

A Recipe for Cooling the Climate

BLACK FARMING: BEYOND 40 ACRES & A MULE

Lessons From Ghana: A Path to Conservation Farming



Bird Language as a Healing Practice EMILY FOUBERT Pandemic Slowdown:
A Chance to Sit & Listen
GABBY LOOMIS-AMRHEIN

CONTRIBUTORS

Gabby Amrhein, Megan Bachman, Peter Bane, Ariella Brown, Sheryl Cunningham, Emily Foubert, Audrey Hackett, Amy Harper, Bob Huston, Rachel Isaacson, Susan Jennings, Alex Klug, Deanna Newsome, Macy Reynolds, Rich Sidwell

PHOTOGRAPHY

Beth Bridgeman, Dennie Eagleson, Amy Harper, Susan Jennings, Alex Klug, Xinyuan Shi

EDITORS

Sheryl Cunningham and Amy Harper

DESIGN

Tika Redding

AGRARIA STAFF

Gabby Amrhein, Land Use Coordinator Amber Bodkin, Grantwriter Naomi Bongorno, Development David Diamond, Educator Noah Evans, Miller Fellow Merideth Florkey, Educator Emily Foubert, Educator and Naturalist Adam Green, Americorps VISTA Amy Harper, Writer and Editor Rachel Isaacson, Americorps VISTA Susan Jennings, Executive Director Alex Klug, Americorps VISTA Cazimir Kowalski, Miller Fellow Matthew Lawson, Project Manager Pam Miller, Office Manager Teddy Pierson, Asst. Landuse Coordinator Xinyuan Shi, Americorps VISTA

FARMERS

Bob Moore Jason Ward

COMMUNITY SOLUTIONS BOARD OF TRUSTEES

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BY SHERYL CUNNINGHAM

Imagining the Possible

IN THE MIDST OF UNCERTAINTY AND CHANGE

As we ease into autumn amidst the ongoing global pandemic, and face uncertainty in almost all directions, many of us have had to slow down our pace, giving us time to reflect on what it means to be together, what it means to be apart, and how we might, in the midst of chaos, also see opportunity.

In my reflections, I've considered this question: What would it take to be like the willows in Audrey Hackett's poem, featured in this edition, and stand in a wet basement and be happy about it? As one of many Yellow Springers who has had to deal with what seems like more than my fair share of wet basements, it is no surprise that I was struck by that particular image. The line has tumbled through my thoughts repeatedly since I first read it. And though I am fairly sure I am not going to be capable of being a willow with happy wet feet during our next extreme rain event, I am still somehow encouraged to think about it as a possibility.

As you read, I invite you to do the same: imagine what might be possible. In this edition of the Agraria







BETH BRIDGEMAN

Volunteers planned and constructed a cobb oven on Agraria that will be used as part of our educational program.

Journal Rich Sidwell walks us through pre-pandemic travels to India, and specifically Mitraniketan, a community development project in the southern state of Kerala, with links to Community Solutions' founder, Arthur Morgan. We will also learn about the concept of landscape management in Deanna Newsome's piece, what it looks like on cocoa farms in Ghana, and what it might look like here in Southwest Ohio. Alex Klug tells us about what is already happening to develop more food sovereignty in our local communities, while Peter Bane explains how regenerative agricultural practices are crucial in supporting a water cycle more capable of mitigating climate change.

Our other writers ask us to reflect on the way we perceive and deal with inevitable change on a dynamic living planet. Susan Jennings discusses the way in which fast-paced global changes have challenged those of us working for Community Solutions to reflect on our legacy and the deep work required to address systemic problems. Megan Bachman takes us back to the roots

of the word apocalypse, pointing out that we might be better served by thinking of the word in the sense of the ancient Greeks—as a revelation rather than an end. Gabby Loomis-Amrhein points to the difficulty of this proposition; sometimes what is revealed to us in our observations of the natural world is something that feels more like loss than change. Can we mourn these changes that feel like losses while at the same time seeing the opportunities these same changes might bring? And Emily Foubert reminds of what is possible when we simply sit on a sycamore log with our mothers, and listen. We acknowledge that there is mystery in the possible, which can make the future seem both daunting and wondrous. We hope you see paths toward a future you want in this edition of the Agraria Journal.

Sheryl Cunningham is president of the Community
Solutions Board of Trustees and Associate Professor of
Communication, Coordinator of Faculty Sustainability,
and Chair of the Sustainability Task Force at
Wittenberg University.

BY SUSAN JENNINGS

OUT OF DISSOLUTION & COLLAPSE COMES

A Chance to Evolve & Regenerate



As I write this, we are at the mid-point of 2020. Ohio is entering what appears to be its second peak of COVID cases; political unrest in the streets and in legislatures continues across America; a dust cloud is headed to the Midwest from the Sahara: the Arctic just recorded its highest temperature ever; unemployment and hunger rates are soaring; and massive oil spills are damaging two of the most pristine places left on the planet. It is difficult to imagine what the end of the year will look like, but it is clear that there will not be a pause to help us collect ourselves, and that there is no going back. There is also a growing realization that—uncertain as the path is before us—we don't want to go back.

Nowhere is this more apparent than in our international food system. Not only is big ag a likely contributor to the pandemic—read for example, Big Farms Make Big Flu: Dispatches on Influenza, Agribusiness, and the Nature of Science—but the pandemic shutdowns have also exposed the multiple fragilities of a mono-cultural, global,

one-size-fits-all agricultural system that privileges financial considerations over ethics and community sovereignty. The pictures of milk being poured down drains, produce being plowed into fields, and thousands of chickens and pigs euthanized while food insecurity in what we tout as the richest country in the history of the planet quadrupled, deeply shook whatever faith we had in the resilience of our food chain. During the past few months, seed sales have skyrocketed and gyrations of commodity prices, illnesses of food workers, erection of trade barriers, and episodic shortages show that the crisis will not be shortlived.

How we grow and share food is a microcosm, progenitor, and result of the broader economic system. Over the last several decades, with the advent of globalization, villagers who previously were food secure within the confines of their communities were moved off the land and into cities to provide cheap labor for manufacturing goods. At the same time, farms became consolidated,

and most food subsidies internationally were paid for conventional grains grown in a way that damaged soil, biodiversity, and human health. Now, converging ecological, financial, and health crises are collapsing financial systems, retail and fossil fuel industries, education, national and international governmental structures, health care systems—and our sense of the future. It's clear that we are in the throes of the long-predicted Collapse, the "Long Emergency," the Great Turning, the Great Unraveling, the Great Transition.

And yet we can see glimmers of possibilities. Like the endless spiral of a Mobius strip, one face of our collective experience is winding down toward dissolution and collapse, and the other toward the rapid evolution that that dissolution allows:

- Collapsing food systems open the door to re-localized and regionalized systems and community food sovereignty.
- Collapsing economies open the door for reflections on what we truly need



and a re-engagement with systems like mutual aid, local currencies, cooperatives, and simplicity.

- Collapsing political structures cause us to ask who needs to be controlled and organized and for what purpose.
- Collapsing educational systems and home schooling everywhere spur discussions of what we are teaching and why—what of the past do we need to bring forward and how do we create space for the emerging structures waiting to be born?
- Collapsing of our belief in the need for violence opens up questions of our violence against other countries and species and the earth itself.
- Collapsing of our belief in American exceptionalism allows us to see possibilities in other countries and social and economic systems
- Collapsing of our frenetic lifestyles causes us to ask the perennial question of what we are working for and what that means about us and our priorities.
- And the collapsing of a materialist, linear, mono-cultural, mechanistic

mindset opens our psyches to the arising of a new paradigm of cooperation, diversity, and interconnectedness.

Our media is replete with stories of individual and community awakenings, from Japanese men becoming more helpful around the house, to parents everywhere deciding to homeschool or cut back work hours. Communities like Yellow Springs have seen rising leadership from many avenues, and cooperation flourishing through mutual aid and sharing. Cities like Venice used the lockdown time to discuss how to put the future of the city back in the hands of residents; other cities envisioned and created car-free corridors, including Vilnius, Lithuania, which became a giant open air café. Explorations into state banks, bioregional economics and governance, debt jubilees, and community economics are being discussed locally and on an increasingly imperiled internet that is nonetheless serving as a salon for generating new visions for the future. Bicycles are

selling out everywhere on the planet, and glimpses of clean air, blue skies, and flourishing wildlife whisper to us of other paths not taken that could still be open.

During our own Agraria(n) spring dream state, when the whole world was on retreat, we pulled back from our own forward motion and re-envisioned how we could serve. One thing was clear-we wanted to continue to work on systemic solutions that are embedded in Community Solutions and Agraria's missions, including regenerative land use, resilient communities, community economics, and support of the regional food system. Our founder, Arthur Morgan, was prescient about globalization and urbanization, and during our 80-year history we have focused on healthier alternatives to the current system. This deep legacy coupled with the new partnerships enabled by our purchase of Agraria gives us a solid foundation for moving forward.

Our work plan takes into account our aspirations, strengths,





SUSAN JENNINGS

Vandana Shiva's seed library at Navdanya Biodiversity Farm, Derhadun, India, and David Van Tassel in a field of silphium at The Land Institute's 2019 Prairie Festival.

and a recognition of regional gaps and international opportunities for cooperative engagement.

The three levels of our work include:

- Continuing to model regenerative practices at Agraria;
- Support for the re-development of a regional food system;
- And education about, and support of, healthy models for the future.

Our local, regional and international partnerships continue to deepen. Here in Yellow Springs we are partnered with Home, Inc. on employee housing at Agraria; with Tecumseh Land Trust on several educational ventures; with the Yellow Springs Schools on hybrid education;

and with the Yellow Springs Farmers Market. We are also partnering with the Yellow Springs News on webcasts about possible futures for Yellow Springs.

Our regional and state-wide food system work includes an application for an OpenIDEO food prize with several partners from Dayton, support of S.O.U.P.'s work in Springfield, and participation in several working groups on food systems and soil health. Nationally and internationally we are working with The Land Institute, The Bionutrient Food Association, The National Institute for Applied Climate Science, and Mitraniketan in Kerala India. We also have had conversations with Vandana Shiva —after visiting her farm in India, we followed up with an online

conversation that will be part of our new podcast series. You can read more about these initiatives in the pages to come—you can also read about them on our website or come to Agraria and see for yourself!

All of these burgeoning projects are facilitated by an amazing young and growing staff, dedicated board members, and volunteers and supporters like you! We are grateful to be on the cutting edge yet grounded in an understanding of what needs to be done. We look forward to you sharing with us in the regeneration of our communities and our planet.

Susan Jennings is Executive Director of Community Solutions.

LESSONS FROM GHANA:

A Path to Conservation Farming

BY DEANNA NEWSOM

The organization I work for, the Rainforest Alliance, partners with farmers around the globe to improve farm productivity, conserve on-farm biodiversity, and provide a healthy and safe environment for farm workers and their families. We do this by offering farmer training and technical assistance and by cultivating demand for sustainably grown food, so that farmers who have been certified to the Rainforest Alliance Standard can find stable and profitable markets for their products.

Many elements of the Rainforest Alliance Standard will be familiar to those who know Agraria's vision for regenerative agriculture: it involves protecting riparian areas, regenerating soil by controlling erosion and using organic fertilizers, and helping agricultural communities be economically diverse and strong, among other conservation practices. Currently, more than two million farmers in 70 countries have been certified to the Rainforest Alliance Standard. You might have seen some of these products for sale at Tom's Market in Yellow Springs: the last time I visited I found the Rainforest Alliance's green frog on coffee, ice cream and chocolate bars.

Even though our work at the Rainforest Alliance has traditionally focused on individual farmers or groups of farmers, in recent years we've worked in regions where a broader, landscapelevel approach was needed to address entrenched challenges. One such place was the 89,000-acre Bia-Juabeso region of Ghana, which is a mosaic of cocoa agroforests, other croplands and small remnant forests, and the site of one of Rainforest Alliance's first landscape projects.

In 2010, land use planning in the region was weak, and cocoa farmers struggled with poverty and were vulnerable to the negative effects of climate change, such as pest and disease outbreaks. The productivity of their farms was extremely low, leading many farmers to expand their cocoa plots into nearby protected areas, cutting down the scant remaining natural forests in an attempt to grow more cocoa and eke out a better living. Many farmers also cut down the trees that grew on their properties since Ghanaian property laws meant that any trees on the farm were a potential financial liability.

