Silver Run Forest Farm

A Case Study By The Livelihoods Knowledge Exchange Network

Jonathan McRay and Cornelius Deppe share a vision of restoring land and community together through agroforestry. Headquartered on a two acre plot of land outside of Harrisonburg, Silver Run Forest Farm is a nursery and emergent landscape distributed throughout groves, orchards, and streamside thickets. The riparian nursery, woodland collective, and folk school incubates Appalachian food plants, including chestnuts, acorns, paw-paws, persimmons, elderberries, chokeberries, and mushrooms, supplying these to customers locally, regionally, and throughout the United States. What began as community outreach around forest species continues as relationship building among all components – human and more-than-human – of a constantly emerging, place-based agroforestry system.

BACKGROUND AND TRAINING

Jonathan grew up in the mountains of Eastern Tennessee. Cornelius grew up in a Dutch community in Michigan. Their pathways to Keezletown have taken them through global projects to decolonize food production, in Mozambique and Palestine (Jonathan), and Bosnia-Herzegovina (Cornelius). They met while working with an educational outreach program for youth at Vine and Fig, an organization that Jonathan helped to found in Harrisonburg. “Starting in town,” Jonathan remembers, “the whole vision was stream restoration, for this really degraded, polluted stream in Harrisonburg that a lot of people have tending. We wanted to bring in food and medicine as part of stream restoration.” In 2019 they secured two acres in Keezletown to serve as headquarters and research center for a dispersed nursery anchored in the backyards of friends throughout the Shenandoah Valley. Interpreting a possible Native American meaning of the name “Shenandoah,” they named it Silver Run Forest Farm.

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Silver Run’s complex, multi-tiered agroforestry is supported by Central Appalachia’s mixed hardwood forest and topography. Dispersed in backyard nurseries throughout the Harrisonburg area, Silver Run’s agroforestry engages all layers of Central Appalachia’s deciduous forest, from bedrock to canopy. (Illustration by Carly Thaw for LiKEN)

In terms of training, Jonathan and Cornelius emphasize ongoing mentoring by the species and processes they engage in developing their forest farm. They frequently allude to trees and mycelia as partners, who not only teach them what they need to
learn, but model the relationships on which Silver Run Forest Farm continues to build, through intentional biomimicry. “That’s kind of how we have structured our forest farms,” Jonathan noted. “Imitating [trees] as much as we can, economically and socially: How do we make our own lives and our economic practice. . . imitate the life of the trees. How are we moving and circulating things? How are we giving things away?”

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CULTURAL VALUES AND MEANING

Inspired by farmer-to-farmer movements in the Global South, Jonathan and Cornelius bring indigenous theories and philosophies of land and resource stewardship to agroforestry. Their goal is to heal and nurture the communities of land and people they serve. Silver Run products include dozens of native plants. The project that began in the backyards of friends, is now concentrated on the two-acre site in Keezletown. Plants propagated from seeds and cuttings sourced from various locations in the Valley are shipped as bare-root plants all over the U.S. Silver Run also offers technical assistance to landowners through consultations and workshops. At Eastern Mennonite University, Jonathan teaches courses in restorative justice, sustainability, and peacebuilding. Cornelius works with Willow Run Farm in Harrisonburg, a non-profit vegetable farm affiliated with the Mennonite community. Deploying his own bicycle as a pre-eminent agroforestry tool, Cornelius threads together a network of sites comprising the innovative dispersed forest farm that is Silver Run.

Headquartered within the urban pale, Jonathan and Cornelius intentionally subvert models embraced by mainstream agriculture. Their multicultural markets develop laterally (“rhizomously” as they put it), connecting sources and markets through social networks, while building on cultural foundations of barter and borrowing that characterize partially monetized rural Appalachian economies. Intentionally diminishing the outsized role played by money in food production and ecological stewardship, Jonathan and Cornelius elevate notions of the gift economy and the commons.

In their approach to regenerative and restorative agriculture, spirit and matter are mutually animated, as suggested in the African saying “crops won’t grow unless we dance.” Connecting the need for ecological restoration with the need for restorative justice and reparations, Jonathan and Cornelius look for ways to serve immigrants, including climate refugees, in the Harrisonburg area. Partnering with the Northeast Farmers of Color Network to distribute thousands of trees has also helped to model and expand applications for forest farming toward the goals of social and ecological justice, and restoring indigenous relationships to forests.

