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A United Plant Savers Publication



Getting to Know the Plants As Our Teachers

Medicinal Plants in Context • California Poppy Daydreamin'

Shinnecock Kelp Farming, Livelihoods & Coastal Resilience

United Plant Savers Goes to Jamaica • Williams, Oregon: An Herbal Hotspot

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MY JOURNEY TO THE SPIRIT PLANT REALM

By Susan Leopold

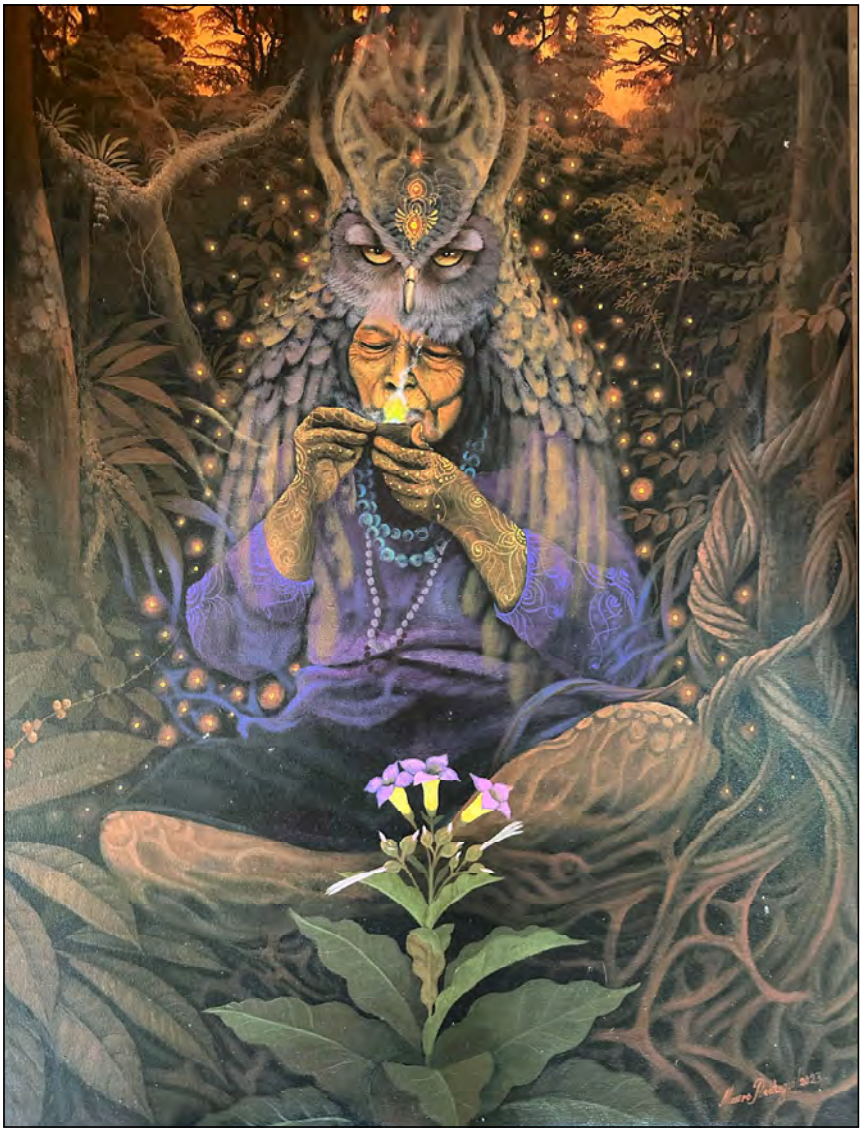
For a few years now Zoe Helen of Cosmic Sister, an environmental feminist collective that supports women's creative journeys, has encouraged me to consider speaking at the Spirit Plant Medicine Conference. So, in the fall of 2023, I journeyed to British Columbia, first spending a week on Vancouver Island to visit Chanchal Cabrera and taking time to explore the majestical forests and hot springs. Chanchal and her husband have been nurturing the Innisfree Farm and Botanic Garden, a 7-acre internationally registered botanic garden specializing in food and medicine plants where they host apprenticeships in sustainable food production, herbal medicine, and horticultural therapy. Together we formally dedicated Innisfree farm as a new member in the United Plant Savers Botanical Sanctuary Network. After a truly inspiring week on the Island, I headed over to the mainland to give the opening address at the Spirit Plant Medicine Conference in Vancouver. I decided to give a talk I had never given before titled, "From Personal to Planetary Healing." The talk was an opportunity to reflect on my path in the spirit plant realm and my voyage of becoming a passionate defender of biodiversity. A few days before my trip while looking for inspiration, I decided to rummage through boxes of old photographs and several carousel trays of slides—yes slides, the key to giving talks before power point. Until I held the slides up to the light to see the images, I had not thought about my first seed collecting adventure for a very long time and what really put me on my path.



Susan Leopold speaking at the Spirit Plant Medicine Conference

I remembered how I stumbled across the book, *The Healing Forest* by Richard Evan Schultes in a box of discounted books at the Science Museum in Boston. It was my first exposure to the term ethnobotany, the study of people and plants, and the idea that I could become an ethnobotanist, one who studies the relationships between people and plants. I also discovered in Schultes a mentor who valued the importance of the relationship between plants and cultures and was passionate about the conservation of the natural world through this lens. His book gave me a road map that aligned my soul's work and an epistemology from which to navigate my passion. It all clicked. Reading his book, I became determined to study ethnobotany and travel to the Amazon.

It took a few years, but I then I read in the Bioneers newsletter about the work of Kathleen Harrison of Botanical Dimensions, where she described helping Francisco Montes at the Sacha Mama Ethnobotanical Garden in Iquitos, Peru. I wrote to Kathleen, who introduced me to Francisco Montes' family, and I went to live in Iquitos for nearly two years. During that time, I was hired by an anthropologist named Joseph Winter to take him down tributaries of the Amazon to collect native tobacco seeds—my first seed collecting adventure! Winter taught me that tobacco is a complex species that has formed an inexplicable relationship with human species that pierces the veil between the living and spirit realm, essentially the other side. Winter also said that life



Grandmother Tobacco painting by Mauro Reategui Perez

is a tapestry that weaves itself together: and that just like seeds, there is a timeless journey that is shaped by the influences and interactions with our environment.

My own seed tapestry with Joseph Winter started in a village called Pucallpa on the Ucayali River where I met an artist named Pablo Aramingo, who had started an ethnobotanical garden on an island in the river but had come under pressure of the Shining Path to close the garden during this tumultuous time. Pablo took us to the Chullachaqui Ethnobotanical Garden and provided several suggestions for villages to visit to collect tobacco seeds. We also visited Usko-Ayar (spiritual prince) art school where Pablo taught children for free. When I gave my talk in Vancouver about this adventure, I met Mauro Reategui Perez, who had flown up from Pucallpa to sell his art at the conference. He could relate to my talk because he was a student of Pablo Aramingo and had attended the art school, and he brought with him an amazing grandmother tobacco painting that brought back memories of my trip with Joseph Winters that had inspired my talk.

I then returned home from Vancouver to find a package in the mail, a copy of the latest issue of Spirituality + Health. Online S+H editor Brenna Lily had asked me for a press pass for our International

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ON THE COVER:

Group photo from the Bioblitz held at Guango Wild Garden Conservancy (GWG) in Jamaica and dedication ceremony welcoming them to the Botanical Sanctuary Network.



Susan with Joseph Winters on the way to Chullachaqui Garden

Herb Symposium and had sent me a print copy of her article, "Become an Herbalist" inspired by her time at the symposium. Flipping through the magazine I was instantly taken by the article, "Why Crush an Ancient Stone Pipe?" And lo and behold, in the second paragraph, the author and editor Stephen Kiesling quoted Joseph Winter from an interview he did nearly 25 years ago.

"*Dr. Winter had found ancient tobacco seeds at Native American archeological sites, and he knew from his own family heritage that tobacco smoke traditionally carried Native American prayers to the Creator. Winter then went to local Pueblos hoping to collect live tobacco seeds and to learn more about traditional tobacco practices. What he found instead is that the old sacred seeds had become rare, so he threw himself into cultivating sacred tobacco and ceremonies with the fervor of a Benedictine monk growing grapes.*"

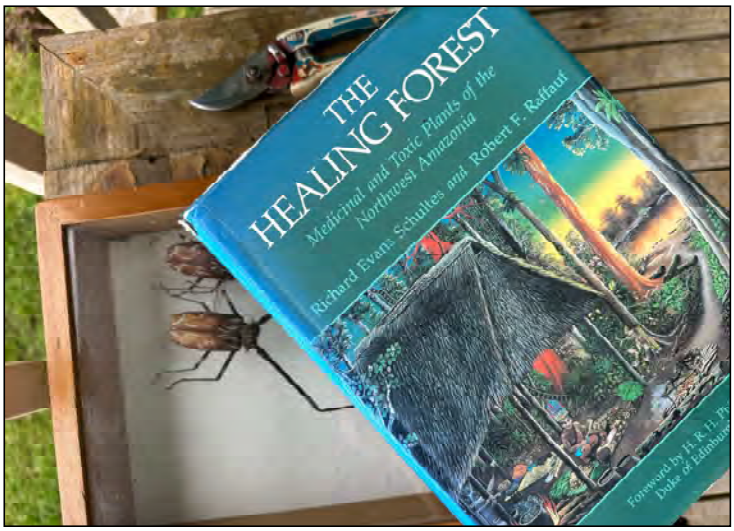
I had a moment where the power of three completed itself and I could feel the chills through my entire body, *and I was reminded to remember*. 1) I was asked to give this talk at the conference in Vancouver where I gathered the photos of this trip with Winter to collect tobacco seeds; 2) I connected with the artist and the tobacco painting; 3) I opened the magazine to read about Joseph Winter. I instantly sent Stephen an email about his interview with Winter and asked if he knew what had happened to him and his seed collection. Stephen did not know what happened to Winter, but he encouraged me to write this story.

I felt like this story was important for me to write because Winter was a teacher for me on my plant journey, and tobacco itself is a master teacher and a huge part of why I have dedicated my life to the conservation of native medicinal plants. Tobacco embodies the synergistic relationship between plants and people and lessons of how we navigate being human. Winter's research proposes that wild tobacco was one of the early and possibly first plants domesticated by humans in the new world and that its addictive properties and hallucinogenic powers figured prominently in this process. Taking his theory further, Winter hypothesizes that early Native Americans harnessed its power through domestication and then used this knowledge of plant cultivation to domesticate corn, potatoes, and other food plants.

I went to the Amazon to save the plants, but the Amazon became my teacher and sent me home with the skills of a seasoned ethnobotanist. I was a solo female living alone on the Malecon River in Iquitos, Peru, and now I live on the banks of the mighty Ohio, in a little town called Pomeroy that somehow shares a similar vibe with Iquitos in the old architecture of days gone by. Just as the Amazon is known for its abundance of medicinal plants, so are the Appalachian Mountains. In the Amazon the medicine is in the vines and the epiphytes and in Appalachia, it is the roots and barks. The Amazon is so alive that to cure sickness it often takes purging. In Appalachia it is the change in seasons, so the herbs are supportive to the immune system. Of course, these are broad strokes, but there is something to the bioregionalism of medicinal plants. Seeds are no different—they are an expression of the elements and their environment, the wind, the rain, the sun, and the soil.

I am now the executive director of Plant Savers, a small grass-roots organization that is celebrating 30 years of activism. We are unique because we are not a conservation organization focused on land/species conservation, but an organization that recognizes how humans have deep connections and relationships with plants. We advocate for reciprocal relationships with plants and believe that collecting seeds and propagating plants bring us into awareness of the natural world. As Winter hypothesizes that tobacco was a gateway plant to humans learning how to domesticate food crops, I often say that herbalism is the gateway drug to activism. We see habitat destruction of the natural world taking place at alarming rates, and we do a variety of things to help solve the problem.

As you have been following, last year we launched a new project, Seeding the Future, to create a native medicinal plant seed bank. We intend to extend our model of seed collecting and engage our network of Botanical Sanctuaries across the country. Stay tuned as we embark on this groundbreaking journey for medicinal plant species. ■



The Healing Forest by Richard Evan Schultes



Vanessa Bryan, manager at Cinchona with Marc Williams

UNITED PLANT SAVERS GOES TO JAMAICA

By Marc Williams

Introduction

In January of 2024 a group of folks traveled to Jamaica in large part on behalf of United Plant Savers (UpS). The core group for this experience was UpS Executive Director Susan Leopold and longtime UpS contributors Kelsey Siekkinen and Marc Williams. The mission was very multi-faceted.

One main aim was to visit as many botanical gardens as possible and assess their current conditions. We made it to 15 gardens in total that had at least some degree of signage located in various parts of the island and a number of other Permaculture projects with great plant collections but no formal signage. The size and states of the gardens varied widely. Numerous copies of *Common Medicinal Plants of Portland Jamaica* (Austin and Thomas, 2009) were distributed to various plant enthusiasts we met along the way.

The main bulk of the focus though was to help with the Source Farm project and the Guango Wild Garden Conservancy (GWG) Organic Research Station (www.gwgconservancy.org), which is the first United Plant Savers botanical sanctuary in the West Indies and second after Punta Mona in Costa Rica for the whole Caribbean. Our support of the Source took on a number of different activities from helping facilitate a Permaculture Design Certification Course (PDC) to being part of the leadership team that orchestrated a Bioblitz on the new GWG sanctuary land. Bioblitzes are a group activity whereupon a piece of land is selected and all life forms possible are identified within a specified amount of time. For us that was most of the day on Saturday, January 24th.

Another aspect of our work was to help substantiate further connections between the Source farm project and The University of the West Indies in Kingston. Dr. David Picking from the Caribbean Center for Research in Bioscience (CCRIB), formerly the Natural Products Institute (NPI), was a pivotal figure for the bulk of our work and journey for the rest of our time in this endeavor and on the island in general. He has also been part of publishing a prolific amount of literature on Jamaican ethnobotany along with Dr. Ina Vandebroek which has been very inspiring and motivating to see (Vandebroek et al., 2021; Vandebroek & Picking, 2020). Dr. Picking was the lead author on the Jamaican version of the Caribbean-wide TRAMIL ethnobotanical survey



Signing of a memorandum of understanding (MOU) between The University of the West Indies (UWI) and the GWG

in particular (Picking et al., 2015). The University of the West Indies has fostered quite a bit of ethnobotanical studies through the years in general (Adams, 1973; Edwards, 1961; Higman, 2008; Mitchell, 2011; Mitchell et al., 2020; Mitchell & Ahmad, 2006; Payne-Jackson & Alleyne, 2004; Roberts-Nkrumah et al., 2016).

One major event that coincided with our time was the signing of a memorandum of understanding (MOU) between The University of the West Indies (UWI) and the GWG to establish it as a research station. While on the campus we also wanted to visit the Mycology lab run by the University and in particular Dr. Rupika Delgoda. Other institutional outreach included a visit with the botanists at the Institute of Jamaica (IOJ) about potentials for collaboration especially in regards to medicinal plant biogeography and conservation as well as working on articles for the legendary *Jamaica Journal* and development of a Jamaican Ethnobotanical database.

We worked with the media in a number of ways to get out the word about United Plant Savers and the need for plant conservation more widely. Susan was featured on the local CVM Television morning news show. Marc was also a guest on a morning radio show, Farm Talk on Power 106 FM with host Althea McKenzie.

A particular focus throughout was the continuance of adding to an ethnobotanical plant list for Jamaica started eight years ago with a few hundred species and now totaling close to a thousand species and one third of the total flora.

In Search of Gardens

The ethnobotanical adventure began in earnest for Kelsey and myself with some labeled plants at the port of Falmouth and a trip down the Martha Brae River. The top of the Martha Brae experience did have a small botanical garden. *Aloe vera,* Duppy Gun (*Ruellia* spp.), Jack-in-the-Bush (*Chromolaena odorata*), Leaf of Life (*Bryophyllum pinnatum*), Search mi Heart (*Rhytidophyllum tomentosum*), Shame a Macka (*Mimosa pudica*), and Spirit Weed (*Eryngium foetidum*) were a few plants featured. We also did a short plant walk with the proprietress of our lodging called the Fisherman's Inn located on the Luminous Lagoon as well.

After that we moved along to Runaway Bay to stay with Susan. Botanical gardens are the densest in this northeastern part of the island. We proceeded to visit a progression of them over the next few days each with a unique story to tell.

The former Shaw Park up the hill from Ocho Rios has now been divided into a number of individual unique gardens. The part that has gone by the name Turtle River Falls and Gardens is currently in a totally dystopian and broken down state. We were fortunate to get a bit of a tour from a local who holds space in the parking lot for just such an occasion. Apparently, the combination of the Covid-19 pandemic and passing away of the proprietress led to the descent of the infrastructure into a state of disrepair and decay. Interestingly, the world class waterfalls so famous from this region remain. Susan even went under one and as the legend attests, purportedly emerged ten years younger so we will have all the more time to experience the amazingness that is her!

Konoko Falls formerly Coyaba Gardens and Mahoe Falls were by far in the best condition of the Shaw Park sections with good signage and an intriguing little museum featuring artifacts of the indigenous

Arawak and Taino cultures. It also has a bit of a zoo-like collection of various animals. The main waterfall is one of the most breathtaking of the hundreds my path has been blessed to visit and behold with sweet swimming spots at the base. Some special plants witnessed included Chocolate (*Theobroma cacao*), Fevergrass (*Cymbopogon citratus*), Mahoe Tree (*Alectryon macrococcus*), and Traveler's Palm (*Ravenala madagascariensis*). The heart of the former Shaw Park, which is separate apparently can be accessed from here as well, but it is mostly walled off and derelict looking in general.

The next garden on our list is on the other side of Ocho Rios closer to Runaway Bay and definitely more tucked away. It is called Cranbrook Flower Forest and was formerly an old estate. We got to see one of the endemic hummingbirds known locally as Doctor Birds (*Trochilus polytmus*) and water gushing straight out of the mountain. Some sweet swim spots are all along the river below though the current was rather strong. There was not much signage, but we had a nice, guided tour whereupon a prolific amount of interesting ethnobotanical information was shared by multiple guides. The Riverpear (*Grias cauliflora*) and Torch Ginger (*Etlingera elatior*) were some notable plants.

The following day we hiked to Dunn's River Falls. Someone told us if you have not been to Dunn's River Falls, you have not been to Jamaica, so we were all happy to accomplish this feat. The path to the falls features some nice signage on the trees, and we also had a good time conversing with a local caretaker. Some highlights included Beach Almond (*Terminalia* sp.) and Guinep (*Melicoccus bijugatus*). Many incredible crafts made from Bamboo, Lignum Vitae (*Guaiacum officinale*), Palms, and all sorts of other plant material were on display. We were gifted some necklaces that featured Job's Tears (*Coix lacryma-jobi*) prominently in particular. We were glad to get there right at the opening as it becomes overrun with folks very quickly and we had the whole falls practically to ourselves albeit shortly.

The roadside fruit stands are particularly prolific in this part of the island, and we found some nice quantities of June Plum (*Spondias dulcis*), Naseberry (*Manilkara* spp.), Papaya (*Carica papaya*), Soursop (*Annona muricata*) and had a particularly intriguing encounter in the purchase of some Water Apples (*Syzigium* sp.)

A highlight of the whole tour both botanically and flavor wise was the Taste of Jamaica experience. On our way we went through the legendary Fern Gully, which was planted long ago in various types of its namesake flora. Upon arrival it was clear that the Taste of Jamaica folks had some of the best botanical garden signage on the island and it included ethnobotany with not just names but also applications which is so rare in the hundreds of such situations my work has taken me to. Some plants featured included Devil's Horsewhip (*Achyranthes aspera*), Insulin Plant (*Chamaecostus cuspidatus*), Madam Fate (*Hippobroma longiflora*), Monkey Fiddle (*Pedilanthus tithamaloides*), Jointer/Black Betty (*Piper amalgo*) and two of the Strongbacks (*Desmodium incanum* and *Morinda royac*). They have a diverse food forest orchard going as well. The food was tasty especially the Star Apple (*Chrysophyllum cainito*), Strawberry Banana, and other special fruit varieties as well as the meal and beverages served up after.



Graduation ceremony for permaculture class and organic farming certification at Source Farm

From Runaway Bay we headed towards the far western extent of the island near Negril. We got to see a sweet little folk garden with upcycled reused items and lots of blooms and birds at the café known as Just Natural. However, we decided to skip the Hummingbird Garden due to its expense and size as well as the time of day. We also went in pursuit of a swimming hole that Bob Marley used to frequent and witnessed some beautiful basketry as well as the legendary community known as Orange Hill.

The trip over to St. Thomas parish is not very far distance wise being about 160 miles, but it took us about eight hours of driving and a very long day making some sweet stops along the way including the Peter Tosh Museum and a roadside stand for some more fresh fruit. We passed the Jamaica Zoo and Waterfalls in Lacovia, St. Elizabeth parish but didn't have time to stop. In Kingston we visited the shopping mall known as the Sovereign Center for groceries and any potential ethnobotanical literature that could be found at the Sangster's bookstore. No such luck on the latter though.



We arrived at the Source Farm right in the midst of their most recent Permaculture Certification Course that has been happening for well over a decade. Some field trips we participated in included traveling to visit Durga's Den Farm and then the incredible Stush in the Bush farm-to-table experience, with both places paying tribute to the influence of the Source Farm on their successful development. I also facilitated a fermentation class on kraut making.

For sure one of the more profound visits of our time on the island included a walk through Bath Botanical Garden, where we had an intense interaction with some of the local guides and a real sweet interaction with some school kids. We also spent some time at Bath Mineral Baths including a delicious meal with old time classic foods like bammy made from Cassava (*Manihot esculenta*). The trip back down "Industry Road" almost defies definition in regard to adventure as does to some degree much of the driving conditions around the island.

It was sweet to witness the graduation of both the Permaculture class that we had participated in and helped facilitate as well as a sister program in Organic Farming. Susan gave some remarks for the graduation. The food at the Source is truly out of this world—good in general, but especially nice that day.

Our next agenda item was to make a trip to Kingston. We had an action packed visit to the University of West Indies. The signing of the MOU between the UWI and GWG was a top priority. Our time also included a tour of the Mycology lab. Owen Zecca is a mycologist who has spent years working at the Source farm in his own lab and was our chief focused fungi finder for the GWG Bioblitz. He was particularly interested to interact with Professor Delgoda as the UWI is somewhat short staffed in this department. It was interesting to see other work from the affiliated CCRIB on plants for ailments like cancer, dengue, and malaria as well.

After that we had a short visit to the legendary Hope Gardens with caretaker and educator Christopher Creary and garden manager Mrs. Myrie. We finished our time for the day with a tour of Perishables Jamaica Ltd tea factory, with their managing director, Mr. Norman Wright. They are manufacturers of the Jamaican born tea brands, Tops & Sipacupa. They have a sweet little botanical garden featuring many of the plants in their teas and a number of other traditional medicinals as well. Some plants included Cullen Mint (*Lippia alba*), John Charles (*Conea verticillata*), and Rice Bitters (*Andrographis paniculata*).

We stayed up in St. Andrew just below the famous Strawberry Hill with the parents of a friend of mine from Warren Wilson College at Dustry Farms and Cottages in the world renowned Blue Mountain Coffee region. The folks here turned us on to the existence of the Natural History Society of Jamaica.

The next day we met with David Picking for a trip to the Coronation Market in search of root tonic sellers in particular. We collected ten types in total with an intriguing array of ingredients many purporting to include Ginseng (*Panax* spp.) one of the most near and dear plants to UpS. Names of different aisles were all



Spending the afternoon with multi-generational healer and author, Ivelyn Harris (pictured center)

after popular plants like Breadfruit Lane, Callaloo Mews, Gungo Walk and Otaheite Apple/Habanero ways. Most of it is outdoors in a bewildering maze of flapping tarps and small stalls.

Melinda Brown's Rokatown Apothecary that was under construction and also functions as an art studio was an interesting urban oasis where we had a great homemade stew.

One of the highlights of the trip was a visit to the Institute of Jamaica and herbarium curator Keron Campbell. We got to talk about various potential collaborative projects including a Jamaican Ethnobotany database and some articles for the *Jamaica Journal*. During our tour of the herbarium we got to check out many of the sheets for the famous and diverse medicinal families of Araliaceae and Simaroubaceae. Jamaica is host to eleven species of the genus *Dendropanax* alone. A number of plants from the Simaroubaceae collectively called bitterwoods are of particular interested to Susan. These include *Picrasma excelsa* and *Quassia amara*. Also on the island are two species from the typic genus *Simarouba amara* and *S. glauca*. A particularly neat plant to witness labeled in the courtyard there was (*Portlandia platantha*).

The day rounded out with an enlightening visit to the Kingston Night Market. Various special tonics and all sorts of intriguing foods were on offer. It also featured one of the best bookstores for ethnobotany that could be located on the whole island—a mobile pop-up called I-Nation Books and Necessities. Books are very expensive on the island though.

The road to Cinchona Botanical Gardens is not for the faint of heart or someone without a four wheel drive. We were fortunate to go with some great naturalists including Andreas Oberli, Liz Andrew, and brothers Kennedy and David Cruickshank. Andreas worked to help restore the garden decades ago so was a choice companion in particular. This high elevation area had an intriguing native flora that it would be nice to explore more. An article explores the history of this legendary space (Edwards, 2014).

Before leaving Kingston, Susan was featured on CVM Morning TV show with Source farm director Nicola Shirley. After that we headed out for a quick visit to Castleton Botanical Garden which completed the tour of all the four classic colonial gardens. This one like the others could really benefit from more signage in particular. Interesting to compare the current state of the gardens with a classic little book that describes them from decades ago (Eyre, 1966).

We spent the afternoon with multi-generational healer Ivelyn Harris, who is a true force of nature and a descendant of the only female Jamaican national hero Nanny of the Maroons (Gottlieb, 2000). Ivelyn's people originally come from Ghana where she has also visited and participated in research in the past (Ragosta et al.,

2015). It was a pleasure to donate to her library a book on the *Woody Plants of Ghana* (Irvine, 1961) that was an extra copy from the Jim Duke book collection maintained by UpS. Some of the plants she talked with us about include Balsam (*Ocimum gratissimum*), Mary Goules (*Sphagneticola trilobata*), and Red Water Grass (*Zebrina pendula*). She also described the practice of gathering *Philodendron* roots to make woven wickerwork. Gratefully we were able to get some signed copies of the newest edition of her book while there (Harris, 2021). Ivelyn is currently working on a cookbook which UpS may assist in publishing and mentioned the possibility of working on a book of the rare plants specifically eventually. One threat she mentioned to many plants is the use of herbicides indiscriminately.

That evening we stayed in the legendary Frenchman's Cove formerly vacation home to many famous folks but now rather understated and a bit in disrepair as the march to ever newer bigger resorts moves on. Nonetheless, it has quite a few striking woody plant specimens and a good bit of signage to go along with them. The Alexandrian Laurel (*Calophyllum inophyllum*) on the beach there was a new one for me.



David Picking from the Caribbean Center for Research in Bioscience (CCRIB) with Marc Williams (@plantsandhealers)

Before leaving the area of Port Antonio we visited with Dr. Ben of Halleluyah Lifestyle in Port Antonio. This included a trip up to his nascent community land that was rich in members from the Melastomataceae in particular as well as tree ferns. We started to catalog some of the plants with I-Naturalist but it was rather rainy so that will remain to be some work for another day. Upon our return we visited his office and i got some interesting herbal formulations that he creates. On my last trip Dr. Ben and i had some good time with Ivelyn in her garden, which was very fertile ground for conversation on comparing plant knowledge. Upon leaving Port Antonio for the Source we visited the very intriguing lodging establishment known as Great Huts.

We arrived back at the Source just in time for the GWG Bioblitz which was very successful with approximately 40 participants. It was nicely multi-generational and diverse in a number of other ways as well. We made a project for it in I-Naturalist that included 343 observations of 125 species by 22 people. We had an initial link to a preliminary GWG plant list from June 2022 and were able to add numerous species to that plus many other organisms from other kingdoms of life as well. In total our Research Grade proportion of noted lifeforms included 70 observations of 40 species by 17 observers verified by 28 identifiers to date. Many experts pitched in for this endeavor including the aforementioned Owen for the fungi as well as Demany Calder and Treya Picking for animals and Julia Porter-Nero specifically for birds. Kelsey pitched in with the plants as did a number of people from the Forestry department in particular, Mr. D'Owen Grant as well as our associates from the Cinchona trip Andreas, David, Kennedy, and Liz. We had a table full of books and other literature and realized that would have been an awesome opportunity to have books for sale as well. Other improvements for future iterations could include a set up to aggregate and download photos. Having living plant material labeled for some common or notable plants would be great as well. Some challenges we faced were getting people up to speed with the function of I-Naturalist and taking enough high-quality clear pictures for each observation in particular. Internet access was spotty as well.

After the Bioblitz, we worked towards wrapping up things at the Source. Would be nice for such assessments to be standard practice everywhere as it is always important to get a baseline of where one is biodiversity wise upon a property that you are charged to steward. Ideally one will detail what is rare, special, and in need of protection as well as what is potentially invasive and problematic. After this baseline establishment then a plan of what new life forms, especially from the local environs that would be happy in the locale is a logical next step. Bioblitzes are popular in the USA and some other parts of the world.However, this is a nascent movement in the Caribbean so far. In general, they have been happening since at least 2012 in Trinidad and Tobogo in particular with Jamaica more recently joining in the year 2022. (Deacon et al., 2023; Rutherford et al., 2012, 2013). A more recent one happened at Holywell park in Jamaica in March of 2024 as well.

Kelsey was able to establish a Digital Library on the free service Library Thing. Contributions from me to this library began in 2016. On this trip 15 new books were added, and this is probably one of the best ethnobotanical collections in the Caribbean though some remain to be cataloged online. Some new edition highlights include *Endemic Trees of Jamaica*, *Jamaica and its Butterflies*, and *Manual of the Grasses of the West Indies*. However, it bears mentioning that maintaining books in the tropics is a hard game to play.

We took one last hike to the lower part of the property along the creek with Owen and made quite a few new observations for the Source I-Naturalist project especially among the fungi and the ferns. This brought our total up to 118 observations of 99 species by the three of us with further confirmations by 35 identifiers. These projects effectively act as virtual field guides and also can host ethnobotanical knowledge within the comments of each observation as well.

We finished up our time on the island by first heading back to Kingston and staying the night at David Picking's for a strategy session about how to move our collective work forward. A journal article about the GWG Bioblitz is our initial focus with other potential publications as previously discussed and elucidated further below to come thereafter.



The next generation of plant savers in stands in front of the Guango tree (Samanea saman) at the GWG Botanical Sanctuary

Further Work

There is much more work to do in the space of Jamaican ethnobotany potentially and my hope is to return in early December to further move the ball along more directly. One big goal will be to explore the establishment of other UpS botanical sanctuaries especially in various habitats across the island. The land of Dr. Ben and Ivelyn Harris both outside of Port Antonio would be prime potential places as well as the already established network of botanical gardens throughout the island.

Potential future articles include ones on the role of various teas in Jamaican society and the Ethnobotany of *jamaicense* and *jamaicensis* species for the *Jamaican Journal*. An article on Plants for the Apocalypse i.e. after a major disaster like a hurricane is probably more germane than anything to the essential thrival of the people on the island in the long term in particular. Other potential articles include ones addressing the possibility of common name confusion whereupon different plants share the same vernacular name i.e. Bitterwoods, Pepper Elder, Spiritweeds, Strongbacks, and also the term Duppy used across a wide array of island taxa. Addressing the sustainability of making use of weedy plants and not rare ones as well as the threat of the use of herbicides to biodiversity in general are two topics that could certainly use some further exploration. Poisonous plants in traditional medicinal use could help to avoid potentially damaging practices across the island with often common plants including Cerassee (*Momordica charantia*), Red Sage (*Lantana camara*), and members from the Aristolochiaceae particularly. An article specifically addressing the botanical gardens and elucidating the potentials for improvement could also possibly lead to an updated overall guide to such places across the island.

United Plant Savers would like to also assist in the realm of medicinal plant characterization by generating a top ten plants at risk list now and then have a follow up of a more extensive list in the *Journal of Medicinal Plant Conservation* for 2025. We anticipate collaborating with Tracy Commock, Keron Campbell and Janet Morris at the Institute of Jamaica in this pursuit. Referencing the work of folks at the University of the West Indies (UWI) and especially Dr. Ina Vandebroek in regards to Mountain Cinnamon (*Cinnamodendron corticosum*), and Dr. Sylvia Mitchell in regards to Chainey Root (*Smilax balsisiana*) and both regarding the use of root tonic beverages across the island. From our time on the island for this trip and previous visits and literature review, Mountain Cinnamon (*Canella winterana*), Lignum vitae (*Guaicum officinale*), *Dendropanax* spp., Bitterwood (*Picrasma excelsa*), Pimento (*Pimenta* spp.), Puron (*Prunus occidentalis*), Dysentery Bark (*Simarouba* spp.) and Yellowwoods (*Xanthoxylum* spp.), seem like some candidates so far.

Dr. Vandebroek and Dr. Picking are also leading up a new major in Ethnobotany at the UWI, so many potential collaborations exist moving forward with the professors and student scholars within that program.



Melinda Brown's Rokatown Apothecary and art studio

An International Union for the Conservation of Nature (IUCN) training for threatened plant characterization just happened there as well, and we have also promoted the UpS Species At Risk Assessment tool (unitedplantsavers.org/species-at-risk-assessment-tool) for potential rapid recognition of threatened plants. The work of both these programs can help fold into this process of medicinal plant status characterization.

A good start in the direction of guides will include within the year a *Field Guide to the Major Plants of the Source Farm*. This has already been implemented virtually in project form through I-Naturalist. Part of this process will also include the implementation of signage at the Source and similar endeavors at the sister project GWG. Future Bioblitzes on both properties at different times of year and also incorporating different times of day will help flesh out this endeavor.