The cumulative effect of these various conditions and policies was clear: farmers preferred to grow cocoa as a monoculture and saw trees and protected areas as obstacles, rather than a potential source of income or part of a healthy ecosystem.

Rainforest Alliance staff in Ghana realized that training and technical assistance would likely help farmers to produce more cocoa and comply with the Rainforest Alliance standard, but that these tools alone might not be enough to combat the problem of deforestation. They helped farmers convene a "landscape management board," which included representatives from farmer groups, government forest and wildlife management agencies, NGOs, educational institutions and the private sector. The idea was that this group would facilitate communication among farmers, oversee agriculture

Cocoa famers in Ghana learn sustainable farming practices from a trainer.

THE RAINFOREST ALLIANCE



and conservation in the region, and more effectively address the policies that hindered sustainable agriculture. The board supported the education of 4,000 schoolchildren and 2,000 community members on the importance of sustainable farming practices and climate change adaptation techniques. They also helped farmers diversify their income sources through beekeeping and small livestock rearing. Importantly, the board forged relationships with cocoa buying companies, which they hoped would provide a consistent market for sustainable cocoa at a higher price. And

once it was able to show that farmers were planting more trees and no longer encroaching into neighboring protected areas, the board sought further funding for farmers through established international anti-

At this point you
might be wondering what
a project in Ghana has
to do with regenerative
agriculture in southwestern
Ohio. If you read about
the Jacoby Partnership in the last issue
of the Agraria Journal, you might

deforestation programs.

see some striking similarities between it and the work in Bia-Juabeso. This four-year, \$3.2-million initiative aims to promote sustainable agriculture and soil and water conservation in the 26,000-

"Strengthening farmer networks improves farmer-to-farmer communication, the effectiveness of training, and the implementation of conservation practices."

acre Jacoby and Yellow Springs Creek sub-watersheds of the Little Miami watershed. Led by the Tecumseh Land Trust, the partnership has convened a diverse group of stakeholders, including Agraria, landowners and farmers, multiple universities, Xylem/YSI, and state and county natural resource agencies. The initiative offers farmers training and financial incentives to implement more sustainable practices and aims to help farmers diversify their products and, in some cases, convert their production to organic. The partnership is also working with local schools and teachers to engage children and community members through hands-on learning and citizen science. And a key strategy of the partnership is to link landowners and farmers to sources of funding for conservation practices, such as the use of cover crops and the permanent preservation of streamside forests.

Can the Jacoby Partnership, which is just one year old, learn anything from the work done over four years by the Rainforest Alliance and partners in Bia-Juabeso? I think it can. I would like to share a few lessons here.

First, strengthening farmer networks improves farmer-to-farmer communication, the effectiveness of



AMY HARPER

Jacoby Creek, which runs through Agraria, is part of the Little Miami subwatershed. The creek corridor through Agraria, surrounding wetlands, and 20 acres of adjoining farmland, for at total of 80 acres, are now protected by a permanent conservation easement.



DENNIE EAGLESON

Farmers Fred Stockwell and Branson Pyles with conservationist Bob Henderson during a workshop at Agraria sponsored by the Jacoby Partnership.

training, and the implementation of conservation practices. In the Bia-Juabeso region, the farmer-led board is now completely self-sustaining and autonomous, and includes representatives from 36 communities. The leadership from farmers - and communication among farmers - led to the effective transfer of training concepts and the implementation of restoration activities. The Jacoby Partnership aims to foster farmer networks and has begun by highlighting some innovative Ohio operations at its conferences. One such operation is Origin Malt, a barley production co-op that connects barley farmers all over the state, helps them capture more value and keep that value in the local economy. Another featured operation is the Richland Gro-Op cooperative, an urban farming group that shares aggregation and marketing function, earning new farmers a living and making nutrient rich food available in a food-insecure urban area.

Second, government policies have an important role to play in incentivizing sustainable regenerative agriculture. Farmers in Bia-Juabeso have now been awarded ownership rights over newly planted trees, creating an incentive for protection. In fact, since the project began, farmers there have planted 58,000 tree seedlings in degraded areas, and another 50,000 seedlings on their farms. In the Jacoby Partnership area, there are a number of government incentives for sustainable agriculture - such as the USDA's EQIP program, which offers farmers costshares and technical assistance for implementing conservation practices - but they are currently not accessed by many landowners. This is partially due to the large number of landowners in the project area who do not farm themselves, but rather rent their land to others who do the farming. These landowners are often unaware of incentives such as EQIP, and sometimes do not fully understand the specific

financial and agronomic challenges that farmers face when considering whether to implement conservation practices. The Jacoby Partnership is helping raise awareness of programs like EQIP and helping landowners and farmers structure their financial relationship in a way that makes conservation practices feasible for the farmer and benefits the long-term health of the land. This strategy has led to 15 new applications to the EQIP program since the Jacoby Partnership began.

Further, baseline data collection, as well as rigorous research on project outcomes, are critical for demonstrating the positive benefits of the project and negotiating additional financing. In Bia-Juabeso, studies that showed improvements in carbon stocks and socio-economic and biodiversity outcomes provided independent evidence that the approach was working. The Jacoby Partnership is working with scientists at Central State and other universities to monitor water quality and soil health. Research partnerships like this will be critical to learning whether the Jacoby Partnership model enhances sustainable agriculture and positive environmental outcomes, and if it does, for securing additional support.

Finally, private sector collaboration, in the form of buyers who are committed to purchasing sustainably grown products,, are critical to a landscape project's success. In Bia-Juabeso, having buyers lined up in advance for sustainably produced cocoa was extremely important for motivating farmers and ultimately improving their bottom line. In the Little Miami and Yellow Springs Creek watersheds, Jacoby Partnership staff have identified certified organic produce as a potentially lucrative market for area farmers, with

domestic demand for such products far exceeding supply. Two farmers in the partnership area have begun the conversion to organic, and others have expressed interest in learning more. Networking between local farmers, Jacoby Partnership organizations, the Ohio Ecological Food and Farm Association, the Ohio Food Policy Network (OPFN), and food aggregators could further enhance market access for organic producers. In response to the COVID-19 pandemic, there has been

an uptick in "virtual farmer's markets," which allow customers to pre-order items and pick up curbside, and provide new economic opportunities for many local farmers and entrepreneurial local food aggregators and distributors.

Despite growing different crops and being separated by half a continent and an ocean, farmers in the Jacoby Partnership watersheds and the Bia-Juabeso landscape have much in common: they love their land, they want to be a part of a healthy ecosystem,

and they often face an uphill battle to do so. Landscape-level projects in both places can harness resources, overcome policy hurdles and use the power of the market to give farmers the training and financial incentives they need to keep their soil, water and forests healthy.

Deanna Newsom works in the Rainforest Alliance's Science & Impacts unit, where she researches the environmental and social impacts of sustainability certification, farmer training, and landscape initiatives. She lives in Yellow Springs.

The Terrain is Everything

BY MEGAN BACHMAN

"Hope remains only in the most difficult task of all; to reconsider everything from the ground up, so as to shape a living society inside a dying society.

— Albert Camus

We are now in the fourth month of the coronavirus pandemic. As I type, the virus, and our response, is remaking economies, societies, cultures, lives. Phrases like "new normal" and "new reality" proliferate. But to what future are we adapting?

We have entered a "long emergency," much like the one James Howard Kunster's described in his 2005



BETH BRIDGEMAN

Volunteers and staff harvesting milky oats for a tincture making workshop at Agraria.

book by that title. He saw cascading societal shocks arising from a slowdown in the growth of the global oil supply, the linchpin of our economy. In our case, it was a virus, spreading quickly across a world "globalized" over the last 30 years by oil-fueled industrial capitalism.

A few weeks into stay-at-home orders, our economy was devastated. Like a shark needs to keep swimming to survive, our economy cannot stop. It can't even slow down. Instead, it is dependent upon nonstop consumerism, perpetuating a vicious cycle that undermines the natural resources we need for our future while producing fleeting wealth for a few.

Many are saying that empty gathering spaces, masked citizens and barren store shelves feel almost apocalyptic. It's an apt word. The Greek apokalyptein is to "uncover, disclose, reveal." Now is a time of unveiling, a time to face the truth of our world. The coronavirus may be



cast as a lethal invader — a plague — but its gift has been to reveal what is already here, and what made us so susceptible to it: A broken healthcare system. Crippling inequality. Persistent racial disparity. An unstable climate. Vulnerable supply chains. Ecosystems teetering on collapse. And much more. Even if we could "go back" to life as it was, should we?

As it spread across national borders and personal space, the virus also revealed how interconnected we are. The coming reckoning for everything from higher education to global transportation will require that we break down the false barriers we erected between all such systems. For how can we have an agriculture that destroys the natural environment it needs by depleting soil, polluting rivers and spewing toxins? How can we have a healthcare system that isn't rooted in providing clean air, water and food

for all? How can we put stock in an economic model divorced from the planet it is on? The answer to all those questions is that we could temporarily, and at great cost. COVID-19 shattered that illusion.

The virus itself is a product of an imbalanced planet. Sonia Shah, author of 2016's "Pandemic" traces the uptick in contagious diseases to the destruction of wildlife habitat (we have colonized about half the planet) and the associated loss of biodiversity. A disturbed global ecosystem is more conducive to outbreaks of these viruses, while our weakened immune systems make us more susceptible to dying from them. Our planet is ailing and so are we.

But Shah, like Camus, holds on to some hope for us, if we can only recognize what this moment means and reimagine a new way of living in relationship to the rest of the earth. In a recent interview, Shah reflected on humanity's prospects for preventing another global pandemic.

"A lot is going to depend upon the stories we tell about where this came from and why it caused all the death and destruction it has caused," she said. "As long as we think of it as something outside of ourselves and that we are the victim of, I don't have too much hope we will fundamentally change our relationship with each other."

Even as we move to eradicate this coronavirus, we should be preparing the ground to prevent the next pandemic from taking root. For as French physician Claude Bernard said in the 19th century, "The microbe is nothing. The terrain is everything."

Megan Bachman is a former outreach director of the Arthur Morgan Institute for Community Solutions and current editor of the Yellow Springs News.

Change, Loss, and a Saving Grace

BY GABBY LOOMIS-AMRHEIN

Several weeks ago, as twilight was growing dusk, Emily and I were laying on hummocks of orchard grass, surrounded by skeletal ironweed and goldenrod in a frosting field. Around that week of the year, woodcocks come back and begin a spectacular part of their mating ritual, known colloquially as a sky dance. As the sun disappears, the birds begin to sound "PEENT, PEENT," a zippy burp coming from the ground. Then, after a moment of silence, a whinnying sound across the wings as they take flight! Spiraling up and up around the field edge until just out of sight when they plummet back to earth, and start again after catching their breath—"PEENT. PEENT."

Phenology (not to be confused with phrenology) is the study of cyclical change over time, particularly as it relates to what is traditionally thought of as the natural world. It is both a heart opening and heartbreaking practice. When one takes the time to carry a pad and paper and jot down

what is happening, who is here, who is not, what everybody is doing, the immediate, local and global effects of such travesties as accelerated climate change, industrial agricultural production, environmental racism, and resource extraction, come into focus.

I have been documenting bird habits in the Miami Valley region for roughly a decade and have begun to notice shifts over that period of time. Last winter was one of the most uneventful in terms of waterfowl migration in this part of Ohio. The rate and intensity at which Lake Erie and surrounding waters usually freeze over just didn't happen. The ducks and geese had open water further north and didn't need to come this far south.

While this may not seem tragic on the surface, there is a deeper loss hidden in such change. What biological relationships and processes are not occurring when not everyone shows up? How do mating and migration pattern anomalies turn to norms? Does this cause confusion, harm, a lack of sense of belonging? I know that on my end, it does. I don't expect things to stay the same, but at what point does loss become permanent?

All of these questions sat at the back of my mind while we looked skyward. Occasionally my throat swelled with sadness, but the process of capitalist extraction has hardened me, too. That night, at least, we witnessed a saving grace. "PEENT." No flight just yet, but "PEENT." A reminder. "PEENT." It is ok to mourn. "PEENT." It is ok to feel joy. "PEENT." These relationships remind us of the balance and justice for which we strive. "PEENT." I am here. "PEENT." I'm ready to dance. "PEENT." I'm still here.

Gabby Loomis-Amrhein is Land Manager and Naturalist at Agraria. A long time resident of Yellow Springs, Ohio, she is an avid birdwatcher, writer and woodworker with years of experience in small scale farming, sustainable design, and construction.

