Imprint

A Documentation of the International Student Workshop
“Urban Agriculture - Planning for Sustainable Development in Metropolitan Areas”

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- Chair of Landscape Ecology and Landscape Planning, School of Spatial Planning, TU Dortmund
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Edited by
Aaron Haoua,
Susanne Hensen,
Melanie Rüting and
Michael Roth

Participating students:
Mohammed Al Breiki, Jim Bonfiglio, Tjark Bornemann, Marc Coburn, Patrick Crawford, Nick Dansby, Claudius Dreyer, Emily Gehle, Aaron Haoua, Anna Heimlich, Susanne Hensen, Marc Hildebrandt, Jen Hudson, Yannan Jia, Lena Kaufung, Verena Kreggenwinkel, Sharnese Marshall, Sean McNaughton, Yiming Li, Felix Othmer, Sophia Rothweiler, Melanie Rüting, Christoph Schreiber, Yun Wang, Fabian Wenner, Johannes Wolf

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Preface

In October 2010 fifteen students at the School of Spatial Planning at Dortmund University of Technology got together in terms of working on an advanced students’ studio project dealing with the issue of Urban Agriculture. This studio was entitled: “Urban Agriculture – Planning for Sustainable Development in Metropolitan Areas”. The studio was supervised by Michael Roth (Chair of Landscape Ecology and Landscape Planning) and advised by Prof. Dr. Benjamin Davy (Chair of Land Policy, Land Management, Municipal Geoinformation).

Since 27 years, the School of Spatial Planning at TU Dortmund University and the Urban Planning Programm at Michigan State University (MSU) are cooperating. This includes joint student workshops and fieldtrips, faculty and student exchange and research collaboration.

In May 2011, MSU students visited Europe on their study-abroad trip. In addition to field trips to Amsterdam, Berlin, and the Ruhr area, this year’s cooperation included a charette.

A Charette is an intensive design workshop. Small groups, mixed of German and US students, worked together during a week to develop competitive concepts for Urban Agriculture on a number of sites in Dortmund.

Besides the description of the scenarios developed by the charette design groups, this brochure also gives an insight into the uprising topic of Urban Agriculture, consisting of a theoretical introduction and guest articles describing specific case studies. The overall aim of this publication is thus to promote the rise of Urban Agriculture as a means to contribute to the sustainable development of metropolitan areas.

Dortmund/East Lansing, November 2011
Aaron Haoua, Susanne Hensen, Melanie Rütting and Michael Roth
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#1 Introduction

Agriculture and metropolitan areas seem rather to be an antagonism than a symbiosis in today's context of urban planning. Nevertheless, new approaches to the (re-)acquisition of urban space by agricultural uses are developing worldwide. This does not mean a projection of rural agricultural landscapes upon urban space but in fact the development of new and specific forms of urban agriculture as well as their integration into the urban environment. Thus, urban agriculture is different from rural agriculture, as it refers to the specific urban context and serves the particular needs of urban areas. The various forms of this new urban agriculture are manifold, e.g. neighborhood gardens, guerrilla gardening or highly engineered glasshouse cultures on the roofs of metropolitan city centers, and vertical farms.

All these various forms reflect diverse motivations, which can all be interpreted as reaction to ecological, economical, or socio-cultural problems. Thus, urban agriculture complies with the principles of (just) sustainability as well as spatial and environmental justice. From an urban planner's point of view, urban agriculture is also an innovative form of (temporary) land use. Its integration in the surrounding urban environment can generate huge ecological, economic and socio-cultural returns.

Taking the city of Dortmund as a case, a great potential for implementing Urban Agriculture could be observed. As one of the former German industrial metropolises, Dortmund contains numerous brownfields, which could be possible sites for Urban Agriculture projects. During the studio work, four different sites close to the city center of Dortmund were selected using a GIS-based analysis. These sites offer all possible preconditions for the location of Urban Agriculture projects. The workshop participants also got impressions from various Urban Agriculture projects visited during the field trip in May 2011.
#2 Urban Agriculture – what you ought to know about it

“The symbiotic relationship between a productive landscape and the human settlement system is as old as civilization. During the past 200 years, that millennium-old positive relationship deteriorated into a further and further separation of town and landscape” (Viljoen, 2005, p. ix).

The impact of Urban Agriculture is manifold: On the one hand it is essential for self sufficiency e.g. for developing countries and on the other hand it can be a high quality addition to daily life e.g. in the industrialized countries. In the following brochure, the meaning of Urban Agriculture for Western countries is important, because the charrette work focused on Urban Agriculture scenarios in Dortmund. Although most of the people do not connect the topic of agriculture with cities, Urban Agriculture always existed, as for example the industrialization period in the Ruhr Area illustrates, with the coal miners’ colonies, which can be seen as an early form of Urban Agriculture in an industrialized area. Most of the early settlements featured unusually large plots for gardening and even stables for keeping animal husbandry. Another very prominent example of agriculture in urban areas during the industrialization period are allotment gardens, which can be regarded as one of the first forms of Urban Agriculture (Boldt and Gelhar, 2008, pp. 38-44; p. 50).

Benefits like improvement of microclimate, reduction of carbon footprint, enhancement of both quality of life and urban environment, healthy nutrition, jobs and allegiance for socially marginalized people, and food security prove the importance of Urban Agriculture for the future development of cities. In addition, Urban Agriculture can also be a huge opportunity for alleviating negative ecological impacts associated to climate change. Overall Urban Agriculture meets the principles of sustainability (Dubbeling and Merzthal, 2006, p. 21).
For spatial planning, Urban Agriculture is a very innovative way to plan for urban or peri-urban areas. It improves the land use of these areas and by doing so generates ecological, economic and social benefits.

“Today, Cities such as Amsterdam, London, Stockholm, Berlin, and St. Petersburg in Europe […] have connected Urban Agriculture with resource recycling and conservation, therapy and recreation, education, save food provision, community development, green architecture, and open space management” (Mougeot, 2006, p. xiv).

This shows that the acceptance of Urban Agriculture is growing in various contexts. Different motivations for Urban Agriculture lead to numerous forms of its implementation into the urban environment. However, at the beginning of the 21st century, Urban Agriculture is not yet implemented into planning and policy making, despite its motivating possibilities (Mougeot, 2000, pp. 1-3).

**What is Urban Agriculture – A definition for urban planners**

To have a common idea of Urban Agriculture as a foundation to work on, during the studio work, a normative definition of Urban Agriculture was developed, which is as follows:

Urban Agriculture is the production of food by farming, gardening, apiculture, viticulture, and pisciculture, in various appearances, as a spatially and functionally integrated part of the urban system which generates ecological, economic, and social benefits.

Due to the huge variations of Urban Agriculture definitions in the international scope, this definition has taken elements from various existing definitions, but carefully rearranged them to fit the context of the specific work described in this publication. Furthermore it gives answers to the question words: **What is? How? Where? Why? Who?**

The “Who?” is a special case because it is not directly answered by the definition. Yet, through the inclusion of many comprehensive aspects, the definition includes everyone! At least everybody could and – to the
opinion of the authors of this brochure - should somehow participate in Urban Agriculture in its various appearances.

A green vision – the Urban Agriculture Leitbild

In order to illustrate the vast possibilities of Urban Agriculture for future urban development, and to open up the minds of readers, the following section will describe the studio’s Leitbild. A Leitbild is a specific planning instrument with significant importance in German spatial planning tradition. It can be described as a vision which is a vivid projection of long-term goals. It serves as a guideline, but leaves room for developments and deviations. This abstract construction inspires the imagination of the reader and gives sufficient flexibility to make them curious and enthusiastic for the concerned issue (Jessen, 2005, p. 602).

In the following Leitbild, developed during the initial phase of the studio work, a typical residential neighborhood in the inner city of Dortmund is described in the year 2040. For the graphical illustration of the Leitbild, the Hannibal neighborhood in Dortmund Nordstadt was selected.