ECOLOGICAL DYNAMICS OF THE SITE(S)

Thinking of ecology in its larger sense as a system reveals pathways for connecting nature with human activity. In many of Central Appalachia’s socio-ecological settings, small holdings don’t encompass the full complement of habitats and microclimates that can support agroforestry year round in the region. A traditional workaround has been to fold multiple properties into annual rounds of communal production through participation in an economy of barter and borrow. Someone may trade maple syrup for butchering services, for example, or allow hunting on their land in exchange for a share of the meat. In their iteration of this system, Jonathan and Cornelius enlist friends and neighbors to grow products in a
variety of settings. A social dimension is therefore always present, hinging agriculture into the region’s socio-ecological system.

While serving clients at a distance, Jonathan and Cornelius rely on locally sourced supplies – from seeds to soil care and packaging materials. Building the soil, they mix sawdust from a local mill into their compost, already enriched by local manure from antibiotic and GMO free livestock grazing on pesticide and herbicide free fodder. Leaves falling from their growing trees are left to decompose and shelter germinating seeds. Dumpster diving at Walmart yields the plastic bags needed to ship bare-root paw paws and other shrubs all over the country. Grain bags from a local brewery protect the larger stock. The bread and butter portion of their business, nursery production of plants for bare-root shipment, is enhanced through the use of air pruning. Air pruning of roots by a hardware cloth screen holding soil that is incubating paw paw seedlings prevents constriction of roots, encouraging a system of shorter, healthier branching roots. This facilitates shipment, ensuring successful planting.

They are attentive to cross-species communications that establish schedules governed as much by natural rhythms as by market fluctuations. “We’re not in a hurry. We’re planting trees,” says a hand-painted sign near the entrance of Jonathan’s home.

**SILVER RUN’S SEASONAL ROUND OF ACTIVITIES**

![Life cycles of forest species can be synchronized with household schedules to create a seasonal round of livelihood activities, integrating other forms of employment with the tasks needed to tend, harvest, produce, and market non-timber forest products. (Illustration by Our Numinous Mind for LiKEN)](image)

“Soft fruit season” in mid to late summer yields chokeberries. “That’s such a medicinal fruit,” said Cornelius, “one that we celebrate getting into ciders given to other people, you know, just the highest level of antioxidants of any berry.” They blend aronia into their apple cider later in the fall. In September they begin harvesting hazelnuts and paw paws, followed by acorns, chestnuts, along with early apples and pears, and then the hickory nuts, which Jonathan brews into hickory milk. The harvest of forest fruits is integrated with harvesting traditional crops: squash, corn, and sweet potatoes.

For much of November they turn their attention to the nursery, filling orders that have come in online – lifting, packing, and shipping plants that have reached dormancy, bare-rooted. They will repeat this process in the spring as well. Winter offers the needed down time for reflecting, envisioning, researching, and various building projects, such as air pruning beds and terraces. Commencing charcoal production around the time of the winter solstice is an opportunity for celebrating, as Cornelius put it: “The celebration of all the limbs and things we’ve dropped and cleared and spaces to actually convert it into the long term persistent organic matter that we inoculate.”

As early as January they may start tapping tree saps. “This year we were tapping walnut trees along the creek,” said Jonathan. “Sycamores came on later. And then over that time, we’re also doing propagating to the nursery so in the dormant seasons where we can do a bunch of cuttings so we might like do a whole bunch of currant cuttings and stick them in nursery beds to grow out for the next year, willows or elderberries and stuff like that. So some of the seeds, the hazelnuts, chestnuts, acorns, like we’re processing those for free, but also propagating to the nursery so it’s, it’s all stretched out over the year – like aronia or apples we’ll press and then we’ll take that mash and rake it into a nursery bed and cover it with soil and that’ll grow the crop for next year’s nursery.”

**LAND TENURE AND HISTORY OF/ON THE SITE**

With the purchase of two acres of land, Jonathan and Cornelius have been able to plan for the future of Silver Run Forest Farm, something they weren’t able to do with government-managed land, and with many of the rental properties at the temporary disposal of nursery participants. While their planning continues to be vulnerable to gentrifying pressures from east coast metropolitan areas, they are optimistic that newcomers may be persuaded to participate in the Silver Run CSA – “Community Solidarity Agroforestry” – which distributes thousands of gift trees to farms,
nurseries, and community groups committed to regeneration and reparations.

