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Defining the Urban-Agrarian Space

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The ascent of “local foods” mirrors a larger concern amongst a growing number of people that our current food system is simply not working. We face a growing global food crisis as the combination of drought, freak weather events, rising fuel prices, and a growing market for bio-fuels have caused disruptions in supply chains. In the United States, despite massive public subsidies propping up an industrial form of agriculture, our food system results in extensive health costs, environmental damage, and a degradation of rural and urban communities. The recent phenomenon of food deserts shows a growing trend toward limited food access for a number of urban neighborhoods. The “food insecure” residents of these areas lack access to the foods needed to support a healthy diet and consequently face higher incidences of diabetes, heart disease, and other diet-related ailments. These health challenges come with a high emotional cost for families, a loss in productivity, and a more dismal physical environment as fast food defines an increasing share of the urban landscape.

On the other end of the chain, small farmers increasingly face difficult economic prospects as they get squeezed out of the long distribution chains that favor larger-scale producers. The combined impacts of rising fuel prices and climate change call into question the reliability of a food system which functioned on the wide availability of cheap fossil fuel and the deployment of manufactured farm inputs that have negative long-term impacts on soil and water quality. A study conducted by David
Pimentel of Cornell University revealed that it takes 10 calories of fossil-energy to put one calorie of food on a plate. One-third of this energy is gobbled up at the farm with machinery and manufactured inputs. Two-thirds of the energy is tied up in processing and long-distance shipment which carries the average food molecule 1500-2500 miles to get to us, according to Brian Halweil from the Worldwatch Institute.

The convergence of rising health costs, climbing fuel costs, climate change, and the declining reliability of supplies indicates a clear need for change. On the surface, changes in the food system might seem best addressed in the countryside. After all, urban centers traditionally have had nothing to do with the production of food or agrarian life. In fact, the industrialization of agricultural production motivated a large-scale movement of rural populations into cities to feed the growing industrial economy.

Many would scoff at the idea of a more agrarian-based culture as a step backward. Regardless, a new agrarian movement is taking hold in many of our urban centers. This alternative to the industrial food system presents a compelling vision that mixes food production and local food distribution into the very fabric of the urban landscape. Instead of lengthy distribution chains and the neon ooze of plastic strip malls, we see vacant lots becoming urban farms, corner-stores carrying local produce, neighbors gathering around meals, connections between elders and youth, and a resident population that can become more healthy, secure, and socially connected.

Cleveland provides an interesting model for the process of re-inventing a city
around agrarian principles. We do not often view agrarianism as having anything to do with city life. But as the agrarian principles of thrift, regeneration, local economy, community, and connection to land begin to work their way into cities, we can envision a new urban-agrarian landscape that blends new urbanism with the tried and true principles of a life embedded in community and closely connected to the land. This is not simply a hopeful vision for the future, but rather a description of what is already taking place on a growing scale throughout Cleveland and many other so-called shrinking cities in the industrial Midwest and Northeast. How does this movement fit into the larger effort to re-envision the regional economy around principles of regenerative design? We can bring the answers to this question into focus by highlighting the emerging “urban-agrarian” spaces becoming more prevalent in Cleveland. Do these urban-agrarian spaces reflect a fleeting trend or are they actually providing the seed bed for a much more enduring long-term vision for life in the Northeast Ohio region?

**Forces of Decline and Regeneration**

Anyone who has spent a year in Northeast Ohio knows about the forces of decline and regeneration. With one last gasp of life, the luminous colors that fill rural tree lines and urban streetscapes in the fall give way to the drab days of winter. Biting wind works its way through skeletal branches silhouetted against a perpetually gray sky. Winter is a time of reflection and inward thought, the time that some Amish refer to as their “leisure season.” Come spring, the first croaks of bullfrogs and peepers mark the resurrection of the land. Trees bud, sprouts poke through soil, and seed packets appear at the check-out stand. Spring activation leads to the steady growth of summer, and then we descend into the cycle again. In a region defined by deciduous forests, these seasonal cycles are connected to the land. Trees shed their leaves.
Leaves break down and become food for soil micro-organisms. Soil micro-organisms turn leaves into nutrients and organic matter that support plants. Every turn through the cycle leaves the ground richer than the year before.

