Agriculture in an Urbanizing Society
Volume One
Agriculture in an Urbanizing Society
Volume One:

Proceedings of the Sixth AESOP Conference on Sustainable Food Planning

“Finding Spaces for Productive Cities”
November 5–7, 2014
Leeuwarden, the Netherlands

Edited by
Rob Roggema

Cambridge Scholars Publishing
# TABLE OF CONTENTS

List of Illustrations ........................................................................................................... ix

List of Tables ....................................................................................................................... xix

Preface .................................................................................................................................... xxi

Introduction .......................................................................................................................... 1

## PART I: Spatial Design

Chapter One .......................................................................................................................... 7
Planning the Urban Food System of the Lisbon Metropolitan Area in Portugal: A Conceptual Framework
Rosário Oliveira and Maria João Morgado

Chapter Two ......................................................................................................................... 31
Metropolitan Foodsheds as Spatial References for a Landscape-Based Assessment of Regional Food Supply
Dirk Wascher, Michiel van Eupen, Stefano Corsi, Guido Sali, and Ingo Zasada

Chapter Three ....................................................................................................................... 59
Via Emilia: Infrastructure for Cultural Landscape and Food Heritage
Anna Chiara Leardini and Stefano Serventi

Chapter Four ......................................................................................................................... 85
Food Flows and Food Systems in Desert Landscapes: Edible Landscapes in Qatar and the Arabian Gulf
Anna Grichting, Reem Awwaad, Luzita Ball and Paige Tantillo

Chapter Five ......................................................................................................................... 111
The Rotterdam Metabolists: A Step Further than the Ecopolis Strategy for Urban Food Production
Jeroen de Vries
<table>
<thead>
<tr>
<th>Chapter Six</th>
<th>Agri-itecture in a Row. Urban Agriculture for Creative Housing as a Way of Smart Living: The Case Study of Woensel-West, Eindhoven</th>
<th>Natalia Mylonaki, Bauke de Vries, Maarten Willems, and Tom Veeger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Seven</td>
<td>The Open Food-Production University of the Danube: Landscape as Educational Interface</td>
<td>Nikolaos Margaritis and Daniel Jauslin</td>
</tr>
<tr>
<td>Chapter Eight</td>
<td>Contesting Western Agricultural Models in Queens, New York</td>
<td>Steven Buchanan</td>
</tr>
</tbody>
</table>

**PART II: Urban Planning**

<table>
<thead>
<tr>
<th>Chapter Nine</th>
<th>Agriculture in the Mediterranean Urban Phenomenon: Rome FoodScapes as an Infrastructure</th>
<th>Benedetta Di Donato, Aurora Cavallo, and Davide Marino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Ten</td>
<td>Urban Gardening in the Ruhr Metropolis: Methods and Criteria for Identification of Areas for Urban Gardening</td>
<td>Denise Kemper and Wiebke Weltring</td>
</tr>
<tr>
<td>Chapter Eleven</td>
<td>A Review of the Main Concepts of Integrating Agriculture in Public Landscapes and Open Spaces</td>
<td>Seyyed Mohammad Reza Khalilnezhad and Kai Tobias</td>
</tr>
<tr>
<td>Chapter Twelve</td>
<td>Finding Spaces for Urban Food Production: Matching Spatial and Stakeholder Analysis with Urban Agriculture Approaches in the Urban Renewal Area of Dortmund-Hörde, Germany</td>
<td>Michael Roth, Miryam Frixen, Carlos Tobisch, and Thomas Scholle</td>
</tr>
<tr>
<td>Chapter Thirteen</td>
<td>Urban Gardening: Is It Really About Food Security?</td>
<td>Elizabeth Brabec</td>
</tr>
</tbody>
</table>
Chapter Fourteen: Top-Down Policies and Bottom-Up Practices in Urban and Peri-Urban Agriculture: An Italian Dilemma
Giuseppe Cinà and Francesco Di Iacovo