Agraria's trail cam captured a family of racoons and a blue heron on Jacoby Creek.







Glass Farm, 2020

I.

The wetland gathers the waters into itself like the palace to which all tears arrive.

There is trash here too, styrofoam like indestructible cheese and plastic bottles returned to anonymity.

The willows are yellow and packed like people in the subway.

They are standing in a wet basement and happy about it.
A blackbird is picking apart
the cattail floss. The stalk sways with his light
weight, his jet darkness.
When he flies, the red on his wing

is the same wound we are carrying under our shirts.

II.

An exact shining.

And the wrinkles of worry smoothed away.

At the far end a roar

like a big engine that from a distance silences

the sky. Here frogs
plop and send up air bubbles like thoughts empty
of words.

The toppled grasses. Like hair combed by a mother in one direction.

The forehead sky.

Everyone is speaking this immensity.



THE PALACE

BY AUDREY HACKETT

Bird Language as a Healing Practice

BY EMILY FOUBERT

I have been rising in the morning lately feeling disoriented. This dizziness I liken to waking up in a new bed, but when my internal map of comfort is still back with the furniture, sounds, and the rising sun's direction in the old space. In these moments upon waking, the past overlays onto the present in a split-second. And in that moment of reorientation, everything spins, as if my body is levitating off the ground, a north needle in a compass, finding the magnetic pull again. North recalibrates somewhere between my chest and belly. A vision of the old cherry chest

of drawers fades away, and the window with nutmeg brown drapes takes its place. The window is open in this new room. The robin's song wafts in, and I realize I am here, not back there, but here.

My eyes search around the room for something. Almost desperately, they beg for the old furniture. Or maybe memories. Or future acceptance of what is. March through July, I have been constantly backing away from business. Asking what is truly needed and necessary during these times. Whoa, these times! COVID-19.

Naturalist Emily Foubert in her sit spot and with children in the Forest Family nature program.





Black Lives Matter. Protests. Upending past routines. Slowing down to the pace of trust. Reorienting.

Spring and early summer is usually a time of fast burning energy here at Agraria. The creativity and planning forged during the snow-filled office days of February takes shape on the land in the form of nature programs for kids and families: Homeschool, Forest Families, After-school, and school field trips. Nothing bloomed and ripened this year. And that is okay.

I have adjusted to offering online zoom and Facebook classes for the Nature School at Agraria. Hollyn Bermond and I have had a blast recording Community Nature Hour. You can find all 11 episodes on our Facebook page. We also hosted our first ever teen program, on zoom, for four weeks in April. We guided them in making their own garlic mustard pesto, wild edible salad, and practiced firemaking with hand drills. I am leading an online Bird Language series now called "Breathe with the Birds." Every Wednesday morning at 7:30 am I come into the office before anyone else arrives, all except Matthew who wakes even earlier to tend to our burgeoning community composting project. I sit out back with my tea and connect with folks from the greater Ohio region, and as far as the Berkshire Mountains in Massachusetts. (Sigh). This is exactly what I need now. Slow time. To sit and listen. Sit and listen. Sit and listen.

Together. It is online, but boy do those small boxes of moving faces help me feel centered and connected more than I thought they would!

The bird language mornings have fostered in me a routine of waking up early and noticing. In early May, my Mom asked if the wood thrush had arrived yet. She wanted to hear them very much. I knew they were here again, because this spring I paid attention more than ever to the migrations of all beings across the Ohio landscape: human, bird and four-legged. Inspired by the thought of leading these bird language workshops, I planned a special bird sit for my mom for Mother's Day, with the intent of leading her to the song of a wood thrush.

My mom was very hard of hearing. I have been practicing bird language for 5 years now, and throughout that time I have not been able to share this excitement with her, because the high-pitched alarm calls that make bird language so fun were lost to her ears. Help arrived in the form of two small blinking gadgets the size of pistachios. She had not been using the hearing aids because they "didn't work." But the Friday before Mother's Day, she went to an ear doctor and discovered she had been putting the left bud in the right ear. Easy switch!

When I arrived on Mother's Day morning, she wore her new miracle pistachios, her blue jacket, gray hat, and a radiant smile. "Ready for our Mother's Day bird language adventure, Mama?" I asked.

"Oh, yes, darling. So ready!" she replied with an adoring, alive grin.

And so we walked. Hand in hand that day, Covid and all. This was my mom. I savored every feeling of her hands on my back, heart to my heart. Some voice inside said, "Remember this. Soak this up. This. This connection with her."

Together we walked to the edge of the Riding Centre field. I knew of a wood thrush nearby. We listened. She was hearing the birds right along with me. Blue birds, indigo buntings, sparrows. I was ecstatic to finally share my passion with her.

We walked until we came upon a decaying, horizontal sycamore. We sat in silence for ten minutes, signaling to one another about this or that song, where it was, who was singing.

song that we did not hear anymore, gave us a two-minute warning about the runner."

"No, really! Two minutes? That far in advance?" she cried out in disbelief.

"Really!" I smiled.

"Wow!" she exclaimed.

She passed away two weeks later. Loss changes everything; beauty and sadness now co-exist within me simultaneously. In the midst of my mom's passing I have sluggishly grasped for her physical presence every morning. I spin, I find north, I rise up and walk into my day with her—in the spiritual realm. For me, birds have always been

"For me, birds have always been a gateway into the spiritual world, bridging sky with earth."

Just before we were about to stand up to walk home, Mom asked me what was making the buzzing psssht sound. I celebrated that she could hear it and told her it was the same wren from before, sending out an alarm this time. We also noticed that the cardinals on the other side of the bush had stopped singing. Silence. We waited. Nothing happened. We were about to leave, when I said, "Let's just wait another minute and see if anything comes around the path." She agreed. Thirty seconds passed.

Then, moving quickly along the path came a lithe runner. I thought, "We knew you were coming. The birds told us." We startled him as he turned the corner to find us sitting so quietly. We waved to each other and he trotted on.

"So Mom," I said, "that wren alarm you heard, and the cardinal's

a gateway into the spiritual world, bridging sky with earth. My mom resides there, and everywhere for me. She taught me my love for—and for being with—nature. And so, these bird language mornings have been so helpful in my personal grief, and also with the collective grief of the world that many of us are feeling right now.

This pandemic has certainly been dizzying, and this morning was one of those disorienting wake-ups for me. Is mom really not here anymore? Are we, as people, still not able to go visit and hug closely with friends? Is the very ground beneath me shaking with the steps of millions of people marching for equality? Yes. Yes. Yes.

Agraria is running several in-person and online nature programs this fall. See www. communitysolution.org for details.

BY PETER BANE

A Recipe for Cooling the Climate

"If pandemic has taught us nothing else, it has driven home the old saw that an ounce of prevention is worth a pound of cure."

The pandemic has exposed the clay feet of the market economy and the hypocrisy of its acolytes who have long argued that stabilizing the climate would just cost too much, that "there is no alternative" to business as usual. But in the face of unprecedented demands for changing the way we live and do business, there are, it seems, many alternatives.

In the name of public health, factories have been shuttered and deserted. In the meantime, Washington deficit hawks have embraced socialism and are poaching it in an ocean of red ink.

Now that the clarifying potential of mass death has knocked back some zombie ideologies about the primacy of profit as the guiding force, let's look at what else the world needs, besides face masks, ventilators, more nurses and hospital beds, and a vaccine for Covid-19.

Global heating will unhinge the world's economies and its governments long before financial centers in NYC, Tokyo, London, and Shanghai go literally under water—and with far more enduring consequences than the COVID-19 pandemic. If you fear people will get ungovernable when they lose their incomes, think about how

much worse it could be if there wasn't enough food.

If pandemic has taught us nothing else, it has driven home the old saw that an ounce of prevention is worth a pound of cure. So how do we ensure a stable climate and a robust food system?

Here's what we'll need to do:

The planet needs another trillion tons of soil carbon and a trillion new trees to first mitigate, then reverse global heating. Those trillions won't all happen tomorrow, but they must be well underway this decade, maturing by mid-century. The direct US share of this effort is about one-fifth, based on our wealth of land, money, and other resources. For the rest, we must partner with other countries, innovate policy and action, and lead by example.

What do soil carbon and trees have to do with climate cooling?

Though atmospheric carbon is an important measure of climate health, it's not the driver. Water is. To cool the climate, green growth must expand and endure, which requires water. Trees and plants bank carbon in soils, and soil carbon holds water, which enables plant growth. A pound of C in soil holds a gallon of water. (A trillion tons of soil

carbon would hold about the volume of Lakes Michigan and Huron combined). Trees release the moisture through their leaves, and make the rain, cooling the climate with clouds and frequent, moderate moisture. Trees also release volatile organic compounds which react with other chemicals in the atmosphere to produce aerosols that play a role in forming clouds and raindrops, while bacteria from tree leaves nucleate snowflakes and rain droplets, processes that help clean the sky, release solar energy to space without warming the air, and nourish everything on land. This life-sustaining water cycle allows cooling and climate regulation to occur naturally.

The water cycles of Earth are disrupted by activities like industrial farming, deforestation, and development. Bare soil and pavement reflect more heat to an atmosphere charged with more and more heat-trapping gases. These conditions originate with human action, compounding over time. A 30-year lag between inputs and outcomes ensures that the worst is yet to come. We cannot wait to act.

In addition to their impact on climate heating, bare soil and pavement sluice runoff to the oceans, contributing to flooding and sea-level rise. Water, with its potential to nourish regular, gentle rains over wide areas, is flushed away. Driven by a hotter climate, it comes back in the form of atmospheric rivers, straight-line winds, hurricanes,

and other massively destructive events that devastate lives, communities, and societies. Therein lies the danger to humanity that we must urgently address.

Where and how?

The pillars of a new blue-green economy rest on agricultural, urban, and other waste land. Working outward from the most highly leveraged riparian and ridgetop acres into main valleys in semi-arid zones, we would cease cultivation, tillage, and arable cropping, plant multipurpose trees in contoured alleys, and grow a catch crop of forage for livestock. In a dozen years, hedgerows and windbreaks would expand across the farm belt, restoring environmental sanity, pest predator habitat, and farm income, supplanting dangerous chemicals and ending soil erosion. Highway medians would become carbon sinks with strip forests providing shelter for interstate commerce. Urban boulevards and pocket parks would sprout edible forest gardens.

What stands in the way?

Habit and politics squelch innovation. Mechanistic bias clouds thinking that hasn't seen biological answers, even though demonstrations abound.

Farming adds about \$150 billion a year to the US economy, and industrial farming arguably does more than that in damage to land and health, making it a net economic loss to the nation. The federal government already provides about one-third of farm income through subsidies, insurance, and support payments. Let it pay more to support farmers—and ask more of them in the form of climate mitigating farming practices like regenerative agriculture.



An osage orange tree in Agraria's reforestation plot.

AMY HARPER

How do we get this done?

Put a floor under farm income that ensures a good life. Make new opportunities for small farms to expand. Create a market in carbon credits, and vest farmers in a portion of what they store, not just what they sell. Reduce tillage to near zero, investing instead in permanent improvements. Buy conservation easements with real teeth and with economic flexibility. Leave the trees for at least 30 years, and the forest in perpetuity, but allow cropping between tree rows (within limits), and grazing in woodlands (again, with clear guidelines that protect soil and water).

The solutions look different in urban areas. Mandate all new commercial and

government construction sprout green roofs, and retrofit wherever feasible. Plant city trees to shade pavement, and cover walls of masonry or metal with vines. Ensure too, that urban runoff is slowed at street level with curb cuts, rain gardens, detention basins, and floodable parks in low areas. New residential development must hold all its own water on site for at least 24 hours.

There will be huge payoffs from these investments in saved energy costs, reduced drainage investments, pollution control, more productive farms, healthier food, lower medical costs, environmental and community resilience, and improved mental health across the population. That's all before



AMY HARPER

Participants in a 2020 Forest Garden workshop co-sponsored with the Permaculture Institute added several native trees and shrubs to Agraria's demonstration reforestation plot.

we put a dollar value on not destroying a livable planet.

What would it cost?

Soil carbon in cropland can be managed better by farmers with their existing animals and machinery, plus some add-on implements like roller-crimpers for cover crops. But trees have to be planted, and that means a small army of healthy workers, similar to the Civilian Conservation Corp (CCC) mobilized in the years prior to WW2. A fund of \$500 billion/yr (70% of the US budget for war, <1% of global GDP) could create 15 million jobs, make enormous contributions to natural capital and national wealth, and solve the climate crisis at the same time.