The circular rhythms of seasons and multi-species life cycles offer recurring occasions for rites of celebration and opportunities to common with neighbors and collaborators. Such opportunities include co-owning livestock and equipment with neighbors, for example, or seeking and granting permission to forage on private property for nursery stock and materials for subsistence, with the ultimate aim of establishing land trusts. Plants on the landscape have initiated many of the foundational relationships.

“We knew spots in town where there were big Kieffer pears, or elderberry hedges or whatever,” said Jonathan. “We’d just go knock on people’s doors . . . and then people just got to know us, we were doing more consulting, so we’d go to people’s homes, and they’d say, Oh, if you ever need to harvest this thing, we’ve got this growing over here, let us know and then just like Cornelius is biking everywhere in town. So he just finds all these places that are amazing. And we get all these cuttings and seeds and stuff. And then in the larger valley, driving around along rivers and harvesting things when we’re out on a drive, going somewhere, we just notice, ‘There’s the whole row of chestnuts at the farm, let’s go knock on their door.’”

As both a marketing and educational tool, Silver Run’s website deepens the horticultural histories of indigenous species anchored in their nurseries, retrieving indigenous narratives of food and forest production, and incorporating historical and contemporary contributions of farmers of color into the emerging story of agroforestry. Thus from the remnants of indigenous landscapes and settler farms, Jonathan and Cornelius are regenerating agroforestry in the Shenandoah Valley.

As caretakers, Jonathan and Cornelius think more in terms of collaboration than of management. Silver Run’s website features a large number of plants available from the nurseries, the demand for which still outpaces the supply. In the narrow sense, products are bare-root plants. In the broadest sense, the project is building food sovereignty by reconnecting to the land. Jonathan and Cornelius attend to every aspect of production: acquisition of seeds and starts, building and caring for the soil, habitat enhancement, and serving existing markets while identifying new ones. Their website is a primary tool for much of this, as well as for cultivating local and regional networks.

The income-generating nursery is a small outcropping of an ongoing project of constant learning and development. Jonathan and Cornelius continually experiment with value-added products for use in their own households. These products may be developed for their own markets or those of others. This means that Jonathan and Cornelius are always thinking about new possibilities. On their radar: silvopasture with hogs in partnership with a neighbor, developing technologies for cultivating, harvesting, and processing the large diversity of nuts in Central Appalachia’s mixed hardwood forests, including chestnuts. They mill acorns while cultivating and shipping lesser known native varieties such as chinquapins and hazelnuts. While waiting for chestnuts

A bottle of pear cider, fermented using yeast captured from aronia berries, served with amaranth crackers and acorn cake. (Photo by Mary Hufford)
VALUES OF THE ACTIVITIES:
LABOR AND LIVELIHOOD

Silver Run’s business model embraces a distribution of labor among human and more-than-human workers. Jonathan and Cornelius speak of “partnering” with trees and mycelia to distribute food and medicine throughout the land community. The partnerships enhance community well-being, through, for example, “getting lion’s mane [mushrooms shown to ameliorate symptoms of Alzheimer’s] into the intestines of our elders.” Working outside and interacting with nature is a high priority for both men, modeling a livelihood dependent on a forest system that young apprentices can learn to steward from an early age. The timeframe for producing a mature agroforest may thus exceed that of a single life, encompassing multiple human generations, to which forest species both very old and newly emerging, can serve as touchstones. Attention to such cycles, cued in multigenerational communications, guides Silver Run’s integration of disjunct suburban neighborhoods into that larger framework.

Their livelihoods as agroforesters are supported by their household provisioning practices, which feed directly into Silver Run’s product development. “If we think about the relationship between the economy and ecology,” said Jonathan, “Ecology just means the study of the household in Greek and economy is... the tending of that household. There’s a whole different word in Greek for the financial system that we now call the economy. [Agroforestry] is the tending of our household, which is this place this watershed, our relationships, our past.”

