

Slow Clothes on the California Horizon!



LOCAL
fiber



Fibershed!

Story and Images by Andrea Swenson Dunlap

Creating an interdependent community
of farmers, makers and wearers.

LOCAL
dyes



LOCAL
designers



San Francisco's Golden Gate Bridge.

High above the Bay Area with a distant view of the Golden Gate, gardens sprawl over a lush 34 acres where there are 13,000 varieties of plants from all over the world. This is the Fibershed in the Botanical Gardens of UC Berkeley.

I arrive on a sunny California winter day and many of the plants are dormant. As I pass through the front gates, I meet up with Fibershed producer Deepa Natarajan, who is the part-time program coordinator.

Natarajan guides me through the lush park, infused with plants and people who love them. We wander through gardens that are organized into world regions and we come upon a small shed. As we duck inside, an art installation of 1,400 luminous glass solar tubes are installed along a wall facing Strawberry Creek. The tubes are open to the outside and the sound of falling water echoes in the hollow room. The interaction of the cylinders and the sunlight makes the edges of the clear tubes glow a breathtaking neon blue, reminding me of plant dyes which produce colors quite disparate from the color of the original plant.

The Fibershed at UC Berkeley is one of many that have cropped up in recent years, but the concept for the Fibershed can be traced to one woman.

As a textile artist and concerned citizen of the earth, Rebecca Burgess had come to the realization that her way of dressing was not in sync with the rest of her sustainable life, and she decided to do something about it. In September 2010, she packed up all her clothes and put them away for a year in a family storage unit. She left herself with a single

pair of pants and one shirt. Over the next three weeks, new clothing would arrive at her home, all of it made by family and friends, and all of it made using only local materials.

Burgess lives surrounded by sheep and cattle ranches in a small town in the rolling hills of Northern California, less than an hour's drive from San Francisco. The region has been a hotbed for the local food movement. Eating fresh local food is nearly the status quo here. Any potluck dinner provides the clearest evidence.

Beyond locally sourced food, Burgess saw a local clothing industry as the logical next step in sustainable living. And, as it turns out, the development of a healthy local textile industry has also been an incredible way to build community.

Burgess coined the word 'Fibershed' to describe the infrastructure for a cache of locally harvested and woven cloth. The concept is meant as the textile equivalent of foodshed, an area of land that contributes to the local food



supply, or watershed, an area of land that drains into a body of water such as a river or lake.

The Fibershed concept first came to life in a year-long project to create textiles and clothing designs that would be sourced within a 150 mile radius of the project's headquarters in San Geronimo, California. This required that all aspects of textile materials — fiber, labor and dye, be highly localized, as well as the design and labor in clothing manufacture.

Since its beginnings in 2010, Fibershed has become a membership organization, a marketplace, a certification body, and an education hub. In addition, it is a thriving model for at least 50 sister organizations around the U.S.

The UC Garden is where Deepa Natarajan first met Burgess, as they shared a mutual interest in botanical dyes. Natarajan is an anthropologist by training, and her interests in people and plants segued into a study of ethnobotany. Upon joining the staff of the Botanical Gardens, she heard about a dye garden that had fallen into disrepair and thought, "We should get that back." As she revived the garden, she scheduled workshops and related events that eventually brought Burgess and others together. These meetings turned into inspiration and collaboration, a theme that continues within the Fibershed to this day.

As we settle ourselves on a bench in the middle of the garden, Natarajan shares with me her thoughts on the importance of participating in the Fibershed.

"Textiles," she says, "are the number one polluter of fresh water — fertil-



Deepa Natarajan at the Botanical Gardens of UC Berkeley.



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This was not always the case. The first synthetic fiber was created in 1855, and the first synthetic dye in 1856, at a time when science and chemical experimentation had begun to snowball into a wave of innovation that has continued, exponentially over time, to this day. Prior to the development of synthetic dyes, a thriving dye industry traded color-rich plants like indigo or saffron from all over the world. Natural dye, however, is unpredictable, and the textile industry’s fervent embrace of its more consistent replacement, wiped out the botanical dye industry within a few decades.