Chapter Fifteen: Controversies and Opportunities for Chinese Urban Agriculture
Ning Gao and Shexuan Zhu

Chapter Sixteen: Food Planning and Landscape in the “Gastropolis” of New York
Arnold van der Valk

Part III: Governance

Chapter Seventeen: Urban Agriculture Quick Scan Map: Meta-Design as a Strategic Tool for Collaborative Urban Planning
Berit Piepgras

Chapter Eighteen: Twenty-Five Years of the Emscher Regional Landscape Park: Evaluation and Perspectives for Agriculture in 2014
Denise Kemper and Bernd Pölling

Chapter Nineteen: Urban Agriculture in São Paulo, Brazil: Actors, Spaces, and Governance Models
Giulia Giacchè and Wânia Rezende Silva

Chapter Twenty: From a Twentieth-Century Utopia to a Twenty-First-Century Refuge?
Kumru Arapgirlioğlu and Deniz Altay Baykan

Chapter Twenty-One: The “Cultivated Urban Gardens” Role within the Industrial Renewal Context: the Case of Villeurbanne, France
Mónica A. Hernández H.
<table>
<thead>
<tr>
<th>Chapter Twenty-Two</th>
<th>511</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fooding the City: Everyday Food Practices and the Transition to Sustainability</td>
<td>Nevin Cohen and Rositsa Ilieva</td>
</tr>
<tr>
<td>Appendix A: Abbreviations, Acronyms, and Initialisms</td>
<td>539</td>
</tr>
<tr>
<td>Contributors to Volume One</td>
<td>545</td>
</tr>
</tbody>
</table>
ILLUSTRATIONS

Fig. 1-1 The Lisbon Metropolitan Area, including Greater Lisbon and the Peninsula of Setúbal, with their 18 municipalities.

Fig. 1-2 Land use of the LMA based on Corine Land Cover 2006 data (EEA 2011) and the total area (percentage) occupied by its main classes.

Fig. 2-1 Travel distance (hours) to agricultural land (hectares) around Ljubljana.

Fig. 2-2 Travel distance (hours) to agricultural land (hectares) around Berlin.

Fig. 2-3 Travel distance (hours) to agricultural land (hectares) around London.

Fig. 2-4 Travel distance (hours) to agricultural land (hectares) around Milano.

Fig. 2-5 Travel distance (hours) to agricultural land (hectares) around Rotterdam.

Fig. 2-6 Comparison of the total land accessibility (dependent on travel time) within 100 kilometers, according to protected/non-protected status of arable and pasture land against total land availability.

Fig. 3-1 Roman roads in Italy.

Fig. 3-2 Emilia-Romagna and the Via Emilia.

Fig. 3-3 Value of sales of PDO and PGI products from the most productive regions of Italy (as percent of the total).

Fig. 3-4 Via Emilia and centurial structure.

Fig. 3-5 Centurial scheme, scaled and applied to map image.

Fig. 3-6 System of a centuria’s division during the Roman Empire.

Fig. 3-7 The persistence of Centuriation: Aerial view of the Emilia Romagna region.
Fig. 3-8  Forum Livii (Forli) aerial view, 1955.

Fig. 3-9  Forum Popili (the current town of Forlìpopoli), reconstruction of the Limitatio (divisions between fields).

Fig. 3-10 Image from *Taking Measures Across the American Landscape*.

Fig. 4-1  Plants and herbs grown using the aquaponic gardening method at the Jebel Ali Resort and Hotel.

Fig. 4-2  Entrance to Paige’s house, with the Permaculture Garden.

Fig. 4-3  Plan view of Paige’s backyard garden permaculture test beds.

Fig. 4-4  Paige Tantillo with her rooftop garden permaculture test beds.

Fig. 4-5  The Permaculture test beds in the Compound garden, near Paige’s house.

Fig. 4-6  Food produced from the permaculture test beds.

