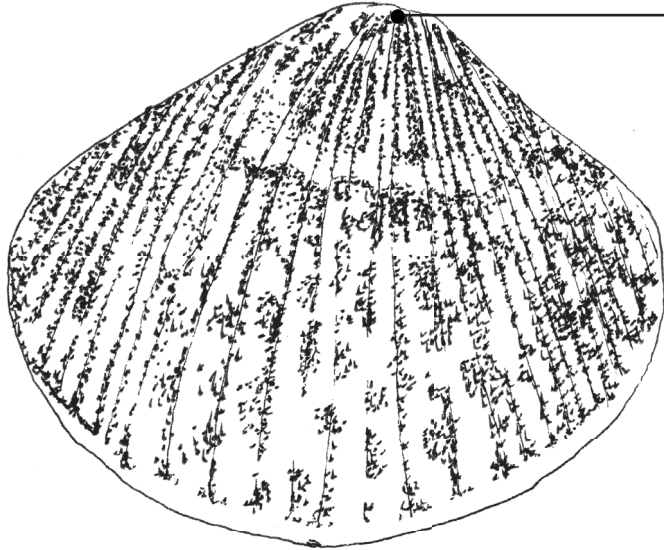
Roberta Stevenson, executive director of the British Columbia Shellfish Growers Association (BCSGA), says that Manila clams are also more aesthetically appealing compared to their native counterparts, the littleneck clams.

"They're not worth enough money to bother farming," she says about littlenecks. "You cannot get a top dollar for them because when the Manila clam is steamed open, the meat remains on one half of the shell. Other clams, when they're steamed open, the meat goes on both sides of the shell—and that's less attractive to the consumer."

The BCSGA oversees 130 different shellfish growers in the province, mostly small independent businesses; seven are run by First Nations. Stevenson says most of the shellfish "landings"—that is, the harvest—are exported to our southern neighbours in California

KNOW YOUR CLAMS

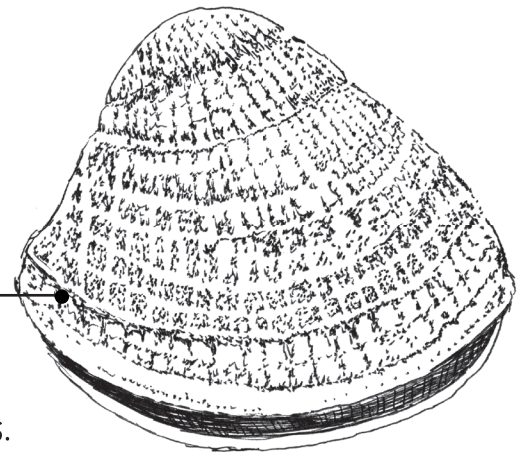
Manila



The principal clam harvested by commercial shellfish growers. Subtly ribbed shells range from grey to mottled brown to smoky black. The species was accidentally introduced to B.C.'s coast in a shipment of Japanese oyster seeds.

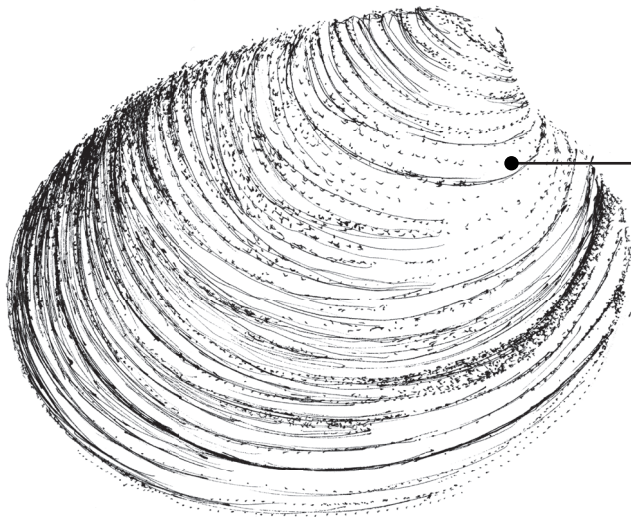
Littleneck

One of the smaller species, ranging 4 to 6 cm in length. Shells are white to speckled brown and difficult to distinguish from Manila clams.



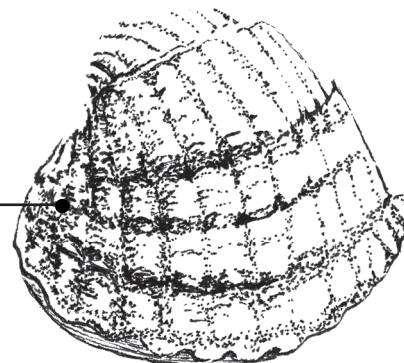
Butter

Up to 15 cm long and usually white or slate grey. First Nations harvested and prepared these clams with cockles.