Ultimately a Jamaican Ethnobotany Database similar to the Native American Ethnobotany Database of Dr. Dan Moerman or even Plants for a Future Database started by Ken Fern is a goal. A cell phone adapted or even an app like citizen science interface would be amazing especially for engaging young people. Kew Gardens also has an inspiring database for medicinal plant names that may help inform the process.

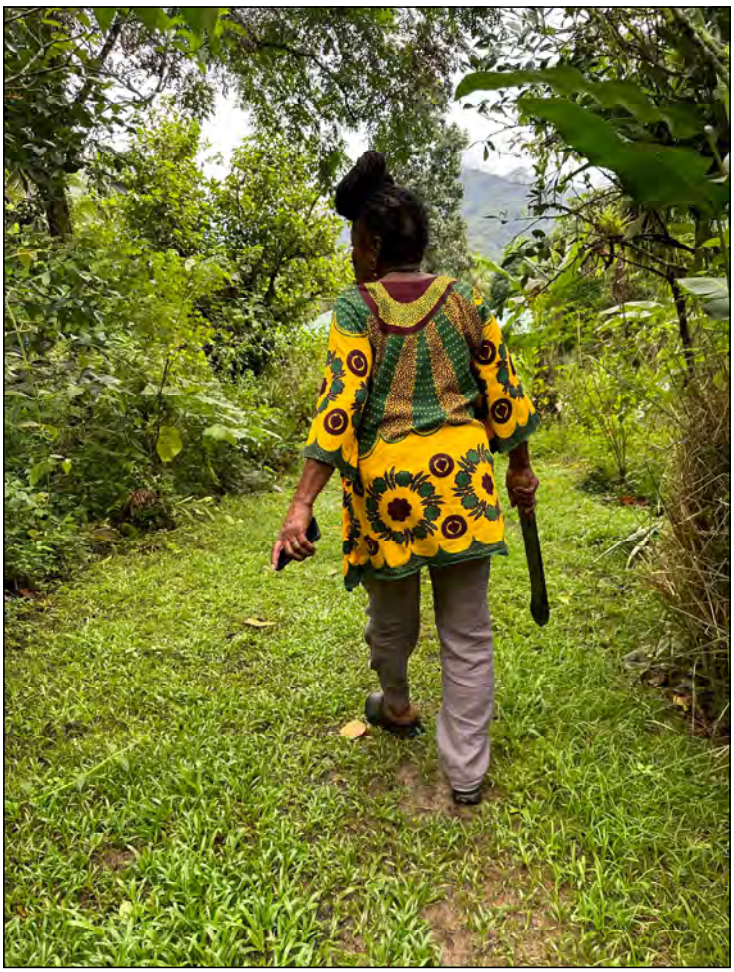
Conclusion

UpS executive director Susan Leopold was offered a prominent role throughout the trip that we made together for most of this past January. She was the keynote for the Permaculture graduation at the Source farm. She gave remarks at the signing of the MOU between GWG and the UWI and was even featured on a morning news show. This helps extend the reach of UpS internationally which has increasingly been a focus in recent years. The fact that Susan rented a car also let us access many places that would have been much harder otherwise.

A slogan we saw and heard throughout our time on the island was "Nuh dutty up Jamaica" as in don't trash this lovely island. Unfortunately, we did bear witness to quite a bit of trash and the burning of garbage and toxic items like plastic in particular.

Nonetheless, throughout the island we found people dedicated to the preservation of the environment and education of the populace about the essential role nature plays in the lives of all. It was an honor and a pleasure to pitch in with a multitude of organizations working in the space of conservation during our few weeks stay on this legendary Caribbean island, and we are very much looking forward to further collaborations in the years to come. ■

Ethnobiologist Marc Williams has taught hundreds of classes to thousands of people about plants, humans, other life forms, and their interface. His training includes a B.A. in Environmental Studies/Sustainable Agriculture from Warren Wilson College with a minor in Business and a M.A. in Appalachian Studies/Sustainable Development from Appalachian State University with a minor in Planning/Geography. He has over 20 years of experiences working at various restaurants and farms and travels throughout 30 countries in Central/North/South America and Europe as well as all 50 states in the USA. More information can be found at www.botanyeveryday.com and www.plantsandhealers.org.



Ivelyn Harris, herbalist and author, in her garden



Duck flower (*Aristolochia grandiflora*)



Historic Cinchona Botanical Gardens (est. 1868) - the only garden of its kind in the Caribbean due to its high elevation.



Sipacupa Tea Company located in Kingston, Jamaica



Sipacupa educational garden

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HAWTHORN

"*The hawthorn bush with seats beneath the shade,*
for talking sage and whispering lovers made",
wrote Oliver Goldsmith of May's blest tree —
Spring's renewal and sign of sanctity.

In ancient Greece and Rome, hawthorn displayed
the flame of love when a wedding was made —
torches of the wood for Mars' passion;
its blooms in bridal hair, Venus-fashion.

In the language of flowers, persistence
is its power — dissolving resistance
in doubtful hearts, that "*despite your answer,*
I shall continue to strive for your love".

In the *Ogham*, Old Irish alphabet,
hawthorn is *Huath*, with the strength to protect —
hang on it ribbons, for Beltaine wishes:
red for love; blue for health; green for riches.

Of Sacred Fire has hawthorn long been known —
in Teutonic lore it was from lightning thrown;
burnt on pyres, its scented smoke carries souls
to the Heaven mountain, where Love consoles.

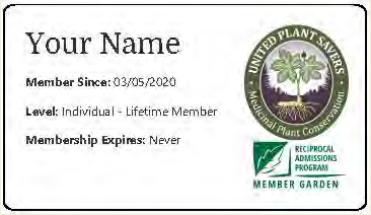
Combining caution, providence and wise
vision with strength of soul to exorcise,
it conquers the soul's demons, quells our fears —
with the promise of Spring, our Spring heart cheers.

Hawthorn brings hope and hopeful fortitude
to all who draw deep of its habitude —
the teardrop leaf, flower and ruby fruit
as a tea will the hurt-of-heart transmute.

— Gabriel Mojay, Nov 2023

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An ancient hawthorn tree (*Crataegus* sp.) on the Burren, Ireland by Gabriel Mojay on the Wild Routes sacred plant tour September 2021

"I SPEAK FOR THE TREES, FOR THE TREES HAVE NO TONGUES" —THE LORAX

By Rachel Clark

In my short three decades of life I have walked a path of fear. Fear of what exactly? Failure, success, of being invisible, and of being seen. I carry fear of being sick and of being strong. I fear endings and beginnings. I'm afraid of change. I'm afraid of sea level rise and of seemingly unstoppable climate catastrophe. I fear the path I've chosen to walk. As an herbalist I feel a great responsibility to help others, to help the plants, to enact great change and to teach others what I learn along the way. But nagging thoughts haunt me. *Who am I to lead? I am a nobody. What wisdom do I have to share? Who will listen to me?* The answer is simple: I'm not. I am not the wise one, nor the leader. I am not the teacher.

But I can be the translator. It is the plants who will change the world. The plants will teach, lead, and share their wisdom if only we stop to listen to them.

As many healers do, I found the plant path after finding relief for my own health issues through herbalism. It was magical. I easily and intuitively found the herbs suited for my situation. I did not need to know every constituent or herbal action. I listened to the plants, and they told me what to do and how to heal my own body. With a little guidance from herbal texts I was finally able to feel vital again. I could breathe. I learned to manage chronic pain and clear my skin. I learned but did not intellectualize. I trusted the wisdom of my long-lost herbal ancestors. As I learned more, the plants became louder, a cacophony of voices demanding my attention wherever I went. Rosemary (*Salvia rosmarinus*) smiled at me in the supermarket. Dandelion (*Taraxacum officinale*) waved to me from a crack in the sidewalk. Aspen (*Populus* spp.) whispered sweet nothings as I walked by. I finally heard what they were saying. "*Speak for us*," they said.

Today, with a clinical herbalism certificate under my belt and a budding private practice in hand, the pressure to lead, to teach, and to be taken seriously as a businesswoman is overwhelming. I get tangled in science, constituents, and phytochemistry. I spend just as much time if not more making spreadsheets, creating powerpoint presentations and worrying about my website SEO as I do working with herbs and clients. I am rarely in nature. While all these are crucial aspects of running an herbalism business, the plants are calling me back. *Speak for us!*

As I begin this third decade of life, alongside the third decade of United Plant Savers, the plants are as loud as ever. I hear them screaming, begging us to listen. I believe if everyone had just one medicinal plant that they loved, we could heal the planet. Find a plant and learn to speak its language. Learn the lessons it has to give, share what you learn, and then give back. As a child, people would ask what I wanted to do when I grew up. "I don't know," I'd shrug—"Change the world I guess." They'd chuckle and move on, but little did they know that I would still feel that call today. It is a call from the very depths of the earth, the place where life springs forth, leading me to lead others back home to the earth and home to the plants. ■

Rachel Clark is a certified clinical herbalist, flower essence practitioner, and freelance writer based in Spokane, Washington. She believes that through a balance of herbalism, lifestyle, nutrition, mindset, and supportive healthcare professionals everyone can find vitality.



Dancing in the field, *Echinacea purpurea* by Elise Larose Simard
Acrylic on canvas. Original size 16” X 12”



Cone shaped "bouquets" of white flowers in Spring



Thorny pods that carry the soon-to-be ripened horse chestnut

ALL BETS ON HORSE CHESTNUT

By Fotini Taylor, MH

Native to the Balkans, the horse chestnut (*Aesculus hippocastanum*) tree was first grown in Europe in about 1576 and was later transplanted to the United States, where it was initially grown as a shade tree and is also a common botanical feature growing along sidewalks in France. *Aesculus* is a cousin to maple, soapberry, and lychee, all in the Sapindaceae family.

Not to be confused with the North American *Aesculus glabra*, it is supposed that *Aesculus hippocastanum* got its name from the positive effect it has on equine respiratory issues. Another suggested reason behind the plant's name is that when leaves fall from the trees, they leave behind a mark resembling a horseshoe with nails in it.

The palmate-leaved and deciduous horse chestnut tree is known to grow up to 100 feet in height and in spring, produces cone shaped "bouquets" of white flowers with red and yellow speckles. Later on, the flowers bring forth thorny pods that carry the soon-to-be ripened horse chestnut.

Many other species of this tree exist, but evidence of their effectiveness in treating ailments is in need of further research.

Right out of the gate, the aescin rich *Aesculus* seed extracts, along with its tannin component, make the plant a well-noted tonic to the vascular system, assisting with a condition known as Chronic Venous Insufficiency (CVI), also known as phlebitis, which is an inflammation of the veins, most often in the legs.

The seed extract is known to assist cases of CVI by strengthening blood vessels, reducing inflammation, improving vein elasticity, and in turn, promoting better blood circulation. The coumarins present in the plant act as blood thinners that may reduce vascular pressure on the heart, possibly benefitting hypertension.

These similar plant components may also be of use in protecting blood vessels from damage and permeability by shrinking openings that may be present in capillary walls. This, in turn, can prevent fluid from leaking out to other systems where it could cause a disruption in their proper function.

The vascular toning virtue of the plant could make it an advantageous treatment for bruises, varicose veins, and edema, along with relieving pain, swelling, heaviness, and cramping in the legs. Studies conducted on twenty-two patients with CVI, who were all given approximately 1,200 mg of the Aesculus standardized extract (50mg of aescin per capsule) found a decreased flow of interstitial fluid to and from the capillaries by 22 percent in about three hours.

Further investigations using 13 clinical studies on CVI cases showed that horse chestnut was indeed a frontrunner in comparison to the use of placebos in treating the condition. These reviews affirmed the effectiveness of the plant not only as a treatment for phlebitis, but also in cases of fatigue, edema, and tenseness as well as showing promise in treating pruritis in the legs.

As a hot tea, horse chestnut's anti-inflammatory, tannin, and astringent components extend their febrifuge and expectorant properties to the systems that are all noted to be useful in cases of malaria and fevers as well. In these instances, the effects of horse chestnut are similar to those of Peruvian bark (*Cinchona officinalis*) and can be used as its substitute.

Traditionally, the leaf tea with some honey added can relieve coughs and be a valuable treatment for rheumatism and arthritis. The tannins, astringents,





The pods split open during late summer or early fall

and anti-oxidant components also present in horse chestnut's bark are known as a traditional therapy for treating diarrhea, gastritis, gastroenteritis, hemorrhoids, and malaria. As an external application, the bark tea may also benefit lupus, eczema, and other skin ulcerations.

According to Rolla Thomas, it is also noted that horse chestnut may also exact its virtues onto the nervous system as a stimulant and may be valuable in cases of asthma and other instances where breathing may be difficult.

Horse chestnut's potent source of antioxidants also makes it valuable in staving off free radical damage. Studies conducted on the plant found that its Quercetin and Kaempferol Glycosides boost its disease fighting capacity, where animal studies also revealed that horse chestnut's antioxidants might be useful in protecting the body from losing too much glutathione, an antioxidant that protects vital cell components from damage.

When Doctrine of Signatures is brought into the picture, one could surmise the plant's potential benefit not only in enhancing male fertility via the production of viable sperm, but also in supporting prostate health, even possibly where cases of prostate enlargement are concerned.

Just when you thought this plant couldn't get any better, other studies conducted on horse chestnut's benefits found it to be of great use in fighting cancer. While research findings showed that components of the plant material may have the ability to kill off breast and cervical cancer cells, what astounded scientists even more was Aesculus' ability to trample on leukemia cells, namely in conjunction with the Jurkat cell line that is used to test for acute T-cell leukemia, T-cell signaling, and chemokine receptors that are vulnerable to the entry of viruses, one being HIV.

Lab findings on the Jurkat cells that showed an approximate 94 percent cancer cell death rate give it great research potential for use as a future cancer treatment. Studies conducted on this cell line also found that it has the ability to produce interleukin 2, a receptor that regulates white blood cells and has been of great use in studying the effects of chemo and radiation on cancer cells.

The pairing of Jurkat cells with Aesculus' extracts, may present a brighter future for T-cell leukemia patients and with further research, hope may also be in store for other types of cancers. I hope that future research proves this pairing as a possible treatment for HIV/AIDS as well.

Topical cream and ointment applications made from the plant may also be useful for conditions ranging from phlebitis, sunburns, varicose veins, arthritis, and neuralgia, along with reducing pain and bruising from sports injuries and inflamed joints. European practitioners have used the plant extract as an injection to aid in the healing of brain injuries and head traumas.

Summing It All Up

While it may not be the ideal chestnut for roasting, there's no "horsing around" when it comes to the many virtues Aesculus extends in support of the many aspects of the body's vast organs and systems.

From improving circulation and reducing swelling, straight on through to treating coughs, fevers, malaria, cancer, and leg veins, when the plant is consumed in the prescribed small doses and under the guise of a well-versed plant practitioner, horse chestnut is definitely a bet worthy "horse."

Horse Chestnut (*Aesculus hippocastanum*)

Family: Hippocastanaceae, Sapindaceae



Palmate leaves of the horse chestnut tree



Horse Chestnut (*Aesculus hippocastanum*) thorny pods

Parts Used: Seed, Bark, Leaf

Constituents: Aescin, Coumarin derivatives (Esculetin and Esculin), Condensed Tannins, Triterpene Saponin Glycosides, Fatty Acids, Flavonoids, Allantoin, Sterols (Stigmasterol, α-spinasterol, β-sitosterol, Fatty Acids (linolenic, palmitic, stearic acids)

Energetics: Mildly Constricting, Cooling, Drying

Actions: Anticoagulant, Anti-inflammatory, Astringent, Febrifuge, Vascular Tonic

Taste: Dry, Bitter

Preparations: Capsules, Tablets, Tea, Tincture, Standardized Extracts

Dosages (Use only under the care of a Qualified Plant Practitioner):

Dried Seed Tincture: 1-2 ml (0.2- 0.4 tsp.) 1-3 times daily

Standardized Extracts:

Tablets / Capsules: 2-4 daily or as suggested on the label

Dried Seed Oil (1:4): Apply externally 2-4 times daily

Warnings: Use of this plant is not advised for pregnant and nursing women. The plant is also not advised for children as well as for those on anticoagulants and salicylates or for men on infertility medicines. Since all raw parts of the plant are toxic, fully prepared portions, especially the standardized extracts, should only be used as prescribed and in small doses.

Please be aware that this information is for educational purposes only, and is not intended to cure, diagnose, or treat any illness. Seek a medical professional if you believe you need one. ■

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Awakened Slumber by Rachel Fae Coleman, Spring 2023
www.idylliclandstudio.com



Triumphant harvest! - photo credit Randee Daddona for Newsday Feed Me Magazine

SHINNECOCK KELP FARMING, LIVELIHOODS, AND COASTAL RESILIENCE

By Louise Lo Presti and Darlene Troge

"I can only compare these great aquatic [kelp] forests … with the terrestrial ones in the intertropical forests. Yet if in any country, a forest was destroyed, I do not believe nearly so many species of animals would perish as would here, from the destruction of the kelp. Amidst the leaves of this plant, numerous species of fish live, which nowhere else could find food or shelter; with their destruction the numerous cormorants and fishing birds, the otters, seals, and porpoise would soon perish also; and lastly, the [humans] … would … decrease in numbers and perhaps cease to exist."

– Charles Darwin, 1834

Introduction

In a first-time initiative, IUCN's Sustainable Use and Livelihoods Specialist Group is collaborating with the Shinnecock Kelp Farmers to document and evaluate one of the first modern Indigenous kelp farms, and the only one run solely by Indigenous women in the United States to combat marine environmental degradation resulting from human impact and climate change.

Background

For over 10,000 years, the Shinnecock "People of the Stony Shore" have inhabited coastal eastern Long Island, New York, an area now known as "The Hamptons," one of the world's wealthiest enclaves. The Shinnecock were fully displaced only in 1859 by the advent of the Long Island Rail Road. Now, the federally-recognized Shinnecock Indian Nation is confined to 900 acres on a narrow peninsula that is under serious threat from rising warming waters, coastal erosion, and algal bloom together with untreated septic waste and chemical run-off from adjacent "Billionaires Row" and a golf course. The Shinnecock coastline is projected to be underwater within 25 years, which will force Tribal members to relocate farther inland.

This environmental degradation significantly impacts marine and shore life, including commercially valuable fisheries. Shinnecock Inlet is New York's second largest commercial fishing center, with an average of 10 million pounds of fish landings per year valued at $8 million including 39 species, primarily bluefish, angler, and skate as well as shellfish. Shinnecock Bay, itself, is a federally designated Critical Harbor of Refuge. Deteriorating water quality has resulted in depletion and weakening of species, most notably, the collapse of the commercially valuable scallop population.

Despite the Hampton's wealth, average income on the reservation is at the poverty line. Economic opportunities are limited, especially since the Shinnecock were permanently enjoined from building a casino on tribal lands.

Taking Action

To help turn the tide, to heal Nature and to honor their heritage, six intergenerational Shinnecock activist women and Elders formed the Shinnecock Kelp Farm, which has shown significant success. In 2019, in ongoing advocacy to protect their lands from relentless development, these activist women came to the attention of GreenWave, a Connecticut non-profit organization specializing in regenerative ocean farming, notably, kelp farming, an emerging technology. GreenWave suggested kelp farming to these women and has supplied the now-Shinnecock Kelp Farmers with ongoing technical training and support. These farmers cultivate Sugar Kelp (*Saccharina latissima*) in Shinnecock Bay.

Cultivation of Sugar Kelp "and other native macroalgal species has the potential to diversify and strengthen New York's mariculture industry while improving water quality through bioextraction, which is the removal of excess nutrients such as nitrogen from coastal waters through cultivation and harvest of macroalgae," according to the New York State Department of Environmental Conservation.

Tribal Legal Mechanisms

The NYS DEC requires an Off-Bottom Macroalgae Permit for any commercial or non-commercial algae cultivation. A condition to obtain the permit is demonstrating prior authorization, title, or legal control of the site to be used for cultivation. As of the end of 2023, only one commercial permit has been issued, with four other pending applications.

The Shinnecock currently operate without the NYS DEC permit by asserting their unique tribal water and land rights dating from the 17th Century. In the original colonial Indian Deed of 1659, the Shinnecock retained their right to the water and shores. In subsequent agreements over the centuries, the Shinnecock affirmed and operationalized those rights. The Deed and subsequent agreements are all registered with the Town of Southampton and form the legal basis for the Shinnecock Kelp Farmers to cultivate kelp in the Bay. While the Shinnecock have gathered many types of seaweed over millennia, this project uniquely focuses on kelp, blending ancient tradition with science and technology.

The Kelp Farm Cycle

On a serene corner of Shinnecock Bay overlooking the reservation and Billionaires Row, the farmers work out of an interim hatchery in a cottage belonging to the Sisters of St. Joseph, an environmental activist order. Starting in September each year, these Shinnecock women spin threads of baby kelp onto a synthetic-blend string and in turn onto sections of PVC pipe. The threaded pipe sections are then placed in the hatchery tanks. Daily, the team feeds the kelp, changes the tank water, and monitors both algal growth and water quality. The entire process is manual and labor-intensive. Sugar Kelp is a cold-water species. The hatchery is kept at a constant 50°F. In December, the outplanting begins. Each pipe with its developed kelp growth is removed from the tank, wrapped first in toweling saturated with salt water, and then in plastic. The pipe is placed in a tray and then taken to the bay, where rows of anchored rope await. In waders and thermal gear, the farmers enter the water at low tide and begin the careful, meditative process of winding the kelp threads onto the rope. Outplanting is dependent on Mother Nature, and the combination of tide, weather, winds, and water can rule out a planned outplanting day. Harvesting begins in May when the mature kelp is removed from the water. The Shinnecock Kelp Farmers' first harvest in 2020 was 800 feet of kelp, which increased dramatically to 7,000 feet in 2023. GreenWave founder Bren Smith says he's impressed not only with the early success of the Shinnecock's kelp growing but also with their coalition building and partnership strategies.



Heading into the frigid waters to check kelp growth - photo credit Louise Lo Presti - IUCN SULi

Most of the harvested kelp is sold as fertilizer locally, although the farmers hope to expand to additional products and customers. Notably, because the Bay plantings are under the 24-hour watchful eye of the Sisters of St. Joseph, there has been no illegal seaweed harvesting as occurs in Maine where entire valuable rockweed forests have been cut down to shrub-size, which depletes species dependent on the seaweed habitat.

Kelp's Sacred Connection

Originally classified in the Plant Kingdom, Kelp is a Protist, with a fossil record going back more than 32 million years. Globally, kelp forests are estimated to cover 22% of the world's coastline. Kelp holds a unique historic significance for coastal Indigenous cultures, with kelp forests comprising some of the world's richest ecosystems. Many archaeologists and marine ecologists now believe that the First Americans arrived not by a land bridge but by water, following a "Kelp Highway." "By about 16,000 years ago, the North Pacific Coast offered a linear migration route, essentially unobstructed

and entirely at sea level, from northeast Asia into the Americas. Recent reconstructions suggest that rising sea levels early in the postglacial created a highly convoluted and island-rich coast along Beringia's southern shore, conditions highly favorable to maritime hunter-gatherers. Along with the terrestrial resources available in adjacent landscapes, kelp forests and other nearshore habitats sheltered similar suites of food resources that required minimal adaptive adjustments for migrating coastal peoples. With reduced wave energy, holdfasts for boats, and productive fishing, these linear kelp forest ecosystems may have provided a kind of 'kelp highway' for early maritime peoples colonizing the New World."

Franz Boas, "Father of Modern Anthropology," was the first to chronicle the importance of kelp and other seaweed in the late 19th Century in the Pacific Northwest. "Kelp and other seaweeds had medicinal importance. They were often traded inland to treat iodine deficiency and goiter and included in medicinal steam baths (Turner 1995). The Saanich also shaved off pieces of bull kelp holdfasts to make a medicinal tea that helped with internal ailments" (Turner and Hebda 2012). For Indigenous coastal peoples, kelp is a cornerstone of traditional knowledge and lifeways. For millennia, Shinnecock people have depended on kelp for myriad uses from shelter, nutrition, livestock feed, and agriculture to medicine, healing, and ritual. The knowledge passed down through generations has formed the basis for healing practices that feature kelp as a medicinal remedy. Co-author Darlene Troge commented, "My mother Loretta, also known as Princess Silva Arrow would advise people in physical pain, 'Go sit in the Bay for two hours' as medicine." Considered as part of Folklore and Folk Medicine, it was documented in the early 20th century that Shinnecock people used kelp for relief of pain and in the healing of rheumatoid arthritis.



Feeding the kelp in the lab - photo credit Danielle Hopson Begun

Traditional Knowledge & Modern Science

While kelp and other brown algae are respected by many traditional cultures and by conventional medicine, the functional mechanisms of these seaweeds were not fully understood. Scientists have now focused on Phlorotannins and two main metabolites of brown algae—Fucoxanthin and Fucoidan—which are all found in Sugar Kelp. "Phlorotannins, a seaweed-based class of polyphenolic compounds, have proven to possess potential bioactivities such as antioxidant, antimicrobial, anti-allergic, anti-diabetic, anti-inflammatory, anti-cancerous, neuroprotection etc." and are in great commercial demand. Current scientific research discovered that Fucoxanthin has unique functionality that regulates and inhibits disorders and disease. "Fucoxanthin (FX), a natural carotenoid present in edible brown seaweed, is known for its therapeutic potential in various diseases, including bone disease… Therefore, FX is a potential therapeutic agent for osteoclast-related skeletal disorders including osteoporosis and rheumatoid arthritis." Fucoidan is a polysaccharide that is being studied for its anti-cancer and anti-oxidant properties. Fucoidans "possess remarkable bioactive functions (anti-proliferative, anticancer, anti-coagulant, anti-thrombotic, anti-viral, anti-inflammatory, and anti-complementary agent.)" Fucoxanthin and Fucoidan "were found to be the most important active metabolites of brown algae as potential chemotherapeutic or chemopreventive agents…. Hence, discovery of new natural products and metabolites isolated from microorganisms, animals, and plants possessing high efficacy against tumor cells without any toxicity on normal cells is a big leap in scientific research."

Consequently, scientific research validates the historic medicinal use of brown algae by the Shinnecock and by countless other Indigenous peoples. This article is the first to correlate traditional North American Indigenous medicinal uses of brown algae with modern science's medicinal research of Phlorotannins, Fucoidans, and Fucoxanthins.

Environmental Stewardship

The Shinnecock Kelp Farmers' cultivation, harvesting, and use of kelp are done in prayerful and mindful ceremony with Mother Earth, acknowledging the reciprocity of the relationship between humans and Nature and the obligation to rectify damage caused by humans. The Farmers are deeply committed to environmental healing. In a truly 21st Century initiative, traditional knowledge, scientific knowledge, and technology are woven together by the kelp farmers to restore a harmonious balance with Nature.

Challenges and Opportunities

The continued dumping of untreated waste including raw sewage and chemical fertilizer runoff into the Long Island Bays is a threat to the marine and coastal ecosystems, wildlife, and human life. In the face of environmental degradation and climate change, these Shinnecock Kelp Farmers believe that the integration of traditional knowledge, contemporary environmental management, and modern science forms a path we can all walk together to preserve the sacred relationship with Mother Earth. That movement is called "Mamowenene."



Three generations of Shinnecock kelp farmers - photo credit Cameron Peters

Conclusion

By farming, advocacy, and raising awareness, the Shinnecock Kelp Farmers have re-awakened the long standing Tribal relationship with kelp. Blending traditional knowledge, modern science, and natural resource management, these Indigenous women honor their natural heritage and contribute to healing their coastal environment. The Shinnecock model can be extended to other coastal communities and activities. This will ensure income and capacity building together with protecting and preserving critical marine habitat. Sharing the Shinnecock Kelp Farmers' experiences with a broader audience of Indigenous Peoples and Local Communities, decision makers, and policy makers will serve as a catalyst for change at a time when solutions for Indigenous jobs, food security and coastal resiliency are critically needed.

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Darlene Troge is a Shinnecock Kelp Farmer, Water Protector, Grandmother, and Shinnecock Tribal Elder. Brought up on the coastal Shinnecock Indian Reservation, she honors and respects the Eastern Woodlands traditions. She serves as the Director of Tribal Workforce Development of the Great Mashantucket Pequot Tribal Nation in Mashantucket, Connecticut.

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MATERIA MEDICA MONOGRAPH: CENTAURY

By Maranda Wabik

Plant Name: **Common Name**: Centaury, Feverwort, Christ's Ladder, and European Centaury. The perennial Centaury is also known as Blushwort, Pink Gentian, or Squill-leaved Centaury.

Plant Name: **Latin Name**: *Centaurium erythraea*

Plant Name: **Synonyms**: *Centaurium minus*, *C. umbellatum*, *Erythraea centaurium*

Botanical Description: Centaury is an annual/biennial herb, which also has a perennial variety that can grow as large as 0.3 m (1ft) by 0.2 m (0ft 8in). Centaury flowers from June to October, and the seeds ripen from August to October. The species contains both male and female plant organs and is self-fertile because of its hermaphrodite nature. Centaurium is commonly pollinated by bees, flies, and beetles and has pink five-petaled flowers with bright yellow anthers. The flowers usually appear in clusters but can be found solitary as well. The fruit is a many-seeded, cylindrical capsule. The leaves are roundish and stalked in opposite pairs up the stems.

Taxonomy: **Order**: Gentianales

Taxonomy: **Family**: Gentianaceae

Ethnobotany: The primary Ethnobotany that is known for centaury, when it pertains to the use of the herb by native peoples would be that it is one of the Nine Sacred Herbs of the Celts. In this case, the native people would be those, such as the Druids, who practiced magickal and spiritual rites in Celtic lands before the dawn of Christianity.

Plant Herstory (History): Centaury's very name denotes a possible connection to the Greek mythic creature, the Centaur, a half-man and half-horse being. I personally would associate her with the Centaur, Chiron, who was a great tutor of heroes! Chiron famously tutored heroes including Achilles and Jason. He is also the one who tutored a young Heracles, even if the Disney *Hercules* film chose to not include him as a character. In fact, mythologically Chiron was killed after attempting to help Heracles during his famed 12 Labors. Much of the knowledge held by Centaurs was used to inspire J.K. Rowling in how she would go on to portray them in the *Harry Potter* Series. Even the fact that Centaurs were able to divine through the stars seems to be a reference to the fact the Chiron exists in the night sky. He was memorialized there along with many other Greek mythic figures, which is why you will see a Chiron placement on your birth chart! Most prominently, as mentioned above, centaury was one of the Nine Sacred Herbs of the Celts. It was often used as a strewing herb, in baths, and to keep pests at bay. The association with the Celts means that centaury very well may have been used by Druids, but even more important to me, she very well may have been used by the Priestesses of Avalon! I like to think that



Illustration *Centaurium erythraea*

Avalonian Priestesses used all of the Nine Sacred Herbs of the Celts; after all, Nine has long been associated with being the number of Avalon herself. There is much association with centaury being an herb of the Witch and an ally of the Priestess. The leaf is the primary part of the plant used magickly and medicinally. Centaury has associations with the Sun, with the element of Fire, and with the Masculine gender by extension of that (even if I have been referring to centaury as feminine, I use that connection because I feel her as feminine). I find that her energy is very much like the Celtic Moon Goddesses, who were once associated with the Sun, like Aine and Rhiannon! Rhiannon's link to horses and centaury's link to Centaurs may also provide an overlap of this Divine Feminine Solar connection. Finally, I want to mention the old folk magickal use for centaury. It has long been associated with dreams and dream work, making it a psychic plant in many ways, lending to its Priestess, Enchantress, and Sorceress qualities. It was used for protection against snakes, spiders, ants, and other pests. This snake removal quality is one of the most known things about centaury at this time.

Cultivation: Centaury is suitable for light and medium soils (known as sandy and loamy soils). She prefers well-drained soil but can also grow in nutritionally poor soil. She prefers dry or moist soil. Suitable pH: mildly acid, neutral, and basic soils (also known as mildly alkaline soils). She can grow in semi-shade or no shade. This makes the light woodland a good place to find centaury.

Wildcrafting Information: Habitats: Specific places that are good to find centaury while wildcrafting include a woodland garden on the sunny edge; in the dappled shade; on the shady edge of the forest; and in a meadow. You can find centaury in open woods, meadows, dry grasslands, and often in places with chalky soils. She is found in the range of Europe, including Britain, from Sweden to the Mediterranean, and east to Southwest Asia.

Preparation Methods: The plant is used as a flavoring in bitter herbal liqueurs and is an ingredient of vermouth. Centaury can also be used to make tea to aid in digestion.

Pharmacognosy (pharmacology): The constituents of Centaurium that I could find are xanthonoids, terpenoids, flavonoids, phenolic acids, and fatty acids. These are considered classes of secondary metabolites.

Indications: diabetes, fever, rhinitis, stomach ailments, urinary tract infections, dyspeptic complaints, loss of appetite, and hemorrhoids.

Actions: antibacterial, antioxidant, antifungal, antileishmanial, anticancer, antidiabetic, anti-inflammatory, insecticidal, diuretic, gastroprotective, hepatoprotective, dermatoprotective, neuroprotective, diuretic, and inhibitory agent for larval development.

Administration and Duration of Use: Herbal preparations: comminuted herbal substance, powdered herbal substance, liquid extract (1:1; ethanol 25% v/v) D), tincture (1:5; ethanol 70% v/v). Well-established use includes being a comminuted herbal substance such as herbal tea or other herbal preparations in liquid (or menstruum). As for the duration of use, centaury should not be used if the symptoms persist longer than 2 weeks during the use of the herb. At that point, a doctor or a qualified health care practitioner should be consulted.

Side Effects: May cause mild abdominal discomfort and cramps. Safety during pregnancy and lactation has not been established.

Contraindications: Centaury is contraindicated in clients with peptic ulcers. As stated in side effects, pregnancy, and lactation may be a contraindication of Centaurium, but whether or not it has uterine tonic actions has yet to be solidified.