Fig. 4-7  Assistant Professor Anna Grichting (far right) talking with Qatar University students while sitting in the Edible Boulevard, at the launch of the prototype Edible Garden.

Fig. 4-8  Poster designed by students, advertising the Juicing Festival and Edible Boulevard Garden launch.

Fig. 4-9  The Project for the Edible Boulevard Garden at the Women’s College of Engineering—plan views of the designs. Poster designed by students for the Edible Garden launch.

Fig. 5-1  Diets and their impacts.

Fig. 5-2  The travel of food: import, export, production, and consumption of food in the Netherlands.

Fig. 5-3  The logo of the competition “The City as an Ecosystem: Designing with Flows”.

Fig. 5-4  Analysis of the multidisciplinary teams of the thirteen entries for the competition.

Fig. 5-5  The waste chain, guiding models for the long term.

Fig. 5-6  A guiding model for the urban fringe.
Fig. 6-1  The top ten activities that accompanied secondary eating/drinking (eating or drinking while doing something else as well) according to an American survey.

Fig. 6-2  Agriculture plots in Thessaloniki, Greece. The Aristotle University of Thessaloniki rents plots at the School of Agriculture to the citizens in order for them to grow their own vegetables in the urban context.

Fig. 6-3  Community garden in Seattle, WA.

Fig. 6-4  Farming on a roof in Long Island, NY.

Fig. 6-5  “Malthus” aquaponics unit.

Fig. 6-6  Woensel-West in Eindhoven.

Fig. 6-7  Roads and uses in Woensel-West.

Fig. 6-8  Panorama of Celciusplein.

Fig. 6-9  The integration of the project in the area.

Fig. 6-10  Layout of public, collective, and private sectors in the block.

Fig. 6-11  Public areas of the block.

Fig. 6-12  The public route through the block.

Fig. 6-13  The public level plan.

Fig. 6-14  The farmers market.

Fig. 6-15  The collective areas of the block.

Fig. 6-16  The collective level plan.

Fig. 6-17  The view from the collective level.

Fig. 6-18  Collective level, section A–A.

Fig. 6-19  Collective level, section B–B.

Fig. 6-20  The transformation of the row house typology.

Fig. 6-21  Orientation of Type A and B housing units.

Fig. 6-22  The distribution of unit areas in a Type A house. The same concept is used for Type B.

Fig. 6-23  The “battery” in the Type A house.
Fig. 6-24  Ground floor plan, Type A house.
Fig. 6-25  Sleeping level floor plan, Type A house.
Fig. 6-26  Terrace and roof garden floor plan, Type A house.
Fig. 6-27  Section A–A, Type A house.
Fig. 6-28  Section B–B, Type A house.
Fig. 6-29  Elevations, Type A house.
Fig. 6-30  The energy circles in the housing units.
Fig. 6-31  The location of the systems in the battery of Type A house. The principles are the same for Type B.
Fig. 6-32  The locations of the systems in the public and collective sectors.
Fig. 6-33  Detail of the “Cut and Eat” structure. Implementation of the aquaponics system and water distribution.
Fig. 7-1  Old agricultural fields in the outskirts of Bucharest, Romania.
Fig. 7-2  Crop output per hectare (in Euros); Contribution of agriculture to gross value added.
Fig. 7-3  Collage of images depicting rural life in Romania.
Fig. 7-4  Diagram associating the influence of science and different scales of farming.
Fig. 7-5  The current situation in Romania and Bulgaria, described according to Fresco’s scheme.
Fig. 7-6  Two types of farms in Romania: family farms shown on the right and big industrial farms on the left.
Fig. 7-7  Diagram of proposed farming types for Romania and Bulgaria.
Fig. 7-8  Diagram showing the overall placement within Fresco’s diagram of the proposed types for Romania and Bulgaria in a combined “cloud form”
Fig. 7-9  Master plan of the FoodUni.
Fig. 7-10 Transportation networks in the area of Giurgiu-Ruse. Highways in pink, railway in green, airport in yellow, port in red.
Fig. 7-11 Diagram of the main design gesture of the FoodUni Campus, projected on the landscape.