Can we afford it?

We can't afford not to do it, but we also have proven that we can find any amount of money we need by having the government push it into circulation through every pore and channel. Cancelling subsidies for fossil fuel, added to savings from streamlining the irrational medical system, could provide most of the money. There is also a vast savings to be had in the U.S. military budget of \$700 billion a year.

We can also raise taxes, selectively from the rich end of the wealth spectrum, and sink it back into the public purse. We could issue climate bonds with 1% interest and 30-year redemption, like war savings bonds.

Placing priority on land repair for climate cooling also means adopting a different foreign policy and development approach to other countries who may lack the financial wherewithal to implement such programs. Reforesting the Middle East and other desertifying areas promises a renewed economy for people who today are mostly the pawns of geopolitics, but it would be a healthy

and cheaper alternative to endless war for oil and terrorist blowback.

We do not lack the means or the knowledge to do these things, but we do not yet understand what is possible, and we have only begun to realize our potential for rapid change. The world today offers a stark choice. We can stand frozen, like deer in the headlights—or seize the moment.

Peter Bane is the author of The Permaculture Handbook: Garden Farming for Town and Country, and the Executive Director of Permaculture Institute of North America (PINA.in). PINA is sponsoring a North American Leadership Summit August 20-23 online to address all the issues named herein, as well as related aspects of energy transition, community health, and disaster response and preparedness. Peter will also lead a Permaculture Design Course July 5-18 at his farm in western Michigan. Visit www. permacultureactivist.net for information.



SUSAN JENNINGS

Donna Haller, left, director of the Village Impact Project, with VIP mentors Macy Reynolds and Kim Carlson.

Agraria Partners with Village Impact Project ON NEW SUMMER PROGRAM

BY MACY REYNOLDS

Agraria had planned to host several programs this spring and summer, but Covid-19 forced us to rethink summer programming. Like educational programs around the country, videos and distance learning are the new normal rather than outdoor experiences. But we still wanted to be outside with children, especially knowing they may be spending a lot of time inside with video games and small screens.

Meanwhile Donna Haller, a teacher in the Yellow Springs schools, was looking for ways to get her students In the Village Impact Project (VIP) involved in outdoor activities. Patterned after the Big Brother program, the VIP program pairs students with mentors in the community. Agraria has land and knowledgeable people who can work with a wide range of ages and abilities, and this seemed like good a way to start our outdoor educational programming in the age of Covid, with distancing and masks.

Our July and August programming included weekly sessions, one for pre-teens and one for teens. The sessions

focused on birds and butterflies, bees, blue bird houses, building bat houses, identifying invertebrates in Jacoby Creek, and tree identification. They were led by Agraria staff and volunteers.

Moving forward, the partnership with VIP is an exciting, innovative, and mutually beneficial addition to Agraria's educational programming. Local youth will benefit from being outside, exploring new terrain, and learning about the natural world that surrounds them. It will provide another opportunity for mentors to deepen their relationships with their young mentees. And it broadens Agraria's reach while contributing to the development of strong and diverse summer programming on the farm.

Macy Reynolds is a member of AMICS board and education committee. She is a Master Gardener with state specializations in invasive weeds, trees, insects, and bees, chair of the Yellow Springs Tree Committee, and spent 30 years as a public-school teacher.

Helen Westneat READING ROOM

Dave Westneat and his family generously endowed a Helen Westneat Reading Room at Agraria in honor of Helen, a reader and former librarian. The library houses the Community Solutions archives as well as cutting edge resources for those wanting to learn about regeneration and re-localization. Dave is shown here with his son, David Jr., and Helen.





The Big Map Out

AGRARIA'S REIMAGINED FIELD TRIPS FOR THE 2020-2021 SCHOOL YEAR

MEREDITH FLORKEY

Early this summer it became clear that public schools in Ohio would not be able to take hands-on field trips in the 2020-2021 school year. In response, our education team reached out to local teachers to see how we could help them stay grounded as well as helping children stay away from screens for part of the day, whether school was fully or partially virtual.

We began by connecting with teachers from around the Miami Valley with small, outdoor teacher retreats at Agraria. During July, the goal of the retreats was to hold space for teachers to share their hopes and fears about the impending school year, practice



Educators Gabby Amrhein and David Diamond stand with kindergartners from Dayton's Kaiser Elementary, and their teacher Sarni Bensman, in front of the demonstration garden at Agraria. During 2018-2019, 395 students ranging from K-12 visited Agraria for field trips, learning about everything from gardening to soil and water biodiversity.

Our Nature School naturalists, Emily Foubert and Hollyn Bermond, responded to the onset of COVID by launching a new 11-part video series-Community Nature Hour at Agraria-- on Facebook. This programming engaged children of elementary and middle school age in activities that focused on mindfulness, physical health, nature awareness, emotional well-being, identification



of flora and fauna, and a variety of other topics. Appreciative comments came in from parents, several communicating on behalf of their children, and from teachers both in the Dayton area and beyond. In all, the videos have been viewed over 4,800 times so far and are still available on the AMICS Facebook page.

Gabby Amrhein and Teddy Pierson with raised accessible garden planters they made out of recycled rain barrels. Our goals are to make Agraria—as well as farming and gardening—more accessible for students of all ages.



mindfulness, and encourage stress relief activities. We were also able to give a tour of the outdoor spaces at Agraria and discuss the possibilities of both future field trips and partnerships. Lastly, we asked the teachers to answer a survey about how we could best serve them during the 2020-2021 school year. From those results, we learned that respondents desired further training in feeling comfortable when working with children outdoors. They asked for digitally shared lessons and content and pre-recorded videos from our staff containing local science and nature based lessons.

In answer to this desire, we followed up with a free virtual workshop for teachers to learn more about Agraria and how teachers can practice "Holding Class Without Walls." Topics included the basics of working outside with children or encouraging children to have outdoor experiences through online schooling, planning for weather issues, outdoor education during the time of Covid-19, and sharing information about The Big Map-Out! Project.

We are so pleased to partner with Yellow Springs Schools who will begin the year with 100% remote learning, to bring The Big Map-Out! to all of their K-3 classes. This program is designed to be flexible, as teachers navigate potential shifts between being in session 5 days, a hybrid schedule, or 100% virtual learning.

In this year-long partnership, students will create a map of their personal outdoor space. With equity in mind, this could be a backyard, flower bed, sidewalk outside their home, or simply the view outside a window that they could walk to when caregivers are able to take them. They will then study the soil, how water impacts the space, trees, other plants, mammals, insects, and birds. As they study each item using standards-aligned lessons from Agraria staff, they will plot their findings on their map. At the end of the school year, they will have a rich and detailed map that documents their learning. Each week, Agraria educators will connect with each class providing an "ask an expert" experience.

Interested community members can support The Big Map-Out! effort by funding the backpacks students will need to fully participate from home. These packs include field guides, Alison Farrell's book The Hike, soil testing equipment and magnifying glasses, among other tools. To outfit a class of 25 students will cost \$1,875.

The Agraria staff is excited to partner with regional school districts to expand what is often a one-time field trip into a year-long relationship that will culminate in an offer for children to visit Agraria in the Spring of 2021.

Meredith Florkey is an educator at Agraria who has worked for 15 years in public and private schools. She is a founder of a local nature preschool, co-founder of Ohio Nature Based Early Childhood Education Collaborative, and board member of Miami Valley Leave No Child Inside.

Agraria's educational partnerships have included work with interns from seven regional colleges and universities. This summer, three graduate engineering students from the University of Dayton ETHOS department designed two water catchment systems for Agraria's front campus. Students Claire Abele, Isabelle Hofmeister and Sammy Miller researched, designed and budgeted plans for both an above ground water cistern fed by rainwater from our barn roof, and a small

retention pond.
We expect to
install the cistern
and pond for
functionality and
as demonstrations
for farmers and
homeowners.



Education Coordinator David Diamond facilitates a session during the 2019 Soils for Life Educators' Workshop, supported by a grant from the Ohio Environmental Education Fund. During the two-day workshop, 35 teachers from nine area school districts learned about the latest findings in soil science, while being guided to develop lesson plans to use in their own school yards or on field trips to Agraria.



Mary's Way

BIKE PATH FROM THE HIGH SCHOOL TO AGRARIA

ILLUSTRATION BY BOB HUSTON

Welcome Center | **\$100k** | Sited in the basement of Agraria's historic barn, our Welcome Center is a place for visitors to find maps and educational materials, have a snack, and peruse Agraria's offerings including farm products and Agraria swag.



Patio Terminus \$50k | Sited to the south of the barn, and graced by native plantings, this stone patio is a place for bicyclists and walkers to sit down at a bench or picnic table, chat with friends, and rest up before a farm activity or tour.



Trail Rest Area (2)

\$25k | Sited along the trail will be landscaped areas with picnic tables and benches that will enable walkers and cyclists to pause to enjoy the restored landscape.

trees with berry bushes and understory edibles for an enchanting space for wildlife, including visiting children. **Food Fores** DAYTON-YELLOW SPRINGS RO TRAILSTREAM HEAD CROSSING STREAM CROSSING Mary's COMMUNITY SOLUTIONS: AGRARIA **Education Pavilion** \$100k | Nestled in the fields adjacent to The Nature Conservancy Restoration, this Education Pavilion provides a sheltered space for families or school groups to have lunch or discuss their experiences.

Food Forest | **\$25k** | Our food forest pairs nut

Your support of **Mary's Way** will help us to lay a path for research and education by students and other citizen scientists! You can read more about the trail on page 28.





Bike Racks (6)

\$10k | Bike Racks at each terminus as well as at key stopping places will enable cyclists to store their wheels.



Bike Repair Station

\$25k | A bike repair station sited at Agraria will enable visiting cyclists to tune their rides. It will also be a space where schoolchildren can learn the basics of their cycles.



Bench (10)

\$10k | Benches will be situated throughout the Agraria Trail, allowing rest and a view.



\$50k | A bike share program will enable Yellow Springs and other students to borrow a bike for a quick trip to Agraria. It will also enable Agraria visitors to sprint into the village for lunch or an errand.

Changing Landscapes of Agraria

PHOTOGRAPHY BY DENNIE EAGLESON 2017-2020









Since our purchase of Agraria in 2017, photographer Dennie Eagleson has been documenting our changing landscapes. What was a conventional corn and soy farm is transforming to wild and regeneratively-tended spaces as illustrated by her photos.











BY AMY HARPER

SNAPSHOTS OF AGRARIA

Mary's Way: Building a New Path to Agraria

A \$500,000 grant from the Ohio Department of Natural Resources Clean Ohio Trail Fund last year helped get the wheels rolling on construction of a bike/walking trail between Agraria and Yellow Springs. A generous grant from the Kettering Family Foundation along with a host of donations has kept the momentum going—we have raised almost half of the \$350K we need to meet the grant matching requirements and to support construction and related activities. These include removal of honeysuckle and other non-native species, educational signage, native plantings, a demonstration food forest, a welcome center, a patio, rest areas, and bike infrastructure.



AMY HARPER

Staff have cleared a path through the woods on Agraria to make way for construction of Mary's Way.

The trail will be known as Mary's Way in honor of the late Mary Donahoe. She and her husband donated 10 acres of wooded land through which the trail will pass. It will provide a safe alternative route to Agraria, enabling a wide range of visitors—from K-12 students and elders to people with mobility challenges and those without cars—to access educational, recreational, commercial and conservation activities on the farm. The trail will also serve as a conduit for learning, with interpretative signage about native plants, animals, and the history of the landscape, as well as regenerative practices taking place on Agraria. It will also



SUSAN JENNINGS

Agraria is working with IBI Group, an engineering firm from Cincinnati, on the design and route of the bikepath.

link to the Little Miami Scenic Trail and be part of the Buckeye Trail and North Country Scenic Trail network.

Site preparation for the path has already begun. Initial markers have been laid for more than two-thirds of the trail's length, and staff and volunteers have completed almost 1,000 feet of honeysuckle removal and brush clearing along the trail's route. The resulting path reveals the promise of the trail to come. Construction is expected to begin next year, with completion by Summer 2021.

Regenerative Practices on Agraria

Agraria is incorporating two practices on the farm that will demonstrate key components of a regenerative agriculture system: silvopasture and intensively managed rotational grazing. The silvopasture project is partially funded by a grant from the Patagonia Corporation, a leader along with the Rodale Institute in promoting regenerative organic agriculture. A grant from the National Resource Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP) will support development of the rotational grazing site.