Personal Commentary: Ever since Centaury came up in a Tarot reading performed for me, I began to seek out a relationship with this very magickal and sacred plant. When I first got my hands on some centaury, I chose to make a tea of the single herb. That proved to be one way that centaury does not work for me, as even though I love bitter things, centaury alone is insanely bitter, and I could only drink about a third of a cup. However, after that misfire, I did have extremely good digestion for several days, proving her ability as a digestive aid. Next, I moved on to using centaury in a bath, which proved to aid in relaxation and promoted psychic ability during meditation during and after bathing. I followed that up by using it to dress my spell candles. I have been doing this religiously since, as centaury combined with rosemary (*Rosmarinus officinalis*) essential oil and mugwort (*Artemisia vulgaris*) oil infusion base really pack a candle magick punch. I found this to be especially potent for any type of Shadow Work and in combination with Divination. I have also used centaury in several psychic tea blends during my Dark Moon and Full Moon rituals since I began to build a relationship with her. When centaury is mixed with other herbs, the bitterness is cut, and this is especially true when I blend centaury with aromatic herbs like lavender (*Lavandula officinalis*) and rosemary, making for a very potent psychic tea blend that helps in trance work, astral projection (or crossing the hedge), and communion with Goddesses of Avalon. Finally, I added centaury to my Rosemary Priestess Hair Tonic, to add a magickal Enchantress and Sorceress edge to the concoction. In conclusion, I have been truly adoring getting to know centaury and finding interesting ways to incorporate this herb, which has quickly become a favorite, into as much of my magickal Faery Enchantress life as possible. ■

Maranda Wabik is a writer, tarot reader, and aspiring herbal entrepreneur currently running the website White Rose of Avalon (whiteroseofavalon.life). She is a lifelong tree hugger, so the path of Avalon and herbalism became obvious subjects of spiritual study.

RESOURCES

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California poppies *(Eschscholzia californica)* glowing in the sun, photo by Katrina Matos

CALIFORNIA POPPY DAYDREAMIN'

By Katrina Matos

California poppies make friends wherever they go, whether in sunny gardens, in the hard-packed and trash-strewn dirt next to highways, or cultivated in various places outside their home territory. The carefree flutter of their yellow and orange petals lifts my heart and anchors me in the present moment. Since moving to the Northern California Bay Area in the fall of 1991, California poppy has become a longtime friend.

It is one of the first wildflowers to announce the arrival of spring each year, and the colorful flush of California poppy splendor is on display as summer waxes. Distinct groups of Native American people have used this wildflower plant, and still use it today, for pain relief, to reduce anxiety, and improve sleep. Where I live in Sonoma County that would include the Pomo people, as mentioned in the USDA entry for California poppy in their online database. The Luiseño (Payómkawichum,) Cahuilla, and Ohlone people are also known to make use of it.

Others have learned to use California poppy in much the same way, as its popularity has spread. It is indicated for easing insomnia, especially of the nervous, mental, can't-turn-my-brain-off type. In my personal experience with using this plant in tea, it does smooth out the rough edges for my nervous system. It helps my brain ramp down and my muscles soften for sleep.

California poppy plant is edible, with a bitter flavor from the berberine content. Some people use the seeds in their baking. It is soothing, non-addictive, and gentle enough for use by children, being in a different genus than the Papaver family of poppies. The flower is phototropic, opening and closing with the presence and absence of sunlight. California poppy is beautiful, bright, and tough.

Common names include Golden Poppy, Flame Flower, Copa de Oro (Cup of Gold), and Dedal de Oro (Thimble of Gold). According to my Botanical Interests seed packet, "early explorers called the poppy-covered hillsides 'Land of Fire.'"

It is easy to connect this plant to the energy of the sun and the element of fire. California poppy would make an excellent symbol for The Sun card in Tarot. The flowers seem to both absorb and radiate solar energy with exuberance the same way they do everything. They speak to me of the simple pleasures of being alive in each moment, of warmth and joy, the shining of one's core self and an easy, continual flow of receiving and giving.

Deepening Our Friendship

One summer I made it a point to observe California poppy closely. The leaves of the plants are feathery, like miniature ferns, gray-green in color and very "airy" in their energetic impression.

The flower petals range in color from yellow to orange, although modern versions have been bred in other colors. Some petals open so extravagantly, they become convex. The petals swirl together in a more closed up fashion on cloudy days.

The base of the petals rests on a circular platter which is usually a pinkish-red. I discovered that in floral anatomy the part that holds the base of the petals is called a receptacle, and this unusual round shaped platter is what distinguishes the California poppy from others in the Eschscholzia genus. I think of this platter as a satellite dish, in keeping with my impression of absorbing and reflecting solar radiance.

Before the flowers open, they are encased in a light-to-medium green conical sheath (the calyx). With the pink-red receptacle at the base, they look like miniature witch hats, with a green body and a red brim. I find this completely "enchanting."

The seeds are held in very skinny pods that can be a few inches long. One of my deep summer pleasures is to stand barefoot in the dry heat of a summer afternoon and listen for the crackle-snap of pods bursting open and scattering seeds, which can travel as far as 6 feet from the parent plant. It seems a very appropriate match with the enthusiasm, spontaneity, and creativity of fire energy.



California poppy, photo by Katrina Matos

A Gift from A Friend

There came a summer afternoon when I stretched myself out, face up, on the flat sun-warmed stones of our low garden wall, next to an orange patch of blooming poppies we had planted. I melted into a limp, heavy heap on the stones, sharing the sunshine with the poppies, birds, trees, and insects with time stretching into an eternal moment, all thoughts gone. I felt like a puddle of sunshine.

The feeling came to me very clearly that this was a gift from California poppy, part of this plant's sharing of its energy. What a gift indeed, to *stop thinking* for a few moments, to feel the pleasure of daydreaming and the sensations of your body, receiving impressions from the world around you.

California poppy seemed happy to have me share this experience with others, so I created a short, guided journey based on that gift. Are you ready to daydream? You can make a recording of yourself speaking the words of the journey below and then play it back to lead yourself into a light trance.

California Poppy Journey

Lay stretched out on your back or stomach, or in whatever position feels most comfortable for your body right now. Let the warmth of the day seep into your muscles and bones or imagine the warmth of a sunny day seeping into your muscles and bones. Notice any aromas, sounds, or sensations in your surroundings. Feel yourself melting into a soft heaviness, as you follow your breath into deeper and deeper relaxation.

Let an image of California poppies come to you, shining in all their exuberant yellow and orange splendor. With their saucer shape and petals thrown wide, they simultaneously take in and give back the energy of the sun. As you breathe and bask in the warm sun, imagine that you, too, exist only to drink in and radiate out that solar energy. You drift away from any thoughts that float by, conscious only of the fact that you exist.

You are alive, warm, relaxed and blissed out on sunshine. Feel yourself floating in your own saucer of sunshine, just like the poppies.

There is nothing you need to do at this moment. You only need to be…let yourself drift….

When you are ready, give a heartfelt "thank you" to the joyful poppy, to the life-giving sun, and your own spirit flame. Let yourself slowly drift back to your everyday consciousness, to that faster flow of time and your day-to-day thoughts. Notice how you feel.

Making New Friends

Would you like to take this journey with the poppies in my own Sonoma County garden and listen to my voice lead you through? Email me at Katrina@GreenSpiritCraft.com, and I will send you a link to a 6-minute video meditation with my sunny California friends. In the meantime, I invite you to look around your neighborhood and choose one friendship to cultivate more deeply, with your other than human nature family. ■

Katrina Matos helps people refill their reservoir of beauty and hope, of balance and purpose, by deepening their relationships with their other-than-human nature family through her nature-inspired distance energy sessions and food grade herbal skin care. Her work is for people who talk to their plants and listen when their plants talk back. She is a Reiki practitioner, esthetician, massage therapist, and lifelong treehugger. You can find out more about her, plus how she works and plays at GreenSpiritCraft.com.

GETTING TO KNOW THE PLANTS AS OUR TEACHERS

By Matthew Alfs, MH, RH (AHG)

There is an old legend common to various Native-American peoples that goes roughly like this: When the two-legged ones (humans) began to hunt animals without mercy and respect, the various animals held councils to decide whether and how to strike back. The plants, however, felt sorry for the two-legged ones and decided to come to their aid, especially relative to the discomforts and diseases brought about by the insects. When reflecting upon this story, I have often thought that the plants displayed real empathy here, as they themselves had been continually harassed by insects that had infested them, sucked their juices, and even devoured them.



Bull thistle (*Circium vulgare*)

It is this very example of insect molestation that leads us to a most fitting illustration of how the plants offer their assistance to us two-legged ones. Here, in Minnesota, where my Midwest School of Herbal Studies (www.midwestherbalstudies.com) is located, we are particularly harassed by a little winged creature that we jokingly refer to as "Minnesota's State Bird"—namely, the mosquito. But we also harbor a healing herb that is the greatest repellant of mosquitoes known to us Midwesterners, which happens to be that feline delight known as catnip (*Nepeta cataria*). As a long-time outdoorsman who has chewed leaves of this odoriferous mint and applied them as a rub on my exposed skin for decades, I can testify to its remarkable effects in this regard. Then, too, several scientific studies have shown catnip essential oil to powerfully repel mosquitoes (Birkett et al 2009; Feaster et al 2009; Peterson et al 2009).

I have a special fondness for this plant, as it was the very herb that introduced me to the power of herbal medicine—way back in the late 1970s—and has offered its assistance to me ever since in a plentitude of ways. One thing that herbalists have long appreciated, however, is that, if we are willing to pay attention, *the plants themselves* can inform us as to how they can be used for healing.

The Doctrine of Signatures

Herbalists have long appreciated that a plant's color, shape, habitat, and even personality can clue one into its medicinal applications. This understanding has been called The Doctrine of Signatures. Let me illustrate this with a landmark discovery in my clinical career. A little over a decade ago, I was struggling with how to help some clients with autoimmune joint conditions that produced terrible stabbing pain and stiffness. Perhaps providentially, I came across an old herbal that related how an elderly female folk herbalist from the hills had healed a young girl afflicted with just such a malady (nowadays referred to as a spondyloarthropathy) with the herbage of bull thistle (*Cirsium vulgare*), the scariest looking of all the thistles, with its nasty spines that can jab a person something fierce and even blind an eye that comes in contact with them. Looking at the photo of the plant as featured here, you can observe the sharp spines and the overall stiff look of the plant, which practically shout out its healing potential to those afflicted with stiffness and stabbing pains. In fact, the plant proved to be nothing short of miraculous in helping my suffering clients to heal. Nowadays, then, whenever I run across bull thistle in the wild, I thank it profusely for its aid here. In doing so, I get the strong impression that it has been very happy to help out, per the Native-American story referred to above.

Hawthorn (*Crataegus* spp.) shrubs also have large, stabbing thorns and, correspondingly, have been used for the lancinating pain of angina. This was further surmised from the color of the flowers and fruits—red, the color of the heart and blood. Interestingly, almost every herb used to support cardiovascular health is red or reddish in color. Think here of cinnamon (*Cinnamomum* spp.), motherwort (*Leonurus cardiaca*), prickly ash (*Zanthoxylum americanum*), red sage (*Salvia miltiorrhiza*), rose (*Rosa* spp.), rosemary (*Rosmarinus officinalis*), wild bergamot (*Monarda fistulosa*), anise hyssop (*Agastache foeniculum*), bloodroot (*Sanguinaria canadensis*), and wild cherry (*Prunus avium*). Shepherd's purse (*Capsella bursa-pastoris*) has heart-shaped seed pods and thus has also been used to support cardiovascular health, especially with reference to hypertension and bleeding.

Plants that are deep or dark yellow and thus the color of bile have been thought to heal the hepatobiliary system, and thus we think of dandelion (*Taraxacum officinale*), celandine (*Chelidonium majus*), toadflax (*Linaria vulgaris*), turmeric (*Curcuma longa*), yellow dock (*Rumex crispus*), yellow goat's-beard (*Tragopogon* spp.), yellow root (*Xanthoriza simplicissima*), goldenseal (*Hydrastis canadensis*), and boldo (*Peumus boldus*). Many nervines, on the other hand, have bluish or violet-colored flowers, e.g., skullcap (*Scutellaria lateriflora*), pasqueflower (*Pulsatilla pratensis*), aster (*Aster* spp.), catnip (*Nepeta cataria*), chicory (*Cichorium intybus*), lavender (*Lavandula* spp.), and blue vervain (*Verbena hastata*).

Leaves shaped like a brain have induced herbalists to use them as nootropics. Ginkgo biloba and gotu kola (*Centella asiatica*) are prime examples. On the other hand, plants rich in fluid and with translucent stems revealing such, including jewel weed (*Impatiens palida*) and clearweed (*Pilea pumila*), have been recognized as having the ability to heal illnesses fed by stagnant fluids such as yeast/fungal infections. (Re: clearweed, not well-known among herbalists, and its antifungal effects, see: Sinville, Alfs, and Dimick Gray 2022.) Mullein (*Verbascum thapsus*) leaves are shaped like lungs, with their hairs approximating cilia, and so have traditionally been used to heal pulmonary affections. Self-heal (*Prunella vulgaris*) flowers bear prominent lips and have been applied to close the lips of wounds and to heal herpes sores on oral/vaginal lips.



Spiderwort (*Tradescantia* spp.)

Even the location of plants has provided clues as to their ideal applications. For instance, fireweed (*Epilobium angustifolium*) grows only in burned-over areas because its seeds need a high temperature in order to germinate, thus serving to heal the burns of the earth. And so, it has effectively been used to heal burns in people as well. Boneset grows in marshy areas and heals infections (yellow fever, dengue, malaria, etc.) brought about by the mosquitoes that proliferate in such regions.

The Value of Spending Quality Time with the Plants

While plant signatures may provide clues as to how to use a plant in a general sense, it is most important to be open to any sort of assistance that the plants are willing to provide, which may involve a more mystical means of communication than simply the apprehension of their sig-natures. This may come by way of dreams, visions, or strong impressions. *Spending quality time with the plants in their environment* is most helpful in securing this type of illumination, as I will illustrate below.

In my herbal novel published in 2017, *Diary of a Country Herbalist*, I related an experience I had in real life that I projected onto the protagonist in the story—an herbalist named Samuel Rogers—from which I will quote, below>

"I re-entered The Meadow. There, I noticed something that had earlier eluded me: a lone spiderwort (*Tradescantia* spp.) plant, flowering in a particularly sunlit area. Although I was supposed to be in the Meadow on a mission involving other plants, I felt the spiderwort pulling me toward it, like some kind of irresistible magnet. 'OK, my little, blue-violet friend,' I spoke to the plant softly, as I lay myself down beside it. 'What do you wish to tell me about your power to heal?' I felt prompted to ask that question because I knew so little about this odd-shaped wonder of the fields. I knew only that certain Indian tribes had used it for stomachaches from over-eating and, in some undefined way, for skin cancer. Yet, I was desirous of learning something more about this plant—something that I would then be able to apply toward complaints that I hear more often from herbal clients than the gastrointestinal aftereffects of gluttony.

"It was then that I became quite absorbed in the dainty spiderwort and proceeded to drink in its sublime beauty for hours, experiencing a peace beyond practically anything I'd ever felt. During that most grand encounter, my attention was drawn to the perfect symmetry of the plant's three flower petals, which suggested to me its power to harmonize the three components of man: body, mind, and spirit. That idea certainly accorded with the flower's blue-violet color, which has always been nature's way of highlighting medicines for the nervous system.

"As I lay beside the plant still further, I witnessed its flower head slowly close, upon which a jell-like fluid began exuding from the ball-like enclosure that it had

become. It almost looked as if *the spiderwort was crying*. At that moment, I remembered that an alternate name for the plant is 'widow's tears.' I then began to wonder: 'Is *that* the secret of this plant? Is it the long-sought remedy for the sadness and crying that can occur when the body, mind, and spirit are out of harmony? Could it perhaps be the harmonizer *par excellence*—the long-sought key to mind-body-spirit homeostasis?'"

"Convinced that this was a notion worth pursuing, I implored it to lead me to a colony of its brethren so that I could gather a few leaves and flowers here and there in order to tincture for use with melancholic clients. In this, I was not to be disappointed, for I soon encountered just such a colony, from which I was able to gather a small sack of plant segments. Then, as the task for which I had originally come to the Meadow had been forgotten, I turned to head for home, infused with joy at the ecstatic encounter I had just experienced."

Note how spending a good amount of time with the spiderwort plant—watching it intently and even lying with it—led to a realization of its ability to heal the deep kind of sadness that results in tears and to reintegrate mind, body, and spirit. Although such an application of the plant is not widely appreciated by today's herbalists, the blossom is nevertheless used in flower essence therapy for "releasing emotional trauma" (https://livingtheenchantedlife.com/products/spiderwort) and for a "merging of mind, body, and spirit." (https://www.pegasusproducts.com/shop/flower-essences/spiderwort-tradescantia-virginica-positive-attitude/) You may find it interesting to know that I only discovered these uses of the flower essence sometime *after* I had the mystical experience with the plant that I wrote about above.

Concluding Thought

You, dear reader, will no doubt discover in your own herbal journey a number of plants that will speak to you and which you will find to be highly effective as healing agents, as long as you bend your ear to listen to them. ■

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Matthew Alfs, MH, RH(AHG) has been a clinical herbalist since 1997 and is the founder and director of the Midwest School of Herbal Studies. He is the author of the books 300 Herbs (rev. ed. 2020), Edible & Medicinal Wild Plants of the Midwest (rev. ed. 2020), and Diary of a Country Herbalist (2017).

GINGER

Zingiber officinale

Qur'anic/Arabic name – Zanjabil or Zanzbil

And they will be given to drink there of a cup (of wine) mixed with Zanjabil. – Qur'an 76:17

Endemic to India, dried
and imported by Arabs of old,
rhizome of a perennial herb,
Zingiber officinale now renowned.

Ginger bread and beer,
snaps and pastries,
curries and condiments,
medicine since ancient times.

A gift basket of ginger was sent
from the Ruler of Rome to the Prophet,
one Hadith says.

I would be the inferior one –
small and white, spicy enough
for Asian dishes – or red and rich

in atsiri oil for medicine. I'd be
the tablespoonful added to a child's
first batch of gingerbread men.

I'd be the bit that a mother adds
to the tea she and her daughter sip
while sharing a secret dream or regret.

I'd gladly wear two hats – spice
and herbal cure. Bring me, please,
one rhizome with several buds

so I might plant and harvest them
for spice and medicine. Then, alas,
may I be offered that promised drink.[1]

— Diana Woodcock
www.dianawoodcock.com

[1]Qur'an 76:17





Viriditas II. by Elizabeth Hall. SporaStudios.org

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Greetings Upon Arrival (front room of the Brickhouse Apothecary) by Goda Trakumaite



10-DAY BIODIVERSITY & CONSERVATION COURSE HELD ON THREATENED PLANT RESOURCES OF WESTERN GHATS

By Raviraja Shetty G

The Indian Council of Agricultural Research (ICAR) sponsored a 10-day short course, which was organized at the College of Horticulture, Mudigere (Shivamogga, India). The main aim of this course was to impart knowledge and skills among researchers, scientists, and teachers working in various horticultural institutions across India towards conservation and management of horticultural plant genetic resources. This program was inaugurated by Dr. R. C. Jagadeesha, Honorable Vice Chancellor, KSNUAHS (University of Agricultural and Horticultural Sciences), Shivamogga. Dr. Pradeep Kenjige, Director, R&D, Café Coffee Day was the chief guest. Dr. N.S. Mavarkar, Dean, College of Horticulture, Mudigere presided over the function.

There were 25 participants from different parts of the country who attended the inaugural function. Staff members of the College of Horticulture, Mudigere and postgraduate students of the college were also present.

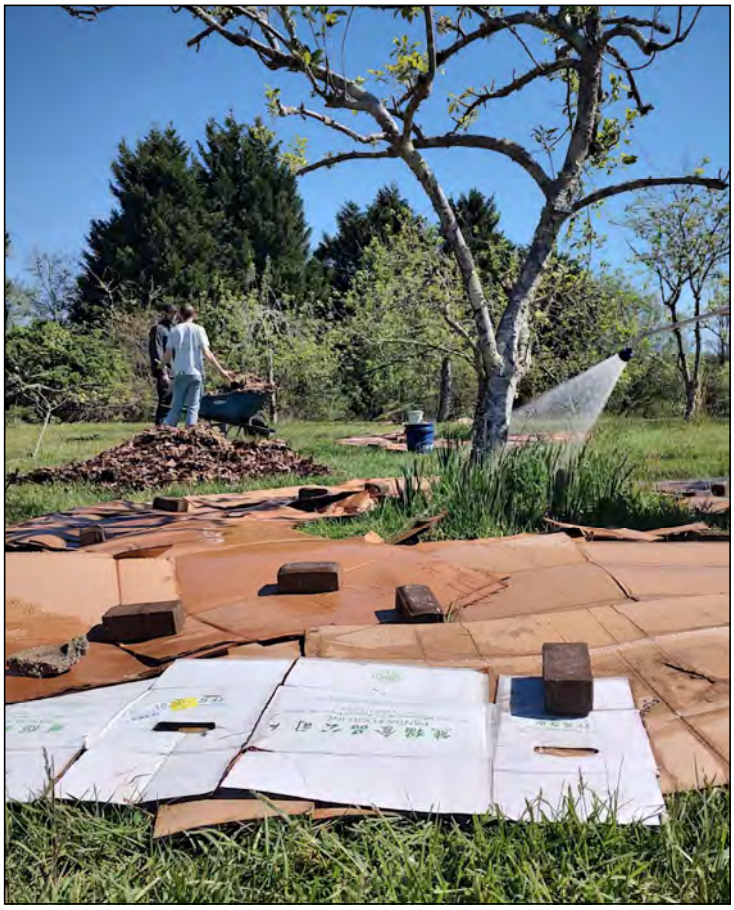
Dr. Raviraja Shetty G, Course Director delivered the proposal note. He mentioned the relevance of this regional course as the College of Horticulture, Mudigere is in the central part of Western Ghats where most of the horticulture crops are endemic. The area has recently been nominated as a UNESCO World Heritage Site. He also remembered the words of Dr. M.S. Swaminathan, "If conservation of natural resources goes wrong, nothing else will go right."

Dr. R. C. Jagadeesha, in his inaugural address, acknowledged the ICAR for approving such an important short course for KSNUAHS, Shivamogga. He feels that horticulture crops show tremendous diversity, and their conservation is a challenging task. He mentioned that the importance of conservation of genetic resources is being increasingly realized by many developing countries, and our university has already taken initiative in this direction. We have a great role to play in the conservation of horticultural plant genetic resources as we are in the central part of Western Ghats. He suggested for each participant to conserve genetic resources at their respective institutions to bring value to the money spent for the short course.

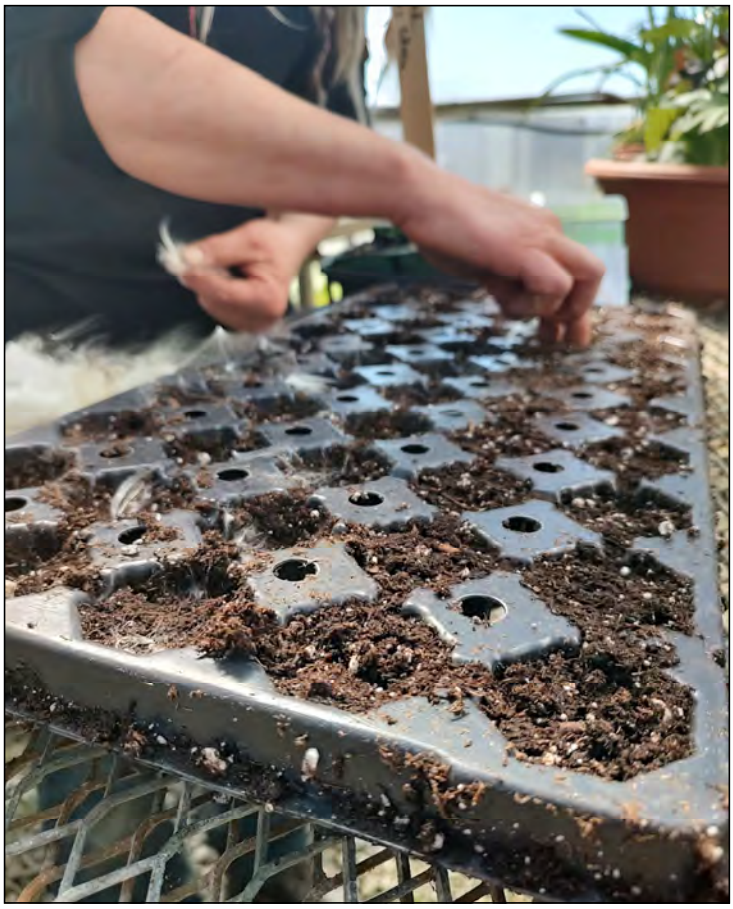
During the 10 days eminent scientists in the field of conservation were made available to deliver talks and impart training to the participants of the short course. There were many field trips, nursery and laboratory visits, explorations, outings to research stations, and practical sessions relevant to the short course to give the participants firsthand information in the best way.

This course was organized to enhance knowledge of teachers, scientists, researchers, and extension workers on "Biodiversity and approaches towards conservation and sustainable use of Rare, Endangered and Threatened horticultural plant genetic resources of Western Ghats." The aim was to impart solid knowledge and skills among participants to develop sound research strategies to conserve and manage horticultural plant genetic resources for their sustainable use. ■

Dr. Raviraja Shetty G is Assistant Professor, Dept. of Plantation, Spices, Medicinal & Aromatic Crops, College of Horticulture, University of Agricultural & Horticultural Sciences, Shivamogga, Karnataka, India.



Rehabiliting the orchard



Planting native milkweed (*Asclepias* spp.)

THE FOOD FOREST WILL FEED US

By Kalani Baer

Imagine...what began as an abandoned orchard, is now a flock of apple trees enshrined with layers of cardboard, compost, and ramial wood mulch. The soil flourishes with life.

It's nearly Spring. Blue Oyster mushrooms poke their heads up to taste the incoming warmth and shake the spores from their gills. Green tufts of comfrey and spiny mounds of lemon grass dance with the wind. Our beloved elderberry bushes grow in the space between trees. Sweet shrub seeds that were cast during the cold winter months are beginning to sprout and take root. A wavering canopy develops season by season as crows fly overhead.

This is a food forest and a sanctuary for life forms of all kinds. We humans feed the soil; we rub the wounds of the trees and pour water around their trunks. We pour water around all the stems we see and in return, the forest feeds us. What began as a collective dream transforms into material reality. The trees were always there, waiting for us to show up.

Where there are seeds and hands to plant them, there is work to be done.

This food forest will feed us. No matter what happens to the grain fields of the west, or the orange trees of the south, we have a native food forest here in our community. We support and nourish life in the food forest that in turn, feeds our bodies with edible fruit, roots, leaves, and medicines. As the oppressive systems of old continue to crumble, our food forest reminds us of what is possible. As our mother Earth communicates sorrow from centuries of abuse, our food forest inspires us to reconcile with the land, ourselves, and one another. As our present and future generations ebb and flow with hope and despair, our food forest heals us with unending love. This is our dream; let us show you how the food forest will feed us.

This piece was written by people who believe in the dream of food forests. The food forest you see in these pictures is stewarded by students and teachers at Blue Ridge Community College located in Flat Rock, NC. Currently, there are potential plans to bulldoze a rare native forest that stands adjacent to our holistic orchard garden. It's a forest full of native medicine plants and mature trees of all kinds. They protect our gardens and orchard from flooding and disease. And they teach us what a healthy forest looks and feels like. We care deeply about this rare forest, as it stands as one of the last remnants of its kind. The picture on the following page is of the campus forest.



Potential medicinal path forest

The Blue Ridge Rare Forest Preservation Initiative is a coalition that formed in response to the risk of losing our campus forest. If you would like to help us advocate for our precious forest, consider writing (see template below contact info) to the Blue Ridge Community College president. Her name is Dr. Laura Leatherwood, and this is the contact info for her office:

President's Office
(828) 694-1705
president@blueridge.edu

Here is a template for your convenience:

Dear President of Blue Ridge Community College,
Dr. Laura Leatherwood,

I am writing to you today to express my concern with the potential plans to destroy part of the Blue Ridge Campus Arboretum Forest in favor of constructing a maintenance building. The campus forest is both an actively used outdoor classroom for the Horticulture Department and community space, where people walk, run, and enjoy the serenity of a natural area. It is also home to a host of native plants that are rare and endangered. In the face of climate change and rapid urbanization, it is profoundly important that we acknowledge the inherent value of our native plants and trees. They help anchor our soils, prevent flooding, and feed us in so many ways. Ultimately what is decided now in regards to our native forests will have exponential consequences for future generations of BRCC students, staff, and members of the wider community.

Once the forest is gone, it is very difficult to undo and get back. As an advocate of native plants, trees, and healthy human communities, I hope you receive the heart of this message in favor of protecting the forest as a body of life that is respected and beloved by students, faculty, and the wider community.

Thank you for your time.

Sincerely,

NAME HERE

First Hard Frost

and the bear's fur glistens and rolls,
the fawn grows fat on wormy apples,
the bluestem glitters, seed dispersed.

Each crystal-covered, mitered blade
bends the light to flicker and shade.

First hard frost and the goldenrod
no longer brightens the speckled air,
wands of aster emptied of purple pulse—

both now beheaded and brown,
their roots live on underground.

First hard frost and the sunrise sparks
yellow hickories, blazing oaks,
the wine-red creeper vine that climbs,

waving in warblers to settle and sup
this blood of the earth slowly drawn up.

So tell me why, in all of this,
am I so afraid of Death's quick kiss?

— Jim Minick
www.jim-minick.com

MEDICINAL PLANTS IN CONTEXT

By Rachel Thomas

If we want to protect medicinal plants, we know that we must protect their ecosystems. We know that they need sun, water, air, and earth. They may also depend on pollinators, or other interventions from the animal kingdom, to reproduce or to stay alive.

Medicinal plants have a unique reciprocity with humans. The more we give them, the more they give back. Basil loves to be gently trimmed and, in return, grows beautiful new leaves. Vanilla needs to be manually reproduced and, in return, offers a delicious, healing aroma. Hibiscus provides a cooling yummy tea, and we must save the seeds for next season to continue the cycle.

We exchange potted herbs with friends and neighbors to share their heart-warming tastes and medicinal powers. We weed them, water them, and treat their infestations. Sometimes we sing to them, talk with them, pray with them, and try to protect the land where they grow. It is so powerful every time that we perform any of these acts of love and symbiosis with our cherished medicinals.

The impact of our actions can be magnified by others choosing similar actions. The more we, as a group, know and love a plant, the more culture we create around that plant. The more our cultural practices include these plants, the more likely we are to take care of them and ensure their survival.

The cultural context of a medicinal plant is like a precursor to the ecological context. As we create or conserve culture around a plant, people share information, and their passion is contagious. Media, organizations, and journals like this one, use education to promote cultural practices of plant conservation. Education helps to promote consciousness around how we use our plants and how we can keep them from disappearing.

In some communities, conserving traditional ethnobotany is a way of life. Elders teach young people herbal medicine, as well as how to sustain the cultural and conservation practices that have been passed down through generations.

Through modernization, colonialization, and displacement, a medicinal plant's cultural context can experience fast and volatile changes. Medicinal plants may be misused when their cultural contexts are neglected. Plants that become too popular can face overuse and even extinction.

On the other hand, a plant may lose popularity. Sometimes, cultural practices move away from a plant or away from herbalism in general. As people abandon their plant allies, they also abandon their ethnobotanical practices. Historically, this has happened by force and has often been a product of politics, economics, and religious or colonial domination. Through cultural assimilation, values change, practices are lost, and traditional herbalism can be forgotten.

Cultural conservation leads to ethnobotanical conservation and vice versa. Those who fight to maintain their traditional lifestyles are also protecting the plants intertwined with their survival. Around the world, many people still face political domination and attacks on their traditions. They struggle to keep their ancestral land and the culture that connects them to it. This struggle directly impacts the survival of their medicinal plants.

It is to our benefit to know which plants our ancestors used, how they used them, and the cultural practices created that they were part of. When we connect with a plant outside of our own ancestry, it is also important to connect to the plant's cultural context. What land does the plant come from? How can we show our love to the plant and to those who have been protecting it? What cultural practices can help us achieve symbiosis with the plant?

Getting to know a plant can mean so much more than just knowing what it is good for. Is it used in honey, in bread, in wine, in food, to make incense, a cup of tea, a steam bath, or an infused oil? Does the plant have a time of year, a time of day, songs it likes, or dances it inspires? Maybe it is a simple daily routine or maybe it is a complex ceremony that requires a qualified elder, special music, fasting, and other protocols. The smells, the smiles, the sounds. Maybe its use is intertwined with body work, divination, purging, praying, community building, or other healing arts. The possibilities are endless.

A plant's cultural context can be diverse over time and space. One plant can have hundreds of names around the world and just as many ethnobotanical uses. How we use plants and how we maintain traditions impact how well we take care of them. We can show our support to others who are struggling to protect their ecosystems and maintain their cultural context. We can also look to our own history to discover the plants with whom we share an ancestral relationship. We can even attempt to recreate and reconnect with the cultural context that our predecessors shared with their favorite botanical allies.

As we move towards a future of sustainability, understanding the history and complexity of herbalism can only strengthen our efforts. Conserving our medicinal plants includes embracing their cultural contexts, protecting their native land, and honoring their ancestral caretakers. ■

Rachel Thomas is an author, teacher, health coach, herbalist, and activist. She created the ethnobotanical sanctuary at Hidden Garden (hiddengarden.co) in Costa Rica, where for over 20 years she studied, taught, and consulted as an herbalist. The garden has served as a safe space for traditional healers to share their stories with students and with each other. Rachel is currently connecting with her own roots by researching prehistoric Greek ethnobotany. She offers health coaching with an ancestral medicine twist as well as academic consultations at Ancient Wellness Tools (ancientwellnesstools.com).

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7 Things to Know About Plants

1. Plants can be seen as wild and weedy, thriving in disturbance, and as domesticated, a gradual shift in the way that the plant begins to be co-dependent on human interaction where selection, tending, planting, and harvesting are taking place.