Fig. 7-12 The main landscape types included within the Campus limits.

Fig. 7-13 Section and plan of the fruit-tree cultivation strip.

Fig. 7-14 Visual section of the fruit-tree cultivation area.

Fig. 7-15 Section and plan of the vegetable cultivation strip.

Fig. 7-16 Visual section of the vegetable cultivation area.

Fig. 7-17 Section and plan of the algaculture strip.

Fig. 7-18 Visual section of the algaculture area.

Fig. 7-19 Bird’s-eye view of the Campus.

Fig. 8-1 Aerial view of Hunters Point.

Fig. 8-2 Interior views of the Museum.

Fig. 8-3 View from the Farm.

Fig. 8-4 Interior views of the Education Facility.

Fig. 9-1 Rome City area and Rome metropolitan area: agricultural data.

Fig. 9-2 Land use map of the Rome metropolitan areas.

Fig. 9-3 Characteristics of farms in the capital area of Rome: the top chart depicts the number of farms (as percentages of total number) for each size class of farm; the bottom chart shows the percentage of total UAA occupied for each size class of farm.

Fig. 9-4 SFSC farm distribution by territorial classification.

Fig. 9-5 Roman foodscape.

Fig. 9-6 Mapped SFSC farms and protected areas of Rome.

Fig. 9-7 Mapped SFSC farms in Rome and crop types.

Fig. 10-1 Map of existing (2014) urban gardening projects in the research area—the Ruhr Metropolis and Emscher Landscape Park.

Fig. 10-2 Access to urban green spaces.
Fig. 10-3  Scheme of challenges for potential urban gardening projects.

Fig. 10-4  Scheme of scenario Type 1: “Demand for land”.

Fig. 10-5  Plot for urban gardening project wanted! Advertisement at a local festival in the city of Bochum.

Fig. 10-6  Scheme of scenario Type 2: “Land seeks user”.

Fig. 10-7  Community gardens invite people to participate.

Fig. 10-8  Scheme of scenario Type 3: “Gap between demand and availability”.

Fig. 10-9  Nursery school group in the Lecka AWO garden in Gelsenkirchen.

Fig. 10-10  The objective of successful urban gardening.

Fig. 10-11  Official opening of a gardening project in the city of Essen.

Fig. 11-1  Incorporation of fruitful plants (grapes in the foreground) with ornamental species (cypress in the background) in Dolat Abad Persian Garden (World Heritage List) in Iran.

Fig. 11-2  Transformation of the traditional city yard into a productive garden.

Fig. 11-3  Effect of participatory landscape management on biodiversity promotion.

Fig. 12-1  Dialogue with local inhabitants while distributing seed mixtures during spring market festival.

Fig. 12-2  Examples of the toolkit for crops and cultivation methods.

Fig. 12-3  Community garden planning and design workshop with local gardeners.

Fig. 12-4  Building a vertical strawberry garden at a local preschool fence.

Fig. 13-1  A classification scheme for urban agriculture.

Fig. 13-2  Even in constrained spaces, permanent seating plays a major role in communal garden spaces. Seating areas appear both in individual garden plots as well as in central common spaces in the gardens.
Fig. 13-3 The opportunity to socialize as well as grow culturally relevant food is important to the integration of new immigrants into a community.

Fig. 13-4 The provision of seating in an ornamental environment is a nearly ubiquitous feature in all forms of the communal gardens studied.

Fig. 14-1 Pisa Food Plan issues.

Fig. 14-2 Pisa Urban Food Strategy components.

Fig. 15-1 UA in Changan, Han Dynasty (206 B.C. to A.D. 220)

Fig. 15-2 UA in Changan, Tang Dynasty (A.D. 618–917).

Fig. 15-3 UA in Kaifeng, Song Dynasty (A.D. 960–1279).

