

# *The Bullock's Permaculture Homestead*

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## Autumn Newsletter 2008 (v. 7)



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## News & Upcoming Events

- Upcoming Course Dates
  - Introduction to Permaculture – May 29-31, 2009
  - Permaculture Design Course – July 19 – August 8, 2009
  - Permaculture Youth Camp – July 19 – August 8, 2009

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## Words from the Daver

Well we've had another cool, rainy summer here on Orcas. This year everything was about a month behind schedule (plums, figs, apples, etc.). This is the second year in a row that has felt like the Northwest decided to skip right over summer and move us directly into fall. I should be battling the urge to be outside in the sun right now, but it is surprisingly easy to sit and write today since it's overcast and showers just started.

Thinking about the last two summers makes me ponder a couple of Permaculture essentials: flexibility and diversity. Flexibility is important. Although the plums were a shadow of their usual selves this year, everything leafy just grew and grew. We've got mammoth kale plants, the best lettuce I've seen since I've been here, and spinach that has resisted bolting in August. We may complain that the plums are splitting open and taste kind of watery, but we are by no means short of food to eat. The ability to be flexible with our diet is getting us through this year.

Diversity is one of the buzzwords that often accompanies Permaculture conversations. In years like this we see good cause to push our diversity edges. Some folks claim that the weird weather we're experiencing is a direct result of global warming. Others say that it's just a couple of fluky years. Whatever the reason, having a diversity of crops is definitely helping us to keep our productivity up.

In fact, with climate change on everyone's mind these days, looking at the Permaculture principle of increasing diversity is particularly pertinent. Here at the Bullock's one way of doing this is to take advantage of each and every microclimate to its fullest extent.

In case it gets colder, we grow things like the 'Heyer 20' apple. This apple produces well here and currently fills a niche for an early producing apple. However, this particular variety was selected for the cold winters found in places like Saskatchewan and Siberia. It is a late flowering, short season tree that produces a tasty fruit. Therefore, hidden in its genetics is the ability to flourish in conditions that would cause other apples to become unproductive or die outright. Should snowstorms sock us in early some winter in the near future it will be comforting to know we'll have an apple that's up for the challenge.

In case it gets warmer, we have planted loquats throughout the property. These can be found lurking around the property in a wide variety of soil types. They comprise a good portion of the perennial understory. As of right now they have not born a single fruit yet. However, should temperatures warm even slightly, we may start pulling off crops of delicious, little one-inch fruits. The best part, however, is that loquat leaves have anti-carcinogenic properties, making these trees useful today. If it gets warmer they only get better.



In case our winters get more arid we've got select spots on our property where we are growing a wide variety of prickly pear species (*Opuntia spp.*). These spots are super sunny, well-drained, and surrounded by heat-retentive black rocks. We've got our native variety as well as specimens from Nebraska, Iowa, and New Jersey. Prickly pears produce a delicious, juicy fruit that is excellent for jelly. They also have beautiful flowers and edible pads (in Mexico these are called 'nopales').

In case our summers get wetter, we've got pawpaws that love humid, warm conditions. Pawpaws have been planted near the marsh to provide them the greatest level of summer humidity possible. For the uninitiated, pawpaws are a tree fruit native to the Eastern US from Michigan and Pennsylvania to Louisiana and Georgia. They produce a large, creamy fruit with a taste like banana custard. Currently, they seem to grow alright here on Orcas and we've even had them

flower and produce a handful of fruit. However, with higher humidity during the warm summers, they just might explode with growth and start really pumping.

The simple fact that a small portion of the microclimates on this property have been dedicated to climatically marginal species provides an inherent level of security in a situation where climate change is a possibility. Should our climate shift in any direction, the genetic material is present here onsite to form the basis for shifting production to new key species through propagation.

Well, the rain has let up and I hear the sounds of industry starting up outside so I suppose it's time to sign off. Though, I'd like to make a final plug for carefully looking at your microclimates if you plan to do any planting this fall. What if you dedicated just 10% of your unique microclimates to marginal plants that would be beneficial in situations of climate change? Plant material you provide could be the stabilizing factor for your family, your community, or your bio-region someday. It's like an insurance policy, of sorts.

Have a great harvest season!

