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Sweet Water Foundation

Democratizing, urbanizing and globalizing urban
agriculture in the USA's 'Rust Belt'

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This case study originally appeared in *Cities for the future: Innovative and principles-based approaches to urban equity, sustainability and governance* (published in April 2015).

Cities for the future is the biannual flagship publication of the Global Compact Cities Programme and is financially supported by the Research and Innovation Portfolio at RMIT University.

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Democratizing, urbanizing and globalizing urban agriculture in the USA's 'Rust Belt'

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Sweet Water Foundation in Milwaukee, USA, is taking advantage of the benefits of urban agriculture, using aquaponics, harvest celebrations, markets and learning hubs to encourage ecologically sensitive food production, innovation and urban renewal.

For over 50 years, 'Rust Belt' cities such as Chicago, Detroit and Milwaukee have been plagued by decades of cascading and chronic urban problems: the ongoing physical deterioration of the built environment, ageing and collapsing infrastructure, growing collections of foreclosed and abandoned buildings, an increasing number of empty lots and warehouses, homes and apartments in varying states of disrepair, the rapid rise of poverty and unemployment, a crisis in public health issues, a failing educational system and ever-increasing environmental collapse. Once iconic cities representing economic prowess, large portions of these cities have become the poster child for 'blight', disinvestment, de-industrialization and patterns of urban decay. These same socio-spatial patterns of disinvestment and neglect within our cities help perpetuate a psychological state of 'otherness' that ultimately sets in motion a cyclical process and pattern of alienation, neglect and despair across race, class and socioeconomic divisions.

The issues

While struggling urban areas have historically been victims of the exigencies of modern living and the subjective strategies of developers and urban planners, the presence and growth of 'food deserts' throughout our cities point toward the even more devastating consequences of living beneath the poverty line: regular consumption of fast and restaurant foods that contain little nutritional value and are characterized by cholesterol-laden diets and food prepared with excess salt, sugar and preservatives. In communities where obesity, diabetes, hypertension and heart disease are the norm, the situation has become the breeding ground for chronic poor health and, all too often, premature death from entirely preventable diseases.

Yet as grim as the outlook seems to be, and despite the appearance of city spaces void of income and important resources, experiencing fresh and good nutritional food is not just a possibility; a Good Food {r}Evolution is already in progress.

Under the weight of layered crises, including natural disasters and environmental devastation affecting soil and water qualities and impacting national and global food supply, the rules driving the rationale and structure of the 20th century food systems paradigm and subsequent policies have drastically changed. Instead, the growing popularity of and concurrent global discourse surrounding urban agriculture offers a new menu of ecologically sensitive innovations in food production across a fusion of ancient, conventional and cutting-edge biomimetic technologies. These technologies focus on the preservation of natural, social and human capital and the transformation of various waste streams into a dynamically reproductive and responsive feedback loop within the urban ecosystem.

Addressing the issues

At Sweet Water Foundation (SWF), our mission is to democratize, globalize and commercialize urban agriculture practices for resilient 21st century communities via hands-on, real-life learning opportunities in urban agriculture. We do this by developing and delivering intergenerational and interdisciplinary educational and career programming that incorporates historical, technological, scientific, artistic and cultural components into a project-based learning approach accelerated by open data platforms. Our team's multi-faceted approach opens discussion about the future of cities by allowing individual students to think critically about the environment and food production methods for a sustainable planet.

For SWF, urban agriculture and aquaponics have become tools offering solutions to address:

1. food security and neighbourhood stabilization in distressed neighbourhoods chronically experiencing 'urban decay' and 'blight'
2. sustainable production methods addressing increasing market-level needs of 'local' or 'organic' food production.

The focus of our work in cities such as Chicago, Milwaukee and Detroit has been to gain a more comprehensive understanding of the experiences, challenges, obstacles and opportunities of and for urban agricultural practitioners, planners, residents, officials, designers and politicians in terms of the implications of urban agriculture on traditional approaches to city planning and development.

Our approach has and continues to include intensive participant observation supplemented by a series of open-ended interviews, including our team members engaging as active participants in the discussion. As such, SWF's work is grounded via praxis (the balance of theory and practice) and learning by doing (aka heuristic). Such is the basis of what co-founders James Godsil and Emmanuel Pratt have coined an Asset-Based Chaordic (balance of chaos and order) Development sequential model whereby our team members operate as actors or active participants in a series of small-scale sequential experiments translating from one context to the next.

Our model for maximum impact

SWF uses an exponential growth model for maximum impact by embedding our programming within existing networks within communities. We work to catalyze and cultivate innovative spaces that emphasize the relationship between inspiration, education, action and innovation by supporting STE[A+]M (science, technical, engineering, art and medical) education for the emerging industry of urban agriculture. This model includes a growing network of Aquaponics Innovation Centres, Urban Agriculture STE[A+]M Hubs and robust hyper-local partnerships locally, regionally, nationally and globally.