Fig. 15-4 UA in Beijing, Qing Dynasty (1644–1912).

Fig. 15-5 The family Engel’s Coefficient of urban residents from 2000 to 2013.

Fig. 15-6 UA activities in underused spaces, Hangzhou, China.

Fig. 15-7 Poultry breeding activities in Hangzhou, China.

Fig. 15-8 Roof farms in Shanghai, China.

Fig. 15-9 The proposed UA mode.

Fig. 17-1 Map of UA initiatives and school gardens.

Fig. 17-2 Since beekeeping is a form of UA, it was mapped too. Beekeepers in The Hague.

Fig. 17-3 Soil conditions with high risk to public health.

Fig. 17-4 Vacant property in the municipality of The Hague. 2012 data.

Fig. 17-5 Restaurants serving sustainable food. 2012 data.

Fig. 17-6 Jumbo Supermarkets in The Hague selling locally grown vegetables. 2012 data.

Fig. 17-7 Quick scan and location-specific potential of Haagse Veste. Visualizations of location-specific UA approach. Inspiration for expert meeting on UA and vacant offices.

Fig. 17-8 UA program of Haagse Veste. Visualizations of location-
specific UA approach. Inspiration for expert meeting on UA and vacant offices.

Fig. 17-9 Visualization of Haagse Veste. Visualizations of location-specific UA approach. Inspiration for expert meeting on UA and vacant offices.

Fig. 17-10 Choose profile. Visualization of concept: Opportunity map for urban agriculture.

Fig. 17-11 Scan for opportunities. Visualization of concept: Opportunity map for urban agriculture.

Fig. 17-12 Multi-criteria analysis. Visualization of concept: Opportunity map for urban agriculture.

Fig. 17-13 Advice and further information. Visualization of concept: Opportunity map for urban agriculture.

Fig. 18-1 Regional characteristics of agriculture in the Ruhr Metropolis.

Fig. 18-2 Farmland as a percentage of total area in different metropolitan areas.

Fig. 18-3 Farmland in the regional Emscher Landscape Park.

Fig. 18-4 Agricultural island between the cities of Herne, Castrop-Rauxel, Bochum, and Dortmund in the very center of the Ruhr Metropolis.

Fig. 18-5 Multifunctionality of urban agriculture.

Fig. 18-6 Decrease in agricultural land use 1995–2010.

Fig. 18-7 Percentage of leased land by municipality in 2010.

Fig. 18-8 Landscape aesthetics at Mechtenberg, combining agricultural production with landscape and recreational aspects.

Fig. 19-1 Horta do Ciclista.

Fig. 19-2 Cultivating spices at home.

Fig. 19-3 Cultivating underneath a power line.

Fig. 20-1 The AOÇ logo.

Fig. 20-2 Map 1: Current (2014) and former (diminished lands)
extent of the AOÇ.

Fig. 20-3 Map 2: Historical scheme and shrinking process of the AOÇ.

Fig. 20-4 Map 3: 2005 land use, Ankara and the AOÇ.

Fig. 20-5 Map 4: Master Development Plan and first-degree Natural and Historical Protection Plan for AOÇ (Ankara Büyükşehir Belediyesi 2010), with recent land-use changes (orange stripes) done after downgrading some of the land to third-degree Natural Site protection status.

Fig. 20-6 Ankara population, 1927–2023.

Fig. 20-7 Map 5: Analysis of suitability for agricultural use.

Fig. 20-8 Dairy products from an AOÇ market.

Fig. 20-9 Neglected cultural buildings: Egli’s Turkish Bath from the Republican Era.

Fig. 20-10 The Presidential palace was constructed after first-degree Natural and Historical Site protection had been downgraded to third-degree Natural Site.

Fig. 20-11 Construction of the theme park.

Fig. 20-12 Entrance of the eight-lane highway and the historic AOÇ bridge.

Fig. 20-13 AOÇ farmlands.