2. All the amazing food crops we select in the produce section of the market were once wild and have wild relatives—and the wild relatives have traits that tend to be more adaptable to extreme conditions like drought and climate change. That is one reason why conserving wild relatives of food crops is critical to food security,

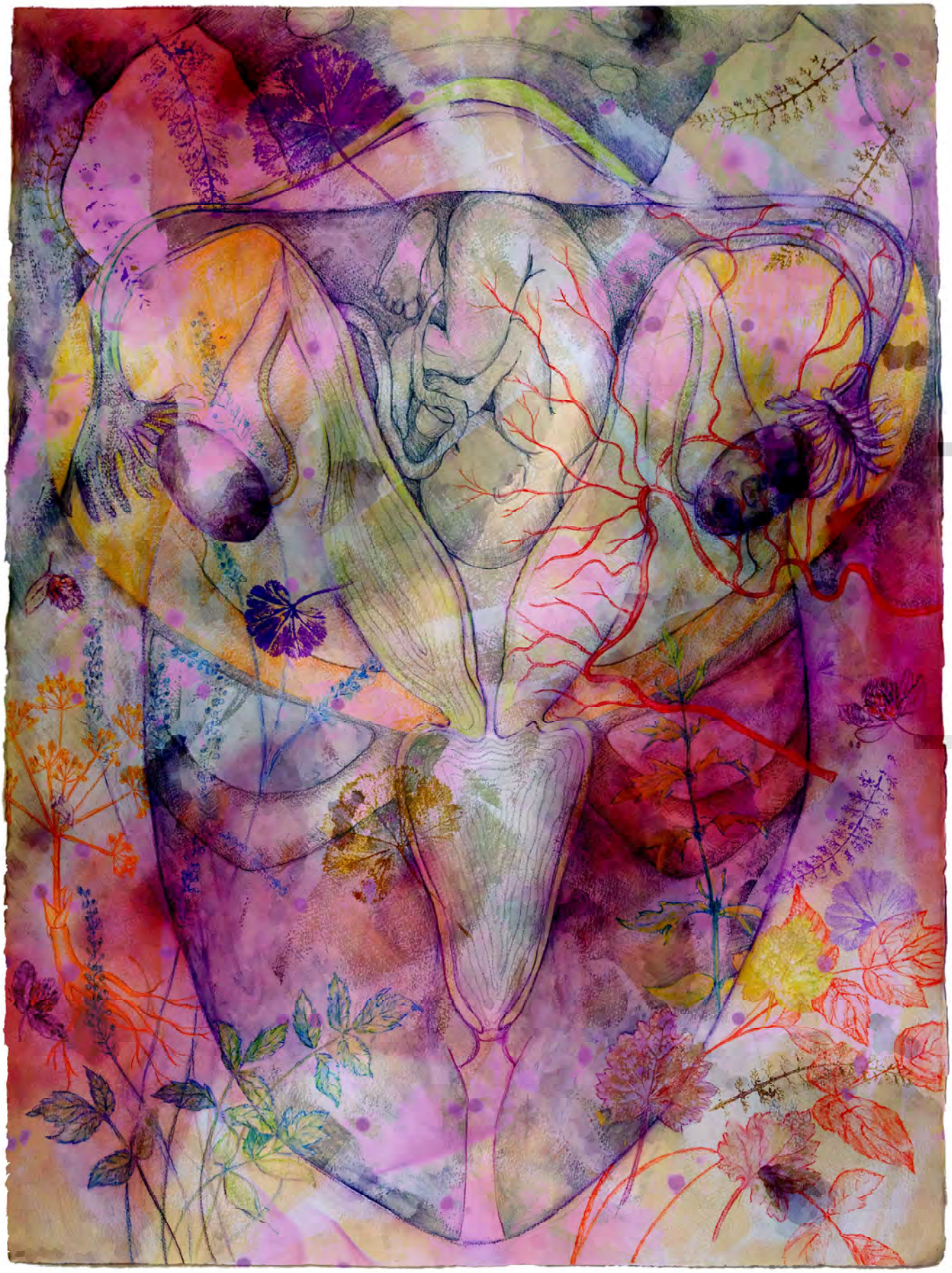
3. Plants may not talk to us in our own language, but they communicate in all kinds of interesting ways with their environment, with insects, and with animals like us. Plants can be tasteful, intoxicating, aromatic, oily, and mucilaginous—stimulating both our senses and our souls.

4. Not all plants reproduce by seed and have seeds that are easy to collect, store, and germinate. Some plants reproduce by other methods, or they have complex relationships with pollinators, or they can have unique triggers to germination that can be hard to replicate. Just collecting seeds and storing seeds will not curb species extinction—that is only a piece of the conservation puzzle.

5. The Endangered Species Act celebrated 50 years in 2023 and has been a critical force in slowing the demise of biodiversity in the United States. One listed medicinal plant, *Echinacea laevigata*, was listed in 1992 and, due to conservation efforts, was delisted in 2022. While there have been many attempts to erase the ESA in congress, many groups collaborate to monitor such legislation and advocate for biodiversity. These groups include the Endangered Species Coalition, the Forest Carbon Coalition, and the Climate and Forest Campaign. Plant Savers plays a unique role in these coalitions as we are the only group representing native medicinal plants.

6. A 2023 report by Nature Serve, Biodiversity in Focus: United States Edition reveals that 34% of plants and 40% of animals are at risk of extinction, and 41% of ecosystems are at risk of range-wide collapse. Meanwhile, a report from the National Academies of Sciences, Engineering, and Medicine says the insufficient supply of seeds from native plants is a major barrier to ecological restoration and other revegetation projects across the United States. The report calls for concerted action to build a more robust native seed supply and industry, especially as climate change increases the possibility of extreme weather events that often damage natural areas.

7. The *Herbalgram* Magazine Market Report in 2021 estimated that more than 12 billion dollars are spent each year in the US on herbal supplements, and yet there is no seed bank specifically focused on medicinal plants. Certainly, there is the US National Plant Germplasm System that is focused on seeds for plant breeders, food, and fiber, which is an incredible resource. I see United Plant Savers as serving a unique niche to seed collecting valuable species in the herb trade starting with a focus on those species of medicinal plants in our region of southern Appalachia. I hope as the project takes off that we will find the support to grow the seed bank and the network needed.



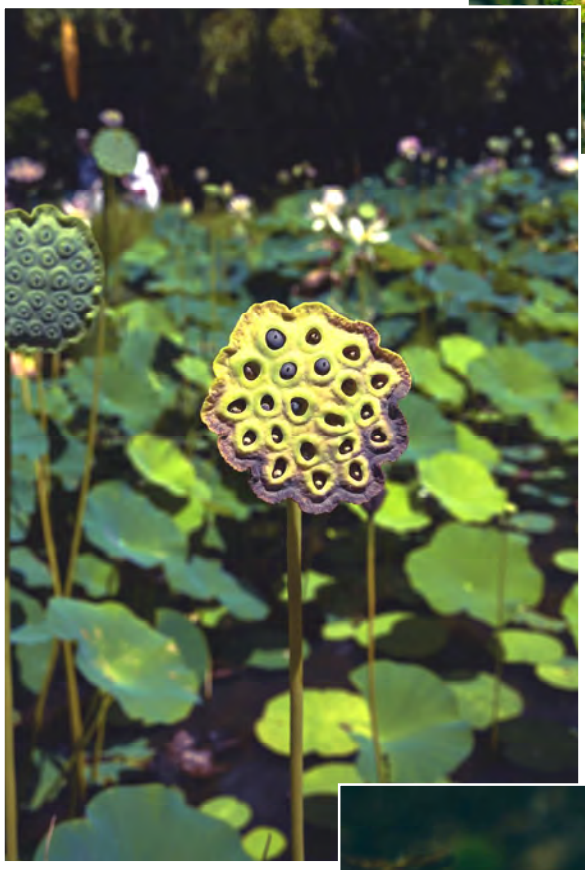
Viriditas VIII. by Elizabeth Hall. SporaStudios.org

PHOTOS BY AMANDA STOLL

Instagram: @amandajdphotos



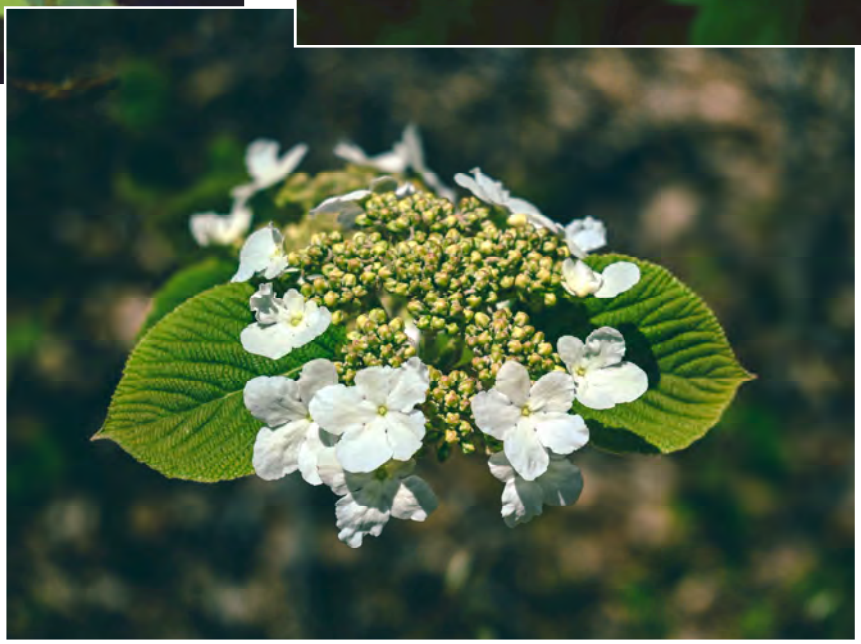
Reishi (*Ganoderma lingzhi*) - White Mountain National Forest - NH



Water lily (*Nymphaeaceae*) - Ground for Sculpture - NJ



Echinacea (*Echinacea purpurea*) - Wantage, NJ



Doublefile Viburnum *(V. plicatum f tomentosa)* - Acadia National Forest - ME

WILLIAMS, OREGON: AN HERBAL HOTSPOT

By Sara Katz

In November 1978 Ed Smith and I drove 5 hours south from Portland, Oregon, to Ashland, on the California border, in order for Ed to teach a class on medicinal herbs. People knowledgeable about how to use medicinal plants was a rarity at this time when Ed had already earned the nickname "Herbal Ed," a moniker he wears to this day.

We were looking to move to a rural community and had been told that southern Oregon was a place we might want to settle; it satisfied our environmental, geographical and climate criteria. So, during his class in Ashland, Ed announced our search for a new home, and we were happy when an attendee enthusiastically suggested we make our way fifty miles west, through the Applegate Valley, to the small mountain valley of Williams, where we would find a fertile herbal community. And so we did.

In the 1970s herbalism was not so deeply integrated into every segment of American society as it is today. Rather, after decades of denigration and persecution by the AMA, FDA, and Big Pharma, herbalism persisted mostly in small rural and urban pockets across America. It turns out one of these pockets of herbal activity and creativity was the Williams Valley of southern Oregon.



Higher elevation around Williams

After the class in Ashland, Ed and I drove directly to Williams, enchanted by the beauty of the Applegate Valley as we made our way to the Williams General Store. There we asked where we might find people working with medicinal plants and were directed to go a mile down a bumpy road to a rustic farm where we walked in on a meeting of SWOHA, the Southwestern Oregon Herb Association. Circling the warmth of a fire were a fascinating array of plant nerds, and we knew right away we had found our new home. So we returned to Portland, packed up our car full of worldly belongings, and moved to Williams, where Herb Pharm was born and has lived ever since.



Lemon balm (*Melissa officinalis*) and Echinacea (*Echinacea purpurea*) at Herb Pharm

Amongst that colorful array of inspired plant geeks, no one called themselves an herbalist per se, although they were impressively knowledgeable about collecting wild medicinal plants, growing abundant and artistic herb gardens, and honoring the earth using medicinal plants in prayer and ceremony. They became our herbal colleagues and our community.

Most of these plant-loving people had come to Williams from all over the country. Like us, they were attracted by the culture of community, the moderate climate, and the geography—a valley with mountain ranges on three sides, the Pacific coast 60 miles to the west, and significantly, being located at the end of a 6-mile road that continues only as logging roads into the wilderness. This means no one comes through Williams on their way to somewhere else. Williams is a destination unto itself.

For a variety of geological and climate reasons, southern Oregon is endowed with wonderful plant diversity and many endemic plants. Field guide in hand, and with the help of our new botanical buddies, we were thrilled to find so many medicinal plants growing all around in meadows, mountains, streams, and the nearby Pacific coast. Over the years Ed and I wildcrafted an abundance of herbs from these environs: yarrow (*Achillea millefolium*) and milk thistle (*Silybum marianum*) at the coast; pipsissewa (*Chimaphila umbellata*), St. John's wort (*Hypericum perforatum*), goldenrod (*Solidago gigantea*), and elder (*Sambucus nigra*) in the mountains; shepherd's purse (*Capsella bursa-pastoris*) in the meadows and petasites (*Petasites hybridus*) in the creeks, and so many more—most of the herbs a nascent extract company needed!

Soon after we moved to Williams, Ed and I became close friends with the gifted herbalist/gardener/plant spirit Gabriel Howearth, who created vibrant and colorful mandala herb and flower gardens throughout the valley and generously shared his encyclopedic knowledge. I had the good fortune to be Gabriel's gardening sidekick for a few illuminating years when we first moved to Williams.

Jim and Dottie Becker began Goodwin Creek Gardens in 1977, selling popular and hard-to-find herb and flower



Breitenbush Gathering. September, 2018

plants, including 120 varieties of lavender (*Lavandula* spp.). Goodwin Creek is the birthplace of the favorite "Goodwin Creek Grey" lavender and the "Chelsea Pink" lavender. Goodwin Creek provides beautiful plant starts to this day under the stewardship of Jered Grzybowski and his lovely family.

When we met Mark Wheeler, who began farming in Williams in 1979, he was growing gorgeous fruit trees and market vegetables. At our request, Mark began growing *Echinacea purpurea* and a few other medicinal plants for Herb Pharm. Over the decades, Pacific Botanicals, the company Mark founded and grew, now with 90-plus acres and more than 60 different herb species under cultivation, has become the largest highly diversified organic herb farm in North America.

Richo Cech and his family moved to Williams around that same time. A gifted and passionate plant lover and seedsman, when Richo discovered there was a little herbal extract company a mile down the road, he offered to come over in the evenings to press tinctures in order to be close to the magic. Richo became Herb Pharm's herb buyer and overseer of production during the day, and in the evenings he and his family collected and catalogued herb seeds for their family home business, Strictly Medicinals, which is now one of our country's most comprehensive sources of organic medicinal plant seeds and starts.

In the 1980s this concentration of herb growers, medicine-makers, seedsmen, and herbalists, made Williams an attractive destination for Rosemary Gladstar's yearly bus journeys with the California School of Herbal Studies. Also, herbalist Jane Bothwell has been bringing her Dandelion Herbal School students from Arcata, California every summer for decades to soak in this abundance of herbal activity. Our herb-company-in-our-home was also a welcoming rest stop for herbalists traveling up and down the west coast, especially each September when the tribe gathered for the most iconic of herb conferences at Breitenbush Hot Springs, situated on the lushly forested western slopes of the Cascade Mountains. This land of healing waters is stewarded by a dedicated community who care lovingly for the land, its facilities, and guests. The Breitenbush Herb Conference, three-days of sharing knowledge of herbal medicine and ceremony in the beautiful lodge, stone-lined natural hot pools, and steam house, has been a highlight on herbalists' calendars since the original conference organized by Rosemary Gladstar over 40 years ago.

By the mid-nineties consumer demand for herbal medicines was growing rapidly across the U.S., meaning herbal products could be found on the shelves of increasing numbers of herb and natural food stores, and soon in less-natural food stores as well. The growing popularity and acceptance of herbal medicine seemed a positive development for those of us who had been using and teaching about herbs for decades. However, this popularity turned out to be detrimental for some wild medicinal plant species, especially popular roots like ginseng (*Panax quinquefolius*), goldenseal (*Hydrastis canadensis*), echinacea (*Echinacea* spp.), and black cohosh (*Actaea racemosa*) that were being harvested too aggressively. To address this issue, Rosemary Gladstar gathered herbalists at the 1993 International Herb Symposium to discuss concerns about the over-harvesting of wild medicinal plants, and there, my friends, as you may know, United Plant Savers was born. As would be expected, participation in and support for United Plant Savers from the Williams Valley began early on and continues to this day.

Ed and I always considered ourselves conscientious wild-harvesters and did our best to work only with wildcrafters who understood what made for sustainable harvest. More recently studies are being done, and more need to be done, on what actually constitutes sustainable harvest of a wild plant, but we did the best we could with what we knew at the time. So when United Plant Savers formed in 1994, we were completely on board with participating and supporting the mission of protecting wild herbs in any way we could, as did many of the other herbalists and herb businesses in the Williams Valley.

Richo Cech was Herb Pharm's herb buyer at that time, so Herb Pharm sponsored Richo to join the UpS board. Once the UpS "At-Risk" List was established, Herb Pharm began to grow any herbs on that list that we could and



Herb Pharm Today

discontinued making herbal extracts from wild-sourced "At-Risk" herbs that we couldn't grow successfully, including false unicorn (*Chamaelirium luteum*), slippery elm (*Ulmus rubra*), and partridge berry (*Mitchella repens*). Today an At-Risk-Herbs bed is featured prominently in Herb Pharm's Herbal Education Garden.

With his herb seed business growing robustly, Richo departed Herb Pharm to devote his attention to Strictly Medicinals, providing people with seeds and starts for many plants on the UpS "At-Risk" List. At that time I officially joined the UpS board, a seat I held for over 20 years, 9 of them as board president. Mark Wheeler, herb farmer extraordinaire, joined the UpS board for a number of years as well, and, as one of the earliest and most successful organic herb growers, Pacific Botanicals has played a key role in providing companies and individuals with cultivated "At Risk" medicinal plants, many previously available only in the wild. According to Mark, "There was so much going on back then and so many people involved, UpS meetings and conferences, many herb schools visiting, tours etc. But mostly nonstop work to keep it all together." I'm thrilled to report that Pacific Botanicals was awarded the 2024 Herbal Leadership Award by the American Herb Products Association (AHPA) for excellence in quality, integrity, sustainability, and customer service.

One of the main ways that United Plant Savers spreads its message about protecting wild medicinal plants has been through herb conferences. These spirited gatherings have been significant fund-raisers as well. Herb Pharm has hosted four very successful UpS conferences over the years amid the herb gardens and crops of the "Pharm Farm", and I hear there may be another in the near future!

More recently, the Williams Valley has been graced with another notable herb company, Oshala Farms. Owners Elise and Jeff Higley are go-getters of the best kind, growing and selling beautiful medicinal herbs and herbal products, offering a myriad of herbal education opportunities, and actively supporting our local community. Jeff and Elise are also significant advocates and supporters of UpS and its mission.

Williams today doesn't look that much different than it did when Ed and I first arrived 45 years ago. The main visual change as you drive in are the Herb Pharm and Strictly Medicinal buildings that occupy a good portion of the don't-wink-or-you'll-miss-it downtown. Herb businesses of all kinds proliferate in the surrounding mountains and valleys. Small organic vegetable, herb, and flower farms as well as wineries are widespread.

Ed sums up our life in Williams thusly: "As life-long herbal enthusiasts, Sara and I have always had a love for the Williams Valley. How could we not? What a blessing to have your life, work and love of Mother Nature be as one."

With gratitude for living so much of my life in this peaceful mountain valley and community, for the love of plants and the people who care for them, Sara Katz. ■

Sara Katz is co-founder of Herb Pharm and past president and long-time supporter of United Plant Savers.



Aesculus hippocastanum in full bloom & pollinated. Credit: Holly Phillips



2024 FUTURE OF NORTHEAST FOREST FARMING CONFERENCE

FRIDAY, SEPT 6TH- SUNDAY, SEPT 8TH
SMOKEY HOUSE CENTER
DANBY, VT

FRIDAY
Evening welcome with dinner and conference kick-off event.

SATURDAY
Full day of forest farming workshops and events. Breakfast, lunch, and dinner provided. Live music in the evening!

SUNDAY
Breakfast and closing ceremony with "Future of Forest Farming in the Northeast Strategy Session" in the morning.

Join us for our inaugural Northeast Forest Farming Conference hosted at Smokey House Center in Danby, VT this summer! This will be a weekend chock-full of opportunities to learn about all aspects of forest farming. Topics will include forest botanical plant ecology, site selection, production and stewardship models, medicinal uses, business planning, propagation techniques, and so much more. We'll have a wonderful line up of experienced folks hosting field-based and indoor workshops across Smokey House's 5,000 acre mosaic of forest and farmland. There'll be good food, live music, and so much more to enjoy. Come learn, share your knowledge, and meet the diverse group of people working to grow opportunities around forest farming and forest botanical plants in the region!

Pricing, registration and details:

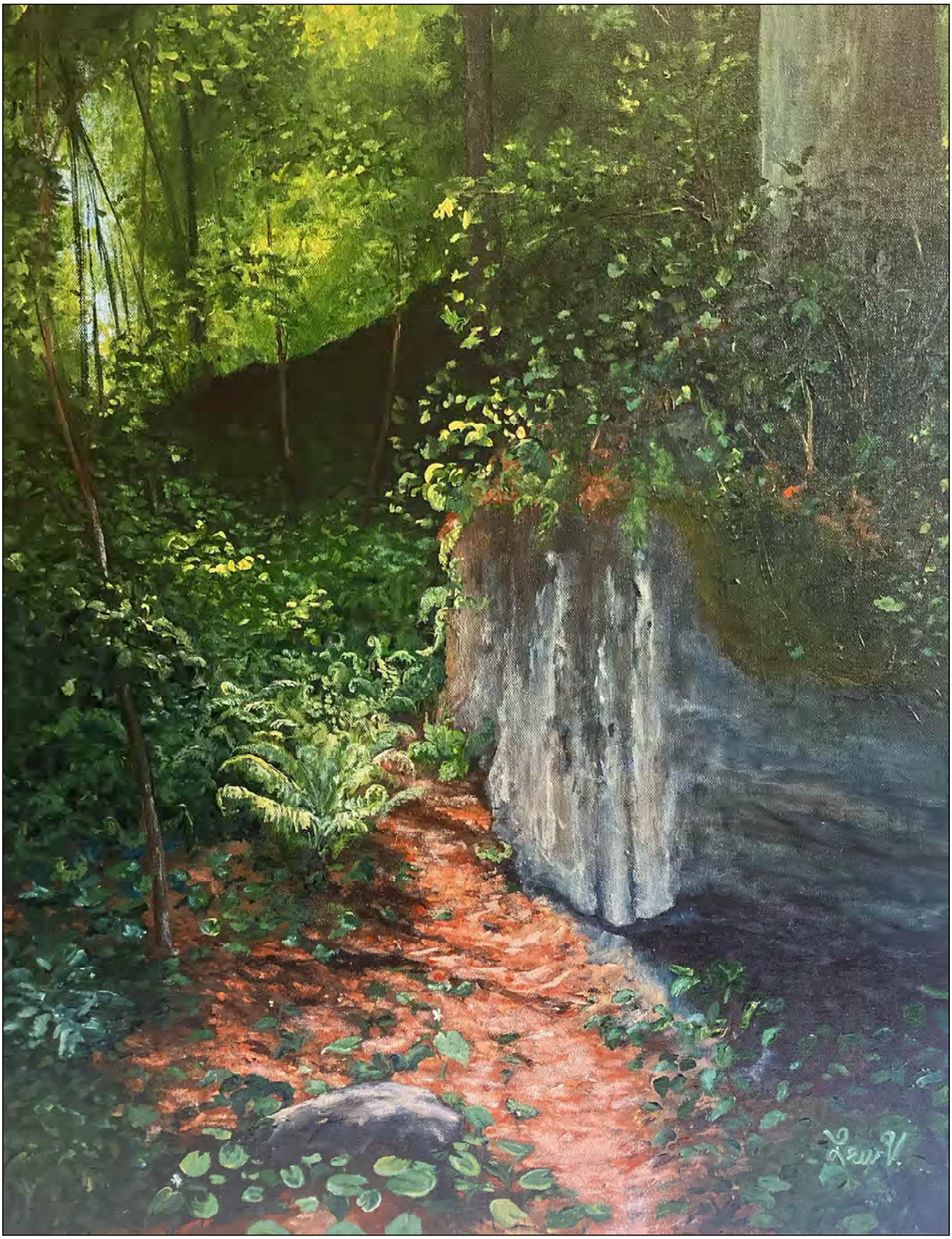
www.smokeyhouse.org/happenings

SMOKEY HOUSE CENTER DANBY, VT

NORTHEAST FOREST FARMERS COALITION

SARE Sustainable Agriculture Research & Education

Sponsored by: Northeast Forest Farmers Coalition and
Northeast Sustainable Agriculture Research and Education (SARE) Program



The Lost Holler Trail by Lewis Pell (@lewpell)
at United Plant Savers Botanical Sanctuary

THE ~~USER'S~~ INTERACTOR'S
GUIDE TO THE SANCTUARY

ACCORDING TO GERDA, THE RECLAIM TURTLE

(You are not a user, so let's re-frame your role here.)

YOU ARE ONE OF MANY BEINGS INTERACTING HERE.
Your presence is welcomed and also new. Every time.
(The birds still don't trust you, but that's alright.)

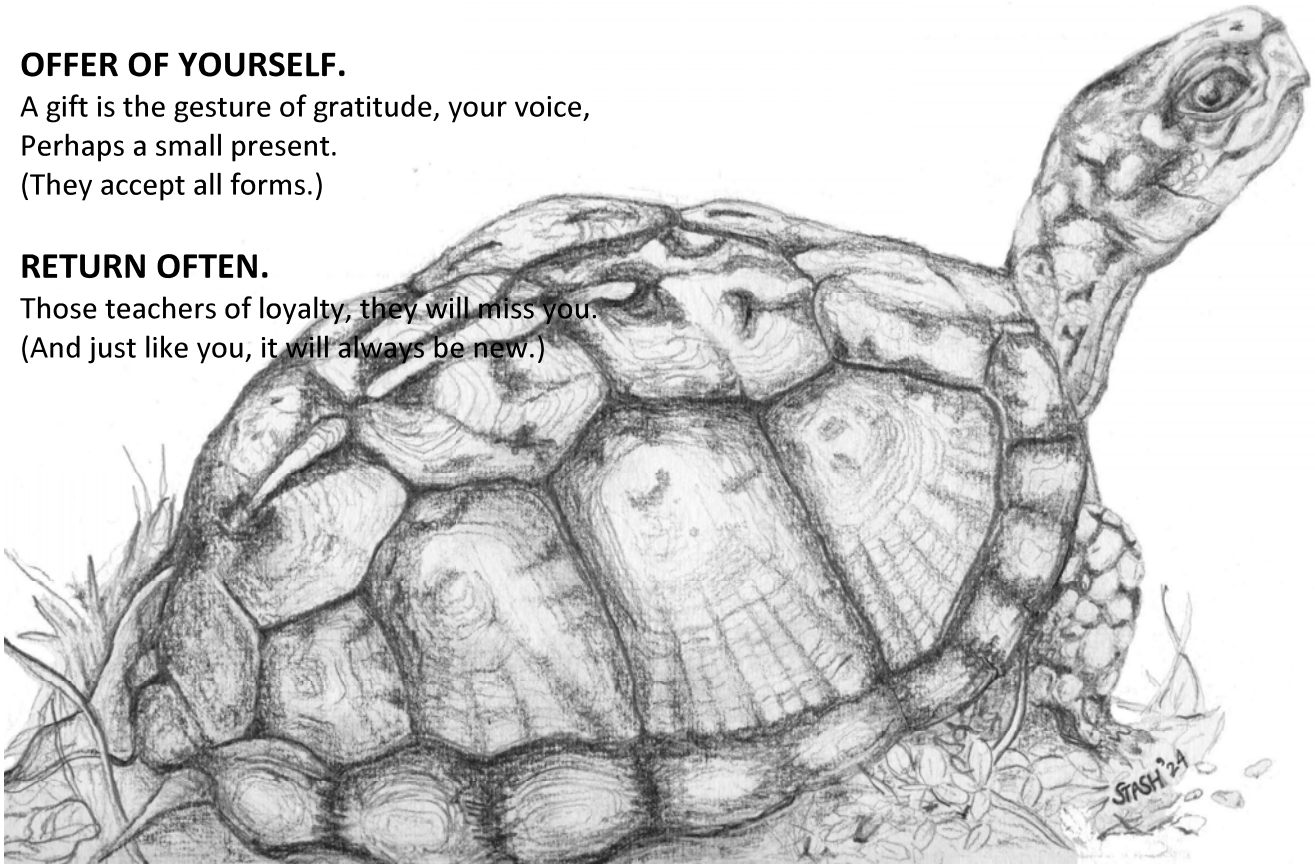
WALK SOFT. WALK SLOW.
You will see more, you will learn more.
(There are other things you can rush.)

DON'T LET THE NAME FOOL YOU.
This sanctuary is an ecosystem: Plants are as much the whole
As wasp, wood thrush, water and stone.
As too fox, forest frog, fungi, and loam.
(Remember there is no separation.)

CONSIDER THE TINY THINGS. CONSIDER THE BIG THINGS.
Craning for the treetop, a hoverfly collective is forgotten,
Crouching for the trillium, a sassafras stand unseen.
(Consider them all. But maybe not all at once.)

OFFER OF YOURSELF.
A gift is the gesture of gratitude, your voice,
Perhaps a small present.
(They accept all forms.)

RETURN OFTEN.
Those teachers of loyalty, they will miss you.
(And just like you, it will always be new.)



Submitted by Stayc St. Onge (aka STASH), a Summer 2023 intern at the sanctuary, who regularly met with Gerda the turtle on the Reclaim Trail during her walks.



Skeeter on the job

A FEW THOUGHTS ON WILDCRAFTING IN THE WORLD TODAY

By Michael Pilarski

I am a visionary. I can imagine a world where everyone knows wild plants and their uses. Everyone wildcrafts, and everyone is respectful and sustainable in a world full of rich, healthy, biodiverse ecosystems. There is more wildness than today. Old-growth forests are common. Wild corridors start in urban centers and spread in all directions. Healthy people in healthy landscapes. Humans as symbiotic members of the ecosystem. Humans in harmony with Nature.

Here and now, in 2023, I want to be proud of my profession, my guild, and the wildcrafters, but I am conflicted. A large percentage of the world's medicinal herb wildcrafters are doing it unsustainably and depleting the resources. Here are three types of wildcrafters.

1) Traditional people who did wild harvesting sustainably including Indigenous people and traditional agriculture communities. Taboos and sustainable management were understood by everyone. Some of these systems are still alive, but there are less and less people being trained in these traditions with every generation. Let me quote from Ann Armbrecht's recent Nepal article (referenced elsewhere in this article). "*There used to be a network of wild collectors in villages across the country who collected what Tibetan and Ayurvedic doctors needed. These collectors knew how to collect in the right way at the right time. But those people have all left.*" At the same time as traditional knowledge is waning across the world, there is also a revival of traditional knowledge among First Nations people in the Pacific Northwest and North America in general. This includes traditional foods and how to harvest them sustainably, the old way. I am honored to have tribal friends on this path, and we teach each other things.

2) People in rural areas (often remote) with few options for earning money and not trained in traditional sustainability. Saleable medicinal herbs are harvested unsustainably. "*Wild collection is just about making money and making sure their family has enough to eat.*" There are so many sad stories of ongoing overharvesting and depletion of wild medicinal herbs in many parts of the planet. The solution is tied up with equity. When people are given control over land decisions, they wildcraft much more sustainably than when they are disenfranchised/marginalized. This has been proven repeatedly world over. The solution is to give people equitable access to land and communal management; education and training; cooperative marketing that pays fair wages; education on conservation, propagation,

stewardship. Widespread ecosystem restoration using medicinal plants is crucial. The unsustainable wildcrafters of today don't have to stay that way. They are not the enemy. They are the victims of a larger exploitative system that will implode sooner or later. Let's build alliances.

3) New, ethical wildcrafters from Western cultures, such as myself. I have chosen this profession as right livelihood. I gather high-quality botanicals at the right stage in a sustainable manner as a service to humanity, at least the small part of it my harvests will reach. I am confident that the companies and herbalists I sell to have high ethical standards, and my herbs will reach good people in a larger community context. I enjoy my work and put care and prayer into it. It sounds romantic, but that is how I roll, and I know that I am not alone. There are hundreds and thousands of new wildcrafters out there that feel like I do. We are creating new traditions. We are exploring the art and science of sustainability. Some of us write things down.

People like me in Group 3 like to learn things from people in Group 1. We also are supportive of Group 2 evolving into sustainable wildcrafters. Group 2 needs fairer prices and education from Groups 1 and 3.

Of course this is very simplistic. Many of the unsustainable wildcrafters I blithely put into Group 2 *are* Indigenous people and *are* from some of the most traditional farming village cultures remaining on the planet. There are a lot of gray areas. There are many other categories of wildcrafters out there depending on the culture. This article is just a short blip in a very long, inter-generational discussion, a bit of introduction to my point of view and some useful resources for those of you who are students of these things.

Generally the more developed a country is, the less its people wildcraft. For modern people, everything, or almost everything, is purchased—especially urban people, and the world is now over 50% urban.

An Africa-wide overview of medicinal plant harvesting, conservation and health care. S-A. He and N. Sheng. In Pages 116-130. In *Medicinal plants for forest conservation and health care*. [see references]

A sobering account of the wildcrafting situation in Africa. Urban areas are growing rapidly because of rural to urban migration. Many of the traditional medical practitioners (TMPs) have moved to urban areas because of the thriving market for the most effective herbal remedies (physiologically and/or psychosomatically). The large demand for the most popular species has led to unsustainable harvesting and decimation of many species in many parts of Africa.

Conservation through cultivation as an alternative: At that time, little was being done to bring these species into cultivation with the exception of a handful of the highest-priced species. The 2 main reasons cited for the lack of cultivation efforts were: "*(i) lack of institutional support for production and dissemination of key species for cultivation, and (ii) the low prices paid for traditional medicinal plants by herbal medicine traders and urban herbalists.*" The authors note that "*Commercial gatherers of medicinal plant material, whether for national or international trade, are poor people whose main aim is earning money, and not resource management*". There is a race to get the last bushel of bulbs, barks and herbs.