Dave

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### Fibers of Life: the Role of Fiber Plants in Permaculture Systems by Heidi Bohan

Fibers play a role in virtually every daily activity; from the clothing we wear, to the furniture we sit on, the containers we store our foods in, the tools we work with, the materials we communicate with and the vehicles that transport us. They are hidden in soft fabrics, strong rope, fine paper, flexible containers and insulating walls. Our awareness of fiber is usually limited to those moments we ponder the weaving of willow or wool, and in these days are simply overwhelmed by the sheer volume of manufactured plastic and metal alternatives we now use.



The Nova documentary 'Secrets of Lost Empires-Inca' records a village working in unison to convert fiber from short grass into rope many inches thick and a hundred feet long to create the amazing suspension bridges used to span the deep chasms between villages. These bridges are made every two years or so, and are in current use today. That is perhaps one of the most dramatic examples of the importance of understanding fiber and the techniques used to transform it

into something vital for daily life. Short grass in and of itself will break easily but it is almost magically transformed with the twist of hand into something that can carry precious life safely.

Each culture, in each region, had its own set of fibers ideal for the purposes of comfortable living. The techniques used to transform this fiber into useable objects are a part of the traditional art form of that culture, and often what we most often identify each cultural group by. This knowledge of fiber, among many others, was at the core of daily survival, and the traditional knowledge and skills required to work these fibers is in many cases entirely lost, or at the bare edge of memory.

There are those like me, who feel it is imperative that we keep these threads of knowledge alive. We have at least 10,000 years of human knowledge, 500 generations of inherited trial and error, lost in just two or three generations due to the abundance of an unsustainable resources. This knowledge from the ancestors still has value to those of us who look towards a sustainable future.

I once had a wonderful opportunity to exchange knowledge with a well known, traditional Salish basket maker, who made her tribal root baskets from manufactured cotton and wool yarns as she had been taught, instead of the more ancient and original dogbane hemp cordage. With permission I showed her how to make the cordage from dogbane stalks I had gathered, while she showed me the weaving techniques to make this important basket. That was truly one of those moments...

Here in the Pacific Northwest the plant fibers of choice were red and yellow cedar bark, dogbane hemp, nettle, cattail, tule, cedar root, spruce root, sedges, seagrass and bulrush, among many other less used fibers. Animal fiber included wool from mountain goat and specially bred 'wool dogs', sea mammal gut, hide and sinew from elk, deer and mountain goat, among many other animal resources.

A visit to the local natural history/anthropology museum can quickly identify your regions native fibers; in our area our best is the Burke Museum in Seattle. These are usually smaller museums with reconstructed traditional housing and artifacts and are very rewarding to visit. They are often one of the first places I go to when I visit a new area. Better yet are tribal center cultural museums, put together with the approval of tribal council and elders, and often include seasonal rounds and skills information. In the northwest the Makah Museum at Neah Bay ([www.makah.com/mcrchome.htm](http://www.makah.com/mcrchome.htm)) and the Yakama Tribal Museum in Toppenish ([www.yakamamuseum.com/](http://www.yakamamuseum.com/)) are standouts.

One of the first traditional skills I like to teach is the act of making cordage from a natural material, preferably harvested locally from native plants. Cordage can range from silken thread to thick rope. It can simply be a twisted single strand, but more often it is a strand of fiber twisted and then counter-twisted on another same size twisted strand to create a two or three 'ply' cordage. The fiber used is typically material that already has fibrous tensile strength, but I have made strong cordage from toilet paper, to show how it is the technique of cordage as much as the material that creates strength (I conjure up images of a



*Image by Bohan*

toilet paper rope hanging from a jail cell window... now that could be useful to know!!). Some other examples of uses of cordage that Permaculture folks may find relevant include sewn mats, net bags, corded window blinds, baskets, rush or cord seating, garden ties, macramé hangers, net fencing, cordage baskets, cord belts and straps, and more. Unusual local historic uses of cordage include cedar bark cordage armor, nettle twined duck down blankets and fur vests, cattail and nettle cord sewn cattail mats, dogbane hemp cordage root baskets and storage bags, and huge nets strung from tall poles to capture ducks and waterfowl.



*Image by Bohan*

Cordage is a simple technique, best learned by having someone show you. I have included several links to sites that show some basic cordage techniques rather than attempt to do so myself here. There are many techniques, dependent on purpose and materials. Some are good for beginners, others for very strong short cord, while others for the hundreds of feet necessary for a duck net. Perhaps I should do a U-Tube video too! ☺ .