Fig. 20-14 Ankara stream, 2012.

Fig. 20-15 Ankara river, 2015: channeled into concrete boundaries.

Fig. 20-16 LAUD field trip to the AOÇ.

Fig. 21-1 Initial and current industrial land renewal cycle.

Fig. 21-2 Space consumption, Lyon metropolitan area
TABLES

Table 2-1  Comparison of GAS, MAS, and LAS according to key food chain parameters.
Table 4-1  Descriptions of case studies.
Table 5-1  Characteristics of the Rotterdam Metabolists.
Table 9-1  Workforce of SFSCs.
Table 9-2  Legal status of SFSCs.
Table 9-3  UAA classes of SFSCs.
Table 9-4  Crop types of SFSCs.
Table 11-1  Integration of agriculture in urban and peri-urban land uses in Casablanca, Morocco.
Table 11-2  Agricultural activities and spaces of a public park.
Table 11-3  Possibilities for integrating the four concepts of food production into public landscapes, at three scales.
Table 13-1  Comparison of the characteristics of allotment and community gardens in Amsterdam and Vancouver case studies.
Table 13-2  Rankings of goals and motivations for communal gardening practice for official (associations/agencies) and individual gardeners.
Table 13-3  Overview of the communal garden types in each of the two case study cities, and area, population, and density metrics.
Table 20-1  Ankara: Loss of agricultural lands (hectares) through three major planning periods.
Table 20-3  Atatürk Forest Farm property and land use (hectares).
Table 21-1  Changes in legal populations.
Table 21-2  Themes identified in the semi-structured interviews.
| Table 21-3 | Purposes of mentioning urban gardens within the document analysis. |
| Table 21-4 | The roles of collective gardens throughout Villeurbanne’s history. |
The Sixth Annual Conference of the Special Working Group on Sustainable Food Planning of the Association of European Schools of Planning (AESOP) was held at the Post Plaza in Leeuwarden, the Netherlands, November 5–7, 2014. The Conference theme was “Finding Spaces for Productive Cities.” Out of the 128 abstracts received, the Scientific Committee used a blind peer-review process to select sixty-two to be presented as full papers at the Conference, representing a broad range of papers of high quality from academics, policy advisors, and practitioners. The authors worked conscientiously and under time constraints, and thanks are extended to all the reviewers on the Scientific Committee for their contributions and comments, sometimes provided in extremely short timeframes, which helped to improve the papers for presentation.

The papers selected for inclusion in these Proceedings have been slightly revised, edited, and (in some cases) updated for publication in two volumes. Volume One includes twenty-two papers submitted under Tracks 1–3: Urban Design, Spatial Planning, and Governance; the selected papers presented in the Conference under Tracks 4–9 are published in Volume Two.

The delegates to the Conference came from all continents (except Antarctica) and from thirty different countries. The range of subjects, contributing disciplines, places of origin, and the actuality and depth of the presented papers and research make these Proceedings a very good representation of the current state of the art in academic and applied research in urban agriculture and sustainable food systems.

At the end of the Conference, three awards were presented. The Scientific Committee selected the best scientific paper, which was awarded to Anna Maria Orru of Chalmers University in Sweden, for her paper Extracting Urban Green Potential: Critical Design-Based Use of Digital and Bodily Cartography Methods, which was presented in Track 9. The award for best oral presentation, chosen by the participants of the Conference, went to Angela Million for her Track 5 presentation of the paper Roof Water-Farm: Participatory and Multifunctional Infrastructures.
for *Urban Neighborhoods*, by Angela Million, Grit Bürgow, Anja Steglich, and Wolf Raber.

The third award, for best poster, also chosen by the participants of the Conference, went to Anna Chiara Leardini and Stefano Serventi for their clear poster presentation of *Via Æmilia: Infrastructure for Cultural Landscape & Food Heritage*, which is published in this Volume, Part I, Chapter Three.