The following scenario indicates how the ever increasing implementation of Urban Agriculture in western cities could change the appearance and qualities of these densely populated urban areas. Even though it does not seem to be a realistic or probable scenario at first glance, it illustrates the potentials of Urban Agriculture for the development of urban spaces and could serve as a benchmark for the assessment of specific scenarios described further below.

*The former gray townscape has changed. You find green spots scattered all over the city. Looking at the inner city, you see people sitting together, talking and eating strawberry cake. But where are these strawberries from?*
The facades are green - but not only green. They are *edible* - just as many other parts of the city. There is a diversity of fruits planted in pots which are hanging at the facade. You can see apple trees and cherry trees forming an avenue, and although traffic is still bustling, you feel *comfortable*. A variety of colors, smells and other impressions surround you on every step of your way.

On a street corner in the local neighborhood shop you can buy *locally grown herbs and vegetables*. The shopkeeper cuts herbs from a mobile container in which they are grown. The vegetables are from the garden behind his house. People like buying from these local shops for various reasons.

*People from diverse backgrounds* come regularly to buy herbs they need for their traditional kitchen which they would not find in a supermarket.

Others prefer to know where their food comes from and many residents simply want to talk about the latest news in the neighborhood.

What you cannot see at first glance is what has changed in the backyards. Previously sealed areas have become gardens run by locals beside their day jobs. For example, many office employees like to plow soil with their hands, get dirty and relax through the *experience of nature* as a counterbalance to their job.

Others look for the direct interaction with their neighbors, when they take turns at both caring for their community gardens and selling their home grown food to other neighbors and passersbys.

You may also see school teachers with groups of pupils holding gardening tools or fishing rods. This is because most of the *educational institutions*, especially schools and pre-schools within Dortmund cooperate with community gardens and fish farms. In this way the children can work together with older people, for example learning how to plant tomatoes and how often they must water them and fertilize them with organic waste from the nearby sheep farm. *Three generations of people* scrabbling in the mud, sowing seeds, harvesting
greens or catching fish, while talking and laughing in the middle of a downtown neighborhood, are common practice these days.

Moreover some residents run urban fish farms which are also frequented in the afternoons. All kinds of residents, labor colleagues, children from the neighborhood, and elderly people are sitting around the basin and fish, both as a leisure activity and for their own consumption.

Also many spaces between buildings as well as some of the public open spaces and former industrial sites are harnessed for Urban Agriculture nowadays.

This Leitbild is based on the motivation to deal with socio-cultural, ecological, and economic issues. Furthermore, it is strongly connected to the definition described above. As illustrated in our vision, Urban Agriculture is implemented into spatial planning and has gained widespread acceptance among administrative bodies, landowners, and residents. It is an innovative form of land use, both intensifying land utilization and mitigating social, economic and environmental disadvantages of urban residential neighborhoods (cf. also Mougeot, 2006, p. 33).

The vision developed above illustrates how Urban Agriculture could turn places previously conceived as disadvantages into promising new projects. The conversion of spaces between and behind buildings, unused former industrial sites, or public open space into agricultural use offers spaces for people to work together and grow their own food. Concerning these projects the sense of community will grow, since residents will identify themselves with their neighborhood and care more for it (Smit and Bailkey, 2006, pp. 145-170).
Diverse appearances of Urban Agriculture

The above chapter “theoretical background” should give a short overview of Urban Agriculture and answers the question: What is Urban Agriculture? Through the Leitbild and its vision it is underlined what Urban Agriculture could achieve. But how can these visions be implemented in spatial planning? The following chapter should illustrate which locations and forms are suitable for Urban Agriculture.

The illustration aside shows that on the one hand the building itself is appropriate for Urban Agriculture and on the other hand sites like backyards and brownfields can be used for it.

Diverse locations are appropriate for Urban Agriculture

Source: Own account
**Rooftops**

Using flat unused available space for Urban Agriculture

**Why?** The largely untapped area is predestinated for Urban Agriculture

**Precondition:** Containers, pots or boxes are needed for planting on a roof; tall trees and shrubs must be fastened

**Cultivation methods:** almost all methods are appropriate except keeping large animals

**Products:** small vegetables and fruits, honey, poultry, eggs

**Facades**

Cultivating plants on walls or facades

**Why?** Using facades is an easy location for Urban Agriculture, which does not compete with other space intensive uses

**Preconditions:** ropes, wire fences, wooden trellis or a free-standing lattice; light and warmth

**Cultivation methods:** vertical planting in pots and buckets

**Products:** a variety of hanging vegetables and fruits such as tomatoes, grapes etc.

**Windows and windowsills**

Window and windowsill farming

**Why?** Food can be directly cultivated in the kitchen during the whole year.

**Precondition:** enough daily sunlight

**Cultivation methods:** planting in pots and buckets or using hydroponic systems

**Products:** herbs, small vegetables and fruits like tomatoes or beans
Backyards

Using the backyard as site for Urban Agriculture

**Why?**: Easy realizable for residential houses, advantageous because of large space for planting

**Preconditions**: enough sunlight, because especially small backyards are often shaded

**Cultivation methods**: planting directly into soil, keeping animals (according to the size of the backyard)

**Products**: Herbs, vegetables, honey, animals and animal products

Brownfields

Urban Agriculture on brownfields

**Why?**: Unused space can be developed (temporarily/permanently) and the brownfield can be enhanced in value

**Precondition**: Special techniques for soil remediation like excavation or soil washing make it possible to use contaminated brownfields.

**Cultivation methods**: mobile container gardening and planting in pots, sacks and buckets

**Products**: herbs, vegetables, fruits

Vertical Farm

A vertical farm is a current vision of future food systems in cities where farming is integrated into high-rise buildings. These modern forms of Urban Agriculture locations would deliver a year round crop production and could be an efficient solution for future food production. Although vertical farms are popular among scientists and designers, there aren´t yet practically realized vertical farm projects besides experimental try-outs.
Intended products:
Urban Agriculture arises in various appearances. But one can question, what Urban Agriculture is for. Is Urban Agriculture able to offer the same bandwidth of regular agricultural products, which are produced in rural areas?

Yes, it can!

Due to Urban Agriculture, not only several herbs can be gained, which are very often detectable in kitchens and therefore probably the most spread form of practicing Urban Agriculture, but moreover a large amount of fresh fruits and vegetables can be produced on small spaces. This includes for instance plants like strawberries, tomatoes, sweet peppers, raddish or cabbage to name only a few. In addition, even fruit trees are realizable in urban areas, so that Urban Agriculture provides as well many kinds of fruits, for example apples, pears, cherries or peaches. All those products are assigned to the typology of Horticulture.

Another typology is viticulture, not only aiming at grape production for direct consumption, but as well for the production of wine in urban areas, as several small-scale Berlin vineyards have demonstrated.

Furthermore, Urban Agriculture includes the keeping of animals in urban spaces. Initially, apiculture means the keeping of honeybees, which are advantageous in regard to the honey production. For example, flat roofs are very suitable for bee keeping and further, it does not require large space.

Concerning the locations, backyards and brownfields are - due to their average size - the most appropriate sites for larger animals. Consequently, Urban Agriculture is not just for vegetarian food production, but also for receiving animal products. The spectrum ranges from eggs and meat to supplementary and helpful goods like fertilizers for the further agricultural production.

Besides, fishery is moreover an Urban Agricultural field. By means of aquariums or ponds, diverse fish species can be cultivated.
Summing up, the numerous appearances of Urban Agriculture can yield a large food diversity.

**Cultivation method:**
Basically, there are not many rules which have to be followed for practicing Urban Agriculture. Even if there is only small space available, an Urban Agriculture project can be started. Besides planting vegetables and fruits directly into soil, planting pots, buckets or containers are often the only necessary equipment.

The mobile container gardening is as well a gardening form which does not require access to the soil. Due to its movability, it is therefore very flexible and vegetables and fruits can be grown everywhere. Since the soil of brownfields can contain toxic substances, the spaces are thus unsuitable for growing food. Therefore, using mobile containers is an appropriate solution for contaminated plots and as well for temporary usages for instance before the decontamination process starts.

