Shakertown demonstrating resilience since 1805

Harrodsburg, Kentucky

Shakertown Village Garden Farm

Shakertown is a historical site in central Kentucky located 25 miles southwest of Lexington in what's called the bluegrass region. Known for its grasses that, at certain times of year and in certain conditions, turn a kind of blue, the "blue" grass was used as a selling point to encourage settlement in the 1700's. Those same grasses have since attracted numerous horse farms and ranches, their animals thriving on the rich turf that the region is so known for.

We first drive through Lexington, passing busy intersections and high commerce areas swollen with a growing population. As the region becomes more popular, the large farms like Shakertown that had spanned 5000 acres, are being purchased for housing communities. The easy rolling hills are prime land for farming, or building tracts of housing. Thankfully we soon emerge among rolling, peaceful hills with gentle slopes. The homes we see along the way are far apart often featuring large barns behind the house and apple trees in the front.

As we approach Shakertown we begin seeing fences built of stone along the road side. Some are in better condition than others, but once we reach the edges of Shakertown the 100 or more-year-old fences are immaculate, containing sheep, oxen and horses of varying sizes. Driving through the gates we can see numerous clap-board buildings, stone walking paths and what seem to be ancient trees near a small farm plot by the main building. Walking from the vehicle we pass below numerous mulberry trees and magnolias, the trees sprawling out with ample space and light. We walk up wide brick steps into the main entrance which features a spiraling, dual stairwell and a beautiful dining are beyond. We turn to the right, entering the office where we check in to begin our stay at Shakertown.

We've come to central Kentucky to talk with head farmer Dylan Kennedy about the modern farm at Shakertown and how it compares to that of the past. Before we meet with Dylan, we take some time to explore Shakertown's history and buildings. As we learn about the early shakers, we discover their methods led them to become some of the most prosperous and technologically advanced people of 18th and 19th century America. Indeed, during their heyday their produce, baskets, seeds and other marketable goods were known to be of tremendous quality, often selling for significantly more than their counterparts. Through their clean architecture featuring smooth, rounded edges and astonishing symmetry we can imagine their lives to have functioned in the same way, smooth and well rounded. There were only spiritual sisters and brothers that slept, dined and worked separately as they each pursued a life that was as close to heaven on earth as any Shaker could manage on a given day. Once a thriving economy in Shakertown featuring blacksmiths, doctors, cobblers, basket makers and other tradespeople, the Shakers brought a great amount of value to central Kentucky.

Perhaps it was the blue grass, or the lack of established settlements that called the Shakers here. What we do know is that they arrived around the time that Central Kentucky was hosting numerous revivals, bringing together people from the remote regions in all parts of Kentucky. Known as the Shakers for their ecstatic religious ceremonies, their official name was the United Society of Believers in Christ's Second Appearing. Compelled by a kind of religious fervor, the Shakers dedication to quality was only

matched by their dedication to god and their religious belief that the end of days was imminent. A celibate religion, they relied heavily on the adoption of orphans to keep the religion alive until 1960 when laws were passed making it illegal for religious organizations to adopt children. Today there is only one remaining Shakertown near New Gloucester, Maine.

The early accomplishments of the Shakers remain a testament to the ability of a peoples in early rural America to work together for a common good, generating fantastic technological advancements that far surpassed many settlements of the time. Those developments included a water tower with a horse powered pump that brought water from the river, the earliest municipal water supply to be built in Central Kentucky. They were also known for purchasing the newest equipment for mass production like farming implements, mills, presses and even stills until prohibition.

Though the golden days of the Shakers have long since past, we can look at their achievements and appreciate the immense capability of the people. The movement offers us a unique perspective on faith as well as cultural development, technological advancement and community organizing. The religion originated in Europe that spread to the Americas to avoid persecution was propelled by the revivals of the time. Today, Shakertown's agricultural sector is experiencing its own type of revival as head farmer Dylan Kennedy and his counterparts work to cultivate the land as well as the culture of farming at Shakertown in central Kentucky.