The authors believe this would not change until dire scarcities raised the prices enough to make cultivation worthwhile. I imagine that by now there is a growing interest in propagating and cultivating wild medicines as well as more protection/conservation.

I recently talked with a friend in Portugal and asked her how many people wildcrafted in Portugal. She said hardly anyone does anymore. I have a friend in Spain who said essentially the same thing for Spain. I am sure there is grassroots, local foraging for food and medicines, but it appears that much of the traditions in Europe have been lost in the last several generations. Worldwide, traditions and skills are being lost at a fast rate. But the pendulum is swinging, interest is growing, and more and more people are taking up the crafts.

Many people in Russia and Eastern Europe still wildcraft.

Here in the USA, wildcrafting has seen a long decline over the last 150 years. I have Leonard Wiley's book *Wild Harvest* in my library wherein he reports on wildcrafting in the rural Northwest in the middle of the 1900s. Appalachia is still a center of wildcrafting medicinal herbs. The commons have been shrinking and regulations increasing.

Tibetan medicinal plants: Two references which complement each other.

Cultivation and Conservation of Endangered Medicinal Plants. Dr. Tsultrim Kalsung, Foreword by His Holiness the 14th Dalai Lama. 2016. Published by Men-Tsee-Khang. Dharamsala, India. 353 pages. An excellent book which should be emulated in all parts of the world. This book focuses on endangered medicinal plants used in Tibetan medicine. Most plants are from Tibet but includes the Himalayan region in general plus some herbs from southern India. The 325 color photos deepen the connection with the plants discussed. The book covers:

- Tibetan plant identification and classification with Tibetan and vernacular names.
- Information on the range of habitats and altitudes of plants.
- Parts used in TM, their tastes, natures and uses.
- Cultivation protocols for each medicinal plant, including propagation management and protected growth strategies

Reflections from Nepal. By Ann Armbrecht. Sustainable Herbs Program director. A trip report about following the



Digging roots

jatamansi (spikenard, *Nardostachys*) supply network in Nepal. Published in ABC's *HerbalEGram*, Issue 2, February 2023. Thank you, Ann, for visiting Nepal and writing this report. It gives an idea of the importance of the herb trade in Nepal for the national economy and livelihoods of many people. Here are a few quotes:

"*The annual export of medicinal plant products from Nepal is between 7,000 and 27,000 metric tons, worth $11 million to $48 million in 2020 values. Medicinal plants are the largest source of exports in Nepal.*"

"*... hundreds of thousands of households throughout the country are involved in this trade*"

"*Families in the village do not have enough land to provide food for the year and so harvesting and selling medicinal plants provides them with the money to buy additional food.*"

"*We heard this message everywhere. Samir Newa, the founder and managing director of The Organic Valley Pvt. Ltd., told us that there used to be a network of wild collectors in villages across the country who collected what Tibetan and Ayurvedic doctors needed. These collectors knew how to collect in the right way at the right time. But those people have all left, he said. Now the only people in villages are ones with no other options. For them, wild collection is just about making money and making sure their family has enough to eat.*"

"*The most important part of this FairWild project is that it links the biological part and the human side with the supply chain and offers a vehicle to manage the forest and address rural livelihoods.*"

https://www.herbalgram.org/resources/herbalegram/volumes/volume-20/issue-2-february/news-and-features-2/reflections-from-nepal/

Judging from the sounds of the FAO Africa report, a very similar thing is happening around Africa, and we could extrapolate around the globe. There is a growing loss of traditional knowledge about how to sustainably wildcraft in all (or most) cultures.

I sponsor the idea of medicinal forests, ethnobotany gardens, and sacred forests throughout the world including in indigenous communities. Sacred forests are found in many cultures. I don't know how universal sacred forests are but I know they exist in Ethiopia, Nepal, India, Bali, and Japan. Sacred forests, I would be willing to wager, always contain many medicinal species. Perhaps the world needs some exponential growth in the creation of new sacred forests, medicinal forests, and ethnobotanical gardens such as the United Plant Savers Botanical Sanctuary Network.

Ethnobotany gardens in every locality – Worldwide

One example is Ix Chel, an ethnobotany garden in Belize started by Dr. Rosita Arvigo. There is a self-guided trail with plaques and a handout. There is a shop to buy herbs and herbal products prepared from onsite resources. There are educational workshops. There are hundreds of examples like Ix Chel, but there need to be thousands more. A million ethnobotany gardens would be getting somewhere.

Much of rural Africa and Asia still wildcraft for food and medicine at the family level. Some people wildcraft for a living, but mostly it is a job for the poorest of the poor. They get paid a pittance. The international herb market could really use a lot more fair trade equitability. One of the arguments for keeping the international herb trade going is that it supports a lot of marginalized people, perhaps not very well, but it is needed income, and Fair Trade would help even more.

Climate changes have also negatively impacted many ecosystems and species as well as habitat loss in general. Ecosystem restoration with medicinal and useful plants is the key to expanding the resource.

The world needs large-scale ecosystem restoration. Society needs to take a cue from indigenous ethnoecology and increase the number of useful plants in the landscape. We can create a wildcrafter's paradise by deliberately planting a lot of food, medicines, and useful plants in eco-restoration plantings. ■

The Business of Botanicals: *Exploring the Healing Promise of Plant Medicines in a Global Industry*
Ann Armbrecht, 2021. One of the best overviews of the current world trade network for medicinal plants. Many examples from India. Ann is Director of the Sustainable Herb Project.

Medicinal plants for forest conservation and health care. 1997. FAO Non-Wood Forest Products Series No. 11 Edited by Dr. Gerard Bodeker, Dr. K.K.S. Bhat, Prof. Jeffrey Burley, Paul Vantomme.158 pages. Excellent overview of the situation at the time and largely relevant today. This book is the source of the Africa report in this article.

Medicinal Plant information databases
Pages 116-130. K.K.S Bhat introduces the main databases in regard to medicinal plants in existence at the time. Many of them are still operating. Could someone recommend a more current database compilation?

Forest Products, Livelihoods and Conservation: Case Studies of Non-timber Forest Product Systems. Volume 2 - Africa. Terry Sunderland and Ousseynou Ndoye editors. 2004, CIFOR. Volume 1 is 21 Case Studies and Volume 3 is Latin America. Covers medicinals, fruits and oils, woodcarving and wood products, fibres and weaving materials.

Tapping the Green Market: Certification & Management of Non-Timber Forest Products. Patricia Shanley, et al. 2002, Earthscan. Many case studies from tropical Asia and Latin America. Mostly medicinals.

Global Earth Repair Foundation:
https://globalearthrepairfoundation.org

Michael Pilarski has been farming and gardening organically since 1972. He sells fresh and dry botanicals through Friends of the Trees Botanicals in Port Hadlock, Washington. He studies and teaches regenerative farming, permaculture, medicinal herbs, native plants, plant propagation, ethnobotany, forestry, agroforestry, and ecosystem restoration. He is the founder of the Northwest Herbal Fair, the Montana Herb Gathering, the Herb Growing & Marketing Conference, and the Northwest Wildcrafters' Rendezvous. He networks internationally through the Global Earth Repair Foundation and works for the plant spirits through the Fairy & Human Relations Congress.

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https://globalearthrepairfoundation.org/
http://www.friendsofthetrees.net
https://fairycongress.com/



Froggy's Portrait

The moon slid down the sky,
The froggy whispered, "Soon,
If only it comes close enough,
I'll leap on the moon."

— Richard Edwards

There's been some bad weather here and while gathering the potted plants close to our door, my son found there was a small frog sleeping deep within Tulsi's leaves. All day we couldn't help but check on the little one and sure enough when evening rolled by, he awoke, nice and bright eyed! We quickly introduced ourselves and as we spoke, he listened quite attentively. I asked if we may take a photo and he smiled.



Training of the Barbacoas women's group in agroecology. Catalina Giraldo 2023

EMPOWERING WOMEN THROUGH FOREST RESTORATION AND AGROFORESTRY

Fernando Arbelaez[1], Julieta Minervini[2], Daniel van der Post[3], Juan Millan[4]

1 IUCN-SuLi member, Fundación Biodiversa Colombia Director
2 Fundación Biodiversa Colombia Gender Expert
3 Fundación Biodiversa Colombia board member
4 IUCN-SuLi member, Fundación Biodiversa Colombia assoc. researcher

Fundacion Biodiversa Colombia (FBC) was created in 2005 to preserve the biological and cultural heritage of Colombia. Our aim is to promote and develop biological, social, and cultural research and conservation projects, while seeking alternatives for sustainable development. In order to guarantee the sustainability and continuity of the conservation processes in the long-term, we recognise the need to work closely with the communities that directly use natural resources. Our community outreach therefore incorporates raising awareness on the importance of conservation, knowledge dialogues, empowerment, gender approach, generation of sustainable economic alternatives, and improving local living conditions. We pay particular attention to women and children as the most critical and marginalised groups.

Since 2009, FBC has focused its work in the Barbacoas region, in Central Colombia. This is one of the last conservation opportunities for the critical ecosystems of the lowlands of the Middle Magdalena Valley. By working together with local communities, landowners, and allied organisations, FBC aims to preserve, restore and connect the remnants of natural forests and wetlands, and promote sustainable development alternatives for the region. In 2012, FBC established El Silencio Natural Reserve, covering a mere 79 ha. It has since expanded to more than 3.300 ha and is now an area for conservation, restoration, research, and model of sustainable development for the region.

Straight from the start, the importance of working with the community of Bocas de Barbacoas was evident. The Barbacoas wetlands are perhaps the best preserved in the region, and the Bocas fishing community are its most natural guardians as they are strategically located at the entrance to the wetlands. However, as a consequence of years of violence in the region, the Bocas fishing community has suffered from precarious social and economic conditions, with no access to arable land, low education levels, and no voice in regional socio-political processes. FBC therefore started to raise and highlight the voice of the community, and to involve them in regional processes. As a consequence, the community was involved in the declaration of the Ciénagas de Barbacoas Regional Protected Area in 2017 and, later on, its Environmental Management Plan.

In alliance with other organisations, we have begun a knowledge exchange with the community to raise awareness about the importance of the conservation of this critical ecosystem. In particular, we began to train members of the community in plant nursery management, ecological restoration, and reforestation,



Restoration area in 2016 (left) and 2022 (right)

as an alternative and complementary economic activity to fishing. Making use of different restoration projects and improvement programmes for livestock rearing in the region, a community plant nursery was set up for seedling production, and the community became involved with tree planting. At the same time, clean drinking water was identified as a priority by the community. Together with the community, FBC helped to obtain and organise the funding necessary to rehabilitate an abandoned well and install a solar pump. As a result, clean water now reaches the houses of 70 families, ending nearly 25 years of consumption of non-potable water from the canal in front of the village.

During FBC's process in the Bocas community, we quickly realised the need to work on gender related issues. Fishing is mainly carried out by men, and women had no means of income. While most women and children are residents in the village, seasonal male workers cause an influx of men into the local population every fishing season. In addition, there is very little law enforcement in the area, as the state has very little presence. As a result of these factors, there is a high level of conflict and violence, where women and children are generally the most affected. In combination with a lack of awareness and access to sexual and reproductive health, there is a high rate of teenage and unwanted pregnancies.

With support from the Ministry of Science, in 2020 we therefore began working with a group of 20 women to empower them through agroecology and food security projects. We carried out capacity-building workshops on agroecology, agro-diversity, and food security, and supported the implementation of productive backyards, while rescuing and incorporating their knowledge on cultivation and use of medicinal plants.

Moreover, In 2021, we partnered with Plant for the Planet to support the Barbacoas women's group to start planting a community-managed restoration area within the El Silencio Natural Reserve, in a zone contiguous to the community along the Magdalena River bank. The project's goal was to provide direct economic benefit based on restoration and agroforestry for these women.

Currently, the initiative has become a "Top Project" in the Plant for the Planet crowdfunding platform (web.plant-for-the-planet.org/en/community-based-restoration-at-el-silencio-natural-reserve). The women have transformed more than 10 ha of plain grasslands into a diverse young forest by planting more than 3000 trees belonging to 49 species. This includes species of timber, fruit, and medicinal trees, with the earliest planted trees now reaching over 12 m in height. Thanks to their hard work, what used to be a difficult area to walk through



Hortencia, one of the group leaders, shows an area recently planted (left) compared to an area restored in 2021 (right). Fernando Arbelaez 2023

under the scorching Middle Magdalena Valley sun, is now a shady fresh promenade full of diverse life.

Agroforestry and ecological restoration have become a source of income and has empowered the Barbacoas women's group within the community. Through agreements with the rest of the community, the women now manage the plant nursery for their own profit and benefit. They administer their own funds, and while they mostly do the tree planting themselves, they hire labour when needed. They take pride in their work and take care of the planted trees as if they were their own children. Not content with their outstanding work so far, their goal is to reforest another 6 ha. This restoration project will connect the various forest patches and expand the habitat for many species inhabiting the area, including sustainable use of resources by the community. In addition, the project will continue generating much needed income for the women's households.

For FBC, this amazing group of women represents a success story of work with Bocas de Barbacoas, motivating us to strengthen our bond with the community. The Barbacoas women's group is a bastion within the community that we aim to further strengthen through training and empowerment on additional topics such as gender issues, sexual and reproductive health, food governance, and environmental education with the children, among others. ■



Work at the community-managed restoration area at El Silencio Natural Reserve. Barbacoas women's group 2023



Common nettle (*Urtica dioica*) with female flowers by R. Flogaus-Faust

The Nettle Whisperer

by Karina Lutz

You only need to touch a grown specimen
once to identify a stinging nettle.
The spearhead-shaped leaf's pointed tip
and serrated edges
will remind you thereafter to beware
its tiny
hypodermic needles,
which inject histamines and formic acid
in human skin.

The stinging nettle dies back
to the root each year,
glows a deep green
when short in spring,
and pales as it grows up to six feet tall.

This most nutritious wild edible
lives world-wide, like us.

A nettle whisperer,
she can harvest nettles without gloves
and get them through the neck of the kombucha bottle
without being stung.

She can't seem to get enough,
harvests the leaves in spring and again in summer,
roots in fall.

Drinks the dried leaf tea every day for years,
in late winter looks forward
to nettles' vivid resurrection,
the first leafy greens of the year.

Then she'll make the tasty Irish soup
that kept her ancestors alive during the famine.

Now, for luxury's sake, she'll throw in a few potatoes.



My Hands Are Printed With Nature

by Katherine Ziff

ARTIST'S STATEMENT

I made the imagery on these handprints using Touch Drawing, a process originated by Deborah Koff-Chapin. You move your hands and fingers on paper (in this case newspaper I had prepared with gesso) floated on top of a board rolled out with water soluble oil paint. Touch Drawing is a knowing of the heart, and the resulting images were reflections on the August 2023 wildfires on Maui. Six months later I traced and cut out my handprints to create this piece during expressive arts practice and study with Expressive Arts Florida Institute. The finished mandala is the result and speaks to the power of witnessing with one's hands.

Instagram: @briarwoodstudiosathens

IHS Learning Center

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BASTYR'S SACRED SEEDS TRAIL

By Nicole Telkes, RH (AHG)

Bastyr University's Sacred Seeds Ethnobotanical Trail is part of an international network of Sacred Seed gardens created to address the rapid loss of biodiversity and plant cultural knowledge. The vision is to build collaborative gardens all over the world that act as "living libraries" and seed banks for local ethnomedicine plants—bringing together botanists, indigenous peoples, herbalists, and schools. During the COVID 19 pandemic, Bastyr University Gardens brainstormed how it could make the Sacred Seed's Ethnobotanical Trail and educational content more accessible.

We decided to create a dynamic webpage that featured seasonal plant photos and interactive tours, enhance on-site and classroom experiences, and create the opportunity to "tour" the trail virtually or in person. This is a work in progress, open to feedback and collaboration. We also worked with a council of Coast Salish tribal advisors to help make sure our signage was inclusive and incorporated the first names of the plants of the Coast Salish Region of Puget Sound.

The Storymaps platform was chosen to build the site because it enabled us to create a guided tour of the trail, integrating plant names and photos along the way. We were especially enthusiastic about the platform's capability to incorporate audio files of the plants' Lushootseed/Twulshootseed names. This will not only honor the importance of Lushootseed/Twulshootseed as an oral language, but also recognizes First Languages' connection to the land and the inherent knowledge about the land held within these languages.

Please take a look at the Ethnobotanical Trail Storymaps website here: bit.ly/sacred-seeds-portal. The intention of the site is to help adults and children engage with the plants and beauty of the trail in an immersive way, whether you are visiting in person, or online.

Future plans include printed materials for more accessibility options as well as interactive educational experiences for children and adults through our plant quest.

On Indigenous Peoples Day, Oct 9, 2023, we unveiled our new signs and were honored to have a small ceremony and blessing on the trail with Mike Evans of Blue Heron Canoe Family and the Tulalip tribe as well as a Bastyr student of Tulalip descent who not only taught us the proper pronunciation, but offered songs back to the Forest and Meadow in Lushootseed. Please take a look at our photos here. We hope that this continued work can inspire others with Sanctuaries and Trails to create dynamic and inclusive environments that include older names of plants that help connect us to the people who are the original stewards of the land. To paraphrase Mike Evans, "When you look out at these forests, they aren't just the home of the Coast Salish, but our bodies fed the trees and plants you see here today over several millennia. We are the forests."

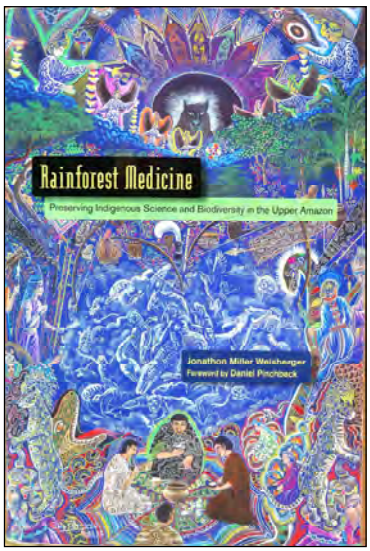
To learn more about Bastyr Gardens and the University, visit: bastyr.edu/locations/seattle-campus/gardens. ■

A VISIONARY LEGACY EFFECTUATING HEAVEN ON EARTH

By Jonathon Miller-Weisberger

Kindest most appreciated boon companions of the designs path,

As some of you may know, I had the honor of spending some outstanding times with maestro Pablo Amaringo. His art graces with commendation the cover of my book *Rainforest Medicine*, a book he encouraged and helped blow into existence.



This exquisite painting, which graces the cover of Rainforest Medicine, illustrates a ceremony held among the deep forest Ashaninka, where a vision is revealed that the wisdom of the sacred plants will one day reach all regions of the globe. Standing witness on left are spirits of the Inka, predecessors of the tradition who brought forth the knowledge of the preparation of ayahuasca. To the right, mystical wisdom sages of alternate dimensions. Celestial angels descend from above, to instill the occasion with their divine energies, heartening the expansion of opportunities for this blessed wisdom to infuse its auspicious potential far and wide, into the hearts and minds of people the planet over.

To remember maestro Pablo Amaringo is to awaken the memory of truth to the memory of deep integrity, to a magnificent and wonderfully auspicious spirituality—the kind that holds deep understanding for the human predicament that sustains a deep understanding of the difference between right and wrong. One that sees other people's joys as one's own joys and other people's sorrows as one's own sorrows. The kind that enjoys not getting used to anything at all, not even to what part of one's house one will throw down a bed roll to sleep on that night. And to the ever-majestic universal culture of service that don Pablo so gracefully practiced. Allow me here to honor don Pablo Amaringo with some experiences I was able to share with him. The kindest hearted, high-level wizard maestro, spiritual teacher, visionary painter and Amazonian sage whose legacy continues through his art and teachings.

Don Pablo lived a life of love and selfless service and through teaching art tirelessly, worked to instill a moral compass in his students at the Usko Ayar "Spiritual Prince," School of Amazonian Painting in Pucallpa, Peru. Years living alone in the wilderness, where he became friends with jaguars and wild boars, sleeping with no fire, foraging on fruits, roots, and leaves strengthened his deep essence.

Followed by many years of upholding the practice of a shamanic *ayahuasquero* doctor of the people, where he was attested to have once even healed a president of Peru. Every night for ten straight years he drank ayahuasca, healing dozens of people at a time in a single night. His stories are fantastic and beyond measure, encouraging deep respect for his old school training and the majestic world this revealed to him. So much of which he worked to preserve for us through his books and the accounts therein. And I have quite a few journals from my time with him of wisdom and stories that I plan on continuing to share.

Riding a Heaven Disk

Once while drinking ayahuasca, don Pablo visited a temple with a high roof. There were people there, women who were organizing these long strands of gorgeous multicolored threads. The women sang wonderful songs as they wove intricate weavings. He noticed there was a river and a dock. There were multicolored boats, like yachts that looked like fish, made of opalescent translucent material like leather, which were breathing, expanding, and contracting as if inhaling and exhaling. He heard a person tell another, "Let's go for a ride!" They entered the vessel, and the motor ignited. A disk began to spin, and a soft hum resounded. Up the boat went, up into the air and he heard them laughing and talking as they rose up and away. He saw a ladder and he asked a woman there, "Can I go up there?" She replied, "You're not ready yet to go there. Every rung of that ladder, as you walk up it, you must know more about how you function, about your disposition. You have to know more still about how your mind and heart work. To climb that ladder, you have to be well prepared. If you try to climb that ladder now, you'll surely fall far below." Don Pablo said, "I drank ayahuasca with the inquisitiveness of a scientist, devoted to investigating life."

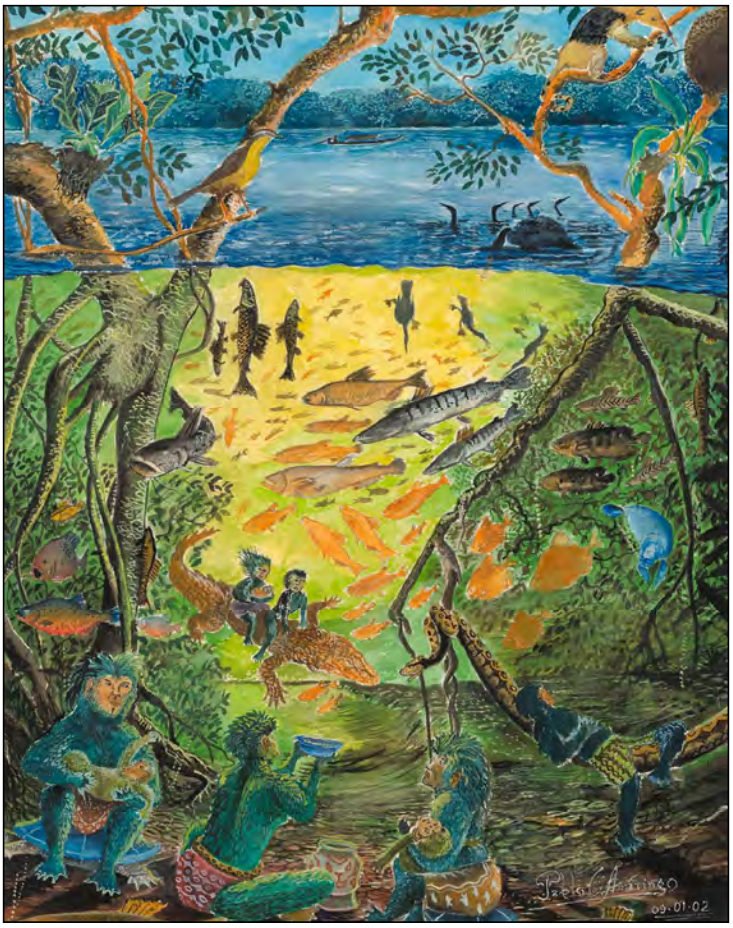
Don Pablo related that the ayahuasca reveals magnificent realities, but we must not forget our mortal place. This helps keep us humble and wise. When following a *dieta* correctly, one can experience realms beyond one's capabilities, and that is okay. To witness these realms fills one with energy that can then be applied in our everyday life. It is an inexhaustible spiritual science that at most one can only scratch the surface of.

Then a time came when he was obliged to renounce ayahuasca shamanism. The account he shared with me is fascinating. A time came after a series of incidents that occurred, which escalated into him making this decision.

This is what he shared. Many of his patients were suffering from sorcery. When the healer removes the malice, this flies back like a dart and jabs the sorcerer in the back or belly while he is sleeping, and he then in turn falls ill. The Sorcerer begins investigating the visions about why they got ill and determines the cause being the healer returning the darts. The sorcerer tries to damage the healer but sees his *arkanas*, spiritual protections were too powerful.



Los Rondadores del Mundo (Circulating the Globe) 57 X 76 cm, Extra fine gouache on Arches paper by maestro Pablo Amaringo, dated: 16-02-02. Cover art of *Rainforest Medicine ~ Preserving Indigenous Science and Biological Diversity in the Upper Amazon* (North Atlantic Books, 2013) www.northatlanticbooks.com/shop/rainforest-medicine



Yakuruna (Water People) by maestro Pablo Amaringo



Hamahuala Machaslaca (Crowning the Disciple)
by maestro Pablo Amaringo

In his glory as a great healer, don Pablo Amaringo healed many patients damaged by different sorcerers. However, the sorcerers realized that separately they could not harm this great healer because his arkanas, spiritual protections, were too powerful. After some time, the different sorcerers meet up and conclude it's the same healer that is making them all sick. They collude and join forces to topple him. While this is happening, don Pablo's healing spirits keep beckoning him to just give them the orders and they will kill all the sorcerers. Don Pablo refused as his commitment was to God and to healing. He did not give them their life; thus he could not take their life.

The spiritual battle escalated. His spirits that helped him accomplish many marvelous and complex cures, healing illness no doctors could understand, insisted that if he does not give them an order to kill the sorcerers, it was his life they would take. "How can I back out of this?" he insisted. "I did not give them life, I cannot take their lives, nor do I wish to die either," he said. They said, "We're going to make you transform into a bat; if you can stop that from happening and not transform into a bat, then you must abdicate from drinking ayahuasca and you'll be relinquished of all liabilities and can walk a free man". He drank ayahuasca and started transforming into a bat, needing to use all his might, like never before, to return, already half transformed, into his human form. After that Don Pablo stopped drinking and swore to never drink again and never did drink again!

He did not, however, renounce the universal path of service. He learned many wonders from the spirits and divine methods for healing such as the use of medicinal plants in certain ways and the miraculous copal incense cleanse for cleansing one's aura. Many patients still came to him, and as a true friend of the people, he continued his healing with the copal incense cleanse, herbal recipes, listening to people's tribulations, and offering life guidance and counsel. Years after he refrained from drinking ayahuasca, oriental celestial spirits would come to him at three in the morning in his meditations and advise him how to heal his patients, and he knew well the symbol of Tai Chi of the Yin Yang.

Words of Wisdom from maestro Pablo Amaringo

> The world today is much too unsettled,
> to be rigid, or disorderly.
> To make a difference in the turbulent world of today,
> we need spiritual abilities.
> The development of your spiritual capacity,
> comes through training your heart,
> and deepening your level of awareness.
> Spend time in nature,
> so that, from seeing plants swaying in the wind,
> you can learn to be adaptable and flexible.
> Learning to appreciate mother nature's simplicity,
> will help you obtain Mother Earths' innate orderliness.
> Being orderly is, in and of itself,
> a form of spiritual and intellectual training.
> Creative efforts align your body.
> The heart works with your mind,

and consciousness works with your spirit.
Learning to talk, think and do good purifies the body.
Compassion purifies the heart,
Self-reflection purifies the mind.
Understanding this,
we can see that meditation is a practical discipline.
Meditation as a form of self-control
bringing self-reflection to all you do and say,
refining your spiritual nature,
and bringing you closer to spiritual mastery.

Don Pablo was someone who could hold people's sufferings and help them transform this. A man of absolute integrity, he knew how to help people "cross turbulent waters and reach the golden shores." His abilities as an artist grew and he eventually, with help from friends, opened the "Usko Atay" School of Amazonian Painting. Don Pablo was like a father to thousands of riverine locals from his region. He left an indelible mark on everyone who was fortunate to have met him. The influence of his therapeutical artistic creations continues to inspire countless people world-wide. He passed to return to the glory of the heaven that brought him forth, on November 16 of 2009. Maestro Pablo Amaringo's legacy is one that will not be forgotten, as his visionary legacy continues to effectuate Heaven on Earth.



The Lapa Lapa Lodge at Ocean Forest Ecolodge, Costa Rica

Years back, after spending some time with Don Pablo in Iquitos, I was blessed to return with him to his home at the Usko Ayar School of Amazonian painting and spent an entire month living in don Pablos's home. That was a profoundly moving experience in so many ways, some of which I wrote about in my book *Rainforest Medicine*. I was once also invited to be his translator when he was summoned to share his wisdom and art at a most unique botanical convention called Voyage Botanica (voyagebotanica.net), held by genius herbalist Michael Cottingham at the Eden Hot Springs in Arizona. The legendary pools, also known as Indian Hot Springs, are where Geronimo himself was believed to have bathed. Later I brought don Pablo to Costa Rica on four occasions to share his art and wisdom at our Rainforest Medicine Council Gatherings.

Over the years I knew him I served don Pablo as one of his representatives, and he issued me a letter granting me authority to sell his art and issue prints of his work as well. I was able to place many of his fine art masterpieces in the homes of people who I'm sure to this very day are relishing these exquisite pieces of paper made sacred by the stroke of his brush and the purified gaze of his eye. And all kinds of funds from the sale of his works were channeled to ground level projects aimed at preserving ethnobotanical wisdom, supporting local and indigenous peoples' projects and for the conservation of the vital and mighty rainforest.

Although he offered, I never kept any commissions from the sale of his art. Rather, given my passionate devotion to the cause, I was overjoyed to collaborate in his mission of the Usko Ayar School of Amazonian Painting, where he selflessly served his community like a wholehearted father.

It was moving and eye opening to see the location of the school, on stilts over a swamp, in an impoverished slum in the outskirts of the Amazonian city of Pucallpa in Peru. The funds from the paintings I sold for him, he was kind to inspiringly inform me how with that he was improving the school, and he even built a new smaller jungle school deeper in the forest as an outreach to more *rivereños*, river dwellers. I would take all opportunities of folks traveling to supply him with copious amounts of high-quality pigments, brushes, and his all-time favorite, Arches paper.

Years later when I was building the main lodge at Ocean Forest Ecolodge, I was able to sell two of his paintings. Never asking, he sensed my financial need and insisted I keep half the sales' proceeds. At that moment I did really need it, and with his divine support, we finished the construction of the Lapa Lapa Lodge at our center in Costa Rica.

Don Pablo also joined me on four occasions to visit the Secoya (Siekopai) territory in the Ecuadorian Amazon. On these early sojourns, organized between 1997-2000, don Pablo had already years back left the path of ayahuasca shamanism. His skill though, in helping people interpret their visionary experience in modern language, was as homed in as ever! And this was a wonderful contribution to the retreat after the all-night, powerful ceremonies of yagé, with our most high Siekopai traditional elders, maestro Cesareo, maestro Delfín, maestro Tintin, maestro Esteban, and maestro Jójó, joining in the reverie camaraderie. By day don Pablo was interpreting participants' visions and teaching art classes to the group of visitors and Siekopai youth alike. Many of them have

gone on years later until this day creating marvelous paintings of their rainforest home. Those were some far out trips!

On one such trip, we had the unforeseen incident of our canoe being stolen from right in front of Siekopai traditional elder don Cesareo's homestead! That story is written in Daniel Pinchbeck's book *Breaking Open the Head* (who was with us on that trip) in Chapter 22, "My Shamanic Vacation." After a series of adventures, the canoe was retrieved from a Shuar Indigenous village some hours downriver.

After that, Cesareo had us taking turns, "watching the canoe," and these were all night shifts. Out of sheer coincidence, the night that was my turn to watch the canoe, a ceremony of yagé coalesced to occur. It would be the first time I would sit out one of the seasonal celestial summer ceremonies. All the elders arrived in tunic, bead, and crown, and the participants alike left the camp to the ceremonial lodge some distance removed behind the old man's house. One of the participants, Mark, who had enough on the prior ceremony and opted out stayed back, too. And the Kofán elder, Emilio Lucitante, endearingly called "Jójó," at the last moment rather than going to drink yage, said, "I'll stay with you!" A fella in the group came up to us, feeling sorry we couldn't go to the ceremony. He said, "Here, if you get bored, try some of this." He left a small blue dropper bottle on the table and walked off saying, "Three drops will light up the night!"



Maestro Pablo Amaringo at (Guaria de Osa) Ocean Forest Ecolodge, Osa Peninsula, Costa Rica, 2004

An hour or so later, the singing began at the ceremonial lodge, and we could hear this loud and clear. It was powerful! This got me thinking that anyone and everyone coming up or down the river around here would've clearly heard all the singing that's been going on. That had me entertained for a while. Jójó, Mark, and I were sitting there and as some hours went by, we ran out of things to talk about. The continual chanting of the elders in the ceremonial lodge was at that distance by now purring us to sleep. "Hey, what about that little blue vial?" Mark says. "Three drops, eh?" Three drops later, and the drop of the moment in time stretched over the river's borders, over-bordering the canoe that we were watching and dissolving the river's edges and that of the forest and the sky into an ocean of heavenly designs. Jójó the Kofán elder, dropped too and was quietly content, watching!

Suddenly the quiescent stillness of the night was shattered with Mark starting on a bad trip! He got vocal and was screaming, "Spines in my head." He wanted to run off, and we had to hold him back. I said, "I'll call Don Pablo." "Yes, he's the only one who can save me," he said panting. Don Pablo was contently sleeping in the hut not too far off. "Don Pablo, don Pablo," I said to him as I nudged him to awaken. He awoke and sat up, and I explained, "Don Pablo, Mark is bad tripping', we need your help!" He came over, and Mark was losing it hard poor fella; moaning and groaning, and all lull and limp, he was a mess! Don Pablo sat Mark before him, and he raised his hands to the sky. Whispering a subtle prayer, Pablo lowered his hands onto Mark's head, and right then Mark gasped in relief. Don Pablo went back to his hut to sleep, and Mark was flying high as a kite, feeling better than he had ever felt, the rest of the night!