In general, practicing Urban Agriculture is mostly not a matter that conflicts with existing laws. But there is one approach to Urban Agriculture which is not legal due to the fact that plots are used which are in someone else’s property. This method is called Guerilla Gardening. Guerilla gardens are mostly constructed on abandoned or ignored terrain because this form aims at improving the fallow land.

**Institutional Form:**
A community garden is the cultivation of plants done by community members. In a community, people help each other. The most important characteristic of a community garden is the collective utilization of common resources by the community members. Thus, a community garden project is based on the principle of fellowship.

Acting together, helping each other and assuming responsibility for other community members brings people close together, so this form of practicing Urban Agriculture is not only advantageous because of savings of tools and equipment but as well regarding the social contacts and interactions the community members share.
A neighborhood garden is another possible manner of a common garden. Indeed, neighborhood gardening is a special form of community gardening because the neighborhood garden is only conducted by people from the adjoining neighborhood. This occurs due to the more small-scaled area of a neighborhood gardening plot. Therefore a neighborhood garden is slightly more delimited as an average community garden.

Whenever a garden is installed and developed by an official institution such as administrative, educational or religious organizations, the gardening form is called institutional gardening. This means for instance a school garden or an Urban Agriculture garden which is operated by a preschool, a church or a local council.

**Benefits**

In the following sections, the manifold benefits of Urban Agriculture are listed according to the three columns of sustainability: ecological, economic and socio-cultural aspects.

Benefits of Urban Agriculture according to the sustainability triangle

Source: Own account
Social Sector

The social benefits of Urban Agriculture are mainly in the idea of community. People of different social backgrounds, age groups and cultures come together to work on a project. Food production is not only the main aspect of gardening, but as well a means to take advantage in learning from each other, gaining respect for each other, and establishing mutual cooperation. In addition a strong and healthy community or neighborhood is able to contribute to a reduced crime rate in a neighborhood and for sure a nice appearance of the area. So in terms of spatial planning, the social benefits of Urban Agriculture are also a response to the topics of segregation and gated communities. Taking into account that people identify again with their neighborhood. In addition the active diversity based on Urban Agriculture could increase the welfare of everyone. Furthermore Urban Gardening is able to provide more: Values like tolerance, solidarity awareness and respect are strongly connected to the philosophy of Urban Agriculture. Especially when people of different social and cultural backgrounds come together to learn from and work with each other, certain behaviours and values are crucial. In the end, regarding examples of the field trip to Amsterdam and Berlin, people fulfill themselves, by supporting and working with a strong community of urban gardeners.

Ecological Sector

Urban Agriculture can be a green motor for cities. It antagonizes heat islands and produces not only fresh and healthy food but also fresh air and helps to reduce CO₂ emissions. In general, Urban Agriculture improves the microclimate of cities. Plants and soils of Urban Agriculture projects can slow down rainwater flow-off and thus decrease the risk of areas getting flooded after heavy rainfalls. Urban Agriculture projects often follow the philosophy of organic food production. If Urban Agriculture is maintained in a sustainable, organic way, it can help to reduce contaminations in water and soil. Heavy metals for instance can be immobilized by using a lot of lime and a high organic matter (Deelstra and Girardet, 2000, p. 47). Another promising prospect of Urban Agriculture is the reduction of freshwater use and the amount of dumped waste. Leaving the “technical terms”, Urban Agriculture has more ecological benefits to provide. A realized project contributes to the aesthetic of a city (center). With organic food
production and mixed cultivation, Urban Agriculture is a green habitat for humans and animals. A place within urban borders where one can recreate and enjoy.

**Economic Sector**

From the economic point of view Urban Agriculture has many benefits. Most of the projects which were realized, had to invest little money but mostly just manpower and will. By realizing projects it can be seen, that the land value increases. A former brownfield, remediated by Urban Agriculture can be a valuable area in the city. The example of the Prinzessinengarten in Berlin shows, that even the selling of organic soil and other products through Urban Agriculture can generate income to the gardeners. Especially in marginalized neighborhoods, the residents can grow their own organic food whereby they can save money, which otherwise would be spent in the supermarket. In turn, local shops and restaurants profit from Urban Agriculture. By buying local products e.g. restaurants can improve their image.
New Fields for the City: Urban Agriculture as a Means for Sustainable Urban Development

Prof. Katrin Bohn (translation: Michael Roth)

When the student groups from Dortmund University of Technology and Michigan State University visited the Technische Universität Berlin in May 2011, something special was just happening in Berlin: The “Allmende Kontor” (The Common ’s Office) started its work on the former Tempelhof airfield.

There are two exceptional specifics about this project: First, several hundreds of spontaneous volunteering citizens have now converted 5,000 m² of former airfield into a productive urban landscape, and second, the project is explicitly supported and promoted by the Berlin Senate, namely the Senate Department for Urban Development (“Senatsverwaltung für Stadtentwicklung”).

A process of rethinking has started:

The Senate Department for Urban Development is currently working on a strategy for urban green in Berlin. Natural, urban, productive – these catchwords are used to describe the strategy for an up-to-date urban landscape in Berlin.

Productive green is an urban interpretation of cultural landscape(s): Open space, which has not solely been designed by the Planner, but also by the people that are actively using that space. New partnerships, networks and management structures for those areas are part of this strategy. Thus, Berlin is one of the first German cities that included productive urban landscapes into their development strategy.
The process of rethinking goes on:

The walkable city is followed by the edible city. Both guidelines are reactions to an increasing perception of limited resources and a search for intelligent concepts that are positive towards the future of urban areas.

Productive urban landscapes which include organic urban agriculture could increase the ressource efficiency of cities and help to minimize critical environmental problems. They could also help to increase the quality of life in cities and its economic prosperity, at least on a local scale. Current research in various countries is investigating, up to which level this could happen.

Today, not only citizens’ initiatives and local activists, but also municipal governments are looking for best-practice examples and the newest research results on the positive effects of urban agriculture for city development, the nutrition of urban people and the common property of urban open spaces. Guidelines and policy briefings are gaining more and more importance and are strongly looked for by city authorities all over Germany.

Interdisciplinary collaborations are necessary: Architects, urban planners, landscape architects, and designers have started to work together with urban farmers, local stakeholders, agronomists, economists, traders, and artists to cultivate the diverse fields of urban food systems.

Up to now, the profession of architecture, activists and artists have lead the field of urban agriculture and productive urban landscaping as can be seen from the high number of international exhibitions, live projects and publications during the last years.

Now, it is the task of landscape architects, architects, urban planners, and designers to think and develop urban food systems suitable for today’s and future demands. This work should be done in close collaboration and interdisciplinary to design maximum utilizable open spaces for the sustainable future of cities. That means huge and exciting
challenge for a more active and integrative way of thinking, designing and experiencing urban spaces.

To my understanding, the profession of landscape architecture should aim at integrating productive landscapes in urban spaces planning, mainly as productive green infrastructure and strategically placed best practices.

From today’s perspective, what could be a re-interpretation and a close tie-up to mainly closed, waste- and transportation-reduced, energy-efficient urban systems? How can a sustainable, re-localized, re-regionalized food production look like? Which spaces would it use? The past Garden City is an often-quoted reference, but what will the city of the future be like?

In my own work, especially at Bohn&Viljoen Architects, Andre Viljoen and I have developed since about 10 years the concept of Continuous Productive Urban Landscape (CPUL). This architectural and urban planning conceptual tool is meant as a strategic and associative framework, enabling us to theoretically investigate and practically test the integration of agricultural uses in urban fabrics. Our concept aims at providing a more sustainable urban infrastructure, which then could enable or even require a redefinition of public spaces’ uses and users. We promulgate ecological intensification instead of densification. We ask whether urban agriculture has to remain a decorative ornament or whether it could be fully functional in urban and peri-urban areas.