The Conference included several high-level keynote speeches, which are not included in these Proceedings. After the Opening Addresses by Isabelle Diks, Alderman of the Municipality of Leeuwarden, and Diane Keizer-Mastenbroek, member of the Board of VHL University of Applied Sciences, Conference Chair Rob Roggema made his Opening Remarks. The keynote addresses, all of high quality, were given by Dan Kinkead (Future City Detroit), Guido Santini (FAO), Greg Keeffe (Queen’s University, Belfast), and Andre Viljoen (Brighton University, and chair of AESOP’s Special Working Group on Sustainable Food Planning).

In addition to eighteen parallel sessions with oral presentations and design labs/workshops, there were two special sessions, one for local governments and organizations, and one for PhD candidates and young professionals.

We would like to thank everyone who contributed to the 6th AESOP Conference on Sustainable Food Planning and made it such a success.

—Dr. Ir. Rob Roggema
Cittaideale, rob@cittaideale.eu
Conference Chair and Editor of the Proceedings.
Members of the Scientific Committee

Robbert Biesbroek, WUR, the Netherlands
Katrin Bohn, TU Berlin, Germany
Rik Eweg, VHL University of Applied Sciences, the Netherlands
Greg Keeffe, QUB, Northern Ireland
Eric Koomen, VU, the Netherlands
Luis Maldonado, Universitat Politècnica de Catalunya, Spain
John Martin, La Trobe University, Australia
Coline Perrin, INRA, France
J. Sundaresan Pillai, CSIR-NISCAIR, India
Gaston Remmers, CAH, the Netherlands
Rob Roggema, Cittaideale and VHL, the Netherlands
Sven Stremke, WUR, the Netherlands
Nico Tillie, TU Delft, the Netherlands
Wim Timmermans, VHL University of Applied Sciences, the Netherlands
Axel Timpe, RWTH Aachen, Germany
Mikey Tomkins, University of Brighton, UK
Arnold van der Valk, Wageningen University, the Netherlands
Craig Verzone, Verzone Woods Architectes Sàrl, Switzerland
Andre Viljoen, Brighton University, UK
Jeroen de Vries, VHL University of Applied Sciences, the Netherlands
Dirk Wascher, WUR, the Netherlands
Conference Chair
Rob Roggema, Cittaideale, www.cittaideale.eu

Members of the Organizing Committee
Esra Güclü, VHL University of Applied Sciences
Ineke Hoogland, VHL University of Applied Sciences
Lidwien Reyn, Bureau Mozaiek
Tulay Yilmaz, VHL University of Applied Sciences
INTRODUCTION TO VOLUME ONE

Part I: Spatial Design

In Part I, Spatial Design, eight contributions are collected. The thematic purpose of this part is to examine practical and innovative design examples and the application of design theory to productive landscapes in sustainable urban, peri-urban, and rural environments.

At the metropolitan level of scale, Oliveira and Morgado (Chapter One) define feasible conceptual frameworks for land use planning as the functional region for the urban agricultural food system. At the same level of scale, Wascher et al. (Chapter Two) develop a metropolitan footprint tool to assess the amount of productive land within reach of urban centers, in order to supply regional food to the metropolitan population. De Vries (Chapter Five) proposes to use urban metabolism as a model to increase sustainable urban food production. Mylonaki et al. (Chapter Six) identify urban agriculture as a way to advance urban quality of life and smart living at the neighborhood level. Focusing on a local level, Grichting et al. (Chapter Four) elaborate local designs of productive urban projects in order to become less dependent on scarce resources, from a governmental and community perspective. Leardini and Serventi (Chapter Three) use a more philosophical approach for taking the cultural heritage of the Via Áemilia as the basis for introducing productive410(641,376),(822,411)(641,376),(822,411)(641,376),(822,411)landscapes. Holistic thinking, emphasizing education and an open dialogue with locals and farmers, can be found in chapters Seven and Eight: Margaritis and Jauslin (Chapter Seven) upgrade the education of farmers and the attitude of locals in an accessible landscape, managed by agricultural scientists, that is allowed to evolve according to their demands; Buchanan (Chapter Eight) proposes an alternative agricultural model, which rethinks western production methods in a demonstration project that combines farming aspects with education in order to re-establish the relationship between food, farming, and the land. Part I herewith offers a wide range of papers at different scales and written from different perspectives and backgrounds. It combines insights from eastern, western, and southern Europe, Qatar, and New York.
Part II: Urban Planning