Over the past century, we have seen a rapid and large-scale conversion of these rich deciduous forests and wetlands into industrial urban and rural landscapes. The products of industry pour out into the countryside to feed corn and soybean monocultures. Urban landscapes become dominated by asphalt, turf lawn, impervious surfaces, and a lack of green space. Interestingly, with the decline of population and the economy in regions like Northeast Ohio, many vacant lands and foreclosed farms are regenerating with vegetation. Grasses and shrubs push their way through cracks in the asphalt. Trees poke through the skeletal gridwork of greenhouse frames as broken glass mixes with earth. Compared to the temporary nature of the industrial-influenced landscape, natural systems show a resilience and a productivity that can endure over the long-term. What’s more, these natural systems operate completely off of sun, rain, air, and whatever nutrients flow through a system. They are not reliant on a continuous supply of resources and nutrients from far away.

Forces of regeneration apply equally to natural and social systems. A force of social regeneration can be seen in the increasing presence of urban agriculture in the city of Cleveland. More backyards, corner pocket parks, and vacant lots are being converted into community gardens or market gardens. Similar to a natural forest ecosystem, these gardens absorb leaves, grass, food waste, cardboard, and other prevalent urban wastes and turn them into topsoil. These spaces also have other notable impacts on
the urban landscape: they absorb stormwater, repair the torn social fabric of neighborhoods, increase the health of urban residents, and provide a more reliable source of fresh local produce. In an earlier era of cheap food made possible by cheap fuel, many people got away from gardening. But like tree roots storing nutrients and energy in the winter, many of these old practices are contained in the memories of our elders, ready to come forward as circumstances urge.

We can look to the natural merger of nature and community as the core of enacting a regenerative design for human settlements. As with deciduous trees shedding their leaves, a regenerative system grows in natural productivity and value over time. The abundant urban wastes of cities can regenerate topsoil through composting, revealing one example of regenerative design that can renew our neighborhoods. Since everybody eats, there will always be a guaranteed market for food. Food provides an ideal beginning place for understanding and implementing regenerative systems. From there, we can see how these same principles influence the future shape of industrial, commercial, and residential designs.

Profiling Some Urban Agrarian Spaces

In her seminal book *The Death and Life of Great American Cities*, Jane Jacobs refers to “the need of cities for a more intricate and close-grained diversity of uses that give each other constant mutual support, both economically and socially.” Like a healthy ecosystem, diversity within an urban environment insures a greater degree of productivity, creativity, opportunity and resilience in the face of large-scale distur-
bances. Mutual support networks come in the form of social capital or locally-based networks in which individuals or businesses work together to provide basic needs and support a stronger and more sustainable community. Diversity and mixing also become generators of creativity and innovation as combinations of seemingly disparate perspectives lead to different solutions. This might be termed a social “edge effect” which suggests that new solutions and approaches to problems can be found in that space between things. Cities are particularly well suited for the generation of social edge effects.

This runs counter to our cultural affliction for segmenting and separating things. We utilize single-use zoning to separate living, working, and buying. We tend to segment problems into separate issue-areas, such as stormwater management, health care, waste recovery, and community development. Foundations have “program areas” and local government has “administrative divisions” that divide issues into separate categories. Some specialization is needed for sure, but the cross-over benefits between issues often get overlooked. The practice of urban agriculture reveals the inter-connection between issues. Urban gardens provide a source of healthy local food with little transportation cost. Urban gardens also absorb stormwater, process urban waste, improve health, and promote community gathering and entrepreneurship.

**Urban Agriculture**
One of the greatest benefits of urban agriculture is the mitigation of the impacts of impervious surfaces. Asphalt gardening offers one prime example. Cleveland is full of blacktop. As the city itself becomes a generator of healthy local foods, then we need creative solutions for what to do with the acres of unused blacktop in the city. Several recent efforts have focused on converting blacktop into productive garden space. Kate Thomas, a nutritionist with Neighbors in Family Practice turned a corner of parking lot at the strip-plaza at Denison and Ridge Road into a learning garden to teach nutrition to neighbors and clients. She worked with 15 volunteers and utilized wood mulch, straw, and food waste contributed by Dave’s Supermarket to install the garden. What started off as an empty piece of blacktop was planted with lettuce seeds after only two hours of volunteer work building the beds. A similar project was recently undertaken at the Huron Hospital facility in East Cleveland, a city afflicted by high foreclosures and extreme poverty. A piece of turf lawn at the hospital was converted into a garden which absorbed cardboard, shredded office paper, and other food and organic wastes from the hospital.