Dylan is a young man with a broad range of experiences in agriculture that starts with an unsatisfying degree in conservation. After leaving school, he quickly discovered that his work in conservation wasn't creating the kind of change he wanted to see in the world, so he began pursuing internships at various farms around the country. His internships brought him to vegetable farms of varying sizes that all had a similar task for Dylan to help create an education program. They all wanted to bring more children out to learn about farming and where food comes from.

At Shakertown, things are different. Primarily, he is no longer an intern, he is the director of the farm with primary say in what's grown and how. Second he doesn't need to create an educational program, Shakertown has been working with local schools for decades to bring busloads of children to tour the grounds and learn about the Shakers. Students of all ages regularly come to see the farm, sometimes in groups of up to 150 students. They learn from Dylan and volunteer for work days, helping mulch rows of vegetables or combating the invasive thistles in the fields with hoes and shovels. It hasn't always been this way though; it has only been in the last 5-10 years that Shakertown has developed a vested interest in farming.

The development of the farm we see during our interview was an idea that began with Jill Moleski, director of visitor engagement. Her primary responsibility is to tell the story of Shakertown and get people through the gates the hear it. She does this by creating exhibits and attractions like the farm that will interest people. Jill was responsible for hiring Dylan and works closely with him to improve and expand the farm. According to Dylan, "It's a great administration that takes 99% of my advice on how to get there." He feels part of the success is because they aren't trying to "hold onto anything", rather they're willing to make the necessary changes to engage more visitors. Dylan is sensitive to what visitors want to learn about like homestead farming and small scale agriculture. It's his job to make sure that the farm reflects those interests.

The farmer before Dylan received his education from Kentucky University's Agricultural program, known for developing curriculum around high value, large scale, organic and conventional farming with an emphasis on large equipment use. His education caused him to develop a farm that was neither historic, reflecting the practices of the shakers, nor was it relevant to the current agricultural movement in Kentucky. The previous farmer also focused entirely on producing food for the restaurant rather than educating visitors about his practices, or the history of Shakertown. Though the practices he used were appropriate for large scale market production, that isn't an option for many Kentucky farmers whom are confined to small tracts of flat land, irregularly dispersed throughout the hills. Though interesting to some visitors, many of today's farmers are interested in small scale micro-farming or homesteading. Dylan is working to develop a farm that's relevant to the needs of small scale farmers in Kentucky. His approach is dynamic, using an array of practices that embrace the tools of the past as well as those from our present day. To do this, he works with the philosophy of the shakers saying that, "they weren't stuck in the past and neither are we".

Indeed, Dylan feels that the Shakers were the first extension agency in Kentucky, bringing in high quality livestock, seeds, and equipment to the region. Dylan aims to revive that community outreach into his own version of the farm by helping people learn about new practices that he's trying as well as tried and true methods that he relies on. He hopes that people will come and see something they want to try, like sowing buckwheat to avoid weeding for the first 3 weeks while also conditioning the soil and providing forage for the bees. He wants people to learn from his mistakes and successes to use on their own land, at their own farms no matter how small. Sometimes, if visitors are really interested in the farm, Dylan will give them seeds harvested from varieties that worked well. Though Dylan doesn't sell seeds like the Shakers of the past, he's doing his best to share the seed stock that he's discovered.

Every season Dylan is choosing plants to see what works best with the climate, rather than forcing something to grow by using excessive chemicals or soil amendments. So, if they try a squash that doesn't work for some reason they'll return to what has worked in the past. Unless of course they find something that might grow better. As Dylan puts it, "The earth hasn't been the same in 6 billion years, if we aren't able to learn a few things every year, we won't last long."

It's the same for the cattle and livestock operation that Dylan is developing with Shakertown. It will be spread over 900 acres of thriving prairie, it's so successful it's become the state model for prairie restoration. In conversations about what type of beef or pork to raise there, Dylan keeps the conversation revolving around what they can raise rather than what they want to raise. His approach is to find animals and plants that thrive in the ecosystems that already exist.