Jonathan and Cornelius are continually testing and enhancing possibilities for forest products and sharing information about these. The nursery and the sale and shipment of bare root plants in fall and spring is the tip of the iceberg in terms of what they are developing. For their own households, with an eye toward market potential, they gather, grow, process and consume a wide range of mixed mesophytic

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–Jonathan McRay

Because their focus is community subsistence and care, forest farming becomes a means of meeting the needs of Harrisonburg’s diverse ethnic and native communities for foods like cornelian cherry and aronia. Originating in western Turkey and the Balkans, cornelian cherry (Cornus mas) is popular with immigrants from Russian speaking and Persian countries.

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Similarly, Aronia, black chokeberry, is in demand among members of the Citizen Potawatomi Nation, whose ancestors initially developed the strain that is now gaining recognition as a superfood. “We’re so excited to meet them,” said Jonathan. “Like when they come to pick up the plants and talk with them, and we have more Aronia, just plant as much as you want. This is your plant.” It feels like that’s why we do a lot of what we do... to hear those kinds of stories and partner in that way that we wouldn’t have known otherwise, it’s so amazing.”
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Forest products, including hazelnuts, hickory nuts, acorns, chestnuts, currants, crab apples, spicebush, and comfrey. They grow shiitake and oyster mushrooms on logs, and make syrup from sycamore and walnut saps, fermenting walnut sap with yeast from aronia (out of which they also make wine). Resources for beverages are seemingly unlimited, including meads from pear, walnut, and aronia, coffee flavored with powdered spicebush berries (aka Appalachian allspice) or roasted pods from Kentucky coffee trees. Retrieving indigenous technologies, they are making bread from acorns and chestnuts milled into flour and flavored with spicebush and persimmon. “Chocolate persimmon muffins are the bomb!” said Jonathan, who is considering working with a friend’s bakery to get those into the public eye and palate. For separating seeds from paw paw and persimmon pulp, Jonathan and Cornelius recommend tomato strainers and ricers.

The fractionated economic system practiced throughout Central Appalachia supports the development of forest farming. Like many in the region who are beginning forest farming, Jonathan and Cornelius draw minimal paychecks from their business, supplemented by subsistence practices and part-time employment opportunities from Eastern Mennonite University and Willow Run Farm. Such a fractionated economy offers struts throughout the region for developing worker owned cooperatives.

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VALUES OUTSIDE THE LANDSCAPE: CIRCULAR ECONOMICS AND THE DECOLONIZATION OF AGRICULTURE

Silver Run’s place-based, community-based approach to agroforestry recognizes, honors, and renews relationships, some of them ancient, some emerging, among neighboring human and plant communities and the land. In this holistic, integrated approach to agriculture, ecology and economy are inseparable. Committed to a circular economy grounded in zero financial inputs and zero waste, they rely on experimentation to arrive at methods of processing. The values added begin with the investment of social capital – generated and brokered through interactions with human neighbors and with more-than-human partners. Returns on these investments are both monitored and celebrated.

The circular economy and ecology that Silver Run engages captures clean waste materials essential for sprouting new life. This starts, as Cornelius put it, by “opening your arms to the waste stream... and claiming it as a gift: there’s no such thing as waste. And once you can start to speed along nature’s effects of building rich soil, then you’re combining those plant allies that are already really good at what they do.”

From a friend with a construction company, they acquire sawdust which they moisten for use as a medium for shipping bare-root plants. What’s leftover they put into compost, where it is, as Cornelius put it, “easily myceliated by the hyphal threads of mycelia and every piece of that is something we’ve salvaged
or recycled or composted or kind of moved into a different life form.”

“We have access,” said Jonathan, “to what so many others consider a waste material, you know, loads of wood chips or loads of horse manure, from a farm nearby that isn’t sprayed and they don’t have antibiotics. And so we can check in on that and, and being able to accumulate some of that in a small area, you can fast track, the fertility accumulation, [which] takes quite a while in an actual forest.”

Twine for their shipments comes from hay bales salvaged from the farms of friends. Large grain bags originally stuffed with barley for a brewery near their first nurseries are perfect for shipping large orders. “We pull those out of the trash stream from the brewery there,” said Jonathan. “There are constantly hundreds and hundreds of bags. But then for smaller bags, we’re trying to save every little container we can from our own households or friends. Even old coffee bags -- we’ll bundle up with Jerusalem artichokes.”

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–Cornelius Deppe

What about labels?

“We get window shades -- blinds -- that we hole punch,” said Jonathan. “And then we write all the names of the plants on there and tie it on with a string, around each different variety.”