Cockles

These have thicker, more prominently ribbed shells, with a pointed foot. The classic carapace evokes memories of strolling beaches and scanning through wrack lines. The First Nations sometimes cracked open cockles, along with littleneck clams, to eat fresh.



because it's cheaper to transport to the U.S. than to other foreign markets.

"The rest of the world wants these animals, China in particular," she says. "But we just can't grow enough of them because people in B.C. are not embracing the opportunity to farm their coastland. And because of that, we have very small landings."

Depending on the species, clams can take up to four years to mature for market. However, the impressive and increasingly in-demand geoduck takes seven to eight years to mature and can grow up to two metres in length. Clams are grown from seed in hatcheries—mostly in B.C., although some come from Washington state or even Hawaii—until they are large enough to be transferred to a nursery as "spat." The spat are boosted in an upweller system, a watery nursery used in commercial shellfish farms, where they grow big enough to be transferred to the beach. There, they are planted in the sand in tubes, as opposed to oysters, which are strung on cords in square grids in floating farms. When the clams reach legal harvesting size, they are collected and processed for market.

Shellfish farming isn't a popular industry in B.C. coastal communities for a variety of reasons. The large plots used for clam beaches are as manicured as golf greens, with netting to prevent raccoons, mink, and birds from digging up the clams—all of which reduces the biological diversity and affects the normal functioning of the ecosystem. By contrast, the rock walls of Indigenous clam gardens supplied space for sea cucumbers, chitons, urchins, octopus, sea snails, and other valued foods for the coastal First Nations. The walls also provided spawning habitat for fish, especially herring, which lay eggs near shore.

Commercial clam farmers claim that their aquaculture operations increase the ecological value of the tidal soil. "The process of farming them and digging them up and then reseeding them improves the substrate," Stevenson says. "It's exactly like if you have a tract of land and you never farm it and you leave it fallow. It goes back to nature versus if you have a tract of land that you garden and every year you

rototill it, plant it and harvest it. It makes it so more species can live in it because it's fluffed up like your garden."

The idea that turning over a garden or crop is better for long-term soil health and biodiversity is an article of faith in modern agriculture. However, a 2014 study by the Ontario Ministry of Food and Agriculture and the Ministry of Rural Affairs and the University of Guelph found that farmers can reap more benefits from practising no tillage or varied crop rotation compared to monoculture cropping and conventional tilling. Three out of four sites were found to have healthier soils after implementing a non-conventional farming method of crop rotation and no tilling. Scientists have yet to research the impact of beach tilling and crop rotation of shellfish on the health of the environment. However, the Ontario study of land-based monocropping and tilling should raise questions about the assumption that similar practices are good for our ocean beds.

THE FIRST NATIONS VIEWED THEIR CLAM GARDENS as more than just a food source. Skye Augustine says it's important to bring people back into these intertidal sites that were significant for the exchange of knowledge between elders and youth. Trying to understand traditional practices such as clam gardening can improve our management of ecosystems in the future.

"This offers the opportunity to reflect, to go back to the old ways and look to the past," she says. "Resource managers will learn from the study, no matter how small or big, and we'll learn that we don't just need big fancy technologies."

As we walk the fertile crescents between B.C.'s tidelines, the resurgence of clam gardens can provide both Indigenous and non-Indigenous residents an opportunity to reflect on larger issues at stake: the importance of First Nations land rights, the interconnectedness of our food systems, and the ecological integrity of our entire region—both land and sea. ♦

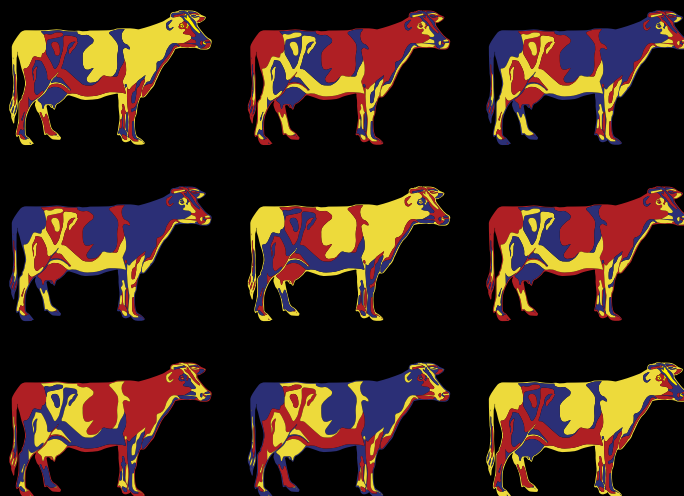
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RAW DEAL



Who's afraid of cowshared milk?

BY QUINN MACDONALD

DO YOU KNOW WHAT A COW IS? IT SEEMS LIKE A simple question. But have you really thought about it? (If you grew up on a farm, you're disqualified.) A cow is a bovine female that produces milk. That means she's had at least one calf. Before that, she's a heifer.

