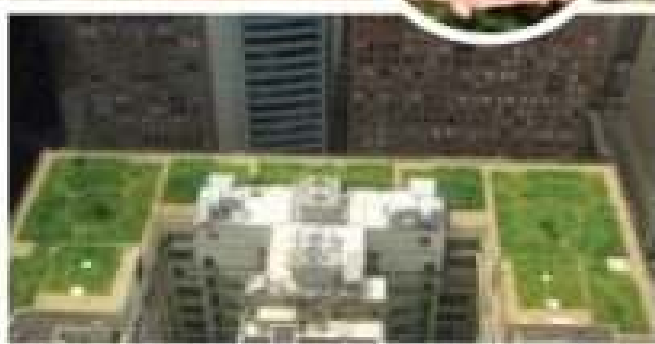


# Urban Farming

FROM THE EDITORS OF  
**URBAN FARM**  
MAGAZINE

**Sustainable  
City Living in  
Your Backyard,  
in Your Community,  
and in the World**



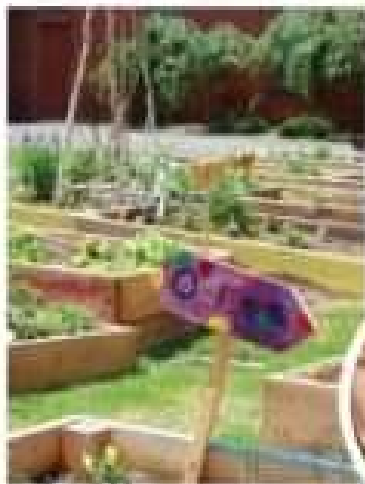
**THOMAS J. FOX**



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# Dedication

**To my mom, for a love of writing;**

**my dad, for a love of gardening;**

**my wife, for a love of life;**

**and my boys, with great love and hope for a greener future.**



---

## Acknowledgments

Thank you to I-5's Andrew DePrisco, who opened the door to the book; to Karen Julian, who ushered it through; and to my two crack editors, Jennifer Calvert and Amy Deputato, who lifted the peaks and filled in the valleys with extraordinary skill and restraint. I'd also like to acknowledge the many people who tolerated my ignorance with grace, taught me so much, and shared their enthusiasm for urban agriculture, among them: Martin Bailkey, Rick Bayless, Don Boekelheide, Natalie Brickajli, Fred Brown, John Cannizzo, Roxanne Christensen, Virginia Clarke, Mary Seton Corboy, Daniel Dermitzel, Wes Duren, Danielle Flood, Lorraine Gibbons, Carole Gordon, Jennie Grant, Mike Hamrill, Sherilin Heise, Gregory Horner, Jerry Kaufman, Aley Kent, Erik Knutzen, Michael Levenston, Andrew McCaughan, Michael McConkey, Joe Nasr, Molly Philbin, Robert Philbin, Gordon Prair, Jessica Prentice, Martin Price, Brooke Salvaggio, Wally Satzewich, Bob Scallan, Mike Score, Jim Slater, Jac Smit, Lena Carmen Soileau, and Brenda Tate. It would have been a much poorer book without them, and a much less enjoyable task of writing.





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## Introduction

When Jac Smit—later to be regarded as urban agriculture’s chief evangelist, if not its “father”—first set about writing a book on the topic in 1994, his searches at both the Library of Congress and the library of the Food and Agriculture Organization (FAO) of the United Nations in Rome yielded virtually nothing. It puzzled him. Although he knew the importance of urban agriculture in early history, and had for decades helped to encourage the practice throughout the developing world, urban farming barely registered as a topic—much less a discipline—in the developed West. He helped to change that, stumping for the development of urban agriculture and co-writing the seminal *Urban Agriculture: Food, Jobs and Sustainable Cities* with Joe Nasr for the United Nations Development Program (UNDP) in 1996.



Talk about local color! Beautiful local produce adorns farmers’ markets across the nation and around the world.

The book proved to be something of a watershed, as evidenced by a quick search on “urban farming” or “urban agriculture” in Google’s news archive. That search yields just 139 articles published between 1900 and 1995, averaging fewer than two articles for each of those ninety-five years. In the thirteen years from 1996 to 2009, however, such a search finds 3,350 articles, averaging more than 250 annually—including over 800 articles published just during the year I wrote this book. If you live anywhere near a city, you probably don’t need Google to have a sense of that. Chances are you will have seen food growing in vacant lots, on balconies and rooftops, along train tracks, and

high-tension wires, or in any of the other places where someone can tuck away some plants in cities.

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A typical street market in Funchal, Madeira Island (Portugal).

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Tomatoes are easily grown in most American cities.

Even as urban agriculture has enjoyed a renaissance in practice and a boom in publicity, it hasn't quite coalesced into a field with a standardized vocabulary and accepted principles—what prominent researcher Luc Mougeot has called “conceptual maturity.” This is in part because urban farming fits into so many existing disciplines—economics, sociology, agronomy, and political science, to name a few—and because the underlying terms are deceptively difficult to define. What makes a settlement “urban”? Population size or density, a municipal government, public transportation systems, economic activity, universities, or the designation of a government bureau? There are sure to be places most everyone agrees are cities but that fall outside of any of those attempts to define the concept.