Aquaponics innovation centres

SWF has partnered with Chicago State University and 4240 Architecture to transform a formerly vacant 20th century shoe warehouse space in the Southside of Chicago into a dynamic 21st century hands-on Aquaponics Innovation Centre. The project has attracted an intergenerational audience of thousands of area grade school and high school students, college students, veterans and residents across the greater Chicago land area who are interested in urban agricultural and ecologically inspired research projects. Our team leads tours that include an introduction to the benefits and values of urban agriculture, healthy eating, urban revitalization and environmental care. To reach participants who learn best by action, the tour also includes hands-on lessons

in gardening, composting and aquaponics. We regularly host educational and cultural events known as Harvest Celebrations, including lectures, book readings, film screenings and discussions and community agricultural forums. Through these programs and events, we can engage community groups, membership associations, nonprofit organizations, school systems, government entities and private businesses in moving together towards shared goals.

Urban agriculture STE[A+]M hubs

SWF broadens its work through the creation of Aquaponics STE[A+]M Hubs, which act as 'satellites' for learning and activity in urban agriculture and aquaponics. These hubs include schools, colleges and universities, community centres, churches and neighbourhoods – anywhere that people gather for learning and growing food together. Where Aquaponics STE[A+]M Hubs are established we create a series of small-scale installations in partnership with a group or institution committed to the same values and principles. These hubs are small-scale entrepreneurial urban farms serving as open-source platforms for emergent research, design and the advancement of new models for urban agricultural practitioners.

Challenges ahead

Critical numbers of people within so-called 'blighted' or disinvested urban neighbourhoods are demonstrating a powerfully creative response to issues that adversely impact the quality of their everyday lives. The seeds for change are quietly being sown and have already sprouted wondrous roots producing far more than just good food. The Good Food {r}Evolution is led and carried out by once alienated youth, wisdom-filled elders, eager school children, working folk and the under-employed, singles and partners, war veterans now armoured with hope, the formerly incarcerated now intent upon growing a new life, paid college interns and apprentices of all ages.

Whether it is a person or community in crisis, a neighbourhood plagued by broken moments of history, ill-treatment, neglect and oppression, or a city attempting to overcome the adverse effects of a plantation economy, industrialization, discrimination or environmental degradation, the drive toward transformational insight and true change starts from the single revolutionary act of sacred reconnection.

This dynamic shift in thinking about inner-city urban life serves as an important corrective to planning schemes where, despite decades of living and serving a beloved community, people can be uprooted like useless weeds, then exiled to other alienated neighbourhoods, perhaps even in another city. They easily become the victims of entrepreneurial or political re-zoning and gentrification schemes that significantly and adversely affect neighbourhood demographics. Instead, the process of creating urban farms initiates a direction that moves people from institutionalized victimhood to empowered personhood and offers the possibility of collective re-invention, re-imagination, regeneration and true problem solving that requires a dramatic recasting

of a narrative of loss to one of potential and promise.

In these spaces, people gather to share their own life stories, dreams and visions of new homes. Abandoned buildings and warehouses, rather than representing a blight of disintegrating wood, bricks and mortar upon the urban landscape, are re-envisioned as restorable projects; markets for potential financial and community investment. Working together, people envision new small businesses, better schools and vital organs of community life that can possibly emerge over time. This new narrative of promise, hope and re-connection offers the possibility to transform problems to opportunities and obstacles to assets.

It is within these spaces that people are offered the possibility to create a new sense of community and re-story their lives. This is achieved through a local economy centred around food-based and community-scale manufacturing through small farms and farmers markets, educational opportunities through school

gardens and university research projects and social networks anchored on community gardening. However, given the complexity of urban agriculture as an emerging system, its success will require the development of a new paradigm of interdisciplinary planning practices and supportive policies.

There grows the neighbourhood.

Sweet Water Foundation is a partner in one of Milwaukee's Innovating projects with the Global Compact Cities Programme. In 2012, Cities Programme Research Officer, Julia Laidlaw, focused her research internship and honours thesis on the urban aquaponics projects of Sweet Water Organics and Melbourne social enterprise CERES (see following article).



Local young people experiencing aquaponics vegetable production at Sweet Water Organics in Milwaukee, USA. Sweet Water Foundation works across Chicago, Milwaukee and Detroit to gain a comprehensive understanding of the implications of urban agriculture for city planning and development. In these regions, urban agriculture and aquaponics are helping to address food insecurity, stabilize neighbourhoods experiencing urban decay and promote market level production of local organic food. Image: Sweet Water Foundation.