Similarly, you may not have considered the process milk goes through as it moves from a cow to your fridge. Pasteurization—heating raw milk to 72 degrees Celsius or greater for at least 15 seconds—has been around for more than a century. And for the last three decades in British Columbia, it's been the law.

Raw milk is still widely available in many countries around the world, including in some European vending machines, but it cannot be legally sold or purchased in Canada, the only G8 country to outlaw its sale, as part of a 1990 amendment to the *Food and Drug Act*. Two years earlier, B.C. had passed a law that classified all raw milk as a “health hazard,” and the law persists as Section 2(a) of the Health Hazards Regulation under the *Public Health Act*.

The penalties for selling raw milk? Up to \$3 million in fines and three years in prison. The only way to legally consume raw milk in Canada is to produce your own or bring back \$20 worth from the U.S. per day.

With 545 dairy farms and 72,000 cows, B.C.'s dairy industry is the third largest in the country, behind

Ontario and Quebec; in 2009, the province's cows produced over 650 million litres of milk and B.C.'s dairy farms are some of the largest in the country, with an average of 135 milking cows each. The industry employs more than 11,000 people and contributes over \$1 billion to the economy. The *Milk Industry Act* regulates how that milk gets collected and pasteurized at one of 33 processors in B.C.

Raw milk today represents a conflict between personal freedom and social safety, as well as a tug-of-war between industrial farmers, raw-milk lobbyists, and their competing health claims. How do we strike a balance between access to a fresh source of nutrients that hasn't been pumped out of an abused animal and pumped full of antibiotics while acknowledging potential dangers?

The BC Dairy Association (BCDA), a nonprofit society funded by the province's dairy producers, includes a “Raw Milk Q&A” on its website with links to “real life stories” about what can go wrong. It claims pasteurized milk is a healthier choice “because you can enjoy all the nutritional benefits of milk without the concern of contracting harmful and possibly fatal diseases.”

And yet for all the warnings, people still drink raw milk. They just find ways around the law.

ONE AVENUE TO RAW MILK IS A COWSHARE. IT'S A type of herdshare agreement in which consumers pay a farmer, or "agister," a fee to board their cow (or a share of a cow), care for it, and milk it. You'd be forgiven for not knowing about cowshares: when it comes to finding raw milk, you need to know someone who knows someone in the know. And agisters often prefer to remain anonymous because of their quasi-legal status. "It's a very closed society, secret handshakes and stuff," says "Farmer," a local agister located just outside Victoria who provides services for the owners of a cowshare.

Farmer, 58, speaks with a slight English accent. He arrived in Canada in 1997 to obtain a helicopter pilot's license and ended up working with Medevacs in Victoria. Becoming a raw milk agister wasn't part of his career plan.

"Three months before the cows arrived, I had no idea this was going to happen," he says. On a hike in 2013, he met a nutritionist who suggested he drink raw milk, after which Farmer discovered how difficult it was to obtain. He had enough property and decided to help others, starting with a woman in Metchosin looking to get rid of her three cows, Audrey, LouLou, and Victoria.

"I hit the ground running," says Farmer. "I made a lot of mistakes. I had to throw away a lot of milk."

In September 2014, Mark McAfee, a raw-milk farmer and spokesperson for the Raw Milk Institute (RAWMI) in California, gave a talk at the University of Victoria that is available online. RAWMI was founded in 2011 because the U.S. also lacked standards for raw milk. The Institute's guidelines act as a resource for regulators, farmers, consumers, and legislators. "You'll never hear us say 'guaranteed perfect' because no food is guaranteed perfect," McAfee told the audience. "In fact, the idea that pasteurized milk is perfect is far from true." The U.S. Centers for Disease Control and Prevention has recorded 77 deaths associated with pasteurized cheese since 1972; there were zero deaths from raw milk during that time frame.

McAfee says that pasteurized milk is no longer milk but rather a milk product. Most people just don't have anything to compare it to. "Unfortunately when you don't have a market that's mature, like the raw milk market isn't mature, then people don't know what they don't have, so they won't go and say, 'Don't take that from me!'"



How to Collect Clean Raw Milk

VICTORIA THE COW MEETS FARMER AT THE GATE, but first he needs to feed the new calf, Solstice. Born on June 21, the calf will stay on the farm until she's weaned in four or five months. Calves take around two years to mature enough to produce milk. That costs money. Farmer says it's easier to buy a ready-to-milk cow on UsedVictoria.com.

In the milking parlour, Farmer gets a bucket of oats for Victoria and begins the cleaning process. Cleaning the udder has three purposes: it keeps the cow—and the milk—clean, while the massaging also triggers oxytocin production to “let down” the milk and to promote the health of the udder. Farmer uses a soapy towel, folds it in four, and double cleans all four quarters of the udder, flecking off bits of manure before cleaning around the teat.

The goal is to maintain the teats: remove the shit but keep the hundreds of types of beneficial bacteria that live on them. Farmer hoses away dirt, dries off the teats with paper towel and does the “stripping” by removing a few streams of milk by hand to check for abnormalities and encourage let down. The cleaning process takes more time than milking.

