Towards an Edible Urban Design
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The idea behind this article began with a discussion of community gardens in modern cities and quickly grew to address a current phenomenon both larger in scale and broader in reach – the impact of current trends in the sustainable food movement on urban design. Out of concern over the industrial food system and a need for lower food prices, a movement towards local food has taken firm hold in the U.S., including in popular culture, as evidenced by films like *Food, Inc.* Cities such as Chicago, Seattle, Philadelphia, San Francisco and Cleveland are experiencing urban renaissances, even in a recession, and are strategically integrating urban food policy into this renaissance. Integration of such policies are observed in a variety of edible urban design elements including:

- Backyard gardening/farming,
- Rooftop gardens,
- Private gardening and patio gardens,
- Edible landscaping in street trees, city parks and plazas,
- Community gardens,
- Farmers’ markets,
- Food carts,
- Neighborhood food swaps,
- Gleaning and delivering extra food to food pantries,
- Walking to local markets,
- Urban farms, including hydroponic and aquaponic farming structures, and
- Vertical farms.

An edible urban design embodies many of the top values facing planners and urban designers today: livability, environmental sustainability, public health and economic development. With an increasing attention to the impact of the built environment on our health, environment and economic well being, this article investigates the value of an urban planning and design approach that intentionally incorporates urban farming and food enterprises into a city design.

In his seminal 1984 book *Good City Form*, Kevin Lynch provided five criteria with which to judge the question, “What is a good city?” These criteria are *Vitality, Sense, Fit, Access* and *Control*. How well does an “edible urban design” – that which merges urban agriculture in modern city making – rate according to Lynch’s evaluation framework?

**VITALITY: the degree to which the form of the settlement supports the vital functions, the biological requirements and capabilities of human beings – above all, how it protects the survival of the species.**

An edible urban design supports Lynch’s concept of vitality in the form of residents’ access to fresh foods as well as environmental sustainability. In fact, growing one’s own food is part of the City of Berkeley’s Climate Action Plan (Berkeley, California). The Berkeley Climate Action Plan cites that despite California’s massive food production capacity, the state imports 40% of its food, which translates into at least 250,000 tons of greenhouse gas (GHG) emissions per year. Food waste in landfills produces methane, a GHG 20 times more potent than carbon dioxide in global warming. Composting food waste not only reduces pressure on our landfills, it results in an alternative decomposition process that produces minimal CO2 and virtually no methane. In addition to decreasing the amount of air pollution and fossil fuel consumption caused by food transport, urban food production in the form of private and community gardens, as well as rooftop gardens, all contribute to lowering a city’s heat island effect while increasing permeable surface area (reducing rain run-off impacts on local ecology).
SENSE: the degree to which the settlement can be clearly perceived and mentally differentiated and structured in time and space by its residents and the degree to which that mental structure connects with their values and concepts – the match between environment, our sensory and mental capabilities, and our cultural constructs.

Sense is perhaps the most common value that urban designers aspire towards in their work, the cultivation of a sense of place. Urban food production has the potential to heighten the cultural, social and geographic identity of a place through the growing, preparation, and celebration of ethnic and regional foods. Walking through the south of Spain in orange tree-lined streets of Seville, one is reminded of the city’s Arab history that leaves an indelible visual experience. One wonders if perhaps an edible urban design has economic benefits. Village Homes in Davis, California is perhaps one of the best examples of not just an edible urban design – with its shared gardens, community gardens, community fruit and nut trees and vineyards – but exemplary sustainable site and building design features as well. While its density is almost double that of the surrounding areas, the quality of life is higher and reflected in its increased home value, a $10-15 per square foot premium.

Orange trees line the street in Seville, Spain calling out the city’s unique history.

Photo By Anchi Mei.

FIT: the degree to which the form and capacity of spaces, channels and equipment in a settlement match the pattern and quantity of actions that people customarily engage in, or want to engage in – that is, the adequacy of the behavior settings, including their adaptability to future action.