In London, such concepts have gained highly welcome support lately: The London city council has published the report “Cultivating the Capital: Food growing and the planning system in London” in early 2010. This report shows, how urban initiatives aiming at food production could be extended with the joint help of both, food producers and local governments and to the benefit of many.

And so, the rethinking keeps going on...
Community Gardening, urban gardening, urban agriculture - the example of Berlin

Elisabeth Meyer-Renschhausen

Community gardening, urban agriculture, intercultural gardens: whether conscious or not, urban cultivation of vegetables has become fashionable. There is fresh enthusiasm for community gardening everywhere. And the new urban agriculture has become a symbol of positive protest, as a signal against a dietary dictatorship which has brought genetic engineering to Europe - in eggs, for instance - without even asking us. This means that self-initiative agricultural projects, which had previously been relegated as being a type of heavy housework done by the 'rubble women' who were the driving force behind Germany's reconstruction after World War II, are reappearing in the cities in times of crisis and need.

Urban gardening is becoming the centre of the secret universities of modern times. When people come across cultivated vegetables amongst the weeds on urban waste land, they may begin to reflect upon their dietary behaviour and decide to eat more climate-conscious food. Long forgotten vegetables, such as parsnip, beetroot, French spinach, Good King Henry potatoes or Swiss chard, resurface and win over the hearts of young gardeners. In the mega-cities of the global south from Mumbai to Nairobi as well as in the big cities of Europe, some speculate with houses and property at the expense of others. Profits and unemployment figures rise in synchronicity. Therefore, survivalists, people seeking vocational adventure, the socially excluded and the unemployed inevitably demand back common land. ‘Reclaim the Commons’ is today’s slogan. Guerilla-gardening has become the means of action against a policy of land speculation which is supported even by the Social Democratic Party (SPD) - The Left Party (PDS) coalition governments. By constantly having to fight over urban waste land, hitherto outsiders become responsible citizens. The new gardeners consider themselves as active members of a world citizenship who are working in order to preserve the world. This new subsistence movement is now a reality. It is a movement which is fighting for democracy, which is under threat from the commercial sellout.
This new wave of community gardening began in the 1990s. It was closely linked with the urban community gardens and children’s farms which flourished in the 1970s and early 1980s during the squatter movement. In Germany, the first international gardens developed in Göttingen in 1996 as part of a civic project developed as a citizens’ initiative. Bosnian women refugees, together with their female social workers, were looking for a plot of land, which they were finally provided by the Church. The Internationale Gärten in Göttingen quickly became known throughout the Republic as a successful example of the social integration of unemployed asylum seekers (immigrants without a work permit who are not able to legally work in Germany). In addition, the Bunte Gärten project in Leipzig was set up soon afterwards solely by means of voluntary work. It was aimed at the asylum seekers who lived in uncomfortable container-type temporary housing. After an initial year of difficult experiences in a joint plot within a colony, a former market garden was placed at the disposal of the Bunte Gärten project. A couple of years ago three young women successfully established the first spin-off outsourcing, in the form of a small catering firm. And they are now able to finance their German language courses through the sale of their products.

Berlin in 1995 was a city that had been left out of the support funds of the Cold War. As a result, the city and the state of Berlin had run into debt, initially through no fault of their own. To exacerbate this Berlin opened itself up to blackmail. Some politicians became susceptible to corruption and the city’s debts increased. An unpleasant tug of war over the large urban wasteland spaces, such as the Gleisdreieck of the former Potsdam goods station at Potsdamer Square, developed between the Federal Government and the state. In addition, state politics was and is still unclear about what to do about the Tempelhof field. It took a wild, as well as a ridiculous summer day, in which a couple of thousand green idealist squatters were faced with as many police in riot gear, to force the administration to open the large green field to satisfy Berliner’s leisure needs. Today, just two days later, people are encouraged to activate the Tempelhof field through temporary uses, such as gardening. To reclaim the commons one of the new founded projects calls itself Allmende-Kontor (office for the reclaiming the commons).
However, initially this new concept of converting urban wasteland into green areas open to the public as well as community gardening developed painfully slowly and called for a lot of staying power on part of the Berlin garden activists. The project Gärten der Kulturen der Welt, which was put high on the activists’ agenda in the late 1990s, has become a reality in Berlin from only around 2000 onwards. Nonetheless, the development has been at a rapid pace ever since then.

At first, the Kid’s Garden was established as a green outdoor playground in 1999 on wild fallow land in Neukölln. In 2000, the Perivoli Garden was established on the southern fringes of Neukölln as part of a German-Greek women’s project. Thereafter, during a workshop in Köpenick at the turn of the year 2002 and 2003 it was decided to create the Stiftung Interkultur, an intercultural foundation whose aim was to foster integrational gardens. The registered office of the foundation, which is in Munich, co-ordinates the creation of new intercultural gardens, of which there are currently almost one hundred nationwide. Each year, the Stiftung Interkultur also invites the country’s active gardeners to attend a network meeting.

Berlin’s first official intercultural garden, the Wuhlegarten in Köpenick, was opened in 2003. This project was made possible by the initiative of local Church representatives and Agenda 21 districts. And finally in 2004, after 15 years of painstaking negotiations, the representatives of AG Gleisdreieck were allowed to get started with intercultural gardening in the future park on the Gleisdreieck. The community garden Bunte Beete in Kreuzberg’s Wrangelkiez and Rosa Rose in a wild fallow in Friedrichshain sprang up simultaneously in the same year. Nowadays Berlin has over twenty intercultural gardens. Even ten more are planned and more and more residents approach the activists of the Urban-Acker network or the Allmende-Kontor office to find out if they can join in the gardening somewhere in the neighbourhood. Various colonies are deliberately and specifically open to newcomers as well as art projects. At the same time a change of generation is happening. More and more young people strive towards participating in the gardens and want to have a try at cultivating vegetables. Here again this is a form of gentrification: yuppies in particular look for allotments in their neighbourhood (and discover to their astonishment that even they are powerless against the conveyance of urban gardens).
New self-harvest projects, such as Bauerngärten on the outskirts of Berlin as well as the nomadic green Prinzessinnengärten, almost over night, became the darlings of the nation. People found the gardens appealing because of the highly contrasting character of cultivated land and untamed scenery. On the one hand the beds are scientifically planned and well thought out; whilst on the other hand the gardens have kept much of their natural character. The new urban garden movement does not necessarily shy away from expense of time and money for its new passion. The turn towards more practical activities, and the enthusiasm for the sensual experience of digging in the soil is seemingly boundless. It seems as if the new subsistence and garden movement strikes at a sort of life nerve of city dwellers and their cities. Does the growing urbanisation necessarily imply a form of re-ruralisation? Does the unequal distribution of wealth of some lead others, so to speak, automatically back to a more subsistence economy? Will a new social fallow and waste land policy be the focus of future urban politics? Could urban peace possibly be guaranteed by granting serious long term gardening freedom on large spaces of common land?
## #4 The Urban Agriculture Charette

During the Charette in May 2011, each student group (mixed of German and US students) was asked to develop a concept implementing urban agriculture within the specific context of Dortmund for one of the potential sites listed below. As the forms of urban agriculture are manifold, there were practically no restrictions to the creativity: It was possible to aim at temporary or permanent uses, design built structures, green spaces or develop concepts for projects or events.

After handing in the plans each group had to present their concepts to the jury and the plenum. The jury (list of jury members) evaluated the results of the Charette and announced the winner teams. Therefore, the Urban Agriculture Charette was a competition-based workshop to elaborate the most appropriate approach for Urban Agriculture in Dortmund.