To Dylan, finding those animals and plants that thrive is the foundation of building regional food culture in Kentucky, or anywhere else. For instance, he reminds us that unique regional products like champagne or the prosciutto ham were developed over time as people realized and worked with the natural resources they had to eventually develop what we know in the present day. No one from the past could necessarily choose most of what they grew in a region, rather working with the land and climate available to them, slowly selecting and developing something special. Dylan wants the Shakertown farm to show people both how to grow food as well as why to grow food. He'll do this by developing regional tastes rather than replicating popular ideas from other places to "get beyond agriculture into culture."

Fortunately, the environment around Shakertown where they grow vegetables and raise livestock is a rich one. Though only three years in, Dylan is setting up his farm system to be as resilient as possible, following a broader philosophy of mimicking nature through diversity and working in cycles.

The one-acre plot is small but intensive, containing six individual plots that Dylan rotates cyclically with the help of two full time and one seasonal employee, plus one volunteer. They don't normally accept volunteers because people often want to help for only a weekend, or afternoon. This particular volunteer is different though, a retired doctor whom spent his life working around the globe asked to come help Dylan regularly, every Wednesday. Over time he has learned everything he needs to know to be a productive member of the team. This training is important given the diversity of tasks and methods that Dylan uses around the farm. Most weekend volunteers simply take too much time to train.

This dynamic system revolves around a philosophy of little to no tilling, aiming to keep the soil structure intact. When they must till, they use a shallow method and only once, maybe twice a year on any given plot. Though Dylan proclaims he is no soil scientist he is aware of figures like the PH of his soil and does conduct soil tests. Mostly, he wants the microbes and beneficial fungal communities to thrive in his soil to maintain and build organic matter. Their most recent no-till approach has been to use a massive black tarp to cover a whole plot in the rotation for twelve days, allowing the heat and lack of sunlight to kill off the weeds and plants from the last rotation. When we arrive to the garden to talk with Dylan, they've just removed the tarp for the first time with desirable results. Scattered on the ground are plants that are quickly dissolving into the soil as insects, heat and moisture have all done their part to break down the stalks and leaves of the previous crop. The team is already planting young starts of basil and other herbs into the soil among the degraded plants. In the adjacent walkways they've begun to distribute straw as mulch to keep the new weeds down.

When they aren't using straw, they'll plant a cover crop in the walkways like buckwheat or rye. Over time as the grass grows they'll use their only "large" farming implement, a walk behind tractor, to manage it. A tool inherited from the farmer before him, they use only three attachments, the flail mower to manage their cover crops, a tiller, and a rotary plow. They use the rotary plow in winter to lower isles down and incorporate mulch back into the designated beds. Most days the walk behind tractor sits in the barn while Dylan and his team use hand tools to weed and manage the plots.

The straw they use for mulch is one of their only off farm inputs used to fertilize, otherwise they do purchase some volcanic mineral additive. They rely heavily on composting their kitchen waste, leaves and branches from around the property, and waste from the numerous large animals like oxen and horses. They want to eliminate waste by using it on the farm, composting it together and using chickens and some ducks to turn their deep litter system. More chickens are used during the crop rotation as one whole plot is dedicated to small pigs and chickens that turn and fertilize the soil for a full year. This allows the plot to become rich with nitrogen from the chickens while the pigs turn the soil, aerating it and rooting out weeds. Their current compost supply isn't really sufficient though and during our interview it becomes clear that the Shakertown administration is working to help manage the problem.

As we talked with Dylan, we're interrupted by others from Shakertown coming to ask about his ideal compost site, asking how large it needs to be and where he wants it? Apparently this has been a topic of discussion for a while as the people asking Dylan for details are on their way to a meeting to generate finances for the project. "At least an acre," he says, explaining they need space to receive different kinds of compost material or rock and "to be messy." One such messy project is a future workshop on making

biochar where they would pyrolysis wood in a large pit, not the most attractive sight for most Shakertown visitors. Mostly, he wants to create compost more intentionally and to have a space that can serve multiple purposes beyond a big compost pile.