Silvopasture is an agroforestry (AF) practice that combines trees with livestock and forage production. It builds soil structure through the integration of woody perennials with perennial grasses and also provides habitat and food for birds, insects, and small mammals. Silvopasture is one

of several agroforestry systems that Agraria plans to model. Others include forest farming, or multistory cropping, and riparian forest buffers along the Jacoby Creek corridor.

In a rotational grazing system, livestock are pastured in fenced-off sections and moved regularly so that they do not overgraze the pasture. This regenerative practice builds soil carbon, increases soil fertility, and benefits the health of the animals as well. The rotational grazing pasture will be sited on approximately 27 acres of Agraria. It will serve to educate farmers and community members on the ecological and economic benefits rotational grazing provides and will be the first educational rotational grazing pasture in the area.

Both silvopasture and intensively managed grazing have climate mitigation and adaptation benefits. Trees are the all-time champions when it comes to drawing down carbon from the atmosphere and regulating the earth's water cycle. Grazing animals produce compost and work it into the soil with their hooves, accelerating the rate of carbon sequestration.

Reforesting the Land

It's hard to see the forest for the trees, goes the old saying. On parts of Agraria, it's hard to see anything, much less the forest, for the dense thickets of honeysuckle and other non-native, out-of-place plants that have taken hold, crowding out other species and sucking the life out of the soil in the process.

But that is changing. Since purchasing Agraria in 2017, staff and volunteers have been whacking and chipping away at the honeysuckle, bit by bit, trunk by stem, with the goal of returning the ecosystem, and the soil it depends on, to health. Agraria is not alone in its battle to reclaim the land from amur honeysuckle. It plagues landowners throughout Southwest Ohio.



AMY HARPER

Reforestation plot after honeysuckle was cleared last year.

This spring, thanks to a pilot reforestation project funded last year by the Vectren Foundation, two acres on the front campus of Agraria have been cleared of honeysuckle and standing dead ash trees. In their place is a fledgling forest



Reforestation today.

AMY HARPER

of canopy trees, understory trees, shrubs and native grasses. Participants in a Forest Garden Design workshop held in May added a number of new trees and plants to the plot. Walking paths now weave around islands where persimmons grow, along with northern pecan, chinquapin oak, white oak, shingle oak, American hornbeam, hop hornbeam, wild plum, paw paws, serviceberry, elderberry, and dogbane.

The plot illustrates permaculture design and agroforestry (AF). An integrated system of multifunctional components, permaculture aims to create self-sustaining, efficient and productive landscapes that mimic the diversity, stability, and resilience of natural ecosystems, regenerating soil health and biodiversity while providing for food, energy, shelter, and other human needs. Agroforestry practices like forest farming integrate trees and shrubs into crop and animal farming systems. The reforested area should be relatively self-sustaining within 5-10 years, with the need for aggressive maintenance decreasing each year as the forest establishes itself.

The area will support Agraria's educational mission, serving as a demonstration site for soil and forest regeneration, and will include signage identifying the various plantings and their benefits as well as demonstration gardens. It will provide a site for experiential and project-based learning for students and teachers in area school districts; a field lab for students and researchers studying restoration ecology, soil and water health, agroforestry, and regenerative practices; and workshops and training for urban gardeners and others.

The pilot reforestation project is the first phase of a larger effort to repopulate Agraria with native trees and plants. It includes expansion of the reforested area to include the adjoining five acres. Clearing of that section has already begun.

Infrastructure

Agraria's 112-year-old barn is being restored and upgraded to accommodate Community Solutions activities. Our newest addition—made possible by generous donations from Roger and Macy Reynolds, and Artie and Alisa Isaac—is a Phoenix composting toilet system in the main events space on the upper floor. This installation was made possible by Richard Lapedes and Maureen Lynch, who donated funds to repair beams and the barn floor. The lower level, which once housed dairy cows and milking stations, is slated for a new cement floor courtesy of CEMEX (Cement Fairborn Co.). The lower floor of the barn is being upgraded to house a farm goods store and tool lending library for the community.

Agraria is partnering with three engineering students from the University of Dayton ETHOS Immersion Program to design a large-scale water catchment system for the barn. The design includes an above-ground cistern and a retention pond. This replicable system will serve as a demonstration project for farmers and landowners, while being used to water our gardens and nearby field.

Fertile Ground for Exploration and Research

As a Center for Regenerative Practice, we are committed to research that advances the study and adoption of regenerative practices in this region and beyond. We serve as a field site for studying soil and water health and the impact of regenerative land use on the ecosystem, the local food system and economy, and human health. We have established partnerships with a number of institutions,

including Ohio's two land grant universities, Central State and The Ohio State University, along with Wright State, Wittenberg, and Ohio universities, the University of Dayton, and Antioch College. Here's a look at the various explorations growing out of our work:

Soil health

The effect of regenerative practices on soil health is a primary research focus for Agraria. We tested the soil in our fields after purchasing the farm in 2017, again last year, and are doing so this year to assess the changes in soil health as a result of practices like cover cropping, no till, and organic soil amendments. It normally takes several years to show a statistically significant improvement in indicators of soil health like organic matter, mycorrhizal fungi, and water retention.

The introduction of silvopasture and managed rotational grazing on Agraria will provide another opportunity for research on the effects of those practices on soil and ecosystem health. And we continue to seek research partners to explore the impact of our farming practices on carbon sequestration and climate cooling.

Our goal is to compile all the data we collect on a shareable soil database that will increase our ability to engage in research.

Cover cropping

Our partner farmers have been experimenting with various cover crops, which are seen as key elements of a regenerative farming system. Jason Ward keeps a log of his experiments and has found that some covers are almost as advantageous as organic fertilizers. For instance, he's found that cereal rye works best on the Agraria fields he farms.



AMY HARPER

Cover crop of hard winter wheat growing in Agraria field.

It holds water, sequesters nutrients, and lays a mat on the ground that effectively suppresses weeds.

There has also been a significant decrease in weeds from the first year to the present. This is the result of consistent cover cropping over time. Weeds are a sign of imbalance in the soil chemistry, and as cover crops provide missing nutrients, fewer weeds are needed to balance things out.

Soil amendments

Jason experimented last year with several different kinds of organic fertilizer, creating test strips for each one. But a rainy spring washed away the chance of any conclusive results. This year he'll be looking at the effects of hen manure on his fields. He's also interested in exploring whether adding



Agraria partner farmer Jason Ward.

AMY HARPER

micronutrients to soil will achieve the same results as adding biological amendments. We are also establishing test plots to measure the effectiveness of compost, biochar and compost tea.

The Economics of Regenerative farming

Most of the fields on Agraria are now certified organic. Our partner farmers' journey will provide valuable information about the process, challenges, economics, and benefits of transitioning conventionally farmed fields to a regenerative organic farming system.

Restoration Ecology

The restoration and rehabilitation of Jacoby Creek and surrounding wetlands by The Nature Conservancy (TNC) opens up many opportunities for research on ecosystem renewal, now and into the future. TNC has gathered preliminary data on stream habitat and water quality as well as flora in the mitigation area. Students from Yellow Springs

schools have also conducted studies of macroinvertebrates and water quality in Jacoby Creek. These projects and others will serve as baselines for measuring the effect of the TNC project on the health of Agraria's riparian ecosystem.

Mycorrhizal Fungi

In collaboration with the Nature Conservancy, the Rúa Lab at Wright State University will investigate the potential for harnessing mycorrhizal fungi to improve tree seedling growth and survival for the TNC restoration project. Results from this work will be pivotal for improving restoration success in riparian restorations not only at Agraria but also throughout the Midwest.

Glyphosate

Central State University researcher Marcus Nagle partnered with the TNC on a project examining how glyphosate, which is widely used to eradicate amur honeysuckle, migrates in the soil. We are also looking at the long-term efficacy of mechanical removal vs. the use of glyphosate in the cut-stump method of honeysuckle removal.

Jacoby Partnership Project

Community Solutions is one of several partners in the Jacoby Partnership Project spearheaded by the Tecumseh Land Trust. Soil and water quality on Agraria and other sites will be tested as part of the project, which aims to encourage conservation practices and farmland preservation within two subwatersheds of the Little Miami River. Yellow Springs-based YSI, another partner in the five-year project, will install in-stream monitoring equipment on Agraria as part of the project, and Central State University will



AMY HARPER

Central State University professor Dr. Marcus Nagle and student Dazjuan Brittman conducted a glyphosate research project on Agraria last year.

SNAPSHOTS

conduct soil testing. YSI is part of Xylem, a world leader in instrumentation for monitoring water quality.

Agricultural Research

Agraria will serve as a site for research on two specialty crops: sweet potatoes and Silphium integrifolium, a native North American perennial plant with a number of potential uses.

The sweet potato research, conducted by Central State, focuses on sweet potato production in northern climates, and will explore the fitness of accessions from national germbanks for growing in the cold, wet Ohio springtime conditions. The opportunity for participatory planting, research, and education related to specialty crops aligns well with Agraria's mission as a Center for Regenerative Practice. Community Solutions signed a memorandum of understanding with Central State last year that formalized collaborations on research and educational initiatives.



Silphium plant on Agraria.

AMY HARPER

The Land Institute, a national organization, is partnering with Agraria on a trial to determine if Silphium integrifolium is capable of thriving in Ohio and, more specifically, which ecotypes from other regions perform best. Various genetic populations are available through the Land Institute's breeding program. Silphium has potential as a new perennial oilseed crop, a useful plant for revegetation and erosion control, a pollinator resource, and a forage. Ohio is not in its natural range, though it has been successfully grown in



AMY HARPER

Bluebirds are one of more than 100 species of birds that have been sighted on Agraria.

other places where it is not native. The trial also aims to verify that Silphium integrifolium could serve as a perennial conservation species in flooding-prone riparian field borders. Another goal of the project is to educate visitors about perennial crops and genetic variation and germplasm conservation in wild plants.

Habitat Restoration

We are slowly building a photo database of bird species, helped by a host of citizen scientists Agraria welcomes and encourages citizen scientists of all ages as a way to encourage scientific inquiry and analysis, monitor changes in the ecosystem, and foster an appreciation for the natural world and its many wonders. Participants in a recent BioBlitz added 30 newly photographed species to the database and catalogued 15 new species, bringing the list of birds sighted on Agraria to 137, up from last year's total of 102.

Agraria partnered with Yellow Springs schools, the Tecumseh Land Trust, and the Ohio Bluebird Society last year on "Operation Bluebird," aimed at helping document and increase the population of cavity nesting birds. As part of the project, Yellow Springs students monitored bluebird boxes last year and entered their data into Nest Watch, a nationwide citizen science database, that will be used by ornithologists at Cornell University and beyond. Covid-19 prevented students from participating in the project this year, but we continued monitoring the boxes during the nesting season.

Other research projects under development include two projects by Wright State University researchers: ornithology field work studying population genetics of species overtime during specific times and a study of feeding patterns of coyotes within anthropogenic environments. Agraria is hosting some European honeybee hives, providing another opportunity for research.

Amy Harper is a writer, editor, and photographer at Agraria who previously served as Editor of the Yellow Springs News.

BY RICH SIDWELL

TRIP OPENS DOOR TO

Global Partnerships for Planetary Health

Executive Director, Susan Jennings, and I left the U.S. on January 1, headed to India at the invitation of Lee Morgan to visit Mitraniketan in the southern state of Kerala. What an incredible way to begin 2020!

Mitraniketan is a non-profit community development organization founded in 1956 to provide educational, economic, and quality of life opportunities for poor and disadvantaged rural youth, women, and marginal farmers in Kerala. Situated on 60-plus acres, Mitranikatan houses a

residential school for tribal children, Mitraniketan People's College, a Farm Science Centre with a focus on sustainable agriculture, and a Rural Technology Centre.

Lee's father, Arthur Morgan, was influential in its founding and development, and it has attracted international support and attention over the years in the form of monetary donations and development projects. Student interns and volunteers from other nations spend weeks to months learning while living in the community and bringing a variety of



 $Rich\ Sidwell\ helped\ sort\ seeds\ at\ Vandana\ Shiva's\ Navdanya\ Farm\ during\ an\ exploratory\ trip\ to\ India\ in\ January\ 2020.$

SUSAN JENNINGS

skills and experience, making it a rich environment for the generation of new ideas while providing basic services and education to rural youth and adults.