### List of jury members

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>Prof. Christa Reicher</td>
<td>TU Dortmund, Dean of the School of Spatial Planning, Chair of Urban Design</td>
</tr>
<tr>
<td>Julia Sattler</td>
<td>TU Dortmund, School of Cultural Science, Institute of English and American Studies</td>
</tr>
<tr>
<td>Prof. Dr. Zenia Kotval</td>
<td>Michigan State University, School of Planning, Design and Construction</td>
</tr>
<tr>
<td>Prof. Dr. Trish Machemer</td>
<td>Michigan State University, School of Planning, Design and Construction</td>
</tr>
<tr>
<td>Prof. Dr. Benjamin Davy</td>
<td>TU Dortmund, School of Spatial Planning, Chair of Land Policy, Land Management, Municipal Geoinformation</td>
</tr>
<tr>
<td>Dr. Christiane Ziegler-Hennings</td>
<td>TU Dortmund, School of Spatial Planning, Chair of Landscape Ecology and Landscape Planning</td>
</tr>
<tr>
<td>Michael Roth</td>
<td>TU Dortmund, School of Spatial Planning, Chair of Landscape Ecology and Landscape Planning</td>
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</tbody>
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Source: Own account
## Time schedule for the Charette

### Tuesday, May 17, 2011

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:30</td>
<td>Meet at Dortmund University of Technology, Rudolf-Chaudoire-Pavillon</td>
</tr>
<tr>
<td>10:00</td>
<td>Formal opening of the workshop with welcome notes by Prof. Christa Reicher, Julia Sattler, Prof. Dr. Zenia Kotval, Michael Roth</td>
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<tr>
<td>10:30</td>
<td>Introduction to workshop task, organizational issues</td>
</tr>
<tr>
<td>11:00</td>
<td>Start of group work</td>
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<tr>
<td>12:15-13:00</td>
<td>Lunch break</td>
</tr>
<tr>
<td>13:00-18:00</td>
<td>Group work</td>
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### Wednesday, May 18, 2011

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:00-12:15</td>
<td>Group work</td>
</tr>
<tr>
<td>12:15-13:00</td>
<td>Lunch break</td>
</tr>
<tr>
<td>13:00-18:00</td>
<td>Group work, with compulsory consultation for all groups between 13:30-16:00</td>
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### Thursday, May 19, 2011

<table>
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<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:00-12:15</td>
<td>Group work</td>
</tr>
<tr>
<td>12:15-13:00</td>
<td>Lunch break</td>
</tr>
<tr>
<td>13:00-18:00</td>
<td>Group work</td>
</tr>
<tr>
<td>13:00-17:00</td>
<td>Plotting/ printing time</td>
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### Friday, May 20, 2011

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:00-11:30</td>
<td>Group work</td>
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<tr>
<td>12:00</td>
<td>Submission, hand-in, put-on-display of plans</td>
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<tr>
<td>12:00-13:00</td>
<td>Jury’s evaluation of plans</td>
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<tr>
<td>13:30</td>
<td>Group presentations (10 min presentation + 5 min questions &amp; answers)</td>
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<tr>
<td>15:30</td>
<td>Jury’s final assessment</td>
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<tr>
<td>17:00</td>
<td>Nomination of winners, price giving ceremony</td>
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<tr>
<td>18:30-19:30</td>
<td>Visit of the Dortmund U</td>
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<tr>
<td>20:00</td>
<td>open end</td>
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<tr>
<td></td>
<td>Dinner at Hövels Hausbrauerei</td>
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Source: Own account
Selected sites for Urban Agriculture in Dortmund

Source: Own account

Detailed view on the sites

Source: Own account
### Site 1: Brügmannplatz

<table>
<thead>
<tr>
<th>City district</th>
<th>Innenstadt Nord</th>
</tr>
</thead>
<tbody>
<tr>
<td>District inhabitants</td>
<td>53,826</td>
</tr>
<tr>
<td>Site size</td>
<td>7,3 ha</td>
</tr>
</tbody>
</table>

The site “Brügmannplatz” is located only a few hundred meters north-east of Dortmund city center and therefore very central. Hence the Brügmannplatz is incorporated into the urban context. The site is affected by its small, varying pieces of land instead of one property with homogenous features. Moreover, the whole area is divided by a major railroad line embankment. Due to that spatial condition, there is not even a visible connection between all appending parts of the site. As a result, the selected site is not identified as a contiguous and coherent urban area.

One of several residential buildings in the north-western part of the area is a high-rise structure surrounded by a broad urban open space which is largely unused. The disuse of free space also applies to the rest of the area, which is mostly characterized by relatively low quality.

The social structure of the urban area is largely homogeneous. The inhabitants of that area are predominantly socially weak people. Regarding the surrounding environment of the site, there are business colleges and a youth center. In addition, a subway station is directly on-site.

Underneath some parts of the area there is a deep bunker, built during the Second World War which today is inaccessibly. Finding appropriate solutions for the involvement of the social weak citizens into urban agriculture projects could lead to positive effects. However, chances for a positive development are abundant.
Site 2: Ostbahnhof

This location is a brownfield about one kilometer away from the central business district of Dortmund. The area has a size of 7.2 ha and was mainly used as freight terminal. Later there was a print office of two big newspaper companies. At the present only the sealed part is used for parking. A big problem is the illegal deposit of waste on this area.

Since former rail tracks are removed, most of the surface is very bumpy. In the South and West, the area adjoins to residential areas. In the East there is a relatively new retirement home. In the North there is a residential and commercial area.

While the population southwards is rather wealthy, the one northward is comparatively poor. This area of transition thus offers a potential for tying those two groups together. Very close to the South/West entrance is a trolley car station. Due to the present and former activities, soil contamination has to be taken into consideration.

Site 3: Südbahnhof

This site is located in the South-East of the City Center of Dortmund between Märkische Straße and Voßkuhle.
The area was former used as a large train station with an adjoined train depot. Beside the Central Station of Dortmund, the South Station was the most important and frequented railway station in Dortmund. The brownfield is unused except of the city railway line S4, which passes the area at the edge. Most of the ground consists of scree material, vegetation exists only in the east and in west.

The two separated areas are linked by a bridge, which still has unused rail tracks. The brownfield does not have contaminated soil. As a remnant, the water tower high-rise and a dilapidated roundhouse still exist. The manner the site is constructed is not utile for any benefiting usage and the quality of space is very low.

Site 4: Kronenburg

<table>
<thead>
<tr>
<th>City district</th>
<th>Innenstadt Ost</th>
</tr>
</thead>
<tbody>
<tr>
<td>District inhabitants</td>
<td>52,690</td>
</tr>
<tr>
<td>Site size</td>
<td>0,22 ha</td>
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The brownfield site “Kronenburg” was a former brewery. The area is located South-East from Dortmund City Center. In the South-East corner there are two abandoned structures. The building of the former Kronen Brewery and its tower are provided above an overgrown valley with parking lot for the garage beneath the Rewe grocery store. To the west, Westfalendamm Nord adjoins to the site, which is a subdistrict with a large population of senior citizens. The two districts Ruhrallee Ost and Ruhrallee West are situated to the west of the site. Those two subdistricts, known as Kreuzviertel, are characterized by student housing. Several pre-schools, schools, and public buildings with flat roofs are scattered through the area. Although most of the streets in this site are lined with trees, some are lacking. While this area has been developed densely, there could be some improvement in the landscape. These quarters lack identity and only the Kreuzviertel is known by name.
**Background:**

As a planning study area, Brügmannplatz offers various land uses, social structures, and housing arrangements. There is a significant gap in prosperity between the northern and southern neighborhoods, with little to no shared physical connections.

Unused green spaces, declining residential districts, economic downturn, flourishing open green space, commercial development, and viable housing summarize the diversity of this study area. The high contrast between social and economic conditions is exhibited citywide, however Brügmannplatz captures apparent conditions with the opportunities available for positive growth, and urban agriculture poses the ideal tool to accomplish goals of connectivity and community in the Northern Dortmund neighborhood.

**Philosophy:**

“Growing together” is both theoretical and practical for propensities of urban agriculture implementation. Particularly, though, Brügmannplatz is envisioned to grow socially, economically, and aesthetically with the implements, all while producing cohesion within the marginalized and segregated communities. The insistent fight here between the communal and the individual land uses.
**Goals:**
The proposed design aims at building up connections between different social groups and populations of mixed income. Besides promoting the urban land and increasing the value of the neighborhood the quality of life will be enhanced significantly.