Similarly, urban agriculture entrepreneurs Jessica and Emmy Levine began work on the conversion of a ½-acre blacktop lot behind the Gannet Neighborhood Center near E. 55th and St. Clair. Truckloads of wood mulch from the city, recovered cardboard and newspaper, food waste collected from area restaurants, and even expired cinnamon sticks from the Great Lakes Brewery’s Christmas ale were all piled on top of the asphalt by area volunteers to begin to make a bed for growth. The garden project also provides space for youth to participate in the production of food in their own neighborhood.

Across the street from the Wonder City asphalt garden stands the Stanard School, an brick building that has been boarded up and abandoned for the past several years. The school sits on an acre of mostly blacktop. Instead of being torn down and hauled off to a landfill, the school is undergoing a “deconstruction process” where slate chalkboards, wood, and other materials will be reclaimed for local artisans and gardens. Bricks and sandstone will be used to build raised beds or walkways. The site itself, which covers about ¼ of an entire city block, will be developed as the first major urban farm and learning center in the city in the 21st century. Ironically, the city acquired an old farm to build the school in the 1880s. Connecting building deconstruction with local art and food production shows the abundance of opportunity in the creative re-use of old buildings and vacant land.

The Gather Round Farms project sits near the intersection of W.
47th Street and Lorain Avenue. Another ½ acre asphalt lot, the farm provides a gathering space for residents and children in the neighborhood. The farm was developed utilizing principles of “permaculture”, a design framework developed by Bill Mollison and David Holmgren in Australia to create patterns of human settlements that mimic the qualities of natural ecosystems. Irrigation water for the gardens is collected with pickle barrels and drums used to collect and store rainwater shed from the roof of an adjacent building. Herb spirals and circular growing beds maximize space on a limited growing area. A mobile chicken coop is used to build up topsoil and provide eggs for neighbors. Diversity creates a mixed use of complementary elements that also enhances education and community gathering in the surrounding neighborhood.

The application of urban agriculture in Cleveland presents the first building block for a regenerative system that addresses larger issues confronting the city. The limitations of our current industrial food system are particularly felt in urban neighborhoods. All of the examples described above were developed in “food desert” neighborhoods. According to an assessment by the Cuyahoga County Planning Commission, the loss of full-service grocery stores throughout Cleveland is beginning to compromise health and neighborhood quality. The study investigates the food balance for urban neighborhoods by comparing average distance to fast food outlets and full-service grocers. An ideal food balance would be 1:1, meaning that residents have equal access to fast food or the potentially healthier choices available from a grocer. The average food balance ratio for Cleveland is 1:4.5, meaning that residents have to travel 4.5 times further to reach a grocery store. Given that 25%
of the residents in the city do not even own a vehicle, finding pedestrian-oriented alternatives for healthy food access is becoming an increasing area of concern and collaboration within the city.

**Urban-Rural Mixing**

Urban agriculture presents a positive conversion of vacant or foreclosed properties into an immediate source of healthy fruits and vegetables. But given population densities and space constraints, there will always be a place for connections with the surrounding countryside around Cleveland. Looking at cities as a nexus for connections with the countryside creates a more regional vision of a healthy food system. Regional collaboration also encourages efforts to look outside of our own limited perspectives to see the interconnections between urban and rural communities.

Cities can facilitate harmonious relations with the countryside by cultivating spaces that encourage mixing between rural and urban populations. Farmers markets offer direct marketing venues where individual farmers or food entrepreneurs can directly sell to the public, eliminating middle-men or mark-ups and enabling farmers to retain the full price of food. In addition to commerce, farmers markets provide a festive space within the city, gathering community members and often providing music, art, cooking demonstrations, education, and mixing between farmers and city-dwellers.