- <http://www.primitiveways.com/cordage.html>
- <http://www.youtube.com/watch?v=uSDHKz-z0u0&feature=related>

Preparing dogbane hemp stalks for fiber:

- <http://www.youtube.com/watch?v=OJ1pEouuHg8&feature=related>
- <http://www.youtube.com/watch?v=9o2qhN1qCdg>
- <http://www.youtube.com/watch?v=tILU0lvqqEM&feature=related>
- <http://www.youtube.com/watch?v=kXW95Ux-4GE&feature=related>





Photo by Bohan

One of our prime cordage materials is stinging nettle *Urtica dioecus*. This is widely available and much maligned for its surprising sting. But this is one of our most wonderful and useful plants, for humans and wildlife. Many of our threatened butterflies depend on nettle stands for their larval young and humans throughout time have used this plant for food, medicine and fiber.

To harvest nettle for fiber I wait until the end of the season 'when everyone else is done with it', usually September and October, though it could be harvested sooner. You can don rubber gloves, or just harvest carefully, handling only the base of the stalk which is virtually free of stingers at this time. Cut at the base of the stalk then clip off the side branches. This plant grows in colonies of underground rhizomes, so I take care not to overharvest a patch, feeling that the remaining stalks still provide nutrients and strength to the patch; I would say no more than 10-20% of any patch. If you are doing this for the first time, just

gather a dozen stalks or so, this is plenty for learning technique, and will make a whole lot of cordage. Let the stalks dry thoroughly in a warm, open, part sun location, then cut off the remaining leaves and stems and store carefully. I usually wrap mine in plastic bags if I'm going to store in an outside shed.

To prepare the nettle stalks for fiber check out the U-tube video I've marked for preparing hemp stalks. It is basically the same technique though scraping the outer chaff off may not be necessary (I usually work the fiber bundle with my hands and the chaff, or outer bark, falls off).

This is a very basic overview of the importance of fiber and a dabble into cordage making, and is really intended to provide some inspiration for seeking knowledge about the uses of fiber for Permaculture. The best way to learn is to find a mentor to teach you the basics, and then start doing it. You will find that this basic skill will open many doors of awareness and practical uses.



Photo by Bohan

Excerpt from the Wikipedia:

**Fiber** or **fibre** is a class of materials that are continuous filaments or are in discrete elongated pieces, similar to lengths of thread. They are very important in the biology of both plants and animals, for holding tissues together. Human uses for fibers are diverse.

They can be spun into filaments, string or rope, used as a component of composite materials, or matted into sheets to make products such as paper or felt. Fibers are often used in the manufacture of other materials. Synthetic fibers can be produced very cheaply and in large amounts compared to natural fibers, but natural fibers enjoy some benefits, such as comfort, over their man-made counterparts. (<http://en.wikipedia.org/wiki/Fiber>, 8/2008)

\* Heidi Bohan has been working intensively as an educator in the field of PNW Native American history, ethnobotany, native plants and habitat restoration since 1992 and currently teaches at Bastyr University, Snoqualmie Tribe, Northwest Indian College and other local organizations, with a new focus on Permaculture and sustainable agriculture. She was part of the early 'back to the land' movement in the 70's and has been an active small farmer since. She is currently authoring and illustrating a book 'The People of Cascadia-Pacific Northwest Native American History' funded by a cultural grant due for release in the fall of 2008.

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### Contributions

We are always looking for good contributions for our newsletter. Here are a few guidelines:

- We prefer “how-to” articles, or articles of broad interest in the Permaculture community (*e.g.* how to make ice without electricity, a new design for a portable animal enclosure, new ideas about establishing a community Permaculture guild, etc.)
- We prefer not to have project updates, project promotions, or other things that are not of interest to a wide Permaculture audience.

<u>Target Release Dates</u>	<u>Submissions Due</u>
Spring – March 1	February 15
Summer – June 1	May 15
Autumn – September 1	August 15
Winter – December 1	November 15

If you are thinking of writing an article, please contact Dave at [info@permacultureportal.com](mailto:info@permacultureportal.com) to discuss your topic and get ideas.

Thanks!