In the Urban Planning section of this volume, eight papers are collected. These papers are related to the thematic topics of Part II: land use planning, socioeconomic aspects of planning, planning of urban functions, the city layout, and transportation. Di Donato et al. (Chapter Nine) present an analytical investigation of the relationship between the location of food and the city, within the metropolitan context, connecting it rather with infrastructure than solely with the city as such. Van der Valk (Chapter Sixteen) observes the influence of food production on the changes in patterns of behavior and land use in the metropolitan landscape, and proposes that this be used as an inspiration for future planning. The integration of food in the urban environment is an important theme. Khalilnezhad and Tobias (Chapter Eleven) review agricultural integration in landscape and urban planning in four types: multifunctional, productive, recreational, and participatory agriculture. Food production should rather be integrated into urban areas to increase resilience and the ecological base of the city. Cinà and Di Iacovo (Chapter Fourteen) discuss the integration of food planning in the urban–rural landscape as a combination of governed bottom-up initiatives and participatory planning, while Gao and Zhu (Chapter Fifteen) propose that closed urban food systems can stimulate a new kind of urbanism, combining agricultural technology, urban ecology, and planning participation. Kemper and Weltring (Chapter Ten) present a methodology to identify areas for community gardening/urban gardening, which encourages an easy understanding with landowners for reusing their unproductive sites and properties. Roth et al. (Chapter Twelve) describe the development of a toolkit for urban food production and the collaborative production of food in a regeneration area experiencing economic decline and demographic change. Brabec (Chapter Thirteen) questions other motivations for urban agriculture beyond food production. Many of these papers describe the way of integrating the food issue in the urban agenda and planning. Several methodological approaches and planning propositions describe how the urbanizing areas of our planet could improve the level and the amount of space for food production. The papers originate from a wide range of locations in western and southern Europe, the United States, and China.

Part III: Governance

Governance, Part III, consists of six contributions. The core themes in this section are decision-making processes, stakeholder agreements,
participative planning, and planning as process. Giacchè and Rezende Silva (Chapter Nineteen) discuss the actors, spaces, and governance models for urban agriculture as a tool for sustainable development in developing countries. Hernández (Chapter Twenty-one) describes the role of urban gardens as a contribution to three fundamental aspects of sustainable development: organic and local food, green and permeable space, and social cohesion. Arapgitloğlu and Altay Baykan (Chapter Twenty) analyze the development of a productive urban green space as a product of effective governance under changing conditions. Kemper and Pölling (Chapter Eighteen) describe the preferential management of (urban) agriculture in an urbanizing trend to uphold the size of urban agriculture food production. Cohen and Ilieva (Chapter Twenty-two) elaborate on how cities shape new evolving food practices, and emphasize their role in food system transitions. Piepgras (Chapter Seventeen) describes the development of a digital tool to support collaborative urban planning. The papers collected in this section illustrate a broad range of governance issues. From the role of actors and institutions, the process of governance, the ways of involving stakeholders, to the development of tools—it is all coming along. The papers represent a broad set of issues and geographical areas, with locations of case studies ranging from North and South America, Turkey, Cameroon, and southern and northern Europe.
PART I

SPATIAL DESIGN

PRACTICAL AND INNOVATIVE DESIGN EXAMPLES, AND DESIGN THEORY APPLICABLE TO PRODUCTIVE LANDSCAPES IN SUSTAINABLE URBAN, PERI-URBAN, AND RURAL ENVIRONMENTS