It is exactly the capricious nature of botanical color that attracts Natarajan.

“What I love about natural dye is the magic, the seasonality of it. Everything influences the color — nutrients in the soil, the time of harvest, and the phase of the life cycle of the plant. For me, it’s a practice of gratitude — loving everything that comes out of the dye pot. The desire to produce huge quantities of consistent flat color has gotten us into the eco crisis we’re in now.”

Natarajan is interested in shifting the aesthetic. She believes the solution is to treat clothes as objects you treasure, an investment that you plan, own, and wear, for a lifetime. Of course, there is always a danger in idealizing traditional ways of living.

Today’s burgeoning interest in natural dyes and fibers has echoes of the 1970s back-to-the-land movement, which proved transient. “We have to avoid making it a fad. We have to put science behind it — and the threat to our health — that’s very real.”



Mali Mrozinski get acquainted with other members of the Fibershed. Photo by Paige Green.

An advertisement for Abenaki Acres Farm. At the top, there are four rectangular panels showing different textures of alpaca fleece in shades of pink, grey, yellow, and red. Below these panels, the text "ABENAKI ACRES FARM" is written in a large, blue, serif font. Underneath that, in a smaller black font, it says "Alpaca Fleece, Colorful Yarn, Rovings, Rug Yarn, Finished Rugs". At the bottom of the advertisement, there is a row of eight small rectangular panels showing various patterns and colors of yarn or fabric. Below this row, the text "Stockton, NJ" and "www.ABENAKIACRES.com" is displayed in a black font.

It does seem, though, that the fashion industry could use a push in a more earthy direction, a process which could be helped by new research and a greater awareness of the impact of synthetics on the environment.

Fifty miles from the Fibershed project's center, Robin Lynde's flock of 65 adult Jacob sheep couldn't care less about natural dye. Jacobs sheep are variegated white and brown, and with each shearing, Lynde hand-sorts the fiber to isolate the colors, creating various ply yarns with the wool every year.

"As a spinner, you end up with sheep whose wool you like to work with," she says. The sheep are small and the wool is all-around useful with an average micron count in the 26-35 range. Lynde has standardized on a system she developed: she sends a fleece sample to be tested for every member of her permanent flock's second shearing.

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Lynde has found the Fibershed truly exciting. "I wish we were at this point twenty years ago — I'd feel like if I put my time into it, it could be a full-time job. It's not cotton balls and popsicle sticks — people doing things as a hobby. It's a new marketplace." She thinks they are lucky to be in the Bay Area with the buying power in the region. "People here can afford this as a lifestyle choice and appreciate it. They'll already pay more for their food—it's not a Walmart crowd."

Local clothing designer Monica Paz Soldan echoes this sentiment, but from the other side. "We're educating people and getting something started. This is a necessary part of my income, but it's difficult to charge what I need to because there's limited knowledge in the general population as to the actual cost of materials."

Paz Soldan was one of the very first contributors to the Fibershed prototype wardrobe initiated by Rebecca Burgess. "People were intimidated by the idea of knitting cotton, but it didn't bother me." She hand-knit a short-sleeved cotton bouclé shirt that Burgess wore everywhere. The cotton was grown by Fibershed producer Sally Fox, who has been growing colored varieties of cotton for the last twenty years or so.

Having access to a variety of fiber types was something Burgess really appreciated as her Fibershed wardrobe grew and altered with use. She observed how the clothes performed over the year, through the changing seasons. She says the results after a year's wear and tear show the cor-

Continued on page 50.

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“When I can I bring a wheel to the farmers market and spin, but it draws such a crowd it blocks the other vendors. People use words like ‘string’ and ‘rope’ to describe what I’m doing. They ask me the difference between knitting, crocheting and weaving. If you lose the vocabulary you’ve really lost something.”