Fresh milk is warm and tastes slightly sour and more full than pasteurized milk. Farmer drinks the frothy liquid from a small container, something he always does out of respect for the cows.

The inconspicuous farmhouse where Farmer lives was built in 1913. The basement door looks onto the two acres of pasture, so he can keep an eye and an ear on the “girls” and his helpers while he carries out the next step in the milking process: filtering. Filtering determines whether or not the milk will go into people's jars. Farmer pours the last of the can's milk through the filter and inspects it. All clear except for a couple specks. “When I see things like that I think ‘Ehhhh, I didn't do such a good job,’ but you know, that's totally okay, it's a little grain of something.”

Just because Farmer is thorough doesn't guarantee

others will be—which supports the case to legalize raw milk rather than leave its production underground. “I know of other agisters that don't even check their filters before they put the milk into the jars,” says Farmer.

Milk is tested for two main things: coliforms, bacteria found in the digestive tract of animals (including humans), and standard plate count, the total number of bacteria in one millilitre of milk. There is also a routine yearly test for tuberculosis, a disease that no longer exists in B.C. Both Farmer and McAfee agree that showing consistently strong, safe test results is how to convince authorities to change the laws. Farmer tests every month and displays the results of the last two years on the fridge in the basement.

Farmer says the total coliform test results tells him how well he's doing “out there” in the milking parlour, while the standard plate count number reflects how well he's doing “in here,” where he does the filtering, bottling, and cooling. Cooling and storage affect test results. To keep bacteria rates low, milk needs to be chilled as quickly as possible, as bacteria doubles every 20 minutes at room temperature. Farmer uses a converted freezer that he keeps at 1.5 degrees Celsius.

Since raw milk is illegal in B.C., the province has no test standards for it. Some commercial dairy farmers also keep high cleaning standards, but the milk from those who care and those who don't all gets mixed together in one of the processors. Conscientious farmers don't get compensated for the time spent keeping their operations clean.



A Different Kind of Herdshare

FARMER'S COWS CAME WITH ROUGHLY 30 CLIENTS. That has grown to a total of 70 shares, although some members have multiple shares and others have only half shares. (One share is equal to four litres per week.) As Farmer fills the cowshare members' jars, he gestures to seven rows of wire shelves, one per day of the week, lined with name-tagged glass bottles. Members must provide and clean their own jars for the operation to remain legitimate. "The law allows that you can drink milk from your own cow, but I can't sell it and I can't distribute it," he explains, "so if I was putting milk in my own jars then that would amount to distribution." Farmer will reject any jar that appears contaminated.

Farmer doesn't like the term "cowshare" because of its association with people who operate illegally. He calls himself a "bovine mechanic" and compares the process to doing an oil change for a car owner. This mentality sets Farmer apart from other would-be agisters who own their cows. Because Farmer's cows came with member-owners, he never developed a sense of control over them.

Farmer has also innovated how to run a cowshare. "I knew nothing about it," he admits, "and it's just a beginner's mind: How should this be done?" He says his operation is now 95 per cent legal. Under the current contract, which covers both ownership and his services, he still has the final say over who can be a member; this power clouds clear ownership. He and the other members are working to turn the herdshare into a non-profit, which will then handle shares and hire Farmer purely for his bovine mechanics. "It's not tested in court," he admits, "but I believe we can have an entirely legal operation here."

A 2003 reply letter to the herdshare from the Ministry of Agriculture about enjoying a "dividend" from joint cow ownership explained that the *Milk Industry Act* "does not prevent you from consuming unpasteurized milk from a cow which you own." What if someone owns a cow but lacks the space or ability to care for the animal and hires someone else to do so—can the owner still drink its raw milk? In a second letter, sent in 2015, Provincial Health Officer Dr. Perry Kendall pointed out that "raw milk is considered a health hazard" and suggested "the double boiler method for home pasteurization," but, yes, the owner could drink it.

"So we know that the authorities agree that it can

be done," says Farmer. And yet the raw-milk trade remains illegal in B.C. "It is ridiculous how they've got these regulations structured."

When asked directly, Kendall remains opposed to legalizing unpasteurized milk and would not promote a regulatory framework for its sale. Unpasteurized milk, he says, has health risks, mostly food poisoning, especially for children and seniors. Kendall hasn't seen positive test results from raw milk farmers in B.C. and says that persuasive evidence would require a big data set. Based on test results from Quebec, which has a regulatory regime for raw-milk cheese, and from U.S. states that regulate unpasteurized milk, Kendall has still observed unacceptable levels of bacterial contamination and a higher risk of human illness.

"You can't test every product, every litre of milk from every cow, every time you milk them," says Kendall. "I know people want to drink it. However, scientifically, I don't think there's much in the way of evidence to suggest it is beneficial."