He wants every action to have multiple effects, saying that he doesn't ever want to send people out to do work that will only effect one thing. This ideology is reflected also in his pest management, which is similarly dynamic and varied like the rest of his farm. To manage pests, they like to switch it up with things like kaolin clay and diatomaceous earth, both silica compounds that are lethal to bugs with exoskeletons. Sometimes they'll use extracts of cayenne, garlic and soap to make teas and decoctions to spray on their plants. They use these somewhat randomly to, "keep them [the pests] guessing." Occasionally they'll use an organic BT type spray. Dylan stresses the rarity of their use saying, "we may buy two little bags of BT and we might use one in a year."

They use these pest control approaches in the orchard as well. Their orchard is something unique that even many experts have never seen before. They're unusual because unlike most modern dwarf trees, they're all full size and unique heirlooms that you won't find anywhere else. They use a little bit of kaolin clay and a product called Cyd-X (an coddling moth virus) to keep the worms out of the apples. Dylan is considering using copper sulfate this year to manage the fire blight that covers the leaves. It's important to Dylan that, like the rest of the farm, the trees remain spot treated rather than putting them on a schedule to spray. Over the years they've been managed organically and conventionally as 12 or more people have cared for them over the last 20 years. He's not so idealistic that he's willing to lose trees for the sake of keeping them purely organic.

In some cases, their pest problems are insurmountable, like that of the squash bug. Instead of continuous spraying, they've been switching to tromboncino, a popular Italian summer squash that has a solid stem, unlike the hollow stems of most squash that harbor the bug. They've also switched their cucurbits to varieties with a solid stem rather than hollow. They use these varieties because of their natural resistance to squash bugs, always aiming to work with nature rather than controlling it.

In fact, in Dylan's opinion, "you can throw out the word control in pest management." He is instead relying on a diverse approach to pest management having given up the search for a silver bullet. To Dylan, you've got to build in layers of defense with barriers like herbs, marigolds and sacrificial plots while maintaining a watchful eye to distribute appropriate applications of decoctions, diatomaceous earth and even the organic BT if the situation calls for it. One thing he won't use is fungicide, relying instead on developing soil microbes capable of managing fungal outbreaks. As Dylan says, "Biology takes care of a lot of it if you aren't messing the structure up all the time."

To help condition the soil to maintain healthy microbial colonies, he uses a lot of companion planting. From root crops to break up the soil to brassicas that manage fungal communities, they're selecting their seeds specifically for soil health as well as standard requirements like flavor, disease resistance and regional adaptation. To do this he purchases seeds from people like Bill Best, a local expert on green beans, and Jeff Poppen a well-known biodynamic famer who has supplied them sweet potato slips that he's cultivated for 35 years. Always striving to find quality heirlooms like those of Best and Poppen, Dylan admits it's a challenge. One of his goals is to bring awareness to the community that we've lost nearly 95% of our seed diversity, encouraging visitors to look for abnormal plants and to grow them out the next year. He feels that Eastern Kentucky is particularly lucky because the land is conducive to maintaining diversity in its food system. Though the small valleys found in eastern Kentucky have quality

soils and sufficient rainfall for most vegetables, most areas aren't capable of producing mass quantities of industrially desirable crops. To break even with industrial crops, farmers need a minimum acreage of open land that simply doesn't exist in Eastern Kentucky.

This stands in contrast to central or western Kentucky whose flatland has been more standardized to grow industrial products like corn or soybeans and often GMO's instead of heirloom varieties. Though Dylan thinks that GMO's could be used for good in the future and he's open to talk about them with visitors, he feels that right now they're destructive overall, stressing the importance of open pollination and diversity.