In addition to farmers markets, community-supported agriculture (CSA) has emerged over the past two decades as an innovative alternative marketing model in which a group of urban residents pool their resources to purchase “shares” in a local farm or group of farms. These shares provide upfront resources for farmers to purchase seed and pay for labor before the major harvest begins. The Crown Point Ecology Center in Bath, Ohio provides CSA shares to over 100 families as well as thousands of pounds of fresh local food for the Akron Food Bank. This model mixes income levels and social groups, ensuring that quality foods equally benefit the wealthy and families on food assistance.

The City Fresh program is a hybrid between a CSA and a farmers market. City Fresh began as an initiative to connect urban neighborhoods with local farmers, targeting “food desert” neighborhoods in particular. City Fresh works with community groups in neighborhoods throughout Lorain and Cuyahoga Counties to operate “Fresh Stops”. A Fresh Stop combines neighborhood distribution for food shares with a center for education and community gathering. Each share bag features a mix of produce coming off of fields and gardens each week. Volunteers from each neighborhood congregate weekly in a local school cafeteria to sort incoming produce for their respective fresh stops. The price structure for the shares improves access for
lower-income residents who receive a 50% subsidy. They can also pay using senior vouchers, WIC coupons, or food stamps. Many neighborhoods bundle programming with their Fresh Stop, including nutrition outreach, culinary education, literacy, health screening, art, or educational activities around sustainable living. City Fresh began with one fresh stop in 2005 and has since grown to have a presence in 17 neighborhoods in two counties.

City Fresh also links neighborhoods. Fresh stops organized in wealthier neighborhoods like Beachwood, Lakewood, or Cleveland Heights are encouraged to pay more for each share to support a “share fund” that allocates resources to lower income neighborhoods, including Slavic Village, Buckeye or East Cleveland. This creates regional resource sharing while building sustainability into the program. City Fresh also utilizes waste grease from area institutions and businesses to fuel its produce delivery truck and eliminate dependency on fossil-based energy.

Another and more subtle form of urban and rural mixing occurs through local procurement policies for food businesses and institutions. An increasing number of restaurants are featuring locally grown foods on their menus. In Ohio City, the Flying Fig and Great Lakes Brewery both offer seasonal items on their menus. The Great Lakes Brewery provides its brew waste as a free input to city gardens and rural farms. The Bon Appetit service management company has made local food purchasing a major focus for its corporate accounts. A Farm to Fork initiative developed at Oberlin College and Case Western Reserve University led to a combined impact of $1.8 million of purchasing in 2006-07.
Increased economic mixing between urban and rural populations has taken form in more direct connections between households and local producers of food. The participation of small businesses and larger institutions enlarges potential market demand. The combined demand of households and businesses creates an enormous potential for a host of economic development opportunities around food. According to a 2002 food assessment of Northeast Ohio, residents and businesses in the seven counties of Northeast Ohio collectively purchase more than $7 billion of food. Cuyahoga County purchases about $3.2 billion.

Let’s do a brief thought exercise. What if 1% of the food consumed in the city was grown in the city? That would generate $32 million worth of opportunity for urban farmers. According to Ohio State University Extension, the 50 acres of land devoted to community gardens in Cleveland generate an estimated $1.2 to 1.8 million worth of food. Capturing 1% of the food spending in the city is not that out of reach. Now, let’s say that 9% of food spending supports farmers in rural counties. That would generate an additional $288 million for local farms and a host of supporting businesses. What would Northeast Ohio look like in 10 years if $320 million stayed within the region? How would it change quality of life? Would the region become a more desirable place to live? Would children be healthier? Would urban crime decline with more land area devoted to city farming? As much as Northeast Ohio has been marked by the decline of manufacturing, home foreclosures, rivers that burned and lakes that died, we can look to one of the most basic human needs and find our
way toward actuating a regenerative culture. Getting there will require a degree of collaboration and integration between the diverse populations and landscapes that make up Northeast Ohio.