You can't test every litre of milk from every cow, every time you milk them

How to get raw milk legalized divides the raw-milk community. Farmer disagrees with outspoken advocate Michael Schmidt, the owner of Glencolton Farm in Ontario, who was convicted of distributing raw milk in 2011—and whose farm was raided again by authorities this fall. As a "loose cannon," Farmer says Schmidt has brought attention to the issue but also created publicity blowback for agisters.

Other raw-milk "mechanics" have copied Farmer's less-confrontational approach. "I don't have the baggage of people who've been doing it for decades and actually own the cows," he says.

Getting operations quasi-legal, however, puts raw-milk producers in a paradox where the regulations don't need to be changed. The status quo doesn't help anyone who wants raw milk but doesn't want to belong to a cowshare. And it doesn't help dairy farmers or cowshare members recover revenue by selling the extra milk.

"It can be done legally within the existing structure," says Farmer. "But it would be better if we can change the regulations and make an honest living out of it."

Cleaning up the Conditions

THE FINAL STEP IN THE MILKING PROCESS IS CLEANING up. Back in the milking parlour, Farmer says his ability to ensure his equipment is clean distinguishes his farm from larger commercial dairies, which use miles of pipe and large amounts of equipment—making pasteurization necessary. He mops the rubber mats with diluted detergent and talks about how people are turning to raw milk herdshares to reconnect with the source of their food and understand how the animals are treated.

“A litre of raw milk is a fair amount more expensive than the stuff you buy in the grocery store,” says Farmer. “But that’s a price they’re willing to pay.”

Farmer’s cows eat only non-GMO feed: grass from his field seven months of the year and hay for the rest. He plans to reseed his pasture next year with Indigenous grasses and legumes. As a treat during milking, his cows get a small amount of grain, using non-GMO pellets from a supplier in Duncan.

Farmer operates his cows on a milking lifespan of 10 years; anything after that is a bonus. The “girls” are between four and six-and-a-half years; the matriarch, LouLou, is nearing her peak. On commercial farms, the average lifespan is five years, as older cows are replaced by heifers and sold for meat. After 10 years, the volume of milk declines and the cows lose their value as producers, so the cowshare will decide as a group what to do then.

Testing the Health Benefits

AT LEAST 25 PER CENT OF FARMER’S COWSHARE clients drink raw milk to benefit medical conditions, including Lyme disease, Parkinson’s, and gastric problems. Proponents of raw milk’s health benefits are often influenced by the “Campaign for Real Milk,” from the Weston A. Price Foundation. Founded in 1999, the foundation focuses on “real” instead of processed foods and lobbies for universal access to raw milk.

Linda Morken, the head of the Victoria chapter, got involved with the foundation while treating a chronically depleted immune system. “I had a chest cold that lasted for six weeks,” says Morken. “That was the turning point.” Her research led to information about gut flora, which can affect physical and mental health. As chapter leader, she informs members about local sources for farm-fresh foods.

Morken is quick to point out that she’s just a grandma, not a nutritionist. She gets constant requests from people seeking raw milk and passes along names to raw-dairy farmers. Because of the law, she never gives out information on her own accord. “There is more demand than there is supply,” says Morken.

Morken has written letters to the B.C. Minister of Health and editorials for local papers. “It’s a simple food-rights issue,” she says. She also believes raw milk should be legalized so it can be regulated. “I’d be afraid to drink raw milk that was not being raised according



Photos: Hannah Golding



to standards that people who know how to keep raw milk safe have developed,” she says, citing the work of McAfee.

The evidence, however, for the health benefits of raw milk remains anecdotal. In July 2015, John A.

Lucey, a professor

of food science at the University of Wisconsin-Madison and director of the Wisconsin Centre for Dairy Research, published a review titled “Raw Milk Consumption: Risks and Benefits.” The article explains how “recent scientific reviews by various international groups have concluded that there was no reliable scientific evidence to support any of those suggested health benefits.”

The same review claims that pasteurization causes no changes in the protein quality or mineral concentration and only minor losses of vitamins. However, effects of the industrial dairy process not related to pasteurization—such as packaging material, light exposure, storage time and temperature, and type of feed—can impact the nutritional quality of the final milk product.

According to Dr. Perry Kendall, reviews commissioned by the Office of the Provincial Health Officer suggest there is a risk with no real benefit. He is also troubled by how online advocates promote the benefits of raw milk for children, who are at a higher risk for serious outcomes and who, unlike adults, cannot make their own informed decisions.

And what if proponents of raw milk one day sway politicians to legalize their drink of choice? “If the government did want to create a regulatory regime, I would like to be engaged in defining how strict it would have to be,” says Kendall. “It would have to be self-financing, and I would want a caveat that said you do not give this product to children.”

Linda Morken thinks more research can be done to understand bacteria’s role in human health. “I get disillusioned by the fact that our modern world thinks we have to prove everything in a reductionist kind of way,” she says, “when it’s already been proven by thousands

and thousands of years of tradition where people didn’t have the illnesses we see today.”