To me this was an amazing show of power. Don Pablo in his humble presence calmed Mark down just by placing both his hands on Mark's head! It was a rare and miraculous moment we witnessed that solemn night, all whilst "watching the canoe," on the banks of the moonlit Aguarico River in the reverberations of an all-night ceremony of yagé, where the elders chanted full blast ahead, all throughout the night, until the sun gently rose, glistening with all its glory in the eastern sky.

The personal spiritual energy don Pablo embodied was also delicately instilled in his paintings, which is why he would say his art is therapeutic. Try looking at them for a while and see how you feel!

Don Pablo also shared that his art, being therapeutical in nature, is more effective when hung covered with a cloth. Choose a pleasing pastel color that may by itself have pleasant designs. When one wishes to view the painting and the curtain is opened, a therapeutical transmission can occur.

It is a high honor and joy to be eligible to offer you, my beloved reader, the option of acquiring high quality giclée prints of maestro Pablo Amaringo's masterpieces to bless your space. Please visit our Maestro Pablo Amaringo Visionary Fine Art Gallery to explore fifty fine art masterpieces. Proceeds from the sale of these prints are channeled to ground level rainforest conservation and cultural heritage preservations initiatives. Email Jonathon if interested in purchasing a print. sparrowsky@gmail.com ■

See You in the Ethnobotanical Garden

At Ocean Forest Ecolodge and the Cocoterra Rainforest Permaculture Initiative: Where the Rainforest and Ocean Meet in Sweet Caress, on Costa Rica's Osa Peninsula

www.oceanforest.org & www.rainforestpermaculture.org

Welcome to Ocean Forest Ecolodge, a serene sanctuary nestled on 13 acres of pristine beachfront property, with the majestic primary rainforest as its backdrop. Our ecolodge, born from over two decades of love and dedication, offers a unique escape where nature and comfort blend seamlessly. Since our inception in 2000, we have passionately cultivated a diverse array of rare and valuable ethnobotanical treasures from Central and South America, enriching the property's natural beauty and ecological significance. We invite you to experience the magic of Ocean Forest Ecolodge, where you can reconnect with nature, rejuvenate your spirit, and immerse yourself in the beauty of our carefully curated sanctuary. To visit as a guest, host a retreat, or join a program, please visit our website and feel free to reach out. We look forward to seeing you in the garden.

Cocoterra Rainforest Permaculture Initiative

www.rainforestpermaculture.org

Another project of ours, Cocoterra, is located behind Ocean Forest Ecolodge, near the border of the National Park, where we steward a 72-acre sanctuary that serves as both a biological reserve and farmland restoration project, permaculture education center. Nestled in the mega-biodiverse rainforest of the Osa Peninsula, Cocoterra is a haven of tropical beauty. It boasts an exquisite 100-foot waterfall and 48 acres of pristine primary rainforest, an area reputed to have the highest forest canopy in the Neotropics. The remaining 24 acres, formerly old pasture land, are now dedicated to implementing a regenerative permaculture design. Heirloom cacao orchards and various other tropical fruit trees are nearing fruition. However, much work remains. Our next steps include building the volunteer and teaching center and cacao processing facilities. For which we are currently seeking volunteers and in particular people interested in long-term farm managerial position. If this experience aligns with your interests, please don't hesitate to reach out. And do enjoy the pictures and videos on our web site.

Thank you, and Pura Vida!
~ Jonathon Miller Weisberger







SPECIALIST BEE REPORT FOR UNITED PLANT SAVERS

by MaLisa Spring, State Coordinator for the Ohio Bee Survey

The following is an updated report from the Specialist Bee Project. Each row represents a single specimen. This is only a subset of bees found at United Plant Savers. A more extensive survey would be needed to identify all bees present as there are many species that emerge for only a small window of time, with some species only being found very early spring or late fall.

Family	Scientific Name	Date Identified	Associated Plant	Scientific Name of Confirmed Plant
Apidae	*Apis mellifera*	Feb-22	Chinese chestnut	*Castanea mollissima*
Andrenidae	*Andrena imitatrix*	Mar-22	Chinese chestnut	*Castanea mollissima*
Halictidae	*Lasioglossum versatum*	Apr-22	Chinese chestnut	*Castanea mollissima*
Apidae	*Apis mellifera*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Megachilidae	*Megachile exilis*	Dec-22	Shrubby St John's Wort	*Hypericum* spp
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Ceratina strenua*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum versatum*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum versatum*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum hitchensi*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum hitchensi*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum versatum*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Augochlorella aurata*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum versatum*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Ceratina strenua*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Lasioglossum versatum*	Apr-22	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Xylocopa virginica*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Bombus griseocollis*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Bombus impatiens*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Andrenidae	*Andrena nasonii*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Halictidae	*Halictus ligatus*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Ceratina calcarata*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Apidae	*Apis mellifera*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Syrphidae	*Eristalis*	Feb-22	Shrubby St John's Wort	*Hypericum* spp
Andrenidae	*Andrena pruni*	Mar-22	Chinese chestnut	*Castanea mollissima*
Andrenidae	*Andrena hippotes*	Mar-22	Chinese chestnut	*Castanea mollissima*
Andrenidae	*Andrena crataegi*	Feb-22	Chinese chestnut	*Castanea mollissima*
Apidae	*Ceratina calcarata*	Feb-22	Hairy vetch	*Vicia villosa*
Halictidae	*Augochlorella aurata*	Feb-22	Visia purple cow	*Ruellia strepens*
Apidae	*Apis mellifera*	Feb-22	*Echinacea paradoxa*	*Echinacea paradoxa* var. *paradoxa*
Halictidae	*Halictus ligatus*	Feb-22	*Echinacea paradoxa*	*Echinacea paradoxa* var. *paradoxa*
Halictidae	*Lasioglossum versatum*	Apr-22	*Echinacea paradoxa*	*Echinacea paradoxa* var. *paradoxa*
Halictidae	*Lasioglossum versatum*	Apr-22	*Echinacea paradoxa*	*Echinacea paradoxa* var. *paradoxa*
Halictidae	*Lasioglossum versatum*	Apr-22	*Echinacea paradoxa*	*Echinacea paradoxa* var. *paradoxa*
Apidae	*Apis mellifera*	Feb-22	APAC yellow parsnips	*Pastinaca sativa*
Apidae	*Apis mellifera*	Feb-22	APAC yellow parsnips	*Pastinaca sativa*
Apidae	*Apis mellifera*	Feb-22	APAC yellow parsnips	*Pastinaca sativa*
Andrenidae	*Andrena hippotes*	Mar-22	APAC yellow parsnips	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	APAC yellow parsnips	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	APAC yellow parsnips	*Pastinaca sativa*
Colletidae	*Hylaeus mesillae*	Jan-23	APAC yellow parsnips	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	APAC yellow parsnips	*Pastinaca sativa*
Halictidae	*Lasioglossum hitchensi*	Apr-22	APAC yellow parsnips	*Pastinaca sativa*
Halictidae	*Lasioglossum hitchensi*	Apr-22	APAC yellow parsnips	*Pastinaca sativa*
Halictidae	*Lasioglossum versatum*	Apr-22	APAC yellow parsnips	*Pastinaca sativa*
Syrphidae	*Syritta pipiens*	Feb-22	APAC yellow parsnips	*Pastinaca sativa*
Apidae	*Ceratina dupla*	Feb-22	Fleabane	*Erigeron philadelphicus*
Andrenidae	*Andrena spiraeana*	Mar-22	Chestnut	*Castanea mollissima*
Halictidae	*Augochlora pura*	Feb-22	Chestnut	*Castanea mollissima*
Halictidae	*Augochloropsis viridula*	Jul-23	Chestnut	*Castanea mollissima*
Halictidae	*Lasioglossum obscurum*	May-23	Chestnut	*Castanea mollissima*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	Chestnut	*Castanea mollissima*
Halictidae	*Lasioglossum*	Feb-22	Chestnut	*Castanea mollissima*
Syrphidae	*Allograpta obliqua*	Feb-22	Chestnut	*Castanea mollissima*
Andrenidae	*Andrena cressonii*	Feb-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Andrenidae	*Andrena cressonii*	Feb-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Andrenidae	*Andrena cressonii*	Feb-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Andrenidae	*Andrena nuda*	Feb-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Andrenidae	*Andrena imitatrix*	Mar-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Andrenidae	*Andrena spiraeana*	Mar-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Halictidae	*Augochlora pura*	Feb-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis/sp. A*	Jan-23	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Colletidae	*Hylaeus illinoisensis*	Jan-23	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Halictidae	*Lasioglossum hitchensi*	Apr-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*
Syrphidae	*Toxomerus marginatus*	Feb-22	Yellow apiaceae, wild parsnip	*Pastinaca sativa*

SPECIES AT-RISK LIST

STATEMENT OF PURPOSE

For the benefit of the plant communities, wild animals, harvesters, farmers, consumers, manufacturers, retailers, and practitioners, we offer this list of wild medicinals of North America to bring awareness to these sensitive species.

Our intent is to assure the increasing abundance of medicinal plants and fungi which are presently in decline due to expanding popularity and shrinking habitat and range.

"Critical"

ELEPHANT TREE
Bursera microphylla

FALSE UNICORN
Chamaelirium luteum

LADY'S SLIPPER ORCHID
Cypripedium spp.

PEYOTE*
Lophophora williamsii

SANDALWOOD
Santalum spp. (Hawaii only)

SUNDEW
Drosera spp.

TRILLIUM, BETH ROOT
Trillium spp.

VENUS FLY TRAP
Dionaea muscipula

* Peyote restrictions do not pertain to ceremonial uses protected by US federal law.

"In Review"

ARNICA
Arnica spp.

CHAGA
Inonotus obliquus

EYEBRIGHT
Euphrasia spp.

GHOST PIPE
Monotropa uniflora

LOBELIA
Lobelia spp.

SKUNK CABBAGE
Symplocarpus foetidus

SOLOMON'S SEAL
Polygonatum biflorum

WILD CHERRY
Prunus serotina

WILD GERANIUM
Geranium maculatum

WILD RICE
Zizania palustris

YAUPON
Ilex vomitoria

YERBA SANTA
Eriodictyon spp.

"At-Risk"

AMERICAN GINSENG
Panax quinquefolius

BLACK COHOSH
Actaea racemosa

BLOODROOT
Sanguinaria canadensis

BLUE COHOSH
Caulophyllum thalictroides

CASCARA SAGRADA
Rhamnus purshiana

CHAPARRO
Castela emoryi

ECHINACEA
Echinacea spp.

GENTIAN
Gentiana spp.

GOLDENSEAL
Hydrastis canadensis

GOLDTHREAD
Coptis spp.

KAVA, AWA
Piper methysticum (Hawaii only)

LOMATIUM
Lomatium dissectum

MAIDENHAIR FERN
Adiantum pedatum

MAYAPPLE
Podophyllum peltatum

OREGON GRAPE
Berberis spp.

OSHA
Ligusticum porteri

PARTRIDGE BERRY
Mitchella repens

PINKROOT
Spigelia marilandica

PIPSISSEWA
Chimaphila umbellata

PLEURISY ROOT
Asclepias tuberosa

RAMPS
Allium tricoccum

SLIPPERY ELM
Ulmus rubra

SPIKENARD
Aralia racemosa, A. californica

STONE ROOT
Collinsonia canadensis

STREAM ORCHID
Epipactis spp.

TRUE UNICORN
Aletris farinosa

TURKEY CORN
Dicentra canadensis

VIRGINIA SNAKEROOT
Aristolochia serpentaria

WHITE SAGE
Salvia apiana

WILD INDIGO
Baptisia tinctoria

WILD YAM
Dioscorea spp.

YERBA MANSA
Anemopsis californica

List Definitions

"CRITICAL" DEFINITION

United Plant Savers recommends these plants should not be wild harvested or purchased under any circumstance except for research that directly supports the health of the population and sustainable use by Indigenous societies that have a traditional history of connection with these plants.

These species have been evaluated by the Board of Directors of UpS which carefully reserves this category for species that are federally, or state protected and/or are at a very high risk of extinction.

"AT-RISK" DEFINITION

The United Plant Savers recommends that At-Risk plants should be used in cultivated forms whenever possible. Because of pressures facing these plant populations and significant variability in abundance, wild harvesting should be very limited and carefully monitored. Any wild harvest of these plants should align with rules established by federal, state, and local governments.

"IN REVIEW" DEFINITION

The In Review list contains native plants that have significant known medicinal, edible, and/or ornamental uses that have been recommended through our membership or the UpS Board. We will review and, if necessary, score these plants for consideration for the At-Risk and Critical listing. We advise caution and careful consideration when using these plants for either personal or commercial use.

DEEP ECOLOGY ARTISTS FELLOWSHIP PROGRAM

Deep ecology is an ecological and environmental philosophy promoting the inherent worth of living beings regardless of their instrumental utility to human needs, plus a radical restructuring of modern human societies in accordance with such ideas. Deep ecology argues that the natural world is a subtle balance of complex inter-relationships in which the existence of organisms is dependent on the existence of others within ecosystems. Human interference with or destruction of the natural world poses a threat therefore not only to humans, but to all organisms constituting the natural order.

2023 Deep Ecology Artist Fellows

Amanda Wagstaff – Virginia
Quilter, fabric artist
www.amandawagstaff.com

Diane Abatemarco – Maine
Embroidery artist
www.irrationaldress.com

Goda Trakumaite – New Jersey
Gardener, artist, and folk herbalist
www.godaswebsite.com

Lewis Vincent Pell – Pennsylvania
Painter, visual artist
Instagram: @pelllewis

Maggie Latham – Ohio
Natural dye artist and educator
www.maggielatham.studio

Ramona Moonflower Rubin – California
Weaver, basketmaker
www.healingforestguide.com
Instagram: @r_moonflower



Sanctuary footbridge by Lewis Vincent Pell

REFLECTIONS ON MY ARTIST RESIDENCY AT THE BRICKHOUSE

By Ramona Moonflower Rubin, MPH

The Turtle and the Library

What is the responsibility of the artist in the context of cultural and ecological repair? I meditated on this question as I wandered the trails of the UpS Sanctuary in the first days of my Deep Ecology Artist Residency in August 2023. Exploring the land, I encountered pieces of story on the signage around the property. Walking slowly, reading signs, introducing myself to the trees, I hoped I would be able to recognize them the next time we met by the texture of bark and the distant shimmer of leaves. These stories of the trail wove together the place, the people, and the trees in words and poetry. Stories connect me, too, to these trees, to this land as well as to plants and lands afar.

Coming up a hill, my trail winds upwards through the lush green trees. Compared to the arid Mediterranean climate of my home in California, this area of southeastern Ohio is a tropical herbal paradise. I can tell from the abundance and variety of mushrooms and plants that this is a biodiversity hotspot. I observe there is an inverse relationship between the amount of biodiversity in an area and my optimal wandering speed, and I notice myself moving quite slowly through these woods.

I first visited UpS in 2005 after finishing graduate school in public health and before heading back out West. A friend invited me to visit the land, and we traversed the meadow full of wildflowers, swam in the Heart Pond, and nibbled spicy, bitter, and sweet medicinal plants. I left enchanted. Time passed and now I have returned, as an artist, a weaver, as a nature and forest therapy guide interested in how our sensory processing and the natural world shape and are informed by each other. This is my first artist residency, and I was eager to immerse myself in nature, reflection, creativity and explore weaving community and sense of place into my craft.

I was not expecting to meet a turtle that afternoon on the trail. But once I did, I knew enough to stop and see if I could learn from seeing the world from a turtle's



Box turtle roaming in Dad's Woods



Weaving Turtle Basket at the Heart Pond



The turtle basket, almost finished, at the Brickhouse in Pomeroy

perspective. We moved slowly, navigating the world through our senses, including, in the case of this Eastern Box Turtle (*Terrapene carolina*), through olfactory receptors on our neck beneath our bony chin. Now that is a way to really learn the plants! With heightened chemical sensitivity, I bet a turtle has no trouble telling a beech (*Fagus grandifolia*) from a red maple (*Acer rubrum*) by a sniff of the bark!

Later that week, my head full of the poetry of the trail and the scents and textures of the natural world, I gazed around the Visitor Center at the magnificent library collection. I still felt the excitement of meeting a turtle in the woods as I browsed the bookshelves, opening a tome here and there, reading little bites of text, maybe chomping into a chapter before moving to the next. I was scanning contents and index for clues to a book's purpose and utility. There were facts and information, but more than that, the collection as a whole, as a conversation, wove a story of love of plants, appreciation of their diversity, biochemistry, cultural uses, and traditions of medicine.

If the turtle could be said to have spoken to me, the message is The Medicine is In the Connections.

Seeking the Confluence

I got my first taste of basket weaving at an herbal medicine conference and became enamored with the way working with plant fibers informs us about our habitats and environments. I am fascinated by the way a pile of sticks and leaves, with some diligent effort, becomes a unified object of emergent beauty and reflection. Somewhere, there is a moment, when the natural materials stop being a collection of twigs and grass and emerge into an undeniable unified "thingness."

I hiked out to the Heart Pond with a few coils of the vines I had brought with me from home and my soaking basket to begin weaving. I felt slow and behind in creating works for the residency. My fellow artists of my had arrived with materials and works in progress. My desire to partner with the land in my artistic creation had led me on long slow meditative walks of the UpS trails. I sat for hours on the deck of the Tornado Cabin watching the day turn into night as the uninterrupted darkness stilled a restlessness within my being. As I filled my tub with pond water and placed in it the dry tendrils of vines I'd collected from my neighbor's fence line, I felt the pond water bring the vines back to life, a different life, the life of this place where turtles tell stories of medicines tasted, and old strip mines are brought to life again with decades of care.

"What is the responsibility of the artist in the context of cultural and ecological repair?" I asked the other artists in my cohort, perhaps in an effort to make up in intellectual inquisitiveness what I lacked so far in weaving output. We had warmed up to each other gently, the structure of being thrown into a house together reminding me first of a reality TV show, but without the cameras and pitched drama. Inviting each other into glimpses of our creative process, sharing our inspirations and interests while cooking up delicious, shared meals together in the kitchen, we planned a day of sightseeing in the area.

Amidst an itinerary of thrift stores, I volunteered that we should look for the confluence, referring to the place where Leading Creek, making its way down from the UpS Sanctuary, joins the mighty Ohio River.

Mapping a watershed is a wonderful tool for cultivating a sense of place. The watershed is one of nature's most recognizable units of location, the equivalent of an area code or neighborhood affiliation for local plants and wildlife. So, armed with google maps and our senses of adventure, the three of us deep ecology resident artists found ourselves driving down roads that ended abruptly, in search of a joining of watersheds that proved to be elusive as a simple answer to my philosophical question.

I learned immensely from my fellow artists. I have come to think of myself as an artist only relatively recently. I initially picked up weaving as a craft or pastime, and it was only last year in a community college class in EcoArt that I began to grasp the vast possibilities of the artistic medium to reflect and guide cultural interpretations and social-ecological forces. Sometimes I'd share something I was pondering in my process and they would chuckle. "That's just what it's like being an artist" they would both say, almost in unison.

In my spare time around the Brickhouse I've been reading about the region, including Ann Armbrecht's book, *The Business of Botanicals* where she recounts the history of herbal prospecting and trade that accompanied the early development and extractive profiteering of the region. In those days the Ohio River and the ginseng trade connected the region to the wider world and all the way to Asia. The Appalachian herb trade was one of the primary driving forces of the development of the region. The high demand for ginseng in Asia put pressure on American ginseng (Panax quinquefolius) populations, and continued economic forces led to scarcity and the decline of wild populations. Today as I sit reading on the porch, large barges of coal can be seen traveling up and down the river.

I have found that naturalists can be secretive about the medicinal plant populations they steward. In working closely with native medicinal plant populations so commercially valuable and prized, a certain amount of discretion comes with the territory. I noticed that the ginseng observations on the app iNaturalist are mostly obscured, so that no one can use this citizen science and identification tool to propel their own greed and poaching. Nonetheless, when I saw those smatterings of observations across the map, I smiled, knowing the medicine plants are out there, growing silently, invisibly somewhere amongst the hills.

Although we never saw the confluence of Leading Creek with the Ohio River, the elusive joining of waters, we were aware of its presence. Standing just across the river, on the southern bank in West Virginia, we looked across to a streaky shore and could imagine the flow of Leading Creek, somewhere in those deeper shadows, near the power lines, its current subsumed by the river, braiding into the river, disappearing into the river, yet carrying with it knowledge of the places it has been.

The Strength of Cordage

Before I left my residency, I took the opportunity to harvest a handful of stalks of dogbane (*Apocynum cannabinum*) from the meadow. A native plant in the milkweed family, hemp dogbane grows easily and aggressively and is known and named for the strong fibers and fine cordage it produces. This was my first opportunity to work with it. I've admired finely crafted and tightly woven pieces in museums and was excited to try creating with them myself. First, I selected and cut a few standing dry stalks of last year's growth. After finding two rocks and a shady place to sit, I went to work, testing out the materials and my tools. I smashed the stalks between the rocks enough to crack the brittle pith and peel off the long slender bast fibers. Rolling those fibers between my fingers, I picked out the remaining pieces of the papery outer bark. When I had prepared a handful of fiber from the few stems. I took one piece and began to roll it into a slender cord; then looping it over itself, I began the back-over-itself-twist of making cordage. Quickly, the humid buzzing of the day and the rhythmic twist and flip of the cordage in my hands consumed my focus.

At the end of my residency I led a forest bathing session for my fellow artists. Forest bathing, or Shinrin Yoku in Japanese, refers to the intentional submersion of the senses into awareness of the natural world. Healing Forest walks, as I practice them, involve elements of inward awareness, outward observation, and social communion. On our last walk together we moved slowly, barefoot, tuning in to the rhythmic buzz of life coursing through the hills around us. The time of our residency together was coming to a close, and we made a ceremony of our parting, sipping tea among the swamp rose mallow (*Hibiscus moscheutos*) at the edge of the Heart Pond.

Before departing I took one last walk through the visitor center, admiring the layers of art and narrative adorning the space. My story has been entwined with this place, too. Just before leaving I left a woven tray in the shape of a sassafras (*Sassafras albidum*) leaf dangling in the window of the visitor center on a length of dogbane cordage. If it's still there, you are welcome to move it around, use it as a platter, or perhaps leave it somewhere in the forest. Whether I find it or not, walking the trails sometime in the future, I know I'm woven to this place with story and with love for the plants. ■



Visiting UpS in 2005

Ramona Moonflower Rubin, MPH (she/her) is a cultural ecologist, epidemiologist, nature artist, and forest therapy guide. She lives on Chochenyo Ohlone land in the Bay Area of California. Her diverse fields of scientific and spiritual interest inform her work as a weaver and culture creator. She founded Healing Forest Guide (www.healingforestguide.com) to facilitate a deep conversation about how we experience and relate to the natural world.

LIVING WITH THE MEDICINE

By Marie Despres

On a summer evening before my residency, I stood in the moonlight facing *Echinacea purpurea*, the flowers aglow suspended in the evening air. This moment in time—my back lit by moonlight, watching lavender-petaled heads floating in the darkness, opening my eyes in awe, illuminated my intention for the Deep Ecology Fellowship. As if I were to breathe in the essence of echinacea and breathe out this luminescent glow into fibers and textiles.



Fast forward many weeks, and I stand facing the yurt after two long days of travel, my breath relaxing as I inhale the scenery and step further away from my vehicle. To my right, at the edge of the forest, I see echinacea growing, and I pause. My memories of that moonlit summer walk embrace me with familiarity, and I smile, eager to experience this new moment's invitation to slow down to the pace of Goldenseal Botanical Sanctuary. I knew I was in the right place and ready for this phase of my journey as an artist.

My eyes noted the absence of lavender petals, their withered and dried remnants emphasizing the wheel of the year now shifting towards autumn. I turn my inward attention below the soil to the plant's deep taproots, curiosity shaping my dreamlike state. Symbolic of echinacea's energies turning inward and below, summer's death clearing the way for the birth of fall, imprinting each year with the cycles of the changing seasons. The surrounding sanctuary inspires me to seek nourishment beneath the busyness of my daily routine and find refuge here, living amongst the medicine for the next two weeks.

Opening myself to this land shifted my experience of time, and I began to flow through the day easily. My multiple passions—movement, visual art, music making, and writing weave together and fuel one another. My daily rhythm of greeting the plants and forest, opening the day with ceremony, artistic creation, walking the land, enjoying nourishing meals, daydreaming, and music-making shaped those two weeks' deeply restful contemplative habits. These conditions were perfect for blossoming artistic visions into reality.



The artisan wood tables and the rounded shape of the yurt walls inspired me. It felt like I was outside when I was inside. The first project I started was breathing life into a pair of canvas shoes by covering them in tiny, carefully painted flowers in various colors. My "memory keepers," these shoes carry the wisdom of my footsteps and time spent in the well-cared-for forest and meadows at the sanctuary. When I wear them, they transport me back to the times I walked along the interpretive trails learning from the plants.

Soon after I settled into the creative rhythm of yurt life, I imagined echinacea asking me how I planned to translate my experience with the plant. I knew I could only answer this question through color and textures by bringing the "song" or unique imprinting I experienced with this plant into form. I sought clues to this answer by pouring over imagery I found in a book that called me from a shelf in the yurt.

The pictures in this botany book appeared to leap off the pages and intertwine themselves with the existing imagery in my mind. I have been fascinated by microscopic imagery since I first saw the tiny worlds moving under the microscope during a science class in 5th grade. The blend



of what I see and research informs my artistic process as if these mini-worlds constantly call my being into them. I knew I was ready to begin my project that would become my gift to the sanctuary.

My second project, mask-making, begins by carefully arranging fabrics, gradually embodying echinacea piece by piece. Now in creative flow, my mind and hands become perfectly unified, birthing unseen biological processes to life through vibrant colors. I slowly leave my seat at the raw-edged wood table, careful not to scrape any bark off with excitement, and place the completed mask on my face. Perfectly united, my feet move rhythmically on the

ground as I drink in the darkening light through the yurt's round portal skylight above me. We dance for a long time, echinacea and I, my movement an opportunity to offer prayers and gratitude for our journey together.

In my evening rhythm, listening as insects stitch the edges of summer to fall with their songs, I strum the 5-string Kantele, a traditional Finnish instrument estimated to be 2,000 years old. I recall the lore surrounding this instrument, remembering that every living being cried the first time the Kantele played and that the music drew the forest creatures near. I play through the evenings, curiosity filling me with images of nearby critters listening to the ethereal sounds floating through the nighttime air.



A diverse artistic practice is vital for my creative spirit. One project informs the others; when I hit a block, I am open to more profound expression by transferring to another art form. My abstract work allows my creativity to flow while balancing other projects that require intense focus and encourage my technical skills to expand. My residency taught me that all parts are necessary for a complete artistic process. Goldenseal Botanical Sanctuary taught me to honor and prioritize how I flow with time. This land, stewarded for many years by caring people informed by the plants' needs, allowed me, as an artist, to drop deeply into a sustained creative flow.

Living amongst the medicinal plants was like having inspirational fuel poured into my being daily. I felt as supported and nourished as these native medicinals, like my beloved echinacea, inhabiting this space. I left the sanctuary completely rejuvenated; my time spent there is something I will never forget, and I hope to visit again sometime soon. ■



Marie is a United Plant Savers 2022 Deep Ecology Fellowship Artist-In-Residence and a multi-disciplinary artist living in Central Massachusetts. You can follow her artistic journey on Instagram @marieofthemeadow and at www.marieofthemeadow.com.

Pollen

Pines,
it's your time.
Talking to each other
it's urgent,
it's blinding, almost.
Your need for each other
and to endure.
It coats everything
and for once
we're forced to listen.
For once
we're inconvenienced
by you.
Your tall and deep patience
gives way
to your own needs
which go around
and over
and through us.
Our endless chatter and plans
smothered and invaded
by yours.
For a short time
we
bear witness
to you.

— Claire Narensky

www.fourflowersherbalist.com



THE NAMES OF THINGS

By Diane Abatemarco

"When you know the fourfoil in all its seasons root and leaf and flower, by sight and scent and seed, then you may learn its true name, knowing its being: which is more than its use. What, after all, is the use of you? or of myself? Is Gont Mountain useful, or the Open Sea?' Ogion went on a half mile or so, and said at last, 'To hear, one must be silent."

— Ursula K. Le Guin, *A Wizard of Earthsea*

I came to UpS as a fashion maker and designer, hoping for some space and time to work on my embroidery and teach a workshop. This came naturally, and I worked stitches for hours on end daily, working at a slow and steady rate in sync with only the sun, moon, and my body. What I did not expect was to gain a new perspective on how conservationist approaches to herbs could also be applied to clothing.



Embroidered Alphabet Sampler - Future Donation to UpS
Work in Progress by Diane Abatemarco,

I pulled Emily Dickinson's herbarium off the shelf at the UpS Welcome Center Library. This version was printed in Italian. I asked if I could take it back to the Brickhouse Apothecary in Pomeroy, Ohio where the other art residents and I would be living during our two-week stay. It felt like that book was there specifically for me. There was an intersection of Italian language, which I spent a decade studying, a bad-ass poet, who I had been reading all that summer, and herbs, which I had come here to better understand. I am not an herbalist: I grow my own veggies and pot in the summer; I take the tinctures my herbal friends tell me to take, and I'm open to learning more.

I laughed as I further confused myself by looking at Emily's herbarium. I now had Italian common names, English common names, Latin names, and she even switched over from one scientific naming system to another halfway through her herbarium. Not to mention, as I was learning, many species share common names. I kept asking my fellow residents, who were more familiar with herbs than I, *What's ironwood?* (It is the common name for hundreds of different plants.)

This reminds me so much of embroidery with many different names for the same stitch—and so many stitches worked in the same way, under different names (e.g., "Blanket," "Buttonhole"). The names of things are contextual and referential. The name can be related to how it looks, how it is used, or where it is found on a garment (or in the field). The name is *our* relationship to the plant/stitch. To give something a name is to come close to describing it, but the truth of *what it is* will always remain wordless.

Have you ever wondered why people will spend a thousand dollars on a new computer, but expect to buy a piece of clothing for under a hundred? I wince when people talk about clothing without considering its origin from plants or animals and relationship to history and landscape.

The United States became a superpower on the economy of cotton produced by slave labor. The cotton used for textiles and clothing was produced at artificially low prices. Slavery was "abolished," yet the deflation of labor for clothing persists today. Fast fashion, "microtrends," and clothing made from fossil fuels are the direct descendants of slavery, with similar humanitarian and ecological devastation. So, when I hear people complaining about the price of new, slow-fashion clothes, I can no longer contain my exasperation. I roll my eyes, shrug my shoulders, and plead in an annoyed tone, *Open a book!*

I found two old skirts from the early 1900s in an antique store on the main drag in Pomeroy. They were damaged and moth-bitten but in otherwise good condition. I planned to mend them and extend their lives. In doing so, I thought, *Who has worn these? What stories do they tell?* I turned them inside out, looked at the seams, the stitches, and the alterations someone else had made. Maybe they were handed down. Maybe they were dyed black for a widow. Clothing is practical but also a physical record of history and relationship, like land.

The practical life of a computer is, what, five-ten years? Some garments can last eighty or more, especially when cared for and mended. Why do we accept the cost of computers, but not that of clothing?

Clothing: the technology that lets us be outside when it is cold. ■

Diane Abatemarco is a fashion maker, designer, and activist. She believes that sustainable fashion is not only creating a sustainable product, but using sustainable technologies that will create infrastructure for positive impact. Her creative practice uses embroidery to embellish and adorn garments, telling a personal history worn close to the body. @irrationaldress_mvmt / www.irrationaldress.com



Swamp mallow by Goda Trakumaite

DEEP ECOLOGY ARTIST FELLOWSHIP REFLECTION

By Goda Trakumaite

The first thing that struck me when I arrived at the Brick House for the residency was the across-the-streetness from the Ohio River. I used my phone's map on satellite view to assess what there might be to visit at dusk on the waterfront and noticed the unusual feature of a dock at the nearby fast-food restaurant. I hopped on my bike and rode over there for an ice cream cone. Sitting down to eat it on the wooden steps above the water, I was greeted by a riverside stand of pink swamp mallows (*Hibiscus moscheutos*), gently wavering as the incandescent yellow of the restaurant's tall "M" above us flickered on with the descending light.

Next afternoon, I made the 20-minute drive to the United Plant Savers Sanctuary. Pink and white swamp mallows were wavering there too, along the edges of Heart Pond. This plant was popping up for me this season in a way things sometimes do when you take the time to notice them. I had seen a stand earlier that summer at the lake in a park near my house. I had crushed up their baroque seed pods as part of a seed cleaning project. I had also taken a tray of their sad looking seedlings home from my new job at a wholesale nursery. I ended up forgetting about the little plants for months and eventually dumped them out onto the compost pile. But that's time and space travel. For now I am back in Pomeroy and Rutland, noticing the swamp mallows on the edges of their waters.

These mallows persisted through the residency, offering the kind of recurrence or motif that for us humans call for interpretation or, at the very least, representation. I was pointing them out and photographing them everywhere I saw them, and they ended up making it into two of the three drawings I completed there. I also ended up embroidering one onto the pocket of my shirt during a workshop taught by one of the other residents. What was the mallow pointing to showing up in all these separate places?

For one, it was inescapably pointing to the fact that both it, and I, liked spending time by the water. By inviting repeat visits, it couldn't help but gradually reveal other things about itself and aspects of its role in the world around it. On one Heart Pond beach day, as I watched the sun playing on the water's surface, I noticed that dragonflies seemed to be using the dried stalks of last year's mallows, still standing amid this year's blooms as resting places. This simple observation happily validated the naturalistic (and labor saving) imperative

I try to follow to "leave the stalks for the insects" when gardening. I put this moment into a drawing next to reflections of smokestacks I had seen rippling in the river on a bike ride earlier that same day. Their smoke and steam were mingling in with the soft clouds of the blue summer sky until it was impossible to tell any difference between the two.