Fit must answer the question – to what extent does our current food system meet the needs of city dwellers? Whereas big box supermarkets have been the dominant food source for decades, increasingly, cities are exploring a range of scales within urban agriculture to answer this question. They are emphasizing the need to provide alternatives to the supermarket and better disperse food resources throughout our communities at multiple levels: neighborhood markets, farmers markets, and community gardens. The Food Trust in Philadelphia, Pennsylvania is a national leader by developing the Healthy Corner Store Initiative to emphasize neighborhood markets as a viable resource for healthy food. In response, traditional large markets like Wal-Mart and Target are scaling store design to a smaller, mixed-use, more vertical urban footprint. The creator of the Vertical Farm Project cites current land use patterns as his catalyst for innovation: ‘By 2050, 2.5 billion acres of land will be needed to grow enough food to support our population growth based on traditional farming practices.’
ACCESS: the ability to reach other persons, activities, resources, services, information or places, including the quantity and diversity of the element which can be reached.

Perhaps the most compelling aspect of an edible urban design is its impact on reducing food insecurity. The U.S. Department of Agriculture’s 2008 study Household Food Security in the United States, reported that, by 2008, 14.6 percent of American households (approximately 17 million) were food insecure, with most food insecure populations residing in neighborhoods with limited or no access to supermarkets or affordable, healthy fresh foods. Converting underutilized lands for community gardens is one viable way to improve food security and health, and to reduce blight and increase economic development. In fact, in Ohio, Cleveland’s Food Policy Coalition was formed to ensure that every resident has access to fresh, healthy and affordable food and challenged itself with establishing one garden every ¼-mile within City limits. There are now approximately 200 community gardens in the Cleveland. Michael Shuman, an economist who led a nine-month study and assessment of the Northeast Ohio local food system, found that given the right investments and changes over the next 10 years, local food production could create 27,000 new jobs and increase tax revenue by $126 million per year.

![Community Garden](https://via.placeholder.com/150)

A community garden on a vacant lot – mobile gardening.

Photo by Anchi Mei.

CONTROL: the degree to which the use and access to spaces and activities, and their creation, repair, modification, and management are controlled by those who use, work or reside in them.

Control may answer the questions: how adaptable is land use, and how flexible is the use of the land? The first question calls for dynamic, flexible design that is capable of adapting to surrounding changes. Urban agriculture, as exhibited through the surge of community gardens in vacant lots and mobile food carts on street corners meet successfully meets this criteria. In cities like Detroit, MI, with at least 90-acres of 850-plus gardens, urban agriculture has become a cornerstone tool of urban design. Hundreds of vacant urban lots have been revitalized as community gardens. The second question gets at whether city policies allow for urban agriculture. City leaders in San Francisco, Chicago, and Seattle, for example, are using their political muscle to cite urban agriculture as a means to demonstrate control by calling for comprehensive citywide changes in food policy. Other cities are much slower to respond and adapt.

Vitality, Sense, Fit, Access, Control: the values first cited by Lynch in 1984 are just as relevant today as they were then, especially within an urban design context. An edible urban design rises to the challenge
by providing a new layer of the contemporary city that is fundamental, adaptable, and multi-use from the perspective of both land use and site design.

ABOUT THE AUTHORS
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Kathleen Ferrier, AICP, is Policy Manager for WalkSanDiego, a nonprofit organization in San Diego, California that promotes walkability and safe road design throughout the San Diego region. She has worked in San Diego as a senior planner, project manager, and consultant during the last ten years. Most recently she managed the 20-month Health Equity by Design project in the City Heights neighborhood of San Diego. Through a partnership between San Diego County’s Health and Human Services Agency and WalkSanDiego, Kathleen worked closely with residents to show how health disparities at the community level can be addressed through community-based healthy design policies and projects. Urban agriculture was a key component to the project solutions found.

Anchi Mei, AICP
Anchi Mei, AICP, is the Food Security and Community Health Program Manager at the International Rescue Committee in San Diego, California. Previous to joining IRC, she worked as an urban design/planning consultant in the San Francisco Bay Area for five years focusing on sustainable urban design with a context-sensitive, community-oriented approach. At the IRC, Anchi oversees numerous dynamic community food projects, such as the New Roots Community Farm and the City Heights Farmers’ Market, all working to build an urban neighborhood-scale food system that offers healthy food, economic development and community building. Anchi then leverages IRC’s projects into policy advocacy initiatives that can institutionalize and spread these on-the-ground successes for other communities.

ENDNOTES