Mimi Luebberman

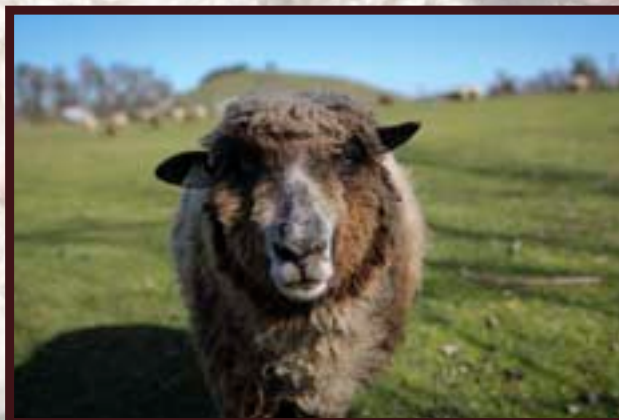
“Shipping things around the world is silly but it happens all the time.”

Monica Paz Soldan



“Working on the farm is a lot of on-the-job training. I didn’t realize I’d be a doctor, a mid-wife, and a gravedigger.”

Mimi Luebberman



“When you pay a fair price to the farmer you don’t put it on a ship and have it processed in China.”

Monica Paz Soldan



Mimi Luebberman evaluates a fleece for a potential buyer.



riedale cross [wool] pilled less, remained smoother, and even cleaner, in response to the external elements. Her casual research proved to her and her designers that the mid-range wools are a very good choice for outerwear garments.

Meanwhile, the three pairs of hand-made wool socks that got her through the year were worn, darned, and began to felt with the heat and wear of near-constant use. “This created an even stronger sock,” she says, “as it morphed slowly into what looked like a soft shoe. The felted soles become an attribute, and create a surprising level of comfort.”

Experiencing the behavior of different fiber over the course of the year gave her the idea of starting a FiberLab, where people can research techniques for processing, blending, knitting and weaving using regional materials. The FiberLab is one of several tangents prompted by the wardrobe experiment, which initially illuminated chinks in the region’s fiber infrastructure.

The greatest void in the Fibershed infrastructure is the dearth of mills and therefore, of course, textiles. Key to the success of that first wardrobe was cotton grower Sally Fox’s collection of fabric — which had been in

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The advertisement features a dark brown background with a photograph of a herd of muskoxen in a grassy field. The text is arranged in a clean, professional layout, with the brand name in a large, elegant script font and the tagline in a smaller, sans-serif font. The website URL is prominently displayed at the bottom right.

storage since the demise of nearly all the local mills in the 1990s. The lack of mills has prompted the Fibershed folk to partner with UC Davis Sustainable Agriculture students to research the needs of the region and determine what types of additional facilities would serve it. Burgess says that the hope is to better understand the quality, quantity, and land-management issues related to fiber animal raising practices in the region.

The most egregious void in the Fibershed seems to be the dearth of mills. Key to the success of that first wardrobe was cotton grower Sally Fox's collection of fabric which had been in storage since the demise of nearly all the local mills in the 1990s.

"The questions are all related to microns, rotational grazing, irrigation, and annual quantities of wool produced," she says. "We might end up recommending a fine-gauge yarn mill & felting facilities... we just don't know yet."

Fibershed producer Mimi Luebberman isn't entirely convinced that a mill is necessary. For the moment, she's satisfied with the work of the nearby Yolo Mill, about sixty miles away. Because it's one of only two mills in the region, there can be a very long wait for fiber to be washed and spun — up to 9 months, according to Designer Paz Soldan. They also can't provide a very fine gauge yarn, which is a disappointment if, say, you're keen on having locally produced underwear.

Mali Mrozinski, a Fibershed designer, thinks a local mill would be a great educational resource, and one that would very much suit the culture of the area, which is awash with DIY enthusiasts.