The journey to India was transformative for us in so many ways. Returning to the U.S. right as the pandemic was spreading around the globe set the stage for us at Community Solutions to step up even more as an organization that can offer guidance and support for the journey through to a better planetary paradigm.

Those of us who have traveled abroad, particularly to a region where we could experience a distinctly different culture, know how our perspective on life is broadened. This journey had the additional benefit of Lee's long connected history with the people of Mitraniketan. We spent our days meeting people, visiting local projects, and regional historic sites, and each evening comparing notes, posing questions, and reflecting on our observations. We lived very simply, sleeping in dorm rooms that provided only the basic needs: a bunk, an electric light, a flush toilet, a small sink, and cold running water. We bathed using a dipper to pour water over our heads. Our hosts provided good meals made from local staples. We usually had access to the internet once a day for communicating with the rest of the world but enjoyed the respite from it otherwise. We used our phones to take photos and tape conversations and interviews.

Susan and I extended our time in India to also visit Navdanya Biodiversity Conservation Farm in the foothills of the Himalayas, in the far northern section of the country. Navdanya was founded in 1995 By Dr. Vandana Shiva, internationally



SUSAN JENNINGS

Mitraniketan Director Sethu Viswanathan with Center friend and supporter Lee Morgan.

acclaimed author and speaker, as a sanctuary of biodiversity, originally to save native seed sources from the extinction brought on by threat of industrial agriculture. In the process of protecting more than 1500 varieties of seeds, they began to also focus on agroecology, rebuilding soil health, and attracting pollinator species, birds, and insects. They have developed a holistic regenerative practice center that now includes a soil laboratory and Earth University courses for farmers, volunteers, and participants from around the globe who seek to reconnect with natural practices.

Like Mitranikaten, Navdanya was founded in response to a specific concern and need. Native Indian farmers who had been largely self-sufficient for generations caring for the land with practices that evolved over hundreds of years were now under the pressure and influence of global corporations to change their practices

with the promise that they could increase yields and realize economic benefits beyond anything they had ever known before. Consequently, native seed varieties were being modified and patented so that farmers could only acquire them from the companies that also sold them the chemicals to kill weeds and insects as well as the commercially produced fertilizers to increase yields. The result? Over time farmers became economically dependent rather than independent, soil health diminished, and famer suicide rates ramped up because of indebtedness and increased inability to provide for their families.

As we know now, this is the story world-wide, in rich and poor nations alike. Corporations with increased focus on profitability have promoted the model of monoculture industrial agriculture to the point that the planet is suffering from dramatic species losses, climate change, and significant

decreases in human public health. Human life expectancy, even in developed nations like our own, is likely for the first time in many decades to decline.

I have been often asked since our return from India to summarize the experience in a few words. The depth of the experience is simply hard to



Presentation at Mitraniketan in Kerala, India.

describe. But the one word that has come to mind over and over again to me in my reflections is "resilience." Yes, population density is very evident, and many do live close to the margin of physical survival. But we encountered joy, pride, intelligent resourcefulness, lives focused on good work, education, and compassion. Yes, there is suffering; none of us are immune to it. But India is an enduring nation with a very long history of both suffering and enlightenment.

The reflections and appreciations of the India journey have continued

during the weeks since our return. Arriving home just as the coronavirus pandemic was beginning to emerge around the globe has simply spurred further reflection. We are witnessing a time of dramatic change. There will be no return to what was considered normal just a few months ago.

Now we are asking ourselves

what can be learned from this crisis. We who remember participating in the first Earth Day celebration 50 years ago have found ourselves time and time again suffering severe setbacks in our efforts to address the negative impacts on planetary health that our collective human lifestyles have caused. We have acknowledged that we all are part of the problem, but have felt the resistance to change all along the

SUSAN JENNINGS

way. While that has not deterred our work, it has made us question how to more effectively promote change.

Agraria emerged just three years ago as the new exciting project growing out of the long legacy begun by Community Solution's founder Arthur Morgan decades ago. We have just gotten on our feet, so to speak, as a land-based organization working to engage, support, and inspire human growth into a new paradigm. We find ourselves now entering unknown territory, offering compassion, education, and hope,

seeing opportunities unfold in the midst of calamity. This time of enforced pause and reset is giving the planet time for healing and renewal. At Agraria, we also have paused but only to consider how to reset, refocus, re-energize, provide renewal, reconnect in new ways, and re-engage effectively with the process of learning to live harmoniously on this planet.

This is a time of a grand sorting as our economy declines, and many face the basic challenges of food and shelter. Institutions are faced with the question of survival, and many are likely to fold. We at Agraria, on the other hand, while no less challenged, see this as a time of unprecedented opportunity to serve. Early indications are that our supporters are seeing this also. We are forging ahead offering pathways to resilience at a time when it is more needed than ever.

We connected in India with incredible partners in the mission of building a positive future for all life on this planet. Agraria, while seemingly a dot on the landscape, is poised to serve not just locally and regionally, but in partnership with others globally. Consider the possibilities. Earth Day could become Earth Month or, even better Earth Year, Earth Decade or perhaps Earth Century. Now is our time for movement, not for complacency. What will the "new normal" become?

Rich Sidwell, treasurer of the Community
Solutions board of trustees, is co-founder and
treasurer of Raven Rocks, Inc. a 1250-acre
wilderness preserve and alternative energy
demonstration center near Beallsville, OH.
He is vice chair of the Wilmington College
board of trustees and a board member
and former executive director of Captina
Conservancy Land Trust.

LOCAL FOOD FOR LOCAL PEOPLE:

Growing a Strong Local Food System

BY ALEX KLUG

The Covid 19 pandemic has opened our eyes to the faults in our economic system that leave so many without healthcare, fair pay, or access to adequate food.

The Covid 19 pandemic has opened our eyes to the faults in our economic system that leave so many people without healthcare, fair pay, or access to adequate food. Food and agriculture industries have been hit particularly hard over the last few months. We've heard the stories of farmers who have had to make the tough decision to till crops back into the field, dump gallons of milk into manure pits, or scramble to find other means by which to slaughter and sell their animals.

Meanwhile, food insecurity, which

has been on the rise in the US and in Ohio over the last decade is expected to increase. In Greene County, well before the coronavirus took hold, there were 10,930 active members relying on government issued food assistance, 4,814 of which were children. Those numbers will increase along with the food insecurity rate, which is projected to rise from 12 percent in 2018 to as high as 17 percent in 2020. In neighboring Montgomery and Clark counties, the projected food insecurity rate for this year is 20 percent, up from

15 percent in 2018.

As Ohio's first Center for Regenerative Practice, Agraria has made it a priority to strengthen the local food system by advancing regional food access and sovereignty and sustainable food production. Less than ten percent of the food grown in the United States is distributed near the geographic region in which it was produced. This means that while supply chains are feeding markets around the world, locally grown food is not always accessible to local populations. From a food sovereignty perspective, limited access means that many people are not able to find culturally appropriate foods or meet important nutritional needs.

To increase access to these foods, Agraria has developed initiatives to support our food system. Our staff



AMY HARPER

Alex Klug and Xinyuan Shi at the Yellow Springs Farmers Market.



ALEX KLUG

Yellow Springs resident, Al Schlueter, with food he is donating for distribution to area food pantries and farm stands.

and volunteers have managed the SNAP (Supplemental Nutrition Access Program) and Produce Perks programs at the Yellow Springs Farmers Market for the last four years. These programs are the primary way for people who rely on state issued food benefits to purchase local foods. Agraria has also partnered with the Farmers Market to develop a website that markets farms online while offering limited purchasing options.

Agraria also established the Yellow Springs Generous Gardeners group, which offers support to community members who grow their own food and to beginning gardeners who want to learn how. Yellow Springs Hardware has contributed hundreds of vegetable seeds for any grower who wants to participate in the Generous Gardeners program. The group is also promoting the Grow-A-Row program by encouraging home gardeners to grow an extra row of produce for donation. Much like the Victory Garden movement during WWII, Grow-A-Row gives us an opportunity to strengthen our community through gardening.

Our new food distribution project relies on more than home gardeners. We also invest in area farmers, purchasing directly from them to help get good food to community members who need it most. In doing this we have made it a priority to pay farmers a living wage for their hard work, and strengthening the local food system in the process.

Because of the many generous donations we've received from community members, we are now able to safely store and distribute fresh foods directly to villagers in Yellow Springs and to neighboring communities. To date, with the help of a handful of volunteers, Agraria has distributed over 800 lbs. of food, nearly half have of which was purchased from farmers in our area.

The food we distribute is taken to seniors in Yellow Springs through the Yellow Springs Senior Center, which serves on average, 15 elders each week. We are also partnering with S.O.U.P. (Springfield Ohio Urban Plantfolk) to distribute the food through their farm stands in South Springfield. In early

March, just before the Covid pandemic hit the nation, South Springfield lost its last grocery store. This loss affects an estimated 30 percent of Springfield's population, which was already a USDA designated food insecure community. Our long-term goals are to identify ways in which we can serve more households in our Yellow Springs and maintain support for our food insecure neighbors, all while putting money back in area farmers' pockets.

In the future we look forward to developing a commercial kitchen where we can host a wide range of food literacy classes and workshops and offer a space for food-based education. What these initiatives are teaching us is not only to be more resilient, not just to bounce back from hardships, but how to safeguard ourselves against hardship in the future. Growing your own food and supporting the folks in your community who do is an investment that has both short- and long-term payoffs.

Alex Klug is a first year Americorps Vista at Agraria.



AMY HARPER

Dan Kitteredge of the Bionutrient Association, one of Agraria's partners, spoke at Agraria during our 2019 conference about the relationship between healthy soil and nutrient dense food.

PANDEMIC SLOW DOWN

A Chance to Sit and Listen, to Begin Anew

BY GABBY LOOMIS-AMRHEIN

It is the month of May in an unusual year. Things are blooming as they do, greening as they do, chirping, singing, and squealing as they do.

Agraria is moving about as well, though a little differently. The Land Team is currently building and planting and tending gardens to support local pantries and our staff as needed. We have also taken the opportunity to slow down and sit more deeply with the land, with our ecological neighborhood, and do some more vigorous surveying.

In this sitting, watching, listening, we've noticed some changes, both external and internal. We're limited in our capacity to remove what are commonly termed invasive species, though still moving forward at a safe pace. We are glad to be doing much more planting, transplanting, seed starting, and tending to existing native populations. Externally, this means physically observing native diversity in a way we haven't had the opportunity to do since Agraria's inception. A gray tree frog reminded me of this just last evening, hiding beneath the leaves of a new patch of melissa planted a month ago.

Internally, I believe, this means a respite for the psyche of the land team. While the removal of invasive species (we often say OOPS or out-of-place-species to acknowledge the human role in these population distributions and their effects) is something we practice and is a currently accepted norm in

land management, there is some fringe research and theory based around the premise of OOPS removal alone as a continuation of extractive process on the land, and an uphill battle from a labor perspective. As a labor of systemic elimination or maiming of populations The question then, is how do we breathe and balance these labors of love, listening and understanding for ourselves, our bodies, our ecological neighborhood? Science is one tool to help frame how these footsteps land in the forest. Below is a non-exhaustive



A coyote captured on the trail cam.

of living things, this task alone can take a tremendous if subconscious toll on the humans undertaking them.

There has been a lot of commentary about humans as the virus, and Covid as the revelator and eugenic deliberator. I believe we've just been lost in a system based on accumulation and thus, extraction. Slowing down has not revealed humans as the virus, it has helped uncover parasitic systems and behaviors, and in a way, is presenting us with time to reshape and craft better ways of being together in community, in ecology.

list of Agraria by the numbers this year as we've honed our listening practice through recent bio-blitzes, surveys, and happenstances:

- First-, second-, and third-year copses are doing well in our regenerative coppice yard, providing sustainable timber for fencing, and varied canopy and understory habitat for native pollinators and migrating birds.
- More coyote and deer activity, including a fawn in the reforestation area.
- Many more eastern cotton-tail rabbits, as well as raccoons and



opossum photographed by our new trail cams.