There is not only the objective to create a connection from the Brügmannplatz neighborhood to the rest of the city but as well the other way round, so that there will be a mutual advantage and welfare. The latter should also lead to positive economic side-effects since there is the purpose to stimulate tax base and property values within limited boundaries on the north.

Furthermore the elaborated design aims at educating the immediate population about urban agriculture techniques, implements, and food production so that as a result urban agriculture will be promoted and increasingly aware.

**Approach:**
For realizing the groups goals there is a need for maintaining diverse land uses such as commercial, social or residential usages in order to bring mixed populations together and develop spots where people can meet and interact with each other. Moreover open space for recreational, festive, and aesthetic uses should be retained for high-density functioning. Besides, the planning includes the implementation of urban agriculture in incremental stages.
from small to full scale around the neighborhood. Through establishing nexus between food production, harvesting, and sale within the specific district of Brügmannplatz, it is possible to share food, knowledge, and taxes.

To implement the educational approach, it is required to bring local schools, residences, and outside communities together to learn about urban agriculture implements, techniques, and benefits within local community gardens.

The fragmentation of the urban site should be countered by implementing an additional connecting element. Gates, which are suitable for planting should create a sense of togetherness in the Brügmannplatz area and lead to a recognition value.

**Group 2: Garden Haven - the float approach**

**Design plan – Garden Haven**

<table>
<thead>
<tr>
<th>Participants</th>
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<tbody>
<tr>
<td>Aaron Haoua</td>
</tr>
<tr>
<td>Mohammed Al Breiki</td>
</tr>
<tr>
<td>Patrick Crawford</td>
</tr>
<tr>
<td>Marc Hildebrandt</td>
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**Background:**
The former Ostbahnhof train station acted as a physical barrier between the neighborhoods of the social marginalized Borsigplatz and the affluent Kaiserstraßenviertel.

For nearly two decades now, the station has been closed but the
brownfield has remained a barrier between the two socioeconomic groups. This prime real estate is also located close to the Dortmund City Center, Courthouse, and Jail as well as retirement homes, other civic buildings, and commercial nodes. However, despite all the attractive features of the area, the site remains a wasteland and constant reminder of the disconnection between economic groups in Dortmund.

**Philosophy:**
The Garden Island plan works to integrate each of these social classes in a creative way, the “float approach”. Aztec floating gardens amazed the Spanish Conquistadors 500 hundred years ago. With innovative approaches and modern technology, the plan revives this lost art while at the same time integrating all social classes through the use of floating gardens and water activities.

**Goals:**
The design group believes that by creating an attractive space which provides opportunities and space for all the Borsigplatz and Kaiserstraßeenviertel neighborhood residents will be able to find common ground through their similar interests. Whether it is walking a dog, letting a kid run outside, gardening on an own unique plot of land or just enjoying the canal with a relaxing boat ride there are opportunities for everyone. The group’s vision Garden Haven is to act as a junction point where each of these different groups can share experiences and be united by their shared troubles and joys as the move trough life and utility cherish their close ties.
**Approach:**
A constant current, driven by solar powered pumps, flows through a canal which etches out a literal island in the center of the park. “Garden Island” will begin as a grass covered park with small community garden and space along the canal for eating, working, and enjoying the weather. Garden Haven will also provide a children’s garden close to the main entrance for the many schools in the area. Outlining our site will be grassy park space and trees for shade which produce edible fruit which all are available to enjoy. The plan also calls for these to extend out of the site along streets and other entrance points to the park which will invite new users into the park with it’s inviting feel.

Nevertheless the main attraction will be the water, which runs though the site. Floating on the canal are Lily shaped floats, of differing size and type, which residents and community members can rent to garden on. Some floats have a perforated underside, so that plants can extend their roots into the water, others are just watertight, creating a relatively dry environment. Since all the floats are constantly moving, there are no “good” or “bad” sites; everybody’s garden will be at every spot of the canal at a time. This creates equality while maintaining personal spaces for promoting responsibility and identification. Small rowboats and floating docks will also be available for leisure activities on the canal to further diversify the usage of the water.
Group 4: Redeveloping “Kronenburg”

Participants
Verena Kreggenwinkel
Sharnese Marshall
Christoph Schreiber
Sean McNaughton

Philosophy:
The “Kronenburg” site is a 2200 m² brownfield, southeast of the city center that the design group decided to transform into a community center for local residents in addition to creating a vertical farm which serves as a beacon of urban agriculture for the visitors.

A few of the principles used in our design were that no fences are the best protection, to bring together different parts of the community, and to make the buildings productive socially and economically. The stakeholders that will benefit are the residents of all ages, housing developers, the municipality, and the nearby schools and preschools.

Goals:
This sustainable project will provide a social center for the community, economic stimulus from the restaurant and vertical farm, and environmentally benefit by turning a brownfield green. This urban design uses cutting-edge techniques to create an urban agriculture destination for all to enjoy.

Approach:
The first step of creating this plan was analyzing the strengths, weaknesses, opportunities, and threats of the property. Some existing strengths are the good neighborhood community, connections to public transit, and nearby schools and parks.

Weaknesses are the sloping land beneath street level, the sealed parking lot on-side, and that it’s a brownfield.
The opportunities as a community garden is to bring the nearby elderly and children together and utilizing the taller building as a vertical farm while the shorter building has mixed uses.

The potential threats are soil contamination, possible issues with vacant buildings, and conflicts between locals and visitors.

By redeveloping this parcel, the group will reuse the 30-35 m high vacant building as a cutting edge vertical farm that utilizes solar panels, a rooftop greenhouse, livestock, gardens, and basement fisheries.

The 15 m high building has two wings of different heights so it will contain mixed uses. The south wing is 3 floors with very high ceilings so it seems to be a good place for a community center for local residents. The north wing will be occupied by a restaurant with a patio on the first two floors since it was the site of the former brewery. The top three floors will be apartments.

The surrounding outside open space will be the location of our community garden. We will provide four entrances with footpaths leading to an aquaponic pond and glass houses in the center. To compensate for the
sloping land it will be terraced gardens with trees buffering the area from busy streets.

**Group 5: Now is growing together what belongs together**

**Participants**
- Felix Othmer
- Emily Gehle
- Jen Hudson
- Fabian Wenner

**Philosophy:**
The proposed location is split into four quadrants. Although, the southwest portion on the map was not included into the delimitation of this site, the design group decided to take it into consideration as it connects and interacts with the observed site. Each quadrant, although consisting of a different function, is connected with the others through similar aspects of urban agriculture, as well as through a pillar gateway. The gateway is located at the four corners of the site. Each
quadrant although different, fits in with the other quadrants in ways that bring them together. The group’s philosophy is to create a sense of community and coming together by connecting the quadrants through trail-ways between the different areas of urban agriculture. The incorporation of educational opportunities focusing on the benefits of urban agriculture and growing own food will be a main focus within the urban agricultural sites, especially for the younger generations.

**Goals:**

The planning aims at bringing the community together. Moreover there is an ambition to educate the community members. Regarding this aspect, there should be a special focus on the education of the younger generations.

Furthermore, a safe environment should be created as well as a comprehensive green infrastructure throughout the city of Dortmund. This philosophy also leads to the aim of preserving open space.