These two architectures next to each other—the human-made concrete stalks and the human-left-alone fibrous stalks of last year's mallows—hint at the depth of the Deep Ecology in the residency's title. Staying on the waterfront in Pomeroy, visiting the Sanctuary, and traversing the landscape between them, the other residents and I got to constantly observe one in the context of the other. The restored and tended Sanctuary (formerly part strip mine) did not feel separate from the developed and then run-down riverfront or from the long barges of coal we could watch float by through the windows of our kitchen.

To track this lack of separateness, one day we took a field trip to try and find the confluence, the place where the creek that runs through the Sanctuary empties out into the river. We crossed over the bridge and the state line and drove slowly parallel to the water, again consulting the satellites on our phones and letting other cars pass us by as we looked out for some waterfront access devoid of "No Trespassing" signs. Eventually we found an unmowed lot to park in and walked down an unkempt sandy riverbank. There it was, hard to fully make out, across the river from us—one small body of water joining a much larger one. It was an unmarked, barely visible living monument to the fluid links that tie together just about everything. Noticing the literal tie between the Sanctuary and the town is also noticing the inevitable connections and overflows between the "pristine" and the "polluted." The metaphor, or the physical reality, carries into how we can understand the cause and effect of human interactions within these landscapes.

Sanctuary Steward Chip generously provided even more context to mull on during a hike on the medicine trail. He told us about how when he first started working at UpS decades ago, he vilified the diggers, whom he saw as ravaging wild populations of the local ginseng (*Panax quinquefolius*) and goldenseal (*Hydrastis canadensis*). But with time and deeper observation, his perspective inevitably widened, and what came to the forefront were the unavoidable pressures of an economically depressed region no longer able to reliably depend on coal mining for a livelihood. The lack of work opportunities, alongside the achingly familiar story of the opioid crisis reaching into so many crevices of the country, encouraged some to take advantage of the native medicinals for quick cash. The choice to indiscriminately dig did not come from nowhere. If anything was the villain, it seems it was the cycle of extractive logic inevitably permeating all aspects of how we stay alive.



Blue vervain (*Verbena hastata*) and skullcap (*Scutellaria lateriflora*) growing in river wall. Mosaic by Goda Trakumaite

The high value of ginseng and goldenseal has in recent history led to their devastation, but UpS's work of teaching cultivation and sustainable harvesting methods suggests that it might be possible to remember and revive how this same value can instead lead to a committed tending of the medicine and the land that supports it. The difference in the two approaches boils down to whether or not we perceive the essential relationship between all things; to whether we viscerally understand that how we harvest now determines whether we are able to harvest at all in the future. Outside of some feel-good, seemingly impractical, and unscalable concept of relatedness, can we learn to see the sameness of all that we breathe in, ingest, dig up, sell, buy, care for, and eventually dispose of, abandon, excrete, and sometimes represent?

Another unmarked monument stands out when I reflect on my residency experience. On an afternoon foray outside the Brick House on my second or third day there, I noticed a blue vervain (*Verbena hastata*) and a skullcap (*Scutellaria lateriflora*) growing out of a crack in the retaining brick wall along the downtown dock. Closer investigation uncovered more of both plants poking out of other wall cracks, but these two exemplary specimens were gloriously in flower, positioned right below a pipe offering the wet feet both prefer for their fullest expression. I felt grateful for having had the time and the prior knowledge to notice these powerful native nervines amidst the more prevalent loosestrife (*Lythrum salicaria*) emerging elsewhere from the wall.

Almost every day after that I would return to notice this particular crack, and almost every day the visit would reveal something else. One afternoon I caught a swarm of mayflies mid-molt, shaking off their former skins and emerging into the next phase of their multi-staged life-cycle. It required not just close observation, but also a little bit of research to make sense of the strange process I was seeing. Looking at something I recognized as special led to a serendipitous witnessing of something I had not even known existed.

The final weekend of the residency coincided with Pomeroy's Blues Bash. We watched the energy of the town and its riverfront morph as motorboats pulled up and parked to camp out by the usually sleepy Blue Vervain and Skullcap Dock. On our final evening there, I took one of the other residents down to the famous wall crack to show her these special plants. A group of festival attendees had set up a tented table right next to them. We apologized for intruding and explained what we were there to see and why, and after a brief awkward peek, ambled away, sensing the bemused stares behind us. I understood our role in that moment as annoying, interloping weird "artists," clearly out of place on that version of the festival dock. Yet, then and now, I wonder what it would mean to shift collective attention more towards that which was thankfully showing up in the cracks of the crumbling structures we've built for ourselves.

When I got home from the residency, the swamp mallow seedlings I had tried to abandon seemed to be still somehow intact and alive in the lazy compost pile. Their roots were still healthy and white, exposed to the air and grasping tightly onto nothing but the soil in which they had germinated. Appreciating their resilience, I stuck them into a pot with more soil. There they stubbornly continued to persist and even grow taller into the fall, at which point I planted them out in the overflow area by my rain barrel. We will see if they pop up to waver there in the spring. ■

Goda Trakumaite is a multimedia artist and educator. She is currently gardening and growing seeds somewhere in between the Jersey pine barrens and the Delaware bayshore in the traditional territory of the Lenni-Lenape.

Mycorrhiza

Mycorrhizal fungi are mutualistic,
as they benefit others as well as themselves
when in relationship.
Their hyphae,
underground fungal threads,
are the body of the fungus, not roots.
But they weave their way through soil,
to bond with the roots of trees.
Like a shaman initiated by snakebite,
they can metabolize poisons.
Like a network of fiber optics
or the net holding Indra's jewels,
they carry energy, nutrients, messages—
mutual aid between trees of a species
and even between species.

The squirrel plants the nut
of the tree it most loves.
The human plants the corn.

The mouse stuffs milkweed tufts
into its nest and surrounds the seeds
with pee and turds.
The human fracks gas to fertilize the corn.

The tree drops leaves to nourish its own roots.
The finch grows a beak to crack seeds.
The human makes a hybrid of the corn.

The spider makes a web of its own body.
The human engineers the corn.

The eucalyptus poisons a circle around its trunk
so no other tree will grow.
The human turns its chemical weaponry
against all but corn.

The wasp makes a gall for its home.
The beetle gnaws the tenderest bark.
The beaver fells whole trees.
The human makes a machine
to flatten the forest
and patents the tree.

Acid rains down.
The human looks up.
Meanwhile, in the ground, the worm turns waste to soil,
and the mushroom turns poison wondrous.

The mycorrhiza draws sweetness from the tallest fir
and feeds it to the fir-shaded birch,
bringing health to the whole forest.

A human reaches for the forest floor
and plunges fingers into the webbing below.

— Karina Lutz

SPRING EQUINOX, MARCH 20, 2023, UNITED PLANT SAVERS BOTANICAL SANCTUARY

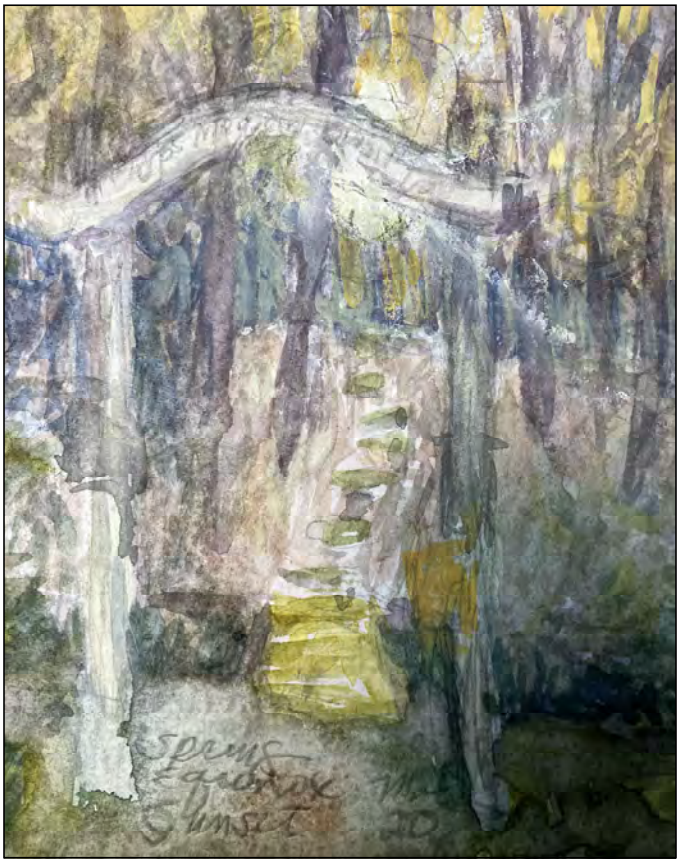
By Shay Clanton

"May we learn to return and rest in the beauty of animal being, learn to lean low, leave our locked minds, and with freed senses feel the earth breathing with us. "

– John O'Donohue

As a Deep Ecology Artist Fellow, I had the privilege of staying at the United Plant Savers Botanical Sanctuary in May and October of 2022. My time at the Sanctuary was heart opening and peaceful in a way that I still contemplate.

I returned to the Sanctuary the following year on the spring equinox, March 20th. I wanted to see the forest at the end of winter and hoped to see the slopes and hollers filled with the ramps (*Allium tricoccum*) that I had heard so much about.



Sunset Spring Equinox March 20th 2023 - Entrance to Medicine Trail by Shay Herring Clanton

The forest around the yurt still held the quiet of wintertime. The coming energy of spring was barely visible in new violets (*Viola* spp.) and some green in the forest floor. On the day of the Spring Equinox I walked on the Medicine Trail to the Main Hollow Trail up a ridge and down into a protected hollow of ancient trees. I was suddenly surrounded by the vibrant green of newly emerging ramps. They covered the steep slopes and were growing among the big trees in incredible abundance. The spring energy was palpable. I sat at the base of a rocky ridge dripping with melting ice and ate a few ramp leaves to celebrate spring. Among the ramps, blue cohosh (*Caulophyllum thalictroides*) were just unfolding their strange dark-purple leaves like the leathery wings of a tiny prehistoric bird species or the tiny hands of a mysterious earth spirit. They are a hallucinatory grayish and dark blue-purple at this stage of life with an underlying red glow. It is thought that the pigment protects them from the sun in the still leafless forest and perhaps from animal and insect browsing (though few animals graze on blue cohosh because of possible toxicity). As the plant matures, it is transformed into green with a blueish tint. In their presence I was given a glimpse into the ancient evolutionary journey of plant consciousness and the intelligence that enables their survival.

Blue cohosh is an herbal ally for women and was used traditionally by Indigenous peoples and prescribed by early eclectic physicians for women in the last week of pregnancy and during labor to strengthen uterine contractions to aid in childbirth and labor. It was also used to promote menstruation and as an anti-inflammatory (Rosemary Gladstar, *Herbal Healing for Women*). Herbalists and midwives still consider it to be an effective aid in labor, though it is a powerful plant that must be used with skill and care. My son and daughter in law were expecting a baby in May, my first grandchild, and I respectfully asked blue cohosh to bless her labor.

I was grateful to sit with the ramps and the blue cohosh in the protection of the Sanctuary. Not long ago, I was among a dedicated and persistent group of people who spent 7 years fighting a giant fracked gas pipeline called the Atlantic Coast Pipeline, a project of unprecedented size that was proposed to carry fracked gas from West Virginia to North Carolina through the Appalachian Mountains on steep karst mountain slopes and through mountain rivers and streams. During that long fight, I took part in a plant rescue along the pipeline route in rural Highland County Virginia on a farm that had been cared for by the same family for generations. Their land had recently been seized by the ACP developers through eminent domain. We dug buckets full of blue cohosh, bloodroot (*Sanguinaria canadensis*), and other companion medicinal plants that would have been destroyed by the pipeline. The plants were so abundant, especially blue cohosh, that their colonies and relationships must have been ancient. The Atlantic Coast Pipeline was eventually cancelled because of rising costs, mainly due to litigation and the fierce fight put up by people who cared about their farms, the mountains, and their watersheds.* Many of the plants from that mountain slope still grow there in their ancient symbiotic relationship with the fungi and minerals and with each other. Some of the blue cohosh we rescued are growing near a small hidden spring on our family's land in the mountains of western Virginia,

which is a United Plant Savers Botanical Sanctuary called Walker Mountain Botanical Sanctuary. Other rescued plants were transplanted throughout the mountains on protected private land.

The Sanctuary hollow where the ramps and blue cohosh grow is part of land that was strip mined by coal companies. It was reclaimed and restored with significant effort and love by Paul Strauss and later gifted to United Plant Savers. On the day of the spring equinox, I was reminded that plants and humans share a form of symbiotic relationship. Humans are so much younger than plants, but from our earliest beginnings we have evolved in relationship to them. They are our medicines, our companions, and have helped create our sense of beauty. In this age of blindness to our deep connection there are still many people who live with respect and love for the plants and the earth. I thought of my unborn grandson and was filled with gratitude that he would grow up in a beautiful mountain holler with clean water and all the plants for companions and food and medicine. I hope that someday he will visit the United Plant Savers Botanical Sanctuary to see the ramps, blue cohosh, and ancient trees and meet the people who love them.

*Another fracked gas pipeline called Mountain Valley Pipeline, proposed at the same time, is being built just south of the route of the Atlantic Coast Pipeline. It goes through steep Appalachian Mountain slopes and sensitive watersheds and through farmland that has been in the same families for centuries. It has been enormously destructive. To see the movement, to stop it, and for more info see: appvoices.org/pipelines/mountain-valley-pipeline/. ■



Shay Herring Clanton is an artist who works in both painting and drawing mediums. She taught painting, drawing, and design for 20 years at Mary Baldwin University in Staunton Virginia. She is also a student of medical herbalism with Kat Maier at Sacred Plant Traditions in Charlottesville, Virginia and with Phyllis Light of Arab, Alabama. Since early childhood in her native home in Alabama, Shay has loved plants and the green world. Her years of activism for the protection of the earth were inspired by that love. Her family's home in Deerfield, Virginia, in a beautiful Appalachian Mountain holler, is a United Plant Savers Botanical Sanctuary called Walker Mountain Botanical Sanctuary. www.shayherringclanton.net

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GARLIC

Allium sativum

Qur'anic name – fum; Arabic name – thum

Belonging to the lily family,
officially a vegetable not herb,
relative of onion and chive.

Known as Poor Man's Treacle –
Theriac, "heal all" – ancient
Egyptians thought it nearly a god.

Remedy for many ailments,
containing antioxidants.
Good for everything from asthma

to cholera, hypertension to nasal
congestion, paralysis to typhus.
Of antibiotic value.

Its methanol extract a rich
source of flavonoids
to protect human health.

Builders of the Pyramids ate it.
Old country remedy for
    whooping cough:
a garlic clove in the whooper's shoes.

Two hadiths reveal the Prophet
was repelled by its smell – instructed
those eating it not to enter
    the mosque

till the odor had left the breath.
Every kitchen garden should
    include them
among tomatoes, marrows, potatoes.

Let me treasure my trove of
    garlic cloves –
come early spring, take one bulb,
break it apart, plant each clove

in light, well-composted soil
in a sunny place, one-inch deep,
six inches apart. Then late summer,

leaves dried down, lift each bulb
from the ground, and with love
hang up in a dry place among small

bunches of marjoram flowers,
thyme and fennel stalks. Now
let me rub my salad bowl

with one sliced clove, take four more
and make a creamy Taramasalata
for my bread and black olives.

— Diana Woodcock
www.dianawoodcock.com



Blue Cohosh (*Caulophyllum thalictroides*) and Ramps (*Allium tricoccum*)
Main Hollow Trail Spring Equinox by Shay Herring Clanton

REMINISCING ON THE 16TH INTERNATIONAL HERB SYMPOSIUM

We'd like to give a big shoutout to all who made the International Herb Symposium a success! We had 830 people show up in person and 365 online, totaling 1,195 attendees. United Plant Savers was able to provide 474 full and partial scholarships, totaling close to $100,000 given in our ongoing effort to make herbal education accessible to all.

It takes a village to pull off an event like this, so props to the teachers, students, volunteers, organizers, marketing pros, and our website designer.

Special thanks to Seven Arrows Farm for the awesome chapel decorations, and to Amikaeyla Gaston for holding the space and providing blessings. An enthusiastic thank you also goes to the band, Marielle and the Flowers, for rocking our Saturday night.

Let's not forget those who traveled from faraway places like Pakistan, India, Greece, Israel, England, Ecuador and Costa Rica – you added such rich diversity. And a big thank you to Saad Admani for bringing those beautiful roses and jasmine.

And last but not least, another huge thank you goes to all our sponsors and vendors for your support!

Herb Pharm • Kuumba Made • Mountain Rose Herbs

Traditional Medicinals • Woodland Essence
Woodland Essence • LearningHerbs • Nammex
Storey Publishing • WishGarden Herbs

Boston School of Herbal Studies • BotanicWise
Five Flavors Herbs • Green Dragon Botanicals
HERBS on the Side • Matthew Wood Institute
My Herbal Apothecary • Red Moon Herbs
Science and Art of Herbalism • Wooden Spoon Herbs
Zack Woods Herb Farm

American Herbal Pharmacopoeia
American Herbal Products Assoc. • Bastyr University
Florida School of Holistic Living
Great Cape Herbs Assoc. • Herbal Entrepreneur
Herbal Reality • HerbRally • HWB Global
Lovelight Herb Farm • MoonMaid Botanicals
National Health Freedom Action • Native Plant Trust
Northeast Forest Farmers Coalition • Oshala Farm
Sage Mountain Botanical Sanctuary
Sustainable Herbs Program
Wild American Ginseng Conservation Collective









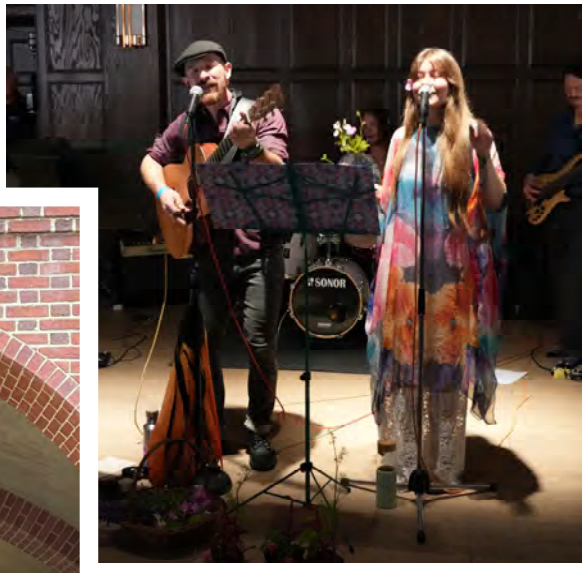













TERRA·IST
: A person who uses and supports any and all actions in the defense of Nature & Mother Earth




AQUARIUM OF THE PACIFIC



United Plant Savers Timeline



1994
- United Plant Savers formed at the 4th International Herb Symposium
- UpS created its seminal work, the *At-Risk List*

1996
- Tax-exampt status awarded by IRS

1997
- Dr. Richard Liebmann named as UpS' first Executive Director
- UpS holds its first herbal conference at the UCSC Arboretum in Santa Cruz
- First UpS member plant giveaway distributing 2,040 goldenseal plants!

1998
- UpS holds the Native Medicinal Plant Conservation and Cultivation conference in Hawaii
- 1st Goldenseal/CITES Conference sponsored by United Plant Savers, American Herbal Products Association, and World Wildlife Fund's TRAFFIC North America held in March
- 1st Planting the Future conference held in Oct.
- Initiation ceremony to establish the first UpS Botanical Sanctuary in Rutland, OH

1999
- Tornado takes down the "Mother Oak" whose wood was salvaged for the Medicine Trail Signs
- Work completed on the Yurt
- UpS hosts its first Sanctuary event, Medicines from the Earth with Rosemary Gladstar, Matthew Wood, Paul Strauss, Hank Huggins, and Paul Neidhart
- Botanical Sanctuary Network created to support others in creating their land as a sanctuary

2000
- Intern program established
- *Planting the Future: Saving Our Medicinal Herbs* book by Rosemary Gladstar and Pamela Hirsch published

2001
- UpS office is moved to Ohio
- Partners in Education (PIE) program is launched

2002
- Devastating office fire causes huge setback for the organization, operations moved to home of office manager, Cindy Riviere

2003
- Lynda LeMole Sadler becomes Exec. Director
- The Medicine Trail (Talking Forest Medicine Trail) is completed
- Richo Cech's book, *Growing At Risk Medicinal Herbs*, is published in collaboration with UpS
- The office moved back to Vermont

2004
- UpS Executive Director, Lynda LeMole, awarded the National Nutritional Foods Association's (NNFA) Rachel Carson Environmental Achievement Award

2005
- 1st Annual Medicinal Plant Conservation Award presented
- The Talking Forest Medicine Trail inauguration celebration – official opening of the 10-mile trail on Goldenseal Sanctuary to the public
- Publication of the BSN Workbook

2010
- Susan Leopold, PhD becomes Executive Director of UpS

2012
- UpS co-organizes the Sandalwood Symposium along with the International Sandalwood Symposium and publishes proceedings book

2013
- Our Common Roots produces film on the Medicinal Plant Conservation Certificate Program

2014
- Jim & Peggy Duke Welcome Center fundraiser launched

2016
- Sacred Seeds transferred to UpS' oversight
- United Plant Savers attends the IUCN Conservation Congress in Honolulu, Hawaii

2017
- The Future of Ginseng and Forest Botanicals Symposium held in July and proceedings book published

2018
- UpS receives the NBJ Stewardship Award from the Nutrition Business Journal
- UpS receives the AHPA Herbal Insight Award from the American Herbal Products Association
- Goldenseal Botanical Sanctuary video produced by Ryan Gebura

2019
- UpS acquires PCO FGV Program / Launches UpS Forest Grown Verified program
- 25th anniversary celebration and grand opening of the Center for Medicinal Plant Conservation (dedicated to Jim and Peggy Duke)
- UpS receives the Sustainable Partnership Award from Rural Action
- Hope for Hydrastis fundraising campaign is held

2020
- Hope for Hydrastis program launched
- UpS establishes DEI (Diversity, Equity, and Inclusion) Committee

2021
- UpS acquires the Duke Ethnobotanical Archives
- UpS attends the IUCN Conservation Congress in Marseille, France

2022
- The Brickhouse Apothecary acquired
- UpS awarded the inaugural Stephen Foster Award for Conservation and Sustainability from the American Botanical Council

2023
- The Ohio Herbal Elders Project 2.0 DIGITAL EXHIBITION completed
- 16th Int'l Herb Symposium held in Massachusetts
- 2nd edition of The Forest Farmers Handbook: A Beginners Guide to Growing and Marketing At-Risk Forest Herbs published
- The IHS Learning Center launched online

2024
- Susan Leopold receives the AHPA Environmental Impact Award

GIVING BACK OVER 30 YEARS

Since its inception in 1994, United Plant Savers has been dedicated to giving back to the plants and the herbal community. We have provided:

36 Community Grants — Available to Botanical Sanctuary Members to help with planting and educating about native medicinals

474 Scholarships — To the *International Herb Symposium*

28 artists-in-residence through the Deep Ecology Artist Fellowship Program

25 Farmers — Enrolled in our Forest Grown Verified program

52,000 Goldenseal Roots have been distributed in the last three decades

75 graduates of the Medicinal Plant Conservation Program (initially called the "internship program"), an onsite education program held each summer

OUR REACH

65,000 Unique Visitors per year

45,000 Followers

63,500 Followers

As we look back on 30 years, we are humbled by all we accomplished together. Thank you for your support, which has allowed us to do so much for the plants!

HELPING SPECIES THRIVE

In 2023 alone, we distributed:

4,443 Goldenseal Roots (*Hydrastis canadensis*)

80k Ginseng Seeds (*Panax quinquefolius*)

64k Sage Seeds (*Salvia apiana*)

BOTANICAL SANCTUARIES

The inaugural sanctuary in the Botanical Sanctuary Network is housed at our Appalachian headquarters in Rutland, Ohio and run by our team. The Sanctuary (called the Goldenseal Sanctuary) is home to:

600 Plant Species

87 Tree Species

135 Fungi Species

65 Bird Species

55 Pollinator Species

...and counting!

SANCTUARY VISITORS

2,236 Visitors — We welcomed more than 2,200 visitors to the Goldenseal Sanctuary in 2023. We would love to see you in 2024.

TOGETHER, WE CAN MAKE A DIFFERENCE

9,130 Acres Preserved — All 299 member Sanctuaries are preserving a total of 9,130 acres in the US and Canada.

UpS BOTANICAL SANCTUARY NETWORK MEMBERS

Arizona

Bean Tree Farm
Southwest College of Naturopathic Medicine (SCNM) Apothecary Garden
Stardust Trail

Arkansas

Bluebird Botanical Plant Sanctuary
Fire om Earth Retreat Center

California

Astar Acea Apothecary Garden
California School of Herbal Studies
Dandelion Herbal Center
Five Winds Mountain Education Center
Knowlton Farms
Medicine Creek Sanctuary
Motherland Botanical Sanctuary
Oshun's Oasis
Philo Pharm
Rancho La Bellota, Baja Native Medicinal Plant Sanctuary
Sacred Sanctuary of Rogue Valley
Sierra Institute of Herbal Studies
The Traditional Medicinals (TM) Sebastopol Factory and Herb Garden

Colorado

Blue Yarrow Herbs
Flying Dog Ranch
Morning Star Ranch
Terre d'Amour
Three Leaf Farm
Wild Wind Ranch

Connecticut

Earth Remedies
The Outdoor Apothecary

Florida

Florida School of Holistic Living
O'Halloran Botanical Sanctuary
Traditions School of Herbal Studies
Wallaby Ranch

Georgia

Crystal Organic Farm
Ever Wilder
Hatch Farms Herbal Sanctuary
Rising Fawn Gardens
Riverbank Botanical Sanctuary
The Herb Crib
Two Creeks Farm

Illinois

Ataga'hi - "Lake of the Wounded"
Flourish School of Botanicals/ Flourish Farmstead
Labyrinth Gardens
Luna Farm Herbal Gardens and Botanical Sanctuary
Sugar Creek Botanical Sanctuary

Indiana

Buck Creek Sanctuary
Glastonbury Herb Sanctuary
Green Turtle Botanical Sanctuary

Iowa

Fern Hollow Cabin & Center for Belonging Folk School
Kathy Krezek Larson Tallgrass Prairie
Sage of the Woods

Kansas

Sacred Mother Sanctuary
Vajra Farm

Kentucky

Greyhill Gardens
Haven Shire Wildstead
Resilient Roots
Shaw Black Farm
Sylvatica Forest Farm

Maine

Avena Botanicals
Betula Botanical Sanctuary
Herbminders of Maine
Phoenix Farms
Rogue Sanctuary
Solidago School of Herbalism & Botanical Sanctuary

Maryland

Barefoot Medicine Farm
Green Farmacy Garden
Maryland University of Integrative Health (MUIH) Herb Garden
Wellsview Cottage: Center for Holistic & Integrative Health

Massachusettes

Abbott Hollow Sanctuary
Bethel Botanicals
Brick Kiln Brook Preserve
Cedar Spring Herb Farm
Earthcrafts Botanicals
Fern Way
Hannah's Herbals
Mount Owen Forest Sanctuary
Native Earth Teaching Farm
Seven Arrows Farm
Singing Brook Farm
Temenos Retreat Center
White Buffalo Herbs

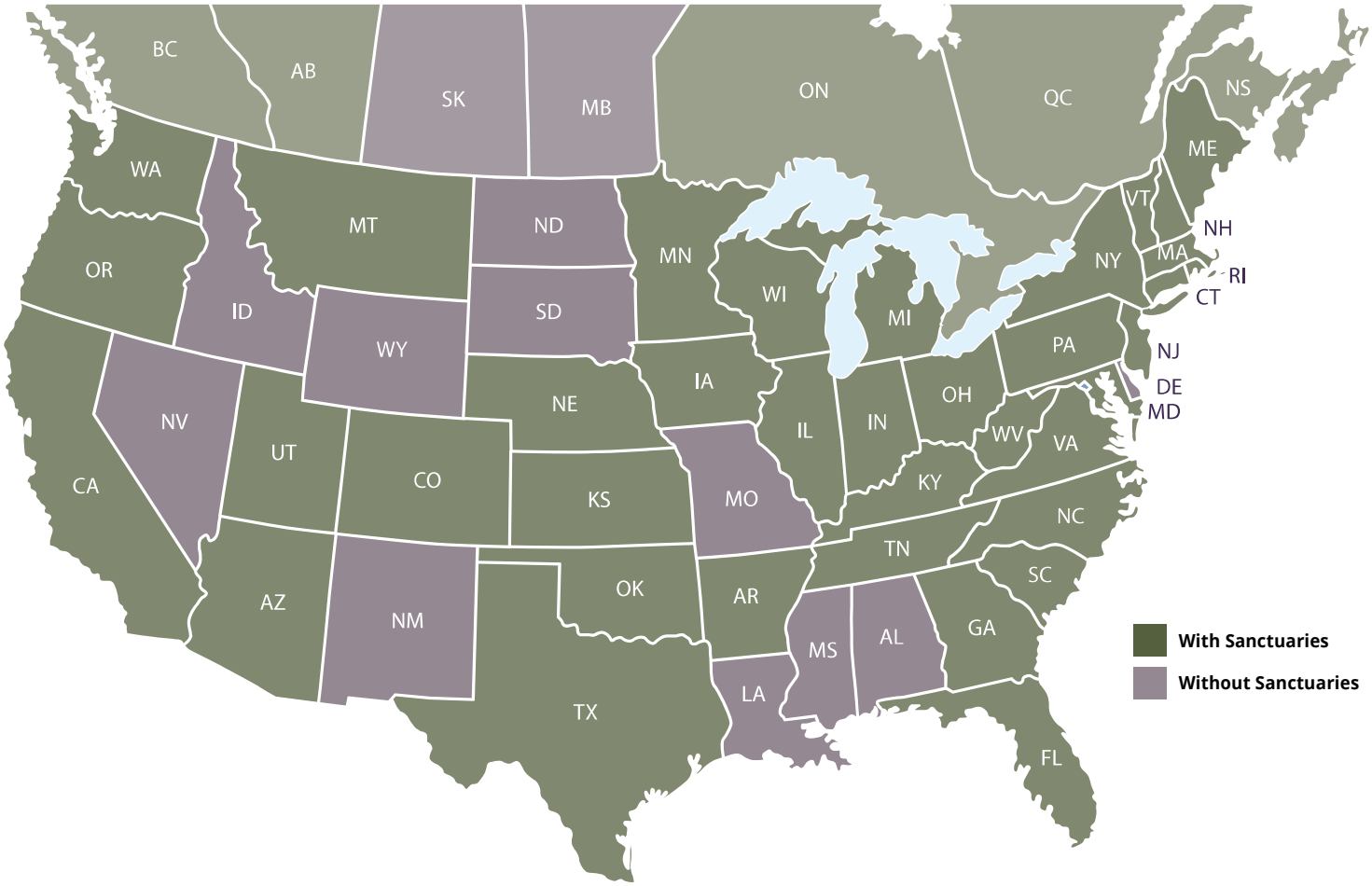
Michigan

Creekside Botanical Sanctuary
Crossing Hedgerows Sanctuary
Little House Farm
Seeds and Spores Family Farm
Windsong
Wyldewood Acres

Minnesota

Crandall Garden Farme
Hickory Heal Gardens
Little Knife Sanctuary

REGISTERED SANCTUARIES THROUGHOUT THE US & CANADA



Missouri

Tending the Wildflowers Botanical Sanctuary

Montana

Buck Mountain Ranch
Robust Botanical Sanctuary

New Hampshire

Bee Fields Farm
Blackbird's Daughter Botanicals
D'Acres of New Hampshire
Dawn Land Sanctuary
Mandala Way
Misty Meadows Herbal Center
Wild Graces
Wise Way Wellness Center

New Jersey

Magic Mountain Gardens
Morning Sun Homestead
The Wildstead
Wildcraft Herbs

New Mexico

Quetzalcoatl Botanical Garden

New York

Akron Rewilding Sanctuary
Atka's Garden: Sacred Warrior & Wolf Conservation Center Sanctuary
Cat's Cross
Hawthorn Way Botanical Sanctuary
Healing Spirits Herb Farm & Education Center
Healing Wheel Sanctuary
Heartstone Sanctuary
Heartthrob Farm
Herb Planet
Hootenanny Hill
Mab & Stoke Farm
Midsummer Farm
Perry Hill Farm
Plattsburgh Botanical Sanctuary
Shawangunk Ridge Farm
Shindagin Hollow Woodland
Staten Island N.Y. BeeHerbs Sanctuary
Taproot Farm
The Green Spiral Herbs
Two Fawns Plant Sanctuary
Wild Hudson Valley Farm and Sanctuary
Wise Woman Center

North Carolina

Appalachia School of Holistic Herbalism/Soulflower Farm
Black Mountain Community Garden
Blue Ridge Community College (Horticulture Department)
Blue Ridge School's Plant Sanctuary
Cedar Springs Farm
Claris Educational Center

UpS BOTANICAL SANCTUARY NETWORK MEMBERS (CON'T)

Eagle Feather Farm
Gaia Herbs of Brevard, NC
God's Gardens
Healing Spirit Sanctuary
Heartward Sanctuary
Herb Mountain Farm
Hooker Hollow Gardens, Apiary & Apothecary
Lichenwood
Moon Cove Botanical Sanctuary
Native Botanicals High Country of NC Sanctuary
Owl Mountain Herbs
Pangaea Plants
PonderLand Native Plant Sanctuary
Red Moon Herbs
Reverence Botanicals
Spirit Canoe Lodge Sanctuary Garden
Talus Slope Farm
The Preserve Communities/ Little Pine Preserve
Tiny Perros Sanctuary
Val'Holler Farm & Homestead
Wasabi Springs
Watershed Forest Farm
Wellspring Mountain
Wild Meadow Farm