- Fifteen new bird species, for a total of 138 wild avian species recorded in the last three years.
- Many previously unknown native flora, including at least two at-risk species.
- Much less poison hemlock, due in part to mechanical management.
- Much less honeysuckle, due in part to in house management as well as contracted work for the Jacoby Creek project.
- Many more insects, in particular, beneficial garden predators.
- Our first recorded snapping turtle and milk snake
- Evidence of successful seed rain distribution of native perennials we've planted in the past several years. (seed rain is the distribution of the seeds of plants

- Agraria supports a healthy pollinator population with its pollinator gardens.
 - by birds and other animals and can be folded into permaculture, agroforestry, and reforestation planning.)
 - A banner spring for wild fungi on the farm from consistent spring rains, a fitting happenstance with the inoculation and installation of our first cultivated mushroom yard, replete with logs full of shiitake and oyster spawn, slowly working their mycelial magic.

All of these wonderful happenings beg further questions, which staff at Agraria will explore until the next ones arise: What does farming and food look like in a world of Covid? How do we move not only from extraction to equitable transaction, but from here to care? Why were scarcity models constructed and held onto for so long? And, finally, how do we reconstruct in such a way that abundance and balance for all is the mode by which we live?



Green Corps VOLUNTEERS

Green Corps volunteers are clearing honeysuckle along Jacoby Creek as part the Nature Conservancy's stream and wetland restoration project on Agraria. The project includes removing honeysuckle and other non-native plants, remeandering the stream, restoring and rehabilitating surrounding wetlands, and replanting the project area with native trees and plants. Agraria is collaborating with TNC on plant selection to create a zone for demonstrating riparian buffer agroforestry along the stream corridor. TNC is scheduled to begin work on remeandering the creek this fall. Replanting is scheduled for Spring 2020. Photo credit: Susan Jennings

CONFERENCE AIMS TO GROW

A New Generation of Black Farmers

BY ARIELLA J. BROWN

A hundred years ago, there were almost a million Black farmers in the United States. Today their numbers have dwindled to 45,500, representing only a little more than 1 percent of the total number of farmers in the country.

Organizers of the upcoming online conference, *Black Farming: Beyond 40 Acres and Mule*, would like to see those numbers grow in Ohio, and beyond.

The conference, scheduled for Sept. 11-12, 2020, is being co-hosted and led by Community Solutions, Antioch College, The Afro-American Museum and Cultural Center and Central State University, with financial support from Nationwide Insurance, The Ohio Farm Bureau Foundation, Farm Credit Mid-America and the 400 Years of African American History Commission, as well as support from several other community partners and organizers of the conference.

The goal is to showcase the strong, historical roots Black Americans have had in agriculture, support young and beginning Black and underrepresented farmers in our region, and foster a new generation of Black farmers.



"People of African descent have a long agricultural tradition," said one of the conference organizers, Dr. Kevin McGruder. "In spite of their forced farm labor under chattel slavery in the Americas, in emancipation, most African Americans returned to this tradition as independent farmers or sharecroppers."

The conference will explore the roots of free Black farming in the Midwest during the first decades of the formation of the United States and include a series of discussions regarding the challenges and opportunities experienced by Black farmers in the Miami Valley today. It will highlight various facets of agriculture, including growing food in urban food deserts, farming in a pandemic, and hearing from one of the largest, thriving Black farming cooperatives in the nation, The Federation of Southern Cooperatives.

Agriculture is one of the leading industries in the state of Ohio, contributing \$93 billion dollars to the state's economy last year and accounting for one in eight jobs statewide. Ohio is also home to two outstanding land grant institutions, Central State University and The Ohio State University, reflecting the state's agricultural heritage. From traditional and organic farming to agribusiness, there are many opportunities for young and beginning farmers and entrepreneurs interested in careers in the food and agriculture fields.

The conference will include an online resource fair, information about how to get started with a farming business, and a chance to simply connect with the local and national farming community. The Ohio Farm Bureau will also be available to speak to participants about various programs and opportunities, including their ExploreAg program, which is specifically designed to offer high school and college students hands-on experiences in agriculture. Representatives from both land-grant institutions will also be available to speak to students and their families about educational and career opportunities in agriculture.

We hope you will join us to learn about the history and impact of Black farming in Ohio and help us grow the next generation of Black farmers and agricultural entrepreneurs.

The conference is free and open to the public. For more conference information and to register, please visit our Eventbrite page at: https://blackfarmingohio.eventbrite.com.

Ariella J. Brown is Associate Director of Gender Equity Programs and Education at Antioch College and a member of the planning committee for the Black Farming conference.

CONFERENCE SPONSORS























AGRARIA Goes Online

In order for us to continue to provide education during the Covid-19 pandemic, we have moved a lot of our programming online. Here's a look at some highlights:

- Stay tuned for our Humanities Podcast Series with WYSO's Renee Wilde on the history of farming in Ohio, with a focus on Black and Indigenous farming. More coyote and deer activity, including a fawn in the reforestation area.
- We are also sponsoring a podcast series featuring conversations between local and national leaders in the

- regenerative field and Community Solutions Executive Director, Susan Jennings.
- Saturday Online skill-sharing series focusing on seed sharing, mushroom cultivation, and more.
- Community Solutions is also partnering with the Yellow Springs News on a series exploring how communities can create a resilient, post-Covid future.

Check out our calendar for other events that have moved online.



Americorps VISTA Volunteers



XINYUAN SHI

I am starting my first year as an AmeriCorps VISTA volunteer at Community Solutions. Before joining Community Solutions, I spent a year in Zambia as a Peace Corps volunteer working with local communities on conservation farming and agroforestry. Initially, I was attracted to this organization because of its pioneering work in regenerative agriculture. After moving here from Upstate New York and meeting many wonderful people, I feel even more at home and am extremely excited to support the organization's vital efforts to create resilient systems for the future of our communities.

ALEX KLUG

Finding meaningful work isn't easy to come by these days. Competitive job markets, student loan debt, and a growing wage disparity all contribute to the challenge of finding a "good job." Add to that a desire to effect positive change in your community and the search for meaningful employment becomes an arduous pursuit.

So, when I learned Agraria was hiring a new Americorps VISTA last fall, I immediately jumped at the opportunity. I knew from friends who'd been hired as Americorps VISTAS that it was a well-respected, federally funded program created to alleviate poverty through community-based service. Since its inception in 1965, the program has changed its name and parent organization, but the objective remains the same: to increase civic engagement and contribute to an improved quality of life in your community. I viewed this as an opportunity to dedicate a year of my life to the important work I knew Agraria was doing.

Applying my experience in agriculture, permaculture and regenerative gardening while working at the farm has been a dream. My time here has allowed me to continue supporting initiatives I hold dear while gaining a new and diverse skill set. To date, I have created and supported fundraising campaigns for local food and farming projects, written and assisted grant writing efforts, expanded a farmfresh food access program to a neighboring community and collaborated with University of Dayton undergraduate and graduate programs on both on- and off-site projects, all while engaging with inspiring community partners and volunteers.

What Agraria is doing to establish this region as a leader in regenerative farming is unlike any other organization. The team's dedication to climate change action, social and environmental equity, and accessible education offers hope in a difficult time. I can honestly say I look forward to each day working at Agraria and am grateful to know what a good job is.

RACHEL ISAACSON

I am about to begin my second year as an Americorps VISTA at Community Solutions. Since Agraria is a fairly new project, I've had the opportunity to watch Agraria grow and to help build its capacity over the past year. Through my service, I have had the pleasure of being able to partner and work with many other organizations in this region on building a stronger regional food system, as well as managing the EBT/SNAP program at the Yellow Springs Farmers Market. I have also loved assisting with

the coordination of events and doing a lot of media outreach. Much has shifted in our event programming due to the Covid-19 pandemic, and I am looking forward to all of our new online events and media work this next year!

ADAM GREEN

I am a graduate of the 2020 Class of Antioch College, with a major in Environmental Science and Ecological Economics. My studies have focused on plant ecology, political economy, and quantitative methods, and my senior project was a statistical analysis of economic inequality, racial segregation, and environmental degradation in the state of Ohio. I'm interested in botany, ecological

conservation, and education and hope to pursue a career in scientific research or education.

I began working at Agraria as a Miller Fellow in April of 2019 and stayed on full time in the fall as a coop student. My work at Agraria has included invasive species removal, garden maintenance, botanical surveys, planting of native species, and creating and maintaining a Geographical Information Systems (GIS) Land Management Record.

I am excited about continuing my work at Agraria this summer as a VISTA and about working in the new garden. I have been planting basil and tomatoes and am looking forward to caprese salads and pesto.



Volunteers JOIN US AT THE FARM

Volunteers keep Agraria blooming!
From planting flowers, replacing
barn beams, organizing conferences,
photographing events, writing articles,
and teaching workshops, our friends
have contributed hundreds of hours to
Agraria and our Community Solutions
community. We would love to add your
name to our volunteer list!
Contact Rachel Isaacson (risaacson@
communitysolution.org) or 937-767-2826
for more information.









CALENDAR OF EVENTS

2020

AUG 26

Wednesday. August 26th, 6:30 pm-8:30 pm Introductory Cooperative Webinar Online Only.

Ohio State University and GDUCCI will present this Cooperative 101 webinar course where we welcome farmers, organizations, and folks in the food industry to learn about what a cooperative is, and how cooperatives work.

Register at: https://co-op-101.eventbrite.com

AUG 29

Saturday, August 29th, 1-3pm From Sheep to Shawl - The Fiber Journey Online Only.

Join shepherdess Keba Hitzeman as she takes you on a brief tour of Innisfree on the Stillwater, her certified Organic farm near Pleasant Hill, Ohio. Meet the heritage Shetland wool sheep (along with some Kinder goats and Great Pyrenees livestock guardian dogs!) and walk through the process of shearing, skirting, washing, prepping, and spinning that wool into yarns for knitted, woven, or crocheted projects. Register at:

https://from-sheep-to-shawl.eventbrite.com

SEPT 11-12

Friday, Sept 11th-12th

Black Farming: Beyond "40 Acres and a Mule"

Online and limited in-person tickets available.

Learn about the hidden history of black farming



in Ohio and how current farmers are faring. With technical assistance workshops and ideas of how to get started in farming. Co-sponsored with Antioch College and The National Afro American Museum and Cultural Center. Get tickets at: https://blackfarmingohio.eventbrite.com

SEPT 19

Saturday, Sept. 19th, 1-3pm Visible Mending Workshop with Namita Patel of Dayton Fibershed

Learn the art of visible mending and how to repair clothing to extend its lifespan while at the same time updating the design of garments to create a new look. The workshop will cover ways to mend garments using embroidery, patchwork, and weaves. For participants interested in sharing their mending projects, there will be a show-and-tell at the end of the session. This time of sharing will allow participants to learn from each other and inspire new designs. Ticket information and registration at:

https://visible-mending-wksp.eventbrite.com

SEPT 25-27

Friday, September 25th-27th Seed School with Beth Bridgeman Limited in-person tickets available. Online ticket TBD.

Join this hands-on course where participants build their own winnowing screen and participate in a seed swap. Registration and tickets at: https://seed-school.eventbrite.com

OCT 3

Saturday, October 3rd, 1-5pm
Food Preservation Workshop with Beth Bridgeman
Limited in-person and online tickets available.
Limited in-person and online tickets available.
In this workshop, participants will learn basic elements of food preservation including an introduction to water bath canning, grain

processing, drying, and pickling. Participants will make jam, make a drying screen, grind cornmeal, and take a turn at a cider press. Masks required. Social distance will be observed. Class will take place in the airy, spacious barn at Agraria. Limit 7 participants. Get tickets at:

https://food-preservation-wksp.eventbrite.com

OCT 10

Saturday, October 10th, 1-4pm Food Fermentation Workshop with Beth Bridgeman Limited in-person and online tickets available.

Fermentation is fun. In this three-hour workshop, participants will make their own sauerkraut, kombucha, kefir, and amazake. Masks required. Social distance will be observed. Class will take place in the airy, spacious barn at Agraria. Limit 8 participants. Registration and tickets at:

https://fermentation-wksp.eventbrite.com



OCT 17

Saturday, October 17th
Growing Gourmet and Medicinal Mushroom
Workshop with Mark Jones
SOLD OUT

Learn to grow several different types of mushrooms using low-tech, low-cost methods in your garden or woodlot. We will explore the biology and ecology of fungi in agriculture, using mushrooms for personal and planetary health, and methods for cultivating shiitake, oyster, lion's mane, reishi, and other mushrooms in wood, straw, and compost.

NOV 6-8

Friday, Nov. 6th-Sunday, Nov. 8th
Pathways to Regeneration: Restoration, Resiliency,
& Reciprocity

All online with potential limited in-person tickets available for hands-on workshops that will also be recorded.