Another important goal is the creation of a stable economic base through small commercial farming and due to that the provision of fresh and healthy food.
**Approach:**

The approach to improving the site includes many features in the main three quadrant areas; Northeast, Northwest, Southeast. Located North of the site there is an elementary school and a preschool. Due to the educational venues in the area, educational gardens in the Northeast were planned for the schools and surrounding neighborhoods to utilize. These educational gardens will include fruits and vegetables as well as flowers. In the Northwest area of the site there is a residential development that forms an enclosed courtyard. To better utilize the courtyard, a community garden is planned to be located in the center of the residential development. The existing gas station, also located in the Northwest quadrant could be converted into a bio-fuel station in the future. Located South of the site is the central business district (CBD). In the Southeast quadrant there is planned to be multiple green houses that will be used for commercial gardening. Also located on the site is an old bunker. It is planned for the bunker to be converted into a produce store in the interior with a roof top café. The café will cook and sell the produce that is grown in the green houses. A market is also planned to be located on the site for surrounding farming/other entrepreneurs to sell their goods. Also incorporated in the Southeast quadrant is planned to have a gateway in front of the elementary schools that includes a fountain, benches, and landscaping. There are also plans for parts of Brügmannstraße Street to be converted into part of the pedestrian pathways throughout the site. Other plans for the Southeast area include basketball courts, a dog park, a pavilion, and barbeques, and picnic tables. Also, all of the playgrounds are planned to be upgraded. Although the focus areas did not include the Southwest quadrant, plans for windowsill, balcony, and facade gardening could be promoted. Along the train corridor there are three crossing points included in the site boundaries. The East corridor is planned to have a wine garden grown on the railroad crossings. Most importantly, to connect the quadrants there are plans to construct four pillars at the
center axis of the quadrants to create connection and identification through the quadrants. The separate pathways from the quadrants will all come together at the pillars landmark.

**Group 6: Food Route to Kronengarten**

*Participants*
- Johannes Wolf
- Jim Bonfiglio
- Anna Heimlich
- Susanne Hensen

**Background:**
The urban design studio group decided to unite the adjoined neighborhoods through a community garden. The Kronenburg site offers a central location between these neighborhoods, major community stakeholders within the vicinity, existing structures suitable for refurbishment, and a main arterial road Märkische Straße. Stadewäldchen is a green corridor stretching from Stadtgarten down the west border of the Kronenburg site. Markgrafenstraße is a major road running towards the Kreuzviertel where a lack of accessibility and landscape deters circulation.

**Philosophy:**
The aim is to promote Kronengarten as the hub of an edible network of agriculture along the streetscapes connecting major communities of Dortmund. Netting structures may be monetized through advertising.
**Goals:**
The design group first aims at the encouragement of social interaction between the inhabitants of the subdistricts Westfalendamm Nord, Ruhralle Ost and Ruhralle West through edible landscapes. Furthermore, connections of the existing green structures will be improved. As every network needs a hub, a central point of interaction, there will be offered peace, recreation and shelter from noise and emission pollutions within urbanity. To address the present problem of vacancy, there will a reuse of the existing former industrial buildings and green spaces for social and economic benefit.

**Approach:**
The design group refurbishes the structures of the Kronenburg site, covering the tower into a vertical, mixed use greenhouse. The former brewery is refurbished into a mixed use office space with potential for a heritage restaurant, occupying the former brewing hall. The parking lot adjacent to the garage is removed and the valley landscaped into a large community garden. A playground is constructed for children. Furthermore, there will be a vitalization of streetscapes with agricultural netting, to be suspended over car parking spaces. A bridge is constructed across the valley to increase accessibility for children and the elderly. The building complex known as Kronenburg will be merged with the garden, ultimately known by the name Kronengarten.
The streets become beautified through the growth of fruits and vegetables along and in the nets above the streets. The Kronengarten becomes an attraction, pulling in residents from across the city. The vertical farm produces exotic crops locally for market. The restaurant operates in cooperation with the community garden allowing diners to work for their meals. As the garden succeeds, flat roofs in the area cooperate with the community and the garden grows as the roofs become green, and garden plots expand to the Stadtewäldchen.

**Group 7: Next Station – Urban Agriculture City**

*Participants*
- Lisa Reudenbach
- Marc Coburn
- Sophia Rothweiler

*Philosophy:*
The following is a redevelopment concept for the “Dortmund South – Former Train Station”. The idea of the project is to transform the unused, dilapidated land area and buildings of the site into an urban agriculture community oasis. While urban agriculture will be the overarching idea guiding the site’s redevelopment, a well-rounded cultural experience will drive the new developments use by surrounding neighborhoods and the entire City of Dortmund. The site’s railroad history will also be a design aspect utilized throughout the grounds, thus bring the past and the present together.

*Goals:*
The urban design group aims at creating a site that is utilized 24 hours a day, 7 days a week, and 365 days a year: Make a long story short; the site should be constantly utilizable.

Regarding the implementation of urban agriculture throughout residential, commercial, and social/cultural areas, this site should be moreover used as an ever-changing educational setting for adults and children. Building up cooperation with local schools, the childrens’
educational adventure area could gain additional success which in turn could lead to a broader attention of urban agriculture projects.

The planning provides community gardens, allotment gardens, and greenhouse spaces to local resident. The commercial facilities such as the on-site café, the restaurant, and the farmer’s market supply only locally grown products.

Another urban design’s goal is to use the site’s railroad history as an identity piece as well as an architectural piece throughout the new development.

But the design also considers the creative sector and provides space to so-called “starving artists” in the form of working lofts and outdoor artistic space. In addition to that it further offers the opportunity for a connection with local graffiti artists and makes their current work within the site part of the new development.

For implementing the ideas it is necessary to reuse and renovate at least 80% of existing buildings.

This site will offer a well-rounded cultural space that draws visitors from throughout the City of Dortmund as well as the surrounding villages, towns, and cities. Moreover there will be a connection to other adjacent green spaces, thus creating an extensive greenway throughout the city of Dortmund.

The ecological goal is to implement green roofs for agriculture and social uses and to limit automotive accessibility to designated residential and commercial areas.
Approach:

After performing a site visit, it was determined that the location provided an excellent opportunity to become a “lighthouse” redevelopment project for other similar dilapidated sites throughout Germany. With this in mind, the development of the site would target the adjacent neighborhoods as everyday patrons, while also targeting the entire City of Dortmund and surrounding villages, towns, and cities as occasional patrons or guests.

This will be achieved by creating a mixed-use space of residential, commercial, and social structures, areas, and activities. Each area will be integrated with urban agriculture, but will serve a different purpose in providing well-rounded culture and agricultural education, atmosphere, and activities. The site will provide a café, bike paths, farmers market etc. to everyday visitors, as well as occasional larger attractions such as movies in the park and concerts and plays within the amphitheater to attract visitors from all around.

The newly redeveloped site will serve as an urban agricultural ambassador to all of Germany. It will allow hands-on involvement with its many community gardens, greenhouses and allotment gardens; however, it will also provide education and new awareness to the occasional visitor that is not familiar with such agricultural implementations. Thus, allowing visitors to create their own urban agriculture at home or work.
WINNING DESIGN Group 3: Station Grünes Gleis – Station Green Track

Participants
Tjark Bornemann
Yannan Jia
Lena Kaufung
Yun Wang

Background:
During the Charette, a concept for implementing Urban Agriculture in urban space was developed for the site of the former freight depot south. The former freight depot, located southwest of downtown Dortmund, has already been decommissioned since 1963. Since then, the site has been increasingly revert to wilderness, only the run-down buildings serve as a screen for street artists.

Philosophy:
Through the project, "Station Green Track", the current Brownfield site will not only re-integrated into the adjoining urban residential structure, but rise to the position of the central point of the surrounding neighborhoods by providing space for nature, art and culture, leisure and education. The essential element is the idea of a huge urban garden, which is operated by volunteers and interested local residents. Production surpluses should be placed on the market for supporting educational and cultural project financially.

Goals:
Prerequisite for the success of this project is the re-integration of the area into the urban context.
First of all, the establishment of new interconnections of the individual quarters is of great importance, which means to link the former freight depot site and the surrounding neighborhoods. In addition to traffic-related connections, the existing green axis will be expanded. The site’s transport infrastructure is primarily ensured by the expansion of the pedestrian and cycle-path network. A crossing of the area by car will not be possible.

Indeed, the core of the project is the revitalization of the former freight depot’s derelict land for subsequent use as an urban garden. This does not only include compensating the lack of green space in the vicinity, but also enhancing the structure of the food supply by ecologically produced food.

In the later stages of the project’s realization, the creation of a socio-ecological-cultural center is provided within the existing structures. Besides classrooms and event facilities, supplementary space shall be available for artists' studios and run workshops.