Both she and McAfee talk about raw milk benefitting allergies and asthma. Lucey’s scientific review did not find any data to link pasteurized milk to an increase in respiratory allergies; however, he did cite epidemiological studies that suggest growing up on or near a farm can decrease the risk of allergies and asthma.

And here is the crux of the debate. As McAfee says, “We have city folk wanting to have immune systems like country folk.” A 2010 paper in *Preventative Veterinary Medicine* showed that nearly 90 per cent of Canadian dairy farmers consume milk unpasteurized. Maybe our disconnection from the land bothers modern urban consumers. We have learned where our other food comes from, so why not dairy?

People can switch to nut milks, but nut plantations have big ecological footprints, while dairy remains a high source of protein and fats. (And who really wants to trade cheese and ice cream for a nut-milk substitute?) While it might be hard to raise cows in the city, getting in touch with the source of our milk products can empower consumers to make better choices about their food. Until there’s a change in the regulatory framework of raw milk, however, that choice will remain out of reach for most of us.

“It’s a simple food rights issue

FARMER TELLS A STORY OF TWO GIRLS FROM A NEARBY school who walked past a neighbour’s field where he had pastured his herd for the day. The girls stopped to take selfies with the animals. One of the girls asked, “Are these cows?”

“Of course they are!” said her friend.

“Well, they’re not black and white.”

Farmer laughed. His own three “girls” are tawny light-brown jerseys, favoured for raw milk because they have the highest milk fat content of any cow. The schoolgirls only knew the stereotypical black-and-white cow, usually a Holstein, like Daisy the Island Farms’ mascot. That was the animal you get milk from. In reality, a Holstein is just one of 800 breeds around the world.

“It’s so out of touch. It’s crazy,” says Farmer. “And I think it’s true for so many people.” ♦



Island Spirits

Vancouver Island distilleries take advantage of new laws to catch up with the craft beer boom

BY MADELINE MCPARLAND

UNDER THE HOT SUN AT THE FARMER'S MARKET IN Duncan, B.C., Jessica McLeod and Jeremy Schacht sit with a sign that reads "Ampersand" and a bottle of gin. They pour sample shots for curious browsers and explain the origins of their company, Ampersand Gin, which is one of several new ventures on Vancouver Island carving out a niche in the growing craft distillery market.

Head to almost any liquor store in the province, skip past the bottles from the big brands, and you will discover how easy it has become to buy a locally brewed or distilled libation. In April 2015, British Columbia loosened regulations under the *Liquor Control and Licensing Act* to support local distilleries. Since then, new operations have been pumping out locally made and often organic spirits. In 2012, B.C. had eight craft distilleries; in 2015, there are 30 and

counting. The popularity of B.C. craft beer over the past two decades helped blaze a trail for buyers willing to support local spirits—and the distillers ready to sate customers' palates with homegrown hooch.

So what's really new in B.C.'s craft booze business? The legislation now allows products distilled from 100 per cent raw B.C. agricultural materials to be sold directly to customers or restaurants without interference from the B.C. Liquor Distribution Branch (BCLDB)—what's known to wine-makers as "farm gate" status. Previously, even if a product were 100 per cent B.C.-made, the bottles had to be shipped to the mainland and sold through the BCLDB. That logistical inconvenience meant lower profits for distilleries, higher prices for buyers, and a larger carbon footprint from the distribution process.

Ampersand Gin has capitalized on the new farm

gate status—which seems apt, as the distillery operates out of the family-run, five-acre Sol Farm, located in the Cowichan Valley. Ramona and Stephen Schacht started the farm in 2008 as a retirement project and sold organic vegetables at markets throughout the Island. The family farm and its organic attitude made a perfect space for son Jeremy and his girlfriend, Jessica McLeod, to start a gin distillery in October of 2014.

McLeod graduated from UVic’s theatre program and says her job as a theatre manager helps her manage the four-person, family-run business. Schacht studied chemical engineering and applies his can-do mindset as a self-taught welder and distiller. The two are especially proud of the hand-crafted stainless steel stills they use to distill the wheat. Schacht welded the stills and made the bases from local cedar. Why build your own? “Necessity is the mother of invention!” says McLeod with a laugh. DIY stills save money for a small start-up and make a good conversation-starter when selling spirits to visitors.

McLeod and Schacht have fused their theatre and engineering backgrounds with local ingredients to create a product—and a company—they love. The new farm gate status helps to maximize revenues and rewards Ampersand for using all local and organic ingredients, including B.C. wheat, lemons, and juniper—the essential flavouring of their gin—from Harmonic Arts Botanical Dispensary in Comox. At the



March 2015 World Spirits Competition, Ampersand won the Silver Medal for Local Beverage of the Year, a big shot of confidence within months of opening shop.