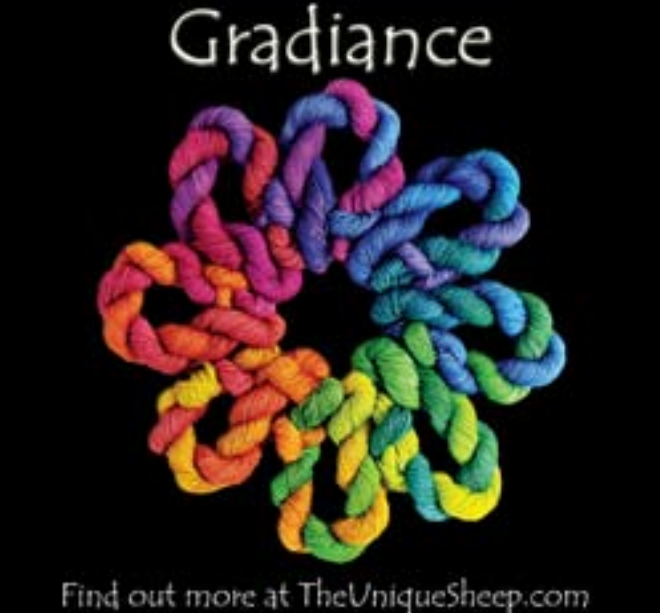
"I'm not the one crunching the numbers, but I'd love to see a mill in the city. If people can touch things and understand the soil-to-skin process, they would start to trust it on a scale beyond its current scope. Not a lot of people want to venture the hour to go to a farm to begin the process of having something to wear."

For the farmers, too, having another mill would alleviate some key obstacles in getting the fiber processed. Within the region of the Fibershed, an estimated 1.5 million pounds of 'waste' wool go unused every year — they are either put into storage or used as fertilizer. Many sheep farmers in the region grow their animals primarily for meat, a trend that began when synthetically-derived fiber and international trade began their slow and steady assault on the U.S. wool market. Though Northern California still produces top-quality fiber, it can be difficult to sell. As Luebberman says, "It's too much work to market wool skein by skein."

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one aspect of a diverse revenue stream that often includes teaching as well as selling a variety of products, from meat to scarves, to local shops. While the jury is still out on how much the Fibershed contributes to the local fiber economy, it is clearly bringing more money into the fiber system. Perhaps more importantly, it is building a vibrant community of producers and users who can also barter materials and skills.

Designer Mrozinski enjoys the greater sense of collaboration that knowing farmers personally brings. She has long enjoyed the process of designing with limitations, and used to work primarily with found and antique objects.

“The Fibershed has liberated me in terms of my materials and where I can get them. I just sent 21 pounds of merino wool to a mill to be processed! I’ve never done that before in my life! I was on the phone talking about staple length and YPP (yards per pound). I’m completely foreign to this, but for all these farmers, sending wool to the mill is just part of their yearly process.”

Arguably the biggest impact of the Fibershed is its capacity as a tool for educating the public. “It takes eight months to grow cotton, and people treat it like it’s paper towels. People buy cotton clothes and wear them three times before they throw them away. The price is so low they can consume, consume, consume,” says designer Paz Soldan.

In contrast, the story and promise of the Fibershed is a powerful catalyst, pleasantly echoing an awareness among a population already excited by the food movement.

Over the course of this story I’ve come to realize that, since I live within the 150-mile radius of the Fibershed, I’m another link in the chain back to the farm. The success of the Fibershed concept hinges upon people like me learning about the effort, and supporting it not only with my dollars, but with my personal aesthetic. So far the results are good. I can only afford one thing at a time, but I’ve found that this dress doesn’t really need to be washed yet anyway. **WF**

For more information about the Fibershed and ideas for how to start your own local chapter, visit www.fibershed.com

Thinking about starting your own Fibershed Project?

Every fibershed project will have its own specific signature depending upon the landscape for which it begins.

To begin ...

- Start by finding out what is being grown and raised in your region, and who is doing that work.
- Find out who has the knitting, weaving, spinning, dyeing, and sewing skills to bring the clothes to life.
- Allow this research to inform the size of your Fibershed. Many of these landscapes will be bigger than 150 miles from your front door. Seek to create the smallest region possible while still honoring your needs.