Dylan reminds us of Mark Twain's remark that, "at the end of the world, I want to be in Kentucky", suggesting that everything happens 20 or more year later in Kentucky. Dylan suggests it might be for the best though, postulating that Kentucky gets to watch others test ideas or products to see what works and what doesn't. Despite that, the transition of Kentucky's farmland isn't far behind the rest of the country in adopting modern industrial farming. The encroachment of GMO soybean and corn is slowed only by the widespread horse farms and growing metropolitan areas, all equally hungry for open flat land. What has been slower is the development of new technology and market opportunities for small scale farmers. Things like high tunnels for season extension, testing of high value crops, or the re-development of regional food systems are only trickling out. Dylan feels like there are lots of opportunity in the mountains, but they must be created by people finding niche businesses by testing out new things or introducing regional flavors of the past.

One thing that has worked for Kentucky and continues to work for Shakertown is Sorghum Sudan, a high energy crop that remains easy to grow, even in poor soil. At Shakertown they've begun in the last few years to cultivate their sorghum fields using the horses and Oxen in their continued attempts to incorporate animals into the rotation. This year they plan to harvest the sorghum crop with animals too. They've even found an intern that is the current Kentucky state champion for growing sorghum. With her help they plan to expand their production. A man named Danny Townsend has been providing their sorghum seeds and is the largest producer in the area. Recently, he is running short of supply because people are enjoying sorghum so much more. From hotels wanting something unique for their guests, to individuals changing their diets by incorporating more regional or traditional foods. To Dylan, both Sorghum and Hemp are huge opportunities for the future.

Dylan is mindful of the future, planning so that the farm is so successful and so energized that even when he leaves, the farm will continue. Right now the farm spans only 20 acres, 15 of which are dedicated to grazing but he's planning two big projects for the 900 acres of prairie beyond. The first is to incorporate mob grazing into the prairie using cattle, goats or other grazing animals. The mob grazing would mimic the fires that are integral to future management of the prairie. The second project, integral to the first, is to reform Shakertown into a farm incubator. Though other farms offer internships, Dylan wants to become a farm incubator to build lasting businesses that are economically viable. He sees Shakertown as a great opportunity because they already have space, assets, and attention for their products. Moreover, it seems to Dylan to be that most socially responsible thing to do as farm businesses take the longest to mature. He doesn't see any other way to ensure longevity, reminding us that the farm is dependent on having a good team to support it.

The work done at Shakertown is obviously built on team work, each aspect tended by experts in their fields. For instance, Shakertown has bees, but Dylan is not their bee keeper. They have horses and oxen,

but Dylan isn't their trainer or keeper. Though he and his workers may help lead the large animals from pen to field, or help process the honey from the hives, the crew get to focus on their work, perfecting their own craft. Even when it comes to financing expansions to the farm or outreach to the community, the farm has support from other members of the Shakertown team.

The Shakertown community is planning to continue expanding their work. Though it may never grow again to the 5000 acres, with 100's of acres of vineyards, orchards and field crops that the Shakers of the past operated, they'll do their best. It will be helped by the workshops that Dylan plans this fall and winter to take cuttings from, and expand their orchard again, apple trees growing for another generation.

Right now Dylan is focused on finding those regional groups that understand his mission to preserve the culture of farming through truly sustainable practices. A few that he cited were the Community Farm Alliance, the Lexington Extension agency, Kentucky State, and Marksbury farms market. These are all organizations that work with small scale producers, like he is.

Having moved back to Kentucky to live at Shakertown and become the farmer, it will take time for him to develop all the local connections he needs. The Cattlemen's Association is one group that Dylan has his eyes on, and still more will help Shakertown become the cultural hub that he imagines. Though their local horticulture Extension Agent may not know about organics today, Dylan's willing to work with them. Just like the Shakers of the past, they're admittedly, "still the weird people on the hill that fascinate the neighbors" by remaining more progressive, pursuing organics and greater crop diversity, Through Dylan, Shakertown will continue to offer Kentucky a perspective that is unique agriculturally and culturally.