**Enlarging the Urban-Agrarian Space**

Local foods present a transcendent approach to many social issues confronting cities. As local foods become further woven into the urban fabric, we see the emergence of urban agriculture, increasing commerce between urban and rural areas, improved green space, reduced fossil fuel use and carbon release, stormwater absorption and retention, and a stronger social fabric within and between neighborhoods. As the trend for grocery stores to abandon urban neighborhoods continues, food access is a growing concern for urban planning. According to Norm Krumholz, Professor of Urban Studies at Cleveland State University, “in professional journals, like the *Journal of the American Planning Association*, you’re beginning to see more articles talking about food, the need to provide people who are separated from fresh food with fresh food, and the resolution to the question of what to do with all of the vacant land.”

The effort to expand the availability of local food in the city, whether from urban or rural farms, has inspired a high degree of grassroots invention. These neighborhood-based efforts are supported by a growing collaboration of community partners, including government agencies, non-profit organizations, businesses, and educational institutions. In partnership with the Cleveland Department of Public Health and the
New Agrarian Center (NAC), the Ohio State University (OSU) Extension in Cuyahoga County organized a market garden training program that has provided training to 70 market gardeners over three years. Over 20 market garden initiatives began as a result of the training. Through a mix of technical training and support from OSU and funding resources from the NAC, 12 gardens received small start-up grants to get market-based initiatives going. Presently, the Cleveland Department of Public Health is collaborating with the city’s Economic Development department to organize a larger funding pool to support the development of entrepreneurial gardening initiatives. The health department’s concerns about reducing heart disease, diabetes, and other diet-related ailments merges with the economic development department’s interests in encouraging entrepreneurship and job creation. Urban market gardens provide micro-enterprises that increase local food supply while contributing to long-term health in the city.

To further integrate local food efforts and broaden the scale of impact, over 40 organizations working on food, environment, community development, and health-related efforts formed the Cleveland-Cuyahoga County food policy coalition in 2007. This initiative fuses the missions, networks, and collective resources of multiple partners in a larger effort to develop a sustainable urban food system. Working groups for the initiative are facilitating collaboration around health and nutrition, local procurement, food waste recovery, urban land-use policy, community food assessments, and the urban-rural interface. The composition of the group includes hunger-relief organizations, major research institutions, urban farmers, city and
county government, and local businesses. The coalition works in that space between traditional organizational silos, encouraging collaboration and creative problem-solving around critical food and health issues in the city.

These local food efforts reflect the emergence of a new paradigm for organizing, collaborating, and working toward a true vision of health at the individual, community, and ecological levels. Local food efforts have literally grown out of a partnership of diverse partners that have helped to cultivate a bed of grassroots invention and entrepreneurship. How can this same process inspire the shift toward a regenerative regional economy? How can market gardening convert idle spaces in the city to productive green spaces that contribute to the local food supply while capturing a portion of the $3.2 billion circulating through the local food economy? Can these spaces be made available for entrepreneurial youth gardening initiatives? How do we maximize the “edge effect” between urban neighborhoods and rural communities? How can we combine the best expertise and research on renewable energy, green building, and horticulture to develop off-the-grid greenhouses that can provide a source of green collar jobs? How can the agrarian economy supply sustainable sources of energy through wind, bio-mass, and bio-fuels? Can the countryside become a source of materials such as straw bales, timber, and earthen plasters to construct high-performance green buildings, a form of agrarian architecture?
In the upcoming documentary *Uprooted: Reconnecting Food and People*, Norm Krumholz reflects on the conditions confronting many cities like Cleveland that face shrinking population and investment, loss of jobs, growing poverty, and old infrastructure. He remarks that:

> These cities are simply going to have to respond. Whether they respond quickly or slowly, whether they respond ultimately down the road, they are all in the same grip of forces that transcend the city itself…the people who will be able to deal with these problems best will be those who face the future with some reality and try to do the best they can in a creative way in dealing with their problems.

In permaculture design, the problems become the solution. As we look at the problem of declining food access and poor health in inner-city neighborhoods, we can see that the solutions to these problems hold great potential for making our region economically stronger, more socially connected, more ecologically sustainable, and a better overall place to live. Getting there will require that we step outside of our silos and work to connect individual agendas to a broader vision of health for the region. By emulating the rich ecosystems that once thrived in this area, we can begin to design our way out of dependency on fossil fuels and realize the natural and social assets from which we can build a regenerative regional economy. We can begin to look at food access challenges and see the opportunity that waits just beneath our feet.