This book takes a broad view of cities. Everyone would agree that schoolchildren growing vegetables in a vacant lot in Detroit are engaged in urban farming, so why not schoolchildren on the grounds of their school in Tarpon Springs, Florida, (population: 21,000)? It's not as big, dense, or populous as Detroit, but neither is the city of Tarpon Springs rolling with big open fields. It's a city in the state of Florida, and that's good enough for me.

Ideally, **urban farming is agriculture that is (mainly) of the city, by the city, and for the city.** This book explores why urban agriculture has begun flourishing since 1996 (chapters 1 and 2), what we may expect of it in the future (chapter 3), and how you can get started on the path to becoming an urban farmer (chapters 4–9).



A street market in Bali may look different from the farmers' market down the street, but they're both built on the same principles.

## Part I:

# THE BIG PICTURE



*The floating market in Bangkok*

## Feeding Our Cities

In towns and cities across the globe, in large ways and small, urban farming is quietly gaining momentum. If you're slurping a bowl of hot *tom yam goong* from a street vendor in Bangkok, enjoying a traditional potato omelet (*chips mayai*) in Dar-es-Salaam, sipping a glass of merlot in Santiago, or indulging in honey-and-goatcheese ice cream at the Fairmont Waterfront Hotel in Vancouver, chances are you are supporting urban farming. Modern urban farming is closely connected with urbanization and increasingly with a conscious move toward sustainability. It has even become an unexpected necessity in some places, such as Havana (pictured).

The human population of the world is rising by about 75 million people per year—mostly in cities—and is expected to exceed 9 billion by 2050. Sure enough, some of the growth in urban farming happens when towns grow into cities, and cities into megacities, sprawling into once-rural lands. Instead of displaced rural farmers working the newly urban landscape, researchers have found more urban farmers to be established city dwellers. It is usually driven in the global north by those looking to reconnect with a sense of place and to live more sustainably, and in the global south by those just looking to live.



Across the United States, communities are taking steps to create a more welcoming atmosphere for agriculture through farmers' markets, zoning-law changes, and use of underused green spaces and brownfields (former industrial sites), often through the irrepressible efforts of a few individuals with passion to make it happen. One such example is the Goat Justice League in Seattle, which is fighting to legalize goats within the city limits and has succeeded with pygmy goats so far. But is farming in the city even realistic? The short answer is yes.

About 15 percent of the world's food supply is already produced in and around cities. Many individual countries and cities are even more advanced. Shanghai (pictured), for example, produces more than 50 percent of its consumed chicken and pork, 90 percent of its eggs, all of its milk, and more than 2 million tons of wheat and rice in and around the city. And Shanghai is no shrinking violet, backwater city—it has roughly 20 million residents and more than four times as many skyscrapers as Manhattan.

Even as urban agriculture has taken root in cities around the world, traditional rural agriculture—least the Currier & Ives vision of it—has evolved into something more Dickensian. The changes in farming over the past three centuries have brought extraordinary productivity, both enabling and enabled by growing cities. However, only recently has the true cost of these gains emerged. At its worst, this “industrial agriculture” is antithetical to our heritage, as discussed in the next section, and a threat to our future.



## **Roots of Urban Farming**

In March 2009, in the midst of a recession and two wars, First Lady Michelle Obama helped bre

ground on a new vegetable garden at the White House—the first since her predecessor Eleanor Roosevelt planted a “victory garden” in the midst of World War II. Mrs. Roosevelt’s garden had its roots hearkened back to the work-relief gardens of the Great Depression. Before that came the Federal Work Relief Garden program of World War I as well as Detroit’s “potato patches” and other responses to the 1890s depression. Urban dwellers have turned to gardens countless times throughout history to weather economic adversity and regain a sense of autonomy.





First Lady Michelle Obama in the new White House vegetable garden.

The White House is not alone. Since 2009, statehouses and municipal governments from Baltimore to Sacramento have begun their own food gardens. The United States Secretary of Agriculture opened a “People’s Garden” at its headquarters and encouraged similar efforts at its facilities around the country. Seed sales jumped by about 25 percent, and about 40 percent more households grew vegetables that year than two years earlier.

Across the Atlantic, similar efforts are afoot. In June 2009, Queen Elizabeth unveiled a vegetable patch on the grounds of Buckingham Palace, the first (once again) since World War II. The waiting list in London for allotments—patches of land rented out to gardening-minded residents at a nominal cost—can stretch into decades, and the supply of allotments in the United Kingdom is reportedly short by about 200,000 units—in a country with one-fifth the US population. London hopes to create 2,012 new urban agricultural spaces by 2012—in time to feed visiting Olympians with local food. New construction throughout the European Union may soon include integrated “vertical allotments” in accord with regulations being considered by the European Environment Agency. These allotments could include balconies, rooftops, and walls earmarked for growing food on high-rise buildings.

Why is urban farming integrated into cities such as Shanghai but still a novelty in the United States? Certainly, part of the reason is that we have profited so abundantly from the transformation from traditional farming into industrial agriculture—yields per farmer have skyrocketed. This success has reinforced the notion that city is city and country is country, and never the twain shall meet—except in supermarket aisles. It is a bias evidenced, perhaps, by the fact that goats in Seattle may be more striking to us than a world population ballooning beyond the ability of conventional agriculture to feed it. Yet this separation of *urban* and *farming* is a modern one.



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