Ohio

BeeGood Gardens
Equinox Botanicals
Friends of the Governor's Residence & Heritage Garden
Goldenseal Sanctuary
Historic Loveland Castle
Hopewood Farm
Kannagara Woods
Light Footsteps Herb Farm and Learning Center
Mockingbird Meadows
Preble County Historical Society
The Broadwell Hill Sanctuary & Off Grid Learning Center
The Common Mikweed
The Serpentine Project at BLD Farm
The Trillium Center
Wildwood Springs Sanctuary

Oklahoma

IdleWild Native American Plant Sanctuary

Oregon

Akal Ranch
Frux Farm
Herb Pharm
Mother Mullein Herbs
Nature Cares Nursery and Botanical Sanctuary
Oak Creek Botanical Sanctuary
Oshala Farm
R & J Riverbrook Farm

Pennsylvania

Bartram's Garden
Brinton Oasis, Peoples Pantry
Dibble Hill Native Plant Sanctuary
Forsaken Roots
Heart of the Moon Medicinal Herb Garden at Snipes Farm
Heart Springs Sanctuary
Lynwood Herb Farm
Nettlejuice Herbals
Oshala Farm
Restoration Herbs
The Wellspring Valley
Weeds For Wellness LLC
Winnie Palmer Nature Reserve Sanctuary Garden

Rhode Island

Farmacy Herbs Farm
Listening Tree Cooperative
Sagewood Herb Farm
The Wild Gardener Sanctuary

South Carolina

MagMell Farm

Tennessee

Carol's Homestead
Double N Urban Farm
Down to Earth Massage + Wellness
Eaton's Creek Farm
Genie's Dream
Hidden Treasure Herb Garden
High Garden School of Wholistic Herbalism and Traditional Craft
Medicine Woods
Pipsissewa Herbs/Cherokee Medicine Woods
Red Bird Lodge LLC
Saddleridge Sanctuary
Stomping Ground Homestead
The Redfern Sustainablity Project
The Spring House
Turtle Mountain Herbs

Texas

Cedar Ridge Farm
Owl Gardens
Rooted Relations
Small Town Farm
Wildflower Herb School

Utah

Night Raven Holistic Health

Vermont

Amber Roots Farm
Cold Spring Herbals
Evernow Gardens
Fern Hill Nursery
Foodmedicine Farm
Green Mountain Druid School/ Dreamland
Locust Creek Haven for Woodland Life

UpS BOTANICAL SANCTUARY NETWORK MEMBERS (CON'T)

Martha Rabinowitz & Joe Earle
Morze Tree Farm
Old Ways Herbal School of Plant Medicine & Botanical Sanctuary
Orchard Valley Waldorf School
Sage Mountain
Springsong Sanctuary
Sweetwater Sanctuary
The Manitou Project
Three Springs Farm
Trifolium Farms LLC

Virginia

7 Acre Wood Farm
Bear Haven Medicinal & Native Plant Sanctuary
Bessie Weller Elementary School
CA & J Farm
Fonticello Food Forest
Forrest Green Farm
Green Comfort School of Herbal Medicine
Heartmoor Farm
Hummingbird Hill Native Plant Nursery
Ivy Forest School
Mill House Native Sanctuary
Mountainside Herbs Botanical Sanctuary
Sacred Plant Traditions
Sharondale Mushroom Farm
Soothing Herbals
Terra Vita Gardens
Trossachs Woodland Sanctuary Gardens
Virginia Tech's Catawba Sustainability Center
Walker Mountain Botanical Sanctuary
Wildcroft Hollow Botanical Sanctuary
Wildmoss & Stardust
Wind Song Sanctuary

Washington

Bastyr University Herb Garden
Cedar Mountain Medicinals
Dragonfly Medicinals
Highwoods Heaven Botanical Sanctuary
Sacred Plant Sanctuary at Seattle School of Body-Psychotherapy
Sweet Briar Herb Garden

West Virginia

Blooming Mountains Botanical Sanctuary
Branch & Root Forest Farm
Meadowsweet Botanicals
Nettle Creek Botanicals
Sacred Roots Herbal Sanctuary
Smoke Camp Crafts
Spotted Horse Farm
Yew Mountain Center

Wisconsin

Bull Brook Keep
Mequon Nature Preserve, Inc.
Peterman Brook Herb Farm
Wellspring Inc. Nonprofit Organic Farm and Retreat Center
Wholly Rooted Regenerative Education & Permaculture Farm
Wild Roots and Wings Sanctuary

Alberta

Officinalis - Phyte Club
Senses of the Soul Seaside Garden & Botanical Sanctuary

British Columbia

Castle Rock Botanical Sanctuary
Innisfree Farm & Botanic Garden
Stark Natural Herb Farm

New Brunswick

Indian Mountain Botanicals

Nova Scotia

Gaspereau Mountain Herb Farm and Botanical Sanctuary
Harriet Irving Botanical Gardens
Herbalist Association of Nova Scotia

Ontario

Cailli Cnoc
Eden Hyll Botanical Sanctuary
Future Spell Farm + Apothecary
Kina Gegoo Botanical Sanctuary
Kindred Tree Ancient Medicine
The Living Centre & Living Arts Institute
The Wild Garden Botanical Sanctuary
West Wind on Myrtle

Quebec

The Garden
The Green Clinic: Herbal and Traditional Healing



Dedication of Innisfree Farm & Botanic Garden
www.innisfreefarm.ca

MEMBER PRODUCTS, SERVICES & BOOKS



14th Annual BotanicWise Women's Herbal Gathering

Feature keynote speaker
Rosemary Gladstar!

Sept 13-15, 2024

Located in scenic Kempton, Pennsylvania

WEBSITE:
www.botanicwise.com/event/womens-herbal-gathering/

EMAIL:
info@botanicwise.com







VISIT GREECE

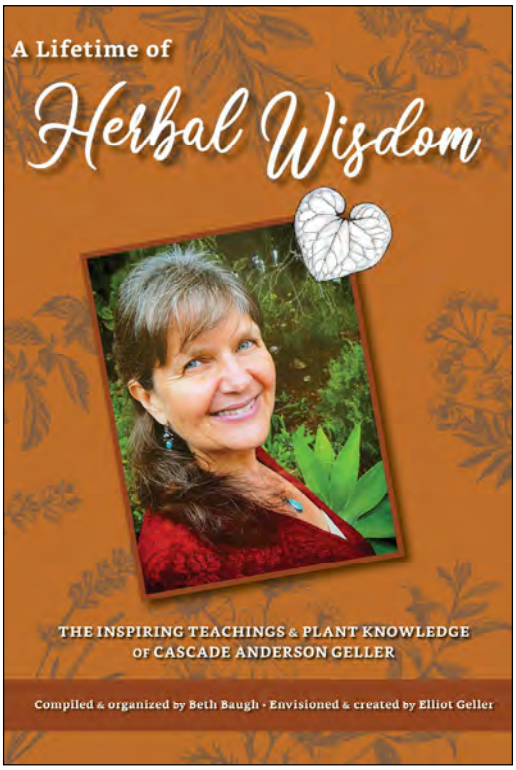
On the Herbal Path

TOURS WITH THE GREEK HERBALIST

Join us at www.thegreekherbalist.com

Called a true spokesperson for the plants, Cascade Anderson Geller crossed the great divide {in May 2013} in the same gracious, intentional, wise woman way she lived her life. She was a woman who loved life fully, loved a good cause, and above all, loved Mother Earth.

Cascade served on the faculties of the National College of Natural Medicine, Bastyr University, Southwest College of Naturopathic Medicine, and the California School of Herbal Studies. She was a founding member of UpS and served as a beneficial and active member of its Advisory Board for many years. UpS founder, Rosemary Gladstar said, "Cascade was always a sounding board for me as she was for so many people, giving me input and helping to direct the young, growing organization. She was incredibly supportive of all UpS did and stood for. I know she was incredibly proud of United Plant Savers and felt, as I did, that it represented a voice for the plants and offered a way for us to give back to these incredible green beings who had gifted us with so much." Cascade taught at many UpS conferences, spreading the word to her numerous students and encouraging them and others to participate, strongly supporting the mission in every way possible.

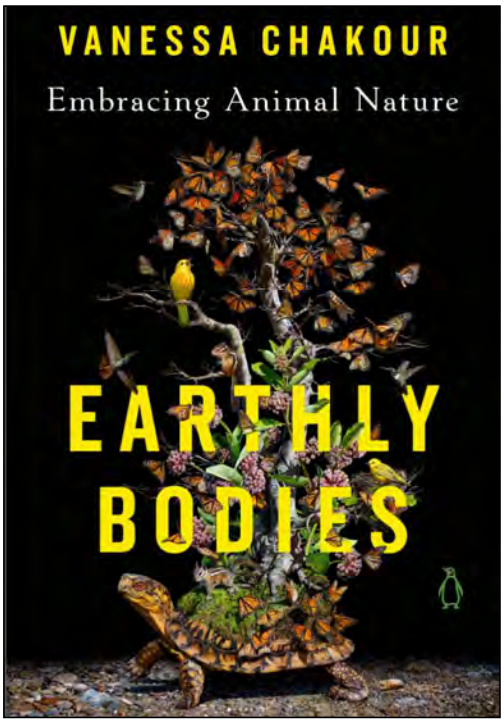


A new book about Cascade, coming out in the spring of 2024, is entitled *A Lifetime of Herbal Wisdom, The Inspiring Teachings and Plant Knowledge of Cascade Anderson Geller*.

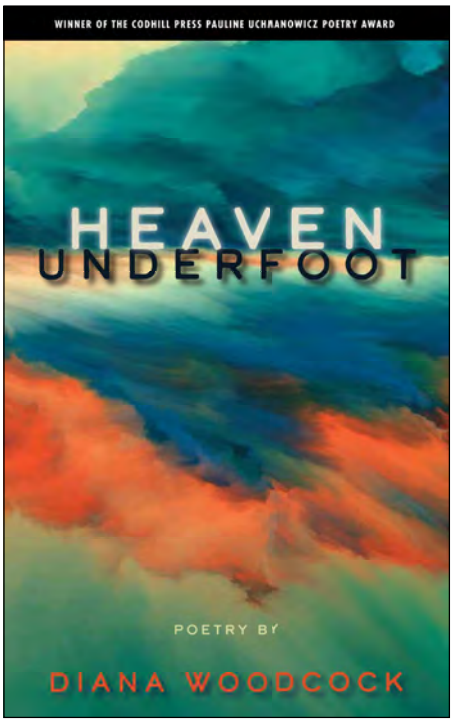
It is practical with engaging stories and includes interesting information from her travels and teaching around the world. This book is not only personal, capturing her clarity, generosity, and warmth in the many stories she shares, but also draws upon her immense wealth of knowledge combined with humility.

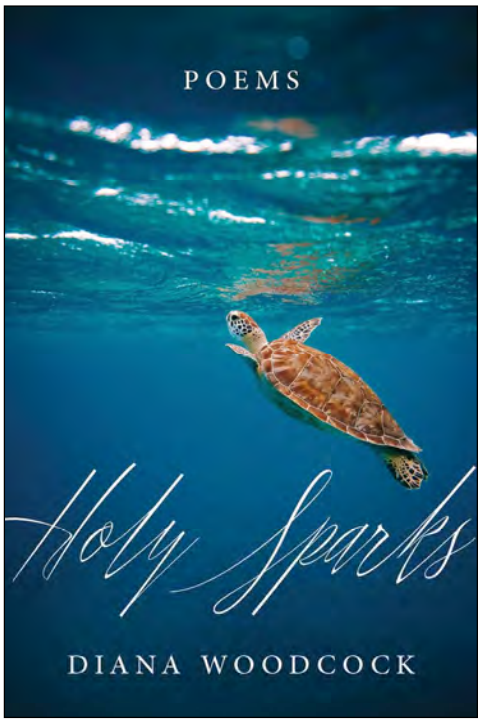
The book's chapter on her favorite herbs includes stories, formulas, and the healing qualities of more than 60 herbs she cherished. Other sections focus on creating blends with explicit directions for making many of her tried and true blends for stress, immunity, fertility, etc. She also highlights particular herbs used for the immune, digestive, nervous, cardiovascular, and other body systems.

A Lifetime of Herbal Wisdom, The Inspiring Teachings and Plant Knowledge of Cascade Anderson Geller can be ordered by emailing bethbaugh@peak.org.



Environmentalist and educator Vanessa Chakour explores our inner and outer landscapes through the lens of wild animals. **www.vanessachakour.com**





Diana Woodcock's fifth full-length poetry collection, Holy Sparks, was released on 06-06-23. **www.paracletepress.com/products/holy-sparks** Her sixth collection, Heaven Underfoot, which won the the 2022 Codhill Press Pauline Uchmanowicz Poetry Award, was released on 11-01-23. **codhill.com/product/heaven-underfootdiana-woodcock/**

United Plant Savers Botanical Sanctuary

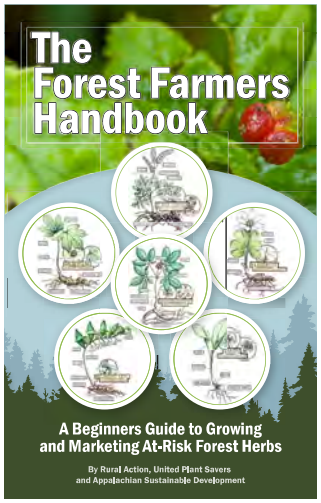
THE RECLAIM TRAIL

Rutland, OH

Funded in 2016 by an Ohio EPA Environmental Education Fund Grant, the Reclaim Trail guides hikers through the story of past land use and its consequences, current restoration efforts both intentional and natural, and how the power of sanctuary can heal the land and spread biodiversity.



United Plant Savers Center for Medicinal Plant Conservation
Original artwork by Philippe Grenade XIV



2ND EDITION AVAILABLE NOW!

A comprehensive intro to forest farming and how to sustainably produce medicinal woodland herbs for market. Includes detailed cultivation guides for six iconic Appalachian species, including American ginseng, ramps, goldenseal, black cohosh, bloodroot, and Solomon's seal.

Autumn Love Poem

I can live without rubies.
Bring me ripe pomegranates;
those wine-red seeds
filled with the blood
of the waning year.
We will pledge to each other
with stained fingertips.
Garden beds of sun-glowing greens
will serve for emeralds.
When I kiss honey from your lips,
I will never long for amber.
Only be with me in the night,
as the cold rain drops,
(more precious than diamonds)
to the ground.

— Katrina Matos

When Katrina isn't composing love poems, she's giving nature-inspired distance energy healing sessions and crafting plant-based skin products with organic and food-grade ingredients.

www.greenspiritcraft.com

2024 ANNUAL MEDICINAL PLANT CONSERVATION AWARD

— Recipient —

PAUL STRAUSS

Submitted by Chip Carroll

"Paul is one of a kind, a dedicated steward of the aina, and a dear friend to me and my family."

— Richard Liebman

This year we are honoring Paul Strauss of Equinox Botanicals for the United Plant Savers Medicinal Plant Conservation Award. As we reflect on the history and legacy of United Plant Savers and all that has been accomplished over the last 30-years, we recognize up-front that this organization, the Botanical Sanctuary, and all that has been created through it would not have been possible and likely may have never even happened if not for this one man. Not only has Paul worked tirelessly for the last 50+ years to protect and conserve land near and around his home, but he has also created a far-reaching legacy that will long outlive anyone reading this today.

Paul arrived in Meigs County, near Rutland, Ohio as a young man from NYC and before long took up a keen interest in the medicinal plants and unique ecosystems that were on his newly acquired land and the surrounding hills and hollows. Paul's deep appreciation for the plants and their medicine led him on a lifelong mission of acquiring land around his original farm to conserve the forests and the biodiversity which they held.

After starting a small herbal products business, Equinox Botanicals, Paul began putting energy into making and sharing medicine with the larger community and eventually grew a business that would see its products shipped all over the world. As the forested lands around him were being timbered or sold off (most of the lands had already been strip mined), or lands were lost to shady deals gone awry (as was somewhat common in 1970s and 1980s Meigs County), Paul was there to offer to buy those lands and "lock them up" for future generations.

Paul opened his farm, his land, and his knowledge to hundreds of students, teachers, academics, researchers, botanists, herbalists, foresters, biologists, mycologists, and anyone else who wanted to come learn from him and the land over the years. That is how I first met Paul, as a young college student on a field trip to his farm. I will never forget listening to Paul tell his stories and share his experiences that afternoon in his backyard, and I was completely enthralled with this man who spoke of passing "the green spark" onto others to follow in his footsteps. That spark completely changed my life and put me on a path which I am thankfully still on today. I am not unique; Paul has touched the lives of countless individuals over the decades in countless ways.

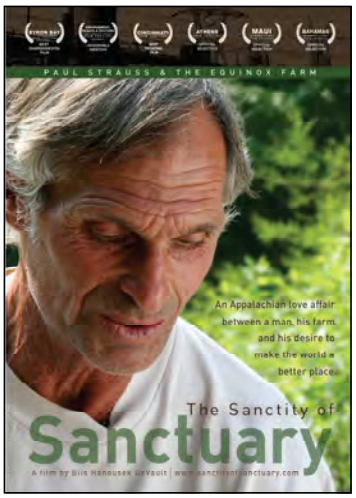


Paul Strauss photo taken by Jess Lamar Reece Holler for the Ohio Herbal Elders Project

His farm was home to a kids' outdoor camp annually for many decades. Children who came to the Sassafras Camp as 10-year-olds are now 40+-year olds and remember fondly the time they spent there and the numerous shared experiences they had with Paul. Legacy. Paul hosted about every herb school in the country here at his farm over the years, and many would come here annually for decades for their field trips and outdoor learning experience. A number of these groups continue to come here to this day. Many of you have been here over the years whether for a conference, workshop, or as an intern or student. Legacy.

It is impossible to measure the impact that Paul has had through his work and teachings over the years, but we can be assured that his impact on the greater good is much larger than most human beings will have over their lifetimes. ■

Do you have a story to share about Paul? Send your appreciation, letters, art, thoughts, poems. Please take the time to send Paul a written note via snail mail (as he does not have email) to:
Paul Strauss
33446 McCumber Road
Rutland, OH 45775.



HERBAL BUSINESS MEMBERS

A Gypsy's Whimsy Herbal Apothecary
Astoria, OR

Academy for Astrological Medicine
Silver Lake, MN
academyforastrologicalmedicine.com

Albuquerque Herbalism / Yerba Mansa Project
Albuquerque, NM
albuquerqueherbalism.com

Alkemist Labs
Garden Grove, CA
alkemist.com

Amber Apotheca
San Francisco, CA

Amulette Studios
Bend, OR
amulettestudios.com

Ancestral Herbology
Wakeman, OH
ancestralherbology.com

Apothecary Tinctura
Denver, CO
apothecarytinctura.com

Banyan Botanicals
Albuquerque, NM
banyanbotanicals.com

Bear Hill Botanicals
Bedford Hills, NY
bearhillbotanicals.com

Biddy Herbals
Chicago, IL
etsy.com/shop/BiddyHerbals

Bill Quickel's - Insurance Plus Agencies Inc.
Pomeroy, OH
insurance-plus.com

BirdSong Botanicals
Tigard, OR
birdsongbotanicals.com

Blue Fan Farm
Little Rock, AR
bluefanfarm.com

Bluestem Botanicals
Doylestown, PA
bluestembotanicals.com

Botanic Providence
Providence, RI
botanicpvd.com

Botanica Wild Beauty
Irvine, CA
botanicawildbeauty.com

BotanicWise
Lenhartsville, PA
botanicwise.com

Bumble Roots Herbal
Saint Albans, VT
bumbleroots.com

Burmeister Ginseng
Wausau, WI
burmeisterginseng.com

Celestial Alchemy
Lamoine, ME

Cosmos Gardens
Millsboro, DE
cosmosgardens302.com

Crystal Garden Herbs
Bethel, VT
crystalgardenherbs.myshopify.com

Cura Viriditas
Alexandria, VA
curaviriditas.com

CA & J Farm
Foster, VA
cajfarm.com

Cedar Mountain Herb School
Sandpoint, ID
cedarmountainherbs.com

Demeter's Garden Apothecary
Kaysville, UT
demetersgardenapothecary.com

Desert Bloom Botanicals
Phoenix, AZ
@desertbloombotanicals1

Dirt Road Herbals
Gillett, PA
facebook.com/dirtroadherbals

Earth Pharmaceuticals
Aurora, CO
earthpharm.org

Earthly Remedies by Erin
Cobleskill, NY
earthpharm.org

Easton Sawyer Construction Firm
Hedgesville, WV
earthlyremediesbyerin.com

Edge of the World Farm
Siler City, NC
edgeoftheworldfarm.com

Emerald Spirit Rising, LLC
Martinsburg, WV
emeraldspiritrising.com

Emmanuelle Skincare & Wellness
Callicoon Center NY
emmanuellesw.com

Eve's Pharmacy
Rittman, OH
evespharmacy.com

Feral Fungi
Estacada, OR
feralfungi.com

Following Seasons Botanicals
El Cajon, CA
FollowingSeasons.com

Four Elements Organic Herbals
North Freedom, WI
fourelementsherbals.com

Frankie Farms
Whitestone, NY

Galen's Way
Sebastopol, CA
galensway.com

Gig Harbor Audio
Gig Harbor, WA
gigharboraudio.com

Green Dragon Botanicals
Brattleboro VT
greendragonbotanicals.com

Green Path Herb School
Missoula, MT
greenpathherbschool.com

Harmony Way
Wilbraham, MA
harmonywayhealing.com

Healing Harvest Homestead, LLC
Orofino, ID
healingharvesthomestead.com

Heartsong Herbs
Athens GA
heartsongherbs.com

Heartwood Forest Farm
Cedar, MI
heartwoodforestfarm.com

Herb Pharm
Williams, OR
herb-pharm.com

Herbal Blessings
Severna Park, MD

Herbal Content Cottage
Nazareth, PA
herbalcontentcottage.com

Herbal Educational Services
Ashland, OR
botanicalmedicine.org

Herbal Energetics
Robers Creek, BC
herbalenergetics.ca

Herbal Roots
La Crescenta, CA
herbalrootssupplements.com

Hildegaard
Brookhaven, NY
hildegaard.life

Indigo Boutique & Botanica, LLC
Meadville, PA
indigomeadville.com

Integria Healthcare (Australia)
Eight Mile Plains, QLD
integria.com/en-au

KM Herbals Inc.
Dillon Beach, CA
kmherbals.com

Kuumba Made
Tucson, AZ
kuumbamade.com

Leaf People Skin Care
Carbondale, CO
leafpeople.com

Loomis Hill botanics
Waterbury Ctr, VT
woodardsfarm.com

Maple Spring Gardens
Cedar Grove, NC
maplespringgardens.com

Marathon Ginseng International
Weston, WI
marathonginseng.com

Marders
Bridgehampton, NY
marders.com

Marvin's Organic Gardens LLC
Oregonia, OH
marvinsorganicgardens.com

Matthew Wood Institute of Herbalism
Silver Lake, MN
matthewwoodinstituteofherbalism.com

Moon Chaser Farm + Apothecary
Albany, OR
moonchaserfarm.com

MoonMaid Botanicals
Cosby, TN
moonmaidbotanicals.com

Mother Earth Foods
Parkersburg, WV
motherearthworks.com

Mountain Rose Herbs
Eugene, OR
mountainroseherbs.com

Mystic Roots Farm LLC.
Fairview, NC
mysticrootsfarm.com

Natura Health Products
Ashland, OR
naturahealthproducts.com

New Naturals International Spices
Suffolk, VA
21drops.com

HERBAL BUSINESS MEMBERS

Ohio Environmental council
Athens, OH
theoec.org

Ohio Herb Center
Gahanna, OH
ohioherbcenter.org

One Nature
Beacon, NY
onenaturellc.com

Passionflowers Herbology
Smyrna, GA
passionflowersherbology.com

Puff Herbals
Medford, MA
puffherbals.com

Rasa
Denver, CO
wearerasa.com

Ratza Chocolate
Tapon Springs, FL
ratzachocolate.com

Rebecca's Herbal Apothecary & Supply
Boulder, CO
rebeccasherbs.com

Red Bird Lodge, LLC
Gatlinburg, TN

Red Moon Herbs
Candler, NC
redmoonherbs.com

Roots From Eden Apothecary Farm
Loma, CO
rootsfromeden.com

Rosemary Gladstar's Science & Art of Herbalism
Waitsfield, VT
scienceandartofherbalism.com

S. A. Plunkett Naturals
Tijeras, NM
saplunkett.com

Sacred Moon Herbs
San Marcos, TX
sacredmoonherbs.com

Sandy Mush Herb Nursery
Leicester, NC
sandymushherbs.com

Shady Grove Botanicals
Mill Creek, WV
shadygrovebotanicals.com

Starwest Botanicals
Sacramento, CA
starwest-botanicals.com

Sweetgrass Botanicals
Lee, MA
shopsweetgrass.com

The Mill
Sacramento, CA
themillsacramento.com

The Power of Roots Apothecary
Oregon OH
thepowerofroots.com

Transitions Herbal
San Francisco CA
transitionsherbal.com

Walden Farmacy
Bessemer, AL
waldenfarmacy.com

Wild and Unruly Soul Apothecary
Troy, NY
wildandunrulysoulapothecary.com

Wild Pansy Farm
Seymour, IN
wildpansyfarm.com

Wildcraft Herb
Interlaken, NJ
wildcraftherb.com

WishGarden Herbs
Louisville, CO
wishgardenherbs.com

Wooden Spoon Herbs
Cloudland, GA
woodenspoonherbs.com

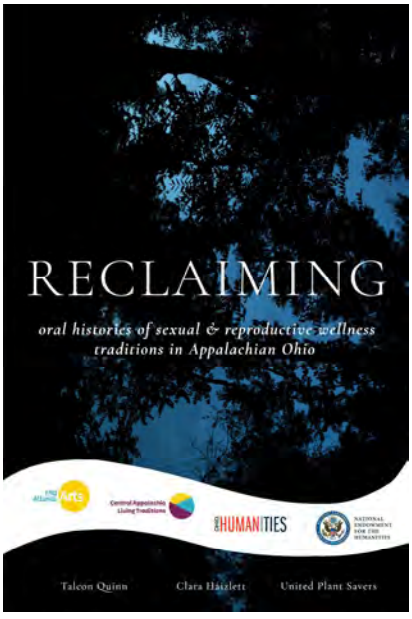
Woodswise Botanicals, LLC
Mills River, NC
woodswisebotanicals@gmail.com

Woven Roots Collective
Decatur, GA
wovenrootscollective.com

Z Botanicals Apothecary & Herbal Sanctuary
Hartland, VT
zbotanicals.net

Zack Woods Herb Farm
Hyde Park, VT
zackwoodsherbs.com

Zhi Herbals
Vancouver, BC
zhiherbals.com



RECLAIMING

Oral Histories of Sexual & Reproductive Wellness Traditions in Appalachian Ohio

"Reclaiming" is a 30-minute short film that documents the oral histories of sexual & reproductive wellness traditions through interviews with six Appalachian Ohioans spanning the mid-40's to early 90's.

Directed by Clara Haizlett and Talcon Quinn, with support from Susan Leopold & United Plant Savers.

AVAILABLE NOW ON YOUTUBE

SCAN ME

PARTNER PROGRAMS

Reciprocal Admissions Program 2024 member garden

SACRED SEEDS

PARTNERS IN EDUCATION (PIE)

United Plant Savers Partners in Education program is designed to enrich school programming and students' education through instilling awareness and ethics in regards to the conservation of our native medicinal plants. Schools and apprenticeship programs that have enrolled in the Partners in Education program have provided their students the opportunity to receive all of the benefits of membership at a discounted 'student-friendly' price. These schools and programs are also given educational resources and curricular support as well as provided the opportunity to promote classes and workshops on our website and social media channels. For more information about our Partners in Education program, please visit www.unitedplantsavers.org/pie-membership.

United Plant Savers holds a special place in our heart for our Partners in Education Schools and would like to ***thank our participating schools and programs:***

Alberta Herbalists Association
Calgary, AB
albertaherbalists.ca

Albuquerque Herbalism / Yerba Mansa Project
Albuquerque, NM
albuquerqueherbalism.com

American College of Healthcare Sciences
Portland, OR
achs.edu

ArborVitae School of Traditional Herbalism
New Paltz, NY
arborvitaeny.com

Artemesia Academy
Santa Barbara, CA
artemisiaacademy.com

Bastyr University Dept. of Botanical Medicine
Kenmore, WA
bastyr.edu/academics/herbal-sciences

BIOMETASYN
Albuquerque, NM
biometasyn.com

Blackbird's Daughter Botanicals
Barrington, NH
blackbirdsdaughter.com

Blue Ridge School of Herbal Medicine
Barnardsville, NC
blueridgeschool.org

Botanica
New River, AZ
swiha.edu/western-herbalism-programs

Brigid's Way
Washington Boro, PA
brigidsway.com

CA & J Farm
Foster, VA
cajfarm.com

California School of Herbal Studies
Forestville, CA
cshs.com

Canadian Herb Conference
Courtenay, BC
herbconference.com

Chestnut School of Herbal Medicine
Asheville, NC
chestnutherbs.com

Dandelion Herbal Center
Kneeland, CA
dandelionherb.com

David Winston's Center for Herbal Studies
Riegelsville, PA
herbalstudies.net

Dogwood School of Botanical Medicine
Powell River, BC
dogwoodbotanical.com

Dreamland Sanctuary, Inc
Worcester, VT
greenmountaindruidorder.org

Earth Island Herbs
Ojai, CA
earthislandherbs.com

Ecoversity LLC
Boulder, CO
ecoversity.org

Edith J. Carrier Arboretum at JMU
Harrisonburg, VA
jmu.edu/arboretum

EthnoMedicine Preservation Project
ethnomedicinepreservation.com

El Jardin del Paraiso
New York, NY
facebook.com/annieelJ

Farms for City Kids Foundation
Reading, VT
farmsforcitykids.org

Four Winds Natural Healing Ctr.
Omaha, NE
fourwindsnhc.com

Gathering Thyme
San Rafael, CA
gatheringthyme.org

Green Comfort School of Herbal Medicine
Castleton, VA
greencomfortherbschool.com

Heartstone Herbal School
Van Etten, NY
heart-stone.com

Herb Digger, LLC
Wawona, CA

Herbal Academy
Rochester, MN
theherbalacademy.com

HERBalachia
Unicoi, TN
herbalachia.com

Herbs & Sympathy, LLC
Hanover, PA
herbsandsympathy.com

HERBS on the Side
Saint Laurent, QC
herbsontheside.com

Herbs with Rosalee
Carlton, WA
herbswithrosalee.com

Integrated Earth Medicine
Loveland, CO
iem.earth

Integrative Studies and Arts
Lexinton, MS
integrativestudiesandarts.org

ITHMA
Groveland, CA
aromaphytotherapy.com

Luna Farm Herbal Gardens (Herbal Roots Zine)
Troy, IL
herbalrootszine.org

Matthew Wood Institute of Herbalism
Silver Lake, MN
matthewwoodinstituteofherbalism.com

Midwest School of Herbal Studies
New Brighton, MN
midwestherbalstudies.com

Midwest Women's Herbal
Edgerton, WI
midwestwomensherbal.com

Milk & Honey Herbs
East Longmeadow, MA
milkandhoneyherbs.com

Misty Meadows Herbal Center
Lee, NH
mistymeadows.org

Nativa Medica
DeForest, WI
NativaMedica.com

Ojai Herbal Symposium
Ojai, CA
ojaiherbal.org

Omnigreen: Holistic Options & Green Passion Journeys
Port Clinton, OH
omnigreen.com

Ontario Herbalists Association
Grassie, ON
ontarioherbalists.ca

Peeka Trenkle
Denville, NJ
peekatrenkle.com

Peoples Cauldron
Cottekill, NY
@thepeoplescauldron

Peterborough Community Medicine Garden
Peterborough, ON
@ptbocommunitymedicinegarden

Purple Moon Herbs & Studies
Hartly, DE
purplemoonherbstudies.com

RawFork, LLC
Brooklyn, NY
drmarinabuksov.com

Root Deep Living
Enka, NC
rootdeepliving.com

Rosemary Gladstar's The Science & Art of Herbalism
E. Barre, VT
scienceandartofherbalism.com

Sacred Earth Arts
Kansas City, KS
sacredeartharts.com

Sacred Plant Traditions
Charlottesville, VA
sacredplanttraditions.com

Sacred Wild, LLC
Topanga, CA
schoolofthesacredwild.com

Sage Country Herbs
Vista, CA
sagecountryherbs.com

San Francisco Botanical Garden
San Francisco, CA
sfbg.org

Sanctuary Garden at Newark HS
Newark, OH
newarkschools.us

Seeds of Wellness
Woodstock, GA
sowgratitude.com

Soda Farm
Marysville, OH
sodafarm.com

Spoonful Herbals, Inc.
Burlington, VT
spoonfulherbals.org

Stillpoint Aromatics
Sedona, AX
stillpointaromatics.com

Sweet Herb Medicinals
Brookdale, CA
sweetherbmedicinals.com

The Herbal Womb
Montville, ME
herbalwomb.com

The Living Centre: Eco-Spiritual Education Sanctuary
London, ON
thelivingcentre.com

The Modern Spiritualist
Methuen, MA
themodernspiritualist.com

The WANDER School
Burnsville, NC
thewanderschool.com

Thymely Manor Herbs
Auburn, CA

Wholly Rooted Regenerative Education & Permaculture Farm
Deerfield, WI
whollyrooted.com

Wild Ginger Community Herbal Center
Bryans Road, MD
wildgingerherbalcenter.com

Wild Island Center
Mount Desert, ME
wildislandcenter.com

Winnie Palmer Nature Reserve
Latrobe, PA
wpnr.org

Wintergreen Botanicals Herbal Clinic & Education Center
Allenstown, NH
wintergreenbotanicals.com

Woodland Harvest Mountain Farm
West Jefferson, NC
woodlandharvest.org



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* * *

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...in a way — nobody sees a flower — really — it is so small — we haven't time — and to see takes time like to have a friend takes time.

– Georgia O'Keeffe