FARM GATE STATUS IN B.C.’S LIQUOR LAW COMES AT A crucial time, as the province’s wholesale buying model has also changed to simplify the BCLDB’s complex system of discounts. Previously, independent wine retailers received a 30 per cent price reduction and private liquor stores received a 16 per cent discount when buying products wholesale from the BCLDB. These discounts have been scrapped; now all liquor retailers, including BC Liquor Stores, purchase from the BCLDB at a common wholesale price.

The change to wholesale often means higher prices for consumers, who now pay more for local favourites.

Phillips Blue Buck Ale, a Victoria staple, was \$8.76 for a six-pack in March 2015 but jumped to \$9.55 in April. The silver lining is that if new distilleries qualify for farm gate status, the reduced red tape benefits private retailers, such as Cascadia Liquor Stores, who may be more inclined to stock local spirits and pass savings along to customers.

Victoria’s Phillips Brewing Company jumped into the action

spinnakers

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five dark blue diamond shapes

this spring to take advantage of the new law. Under a new branch called Fermentorium Distilling Co., Phillips is producing small batches of Stump Coastal Forest Gin using “hand-foraged herbs” and a hop liqueur, or “elixir.” Everything in the gin is of B.C. origin, including the grand fir and pine that give it its name, so Phillips can sell the product to retailers without going through the BCLDB.

legislation signals good times ahead for B.C.’s growing distillery industry. Victoria Spirits, founded in 2008, now makes a gluten-free and kosher gin, a vodka, and a whiskey, while Sheringham Distillery, in Shirley, produces a vodka and a double-distilled white whisky. Thirsty tourists to Vancouver Island can add craft distilleries to their itineraries of local breweries and B.C. vintners to visit.



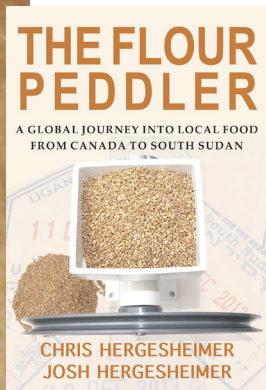
Owner Matt Phillips says spirits are a continuation of his company’s brewing process. “It is one more step,” he says. “Much like we are reaching further upstream by working with local farmers to grow our barley, and then building a malting plant so we can use it for beer and whiskey, the distillation is reaching further downstream.”

The fact that well-established local companies such as Phillips see new opportunities in the revised liquor

While prices may have increased for wholesale distribution, the new legislation allows small, local distilleries to find a niche and flourish independently. The ripple effect from drinking locally benefits everyone from wheat farmers to botanical providers, and it gives a boost to our backyard economies while easing the impact on our environment. That’s something we can all raise a glass to. ♦

The Flour Peddler: A Global Journey Into Local Food from Canada to South Sudan

By Chris and Josh Hergeshmeir



THE ABILITY TO GROW GRAIN IN B.C. is probably something most people have forgotten about. As the sprawling Fraser Delta is slowly but surely converted into housing developments and strip malls, we've lost the farmland where grain once grew. But the question of how to not only find

it, but also mill it became an obsession for one man.

The Flour Peddler (Caitlin Press, 2015) tells the story of Chris Hergesheimer, the pedal bike he converted to mill the grain into flour, and how this simple invention landed him and his brother Josh halfway around the world in the place where the story of grain began: South Sudan. Chris, a consultant on food and farming issues and a UBC PhD candidate, narrates the book, co-written by Josh, a writer and photographer.

The story starts strong in South Sudan but feels a bit tone deaf given the conflict there. The Hergeshmeirs have a personal connection in their friend William Kolong. They discuss the complexities of aid and the conflict later, but that vital context should come earlier. The narrative meanders through small business difficulties, the history of B.C. grain as told to schoolchildren, farmers market drama, along with the present-day journey.

The story discovers its focus when they get to Panlang, where they work with a woman's cooperative to find the best way for them to use the bike mill in the community. They had a bespoke bike mill constructed when they arrived to make use of local talents and materials, and its assembly and travel arrangements supply much comic relief.

While the Flour Peddler wasn't the right business opportunity for Chris, it might work for someone else, and this book works as an educational resource for those who may wish to try. The epilogue finds Chris in Haiti sharing his technology with a community that needs it, and in these scenes the message of the bike and the book become more clear: "It's important to have control over your food—how it is grown, processed and eaten."

— QUINN MACDONALD

The Urban Homesteading Cookbook: Forage, Farm, Ferment and Feast for a Better World

By Michelle Catherine Nelson



WHEN I FIRST SAW THE COVER OF this book, my reaction was "Yes!" Author Michelle Catherine Nelson poses in a sleek floor-length black dress in the kitchen of her modern high-rise apartment, petting a large rabbit and clutching a chicken. Anyone who knows

what homesteading is understands they aren't pets.

An urbanite and "frustrated farm-lover," Nelson was bent on learning as much as she could about homesteading and its DIY methods. She collected books and took courses, waiting for her "One Day" when she would have the space and time to start living that dirt-under-nails lifestyle. Finally, she told herself, "No more One Day." She would homestead in the city instead.