Please join us as we co-create a way forward to a world that welcomes and lives alongside nature, restores and protects precious air, soil, and water, and is grounded in a credo of reciprocity that assures respect and balance in all our relationships. Get tickets here: https://pathways-to-regeneration.eventbrite.com

2021

FEB-APRIL

Adaptation Planning and Practices for Ohio Forests, Farms, and Natural Lands

Join the National Institute for Applied Climate Science for a two-day workshop on how stewardship plans for farms and forests can be updated with climate change in mind.

SEPT 26

Sept. 26th

Dayton Fibershed Fashion Gala

Join us at this fashion show to see what it looks like to wear our local landscape. Hands-on demonstrations and dishes from local farms and restaurants.

SUPPORTERS OF AGRARIA

Lisa Abel Adoption Link

African American Museum

& Cultural Center

Akshay Ahuja Lincoln Alpern Will Alexander

Gabby & Selena Loomis-Amrhein

Tom Amrhein Catherine Anderson Antioch College Paul Antze Asanda Imports Brian Appleberry Megan Bachman Scott Bachmann Jane Baker Bob Baldwin

Hardy & Jeanne Ballantine

Peter Bane Timothy Barhorst David Barker

Fred & Joy Bartenstein

Mario Basora

& Alice Young-Basora

Roger Beal Carol Beale Paul Beck Patricia Beetle

David & Sally Anne Benson

Ruth & Tony Bent Lara Bentley Rex & Karen Berney Malka Berro Dan & Kathy Beverly Richard Biddle Marianthe Bickett

George Bieri & Abigail Cobb

Michael Blackwell Leslie Block

Valerie Bickett

David & Danielle Bonta

Nick Boutis Bruce Bradtmiller David & Ann Brandt

Bob Brecha & Katharina Seidl

Elizabeth Brevik
Beth Bridgeman
& Edwin Amrhein
Harm Ten Broeke
Ariella Brown
David Brown
Steffen Brown
Isabel Brumley
Mary Beth Burkholder

Michelle Burns

Linda Butler & Dr. Steve Nissen

Jim Byrd Julia Cady Bill Cahalan

Calypso Grill & Smokehouse

S. Cameron John Cannon Andrea Carr

Central State University Ken & Peg Champney

Sherry Chen
Carl Champney
David Champney
Elaine Chappelle
Kat & Doug Christen
Robert & Suzannah Ciernia
Tyler Clapsaddle

Dawn Clark Jim and Brian Clem Clean Ohio Trail Fund

Clean Ohio Trail Fund Tom Clevenger Mark Cohen Pam Conine Howard Cort Estate Donna Cottrell Gordon Cowperthwaite Jeannamarie Cox

Jeannamarie Cox Cresco Labs Ohio Carolyn Ray Sheryl Cunningham Laura Curliss Current Cuisine Rebecca Dale Patti Dallas Jessica D'Ambrosia Stefani Danes Maureen Dawn

Dayton Foundation Wilma Deen Judith Dehn Oplinger Isaac DeLamatre Al & Donna Denman Kenneth Deveney Celia Diamond

David & Carvn Diamond

Elin Diamond Mary Jane Dodson Rick & Mary Donahoe Judith Eda

Dennie Eagleson Nick & Becca Eastman Roy & Heidi Eastman Katie Egart

Helen Eier Emporium Wines & Underdog Café

Mike Eid, III Auto

Claryce Evans

Larry & Sonia Ewald

Victor Eyth William Felker

Samuel Filkins Flagel Huber Flagel Meredith Florkey

Larry & Barbara Field

Caelan Ford
David Foubert
Emily Foubert
Ann Fox

Carl & Ginny Freeman Henry Freeman

Veronica Frost Coco Gagnier Glenn Gall

Eugene Gallardo-Hamond

Karen Gardner Jerry & Carol Gasho

MJ Gentile John & Barbara Geri

Larry Gerthoffer Joe Giardullo John Gibson Lauren Gjessing Cheryl Graham Bethany & Jordan Gray

Section Design

Greater Dayton Conservation Fund

Greene Canteen

Saul & Dionne Greenberg Alan Greenland

Linda Griffith & Scott Kellogg

Leslie Grossberg & Judy Kingsbury Susan Gruel

McArthur Gunter
Alana Guth
H.T. Mead Foundation

Kevin Hallinan Dan Halm Joanna Hardesty

Audrey Hackett

Rose Hardesty Mike Harding, Servlet Donna Haller & Family Franklin Halley Amy Harper

Amy Harper Eric Hausker Bruce Heckman Mark & Robin Heise

Lisa Helm/Dayton Urban Grown

Vickie Hennessy Virgil Hervey Lance Hetzler Kathryn Hitchcock Sarah Hippensteel Hall Kristine Hofstra Don Hollister Robert Hollister

& Catherine Donaher

Marc Holser

Andy & Beth Holyoke

Home, Inc.
Tim Honchel
Ellen & Rod Hoover

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Howard Horstman

& Laura Marshall

Brian Housh Kenneth Huber Jon Hudson

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Keith Kresge Shirley Kristensen Kroger, Fairborn Lori Kuhn Yasmina Landaburu

Kim Landsbergen Eric Lang Maggie Lankford

Richard Lapedes & Maureen Lynch Toni Laricchiuta & Dave Stratton

Ronald Lawler
Richard Lawrence
Matthew Lawson
Nan & Ron Leeseberg

SUPPORTERS OF AGRARIA

Nathaniel and Evelyn Lepp Kathryn Levesconte Scott Lindberg

Nancy Lineburgh & George Coder

Jim Linne, The Linne Farm

Little Art Theatre Logan County Land Trust

Lowes, Beavercreek

Ward Lutz Charles Lynd

Ardis & Thomas Macaulay

Marianne MacQueen

Krista Magaw & Andy Carlson

Carl Maida

Tom Manley & Susanne Hashim

Ju Mao Tom Martish

Donald & Linda Mates

Erika Mattingly Caryn Maxim Kathleen McCloud Lynn McCown Robert McDowell

Dr Geeta & Mr. Robert McGahey

Kevin McGruder Margaret McLaughlin Michael McVey

& Caroline Stevens

Howard Mead Aida Merhemic Elizabeth Mersky Carlton Meschievitz & Romie Bornschier

& Romie Bornschie Kenneth Meyer

Pam Miller Shawndra Miller Susan & Phil Miller Sylvia Miller Matt Minde Scott Montgomery Angela Moore

Bob Moore/RM Horticulture Charles & Pauline Moore Tim & Suzanne Morand Morgan Family Foundation

John Morgan
Lee & Vicki Morgan
Matt Morgan
Peggy Morgan
Carl Moser
Lamees Mubaslatt
Nadia Mulhall
Jim Mulherin
Marcus Nagle

Natural Resources

Conservation Service

Julia Navaro Rick Navaro Bill Nelson

Peggy Nestor & Mike Blevins

Lisa Niquette India Nunn Lisa Odafe

Ohio EPA Educational Fund

Ohio State University Ohio University Jenna Orkin Judith Dehn Oplinger

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Jerry Papania

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Namita Patel Caroline Parry Peifer Orchards Daniel Pelzl Sage Pence Zachary Pierson Jim Polk

Ron & Becky Pollack Elizabeth Porter Richard Posey Nancy Putnam Branson Pyles

Thomas & Susan Quinn Rails to Trails Conservancy

Anne Randolph Thomas Rapini Janeal Ravndal

Linden Oualls

Raven Rocks Community

Carolyn Ray
Tika Redding
Cristina Redko
Matt & Kathy Reed
Stephen Reiches
Perk & Karen Reichley
Reichley Insurance
Robert & Cindi Remm
Aaron Reporter-Harshaw
Macy & Roger Reynolds
Camille Ricchio

& Mrs. Wilma Righter Harriet Edith Roberts

Alice Robrish Anika Roecker Martha Rogers

Rev. Richard

Catherine Roma & Dorothy Smith Scott Romstadt, Romstadt Electric

Denise Runyon

Kirk and Christina Rowe

Peggy Saari

Paul & Gayle Sampson Nancy Saunders

Schade Family Foundation Laird Schaub

Devin Schenk Eileen & Jim Schenk

Al Schlueter John Schneider Nancy Schulson John Schuster Robert & Jane Scott

Alex Scott Sherraid Scott Amatul Shafeek Karen Shell Shohei Shibata Rich & Mary Sidwell Frances Simon Edward Simonoff

Marilyn Smith Starbucks, Fairborn Pat Stempfly Perry Stewart Susan Stiles Jonathan Stilwell Anne Stolar

Cheryl Smith

Elizabeth Stotler Carolyn & Gregory Stover

Sunrise Cafe
Janet Sweet
Jason Swiatkowski
Hope Taft
Charles Taylor
Tecumseh Land Trust
Lynda & Brad Terry
Barry Thacker
The Greene Canteen
Douglas Throp
Clark D. Tibbits

Tom's Market Jonathan & Carole Towers

Rachel Trumbull David Turner University of Dayton

Stephen Tobias

Vale, Inc

VanLehn Construction Vectren Foundation

Village Guest House Village Impact Project Village of Yellow Springs Malte & Pam Von Matthiessen

Elizabeth Walker

Eugenia Wall

River Walling Kat Walter Jason Ward Sarah Wartinger Glenn Watts

Barbara Waxman Carroll Webber

Richard & Barbara Webster Tony Wells Foundation Dave & Helen Westneat Mark Westneat & Melanie Hale

Fiona Tito Wheatland Marianne Whelchel

K.B. Whiteside & B.L. Zalph

Bonnie Wilkinson Linda Wigington Elizabeth Wiley Bonnie Wilkinson Harvey & Ellen Wineberg Cynthia Wineburgh Amanda Winfield Claire Winold Ted & Trudy Winsberg

Karen Wintrow

James & Jeannie Witherell

April Wolford Nancy Lee Wood World House Choir Beth Workman

Harold & Jonatha Wright

Rose Wright
Thomas Wulling

WYSO

Yavanna Foundation
Yellow Springs Brewery
Yellow Springs Chamber
of Commerce
Yellow Springs Credit Union

Yellow Springs Credit Union Yellow Springs Community

Foundation

Yellow Springs Dharma Center Yellow Springs Friends Meeting Yellow Springs Hardware Yellow Springs Home, Inc Yellow Springs Library Yellow Springs News Yellow Springs Schools Yellow Springs Senior Center

Carol Young and Parker Buckley Xenia Shoe and Leather

Barry Zalph Conrad Zagory Jr. Marty Zinn Richard Zopf

Karen Zukowitz & Dave Huber

Chris Zurbuchen

Pathways to Regeneration: Restoration, Resiliency, & Reciprocity November 6th-8th 2020

We live in fragile and unpredictable times that challenge our connections to place, nature, and our idea of a shared future. As a global community, we are at a choice point where the consequences of the decisions made today will be with us for decades. The intersection of an environmental crisis, global pandemic, and the struggle for racial justice has exposed the need for a new paradigm. We recognize that this pivotal moment sharpens awareness, creates urgency, and brings people together. We see more than ever the interconnectedness and preciousness of all life on Earth.

Please join us as we co-create a way forward to a world that welcomes and lives alongside nature, restores and protects the planet's resources, and is grounded in a credo of reciprocity that assures justice and respect in all our relationships.

This conference will be all online with keynotes, breakout rooms, workshops, and more!

We are thrilled to confirm the following presenters:

- Rowen White, Seed Keeper from the Mohawk community of Akwesasne and Director of Sierra Seeds
- Judith Schwartz, author of Water in Plain Sight: Hope for a Thirsty World
- Adam Sacks, Executive Director, Biodiversity for a Livable Climate
- Greg Watson, Director of Policy and Systems Design, Schumacher Center for a New Economics
- Doug Tallamy, Professor of Entomology and Wildlife Ecology and author of Nature's Best Hope
- Solomon Gamboa, Owner/Operator, Indigenous Landscapes
- Sallie Calhoun, Founder, #NoRegrets Initiative

Together presenters and attendees will explore the following issues:

- Protecting seed biodiversity and recognizing the leadership of Indigenous communities in this effort
- Restoring native habitats, locally and beyond, to protect threatened species
- Introducing children and adults to deep immersive activities with nature, building empathy and respect
- Celebrating and understanding reciprocity in BIPoC (Black, Indigenous, People of Color) traditions
- Restoring ecosystems through land practices that regenerate soil, air, and water

For More Information & Tickets Please Visit: https://www.communitysolution.org/pathways-to-regeneration