The waste stream Silver Run embraces includes leaves dropped by trees, which break down more quickly as they are moved from forest floor into raised beds, where they obligingly form new relationships. “We have this beautiful forest around us,” said Cornelius. “And so we are harvesting some of those waste leaves from the forest full of indigenous microorganisms and, and we spread those into our compost in layers and invite that whole biological team of allies from the forest down into our new beds that we’re making.”

“Part of our commitment each day,” said Jonathan, “is trying to look at how we can be free from more violence or waste. And when we can pull things out of our trash culture and our trash economy...and reuse them or recirculate them for a few more lifespans of use, it’s a joy.”

SOCIAL AND ECOLOGICAL RESTORATION

For Jonathan and Cornelius, restoration agriculture intentionally flags and remediates centuries of destruction to indigenous land communities. Their website offers histories of plants that acknowledge the contributions of communities of color to ancient horticultures of the commons. “How far back are we telling the stories?” asked Jonathan. The more well-known history of the pawpaw, often tied to settler agriculture, ignores thousands of years of cultivation by indigenous communities, along with distinctly African contributions to horticulture and food preservation. “Enslaved people,” Jonathan pointed out, “were cultivating pawpaw and persimmon and honey locust around dwellings for people who were trying to subsist outside of the enslaved economy.”

Through soil restoration practices Silver Run revitalizes relationships that were ruptured by the introduction of European technologies and crops. “We’re honoring what the forests are doing around us,” said Cornelius. “And harvesting the leaf litter and bringing the indigenous microorganisms that will create those bonds and using that in our mulching and compost. We’re trying to bring the forest down to our beds here.”

Borrowing from and modifying industrial agricultural technologies, Jonathan and Cornelius are boosting native tree nuts as well. “We need a broad-scale conversion,” said Jonathan, citing the work of Acomucopia (a regional coalition of native tree nut growers and producers based in Asheville, North Carolina) to convert industrial corn equipment, like lime spreaders, to the task of hulling walnuts, while adapting the meters used to measure moisture in corn to the task of measuring moisture in acorns.
ACCOMMODATING THE GIFT ECONOMY:

Jonathan and Cornelius intentionally produce more plants than they can sell. On their website is an option to contribute money toward the distribution of plants to frontline communities, where need is great and money is scarce. “We have online sales for bare root trees and plants that we’re delivering,” said Cornelius. “And then we produce way more trees than we’re able to move through those sale channels. So we are redistributing a lot of them too. And that’s been one of the biggest gifts of connecting with other humans around plants, particularly these organizations and frontline communities that are...trying to do restoration work...culturally centered around indigenous sovereignty,...And we’ve been able to connect with some of those communities through the Northeast Farmers of Color Network.”

FUTURE PLANS

Through engagement with small dispersed parcels, Silver Run Forest Farm is intentionally patching together a larger forest-farmed landscape from within, while cultivating a future for that landscape. That future is continually emerging in the present as opportunities for development. Those opportunities include - but are not limited to - scaling up nut milling, transitioning industrial agricultural technologies to agroforestry-friendly technologies, working with agroforestry technologies that were sidelined by big timber, keeping underground systems intact while harvesting products above the ground through coppicing and pollarding, perennially growing their own firewood and building material. “We’re talking about letting some of the trees come up in a bigger fashion,” said Jonathan, “to see large hedges of chestnuts potentially making forest gardens.” Silvopasture, for that matter, needn’t be limited to domestic livestock. As Jonathan said, “We could also be planting fodder for the animals that are already there: mulberry, poplar, willow, black locust and stuff like that.” Taking the longer view, and building on what they’ve begun, Jonathan and Cornelius are moving toward establishing land trusts, crafting bigger alliances for scaled-up plant propagation, and cultivating bioregional seedbanks and cultural arboretaums that mix annual and perennial selection.

And, as they plan for the future, they draw inspiration from their primary mentors, the trees that model the connection between soil care and soul care. “There’s so many things in a tree,” reflected Jonathan, “that helps with this language, you know, just like a seed sprouting for future generations, but drawing on deep instilled wisdom and...what we’re feeding is whatever is the heart of that tree. That’s what we’re feeding and that’s our soul. That’s our community. That’s ourselves. We’re actually trying to feed the holy, you could call it.”

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