The Urban Homesteading Cookbook (Douglas & McIntyre, 2015) is half-cookbook, half-field-guide for homesteading amid the urban sprawl. Vegans may cringe at Nelson's "humane dispatch" of rabbits and the ensuing butchery, but her book's light style and matter-of-fact explanations are both sensitive and well-informed.

Nelson sprinkles the text with clever recipes designed to excite back-to-the-farm enthusiasts. Any newbie forager will tell you Nettle Pesto isn't just delicious, it makes sense, too, but recipes for Beer Vinegar, Seaweed Kimchi, and Insect Flour may startle and surprise. Less racy recipes include Steamed Dungeness Crab with Garlic Butter and the common but oh-so-delicious Easy Strawberry Freezer Jam.

Photographs capture the humble pilgrimage of the forager and, with every second recipe presented outdoors, the book captures the rustic essence of homesteading—a clutch of still-on-the-vine blackberries resting beside a frosted glass or a high-end cut of rabbit dusted in rock salt and served on a skillet with a sprig of flowering thyme.

If the thought of wrangling mussels in the intertidal zone gets you giddy and you lust for a cellar stocked with home-grown preserves, then this cookbook deserves a spot on your kitchen shelf.

— KIMBERLEY VENESS

sustainable structures



Camas Gardens

Where: 950 Humboldt Street

Who: Chow Low Hammond Architect Inc.

PACIFICA HOUSING HIRED ARCHITECT PAUL Hammond with a clear mandate: design a social housing project that neighbours and residents wouldn't recognize as social housing. As you walk along historic Humboldt St. and approach the modern design of Camas Gardens, you can tell he succeeded—and then some.

Officially opened in 2011, in a partnership between the City of Victoria and the provincial and federal governments, Camas Gardens provides 44 units to those at risk of homelessness, with a focus on residents with mental-health and addiction issues.

Hammond knew the stigma associated social housing and the risk of community backlash, so the partners held public hearings around the design. He also says that architects of social housing get criticized for using public dollars to make a building that “looks nice.” Camas Gardens came under budget, at \$7.2 million, no more expensive than a similar type of structure. It was built as a public resource for the next 70 years that would fit naturally into its downtown neighbourhood.

Several factors informed Camas Gardens' LEED gold rating. Hammond used passive solar design, with elongated units in the south-facing building, to allow for 75 per cent daylight in all spaces and views from 90

per cent of habitable spaces. An overhang protects the warm wood used on the walls around the courtyard and provides partial shade for the windows.

More than 75 per cent of construction waste was diverted from landfill and 20 per cent of the materials were extracted or manufactured locally. An air-to-water heat pump and solar-water heating system supply water to the in-floor radiant heating and cooling system, so that residents can feel the warmth on their feet against the durable concrete floors. Hammond's team used dark-red recycled glass to create what he



Photos: Rob d'Estrube of Destrube Photography Ltd.

calls “a poor man’s terrazzo.” High-efficiency LED lighting, durable aluminum windows, low-emission paints, and cohesive and wood materials also helped to earn LEED gold.

Each suite contains a full kitchen, while a downstairs community kitchen provides space for larger gatherings and monthly communal meals plus access to the courtyard for summer barbeques. On Sundays, the baking group meets and shares goodies with the Monday coffee group. The full kitchen and dining area also allow local chefs, including staff from The Fairmont Empress, to mentor and cook for residents.

“This place helped me feel safe to go through my recovery,” says Kat, a resident who has lived on the street and in other housing complexes. She likes the double-lock system on both the outside and inside doors, a special vestibule designed by Hammond to help residents shed any unwanted visitors. Unlike other buildings in which she has lived, residents at Camas Gardens visit each other’s suites and yet still enjoy a calm atmosphere. “The weekend is so quiet you can hear a pin drop,” says Kat, “and I’m not used to that.”

The layout of rooms, stairways, and hallways emphasizes visibility and allows residents to choose how and when they interact with each other. “You can see on the ground floor that there’s quite a bit of

transparency,” says Hammond. “The facility is serviced 24-7 with staffing, so visibility, safety, and security was paramount.”

A common room for outside resources, such as street nurses, partially blocks the courtyard and gives residents privacy. On the floor above sits the library and an art supply room. The adjoining patio offers views of the neighbourhood and houses the community garden. Soil and seeds are available for residents who want to get their hands dirty.

The high-reflective membrane roof combines with the rain garden that wraps around the lower floors to cut down on the heat-island effect of any new building. The garden also keeps water from city drains and acts as a green roof over the attached garage. The building received zoning variance to allow for only seven parking spaces, offset by secure and monitored bicycle storage in the courtyard.

Camas Gardens won multiple awards for sustainability and design. More importantly, this green building provides a safe and beautiful place for residents such as Kat to fit into the neighbourhood, just like anyone else.

— QUINN MACDONALD