This offers the opportunity for many surrounding schools and preschools to have classes on the project’s site or to benefit from several education and recreation facilities, special offers and activities.

**Approach:**
The project "Station Green Track" is based on a constantly growing number of visitors and volunteers. Accordingly, the implementation consists of five steps.

After the creation of access in terms of transport infrastructure, the site has to be prepared for subsequent planting. This includes both the partly removal of the existing railway tracks as well as the already growing pioneer forest.
In the eastern part of the site, fruit trees will be cultivated, which do not accumulate soil pollutants in the fruits. The soil is also sown with so-called "remediation plants", for instance yellow mustard, which is capable of immobilizing several soil contaminants. The other part of the area, which is intended for production of food, is equipped with boxes and containers, filled with clean soil. Thus, the production of food can be started directly.

Eventually, the entire area can be used economically without problems for fruit and vegetable cultivation because of the decontamination/phyto-remidiation of the site.

Several types of residential housing are provided in the north-eastern and western parts of the site. The water tower in the western part of the site shall contain high quality apartments for the wealthy. In contrast, the surrounding buildings in this part should be affordable for less affluent people. The residential buildings in the northeast of the site are specially targeted at families and elderly people, for example as multi-generational housing.

The residential development has two aims: First, financial resources for the further implementation of the project shall be gained through the sale of real estate. Second, residential development precipitates a certain amount of pedestrian frequency. The buildings will also be an active part in terms of Urban Agriculture because gardening on facades, walls and roofs is as desirable as the participation of residents.

Due to gradual and progressive manner of the garden’s development, production surpluses are expected. Those can be used to establish catering facilities in existing buildings.

In accordance to the design plan, premises are accessible by car. Thus, not only local but also regional clients will be expected. After the establishment of garden, buildings, shops and cafés, a certain number of visitors can be expected supplementary. The last step of the project development includes the redevelopment of the brownfield’s southern part, which is located south of the railway tracks and which already has formed vast woodland. For this area, the
planting of forest and wild fruits as well as the establishment of bee colonies is envisaged. The construction of a bridge and ramps are necessary for connecting the sub-section with the main area. Since this requires correspondingly high investments, the realization of the woodland hiking path is rather to be regarded as an option.

The legacy of the freight depot will not be neglected. In addition to retain the existing building, the flowerbeds and green spaces are designed linearly following the previous track systems. Furthermore, the noise protection wall in the south of the main area is in parts equipped with soundproof glass windows, so the still existing rail service of the subway line S4 is visible to visitors of the garden. Despite the new usage, the history and former function of the area as a freight station remains visible.
**Comparison of the results**

The results of the Charette illustrate different scenarios of how Urban Agriculture could be implemented in Dortmund.

All of the groups listed above wanted to achieve different results which fit to their site and specific spatial surrounding. Some groups connected residential areas with elements of Urban Agriculture other groups tried to implement modern visions of vertical farms into their scenarios or tried to use many different forms of Urban Agriculture to reach synergetical positive ecological, economic and socio-cultural effects.

However, all of the groups have some typical elements of Urban Agriculture in common. The following comparison of the seven scenarios should underline these similar elements. It is obvious that every group focused on social benefits. Each concept includes community gardens as an instrument for bringing people together. Some examples focus on intergenerational gardens or on educational gardens. Furthermore, social institutions like pre-schools or retirement houses were important issues of the Charette.

During the four days of intensive workshop, the seven groups of German and American students showed, that Urban Agriculture provides many possibilities for redeveloping unused areas. Urban Agriculture is an instrument primarily for the local inhabitants and overall could provide numerous enrichments for the quality of urban life.
Group 1

Group 2

Group 3

Group 4

Group 5

Group 6

Group 7

URBAN AGRICULTURE

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#5 Conclusion

During the winter semester the German studio group learned a lot about Urban Agriculture, and how it can be implemented in cities. After months of collecting information, it was exciting to get a first-hand experience about successful projects during the field trip to Amsterdam and Berlin. On that basis, own ideas and detailed concepts for implementing Urban Agriculture in Dortmund were developed during the Charette.

After three days of intensive and inspiring work, all groups created creative and innovative designs. It became obvious that Dortmund has a lot of hidden potentials for Urban Agriculture. All concepts illustrate manifold positive effects of Urban Agriculture, e.g. enhancing the environment, dissolving segregation, upgrading neighborhoods etc. By mixing the groups with American and German students, synergies could be achieved due to different technical backgrounds and working habits. Spatial planners and landscape architects were an interesting mixture. In addition, it was enriching to get to know different international approaches of solving spatial challenges.

Concluding, the intensive workshop was a successful highlight of an interesting and great cooperation between the two planning schools. After these days experiencing Urban Agriculture we can summarize: Urban Agriculture should be realized in every city. Beyond that, it was a great pleasure to meet and work with our American friends!
#6 Urban Agriculture fans make a TV spot

At the beginning of the studio work the studio group already decided to compile a so-called practical bonbon in the end of the studio phase. Due to that aim, the group developed an idea for advertising Urban Agriculture. Thus the guiding principle was to make attraction of the possibility to grow fruits and vegetables within the urban context without a commodious space supply.

Furthermore the group aimed at addressing the theme of Urban Agriculture to a large number of inhabitants, in such a way as to activate them to establish a proper urban agriculture project.

In order to fulfill that intention, a spot on local television seemed to be an appropriate method. So the group worked in cooperation with an interested WDR (regional television network) reporter, who has kept records of the studio’s Urban Agriculture project for one day.

In the following, the activities and experiences of the TV shoot will be described.

As a first step the studio group started at the Schultenhof farm in the Southern of Dortmund. With the utensils brought and the plants of the Schultenhof, mobile gardening containers were planted. Due to the
long development period of the plants, already grown up plants of the farm were chosen instead of growing own plants from seeds.

For the containers, vegetables and herbs, such as turnip cabbage, beetroot, potatoes, onions, lettuce and chard plants were used.

After the arrangement of the containers with supplementary small recycled juice boxes, potting soil and catchy slogans on posters, the group made its way to the Kronenburg area of the former Kronen brewery, which was one of the selected areas within the Charette. The area was picked because the group wanted to show the possibilities of implementing urban agriculture on the basis of an actually available site.

Once there, the group draped the mobile containers and first scenes were filmed in which the participants answered questions concerning the concept of Urban Agriculture, its realization, and the potential benefits.

In addition, valuable tips for planting and gardening were given and it was documented how planting mobile containers can easily be practiced.

Subsequently, the colon of mobile gardening containers moved towards downtown Dortmund. The aim was to attract attention and interest the people passing by. Environmentally friendly public transport systems such as the subway were used for the transportation. Due to the principle of accessibility, the transportation was relatively straightforward because elevators could be used.
In the subway itself, umpteen people watched the unusual attraction and some even asked questions about the statement of this action.

The group’s final destination was the main shopping street of Dortmund. This street was chosen deliberately, because of the high frequency of passer-bys, so that as many people as possible could be involved.

On the shopping street (Westenhellweg and Ostenhellweg), many people looked interested and some even stopped to ask questions. The group was filmed while talking with passer-bys.

A great number of passer-bys specified urban agriculture as an innovative and interesting project, even if it was the first time they have heard about the approach. A couple of people actually practiced urban agriculture within their urban living environment and have already made experiences because they have planted fruits and vegetables for many years.

The public presence has appealed the subject of urban agriculture to many people and raised awareness about sustainable food systems. Due to the positive responses, the group could draw a positive resume of that day.

To sum up, the practical bonbon was great fun and the group spread the idea of urban agriculture a bit further.
Media Coverage (Examples)

TU Dortmund University, School of Spatial Planning Website

Buurttuinen Transvaal, Dutch Urban Agriculture Blog

TU Dortmund University, Main Website
"Rp-News" Newsletter of the School of Spatial Planning

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Editors:
Aaron Haoua, Susanne Hensen,
Melanie Rüting & Michael Roth